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# The Wisconsin Archeologist

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VOLUME 8

New Series

1928



PUBLISHED BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

WILLIAM L. BROWN  
Vice President  
of

and  
Industrial

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Apr 8 '32

# The Wisconsin Archeologist

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Vol. 8

October, 1928  
NEW SERIES

No. 1

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HARRY E. COLE  
EFFIGY PLATFORM PIPE  
SKELETAL REMAINS  
REEDSBURG CACHE  
INDIAN EARTHENWARE VESSELS



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

**Wisconsin Archeological Society**  
**Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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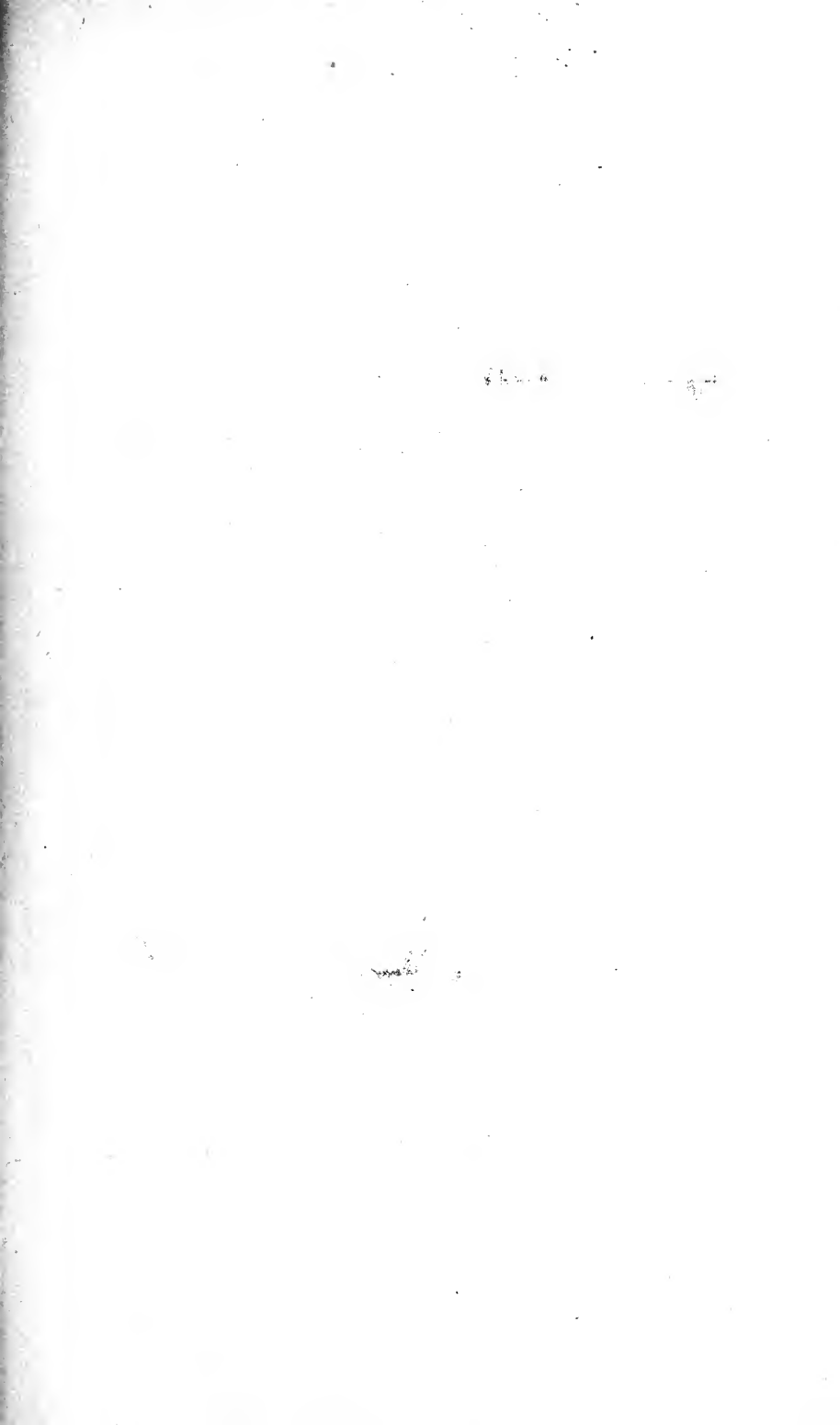
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EFFIGY PLATFORM PIPE.  
Albion Township, Dane County, Wisconsin.



# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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MADISON, WIS., OCTOBER, 1928  
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No. 1

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## HARRY E. COLE

Harry E. Cole, for many years a very active member of the Wisconsin Archeological Society, died at his home at Baraboo, Wisconsin, on Friday, April 13, 1928. Mr. Cole was a charter member of the state society and at different times during the many years of his membership one of its vice presidents and a member of its board of directors. At the time of his death he was the chairman of its committee on State Survey, an office which he had held for a number of years. At the time of his death he was also the president of the State Historical Society of Wisconsin.

"Mr. Cole was a native of Indiana. He was born on a farm near Pierceton, his parents Thomas and Caroline Cole. He finished his common school education at Pierceton high, then took a course at DePauw, graduating in '92. The brilliant Beveridge was but one year before. For a time he was principal of Pierceton high school, then, having determined upon journalism as a life calling, he went to La Crosse in a reportorial capacity, but, after about a year, bought the Baraboo Daily News, in association with A. D. Dorsett, a college classmate. That was 33 years ago. Since then he was editor for many years before Harlan K. Page purchased a half interest, and also was business manager. Twenty-five years ago last May Mr. Cole was married to Miss Dorothy Matchett. The two were friends from childhood and attended the Pierceton high school together. Mr. Cole was editor of his college paper, and a member of Delta Upsilon; also he was a Pythian and a Kiwanian. His parents were Methodists.

"Mr. Cole figured large in Baraboo affairs for more than 33 years, bringing the community distinction and many

notables—more by far than any other citizen in all the history of the city. His interest in archaeology was sincere, and due to his activities in a great measure do we have a gratifying mapping of the mounds of Sauk and neighboring counties. He likewise was especially fond of geology and local history.

“His inclination was strongly historical, and early he joined the Wisconsin State Historical Society, of which he was president for three years. For many years he had been a curator. Also he was a member of the Wisconsin Academy of Sciences, Arts and Letters, of the Baraboo humane society, of the Sauk County Historical society, of the Baraboo Fortnightly club, which he organized and served as president, of the Men’s Book club, likewise organized by him, of the Heart of the Hills Walking club, of the Friends of Our Native Landscape, of which he was treasurer.

#### PRESERVES INDIAN MOUNDS

“These associations clearly indicate the trend of his thoughts and his activities. In conjunction with Dr. A. B. Stout, now of the New York Botanical Garden, Mr. Cole was instrumental in securing the site of a mound four miles east of Baraboo, where reclines the effigy of a giant 214 feet long by 48 broad at the shoulders—a mystifying object of unusual interest.

The work of Mr. Cole in the archeological field began with Dr. Stout in making a survey of the Indian remains in the eastern half of Sauk county. Some 700 mounds of various types were mapped, village sites located, and other evidences of aboriginal occupation recorded. Over a period of three years Mr. Cole made a number of trips to Adams county where a like survey was made and hundreds of mounds listed. This was followed by a survey of the western half of Sauk county, where more mounds were mapped, and one trip was made up the Baraboo river valley with the late Prof. A. S. Flint, some interesting remains being located. More recently, in connection with Charles E. Brown, secretary of the Wisconsin Archeological society, a survey of Columbia county was made. Extensive reports have been printed of the work completed.

## AWARDED LAPHAM MEDAL

"Bronze tablets have been placed on many mounds at Madison, Delavan, Waukesha, Milwaukee, Devils Lake State Park, Baraboo and elsewhere, Mr. Cole attending with fidelity and often assisting with the accurate placing and the unveiling. The fine bronze tablet which marks the great bird effigy mound at Kirk's hotel in Devils Lake State Park was one of his personal gifts to Wisconsin archaeology. In recognition of his services, covering over 25 years, the Lapham medal, bearing the following inscription, was presented to Mr. Cole by the Wisconsin Archeological Society:

AWARDED TO  
MR. H. E. COLE  
FOR DISTINGUISHED SERVICE  
IN  
ANTHROPOLOGICAL RESEARCH  
MARCH 15, 1926

"The Sauk County Historical society was incorporated more than 20 years ago and Mr. Cole always was its president. Largely through his efforts a highly creditable museum was established in the Baraboo courthouse. Here are placed some of the rare archaeological relics of the region and objects of pioneer interest.

"Mr. Cole was the author of "Stage-coach and Tavern Days in the Baraboo Region," "Baraboo, Dells and Devils Lake Region," "Baraboo and Other Place Names in Sauk County," "Baraboo Bear Tales," "The Quest of Life's Meaning," and other books and brochures. The one relating to the Baraboo region has gone into the third edition. This book is used largely by geologists and tourists who come to see the unusual scenery, archaeological remains and geology of the Baraboo valley. At the time of his death Mr. Cole had finished an extended revision of his stagecoach story, which he had expanded into an important volume of several hundred pages, covering the entire state,—finished except for printing.

"Numerous articles from his pen, usually historic, appeared over many years in magazines and the press. Be-

fore the Wisconsin Academy of Sciences, Arts and Letters he spoke a number of times and at his death he was vice-president of that organization.

"Mr. Cole had been to Europe twice, and was widely traveled over his own country. One visit was made to Alaska. Notable friends he had everywhere, and with many he maintained a lively and intimate correspondence. He had a wide knowledge of books, his library extensive and of solid literary, historic, scientific and philosophic merit."\*

The Wisconsin Archeological Society has never had a more devoted, active or unselfish member than Harry E. Cole. His interest in its undertakings and his activity in its behalf never ceased until the day of his death. In years past he frequently spoke at its Milwaukee meetings and helped to organize its state field assemblies. He often appeared before the committees of the state legislature in behalf of its appropriation and other bills. To call on Harry E. Cole for any public educational service was to secure his assistance. The doors of his hospitable home at Baraboo were ever open to archaeologists, historians, geologists and nature lovers, and his automobile was ever at their command for expeditions into all parts of the state. The officers and members of the Wisconsin Archeological Society especially mourn the loss of so great a friend as he was. He sleeps in beautiful Walnut Hill cemetery at Baraboo, near some of the men and women whose achievements his ready pen has helped to perpetuate and within sight of the beautiful Baraboo range whose scenic beauties, geology, archaeology and history no man has ever known so well.

## THE HISTORIC BRULE

LOUISE PHELPS KELLOGG

Far up in the northwest corner of Wisconsin, near the western end of Lake Superior issues a small river, which has had a long and varied history and has considerably influenced the destinies of Wisconsin. The headsprings of this stream lie almost a hundred miles to the south where

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\* The Wisconsin State Journal, April 14, 1928.

they interlock with those of the St. Croix River, a tributary of the Mississippi. It is due to this fact that both the rivers have become historic, for by following either and portaging to the other the shortest way between the water systems of the Great Lakes and the great river is found. The northern stream makes a swift descent of over five hundred feet to the waters of Lake Superior, forming it is said, two hundred and forty distinct rapids, some of which are considerable cascades; it is navigable only by the frail birch canoes of the Indians. These skillful canoemen can run down the river making only four portages; in ascending, however, the portages and *décharges*<sup>1</sup> are numerous and a birch bark flotilla needed five or more days for the voyage.

This waterway was known to the redmen long before the advent of the whites; through the thick bordering forest they urged their frail craft, intent upon seeking game or bent on a war expedition against their enemies. The first Indians, who lived thereabouts were the Sioux tribesmen and their name for the river was the Nemitsakouat, by that name it is called in a letter of La Salle written in 1861.

The year before had taken place the first recorded journey of a white man along this river—no less a personage than La Salle's great rival, Daniel Greysolon Sieur Duluth. This brave adventurer had come to the far Northwest to reconcile the Sioux Indians with their hereditary enemies, the Chippewa, whose habitat lay at the eastern end of Lake Superior. The rival war parties made all routes unsafe either for hunting or for discovery. Duluth was very successful in his pacification, having brought the chiefs of both tribes together and held a peace council where the city now stands that bears his name. "In June, 1680," he writes in his journal, "not being satisfied with my exploration by land I took two canoes, with a savage who was my interpreter, and with four Frenchmen, to seek the means of making it by water. For this purpose I entered into a river which has its mouth eight leagues from the extremity of Lake Superior on the south side, where after having cut down some trees and broken through about one hundred beaver

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<sup>1</sup> A *décharge* is a place where only the load is taken from the canoe and the craft itself poled through the rapid.

dams, I went up the said river, and then made a carry of half a league to reach a lake, which emptied into a fine river, which brought me to the Mississippi."

The French guarded this waterway by rudely built forts, one on Madeline Island in Chequamegon Bay, one on an island in the Mississippi, and a third was placed for a time on upper Lake St. Croix. They were, however, obliged to abandon this region because of the outbreak of the Chippewa-Sioux war, the great battle of which was fought near the falls of St. Croix, early in the eighteenth century. The Chippewa won and drove the Sioux from these hunting grounds. They renamed the river Wis-a-ko-da (Misacoda) which means burnt pines; this the French translated to Bois Brulé from which is derived the modern name of Brule.

One other title was borne by this stream during the eighteenth century when it was named Goddard's River for an early fur trader by the famous Jonathan Carver, first English traveler in Wisconsin. When he was here in July, 1767 he says "this [the river] was so scant of water we were obliged to raise it with dams for passage."

Among the first Americans to visit this stream were Henry Rowe Schoolcraft in 1831 and his party guarded by Lieutenant James Allen of the Fifth United States Infantry with a number of troops. Schoolcraft, who was Indian agent at Sault Ste. Marie came out to vaccinate the Chippewa of this locality, among whom was the famous Chief Pezhicki, or Buffalo, who had visited President Monroe at Washington and wore a silver medal on his breast bearing the president's effigy. Schoolcraft speaks of moose hunting on the Burntwood River, while Allen says "the river is exceedingly cold and clear and is filled with thousands of the real mountain brook trout"—a fisherman's paradise a hundred years ago. Allen, however, had hard work to descend this rapid stream with awkward soldiers unaccustomed to guiding canoes in strong water, the craft struck so often on the rocks that the supply of gum to mend the birch bark was exhausted, and part of the soldiers had to take to the woods and clamber among the rocky steeps of the river's bank. "Often," says Schoolcraft, "on looking down its channel there are wreaths of foam constituting a brilliant vista.

This stream might appropriately be called Rapid or Mad River."

Thus the many-named stream—Nemitsakouat, Wisakoda, Bois Brulé, Burntwood, Goddard, Brule or Mad River has threaded the dark forests of northwest Wisconsin, an historic stream, known formerly to a few, now of world wide fame, as the summer home for the chief executive of the nation. In 1803 it was the route of a French-Canadian fur-trader who gives us some of the Indian names for localities. He slept one night at "le petit Pakouijawin," a native term for a bayou or lake just above the last quick water and not far from Cedar Island lodge. Near by was "le grand Pakouijawin" and from its head there ran an old Indian trail to where Superior now stands.

Thus this river justifies its title of the historic Brule, frequented in prehistoric times by the Sioux who were driven thence by their rivals the Chippewa; traversed in the seventeenth century by French discoverers and soldiers of fortune; a well-known waterway in the eighteenth century for British explorers and fur traders, it became in the nineteenth century a lumberer's stream, until with more leisurely days came the sportsmen and tourists who have placed the historic Brule on the map of the world.

## EFFIGY PLATFORM PIPE

CHARLES E. BROWN

The very interesting Indian ceremonial pipe illustrated in the frontispiece of this issue of *The Wisconsin Archeologist* was plowed up in the year 1925 from a gravel hill on the Atwood farm, in the S $\frac{1}{2}$  of Section 5, Albion Township, Dane County, Wisconsin.

The disk, with slightly concave surfaces, probably representing a discoidal stone, has in front of it a headless kneeling female figure, both on a rather thick and broad platform base.

This pipe has the following dimensions, and weight:

Height—5 $\frac{3}{4}$  inches.

Length—6 $\frac{1}{2}$  inches.

Base—Length 5 $\frac{5}{8}$  inches, width 2 $\frac{3}{4}$  inches, thickness  $\frac{3}{8}$  to 1 inch.

Diameter of discoidal—5 $\frac{1}{8}$  inches, thickness 2 $\frac{7}{8}$  inches.

Height of kneeling figure—4 $\frac{1}{8}$  inches.

Weight—5 $\frac{3}{4}$  pounds.

The bowl of this pipe is on the top of the discoidal. It is conical in form,  $1\frac{1}{2}$  inches in diameter and  $1\frac{3}{8}$  inches deep. The "stemhole" is placed on the side of the disk at a distance of  $\frac{7}{8}$  of an inch beyond the edge of the bowl. It is of about the same size and depth as the bowl. It is very probable that the kneeling figure once possessed a head.

This pipe is one of the largest and heaviest pipes ever found in Wisconsin. It is likewise one of a very small number of human effigy pipes found which are probably prehistoric. In a number of places it shows traces of a former polish. The material from which it is fashioned is crinoidal limestone of the same character as that of an outcrop of this material which, according to geologists, occurs in southeastern and western Kentucky, southern Indiana, southern Illinois and eastern Missouri. Its character indicates that it was probably made by some one of the prehistoric Indian tribes of the Middle Mississippi valley or of regions further south.

The kneeling figure is suggestive of some of the kneeling effigy vessels obtained from mounds and stone graves in the Middle Mississippi valley. This very interesting pipe (A8954) is the property of the State Historical Museum at Madison.

In his monograph, "The Aboriginal Pipes of Wisconsin," George A. West, describes and figures some other effigy pipes.\*

## THE IMPORTANCE OF SKELETAL REMAINS IN WISCONSIN ARCHEOLOGY

ALTON K. FISHER

One of the most interesting fields in the realm of archeology is the Wisconsin region. Here the problems which confront the investigator are many, but the means of solving these problems are often very meager and sometimes apparently absent. This apparent absence of archeological evidence is due in part, I believe, to the climate of this field. In the spring the ground is saturated with water and in the

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\* Wis. Archeologist, v. 4, Nos. 3 and 4, 1905.



summer the soil sometimes hardens and cracks in the hot sunshine. In the fall the soil is again reduced to mud and the following winter, which is often severe, freezes the soil below the depth at which archeological materials are frequently found. Because of the great quantities of water in the soil and because of the frequent temperature changes, materials such as bones, pottery and plant fibers are often reduced to such a state that identification of them is no longer possible.

It is possible that the comparative abundance of stone artifacts has led local archeologists to accumulate large and valuable collections of arrow-points, and to neglect almost entirely the rarer and less stable materials. Then too, small potsherds and broken skulls do not make as interesting exhibition pieces as do agate points or copper ear-spools.

However, if we are to make any progress in the solution of our archeological problems we must collect and study the crude and homely specimens as well as the beautiful ones. It is practically impossible to determine the culture of a people from the arrow-points that are found upon their deserted campsites, but the neglected potsherds tell more definite stories. Mound excavations result in the accumulation of vast quantities of information regarding the culture of these prehistoric people, but it is only through the actual examination of their skeletal remains that we can ever hope to know what they were like as human beings, and that information is just as important to anthropology as data for any of its other divisions.

Climatic conditions, as has been stated before, are not conducive to the preservation of bone materials in this region and consequently it is seldom possible to obtain skeletons or parts of skeletons in perfect condition. Very frequently skeletons are found crushed by the pressure of the soil above them, and it is a common occurrence in excavating a burial to find only portions of a few bones remaining, the rest having entirely disintegrated. In view of these facts one may consider himself fortunate if he finds a skeleton in good condition, and he may also consider it a good find if any of the bones can be preserved for future examination. A skeleton in good condition is valuable to the physical anthropologist, but much information can be obtained

from a broken specimen. In the past, in fact, valuable discoveries have resulted from the study of only fragments of bone, and it is advisable for all who uncover skeletal material to "save the pieces".

From the measurement of skeletal remains it is possible to compute with a fair degree of accuracy the size of individuals in life, and if the number of skeletons measured is great enough, one may be reasonably certain that if a particular size predominates, it is a physical characteristic of the group under consideration. If the vast majority of individuals examined exhibit long, narrow heads, that too may be a physical peculiarity of that group and it may prove very valuable in determining the peculiar physical traits of a cultural group. There are a great number of measurements to be taken which may be valuable in future work. Dr. Ales Hrdlicka, the eminent physical anthropologist, says, "There are none except natural limits to the number or variety of measurements that can be legitimately practiced on the human body or its remains." The measurements taken may not be used by the present generation of scientists nor the succeeding one, but who can positively say that these measurements will never be used?

Despite the fact that measurements are essential in anthropological work, the physical anthropologist does not devote all of his attention to them, for he is also interested in knowing what kind of lives this or that people lived, and whether or not they were effected by the diseases which effect modern people. Who knows whether or not the men were more susceptible to the diseases of those prehistoric days than were the women, or whether spinal arthritis was a common affliction of the times? No one knows at the present time because no one has tried to find it out, but after making a thorough study of the skeletal remains it will be possible to answer many of these questions.

Up to the present time little work regarding the pathology of prehistoric people has been carried on in this country, and the first work to be undertaken, to my knowledge, in investigating the pathology of the archaic folks of this state is being conducted under the auspices of the Milwaukee Public Museum at the present time by Dr. Herbert Kuhm, Dr. George Adami and myself. The present investi-

gations are restricted to the jaws and teeth of available specimens, and those specimens vary from complete skulls with mandibles or lower jaw bones, to only small portions of mandible and such small portions are just as important as a complete skull. From the evidence obtained from only one half of the lower jaw bone it is possible to determine with a fair degree of accuracy the sex of the individual, some of the pathological conditions which developed in the jaws or teeth during his life, and his approximate age at the time of his death. The teeth serve also as indicators, to a certain extent, of the nature of the foods used by these folks.

Although our investigations of the diseases of the jaws and teeth of prehistoric Wisconsin Indians have only begun we have already found evidences of many abscesses in the bone, some resulting from infections in the teeth due originally to large cavities. Evidences have been found also of pyorrhea and of other infections of the gums, of malocclusions and malformations of the teeth and of unerupted third molars or wisdom teeth, all of these facts being contrary to the popular opinion that the Indians and their ancestors were the possessors of only perfect teeth. As we continue our investigations we may encounter new and interesting conditions, and in recording our discoveries we help to make more complete the slowly forming story of those folks of long ago.

The Milwaukee Public Museum and the State Historical Museum both have growing collections of osteological specimens, and it is these specimens that are being examined as the beginning of our study. However, these two collections are unable to furnish sufficient material for the completion of this research project. From them we can gain much information, but if our conception of this deceased people is to be a true one, and if the conclusions drawn from this investigation are to be in any way positive, we must study a much larger series of specimens that will include bone materials from all over the state of Wisconsin. In order to do this we must enlist the aid of those who are interested in seeing Wisconsin's archeological riddles solved. It is possible that collections of bones may exist in various localities but due to an apparent lack of interest or an unconscious

ness of the importance of the subject little or nothing has been said concerning them. We desire to borrow for study purposes for only a short time all of the skulls or parts of skulls available. We also desire detailed information to accompany any specimens loaned to us regarding the exact location where the burial was uncovered, and also the nature or method of burial.

These bones should be packed in a substantial box and addressed to the Department of Anthropology, Milwaukee Public Museum. We will be very grateful to the reader for any coöperation on this matter. After the examinations have been completed the specimens will be sent back to the owners in the same condition in which they were received. If the reader can inform me of the whereabouts of any such specimens his efforts will be greatly appreciated.

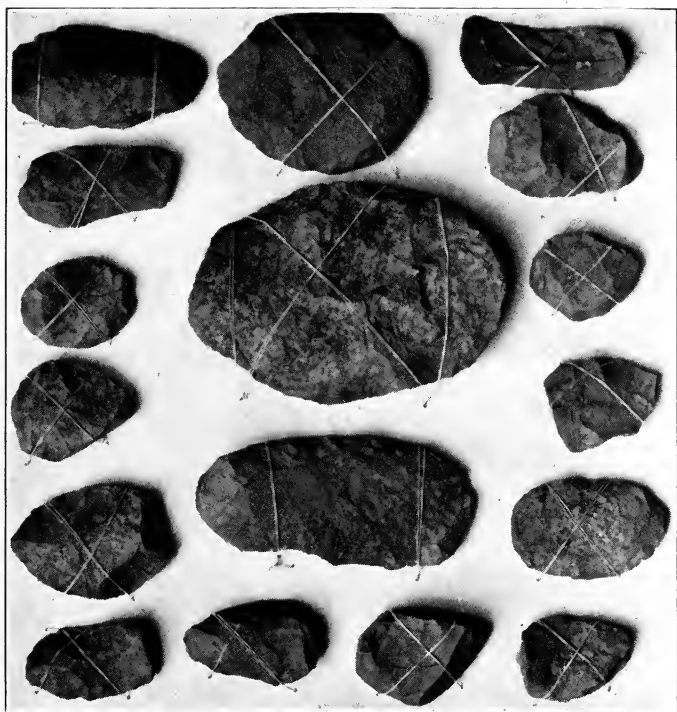
## THE REEDSBURG CACHE

MILTON F. HULBERT

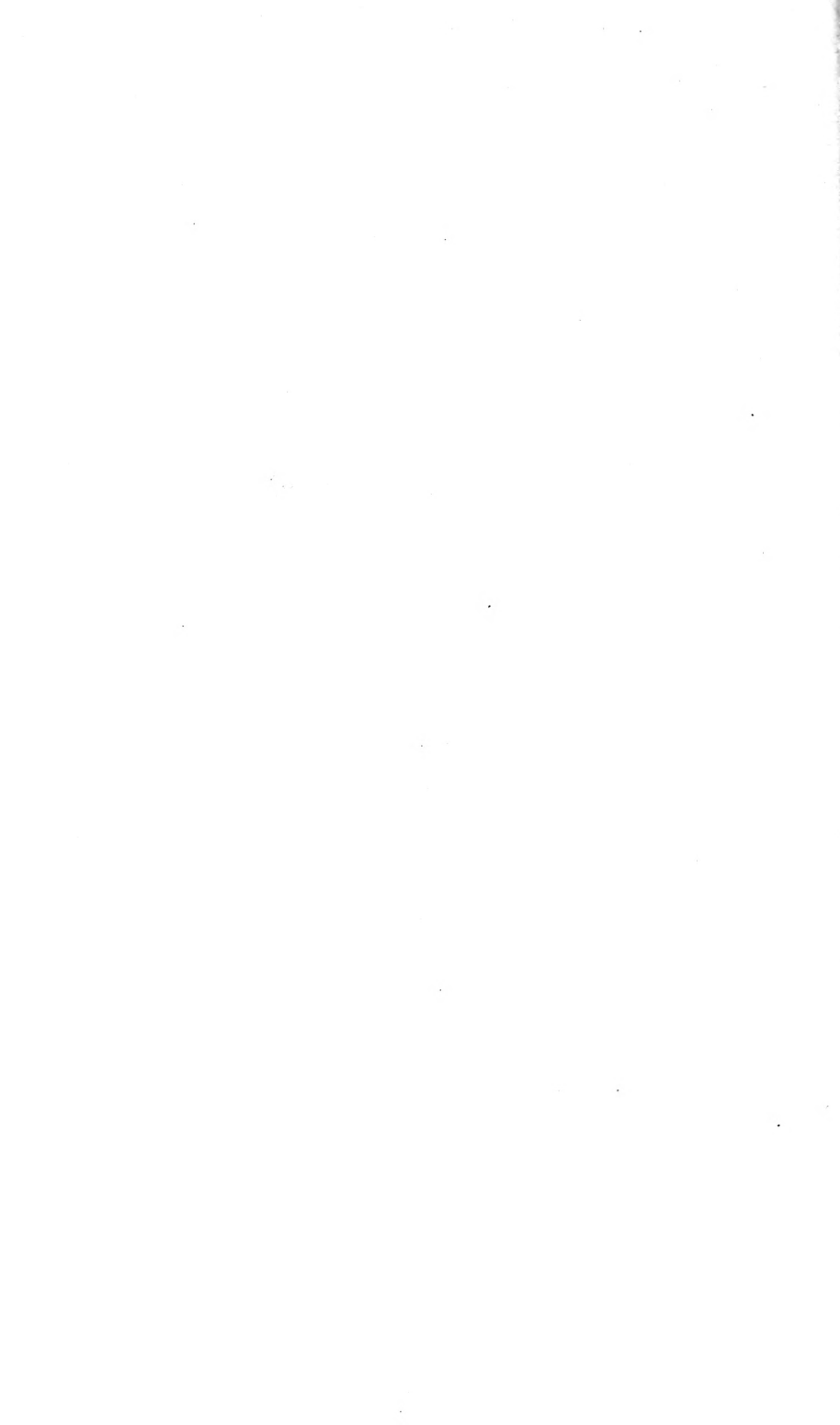
In May, 1927, Wm. Schuette, while digging a fence-post hole, unearthed a collection of chipped flint blanks—seventeen in number—as shown in the accompanying photograph. They were located together and at a depth of about two feet below the present surface of the ground.

This cache was found near what is probably the site of an ancient Indian village, near the north shore of the Baraboo River, in what is now a part of South Park Addition to the city of Reedsburg, Wisconsin.

At this point, a few rods from the present river bank, there is a tableland which is elevated about fifteen feet above the water. From the surface, over a tract of an acre or two of this tableland, a large number of flint implements have been found from time to time since the land was first cleared and cultivated by the whites. Hundreds of flint knives, arrow and spear points—some perfect, finished specimens and some broken or unfinished—together with flint chisels and drills and a great number of flint chips and fragments have been gathered from the locality. A few grooved stone axes, celts and grinding stones have also been found.



THE REEDSBURG CACHE.  
Plate 1.



The cache of chipped flints was located at the southern edge of the area which has been so prolific in surface flints of various kinds and of unknown antiquity.

The writer, on learning of the discovery of the cache, obtained the specimens from Mr. Schuette, and now has them in his collection.

The combined weight of the seventeen pieces is six pounds; the smallest one weighing 2 ounces, and the largest specimen 2 pounds.

All of the specimens are of chert or hornstone of a dull color, a variety of stone said to be plentiful in the adjoining county of Richland. At the spot where this cache was found the land is quite level and probably has not been subjected to rapid erosion, at least during recent geological time.

From the variety and great number of flint implements and chips that have been found in this particular locality, it is highly probable that it was, at some remote time, a village site of Indians yet in the "Stone Age" whose only vestiges in this instance are the flint implements that they fashioned and used.

About eight rods to the southwest of these grounds, but lying in the lowlands bordering the river, is an effigy mound, 113 ft. in length, known as the "Mink Mound." Its average width is about eight feet and the height is about three feet. Its direction is nearly due north and south.

Whether this mound was constructed by the same primitive inhabitants that formerly occupied the prehistoric village site is, of course, speculative and uncertain. The mound has never been excavated. Its contents are therefore unknown. When the mound was built, and by whom constructed, are as profound mysteries as is the data relative to the chipped flints and the natives who, for a considerable time, lived in their rude abodes on the adjacent uplands.

Another item of some interest in connection with this mound and the evidences of the ancient native camping grounds herein outlined, is the following:

In 1925, while excavating a cellar about twenty rods north of the "Mink Mound", and in direct line with its general axis, the workmen came upon a well defined circular

area of black dirt which was sharply outlined against the surrounding earth, of a very different color and composition. It was evident that at some remote time in the dim and misty past, a circular hole about four feet in diameter and four or five feet deep had been dug into the ground and that the excavation has subsequently become filled by in-wash of the black surface soil. It is thought that it may have been an ancient water hole or well in which water accumulated by lateral seepage. This, however, is only a conjecture. Maybe some of your readers may be able to suggest a more plausible explanation.

The contrast was so well marked in color and character of the dirt, and the outlines were so well defined, that it plainly indicated the former work of human hands.

That the excavation was an ancient one was shown by the marginal stellate coloration effected in the lapse of time by chemical changes wrought by the organic matter of the black fill with the mineral contents of the surrounding clay.

## THE CERAMIC REPOSITORY FOR THE EASTERN UNITED STATES, AT THE UNIVERSITY OF MICHIGAN, UNDER THE AUSPICES OF THE NATIONAL RESEARCH COUNCIL

CARL E. GUTHE

The Committee on State Archaeological Surveys, of the Division of Anthropology and Psychology of the National Research Council, at a meeting held in Chicago, recommended and authorized the formation in the Museum of Anthropology at the University of Michigan of a repository for pottery fragments obtained in North America. This has been approved by the Division and the Council.

The reason for the setting up of such a repository is found in the ultimate purpose of archaeology, an historical science which seeks to interpret extinct civilizations, and thereby to arrive at conclusions regarding the forces which mould the development of man and his cultures. The archaeology of eastern North America is complex. In certain areas some of the archaeological remains are definitely related to historic cultures which have since disappeared,



while the remainder are associated with cultures which clearly antedate the coming of the European. The problem is further complicated in that each of these great classes of remains may consist not of a single culture, but of a group of cultures, whose relationships both in time and in space are not understood, because of our present incomplete knowledge of them. In several states, enthusiastic investigators have been making rapid progress in ascertaining the content of the cultures found within their respective commonwealths, and in isolating the problems which this material presents. Yet, due to the restrictions caused by the geographical limits within which in large degree they must confine their efforts, many of these problems have not been solved.

A reconstruction of the culture history of this region rests upon the solution of comparative problems. This, in turn, depends upon an adequate appreciation of the horizontal and vertical distribution of the cultural material. By discovering and plotting the localities in which a given class of material occurs, a concrete knowledge is obtained regarding its relative abundance, the extent of its distribution, and the geographical location of the culture to which it belongs. By the laws of diffusion it is also possible to gain information with regard to its relative antiquity in comparison with associated cultures. Similarly, in those localities in which stratification of deposits occurs, definite data on the relative antiquity of successive cultures which occupied the same site may be secured. By combining the results obtained from these two forms of evidence, it should be possible to reconstruct in outline the prehistory of eastern North America.

However, such conclusions are not reached in a short time, but only after long and painstaking research work. In order that this work may be valid, the data upon which it depends must be as complete and accurate as possible. In final analysis the whole superstructure of comparative research in archaeology rests upon the data derived from adequate and detailed field work and excavation. Specimens are intrinsically of little value to the scientist. It is essential that they be accompanied by adequate information, giving the geographical locality and the associations in which

they were found. Therefore, the first and most important step in the formation of the repository for pottery fragments, and for that matter, in the solution of the general archaeological problems of this area, is an insistence upon proper field technique of observation and of excavation, and a strong discouragement of the efforts of individuals inadequately equipped to pursue such investigations.

Satisfactory results of comparative research work depend upon a minutely detailed knowledge of the material studied. In this way alone is it possible to discover the minor variations of the material, and to evaluate their significance. A knowledge of the more obvious variations may be obtained from publications, but in the end the investigator will be required actually to handle and study as many specimens as possible. As knowledge of the material increases, certain characteristics at first overlooked or ignored may be found to be important. It is therefore essential that material once handled may again be easily available as specialized knowledge multiplies the technical aspects of the work. All forms of archaeological evidence are susceptible to this kind of treatment. The major antiquities, such as mounds, earthworks, village sites, and workshops, will yield important information if studied in this manner. The many classes of minor antiquities, of stone, shell, wood, and pottery, as well as evidences of former customs, such as burial rites, all lend themselves equally well to such comparative research work.

There are several reasons for inaugurating this comparative research with a study of pottery. It is the most indestructible product of human culture, in that a specimen may be shattered, yet the fragments, no matter how small, still retain definite characteristics by which they may be classified. Again, pottery is capable of great variation; in material, in surface finish, in decorative technique and design, and in form. With an adequate appreciation of the factors involved, definite conclusions may be drawn from a study of such variations. A third attribute of pottery is its universal distribution and its abundance, which causes it to become the common denominator of the various cultures to be studied. It is assumed, therefore, that by a special study of pottery at least the major outlines of the prehistory of eastern North America may be secured, a step which will

facilitate the proper coordination of other archaeological material in the general reconstruction of these extinct civilizations, which is of course, the ultimate aim of archaeology.

The function of the pottery repository is fourfold. Its greatest value lies in the accumulation of a library of shards which will serve as a permanent record, not only for the present, but also for the future, when improved methods and new problems may require a restudy of the material of which the library is composed. The concentration in one laboratory of shards from widely distributed sites will, of course, greatly facilitate the investigation of comparative problems. Again, the repository will be a clearing house, through correspondence and publication, for information upon the material and problems involved. By means of the notes, photographs, and bibliography, which are an essential part of the repository, it will be possible to aid the research of students of related fields and subjects. Finally, the formation of this library of shards will permit the inauguration of loan collections, which may be sent to archaeologists working on detailed problems in their special areas, for the solution of which it is necessary actually to handle pottery from other localities.

The methods and facilities which will be used depend somewhat upon the problems which must be solved; problems which may not become fully apparent until after the repository is physically in existence. The material as it arrives will be catalogued in the accession file and the serial museum catalog, with a note that it is part of the National Research Council repository. It will then be placed in trays in the filing cabinets of the museum laboratories. These trays are arranged in such a manner that immediate access is possible. Accessory files, covering various subjects such as geographical distribution, technical variations, field notes accompanying collections, photographs, related collections in other museums, and a bibliography, will be developed. It is planned to make the repository as accessible as possible, and of real value to archaeologists everywhere in the area. The arrangements in the museum building will permit laboratory work in the rooms in which the filing cases of specimens are situated. Facilities for undisturbed

prolonged research exist for those students of pottery who care to work in the museum itself.

The Museum of Anthropology at the University of Michigan was chosen as the custodian of this repository for three reasons. Situated in the Great Lakes district within relatively easy access of the entire Mississippi basin, it forms a logical geographical center for the accumulation of such a collection. A new museum building is now under construction at the University, in which are incorporated the most advanced ideas regarding research facilities. It is planned to occupy the building in the spring of 1928. Finally, the staff of the museum contains a specialist on pottery, who, through field work in various regions, is equipped to assume responsibility for the care and study of the material which the repository will contain.

The formation of this library of pottery fragments by the Committee on State Archaeological Surveys does not imply any interference with the collection of specimens by any other organization. The library will be composed primarily of shards which would under other circumstances be discarded. While the receipt of unbroken pottery objects will, of course, be welcome, it should clearly be understood that the primary purpose of the repository is the formation of a study series, in contrast to an exhibition collection.

In selecting the material to be sent to the repository, no attempt should be made to sort out the most interesting or important fragments. In the course of excavation or collection from the surface, a large quantity of shards will be obtained,—good, bad and indifferent. It is urgently requested that all the material be forwarded without sorting, in order that a definite conception may be obtained of the relative abundance of the different kinds of wares in the locality from which the material was obtained. Detailed study will undoubtedly bring into prominence numerous variations in the pottery which are not now appreciated. Obviously, if the shards are sorted too carefully at the present time, the material retained might prove inadequate for later investigation. Therefore, while rim-shards and shards bearing designs are most needed, any other fragments associated with them will be equally welcome.

Another important consideration is the information

which should accompany the collections sent in. It is imperative that there be given an accurate geographic location of the site from which the material was obtained. This includes not only the local name of the site, but also the name of the owner of the land, the township and range, the county, and state, in which the site occurs. Any references to nearby land marks such as rivers or mountains should also be included.

Mention should also be made of whether the material is a result of excavation or of surface collection. If it is from an excavation in which stratification occurs, care should be used to keep the shards from each stratum separate, in order that proper chronological weight may be given. In the case of surface collections, a record should be made of the amount of surface covered, the kind of surface, i. e., ploughed or pasture, and whether the collection consists of *all* fragments seen. The record accompanying the material should state the kind of remains from which the material was obtained, i. e., a mound, an earthwork, a village site, a grave, etc. Any notes regarding other minor antiquities found in association with the pottery will aid in the study of the shards sent.

The collections which are to be sent to the repository should be packed in small boxes or cartons, in layers separated by layers of excelsior or similar material. While it is advisable to wrap each shard or group of shards in newspapers, this is not absolutely essential. The primary requirement is that the material should be packed in such a manner that it will not rattle within the container nor in any other way cause the various fragments to come into contact and thereby have their edges spoiled. It is suggested that the containers be of a size to permit sending them by parcel post. Within the container should be placed a record giving all necessary information for the proper identification of the contents when the box is opened. At the time of sending, a letter of transmittal should be mailed to the same address.

## THE IMPORTANCE OF POTTERY IN WISCONSIN ARCHEOLOGY

W. C. MCKERN

In so far as we have any records, all the Indians of pre-historic Wisconsin were pottery makers. Earthen vessels were employed as cooking pots, water carriers and containers, storage receptacles, and were probably made to serve in other capacities less easily ascertained. The introduction of copper, brass and iron vessels with the establishment of trade contacts with the invading Europeans marked the end of pottery development. Soon the native manufacture of earthenware became a lost art, and to a large extent, the very memory of pottery vanished.

The historical knowledge which we possess regarding the pottery of local tribes is of the briefest, amounting to little more than the mere fact that pottery was made and used. Ethnological research has resulted in the addition of but a few facts to the meager stock of information available. The result is that, for example, we can not say with any degree of certainty what kind of pottery was made by the Menomini, or what the difference between Menomini and Winnebago pottery might have been. To the archaeologist has been left the problem of classifying, if possible, primitive Wisconsin pottery.

In order to attack this problem at all, study specimens are necessary. Occasional whole, or nearly whole pots have been found from time to time at ancient campsites or in mounds. These comprise our best materials for study, but are so rare in occurrence that the student is hopelessly limited in his research. Not a few specimens from a few scattered sites are required, but thousands of specimens from every section of the state.

Specimens which are often neglected by the collector are the ordinary potsherds. These occur in quantity at nearly every primitive campsite, and yet it is difficult to find a good representative lot of potsherds in any small, local collection, or even in large collections outside the walls of museums. This is not due to the fact that pottery is relatively unimportant to the student of archaeology. Earthenware is pli-

able in the hands of the maker and, therefore, reflects the maker's concepts of utility and art to a greater extent than any other imperishable material available to primitive man. Thus we find arrowpoints in Wisconsin much like those of New York or Arizona, aside from materials and the proportionate use of any one shape. In pottery, however, there are radical differences between the types respectively found in Wisconsin, among the Iroquois of New York and among the Hopi of Arizona. One can pick up a potsherd and say that it belongs to a certain archaic or historic culture area with a comfortable degree of certainty. To what extent can that be done with the chipped stone artifacts to be encountered in this district?

It is, therefore, unfortunately true that the specimens of most importance in the solving of our local archaeological problems, the artifacts that have the most understandable story to tell, are being left rejected in the field, while the relatively unimportant arrowpoint is seized upon with avidity. By this I in no way infer that the arrowpoint has no importance to the archaeologist, but rather that the potsherd is a much more apparent and reliable culture marker, and that in a province such as Wisconsin, where we have as yet neither defined and limited our archaic cultures nor definitely ascertained connections between these and historic cultures, a study of pottery promises maximum results.

In attacking the problem of archaic definition, pottery has already played a most important part, in Wisconsin as well as in other fields. In New York, pottery alone often identifies a site as of Iroquois or Algonkin occupation. The determining of seven successive cultures in the Southwest was primarily dependent upon a study of pottery. In Wisconsin we have distinguished at least four mound-building cultures, largely through pottery evidence: (1) the Effigy Mound culture was basically northwestern Woodland in type, with pottery suggesting Algonkin affinities; (2) the Grand River culture was basically northwestern Woodland in type, with pottery suggesting Siouan affinities; (3) the Aztalan culture was basically similar to that of the Cahokia district centering in southwestern Illinois, as evidenced primarily by the pottery; (4) the Hopewell culture, first discovered in Wisconsin by Cyrus Thomas in about 1890, rediscovered

and first identified as of Hopewell type this year in Trempealeau County, was definitely marked by a Hopewell type of pottery. In every instance pottery has proved the most important culture marker.

The problem of authorship of the effigy mounds, if it is ever solved, will probably come to its solution through a study of effigy mound pottery. Radin seems largely responsible for the general acceptance of the theory that the Winnebago built the effigy mounds. His conclusions were based solely upon a very limited quantity of ethnological data. Radin also gives for the Winnebago one of the best descriptions of primitive pottery ever recorded for a specific Wisconsin tribe. Of it he says: "These vessels, most of which were very large, with round bottoms, always hung over the fire. The material used in their manufacture was blue clay . . . mixed with shell shards, glue from the sturgeon vertebrae, and the gelatinous substance in the horns of deer."<sup>1</sup>

The pottery which Radin describes for the Winnebago is Siouan in type, as might be expected, and corresponds very closely to that found in mounds and campsites of the Grand River culture. But when we come to examine the pottery of the effigy mounds, we find something quite different. These vessels, when of large size, are equipped with pointed bottoms. The material used seems most generally to have been yellow clay, and was invariably tempered not with shell shards and glue, but with grit. How then does it happen that Winnebago pottery is not found in mounds said to have been built by the Winnebago Indians? Either Radin is mistaken about the authorship of the mounds, or he was misinformed regarding the nature of Winnebago pottery.

From the above specific examples of discoveries and logical conclusions based upon knowledge of pottery, the importance of the Wisconsin potsherd is clearly apparent. It is, therefore, to be hoped that the many collectors of archaeological materials in Wisconsin, who are rendering great service to archaeologists, now and in future, by building such collections, will be brought to see the importance of the neglected potsherd and to materially enhance the value

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<sup>1</sup> Radin, Paul, *The Winnebago Tribe*, 37th Ann. Rept., B. A. E., p. 119, Washington, 1923.



of such a collection through the including therein of representative specimens of the pottery to be found in the district which the collection illustrates. That potsherds are less or more attractive than other materials is a matter of opinion. That potsherds are of relatively high importance in the solving of our archaeological problems is, far from being a matter of opinion, a fact beyond all dispute.

## THE DICKSON MOUND BUILDERS' TOMB

THEODORE T. BROWN

A museum which is probably different from any other museum in the United States is the so-called Dickson Mound Builders' Tomb located at a distance of five miles southeast of Lewistown, on a high bluff overlooking the picturesque Illinois and Spoon river valleys, in west central Illinois. A description of this very interesting mound and the story of its exploration is given in an interesting illustrated pamphlet printed by Dr. Don F. Dickson, one of the owners, for distribution to friends and visitors. From it this brief description of the mound and its contents is largely drawn.\*

The form of this great aboriginal earthwork was that of a crescent, the points of which were on its eastern side. The circumference of the mound (measured from one point around the mound to the other point) was about 550 feet. The maximum depth of this huge heap of earth was from thirty to thirty-five feet. In its center, between the arms of the crescent, was a deep basin. This contained a pool of water throughout the year.

Twenty-seven years ago, Thomas C. Dickson, the father of Dr. Don C. Dickson, selected this mound as the site for his home. This he decided to erect in the basin or depression in its center. In order to fill it to a height suitable for the foundation of the building he removed earth from the surrounding mound. This entire surface had been used as a burial place. In grading the crest he disinterred "hundreds of skeletons."

The bones were heaped together and later hauled away by wagon loads and reburied.

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\* The Dickson Mound Builders' Tomb.

During this grading between eight and ten thousand aboriginal artefacts were secured, among which were numerous specimens of earthenware vessels, stone pipes, discoidals, plummets, some polished stone celts, bone, flint and shell implements, and hundreds of strings of beads made of shell. The number of earthenware vessels obtained is reported to have been nearly one thousand, some of these being very interestingly ornamented or colored. Many of these specimens became the property of private collectors and of state and national museums. A collection of several thousand of the finest specimens became the property of the well-known collector, Mr. Edward W. Payne of Springfield, Illinois.

Long before Mr. Dickson began the erection of his home other persons had at different times dug in this mound and secured interesting specimens. Thus during the past fifty years it has yielded a great harvest of aboriginal implements. Dr. Dickson has himself carried on explorations in it at different times during the past twelve or fifteen years. In February 1927 he began the excavating which led to the founding of his present "museum". At this time he uncovered three adult skeletons which he left in place in order that others might view them and afterwards erected a shelter over them to protect them from the rains. He then began work in a new location on the western slope of the crescent and at this time has the large number of 188 skeletons and all of the earthenware vessels, pipes, implements and ornaments accompanying these burials completely exposed to view. None of the burials have been moved, all are in place just as they were found.

The work of exposing these burials has been most carefully done. "The bones were very easily broken, due to their age and to the absorption of moisture from the soil. Great care was necessary to preserve them, and also the implements, especially many implements made of thin pottery, shell and bone. At first we used small knives, table spoons, and small paint brushes, to remove the clay from between the ribs and in other difficult places. After a few months' work using these tools, we 'advanced' to the point of using pointers' trowels, air bellows, brushes, small



INDIAN BURIALS IN THE DICKSON TOMB.  
Lewistown, Illinois.  
Plate 2.



knives, and often testing the soil around the burials with orange sticks."

The skeletons uncovered at the present time are for the most part full length interments. Several are family burials of a father, mother and child. There are other burials of children. There are several "bundle" burials. Most of the burials are accompanied by pottery vessels and with spoons cut from clam shells. Some of the shells are plain uncut unio valves. Some of the vessels are of bowl shapes with or without handles, some are ladle-shaped, some are in effigy forms, some are colored red or brown. There is one very unusual double vessel. Small vessels accompany some of the child burials.

Among the numerous interesting objects accompanying these burials there may be mentioned strings of disk and cylindrical shell beads, sea shells, perforated clam shells, a clam shell receptacle containing bone awls and a sandstone grinding stone, a string of pearl beads and baroques, a bone fishhook, bone awls, a bone dagger, sheets of mica, platform pipes, an effigy pipe with a representation of a human face, a perforated stone discoidal, a large white flint knife, flint triangular arrow-points, small obsidian points, a broken rock crystal point, a large polished stone celt, a stone spade, trophy jaws colored with hematite, a pottery trowel with disk, a hematite plummet and a bell-shaped copper axe. Of special interest are a limestone platform pipe in the stem hole of which a piece of the point of a flint drill has been broken off, a cut bear's tooth so cut as to sheathe a small knife, and a large well-chipped red flint implement probably used as a "smoother." This heavy specimen is about ten inches long, five inches wide and four inches high.

The Dixon burials have been covered with a substantial vitrolite block building. This is 76 feet long and 46 feet wide. They are in a large pit protected by a wooden railing and surrounded by a walk. They may thus be viewed from every side of the enclosure. Fastened to the walls of the museum building are glass cases containing many hundreds of other interesting and beautiful aboriginal artefacts obtained from other mounds, graves and village sites about Lewistown. Exposed to view in these cases are a hundred or more pottery vessels of various shapes, large circular

sheets of mica, six pearl necklaces, a cache of blue hornstone turkey-tail points, a cache of fourteen barbed flint spearpoints, large sea shells, animal jaw ornaments, fourteen large bone daggers, perforated bears' teeth, sheet copper imitation bears' teeth ornaments, copper beads, copper axes, stone pipes, discoidals, plummets, earspools, beads and gorgets, bone awls and flakers, and many other rare and unusual specimens. In the vicinity of Lewistown at least three aboriginal cultures are represented by mounds and sites—the Cahokia-Lewistown, the Hopewell, and a hill-top "hunter" culture, probably Algonkian.

The Dickson Mound Builders' Tomb is one of the historic monuments of Illinois. It has already become a place of pilgrimage for those interested in the State's archaeological history. On the Sunday afternoon when the writer and Mr. Charles E. Brown were present over one thousand visitors, who came by automobile from many Illinois cities and villages, visited the Tomb and listened to the explanatory talks given by Dr. Dickson and his assistant lecturers. The largest number of visitors as yet entertained here on a single day was eighteen hundred. Wisconsin archaeologists should not fail to visit Lewistown.

## WISCONSIN SHELL BEADS

ANTON SOHRWEIDE

The great variety of beautiful freshwater shells abounding in the lakes and streams of Wisconsin served a useful purpose in the daily life of the aborigine. They served as food; they gave binding strength to his vessels of clay; the innate beauty of their iridescent pearly interiors could not be reproduced in stone, thus it would be strange indeed if the natives did not utilize them for ornamentation when at the same time they could be easily shaped and used as knives.

Bearing in mind, then, its usefulness, there is small cause for wonder that the archeologist oftentimes finds village sites, particularly among sedentary peoples, that are strewn with broken mussels and occasional artifacts made from them,

remains that have escaped the ravages of time and the destroying plowshare.

The shell bead is one of the most commonly found relics of shell. It matters not whether they be of past or pre-Columbian origin, information concerning shell beads of both periods is quite unavailable.

Our present small knowledge concerning the origin and method of manufacture of these beads finds its basis in documentary evidence and in scholarly investigations of Indian folklore.

In the 14th Annual Report of the Bureau of American Ethnology (Part 2) Hoffman sums up what is known concerning the source and mode of manufacture of these artifacts when he writes:

"These beads were evidently made from the thick portions, or perhaps joints, of fresh-water mussels; they are of the size of buckshot, with a perforation drilled from each side toward the middle. The perforations being somewhat of funnel shape, and showing marked striae, would indicate that the drilling had been made with other than a metal instrument. On subsequent investigation respecting the manufacture of articles requiring perforation, I was informed that the Menomini used sharp-pointed pieces of quartz and jasper, rotating these rude drills with the hands and fingers. As regards the use of the bow-drill, either for making fire or for drilling stone and shells, no definite information could be ascertained as none of the more intelligent or aged natives remembered having seen them in use."

Whether in post-Columbian times the white traders introduced shell beads of European manufacture is not known. Dr. Walter Hough, Head Curator of Anthropology at the National Museum, states that he does not know the sources of any European importations of shell beads, if any. He is of the opinion that the Indians formerly made their own beads for ornamentation and continued to do so long after the advent of the white man in areas remote from trading posts. This explanation perhaps accounts for the presence of ancient shell beads on village sites where the European colored glass bead is much in evidence.

With reference to the later trade in shell beads or wampum after the advent of the whites on the eastern coast

Mr. Herbert W. Krieger, Curator of Ethnology at the Smithsonian Institution, furnishes the following memorandum:

"The only place that comes to mind as a source of counterfeit wampum in the United States is the little town of Pascack, New Jersey. A white family continued to operate a factory for more than 150 years to supply counterfeit wampum for the Indian trade. There is in the National Museum a quantity of stock material, of unfinished beads, tubes, and ornamental objects in various states of completion obtained from the old site of this factory. From this material it is apparent that conch shells from the Gulf Coast were substituted for the more rare clam shells *Venus mercenaria* from the Atlantic Coast. The more abundant supply of conchs combined with the improved mechanical devices at the disposal of the Pascack manufacturers enabled the white trader to flood the market, some of the objects of this nature even reaching the Pacific Coast.

There are possibly other towns that added to the supply of artificial or, rather, counterfeit wampum, but I cannot name them."

The above known facts concerning the manufacture and origin of shell beads in Wisconsin finds its basis largely in the observations of Hoffman who spent some time in studying the practices of the Menomini. It is perhaps safe to believe that the other Wisconsin tribes followed like, if not the same, methods. The evidence, as Dr. Hough points out seems to indicate that even after the introduction of European glass beads the Indian continued, though in lesser degree, to manufacture these artifacts even as his people before him had done. It is due to this continued production in post-Columbian times that we can account for the presence of primitive shell beads on village sites founded long after intercourse with the whites had been established.

It is no exaggeration to say that from our present small knowledge concerning the origin and manufacture of these early artifacts little can be known in a definite and precise way; it is with generalities that we deal.



## THE ROCKFORD MOUND GROUP

CHARLES E. BROWN

Members of the Wisconsin Archeological Society who visit or pass through the City of Rockford in Illinois should not fail to see the fine Indian mounds preserved in Beattie Park, also known more commonly as Waterworks park. These mounds are near the bank of the historic Rock river, in the very heart of the city.

One of the four fine prehistoric mounds located in this small, but very attractive, city park is a turtle effigy of the type distributed through the Rock River region from Rockford northward to beyond Lake Koshkonong in Wisconsin. This effigy mound is nearly 6 feet high at its head. Its body has a length of about 63 feet and its long tapering tail is about 103 feet long. Near this mound is a tapering linear mound, probably also an animal effigy, which is about 150 feet in length and about  $3\frac{1}{2}$  feet high at its head. Beyond the tip of the tail of the big turtle effigy is a conical mound about 36 feet in diameter and 4 feet high at its middle, and not far away another conical earthwork which is about 18 feet in diameter and about one foot high. These are paced dimensions and of course not very accurate. The two effigy mounds are very imposing monuments and stretch a considerable way across the breadth of this small park. On the north side of the Mound Avenue boundary of the park another conical mound of this group is preserved on the lawn of a residence property, and on the east side of Indian Terrace, on the opposite side of the street, a remnant of a linear (?) mound extends beneath the front of another residence.

Prof. T. H. Lewis mentions the former presence of a mutilated bird effigy in this group (*Wis. Archeo.*, 17, 1, p. 20).

This fine group of Indian earthworks, so fortunately here preserved to the public, should be marked with a descriptive metal tablet in order that Rockford citizens and other visitors to the park may understand and appreciate its authorship and significance.

In Illinois very few of the mound groups or mounds

which are at present preserved in state or municipal parks are marked with tablets. This should be done. The uninformed visitors to these places see them and walk over and around them without knowing what the nature of these ancient monuments really is. In a park at Quincy a stairway leads to the top of a great mound located on the top of a high Mississippi River bluff, and well-worn paths lead to the top of several other as sightly monuments. Visitors think these to be observatories erected for the purpose of viewing the beautiful river valley and give no thought to the fact that these heaps of earth from the top of which they are viewing the landscape are ancient mortuary monuments of the American Indian. Markers are sadly needed also in Cahokia Mounds State Park.

As we have been pointing out for the past twenty years or more that in our sister state of Illinois there is the greatest need of the organization of a state archeological society to actively interest itself in the preservation of the state's priceless Indian memorials. With hundreds of archeological investigators and prominent collectors distributed throughout its length and breadth the perfecting of such a state organization is now possible. Iowa, Indiana and Minnesota archeology are in the same state. Ohio, New York, Michigan and Wisconsin all have state archeological societies.

## FAMILY NAMES OF CIVILIZED INDIANS

VETAL WINN

During the past few years considerable interest has been shown in Indian place names. In several instances Indian names which had been discarded or forgotten have been revived and are again used to designate the same localities as formerly. In some cases where the exact Indian name is unknown or too cumbersome a substitute or derivative is used.

It has always seemed to me rather unfortunate that the early settlers so often gave the name of their former home to the one they were founding. This predilection on the part of the colonists was carried so far that today there is



ROCKFORD MOUND GROUP.  
Rockford, Illinois.  
Plate 3.



scarcely a town in Great Britain that has not a namesake in the United States, either with or without the prefix New, and often duplicated many times. The cities of France and Holland are nearly as well represented and also to a great extent those of Ireland and Germany. These names of course meant something to the settlers but to their descendants they mean absolutely nothing. If each city and town in this country had a name not duplicated by that of any other city or town, it would be much better in a number of ways.

During the same period that the various localities of the country have gradually acquired permanent names, the Indians and their mixed-blood descendants have also assumed or been given names which have gradually become family names.

These names may be divided into three classes viz :

1. European names or names of European origin.
2. Indian names or names of Indian origin.
3. Names consisting of Indian ideas expressed in the English language.

The first class of names, those of the European origin, have been acquired by their bearers legitimately by inheritance or adoption and are eminently proper. Some examples may be given, as Spoon Decorah (De Kaury), Sabatis Perrote (Pierrot), Arthur S. Parker.

The second class, those of Indian origin are still better. Examples are Paul Shabbema, Joe Wisconsin, Ben Ahque-wee. If the future descendants of these people are as proud of their Indian blood as are the present day descendants of Pocahontas, they will surely be as proud of such names as other people are of their treasured heirlooms.

It is to the names of the third class to which I wish to call your attention. Such names as Hollow Horn Bear, Amos One-road, Joe Two-sticks, Jim Horse-go-long-way are absurd and ridiculous.

The origin of such names is of course easily explained. The early settler held the Indian either in contempt or fear and seldom learned his language and usually called his Indian acquaintance by a nickname coined by himself or some kind of translation of his Indian name. While the French fraternized with the Indians more than the English and

Dutch, their treatment of Indian names was very similar. Of course to the Indian of that day, it mattered nothing what the white man called him. If it had, there was plenty of other business between him and the white man to fully occupy his attention.

The condition of affairs with the Indian of to-day is radically different. His status is changing more rapidly than it ever has in the past and more rapidly than it ever will again except during the next few years. Now if we look ahead as far in time as we must look back to the first colonists, we shall see the descendants of the Indians as average citizens, many of them of nearly pure white blood whose only connection with the Indians perhaps is a family tradition or an Indian name. Can you imagine Dr. J. Montgomery Hair-sticks-four-ways, or Robert F. Two-horse-one-cow as an attorney at law? Such names as George Whitefish or John Bear are not so bad, but even they fall in the same class.

It seems to me that we should be doing a favor to numerous citizens of future generations if we were to be instrumental in having some of these compound English-Indian names eliminated. Of course we could not accomplish much directly because we do not come in contact with the people who bear the names. If, however, we could arouse the interest of those who do come in contact with them, such as Indian agents and especially teachers in the Indian schools, much might be accomplished.

The young Indians who attend the government schools are highly intelligent, and once their attention were called to the matter, should be able at once to see the incongruity of such names and it would be a simple matter to have them changed before they become permanently fixed.

I think most of them have an Indian name by which they were known among the Indians. Each should assume his Indian name as a family name. If it is compounded of many words as many Indian names are, several words or syllables could be dropped and still the name would be of Indian origin.

## A "LOST ART" THAT WAS NEVER LOST

*Literary Digest, November 5, 1927*

The hardening of copper, as practised by the ancients, often spoken of as a "lost art," and so treated by Wendell Philips in his celebrated lecture, was never so in reality, declares William G. Schneider, a New York mining engineer, in a research report to the Engineering Foundation. Says Mr. Schneider, as quoted in a press bulletin issued by the Foundation:

"Many persons spend a lifetime trying to rediscover an art that never was lost. The tragedy occurs when they have evolved a hard copper. They next endeavor to find some use for it and then learn that, unless it has some special properties, no market exists.

"Copper wire, hard drawn, has a tensile strength of about 65,000 pounds per square inch and an elongation in ten inches of about 1 per cent, with a conductivity of about 97 per cent. This affords some basis on which to work when endeavoring to develop the hardening of copper.

"If, for example, it were possible to harden copper so that the tensile strength were materially increased above that just stated, without reducing the conductivity, a worthwhile discovery would have been made.

"The fact is that our present-day metallurgists not only understand how the ancients hardened their copper and bronze, but also know how to produce copper and bronze products that are even harder than those left to us, and which represent the evidence of the so-called lost art of hardening copper.

"Cutting edges developed on swords, daggers, knives and other implements by the ancients were obtained by hammering the metal, or, in other words, cold-working. Those old metal-workers not only hand-hammered their copper implements but also used the same means to harden their bronze articles.

"The heating of many of these products in open fires resulted in the formation of considerable copper oxid, which alloyed with the copper and hardened it. One of the most common mistakes of persons claiming to have rediscovered

'the lost art of hardening copper' is to heat it in a forge, and in this way saturate it with copper oxid, which combines with the copper to form a much harder and much more brittle product.

"There are really two methods of hardening copper that are regularly practised nowadays, just as centuries ago. One consists in alloying the copper with some other metal or several other metals such as zinc, tin, nickel, cadmium, chromium, cobalt, silicon, aluminum, iron, beryllium, and arsenic.

"The second method consists in cold-working the metal or copper alloy. In fact, it is possible to work the metal to such a stage of hardness that a slight amount of additional work will cause it to break. The explanation of all copper hardening may be attributed to one of these methods or a combination of them.

"Microphotographs of an ancient copper spearhead indicate that it was extremely hard, and that apparently this hardness had been obtained by cold-working.

"Copper scissors, knives, and other cutting tools may be obtained. Unless, however, a special reason exists for their use, they offer no advantages over tools made from steel. Occasionally, however, it becomes necessary to use copper or bronze tools, such as knives. Around a powder plant, for instance, where all sparks must be avoided, bronze knives are almost essential.

"Some recent methods of hardening copper by alloying have, to a certain extent, come about as near to actually 'tempering' copper as would seem possible. In these methods the metal, silicon, plays a most important part because it forms silicides with other metals which in turn form eutectics with the copper.

"The deoxidizing effect that silicon by itself exerts plays no unimportant part in finally allowing the metal to be worked and by heat treatment to develop a high strength, with a relatively high conductivity. This latter, however, is considerably below that of pure copper and second only, speaking of alloys from the standpoint of both strength and conductivity, to those of copper and cadmium.

"Alloys of copper with cadmium give, for a stated conductivity, higher strengths than those with silicon."



## ARCHEOLOGICAL NOTES

## Meetings

Vice President Charles G. Schoewe presided at the meeting of the Wisconsin Archeological Society held on the evening of November 21, 1927, in the trustee hall of the Milwaukee Public Museum. There were seventy members and guests in attendance at this first autumn meeting. The program consisted of a lecture by Dr. Herbert W. Kuhm on the subject of "Wisconsin Indian Fishing—Primitive and Modern". This was a fine presentation of a very interesting subject. It was discussed by the Messrs. Louis Pierron, C. G. Schoewe, C. E. Brown, and the Messrs. John Bear and Ulysses White, two Winnebago members of the Society who were present. Mr. John Bear gave a very interesting account in Winnebago of the organization and customs of the Winnebago bear and wolf clans, Mr. White interpreting his talk.

Secretary Brown announced the election to membership in the Society by the Executive Board of the Messrs. Herbert W. Cornell and Gustav Marx, Milwaukee; H. K. Thurston, Madison, and Mary Dunn, Lena, Illinois. The Angie Williams Cox Library, Pardeeville, was made an institutional member. Henry Damereau, Fairwater, was elected a life member. Governor Fred R. Zimmerman, Dr. Paul B. Jenkins, Williams Bay; Sheldon Bradt, New London; John Bear, Mauston; and Dr. W. B. Hinsdale, Ann Arbor, Michigan, were elected honorary members.

The deaths were announced of Messrs. Jacob Van Orden, Baraboo, Charles F. Pfister and Anthony Balian, Milwaukee, members of the Society, the Secretary giving a brief account of the life of each.

It was reported that a descriptive bronze tablet had been provided for the marking of the Indian earthworks in Aztalan Mound Park. This Mr. Robert P. Ferry, chairman of the park committee, would cause to be mounted on a suitable boulder. A brief report on the archeological field work conducted during the summer was presented.

At the close of the meeting exhibits of interesting archeological and ethnological materials were made by the Messrs. Kermit Freckman, Edward F. Richter, C. G. Schoewe and the Milwaukee Public Museum.

President George A. West conducted the meeting of the Society held at Milwaukee on Monday evening, December 19, 1927. One hundred and fifty members and guests were present at this meeting, every seat in the trustee hall being taken. The speaker was President West, his subject being "The Antiquities of Egypt." In his lecture he presented an account of a visit made to this country by himself and Mrs. West during the spring months of the year and during which its major monuments and ancient sites were studied and photographed. His lecture was illustrated with an especially fine collection of lantern slides. It was greatly appreciated by the large audience of members and guests. President West has been for many years very active in both the labors of the Wisconsin Archeological Society and the Milwaukee Public Museum. For years he has given an annual illustrated lecture to the members and friends of the Society.

The January 16, 1928 meeting of the Wisconsin Archeological Society was directed by President West. Seventy members and visitors were present. Mr. Huron H. Smith, ethno-botanist and a vice president of the Society, favored the members with a very interesting illustrated lecture on "Forest Conservation in Wisconsin". His colored lantern slides were especially fine. The speaker gave a large amount

of valuable information on the uses formerly and still made of the forest products by Wisconsin Indians in wigwam construction, canoe manufacture, maple sugar making, vessel and utensil making, etc. His lecture was discussed by President West and other members.

Secretary Brown announced the recent deaths of Mrs. Sherburn S. Merrill of Milwaukee, a life member of the Society, and of the Rev. Stanley E. Lathrop, Madison, for many years one of its active members, and of Mr. N. L. Kaudy, of South Dakota, a former annual member.

The election of Dr. Bruce T. Best, Arlington Heights, Illinois, as an annual member was reported. A letter received from Governor Fred R. Zimmerman acknowledging his recent election as an honorary member of the state society was read.

Exhibits of archeological specimens were made by T. M. N. Lewis, C. G. Schoewe, T. T. Brown and T. L. Miller.

President West conducted the meeting held on February 20th. Mr. Ira Edwards, geologist of the Milwaukee Museum, gave an illustrated lecture on "The Wreck of Mt. Mazama". In connection with this lecture the Museum made an exhibit of Indian implements made of volcanic tufa, basalt, obsidian and other volcanic rocks. There were fifty members and guests present. At the meeting of the Executive Board Mr. John Blackhawk was elected an honorary, and Mr. William M. Foster of Milwaukee an annual member.

A report was made by Dr. Barrett, chairman of the special committee appointed to consider the conferring of the Lapham Medal on several members at the annual meeting. Mr. Smith, chairman of the special committee on biographies of members, also offered a report.

The Annual Meeting of the Wisconsin Archeological Society was held at the Milwaukee Public Museum on Monday evening, March 19, 1928. President George A. West presided. There were eighty members and visitors present.

On the motion of Mr. W. W. Gilman the President appointed as a nominating committee to select officers for the ensuing year the Messrs. W. C. McKern, W. H. Vogel and R. S. Van Handel. This committee presented its report which was accepted by the Society.

The following officers were unanimously elected: Mr. Huron H. Smith, president; the Messrs. W. H. Vogel, C. G. Schoewe, Dr. H. L. Tilsner, Mrs. E. H. Van Ostrand, W. W. Gilman, A. T. Newman and Dr. H. L. Kastner, vice-presidents, and Dr. S. A. Barrett, Dr. F. C. Rogers, A. P. Kannenberg, E. F. Richter, Mrs. A. E. Koerner, Vetal Winn, L. R. Whitney, G. A. West and W. C. McKern, directors. Mr. C. E. Brown was elected secretary and Mr. G. M. Thorne, treasurer.

Secretary Brown and Treasurer Thorne presented annual reports. President-elect Smith was honored for his ethno-botanical researches and publications by having the Lapham Medal conferred upon him, the presentation address being made by Vice President Winfield W. Gilman. President Smith then assumed the chair and presided over the remainder of the meeting.

The program of the meeting consisted of an illustrated address by Dr. Barrett on "Hawaii, The Paradise of The Pacific", which he delivered in his usual interesting way and delighted the members and visitors present.

The election to annual membership of Mr. Robert Harper of Reedsburg was announced. Exhibits of specimens were made by the Museum, and Mr. R. Van Handel.

President Huron H. Smith conducted the meeting of the Society held at the Milwaukee Public Museum on April 16, 1928. In the absence of Secretary Brown in attendance with other officers and mem-

bers at the funeral of Mr. Harry E. Cole, president of the Wisconsin Historical Society, at Baraboo, Mr. W. C. McKern was appointed to act as secretary.

Mr. George A. West delivered an illustrated lecture on "From Holland to the Holy Land", in which he gave a further description of the many interesting places visited by himself during his recent journey to the Old World. This was greatly appreciated by the audience of over one hundred members and visitors which filled the lecture hall.

President Smith appointed the Messrs. Gilman, Schoewe and McKern an auditing committee to audit the Treasurer's books and report at the May meeting.

The election to membership as an annual member of Mr. John P. Bennett, Milwaukee, was announced. The Executive Board at its meeting adopted a resolution requesting the Secretary to convey to Mrs. H. E. Cole the condolences of the Society on the death of Mr. Harry E. Cole, one of its charter members and for many years one of its very active officers and workers.

The meeting of the Society, held at Milwaukee on Monday evening, May 21, 1928, was conducted by President Huron H. Smith. There were thirty-two members and ten visitors present.

Mr. S. J. Carter, city reference librarian, gave a talk on "Scientific Browsing", this being a discussion of the anthropological books and periodicals available to students in the Milwaukee Public Library. This talk he illustrated with an exhibit of some of the books and other literature. Many of the members present afterward asked questions to which the speaker replied.

Talks on "Fraudulent Indian Artifacts" were given by the Messrs. C. E. Brown and Geo. A. West. Other members participated in the discussion which followed. President Smith announced that he had appointed a special committee of members, with Mr. Jos. Ringeisen as its chairman, and to which questionable Indian implements might be submitted. Mr. W. W. Gilman, chairman of the auditing committee, made a report in which he stated that his committee had examined and found the Treasurer's accounts to be substantially correct. This report was adopted.

It was announced that Dr. S. A. Barrett would shortly leave for East Africa with an expedition of the Milwaukee Museum. Dr. Barrett briefly outlined the objects of the exploration party. William Rath, president of the "Indian Research Club", a young man's organization of Milwaukee, presented an account of its activities. Mr. McKern reported on current anthropological literature.

The election by the Executive Board of Mrs. Anna French Johnson, Prairie du Sac, Rev. O. M. Ziegler, St. Francis, and C. V. Hall, Milwaukee, as annual members, and of Albert B. Reagan, Quest, Oregon, as an honorary member was announced. President Smith had appointed the Messrs. Miller, McKern, Brown, Ferry and Ringeisen a committee to arrange for a dedication program at Aztalan Mound Park during the month of October. The special committee appointed to prepare biographies of members had submitted a sample biography.

Exhibits of fraudulent stone and metal implements were made by the Messrs. McKern and E. F. Richter.

The seventh annual meeting of the Central Section, American Anthropological Association was held in the Logan Museum of Archeology at Beloit College, on Friday and Saturday, March 2 and 3, 1928.

Members of the Wisconsin Archeological Society offered eight of the twenty-four papers in the program, those participating being W. C. McKern, C. R. Keyes, Huron H. Smith, H. W. Kuhm, C. E.

Brown, W. K. Moorehead, Alonzo Pond and Dr. S. A. Barrett. A special exhibition of Aurignacian implements was made for the occasion by the Logan Museum. The program was exceptionally interesting, many of the papers being illustrated. The meetings were largely attended. On Friday evening the members and visitors were tendered a dinner at the Faculty Club by the Museum. On Sunday a pilgrimage to visit Mr. H. L. Skavlem, veteran archeologist, at his Janesville home was made.

The new officers elected at this meeting were: Dr. Carl E. Guthe, president, Dr. Ralph Linton and Dr. J. E. Pearce, vice-presidents, and George R. Fox, secretary-treasurer.

The annual Joint Meeting of the Wisconsin Academy of Sciences, Arts and Letters, the Wisconsin Archeological Society and the Midwest Museums Conference was held at Lawrence College, Appleton, on April 6 and 7, 1928. Members of the Wisconsin Archeological Society who offered papers were: Huron H. Smith, A. M. Fuller, J. B. McHarg, R. N. Buckstaff, S. A. Barrett, Louise P. Kellogg, G. A. West, Vetal Winn, C. E. Brown, Geo. Overton, M. K. Hulbert, T. T. Brown, G. R. Fox, C. W. Beemer, F. S. Dayton, A. O. Barton and Ira Edwards. The annual dinner was held on Friday evening at Brokaw Hall. President Wriston of Lawrence College gave an address at the dinner.

### Publications

The Logan Museum of Beloit College has published Dr. George L. Collie's very interesting monograph on "The Aurignacians and Their Culture". "This bulletin has been prepared to aid the students of the college to a better understanding of the Aurignacian people and their culture and thus to stimulate appreciation of the large and representative collection" of artifacts of the Aurignacian age now on exhibition at the Logan Museum. The latter were assembled during the museum expeditions to France and Algeria through the generous financial and other support of Dr. and Mrs. Frank G. Logan. Copies of the bulletin, which is fully illustrated, can be purchased of the Museum. We trust that every Wisconsin archeologist will want one. The explorations undertaken by Dr. Collie and Dr. Logan in the caves and sites of Europe and Africa have made it possible for Wisconsin students of archeology to study in the Logan Museum one of the finest collections of Palaeolithic and Neolithic material to be found in any museum in the United States.

The 1927 Yearbook of the Milwaukee Public Museum contains an illustrated report by W. C. McKern on "Archeological Field Work in Sheboygan and Dodge Counties". Dr. Barrett contributes several interesting papers on the Hawaiian Islands in this same bulletin.

In the Museum bulletin entitled "Ethnobotany of the Meskwaki Indians", Huron H. Smith has made a fine contribution to our knowledge of the plant lore of the Fox Indians located at Tama, Iowa.

The Wisconsin Historical Society has printed in its 1927 Proceedings a paper on "Wisconsin Historical Landmarks", by Dr. Louise P. Kellogg. In this very useful paper the Indian, pioneer and other landmarks of the state are grouped by regions. "It is largely designed to call attention to the historical sites in Wisconsin cities and along its roads". An "Index to Landmarks" adds greatly to its usefulness.

The April-June 1928 issue of the *American Anthropologist* contains among others a paper on "Cremation and Preservation of the

Dead in North America", by Edwin O. James; "The Lead Glaze Decorated Pottery of the Pueblo Region", by Walter Hough; "A Prehistoric Village Site in Greenup County, Kentucky", by W. S. Webb, and "A Peculiar Type of Stone Implement", by Julian H. Seward. Edward Conzemius contributes a paper on "Ethnographical Notes on the Black Carib". In the July-September number Ralph Linton describes the "Culture Areas in Madagascar". E. B. Delabarre has published an article on "A Prehistoric Skeleton from Grassy Island" and George Brinton Phillips one on "The Earliest Ornamental Metal Work". This issue also contains a report on "Archeological Field Work in North America During 1927". This report is made by Carl E. Guthe, chairman of the Committee on State Archeological Surveys of the Division of Anthropology and Psychology of the National Research Council. Secretary Geo. R. Fox has published the report on the meeting of the Central Section, American Anthropological Association which was held at Chicago on March 25, 1927.

In the July 1928 issue of Indian Notes of the Museum of the American Indian, Marshall H. Saville has written an interesting paper on "Ceremonial Axes from Western Mexico". Some of these are of human and animal forms. M. R. Harrington writes of "A New Archeological Field in Texas", Melvin R. Gilmore describes "The Cattail Game of Arikara Children", and Chas. O. Turbyfill an owl-shaped steatite pipe from the old Cherokee Country in North Carolina.

The Museum has also published a valuable monograph on "The Indians of Tierra del Fuego" by Dr. Samuel K. Lothrop, being the result of a three months visit to the island during the summer of 1924-25.

The Bureau of American Ethnology, Bulletin 35, consists of "Contributions to Fox Ethnology", by Truman Michelson. Under this title several interesting papers on the Fox Indians are introduced.

The American Association of Museums has printed a pamphlet report on "Contributions of Museums to Outdoor Recreation", by Laurence V. Coleman, its director.

The Wisconsin Chapter of the Friends of Our Native Landscape has issued the April-July, 1928 number of "Our Native Landscape". Franz A. Aust is the managing editor of this bulletin.

Several very interesting issues of "Arizona Old and New", the Arizona Museum Journal, have recently appeared. This is issued by the Arizona Museum, Phoenix, Arizona.

The Wisconsin Archeological Society has just published a Table of Contents of Volumes 1-20, and Volumes 1-7, New Series of The Wisconsin Archeologist, 1901-1928. This will enable members of the Society and others to order such issues as they may require to complete their files, or for other purposes. Copies of the Table may be secured from the Secretary.

### Research and Other Work

During the summer Messrs. George A. West and George R. Fox, members of the Wisconsin Archeological Society, accompanied as archeologists the McDonald-Massee expedition to the Isle Royale prehistoric Indian copper mines. Among other valuable results of the investigations of this expedition were the location of some thousands of additional copper mining pits. W. C. McKern and a field party of

the Milwaukee Museum conducted explorations of Indian mounds at Trempealeau, with good results. C. E. and T. T. Brown were engaged in field work along the Rock river and in other parts of southern Wisconsin. Dr. George L. Collie has returned to Beloit from the scene of the Logan Museum investigations in north Africa. Alonzo Pond has returned to his home at Janesville from Mongolia, Asia. He has brought with him a collection of about 12,000 ancient stone and other implements obtained in the interior of that continent as a member of the Roy Chapman Andrews Expedition. Dr. Ralph Linton formerly of the Field Museum of Natural History has joined the faculty of the University of Wisconsin and will conduct a course in anthropology. News has reached us of the death of Alvin H. Dewey, archaeologist and patron of archaeological research, of Rochester, New York. The death is also reported of Wilkin C. Beemer of Kenosha, one of the very active younger members of the Wisconsin Archeological Society. Beemer was conducting a survey of his home county for the Society. He was the young investigator who obtained the airplane photograph of the large water spirit effigy mound near Burlington, Wisconsin.

Among other visitors at the State Historical Museum, at Madison, during the summer were Dr. Carl E. Guthe, Dr. Melvin R. Gilmore, Alonzo Pond, and Dr. Bruce T. Best and Enos Kiethly, Illinois archeologists.

Robert P. Ferry, chairman of Aztalan Mound Park, has erected a boulder marker and made other welcome improvements at the state archaeological park during the year. Members of the Society and other friends who desire to contribute to the preservation of the great mound group located at Frost's Woods Wild Life Sanctuary at Madison may send their contributions to Mr. Albert O. Barton, secretary, at Madison. Every dollar given will help save to save to posterity one of the most interesting groups of prehistoric earthworks about the Madison lakes.

At the close of the 1928 season all members of the Wisconsin Archeological Society are requested to file with the Secretary reports of any field work engaged in, or archeological discoveries, by themselves. This in order also that a complete report may be made to the Executive Board at the beginning of the year 1929.







# The Wisconsin Archeologist

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Vol. 8

January, 1929  
NEW SERIES

No. 2

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## EARTHENWARE VESSELS THE STOCKADED VILLAGE AZTALAN MOUND PARK



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

**Wisconsin Archeological Society**  
**Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and  
preservation of Wisconsin antiquities

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**AZTALAN MOUND PARK**—R. P. Ferry, M. G. Troxell, and W. W. Gilman.

**PUBLICITY**—A. O. Barton, Mrs. W. F. Bauchle, M. C. Richter, E. R. McIntyre and R. K. Coe.

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

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## MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$ .50

Institutional Members, \$1.50

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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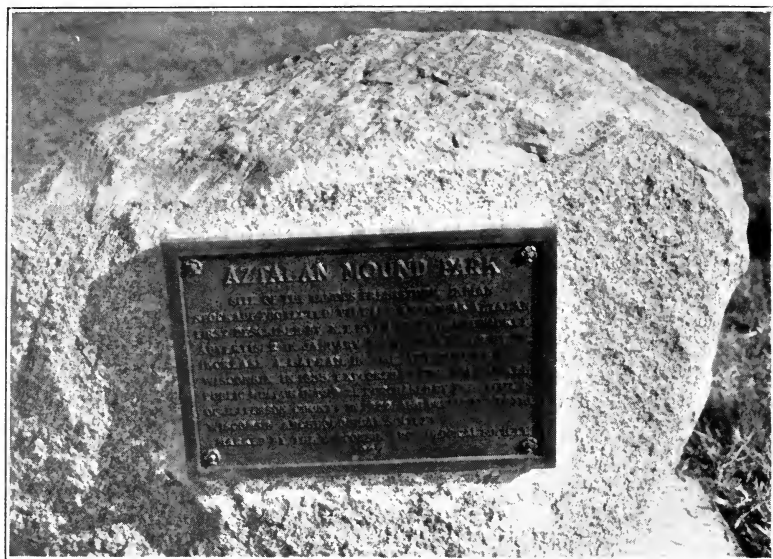
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TABLET AT AZTALAN MOUND PARK

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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Vol. 8

MADISON, WIS., JANUARY, 1929  
New Series

No. 2

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## THE STORY OF AZTALAN

George A. West

The "ancient city of Aztalan" located but 45 miles directly west of Milwaukee has long been known and often referred to as one of the wonders of the western world. When discovered, it certainly was the most extensive work of antiquity within the state of Wisconsin. The good judgment of its founders is indicated by the beautiful location chosen, with its eastern exposure and gentle slope to the placid stream now known as the Crawfish River. The highlands along its western border afforded an opportunity to these early Americans of seeing the sunrise in all its glory, they probably being worshipers of that orbit.

These works were discovered by N. F. Hyer in October, 1836 and a hasty survey made by him in January, 1837. He later published a brief description of the enclosure, illustrated by a rude wood-cut, in the "Milwaukee Advertiser", one of Wisconsin's earliest newspapers. At this time there were no white settlements in the neighborhood.

The name "Aztalan" was given to this place by Mr. Hyer because, according to Humboldt, the Axtecs of Mexico had a tradition that their ancestors came from a country to the North, called "Aztalan," which in Mexican means "near water". Hence the natural inference that the country about the Great Lakes was the ancient residence of the Aztec, which of course in the light of our present knowledge is not considered seriously.

A paper by a Mr. Taylor,\* who obtained the information from a friend who had made a visit to the works, accompanied by Mr. Hyer, was published in "Sillman's American Journal", added but little to the knowledge of these ruins.

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\* Stephen Taylor.

Messrs. Squier and Davis published a condensed report in the first volume of the "Smithsonian Contributions", with many suggestions which have proved to be merely conjectures.

In 1838, the famous Edward Everett, then governor of Connecticut, besought the President of the United States to withdraw Aztalan from sale as a piece of public land, but in vain; it was sold at \$1.25 per acre and \$22.00 added to the Treasury. Then the settlers started plowing and sowing turnips on the mounds. About this time, some trade ornaments of silver were found, resulting in a mad rush of treasure hunters, who trenched the mounds and walls of the enclosure in dozens of places.

In 1850 Dr. Increase A. Lapham, made a careful survey of Aztalan and of the earthworks in the vicinity, and in 1855 there appeared a finely illustrated article on the enclosure in his "Antiquities of Wisconsin".

This interesting enclosure, now almost obliterated by many years of cultivation, is in the shape of an irregular parallelogram, reported to contain  $17\frac{2}{3}$  acres, surrounded on three sides by an artificial ridge. The length of the north wall Lapham gives as 631 feet, the west as 1419 and the south as 700. The Crawfish River forms the fourth side, on the east. Many exaggerated statements respecting the brick walls have been made, all of which have little foundation in truth. The wall was 22 feet wide, from one to five feet in height and enlarged on the outside at almost regular distances by mounds, often referred to as "buttresses or bastions". These projections were from 61 to 95 feet apart, about 40 feet in diameter and from two to five feet high. On the inner side of the wall opposite many of these mounds were found the remains of a sloping way by which the wall was ascended from within. Near the southwest angle of the great enclosure were two outworks constructed in the same manner. The corners of these walls are not rectangular and the embankment or ridge is not straight. The earth of which the ridge was made was doubtless scraped up from the surface of the adjoining ground.

The alleged "walls of brick" have given to Aztalan a great deal of undeserved notoriety. It is interesting to note



the fondness with which many persons still cling to this absurd bit of fiction, long exploded.

There is in fact little foundation for calling these "brick walls". Clay mixed with grass seems to have been placed on the surface of portions of these ridges and treated by fire, probably to protect them against erosion and to furnish a solid surface on which the natives might travel regardless of the weather. Fragments of these so-called briquets are still scattered about, in the vicinity of these ruins. With these briquets were found fragments of broken pottery, bits of charcoal and pieces of partly burned human bones, which led Dr. Lapham to suggest that possibly the clay mixed with straw was employed as a covering for sacrifices which were burned on top of the walls. Fowke asserts that they were simply the remains of the walls and roofs of mud-plastered huts which have been destroyed by fire. Similar remains of burned clay occur in the low flat mounds of Missouri, Arkansas and Mississippi.

Within the wall, near the northwest corner, was a rectangular pyramidal mound, its level top measuring 60 by 65 feet. At its southeast corner was a sloping ascent. This mound occupied the summit of a ridge and rose but little, if any, above the top of the adjacent wall. It had been partly destroyed, as Lapham stated, by persons curious in antiquarian research, and by one who, it is said, had been supernaturally convinced that a large amount of money was deposited in it.

At the southwest corner, also within the wall, was a square mound, the level area on its top being 53 feet wide on the west side. It probably was originally square. This was a terraced mound with two levels and a sloping way from its top toward the east and was the highest earth-work within the wall, which it overlooked. The tops of these mounds possibly supported structures of perishable materials.

From the eastern side of the last mentioned mound, a ridge with a number of projections, similar to those of the wall of the enclosure, extended about two-thirds of the way to the river, where it angled in a northwesterly direction, being broken near its middle. Not far from and east of

this embankment was a second parallel ridge with projections distributed at various distances along its sides.

A short distance west of the enclosure and extending along the front of the wall was a long mound of a familiar tapering effigy type, an irregular line of conical mounds, and a single linear mound. Several hundred feet northwest of the enclosure, on the higher ground, was a double line of seventy-four conical mounds of different sizes, of which but ten remain.

Opposite, on the east bank of the river, is another, but much smaller enclosure and with it a considerable number of mounds, one of them a 600-foot panther type effigy. These ancient earthworks were doubtless allied to the large works on the west bank of the river.

### EARLY EXCAVATIONS

Dr. Lapham's report indicates that he did some excavating at Aztalan,—that a shaft was sunk in the sixth mound from the northwest angle of the outer wall, and the only finds were a fragment of galena and another of iron ore, used as red paint. There was no burned clay on this mound, which was built of a yellowish sandy loam, taken from the sub-soil of adjacent grounds. Two smaller mounds in the interior were also opened by him without results of any interest.

The mound or buttress at the northwest angle of the enclosure was excavated with interesting results. Fragments of pottery were encountered just below the sod; charcoal, half-burned human bones and numerous masses of burned clay were met with for the first twelve inches only; at deeper levels fragments of clay, charcoal and fresh water shells, badly decayed, were observed. Still deeper a cavity was found, nearly filled with loose earth, in which were indications of bones, in a bad state of preservation, and charcoal. This was divided below into two other cylindrical cavities, filled with some loose materials. He believed that two bodies had undoubtedly been buried here in a sitting posture.

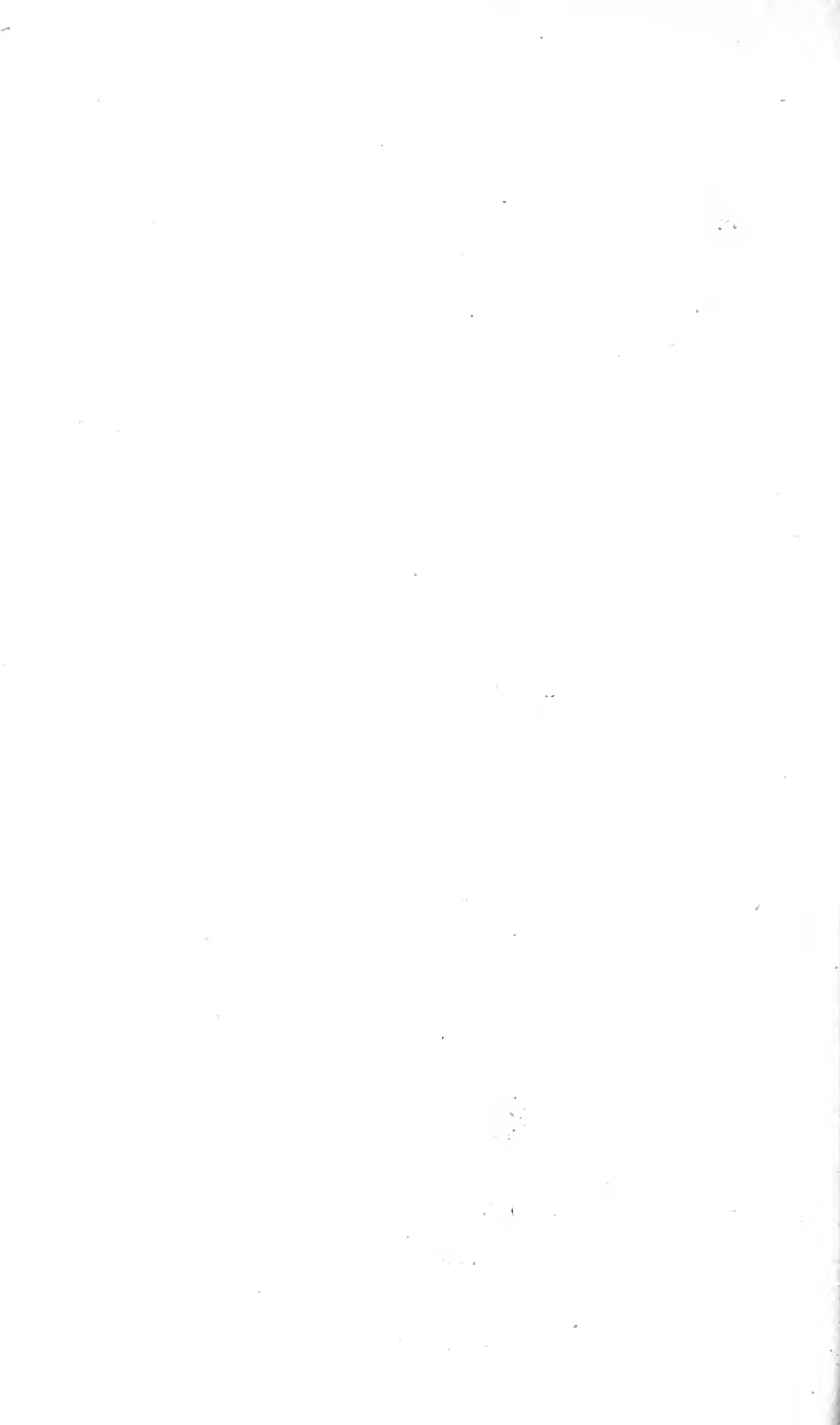
Lapham examined several of the tumuli, exterior to the enclosure, but with no very important results. The third from the north end of the long row, as appears on his plat,



MOUND BURIAL AT AZTALAN

Skeleton of a woman showing belts of shell beads

Plate 1



four feet high and thirty feet in diameter, was penetrated to the bottom where a decayed post was encountered.

While working at Aztalan, he was also informed that, "upon opening one of the larger mounds, some years ago, the remains of a skeleton were found, enclosed with a rude stone wall plastered with clay and covered with a sort of inverted vase of the same materials".

Mr. J. C. Brayton of Aztalan, in a letter to Dr. Lapham, said: "Several feet below the surface of the square mound, near the northwest corner of the enclosure, was found what appeared to be the remains of cloth, apparently enveloping a portion of a human skeleton. Its texture was open, like the coarsest linen fabric, but the threads were so entirely rotten as to make it quite uncertain as to what material they were made". Sillman's Journal reported the finding of a piece of cloth at Aztalan and which was sent by Dr. King to the National Institute of Washington, which is possibly the same specimen referred to by Mr. Brayton.

As Dr. Lapham reported, many artifacts as well as "numerous fragments of earthenware have been taken from the mounds at different times; portions of broken vessels, varying in size, (judging by the curve of the fragments), from a few inches to three feet across the rim". Mr. Brayton is authority for the statement that in one instance, two loads of broken pots, uncovered by the plow, were used for filling in mud-holes in the highway.

In the study of the American Indians, ethnologists have found nothing more significant of aboriginal culture than the designs and patterns used in aboriginal pottery decoration. Unfortunately, Dr. Lapham failed to appreciate this as he furnished no descriptions of the potsherds he so plentifully discovered at Aztalan.

The works here are often referred to in such fanciful terms as "sacred enclosure", "temple mounds", and "sacrificial mounds", all tending to establish a belief that their authors were not ordinary Indians, but religious fanatics who worshipped the sun and offered human beings in sacrifice to this luminary. In a concluding paragraph of his description of these works, Dr. Lapham said:

"We may suppose it to have been a place of worship; the pyramidal mounds being the places of sacrifice like the

teocalli of Mexico. From its isolated situation, there being no similar structure for a great distance in any direction, we may conjecture that this was a kind of Mēcca, to which a periodical pilgrimage was prescribed by their religion. There may have been the annual feasts and sacrifices of a whole nation. Thousands of persons from remote locations may have engaged in mid-night ceremonies conducted by priests. The temple, lighted by fires kindled on the great pyramids and at every projection on the walls, on such occasions would have presented an imposing spectacle, well calculated to impress the minds of the people with awe and solemnity".

Peet said: "There came a sense of awe as we looked about. It was easy to imagine that the place was once given to religious assemblies, and that the platforms or pyramids were covered with temples and smoked with sacrificial fires, and to realize that the place was very sacred to the people".

The flat-topped mounds, located within the enclosure, and the finding by Lapham, while excavating, of ashes mingled with charcoal and occasional fragments of human bones probably caused more speculation as to the religious significance of these works than anything else. That cannibalism was not an uncommon practice among the early Wisconsin Indians is shown by the accounts of early writers, and the finding of human bones showing the action of fire may well be considered as the remains of cannibal feasts.

It has also been suggested that this enclosure might have been occupied by a colony of Mexicans, such colonies being sent out by those people at an early day.

However, practically every theory advanced thus far as to the uses and authorship of these interesting remains was based almost wholly on surface indications.

### RECENT EXPLORATION

It was not until the spring of 1919 that the Milwaukee Public Museum, appreciating the educational value of modern scientific research and the necessity of acting quickly lest the plow should forever obliterate all remaining evidences of the prehistoric life and culture of a people that

may, for hundreds of years, have occupied this site, sent its Director, Dr. S. A. Barrett, with a number of his assistants, to seek beneath the surface for information that might solve the problem that has ever since its discovery caused many wild theories to be advanced. It required two summers' work by the expedition to thoroughly excavate these ancient works.

Summarizing the results, which were most gratifying: Work was commenced on the west bank of the river. Discovery was made that a low embankment, several hundred feet in length and from four to ten feet in depth, along the river bank, extending back a considerable distance, was in reality a refuse heap, probably originally low ground, where was dumped kitchen refuse and other discards, from which were obtained many interesting objects. Among them were potsherds, stone implements and wooden posts, cut with primitive tools.

The various walls, including the enclosure, were excavated, revealing post holes close together, indicating that the site was a stockaded fort. Within the enclosure was discovered a series of post holes, in which were undoubtedly set posts for defensive purposes. Other post holes were found that evidently had been used in the construction of buildings.

On the northeast side was discovered an entrance way, leading through a very narrow alley, bordered on each side by post holes, with twists and turns, constituting a trap, making ingress for an enemy very difficult. This gateway was defended on each side by bastions, around the outer edge of which were palisades, as post holes indicated. In fact, each of the projections of the outer wall was doubtless used as an outlook and fortified by trunks of trees set into the ground.

Not far from the entrance and toward the river, the foundations of a number of dwellings were discovered. The excavations produced many implements and ornaments in stone, bone and copper, deer antlers and thousands of pearl shells or mussels, they usually being perforated and probably used as hoes. Human remains were also encountered as well as coarsely woven fabrics, but the most important discovery was the large number of potsherds, the quality

and decoration being unique. Many of these were shell-tempered, equipped with angular shoulders and decorated below the rim by means of incised spirals, highly polished, beautifully shaped, representing the finest pottery made by the ancient Wisconsin Indians, and probably to be classed with the best ware of any American Indians, north of Mexico. It is typical of the Aztalan site. Other sherds were decorated with incised scrolls and geometrical arrangements of incised lines. One fine specimen, a unique find in the Wisconsin area, is a pottery ladle of hard, shell-tempered, polished ware, shaped to represent a gourd.

Excavations of Aztalan have resulted in the discovery of four distinct cultures, its earliest inhabitants having the most advanced.

They were evidently a sedentary people,—pottery makers and weavers, equal to any of the southeastern tribes in high artistic attainments and military tactics.

Another very interesting find was a large number of beautiful arrow-heads, containing three square notches, the third being at the base. They are rarely found elsewhere in Wisconsin, never in Ohio and the northeastern part of the country, but are encountered in considerable numbers in the South and East. These and other finds are indicative of the southeast culture.

In one of the large mounds on the ridge near the highway was discovered the remains of a post, which originally probably extended far above the mound and was used for ceremonial purposes. An adjoining mound contained nothing excepting a peculiarly shaped boulder, which probably had some religious significance.

In another mound nearby was found a skeleton of a young woman, together with thousands of beads made from the pearl shells or mussels found in the rivers of southwestern Wisconsin. These beads seem to have been attached to belts of some material, one of which was wound several times around the neck, another around the body and a third around the ankles.

While the Winnebago were the last to occupy this site, they disclaimed any knowledge of its origin, which could be expected from the fact that other cultures were discovered, by excavation, below their own. All evidence at hand leads



to the conclusion that the founders of Aztalan came from the South or Southeast, and that for some unknown reason their advance into Wisconsin territory seems to have been extremely limited and their high state of culture not adopted by the wilder tribes of this district. Who they were is still an unsettled problem.

### AZTALAN MOUND PARK

For sixty years the plow has kept steadily burying deeper the secrets of this "City of Mystery". In 1905 the Landmarks Committee of Lake Mills, the State Federation of Women's Clubs and the Wisconsin Archeological Society made a determined effort to interest the public and our State legislature in the preservation of this site by securing it for state park purposes. Much publicity was given the matter, which was met with a deaf ear.

Again in 1920, a concerted movement was carried on all over the state by archeological, historical, scientific and memorial societies, led by the Landmarks Committee of the State Historical Society and other organizations, under the slogan, "Save Aztalan", to urge the acquisition of the property as a public park to be conducted by the Rural Planning Committee of Jefferson County.

Dr. S. A. Barrett and the late P. V. Lawson gave illustrated lectures throughout Jefferson County, in order to stimulate the project, resulting in the school children of that county contributing a substantial part of the purchase price of about three acres of the tract, containing a few of the outlying mounds in what is now Aztalan Mound Park. The County Board supplied the necessary balance of the funds and presented the site to the Wisconsin Archeological Society.

On October 20, 1928, a meeting of the Wisconsin Archeological Society and others fully interested in saving as much as possible of this, Wisconsin's most famous ruin, met at Aztalan for the unveiling of a tablet in commemoration of its departed glory. The bronze plate, attached to a large granite boulder, bears the following inscription:

### AZTALAN MOUND PARK

Site of the famous prehistoric Indian stockade-protected village known as Aztalan. First described by N. F. Hyer, in the Milwaukee Advertiser in January, 1837. Described by Dr. Increase A. Lapham in the "Antiquities of Wisconsin" in 1855. Explored by the Milwaukee Public Museum in 1919-21. Purchased by the citizens of Jefferson County in 1922, and presented to the Wisconsin Archeological Society. Marked by the Wisconsin Archeological Society 1927.

In recognition of the devoted services of Mr. Robert P. Ferry, Chairman of the Park Committee, in improving and protecting this sacred spot, his daughter, Miss Elizabeth Ferry and her friend, Miss Elizabeth Tillotson, were accorded the honor of unveiling this marker. Appropriate addresses were made on this occasion by Miss Louise Phelps Kellogg of the Wisconsin State Historical Society, on "Indian stockade-protected villages"; by Mr. John Jeske, of the Milwaukee Public Museum, describing the excavations by the Museum, and by Geo. A. West, of Milwaukee, who gave both a historical account of the site and the unveiling address.

Sadly, with feelings difficult of utterance, our party wandered back and forth in the chilling wind, over the long neglected wreck of this once most remarkable and extensive ancient earthen structure of our state. Realizing its priceless value from an educational, historical, and scenic standpoint, we could not help but feel that the needless destruction of so rare an example of prehistoric remains is a lasting disgrace to our state and a blot on the career of our statesmen of the past, who had the opportunity to preserve it at a trifling cost and hand it down as an heirloom to coming generations of Wisconsin people, who will more appreciate it than we ourselves do.

Pleased we should be that the policy of our state officers and law makers has changed. The securing of public parks in upper Wisconsin is highly commendable, but thus far the southern part of our state, in this respect, has not received due consideration. Some place for recreation within a short drive would accomodate the hundreds of thousands who

cannot afford or spare the time to go long distances for a day's outing. Such a park should be provided and the site of Ancient Aztalan is the most logical and desirable for this purpose and the additional land required should be purchased and the enclosure restored by the State of Wisconsin without unnecessary delay.

## AZTALAN LITERATURE

In the course of years the Wisconsin Archeological Society has published a number of papers and articles on the subject of the character and preservation of the Aztalan enclosure. The first of these appears as a chapter in a monograph, "The Indian Authorship of Wisconsin Antiquities", published in 1907, its author being Mr. George A. West. Accompanying this is a reproduction of Dr. Lapham's map of Aztalan. Other papers published since that time are "The Pilgrimage to Aztalan," "The Ancient City of Aztalan", by Publius V. Lawson; "A Visit to Aztalan in 1838", by William T. Sterling; "Prehistoric Cannibalism in America", by A. N. Somers; and "Aztalan Conveyed to Wisconsin Archeological Park System". Dr. Barrett's report on the investigations conducted by the Milwaukee Public museum has not yet appeared.

Recent improvements made at Aztalan Mound Park by Chairman Robert P. Ferry consist of the enclosing of the park with a substantial fence, the planting of trees, the erection of roadside and other signs directing visitors to the site, the erection of the boulder marker, and the erection of a shelter with a permanent map and literature case.

## THE STOCKADED VILLAGE

Louise Phelps Kellogg

Nearly all the discoverers and first settlers of North America mention the palisaded village as a feature of Indian life. When Jacques Cartier in 1535 advanced up the St. Lawrence to the site of Montreal he found there the Huron village of Hochelaga, containing more than a thousand people, which was surrounded by a wooden palisade in triple rows. This palisade was circular; and on its inner

side ran a gallery on which the defenders stood. A picture of this village appears in the collection of voyages by the Italian, Ramusio, with an especial diagram of the palisade. The three tiers of tree trunks met at the top in the form of a pyramid; it was firmly bound together and of a very strong construction.<sup>1</sup>

When the French in the early years of the seventeenth century returned to settle the St. Lawrence Valley, the Hurons had removed to western Ontario, south of Georgian Bay. There they had six fortified villages, with wooden stakes in triple ranks interlaced, lined within with large pieces of bark. These stockades were from eight to fifteen or more feet high and reinforced underneath with great trees laid on short, strong forks of tree trunks.<sup>2</sup> Notwithstanding these strong fortifications, when in 1648-9 the Iroquois raided the country of the Hurons they were able to capture these stockades. One had a palisade of pine trees fifteen to sixteen feet high with a deep ditch around it; the Iroquois fell upon it and undermined it with blows of their hatchets; thus they made several breaches through which they rushed and set on fire the cabins of their victims.<sup>3</sup>

The Iroquois also had stockaded villages; one of their earliest Dutch visitors writes: "This [Onondaga] castle is surrounded by three rows of palisades, six or seven feet high so thick it is a wonder they could do it."<sup>4</sup> They ran a trench several feet deep around five or six acres of land, threw up the ground upon the inside, then set a continuous row of stakes or palisades in this bank of earth, fixing them at such an angle that they inclined over the trench. Sometimes a village was surrounded by a double, triple, or even quadruple row of palisades. Within were the cabins and without the cultivated fields.<sup>5</sup>

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<sup>1</sup> *Jacques Cartier's Voyages*, (Biggar ed. Ottawa, 1924), 144-148, 154.

<sup>2</sup> Samuel de Champlain, *Oeuvres* (Quebec, 1870) iv, 73; Sabriel Sagard: *Theodate Le Grande Voyage du Pays des Huron* (Paris, 1865), 115.

<sup>3</sup> *Jesuit Relations & Allied Documents* (Thwaites ed. Cleveland, 1896-1901), xxxiv, 14, 123, 125.

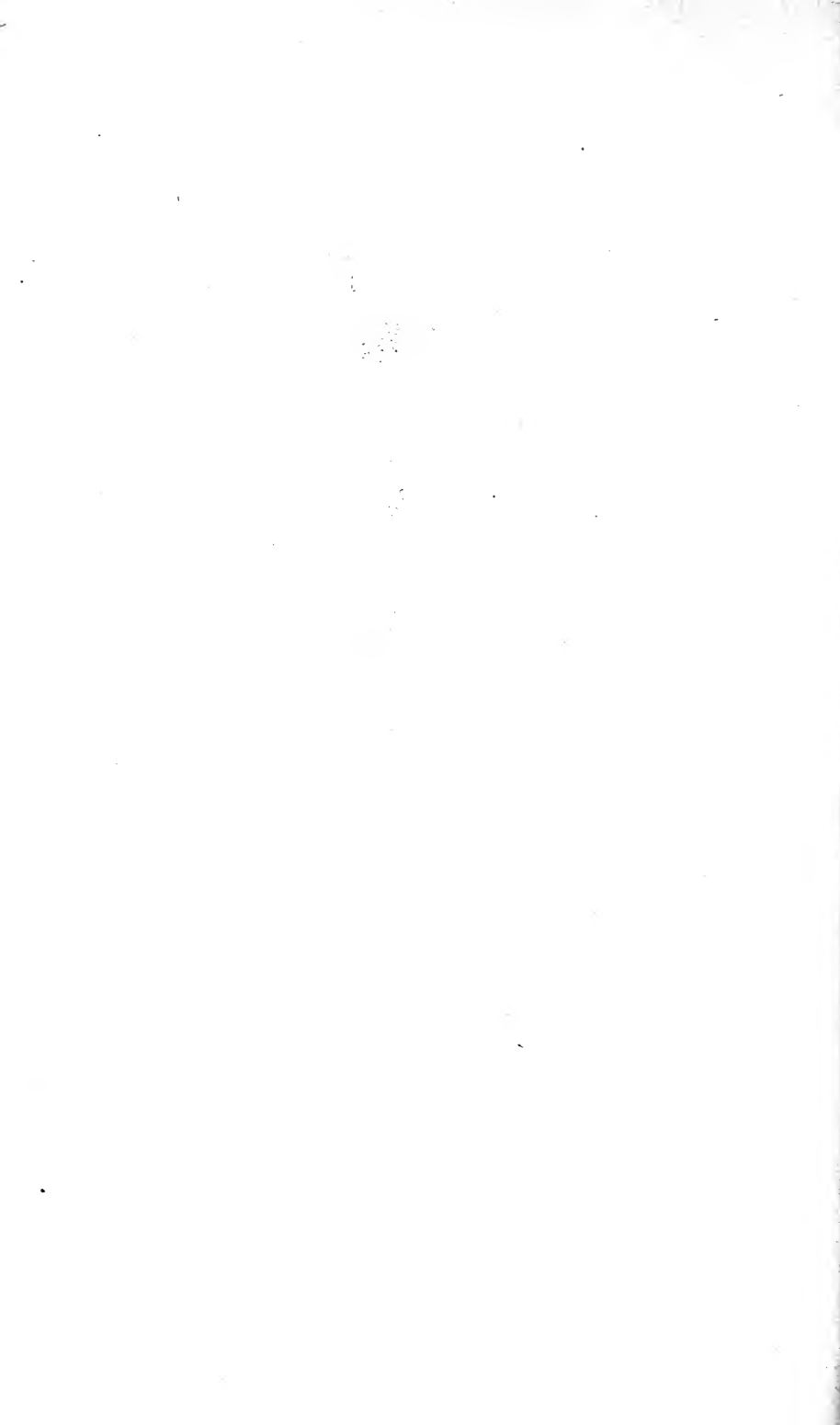
<sup>4</sup> Arent Van Curlaer's journal in *American Historical Association Report*, 1905, 90.

<sup>5</sup> Lewis Morgan, *League of the Iroquois*, (N. Y. 1901) I, 305-306.



MEETING OF MEMBERS OF THE WISCONSIN ARCHEOLOGICAL SOCIETY  
AT AZTALAN MOUND PARK, OCTOBER 20, 1928

Plate 2



Champlain gives us two illustrations of the stockaded villages of the Iroquois: in his exploration of 1609 at the severe encounter he had with the Mohawk not far from Lake Champlain, the village shown in his picture was surrounded by a stockade hexagonal in shape strongly interwoven with binding withes.<sup>6</sup> Again in 1615 when the explorer accompanied a party of Hurons, which attacked an Oneida village, Champlain thus describes the enemies' stronghold: "The village was enclosed by four good palisades, which were made of great pieces of wood interlaced with each other with an opening of not more than one-half a foot between two; it was thirty feet high with galleries around the inside; there was a pond near and gutters ran between each pair of palisades." Champlain's party was not able to storm this strong fort even with the aid of firearms and a moveable tower, which the besiegers tried to push up to the walls. The picture Champlain gave shows that this formidable palisade was six-sided.<sup>7</sup> A still older stockade was reported among the Seneca, which was rectangular in shape and the outline of which could be traced as late as the nineteenth century.<sup>8</sup> Galinée in 1669 describes a Seneca village "with palisades thirteen feet high, fastened together at the top and planted in the ground, with great piles of wood the height of a man behind these palisades, the curtains being not otherwise flanked merely a simple enclosure, *perfectly square*." As a rule only the older Iroquois villages were fortified. As the confederacy spread its conquests in every direction and consolidated its power, it no longer took the trouble to stockade its villages.<sup>9</sup>

The Algonquian Indians of the Atlantic seaboard, who were early met by European discoverers and explorers, had the custom of planting stakes around their villages. In Virginia we have these stockades pictured in the drawings

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<sup>6</sup> *Champlain's Voyages* (Biggar ed., Toronto, 1922), ii, 134.

<sup>7</sup> *Champlain's Voyages* (Grant ed., N. Y. 1907), 291-295.

<sup>8</sup> David I. Bushnell. "Native Villages and Villages Sites east of the Mississippi;" Bureau of American Ethnology, *Bulletin* 69. The writer acknowledges her debt to this treatise, although her investigations were conducted independently.

<sup>9</sup> Louise P. Kellogg, *Early Narratives of the Northwest*, (N. Y. 1917), 180. Morgan, *op. cit.* I, 306.

of John White, first English artist of America.<sup>10</sup> "Their Fortifications," writes one of the earliest historians of the colony, "consist only of a palisado, of about ten to twelve feet high, and when they would make themselves very safe they treble the pale. They often encompass their whole town; but for the most part only their king's houses and as many dwellings as they judge sufficient to harbor all their people when an enemy comes against them."

Hariot, who accompanied Sir Walter's colony to Virginia in 1585 wrote: "If they [the villages] be walled it is only done with barks of trees made fast to stakes or else with poles only fixed upright and close to one another."

Coming farther north we find that the Algonquian Indian village on Manhattan Island was "a castle or palisaded village." Most of these Algonquian stockades were circular; but we have one picture of a rectangular stockade built by the Mohican Indians, which was somewhere within the limits of New Netherland. This was so regular in form that it may have been rectified by the artist; it is, however, interesting as an example of this shape on the eastern borders of North America.

It is well known that the Pilgrims and Puritans of New England encountered few Indians because of a recent pestilence; some of the earlier visitors to this coast inform us of stockaded towns. Champlain found one on Saco River, which was a permanent village surrounded by palisades formed of rather large trees placed one against another and into this they retire when their enemies come to make war against them."<sup>11</sup>

A Jesuit missionary to the Abnaki wrote that "their cabins were ranged almost like houses in cities, an enclosure of high and closely set stakes formed a sort of a wall which protected them from the incursions of their enemies."<sup>12</sup>

Turning now to the Northwest, the region with which we are most familiar, we find numerous references to

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<sup>10</sup> White was a member of Raleigh's colony on Roanoke Island; his drawings were engraved and published by the German collector of voyages, Theodor de Bry. See reproduction of a circular village palisade in Conway W. Sams, *Conquest of Virginia: Forest Primeval* (N. Y. 1916), 128, 134.

<sup>11</sup> *Champlain's Voyages* (Biggar, ed.), i, 329.

<sup>12</sup> *Jesuit Relations* (Thwaites ed), lxxvii, 135.



formidable palisades around the settled villages. The Hurons who fled from the raids of the Iroquois made their way in considerable numbers into Wisconsin, accompanied by the Ottawa from the eastern shore of Georgian Bay and from Manitolin Island. At first both groups of refugees lived upon the islands of Green Bay, but hearing rumors of the approach of an Iroquois band, the fugitives retired to the mainland and spent two years erecting a fortification, which proved impregnable. The Iroquois finally in 1653 arrived before it, but spent with their journey they made no attempt to attack, and started negotiations for a peace. The envoys were drawn over the palisade with ropes, and after some negotiations asked for food. This the besieged party poisoned and threw over the ramparts. The enemy retreated, vanquished by the wiles of the defenders and their heavy palisade.<sup>13</sup>

The Hurons and Ottawa, none the less, were panic stricken and continued their flight into the thickest of the forests of northern Wisconsin. The Ottawa finally built a village on Lac Court Oreilles, which Radisson notes was without palisades;<sup>14</sup> evidently these fugitives thought the distance and the depth of the forest would protect them, without the heavy labor of erecting a stockade. A half-century later, however, when dwelling on the straits of Mackinac they protected their permanent villages with stockades which Lahontan describes and pictures.<sup>15</sup> The commandant of 1694-97, Sieur de Cadillac, thus describes Mackinac: "These forts [of the Indians] are made of stakes. Those of the outer row are as thick as one's thigh, and about thirty feet high; the second row inside is a full foot from the first, and leans over at the top to support and prop it; the third row is four feet from the second one, and consists of stakes 3½ feet in diameter standing 15 or 16 feet out of the ground. Now in this row no space is left between the stakes; on the contrary

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<sup>13</sup> *Wis. Hist. Colls.* xvi, 7-13; Louise P. Kellogg, *French Régime in Wisconsin and the Northwest* (Madison, 1925), 96-98.

<sup>14</sup> *Wis. Hist. Colls.*, xi, 94.

<sup>15</sup> *Lahontan's Voyages to North America* (Thwaites ed. Chicago, 1905), 417. Lahontan is in this passage speaking in general, but he was familiar with the Mackinac villages and portrays them as palisaded on his map. *Wis. Hist. Colls.* xvi, 136.

they are driven as closely together as possible, and loop holes are cut at intervals. In the first two rows there is a space of about 6 pounces [inches] between the stakes, and by this means the first and second rows do not prevent the enemy from being discovered; but there are neither curtains nor bastions, and, properly speaking, it is a mere fence."<sup>16</sup> Yet one must conclude it was a fence or fortification of great strength, and must have impressed all the tribesmen of the western country.

Whether these stockaded villages of the Hurons and Ottawa at Mackinac were copied by the Algonquians of Wisconsin is not certain; yet there are evidences that Wisconsin villages had some sort of protective stockades. The Jesuits speak of "forts" both among the Outagamie on Wolf River and for the Miami-Mascouten on the upper Fox; a Seminary missionary of 1698 mentions the village on Milwaukee River as "the fort of Milouakik."<sup>17</sup> On the other hand neither Marquette, La Salle, nor Tonty mention any palisaded villages in the Mississippi Valley, and it seems quite evident that the Illinois had no stockades in the seventeenth century, when attacked by the Iroquois. By the middle of the eighteenth century, however, they had learned to fortify their villages against the attacks of the Foxes.<sup>18</sup>

At the time of the Fox Wars in the first decades of the eighteenth century, we have many evidences of stockaded forts and villages. Mackinac was abandoned by the Hurons and Ottawa in 1700 and their forts were rebuilt at Detroit and quickly surrounded by a double row of palisades with good gates.<sup>19</sup> Then when the Foxes at the invitation of the French commandant removed to the neighborhood of Detroit they also built fortifications, within which in 1712 the first siege of the Fox Wars occurred.<sup>20</sup>

The few Foxes who were left after this disastrous event fled back to Wisconsin, and there with their com-

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<sup>16</sup> *Wis. Hist. Colls.*, xvi, 352-353.

<sup>17</sup> Kellogg, *Early Narratives*, 153, 155, 345.

<sup>18</sup> Bushnell, *Villages and Village Sites*, 40.

<sup>19</sup> *Wis. Hist. Colls.*, xvi, 368, 369.

<sup>20</sup> *Ibid.*, 274, 278, 284, 293.

rades built on the banks of Lake Butte des Morts a formidable fort composed of triple oak stakes with curtains at each corner.<sup>21</sup> There in 1716 they were besieged by a French army, which advanced against this fort in regular European style, planning mines and other ways of reducing it. A truce, however, was made before the fort surrendered and the Foxes were left to occupy their stockade for a time in peace.

Lulled to security by French promises the Foxes by 1727 had a village on Fox River without a palisade, and when the next year the second French expedition mounted that stream their enemies fled without standing siege.<sup>22</sup> Taught their lesson by this surprise in 1730 they had two strong forts and the Winnebago had one on an island not far from Appleton.<sup>23</sup> Then in the autumn of that year, attempting to take refuge among the Iroquois, the Foxes turned at bay and built in Illinois, fifty miles or more south of Lake Michigan, a stockade in which they stood siege for twenty-three days, and left its protection only when hunger forced a sortie.<sup>24</sup>

At a later date in this same struggle the Foxes built near the shore of Lake Pistakee, on Fox River of Illinois, "a stockade fort with an earthern rampart inside the height of a man, with a water-tower or block house above it." And in 1734 they were fortified on the banks of the Wapsipinicon River in Iowa.<sup>25</sup>

The Sauk Indians also had in 1732<sup>1734</sup> a palisaded village on the site of modern Green Bay, opposite the French post on the west side of the stream; at the gate of this village the French commandant was slain. This site of this Sauk stockade is now marked with a tablet placed in 1918 on the corner of the Beaumont hotel.<sup>26</sup>

After the close of the Fox Wars about 1738 we hear no more of stockades around the villages of Wisconsin Indians. For that reason it seems to have been forgotten that whenever serious danger threatened, the villagers

<sup>21</sup> *Wis. Hist. Colls.*, v, 79, 82.

<sup>22</sup> *Wis. Hist. Colls.*, xvii, 23, 100, 109, 129.

<sup>23</sup> *Ibid*, 88-99.

<sup>24</sup> *Ibid*, 111, 115.

<sup>25</sup> *Ibid*, 178, 208, 216, 218.

<sup>26</sup> *Wis. Hist. Soc. Proceedings*, 1927, 74.

had to resort to palisades. Yet no fact seems better established by a survey of early literature.

There is one description by a writer of 1674 of a fortified village in east Tennessee, probably of Cherokee origin, that commands attention because of its evident similarity to the remains at Aztalan. "This towne is seated on ye river side, having ye clefts of ye river on ye one side being very high for its defense, the other three sides trees of two foot over, [in diameter] pitched on end, twelve foot high, and on ye tops scaffolds placed with parrapits to defend the walls and offend their enemies which men stand on to fight . . . this forte is four square; 300 paces over and ye houses set in streets."<sup>27</sup> Some such village must have existed at the site of Aztalan in prehistoric times, whether marking the last stand of a more civilized people who had made their way hither from the south along the Mississippi and Rock rivers,<sup>28</sup> or whether the remains of a village built by the ancestors of our well-known Wisconsin Indians at some time of stress and danger. Here was gathered a considerable population, without the walls were the watch towers and tribal emblems. Within the stockade a busy scene was enacted, food was gathered and prepared for scores of people, refuse heaps piled up, in all probability the usual incidents of savage life continued,—courtship, marriage, birth, death, ceremonial observances, feasts, dances, and orgies. Yet all the time the watchers on the walls were vigilant, along the parapets they paced, with keen eyes they watched the distance, their cries of alarm or their assurances of safety aroused or lulled the villagers. Within the stockaded village was a reasoned safety and here a tribal group abode in peace.

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<sup>27</sup> C. W. Alvord and L. Bidgood, *First Explorations of the Trans-Allegheny Region* (Cleveland, 1912) 213.

<sup>28</sup> Paul Radin, *The Story of the American Indian*. (New York, 1927), 198.

THE USE OF EARTHENWARE VESSELS BY THE  
OLD NORTHWEST INDIANS

Charles E. Brown

All of the dozen or more Indian tribes whom the French encountered in Wisconsin and adjoining states were makers and users of earthenware vessels. Some, if not all, also employed in their domestic activities vessels made of bark, wood and shell. Frequent mention is made in the historical records of that period of the use of earthenware by the different tribes. Unfortunately these references to the ceramic art of the natives are all too brief. Of the source of the clay or the exact manner of manufacturing the clay pots very little is said. The testimony of the early village sites is that pottery making must have been going on in nearly all of them.

Pierre Esprit, sieur d'Radisson, mentions that the Hurons and Ottawa journeyed to Lake Winnebago to obtain from the Indians located there "light earthen pots, girdles made of goat's hair and small sea shells."\* Of the Beef Sioux he says: "Their drums weare earthen potts full of watter, covered with staggs-skin. The sticks like hammers for ye purpose." \*Father Marquette mentions of the Illinois that they "cook in great earthen jars which are very well made. They also have plates of baked earth which they use in various ways." \*Father Allouez, however, mentions of the Outagami (Fox), Miami and Mascouten gathered at Green Bay that they were "unusually barbarous, and do not make even a bark dish or a laddle; they commonly use sea shells." This statement is difficult to understand since all of these tribes were potters in their home regions.\*

Nicolas Perrot says of the Winnebago: "In former times, the Puans were the masters of this bay (Green Bay) and of a great extent of adjoining country. This nation was a very populous one, very redoubtable, and spared no one. If any stranger came among them he was cooked in their kettles." He accuses them of having slain

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\* Wis. Hist. Colls., X-296; XI-92.

\* Jesuit Relations, 59-157; 68-125.

and eaten a delegation of Illinois who visited them on a humanitarian mission.\* All of these Northwestern tribes were cannibalistic on occasion and there are frequent references in the French records of their cooking the flesh of their enemies in their earthen kettles. When Perrot visited a Mascouten-Miami village thirty miles south of Green Bay his party were received by "a venerable old man" and "a woman carrying a clay pot filled with cornmeal porridge.\* He presented to the old men of the village his metal kettle, with the words: "I carry it everywhere without fear of breaking it" thus referring to the destructable nature of their own earthenware kettles.\*

Ke wa kons, a Chippewa chief, informed Henry R. Schoolcraft in 1827 that at the time when the whites made their appearance among his tribe they laid aside their akeeks or clay cooking vessels and adopted the light brass trade kettles.\* He mentions that the Assiniboin, parties of whom appear to have occasionally visited Minnesota and Wisconsin in the French period, obtain their name from their early custom of cooking by placing heated stones in their vessels. He illustrates the Chippewa manner of suspending an earthen pot from a tripod. Thomas L. McKenny, 1827, gives the Chippewa name for their own earthen vessels as wau' begun onaug' unun.\*

Rev. Peter Jones says of the Chippewa, among whom he early served as a missionary: "Their pipes are made of soft stone, cut and carved in all sorts of shapes and figures. Some were made from baked clay or granite. Their pots were made of the same materials and baked thoroughly so hard as to stand the action of fire. The Indians were well pleased to discard these for English pots and kettles, which they find much more convenient." He figures several potsherds, which are ornamented with grooved and indented patterns rather than with cord-impressions. The vessel which he figures has a rounded base and incised (?) rim decoration.\*

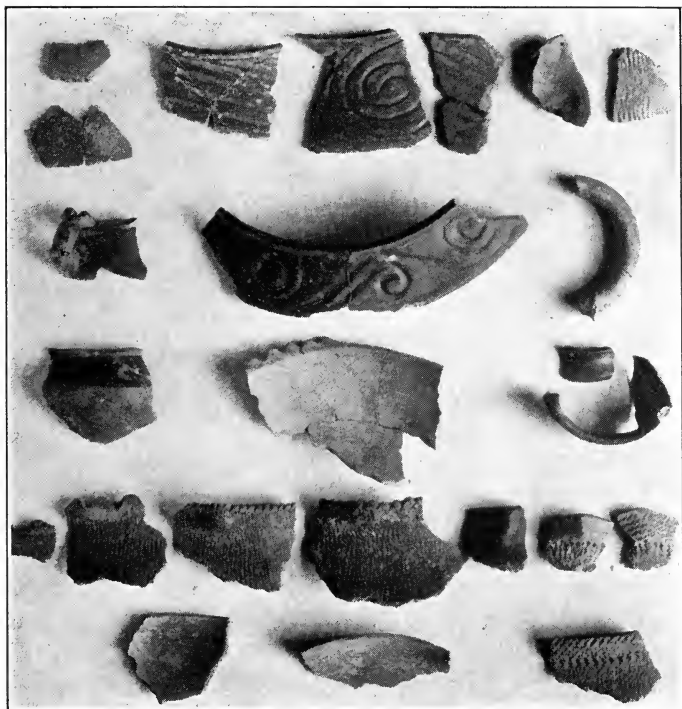
L. H. Bunnell states that: "Clay-colored pottery water

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\* Indian Tribes of the Upper Mississippi and Great Lakes, 295, 323, 331.

\* Tour to the Lakes.

\* Winona and its Environs, 84.



FRAGMENTS OF POTTERY VESSELS FROM AZTALAN  
Plate 3





jars, drums and other vessels were made by the Sioux of the Minnesota and Mississippi rivers.”\*

Dr. W. J. Hoffman who engaged in a study of the Wisconsin Menomini for the Bureau of American Ethnology said: “Earthenware is no longer made by the Menomini, though some of the oldest women remember when pottery making was engaged in.”\*

Alanson Skinner, whose researches among these same Indians extended over a period of eleven years, records the following information: “Although pottery vessels have not been made or used by the Menomini for over a hundred years, the memory of the process, as described to them by their parents, still lingers among some of the older people. In 1911 the late Philip Naku’ti, then eighty-four years of age, told the writer that the vessels were made of selected clay, which was pounded and mixed with pulverized shells of the freshwater clam (*Unio* sp.,) for tempering. When the clay had been properly prepared, more water was added, and it was kneaded into a stiff paste. This was plastered by hand over a large ball of basswood-bark twine, an opening being left out of which protruded an end of the string. The clay was then smoothed off with a stick, and the incipient vessel was set in the sun to dry. In fact, sunshine was considered such a necessary factor in the drying process that no one ever attempted to make pottery on a dull day.

“When the coating was dry, the potter took hold of the ball of twine, which had been left protruding from the opening made for the purpose, and, pulling it, unwound the ball within, leaving an earthen shell. Fresh clay was daubed over the rough inside, and the outside was again scraped smooth with a stick. The vessel was then sized with a coating or wash of finer clay, and ornamented with designs marked with a sharpened stick. Such was Naku’tis information, but archeological evidence is to the effect that figures impressed by means of sticks wrapped with cord predominate over incised designs. After decorating the receptacles, holes were bored in the

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\* History of the Ojibway Indians, 74.

\* 14 Bu. Am. Ethno, 257.

sides near the rim, for the purpose of affixing a bail of bass-wood-bark.

"The vessel was then dried again, and is said to have been ready for use. Naku'ti supposed it not to have been fired but to have become hardened by the heat while in use, but apparently memory or his information must be at fault in this particular, for not only does it seem improbable that an unfired vessel could have been made to retain liquid without dissolving or coming apart, but all the potsherds and vessels seen or collected by the writer from old Menomini sites show distinct evidence of firing. Indeed they could not otherwise have withstood the elements for so many years. Possibly the theory that vessels were used without this essential step is a "folk explanation" of a now forgotten art. Archeological investigations show that the jars of the ancient Menomini are of the old "pan-Algonkian" type with a pointed base (fig. 33)."\*

Of the decorative art of the Menomini he says: "In embroidery, carving, and later in applique, however, floral designs predominate over all others, whereas in pottery, basketry, and in woven bags and mats, geometric figures were preferred or dictated by custom, or, in some instances more easily made."\*

He gives the Menomini names for earthenware vessels:—mä'nona a'kä, pottery (red clay) kettle; ota-käkun, pottery kettle (lit. 'his kettle').\* Skinner found that some of the potsherds obtained by him from former Menomini village sites on the west shore of Green Bay were in all respects similar to the pottery obtained by him from mounds on the Menomini Reservation. Skinner also gives the following information concerning the manufacture of pottery vessels by the Mascoutin or Prairie Potawatomi.\*

"Clay was selected, kneaded, and mixed with an equal proportion of burnt and pulverized stone as tempering. Sometimes pulverized soap stone was used instead of burnt crushed stone. A hole was next dug in the ground and the clay put in it and trodden with the feet. A wooden model

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\* Material Culture of the Menomini, 282-284; 279, 309.

\* Bull., Milw. Pub. Mus., 6-2, 294.

of a vessel is alleged to have been carved and rubbed very smooth. The wet clay of the consistency of dough was then smeared over the form and polished with a slick stone. It was also worked thin with a stick. The edge around the rim was turned up and back with the fingers, and the vessel together with the form was placed in the fire in a pit dug for the purpose. It is said that the clay gradually dried and heated until red hot, when the fire was allowed to die out. The freshly baked pottery was kept indoors to prevent drafts from cracking the vessel.

"In firing, the form was burned out. When cool, the vessel was scraped with a stone on the inside. It was then firm and hard and ready for use. It could not be cracked by the action of cold water poured in it while hot, it is asserted. Some of the jars were durable enough to pack on horses.

"The writer doubts the practicability of burning a clay vessel over a wooden form as described, and believes that in part at least, this account is a "folk-reconstruction."

"Pottery pipes are said to have been made up to very recent years in time of emergency. Common clay was mixed with tallow, all being well kneaded together, to keep the clay from cracking when fired. The grease was sweated out by placing the pipe bowl near the fire. The vessel was then put in the hot ashes, and another fire built over it, which was kept up for a time and then allowed to die out. The clay turned red and was hard. [Sam] Bosley himself once made a pipe of this nature which was shaped like a Siouan pipe, but was heavier."

From Simon Kahquados Dr. Alphonse Gerend secured the following brief statement of the method formerly practiced by the Wisconsin Potawatomi in the manufacture of clay vessels: "For pottery making, pure clay was selected and worked over and mixed a long time. One month well mixed. It was mixed in a hollowed log. For the form a bowl was burned into a log and the clay pressed about the sides. Half of the ware vessel was removed, then the other half and the two joined. Pot sometimes formed on [the] outside of mold."\*

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\* Wis. Archeologist, 19-2, 70.

Dr. Paul Radin has published an account of the manner in which pottery vessels were made by the Winnebago:

"For cooking, clay pots were used. These vessels, most of which were very large, with round bottoms, always hung over the fire. The material used in their manufacture was blue clay found at Green Bay, on or near the site of St. Paul, Minn., mixed with shell shards, glue from sturgeon vertebrae, and the gelatinous substance in the horns of the deer. The addition of these ingredients greatly increased the cohesiveness of the clay. The material was either molded with the hands or in holes of the desired shape dug in the ground and lined with leaves. Finally the vessels were dried over a slow fire in small kilns constructed for the purpose. None of the clay vessels were provided with handles. Some were ornamented with geometric patterns. The irregular incised designs on some Winnebago vessels are the impressions of grass blades with which the mold was lined."\*

It is more than likely that when a careful study of the potsherds from known Winnebago village sites in Wisconsin is made that it will be found that this tribe employed both crushed shell and crushed rock (possibly also sand and other ingredients) in the tempering of the clay in pottery manufacture. J. V. Brower has shown such to be the case with some of the pottery made by their relatives the Sioux (Dakota) of Minnesota. In discussing a collection of Siouan potsherds from village sites in the Itasca lake region he says: "Of these about two-thirds of the rest are made of crushed shells, sand and clay, the remainder being mostly of clay and sand with impressions of grass, in one instance the charred fibre of the grass still preserved. We find both here and at Mille Lacs incontestible instances of these two ingredients crushed stone and shell in the same sherds. This, however, is not common, the most common ingredients being crushed granite with clay and sand. It is observable here, as in other places that the strongest sherds are composed of crushed shells and sand, although at the same time thinner than those that contain crushed rock; but the latter are often more elaborately ornamented about the rim."\*

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\* 37 Bu. AM. Ethno., 119.

"There is no evidence to show that (in Minnesota) the Ojibwa, or any other aboriginal people than the Dakota, made such articles. Since the Ojibwa entered the state they have been continually in contact with European traders, and they obtained by trade such earthen articles as they needed for domestic use. There is no known instance of the making of pottery within the state by the Ojibwa.

"At each permanent village site there must have been more or less of the practice of this art. So far, as we know, all the Dakota tribes (including therein the Omaha, the Winnebago and the Iowa) usually cooked their food with water made hot by placing hot stones in earthen pots containing the food and the necessary amount of water."\*

One of the interesting problems for students of Wisconsin Indian ceramics to undertake to solve will be that of ascertaining, if possible, to what extent the Siouan Winnebago, Dakota and Iowa of Wisconsin adopted in their pottery manufacture the decorative patterns of the intruding Algonkian tribes. Also whether the presence of some Iroquois sherds in Wisconsin is due to actual early residence of people of this stock west of Lake Michigan or whether it was brought here or made here by some of these former New York Algonkians.

The late Alanson Skinner once pointed out to the writer that among the potsherds collected from the site of the Aztalan enclosure the characteristic Siouan, Algonkian, Iroquoian, Middle Mississippi Valley, and Gulf States earthenware were all represented.

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\* The Aborigines of Minnesota, 437-444.



# The Wisconsin Archeologist

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No. 3

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## CHECKLIST OF WISCONSIN INDIAN IMPLEMENTS



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

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## **Milwaukee, Wis.**

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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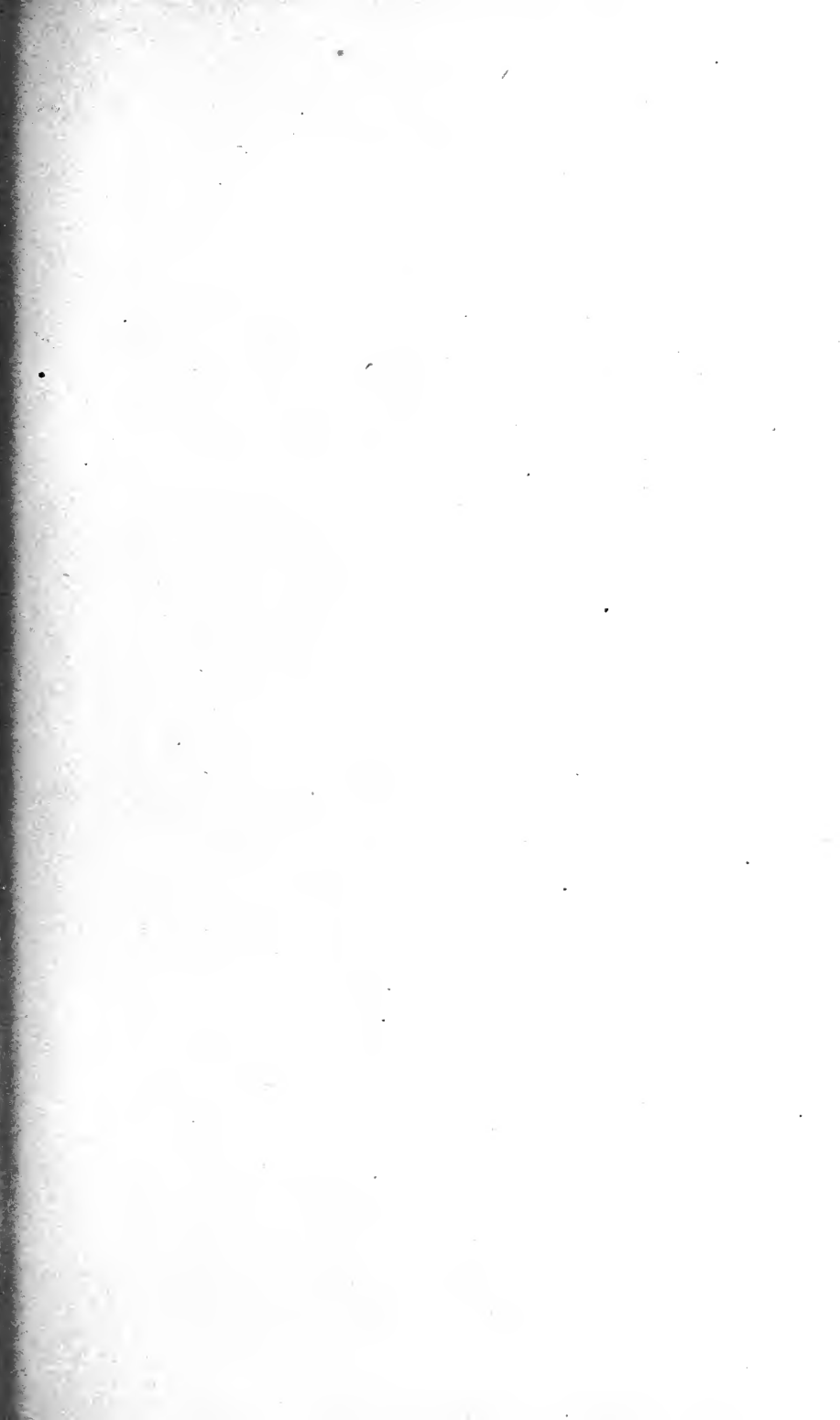
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ABRAHAM LINCOLN INDIAN MEDAL

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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No. 3

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## CHECKLIST OF WISCONSIN INDIAN IMPLEMENTS

Charles E. Brown

No attempt has heretofore been made to provide students and investigators of Wisconsin archeological history with a checklist or catalogue of the clay, stone, bone, shell, metal and other implements, utensils and ornaments of the prehistoric and early historic Indian inhabitants of the state. The preliminary checklist now offered is based on the records of the Wisconsin Archeological Society, and on the contents of the public museums and private collections of the state.

In the back issues of *The Wisconsin Archeologist* there have appeared fifty illustrated articles and monographs on the various classes of stone, metal and other implements and ornaments of Wisconsin. Their authors are Geo. A. West, C. E. Brown, P. V. Lawson, Dr. A. Gerend, H. P. Hamilton, W. A. Titus, V. Winn, A. H. Sanford, H. A. Crosby, I. M. Buell, G. E. Laidlaw and other present and former members of the state society. Descriptions and classifications of Wisconsin implements are also published in "The Stone Age in North America", in "Stone Ornaments of the American Indian", and in "Prehistoric Implements", three books published by Prof. Warren K. Moorehead.

The Committee on State Archaeological Surveys, National Research Council, has in view the preparation of a catalogue of the Indian implements of the Middle West states.

### CHIPPED IMPLEMENTS

#### Arrow and Spearpoints

1. Leaf-shape.
2. Triangular (some with base notched).
3. Lozenge-shape.
4. Stemmed.
5. Notched (some with several pairs of notches).
6. Barbed (some with barbs truncated).
7. Beveled.
8. Serrated.

### Harpoon Points

1. Asymetric (points so classed may have been employed as harpoon points).
2. Unilaterally barbed.
3. Bilaterally barbed.

### Knives

1. Flake.
2. Leaf-shape.
  - Pointed at one end, base rounded.
  - Pointed at one end, base straight.
  - Pointed at one end, base indented.
  - Pointed at both ends.
3. Oval.
  - Both ends rounded, edges curved or straight.
  - Both ends square (straight), edges curved or straight.
4. Semi-lunar.
  - One edge curved, one straight.
  - One edge broadly curved, one straight or slightly curved (woman's knife).
5. Curved.
  - Base notched, curved blade.
6. Lozenge-shape.
  - Some with diagonally-opposite edges beveled.
7. Dagger-shape.
  - Leaf-shape blade provided with short handle.

### Daggers

See dagger-shape knives.

### Ceremonial Knives

Large, broad leaf-shape blades narrowing toward a straight or slightly rounded base. (See 13-4 Wis. Archeologist, 176-181)

### Scrapers

1. Flake (some with one or several notches on edges).
2. Oval, circular, crescent, square or rectangular.
3. Spoon-shape, scraping edge at broad extremity.
4. Oval or circular blade with stem.
5. Re-chipped broken arrow and spearpoints (bunts).

### Perforators or Drills

1. Flake, one extremity pointed, or flake with small projecting point.
2. Straight bar, one or both ends pointed.
3. Stemmed, blade with straight or curved edges, expanding base.
4. Notched stem (base).

### Reamers

Some drills were very probably employed as reamers.

### Saws

Flakes with one serrated edge.

### Celts

Not common in Wisconsin. Some polished or partly polished.

### Axes

Notched, double-bitted. Not common in Wisconsin.

### Spuds

Single specimen known, similar in form to those listed under pecked and ground stone implements.

### Hoes

1. Unnotched oval or square blades.
2. Notched, with rounded blade.
3. Notched base, with pointed blade.

### Spades

1. Oval.
2. Elliptical, both ends rounded.
3. Elliptical, both ends pointed.
4. Leaf-shape, base rounded, blade pointed.
5. Bell-shape blade.

### Fishhooks

Indian origin of most or all is doubtful.

### Gunflints

Made of native flint.

### Effigies

Small flint objects probably intended to represent birds and animals.

### Disks

Circular.

### Blades

Oval, or leaf-shape form. Frequently found in caches or hoards of a few or many.

### Cores

Pieces of flint from which numbers of flakes have been removed, often of conical form.

These chipped implements are fashioned from flint (chert), hornstone, chalcedony, agate, jasper, rhyolite, quartz, quartzite, sandstone, silicified wood, limestone, obsidian and other materials.

## PECKED AND GROUND STONE IMPLEMENTS

### Celts

1. Triangular.
2. Wedge-shape.
3. Rectangular.
4. Chisel-shape.
5. Bell-shape.
6. Adze-celts.
7. Fluted or ornamented.

### Chisels

1. Ordinary forms.
2. Handled (blade with handle).

### Adzes

1. Triangular.
2. Adze-celts.

### Gouges

1. Base partly or wholly excavated.
2. With shallow groove crossing over the back.
3. Knobbed back.
4. Knobbed head, shallow groove.

### Axes

1. Rude, unnotched, with cutting edge.
2. Notched.
3. Grooved, completely encircled by groove.
4. Grooved, groove encircles three sides.
5. Centrally grooved, one end with cutting edge.
6. Double-bitted.
7. Oval.
8. Long-bladed (adze-axes).
9. Fluted or ornamented.
10. Double grooved (two grooves).
11. Curious forms.

### Picks

Pointed at one or both ends.

### Spuds

1. Broad blade, short handle.
2. Broad blade, long handle.

### Balls

1. Natural spherical or oval stones.
2. Shaped by pecking and grinding.

### Hammer Stones

1. Pebble, battered by use.
2. Shape altered by pecking and grinding.
3. With finger-holds.



### Pecking Hammers

Flint nodules employed in dressing surfaces of stone implements.

### Hammers

1. Axe-shape, with encircling groove, blunt cutting edge.
2. Ornamented with fluting.

### Club Heads

Spherical or oval stones encircled by a groove.

### Mauls

1. Heavy stones, battered in use.
2. Heavy stones, grooved for attachment to a handle.

### Anvils

Heavy stones used as anvils.

### Whetstones

Small pieces of sandstone or gritty stone with grooves, for sharpening bone awls and other implements. Sometimes cut in square and rectangular forms for convenience in holding.

### Grinding Stones

Pieces of sandstone used in the grinding of the surfaces of axes, celts and other stone implements.

### Arrowshaft Grinders

Sandstone implements with a single longitudinal groove.

### "Spindles"

Elliptical implements, circular in section, pointed at both extremities. Unknown use.

### Pottery Slicks

Flattish implements, pointed at both ends. Thought to have been used in smoothing the surfaces of clay vessels.

### Mullers

Stones, sometimes conical or hemispherical in form, used in grinding shell, clay, stone and other substances.

### Pestles

1. Conical.
2. Bell-shaped.
3. Roller, tapering toward both ends, circular in section.
4. Rectangular, with rounded ends, square in section.
5. Tapering.

### Mortars

#### Stationary

Boulders or rocks with shallow cavities.

#### Portable.

1. Boulder, with cavity.
2. Bowl-shaped.
3. Flat stone.

### Nut Stones

Sandstone or other stone with one or a number of small circular cavities.

### Paint Stones

Pitted stones supposed to have been used for grinding paint.

### Dishes or Cups

Record of a single specimen.

### Drill Weights

Stones supposed to have been used as weights for fire-drills.

### Net Weights

1. Pebble, flat, two opposite edges notched.
2. Ditto, shallow groove connecting the notches.
3. Ditto, notched on four edges.
4. Oval pebble, grooved.
5. Cylindrical, notched on two opposite edges.

### Weights

Large stones of irregular form with an encircling groove.

Among the rocks employed by the Indians in the manufacture of these classes of the heavier stone implements were diorite, greenstone, granite, syenite, porphyry, hornblende, basalt, rhyolite, quartz, quartzite, sandstone, mica schist, calcite and limestone. For the manufacture of ornaments, pipes and ceremonials banded slate, catlinite (pipe-stone), steatite, chlorite and calcite were favorite materials. Some of the foregoing rocks were also employed for this purpose.

## STONE ORNAMENTS AND CEREMONIALS

### ORNAMENTS

#### Beads

1. Spherical.
2. Tubular.
3. Disk

#### Pendants

1. Circular and oval.
2. Square and rectangular.
3. Triangular.
4. Effigy.
5. Other forms.

**Gorgets**

1. Circular.
  2. Oval.
  3. Square.
  4. Rectangular.
  5. Triangular.
  6. Wedge-shape.
  7. Reel-shape.
  8. Spud-shape.
  9. Peculiar forms.
- Some with two or more perforations.

**CEREMONIALS\*****Birdstones**

1. Bar or saddle-shape.
2. Bird-form, without eyes.
3. Bird-form, with eyes.
4. Bird-form, with eye disks.
5. Other forms.

**Boatstones**

1. Curved top, flat base. Some with transverse central groove on top.
2. Curved, flat or ridged top, concave base.

**Bannerstones**

1. Square.
2. Rectangular.
3. Oval.
4. Pick-shape.
5. Reel-shape.
6. Butterfly.
7. Double-bitted axe.
8. Crescent.
9. Double-crescent.
10. Knobbed crescent.
11. Bayonet-shape.

**Plummets**

1. Without groove.
2. With groove at one end. Some with incised ornamentation.
3. With groove at both ends.

**Discoidals**

1. Circular, with flat sides.
2. Circular, with convex sides.
3. Circular, with concave sides.
4. Circular, flat sides with small central depression.
5. Circular, concave sides with central circular ring.
6. Circular, concave sides with central perforation.
7. Barrel-shape.

**Cones**

1. Conical.
2. Conical, top flattened.

**Hemispheres**

Hemispherical stones.

\* Problematical Forms.

## OTHER STONE ARTEFACTS

### Pipes

- |                          |                             |
|--------------------------|-----------------------------|
| 1. Pebble.               | 10. Micmac.                 |
| 2. Ovoid.                | 11. Disk                    |
| 3. Square.               | 12. Monitor, straight base. |
| 4. Lens-shape.           | 13. Monitor, curved base.   |
| 5. Conoidal.             | 14. Handled.                |
| 6. Vase-shape.           | 15. Effigy.                 |
| 7. Keel-shape.           | 16. Portrait.               |
| 8. Right-angled (elbow). | 17. Other forms.            |
| 9. Siouan.               |                             |

### Tubes

- |                           |               |
|---------------------------|---------------|
| 1. Tubular (cylindrical). | 3. Conoidal.  |
| 2. Oval.                  | 4. Hourglass. |

### Effigies

Stone carvings of men and animals.

### Inscribed Stones

Stones bearing pictographs.

## NATIVE COPPER IMPLEMENTS

### Arrow and Spearpoints

1. Leaf-shape.
2. Stemmed.
3. Stemmed, bevelled blade.
4. Stemmed, ridged blade.
5. Stemmed, with eye (rivet hole ?) in end of tang.
6. Stem expanded at base with one or two projections.
7. Stem notched.
8. Stem serrated (toothed).
9. Spatula-shape ("rat-tail").
10. Triangular blade long, short pointed tang.
11. Same, with barbs.
12. Socketted, back of blade ridged.
13. Socketted, back of blade flat, rivet hole in socket.
14. Socketted, blade ornamented with punch marks.
15. Conical.

### Harpoon Points

Unilaterally Barbed.

1. Short, flat, with single barb.
2. Long, tapering, pointed rod, with single barb.
3. Thick, triangular in section, with a number of barbs.

Toggle Form.

1. Conical, hollow or with socket. Some with perforation for the attachment of a line.
2. Similar but with a barb near the point.

Socketted.

1. Resembling a socketted copper spearpoint but with a barb.

### Knives

1. Straight blade, pointed tang.
2. Curved blade.
3. Straight blade, with handle (dagger-shape).
4. Straight blade, with socket tang.
5. Blade ornamented with punch marks.

### Scrapers

Broad blade, pointed tang.

### Awls or Perforators

1. Straight, one end pointed.
  2. Straight, both ends pointed.
  3. Middle expanded, one or both ends pointed.
- Some awls are square, some circular in section.

### Pikes and Punches

1. Straight, one or both ends pointed.
2. Tapering form, both ends pointed.
3. Tapering, one end blunt, the other pointed.
4. Tapering, one end pointed, one hooked.

### Needles

1. Without eye.
2. With eye.

### Axes (Celts)

1. Triangular.
2. Wedge-shape.
3. Rectangular.
4. Bell-shape.
5. Wedge-shape, blade surfaces depressed.
6. Grooved axes.

### Chisels

1. Elongated triangular.
2. Rectangular.

### Gouges

Under surface partly or wholly excavated.

### "Spiles"

Curved implements excavated for their entire length.

### Spuds

1. Square or rectangular.
2. Socket constricted.
3. Back ornamented with punch marks.

### Sword or Sickle

Long knife with curved blade, and handle.

### Fishhooks

1. Ordinary form.
2. With notch at end of shank.
3. Large, stout hooks (gaff-hooks?).

### Dish

Made of sheet copper.

### Handles

Copper socket or handle for an implement, hollow.

## ORNAMENTS

### Beads

1. Tubular.
2. Rolled (spherical).
3. Perforated.

### Bangles, Pendants, and Gorgets

Circular, oval, triangular and other forms, generally perforated for suspension. One in bird effigy form.

### Crescents

1. Canoe-shape.
2. Canoe-shape, upper edge straight.
3. Canoe-shape, lower edge with crescent indentation.
4. Canoe-shape, two prongs projecting from near center of upper edge.
5. Same as foregoing, prongs joined at top by a bar.
6. Canoe-shape, a pointed prong projecting upward from ends.
7. Canoe-shape, prongs at ends turning inward and meeting to form a point.
8. Crescent-shape, several types.

### Claws

Ornaments made to represent bird claws, one end bent to form an eye to permit stringing with copper beads in a necklace.

### Finger Rings and Earrings

Copper wire coiled once or several times.

### Bracelets, Armlets and Anklets

Bent copper rod or flat strip of copper.

### Earspools

Spool-shaped ear ornaments of copper, or of stone sheathed or partly sheathed with sheet copper.

### "Tinklers"

Small conical fringe ornaments.

### Headbands

Strips of sheet copper with perforations at the ends.

### Breastplates

Specimens found in Crawford county mound group.

## CEREMONIALS

### Bannerstones

Butterfly form, rare.

Double crescent, very rare.

### Cones and Plummets

Similar in form to those made of stone. Of very rare occurrence.

## NATIVE SILVER IMPLEMENTS

### Arrowpoint and Knife

Similar in form to copper artifacts. Made of Lake Superior silver.

### Ornaments

Wooden ear ornaments sheathed with silver foil.

## LEAD

Beads (perforated disks).

Bangles or pendants (circular).

Turtle Effigies. Rude representations of turtles.

Pipes, probably recent.

Pipes made of stone, lead inlaid ornamentation. Recent.

Galena crystals or pieces, on many sites and in mounds.

## HEMATITE

Celts.

Axes, grooved.

Pendants.

Gorgets.

Plummets.

Cones.

Hemispheres.

Balls.

Paint stones.

Tubes.

Pipes.

## MARCASITE

Ball or hand-hammer.

## PYRITES

Pieces, from fire-making sets?

## MICA

Sheet ornament, Lake Koshkonong mound.

## BONE IMPLEMENTS

Awls.

Needles.

Weaving-needles.

Arrowpoints.

Spearpoints.

Harpoon points.

Knives.

Scrapers.

Flakers.

Pins.

Hoes.

Celts.

Tool handles.

Fishhooks.

Paint bones (for applying paint).

### Ornaments

Beads.  
Pendants.  
Cranial disks.

Combs.  
Roach-spreaders.  
Ring (?)

### Other Bone Artefacts

Dice.  
Whistles.  
Rattles (notched rib bones).  
Effigy.

Tubes.  
Medicine tubes.  
Engraved bones.

### ANTLER ARTEFACTS

Arrowpoints, conical form.  
Harpoon points.  
Awls.  
Celts.  
Picks.  
Punch, flint flaking.

Counters.  
Pendant.  
Pipes.  
Carved antler.  
Flakers.

### HORN

Pipe (buffalo horn).

Medicine container.

### TEETH AND CLAWS

Bear-tooth ornaments.  
Elk and buffalo tooth ornaments.  
Alligator-tooth pendant.  
Other animal tooth ornaments.

Eagle-claw ornaments.  
Bear-claw ornaments.  
Beaver-tooth cutting implements.

### SHELL ARTEFACTS

#### Fresh Water Mussel Shells.

Beads, disk.  
Pendants, fish-shaped and other.  
Beads, pearl.  
Spoons, Unio valve.  
Hoes, perforated Unio valve.  
Unio valves, cut.

#### Sea Shells

Beads, perforated small shells.  
Beads, spherical, cut from columella of large shells.  
Pendants, cut from columella of large shells.  
Pins, ditto.  
Gorgetts, circular, engraved or unornamented.  
Vessels, large sea shells cut or unaltered.  
Ladles, parts of large shells.  
Large shell implement, cut columella, pointed.



## EARTHENWARE

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Beads.                              | Jars.                                 |
| Earspools.                          | Kettles.                              |
| Disks, circular sherds, perforated. | Ladles.                               |
| Tubes.                              | Canteen. (?)                          |
| Pipes.                              | Toy vessels.                          |
| Stamps.                             | Effigy.                               |
| Trowels ("Anvils").                 | Balls.                                |
| Cups.                               | Briquets (Aztalan votive offerings?). |
| Bowls.                              | Lumps.                                |
| Vases.                              |                                       |

## WOODEN IMPLEMENTS

The early Wisconsin Indians also made numerous implements, weapons and utensils of wood and bark. Because of the very perishable character of these materials very few of them have been recovered from old village sites or in mounds or graves. Some continue to be made and used by the descendants of these natives.

|                          |                          |
|--------------------------|--------------------------|
| Bowls.                   | Clubs.                   |
| Ladles.                  | Whips.                   |
| Spoons.                  | Pipes and pipestems.     |
| Stirring paddles.        | Traps.                   |
| Pot-hooks.               | Snakes.                  |
| Mortars and pestles.     | Deer calls.              |
| Bark kettles.            | Seine floats.            |
| Trays.                   | Feather cases.           |
| Bark mococks.            | Bark and log canoes.     |
| Sap troughs.             | Canoe paddles.           |
| Sap buckets.             | Canoe forks.             |
| Sap spiles.              | Snowshoes.               |
| Scoops.                  | Children's bark sleds.   |
| Digging sticks.          | Sleds.                   |
| Shovels.                 | Earspools (prehistoric). |
| Rakes.                   | Drums.                   |
| Bow-drills.              | Rattles.                 |
| Fire-making sets.        | Flutes.                  |
| Bark torches.            | Whistles.                |
| Bark and splint baskets. | Hoops.                   |
| Winnowing trays.         | Snow snake.              |
| Beating sticks.          | Ice arrow.               |
| Tobacco driers.          | Lacrosse sticks.         |
| Bark bags.               | Lacrosse balls.          |
| Beadwork looms.          | Shinny sticks.           |
| Netting needles.         | Tops.                    |
| Cradles.                 | Game counters.           |
| Bows.                    | Calendar sticks.         |
| Arrows.                  | Images.                  |
| Spears.                  | Dolls.                   |
| Fish-pinning spears.     | Bark song records.       |
| Harpoons.                |                          |

### SUMMARY

The checklist of Wisconsin Indian implements here presented lists 21 classes and 41 types of chipped stone implements, 28 classes and 50 types of pecked and ground stone implements, 10 classes and 39 types of stone ornaments and ceremonials, 4 classes and 21 types of pipes, tubes and other stone artifacts not elsewhere included. Total, 63 classes.

Of native copper implements, ornaments and ceremonials there are listed 36 classes with 61 recognized types. Of native silver, lead, hematite, bone, antler, horn, shell and clay and other implements and ornaments 100 classes are listed.

A list of 62 wooden implements is given. This is doubtless very incomplete.

### AN ANCIENT VILLAGE SITE IN WINNEBAGO COUNTY

George Overton

This old village site was located on that part of the SE $\frac{1}{4}$  of Section 34, Winneconne Township (T. 19—R. 15 E.) that lies east of the Fox river. This land was taken up by Robert Grignon, nephew of old Augustine Grignon, in about 1835 and occupied by him as a trading-post and residence during the remainder of his life. This was the Lieut. Robert Grignon who, while convalescing at Ft. Winnebago from wounds received in the Black Hawk War, negotiated the surrender of the fugitive Black Hawk. Credit for this capture has since been claimed by others. His old farm is still known as the Robert Grignon place. He is buried on the old homestead.

The village was about two miles by river above the junction of the Fox with the Wolf. A tapering sandy point juts north from the mainland into the Big Butte des Morts marsh and ends in a beautiful ridge on the east bank of the Fox river. This point for a quarter of a mile along the river and a bayou has an abruptly rounding bank ranging from six to fifteen feet above the water. Between this escarpment and the river is a gently sloping shelf from two to

six rods wide, making an ideal landing place. Back of the bank the point is level or slightly sloping toward the east. It is from a few rods wide at the apex on the river to about half a mile wide near the mainland, and is about three quarters of a mile long. A low hay ridge extends from its eastern side across the marsh to Lake Butte des Morts a mile and a quarter to the east. A much used trail, later used for a time as a U. S. Mail route, led down the river bank and along hay ridges in the big marsh to The Grand Butte, two miles to the northeast.

The hard ledge of rock at the outlet of Lake Winnebago caused the Fox river to reach bed level. The spring freshets and silt from the upper river made this a shifting stream. Many different channels were formed in the twenty-five miles above Lake Winnebago, as are in evidence by numerous bayous. One such old bayou extends, crescent-shaped, along the escarpment on which this old village was located. When this old bayou was the main river a perfect location for a water faring people was formed. In more recent times the bayou was, and still is, navigable for a quarter of a mile, even in low water, along the village site. This was a village of comfort and plenty as is shown by the quantity, variety and elegance of recovered artifacts and utensils. The marsh and river supplied an abundance of easily procurable waterfowl, muskrats and fish. Wild rice grew near on thousands of acres. The soil near the village was easily tilled and to this day produces excellent crops which mature early.

Hundreds of pieces of copper have been picked up on such parts of the site as are now in farm land. Most of the larger pieces have been disposed of by their finders or carried away by searching relic hunters. Of these we have only the hearsay evidence of the people living near. Luckily these collectors were content only with the better pieces, leaving the crude and partly fashioned pieces together with the workshop debris, for us who followed. We combed the fields on hands and knees, up one corn row and down the other until cramps and blisters compelled a stop. No piece that showed a speck of green was too small to be picked up. The smallest was one-fourth inch long by one-sixteenth of an inch wide.

Here was found a distinct departure from the commonly accepted notion of the form in which crude copper was transported from the mines. Generally crude or "float" copper is in chunks practically pure, flat with rounded edges, weighing from a few pounds to as large as a man could lift. One piece in the Sawyer Museum weighs more than ninety pounds. We found many pieces just as it was pounded out of the rocks. Very many were small and irregularly shaped. Nearly all showed some attempt at fabrication. Some were merely slightly flattened. Others clearly indicated they were scraps broken off in hammering larger pieces, and others were rejects which at the time did not work out to suit the artizan for the purpose he had in mind.

In making an awl or any other slender piece these old artizans followed the same steps in their process that a good blacksmith would follow in forging a similar piece. They beat the piece to a square cross section and then drew it out to the desired length and diameter. They then pounded down the corners and rolled it round. Many of the completed pieces still show the marks of having been finished with an abrading stone and are needlelike in sharpness.

I firmly believe they understood annealing by heating and plunging in water. Continued pounding in the drawing out process would crystalize the metal. No sign of this appears in the finished pieces, yet a partly finished piece was very brittle.

A very common type of copper implement found here, of which I have seen fifteen and heard of dozens of others, is a so-called fish hook. Some are exactly similar to a straight-shanked barbless hook, others are more crude but might serve the purpose very well. Except one which is square in cross section, all are round, sharply pointed at the hook end and more crudely pointed at the other, and range, measured around the bend, from one and three-quarters to three inches long, and generally average one-eighth of an inch in diameter. One gaff hook found here was six inches long and one-quarter inch in diameter.

We have a dozen specimens of a double-pointed awl, or perhaps a fish hook in the making. Some are fine examples of the aboriginal coppersmith's art. They range from two inches long and one-sixteenth inch in diameter to four and

one-half inches long and three thirty-seconds of an inch in diameter. These awls have a very uniform cross section, are slightly tapered, and near the ends are brought gradually to a very fine point at one end and the other more crudely to a point, as though the maker selected the best end and ground it to a point, and merely sharpened the other end.

A smaller type of this artifact is made in the same way, rolled round with one end sharpened and the other blunt or unfinished. These are from three-fourths of an inch to two inches long and average one-eighth of an inch in diameter. Others of this same size are sharpened at both ends. These might have been gorge hooks, but lack any notch or groove in the middle for fastening the line.

A small awl or punch similar to the one just described, but having a square cross section most of its length, with the point ground round and sharp, is quite common among the finds on this site.

Arrow heads seen and identified from descriptions were of both the flat tang and the socket type.

Large pieces—spears, knives, celts and hatchets, have been found in some abundance. My lowest estimate is at least twenty. From my talks with nearby residents my conclusion is that they were similar to the common run of such specimens.

The Indian artizan was very careful of his precious metal. He fabricated the smaller pieces into trinkets and ornaments. A small piece was pounded thin and narrow and then bent around till it formed a bead. A triangular piece of thin metal was bent into a hollow cone with an opening at the small end, evidently for a pendant. One example of a long bead was made of a thin strip seven-sixteenths of an inch wide which was twisted around like a coil spring to make a bead or pendant, one and three-eighths of an inch long and three-sixteenths of an inch in diameter. A few massive beads, one-half inch in diameter and one-half an inch long, were perforated in some manner as no sign of joining is visible.

Gorgetts, breastplates and earbobs were mentioned as found here, but we could not locate any for verification and measurement.

## STONE ARTEFACTS

My original purpose was to write of this interesting spot as a copper workshop site. On looking over the material available and interviewing people who have occupied this land, I feel that mention ought to be made of the wealth of flint and stone that was left or lost here by the aboriginal inhabitants.

Mr. Mike Place, whose father cleared part of the site, said when he as a boy was sent out to work on the land, he would come home at noon and night with pockets bulging full of only perfect pieces. He at one time had a cheese-box full of flints ranging from tiny arrow points and delicate drills to spears from six to eight inches long. These were dissipated piecemeal and later he found practically as many more. He reported one tomahawk pipe and several pipes and fragments of others, made of catlinite, steatite and white lime. Several stone axes and as many more celts, together with numerous mealing stones and bushels of hammer stones were also found.

Delbert Martin, who was raised on the Grignon homesite, reports having at one time a bushel and a half of specimens, largely flints, with half a dozen axes and as many celts. At one time he had two mortars, one fourteen inches and the other twelve inches in diameter. They were pecked into shape and the top and rim ground smooth. The polished depressions were about one and a half inches deep. Four flint spears were from five to six inches long. A beautifully formed copper knife with a flat tang extending about one-third its length, was seven inches long. Probably a hundred pieces of copper of various kinds; fish-hooks, awls, arrow points, beads, pendants and partly worked pieces were found. A gaff hook (noted before) was six inches long.

A Siouan calumet of grey stone, an ovoid pipe of white lime and several others, in a damaged or fragmentary condition, were recovered.

Mr. Martin also reports that the Edick family made extensive finds, among them several fine copper implements and numbers of choice flints.

## KANNENBERG COLLECTION

The Arthur P. Kannenberg collection contains many specimens from this site. Many were obtained from Mr. Place and Delbert Martin, others from Mr. Kunda and Chas. Koennemann, who have a farm south of the site. The remainder are personal finds.

- 9 Copper fish hooks, perfect or very good.
- 1 Fish spear.  $6\frac{3}{4}$ " by  $\frac{1}{8}$ ". Square, tapered and pointed.
- 6 Rolled awls. 3" to  $4\frac{1}{2}$ " long, pointed at both ends.
- 20 Rolled awls.  $\frac{3}{4}$ " to 2" long. Some pointed at both ends, others blunt at one end, pointed at the other.
- 11 Square awls. 1" to 3" long, pointed at one end, blunt at the other.
- 100 Pieces partly finished,—rejects, scraps and pieces of copper ore.
- 3 Arrow head, flat tang, 2" long by about 1" broad.
- 1 Arrow head, socket tang, and 3 arrow head blanks.

I have about sixty pieces of all kinds, about half of which are finished, the result of two days search.

The Kannenberg collection contains the following flint artefacts:

- Flint plummet. Flat,  $2\frac{1}{4}$ " by  $1\frac{1}{4}$ ".
- 1 slender arrow point.  $2\frac{3}{4}$ " by  $\frac{3}{4}$ ", notched, with serrated edges.
- 50 Good arrow points. All kinds and shapes including a point made of Flint Ridge flint.
- 2 Winged hand-drills. 3" long, wing  $2\frac{1}{2}$ " long at one side.
- 1 Perfect hand drill.  $3\frac{1}{4}$ " long by  $1\frac{1}{4}$ " wide at the base.
- 34 Other drills. About 50% of these are broken.
- Clam-shell gorget. Broken at one end. It had two perforations.
- 1 Siouan bone bead.  $2\frac{1}{2}$ " by  $\frac{1}{4}$ ".
- Many pieces of wampum.

The following Trade materials:

- 1 Tine of a sturgeon spear. 13" long and  $\frac{1}{2}$ " diam., 2 bilateral barbs, base bent for insertion in side of shaft.
- 1 Medallion ring.
- 7 Band rings of silver and brass.
- 1 Ring, green stones in bezil.
- 1 Brass signet ring. On a finger bone.
- 1 U. S. Army coat button. Flying eagle above the U. S., wreath below.
- 1 U. S. Army coat button. Eagle with shield on breast, branch and arrows in claws.
- 2 U. S. Army vest or sleeve buttons. Same design as above.
- 2 Gents' silver coat buttons, plain.
- 1 Liberty head medallion in jet.
- 1 Set of steelyards.
- Part of a balance scale, Flint-lock from old Northwest gun, parts of forged traps, many glass beads, many Venetian beads. A dancing bell, blade of a fencing foil, a heart-shaped piece of conch shell, with hieroglyphics inscribed on the smooth side, and many other specimens.

### ITS INHABITANTS

Who the ancient inhabitants of this site were can only be a matter of conjecture. No mounds have been found within miles of this site. The early Winnebago occupied all of Winnebago County. It was unoccupied at the time of the visits of Nicolet and Allouez to the village of the Mascoutin, twelve miles further up the river.

The Outagamies must have lived here at times, for this was their rallying point after the burning of their village at Petite Butte des Morts by Morand and his Menomini allies. Here was fought the second battle of Butte des Morts, which decisive defeat drove them out of the country. The territory of the Menomini, who received the land of the Outagami, was not supposed to extend beyond the Fox river, but as they used the river for travel they probably camped on this spot. After the treaty of 1833 the Menomini regularly camped there. When the road, now Federal Highway 110, was relocated to coincide with the plat of the Village of Butte des Morts, Thos. Petford, then a small boy, stated that—"the road passed thru the Indian burying ground. The Indians hurriedly came and dug up all the bones they could find and left them piled up alongside the road in heaps and boxes for a few days. Early one morning they gathered them all up and took them up the river in canoes." They were reinterred at Grignon's farm.

All these later people had contact with the whites and had trade goods.

All kinds of stone implements of every type common to Wisconsin has been found on this site. The patina on many of the pieces is very thick, indicating great antiquity. Not one, but many peoples must have made this their home mingling the relics of their culture with that of those gone before.

### PREHISTORIC TORQUOISE MINES

In an archaeological bulletin recently issued by The San Diego Museum\* Malcolm J. Rogers presents a very interesting account of the results of an examination made by

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\* Report of An Archaeological Reconnaissance in the Mohave Sink Region.



himself and a party of assistants of the prehistoric turquoise mines of San Bernardino County, California. We take the liberty of quoting a few extracts from his report:

"The mineral turquoise, which was so highly prized and indefatigably sought for by the sedentary peoples of the Southwest, occurs in San Bernardino County, California, within a more or less definite zone extending from west to east through the north-central part. The most westerly occurrence known to the author is at Granite Wells, twenty-two miles east of Johannesburg. Pursuing the strike of this lode to the east, the mineral is next encountered in abundance in the Turquoise Mountains, ten miles northeast of Silver Lake. It is next found in quantity in the Crescent Mountains, Clark County, Nevada, and again, northeast of Searchlight. Across the Colorado River, ancient turquoise workings of the same nature are to be found in Mohave County, Arizona, east of Eldorado. The most easterly group of which I know is in the Cerbat Mountains, Arizona.

"Throughout this extensive terrain of two hundred miles, the writer has seldom found an outcropping of turquoise without finding distinct evidence of the mineral having been mined by the aborigines, as evidenced by open cuts, pits, and stone hammers. In cases where he has failed to find such evidence he has usually been assured by modern miners that it did exist prior to its obliteration by modern mining. One can not become familiar with the magnitude of this work and the crude means employed without realizing that he is witnessing another monumental attestation of the diligence of early man in America."

In the Turquoise Mountains, "there are three large groups of ancient mines. The west and east groups, which have been patented and worked by Americans, are known as the Toltec and Himalaya groups, respectively, and are situated eight miles apart, with an unnamed intermediate group lying three miles east of the Toltec group."

A Mr. James Hyten, who "discovered these mines about thirty-eight years ago" "was later employed to clean out some of the ancient diggings of the Himalaya group." "It took him and four other miners several months to muck out the largest pit, which is now known as the Tiffany mine. He gives the dimensions of this aboriginal working as being

thirty feet long, twelve feet wide and twelve feet deep. From this main pit, numerous short drifts or "gopher holes" extended, where the Indians had pursued promising veins. There is practically no soil on this site and the entire excavation was conducted in bedrock."

Mr. Rogers examined an undisturbed prehistoric mine west of the Tiffany mine. In excavating these old diggings "numerous carapaces of the native tortoise were found. These were thought "to have been used by the Indians for scoops in carrying out the muck." The shoulder blade of a large animal was also found. "It had been ground in the form of a shovel." At the Himalaya group pits were sunk in the filled-in pits of the early native miners.

"At all the turquoise sites visited, stone mauls, picks, and axes, were found in varying numbers." Puebloan type potsherds were found "about the undisturbed mines at the Himalaya group." "No Mohave sherds were found at any of the mines." Two spear points were found here also.

"All of the few water-holes to be found in the Torquoise mountains, and many caves, were visited, with the expectation of proving a permanent occupation of the region by the turquoise workers, but with scant success. Cave excavation produced a nonscript culture chiefly characterized by a paucity of artefacts. Flaked stone, an occasional broken metate, animal bones, and plain brown and grey sherds we could find, besides some interesting beds, composed of arrowweed, carriso, and galleta grass. Only the grass is now found in these mountains. No turquoise was found in any of the cave shelters."

"Water is not attainable at any of the mines." The nearest water was about five miles away from the Himalaya mines.

"On all the open sites of the region, archaeological material is extremely scarce, making interpretation extremely difficult. Then too this is virgin ceramic area of which nothing is known." Of all the sherds found, only a very small percent could be identified. These were Puebloan, Mohave, and Archaic Lower Colorado types.

In the summary of his report Mr. Rogers says: "Although the extensive turquoise mining industry is in itself confirmatory of a Puebloan people having either visited this

region intermittently over a long period, or having lived permanently in the region an equal length of time, it has not yielded, as yet, sufficient cultural material to properly place it in the scheme of Southwestern chronology."

Several interesting plates and a map illustrate this report. At least one small piece of turquoise has been reported as found on a Wisconsin Indian site.

## AN ABRAHAM LINCOLN INDIAN MEDAL

Theodore T. Brown

This medal was obtained by Rev. E. P. Wheeler during the summer of 1928 at Odanah, on the Bad River Indian Reservation, from John Cloud, Zah-buh-deece, a Chippewa Indian, whose grandfather had obtained it from President Abraham Lincoln. His grandfather, A-duh-wih-gee-zhig, was a chief of the La Pointe band of Chippewa. His name signifies "on both sides of the sky or day." His father was Mih-zieh, meaning a "fish without scales." The chieftainship of A-duh-wih-gee-zhig was certified to by the U. S. Commissioner of Indian Affairs on March 22, 1880.

His father, Mih-zieh, was one of the three chiefs who led the original migration of the Chippewa to Chequamegon Bay, the others being Uh-jih-jahk, the Crane, and Gih-chih-way-shkeen, or the "Big Plover." The latter was also sometimes known as Bih-zih-kih, or the "Buffalo."

A-duh-wih-gee-zhig was a member of the delegation of Lake Superior Chippewa chiefs who went to Washington to see President Lincoln under the guidance of Benjamin G. Armstrong, during the winter of 1861. The account of their journey, as dictated by Armstrong, is published by Thomas P. Wentworth in his book "Early Life Among the Indians—Reminiscences from the Life of Benj. G. Armstrong", printed at Ashland, in 1892.

"Agent Webb, myself and others had frequent talks over the general outlook for Indian troubles and it was finally decided to take a delegation on a trip through the states and to Washington, as such a trip would give the delegation a rare chance to see the white soldiers and to thus impress on their minds the futility of any further recourse to arms on their part. Agent Webb arranged the matter and it was directed to have me select the delegation. I selected a party of nine

chiefs from the different reservations, made up as follows: Ahmoose [Ah-mose], or 'Little Bee', from Lac du Flambeau reservation; Kish-ke-taw-ug [Geesh-kih-tuh-wug], or 'Cut Ear', Bad River reservation; Ba-quas [Bay-goosh], or 'He Sews', Lac Court O Reilles reservation; Ah-do-ga-zik [A-duh-wih-gee-zhig], or 'Last Day', Bad River reservation; O-be-quot, or 'Firm', Fond du Lac reservation; Shing-quak-onse, or 'Little Pine', and Ja-ge-gwa-yo or 'Cant Tell', La Pointe reservation; Na-gon-ab [Na-ga-nub], or 'He Sits Ahead', Fond du Lac reservation, and O-mah-shin-a-way, or 'Messenger', Bad River reservation. [Little Pine, a mixed blood from Bayfield, was the interpreter.]

"We set out about December 1st., 1861, going from Bayfield, Wis., to St. Paul, Minn., by trail, and from St. Paul to La Crosse, Wis., by stage, and by rail the balance of the way to Washington. Great crowds of soldiers were seen at all points east of La Crosse, besides train loads of them all along the route. Reaching Washington I showed them 30,000 to 40,000 soldiers in camp and they witnessed a number of drills and parades, which had a salutary effect upon their ideas of comparative strength with their white brothers. Being continually with them I frequently heard remarks passing between them that showed their thoughts respecting the strength of the white race. 'There is no end to them', said one. 'They are like the trees in the forest', said another. I was furnished with a pass to take them to the navy yard and to visit the barracks of the Army of the Potomac, at which place one of them remarked that the great father had more soldiers in Washington alone than there were Indians in the northwest, including the Chippewas and Sioux, and that ammunition and provisions never gave out.

"We remained in the city about forty days and had interviews with the Indian Commissioner and the President, and I was allowed the privilege of a partial examination into the records, showing the annuities due the Indians on annuity arrearages, but the excitement incident to the war precluded any extended examination which would lead to a settlement of the arrearages at that time. The President made a short speech to the Indians at one of these interviews, at which he said:

"My children, when you are ready, go home and tell your people what the great father said to you; tell them that as soon as the trouble with my white children is settled I will call you back and see that you are paid every dollar that is your due, provided I am here to attend to it, and in case I am not here to attend to it myself, I shall instruct my successor to fulfill the promises I make you here to-day.'

"All of the chiefs of the delegation received silver medals bearing the portrait of President Lincoln.

"After visiting all places of interest in Washington, and about a week after our last interview with the President, we set out on our home journey, going by way of New York City, where we stayed two or three days purchasing goods and presents for the chiefs to take home to their families and relatives, in all amounting to \$1500, which had been placed in my hands by the government for that purpose.

This was in all probability the most pleasant stop of the trip. We stopped two days at Chicago on our return, from there going to La Crosse by rail, where we took boat for St. Paul. We were compelled to take trail from St. Paul and arrived in Bayfield about the middle of April, 1862."

Benjamin G. Armstrong, a Southerner, came to Hudson, in St. Croix County in 1840 and later became a trader among the Chippewa Indians of the Lake Superior shore region. He married an Indian woman, a granddaughter of Chief Crane. He was the adopted son of Chief Buffalo, and was probably the best friend and counsellor that the Chippewa have ever had. The name given to him by his Indian friends was Zhah-bahsh-kung, or "the man who goes through." It implies persistency and thoroughness. He also conducted a similar Indian delegation to Washington in 1852 to adjust Chippewa financial troubles with the Government.

This Abraham Lincoln medal is of solid silver and is  $2\frac{7}{16}$  inches in diameter and slightly over one-eighth inch in thickness at the rim. The obverse bears a profile of President Lincoln facing to the right. It bears the encircling legend "Abraham Lincoln, President of the United States" and the date 1862. The reverse face of the medal has in a central circle,  $1\frac{1}{2}$  inches in diameter, a figure of an Indian plowing, and in the background, children playing ball, a hill with a schoolhouse, and a church and other buildings beyond. Between this inner circle and the rim of the medal, following the curve, there are (at the top) a figure of an Indian scalping another; and below, the head of an Indian woman weeping, and on one side (left) a quiver with arrows, on the other (right) a bow and calumet. Below the plowing figure there appears in minute letters the name of the designer of the medal, "J. Willson. DEL. & SC."

In 1861 U. S. Indian Agents in the Northwest were instructed to obtain from Indian chiefs all British medals and to present Abraham Lincoln medals to their possessors. The Lincoln medal was coined in both silver and bronze. The specimen described in this paper is the first Lincoln medal which was recovered from any Wisconsin Indian. It has been placed in the State Historical Museum at Madison.

## THE WINNEBAGO INDIANS AND THE MOUNDS

John Blackhawk

The Winnebagoes, who lived in what is now Wisconsin long before the coming of the white man, built earthen mounds. These they constructed according to the animal symbols of their various clans or gens. For the Thunder or Bird clans the design was one of a bird, for the Water-spirit clan, an elongated animal. The Buffalo, Bear, Deer, Dog, Snake and various other clans had each their animal symbol. The War clan, or militaristic party of the tribe, had for their symbol a representation of the human form.

My Grandfather once told of an occasion where he saw a bird mound being built in front of a chieftain's lodge. This, was perhaps, the last occasion of the use of this old tribal custom. He noted that it was placed to the *east* of the lodge or lodges.

It was not, however, alone the custom to build mounds as clan symbols, the dreams or visions of the Indians were also thus commemorated.

A noted chief, Ho-min-ka (translated, he who lies in a hill), leader of the Water-spirit clan, had a village at or near where the city of Madison now stands. He had a vision of an immense Buffalo which arose out of a lake in a mist. The blessing given to Ho-min-ka by the spirit Buffalo was such that his village enjoyed seven years of prosperity and there was no death among his people during that time. The tradition of this happening does not state that mound was built by this chief in memory of this event, but it is quite probable that this was done.

The round mounds, which are numerous in Wisconsin, particularly along the banks of the Mississippi River and its tributaries, are said to be the remains of earth lodges. In a period when a long and relentless war was being waged it was unsafe to live in ordinary lodges and the Winnebagoes with their allied tribes constructed earth dwellings for the purpose of defense from surprise attacks. The dwelling was substantially framed within to hold enough earth to

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\* Recent explorations have discovered Algonkian earthenware in effigy mounds.

cover it in such thickness to withstand any attacks. In nearly all cases two and more families occupied one lodge, when more Indians lived together the lodge was built larger and much stronger.

There is a tradition that a strange tribe lived in and among the cliffs, principally along the upper part of the Mississippi River. Their leaders were very wise and the warriors fierce and courageous. The nomadic tribes once decided to make war on these cliff-dwellers on account of their acts of treachery and all the tribes gathered for this purpose. As they were greatly outnumbered by their enemies the cliff-dwellers were annihilated after a series of battles.

Some of the younger members of our tribe (the Winnebago) were of the belief that these people also built mounds and attributed the larger Indian earthworks like Aztalan, the Cahokia mounds, and others, to them. Tradition says that they were very intelligent and displayed a skill in earthwork construction unknown to their enemy tribes.

However, the fact remains that the Winnebago built effigy mounds such as those that abound in what was formerly Winnebago territory. Although a tribe of hunters and fishermen they were dependent upon agriculture for a considerable part of their food, and planting grounds were to be found at all of their permanent villages.

## PRAIRIE SMOKE

The above is the title of a very interesting book of Plains Indian history, customs and folklore just published by the widely-known American ethnologist-botanist, Dr. Melvin R. Gilmore (Pahok), until recently a member of the scientific staff of the Museum of the American Indian, New York.

"The title of this book is suggested by one of the popular names of a flower which is the subject of one of the stories of this volume. This flower, the earliest to bloom in springtime over all the northern prairies, has a number of popular names which are 'pasque flower', 'gosling flower', and 'prairie smoke'. The latter name is suggested by the nebulous appearance presented by a patch of the bluish

blossoms upon a prairie hillside in early spring, while all the other vegetation is still brown and dead. At such a time, with all the flowers trembling in the spring wind, they appear like a pulsing cloud of grayish-blue smoke hovering low over the ground."

The information and stories contained in Dr. Gilmore's book were obtained by him during his investigations of the plant lore of the Dakota, Omaha, Arikara, Pawnee, Mandan, Hidatsa and other Plains tribes. Its contents are arranged under six sections bearing the titles, "Mother Earth", "Lodge and Tipi", "The Tribes of Men", "Four-footed Tribes", "Tribes of the Air", and "The Plant Tribes". Included in these sections are some forty tales and legends some of which are—"The Water Spring of the Holy Man", "The Legend of Standing Rock", "The Holy Hill Pahok", "The Wonderful Basket", "Escape of a War Party", "An Omaha Ghost Story", "The Coyote's Boxelder Knife", "The Bean Mouse", "How the Meadow Lark Won the Race", "Gratitude of the Bean Mouse", "The Song of the Old Wolf", "The Song of the Wren", "The Lost Baby and the Upland Plover", "The Friendly Corn", "The Forgotten Ear of Corn", "The Prairie Rose", and "The Sunflower". One of the stories describes a mysterious water monster which the Dakota people believed lived in the waters of the Missouri River. It was a terrible animal and was but seldom seen by human beings. It was greatly dreaded by the Indians and misfortune befell those who saw it. In the springtime this monster moved up the river breaking up the ice as he moved against the current. This evidently refers to the same malevolent water spirit, horned panther or monstrous serpent which our Winnebago, Menomini and other tribes speak of in their legends as having once inhabited many lakes and water courses in Wisconsin.

The author has added greatly to the interest and charm of the book by introducing at the beginning of its several sections articles giving information about Plains Indian environment, life and customs. Some of these treat of the Indians "Love of the Homeland", "A Boy's Education", the origin of "The Earth Lodge", the construction of "The Tipi", "Indian Personal Names", and "False Notions



About Indians". Especially instructive are several devoted to a consideration of "Early Indian Agriculture", "Trading Between Tribes", "Indian Ideas of Property", and "Tribal Boundary Lines".

"The Arikaras and Mandans on the upper Missouri were the great agricultural tribes of their region. Omaha legend credits the Arikaras with first having corn and with having distributed it to other tribes. The common pictograph to represent the Arikaras among all the surrounding tribes was a conventionalized ear of corn." The Arikaras and their relatives, the Pawnees were "the pioneers in agriculture in all the Plains region," and "had been the teachers of the art and science of agriculture to all of the other tribes of that region which practiced it. They also taught them the Caddoan architecture, pottery, and other arts. The products of Caddoan agriculture were eagerly sought by the tribes dwelling on the high plains west of them, and in the Rocky Mountains beyond, in neither of which regions could agriculture be carried on." The western Dakotas brought dried tipsin roots and dried wild fruits to trade to the Arikaras, the Cree and Chippewas dried moose meat, furs, skins and maple sugar, salt came from the distant country of the Otos and Kansas, the Cheyennes brought plant and mineral products, Osage orange wood for bows came from Oklahoma and southwestern Arkansas, and dentalium shells from the Pacific coast.

"The various tribes were free and independent self determining nations, each holding dominion over a definite area claimed as its own country and so recognized by neighboring tribes. And each such national territory was delimited by boundary lines, usually established by treaty-making conventions of the nations concerned, and marked usually by topographic features, such as streams, hills and mountains."

Dr. Gilmore is well known in Wisconsin and many members and friends of the Wisconsin Archeological Society will wish to possess copies of his book. It is printed by the Columbia University Press, New York. The illustrations are by Louis Schellbach.

## ARCHEOLOGICAL NOTES

## Meetings

A meeting of the Wisconsin Archeological Society was held at the Public Museum at Milwaukee on Monday evening, November 19, 1928, President Huron H. Smith in the chair. Attendance about one hundred.

Secretary Charles E. Brown offered a report on a field meeting of members and friends held at Aztalan Mound Park, on Saturday, October 20, at which a tablet marker was unveiled. The dedication address was delivered by Mr. George A. West, the other speakers being Dr. Louise P. Kellogg and Mr. John A. Jeske. Mr. Robert P. Ferry, chairman of the Park Committee, directed the exercises. An opportunity was given to see the new park pavillion and other improvements made under Mr. Ferry's direction. About 250 persons were present. Mr. Brown also announced the restoration and permanent preservation of a fine group of effigy mounds and a linear mound located in Forest Hill cemetery at Madison. For these a tablet should be provided. He also urged the marking with a tablet of a single conical mound located on the State Fish Hatchery grounds near Madison. Steps had been taken to apprehend the proprietors of the fake Indian implement "factory" located at Cumberland City, Kentucky.

Mr. W. C. McKern made a report on the progress of archeological investigation in other Middle West states.

Mr. George A. West gave an illustrated lecture on "Aztalan, the Most Ancient City in Wisconsin". He strongly urged the appropriation by the State of the funds needed to purchase the remainder of the Aztalan site, and the restoration of the stockade wall and other earthworks in its vicinity. In the discussion which followed various members and guests took part. An exhibition of Aztalan material was made by the Museum.

At the meeting of the Executive Board, which preceded the meeting, there were elected as annual members of the Society, Mr. E. A. Fuchsel, Neenah; Mr. Arthur J. Wyseman, Manitowoc; Mrs. H. E. Cole, Baraboo; Mr. Walter W. Maier, Milwaukee; Mr. Enos Kiethly, Dixon, Illinois, and Mr. Nain Grute, New York City. Prof. Julius E. Olson, Madison, was elected an honorary member of the Society. The recent deaths of Dr. H. L. Tilsner, a vice president of the Society, and of Mr. Alvin H. Dewey, Rochester, New York, for many years one of its members, were announced.

The December 17, 1928 meeting of the Wisconsin Archeological Society was held in the trustee room of the Milwaukee Public Museum. There were sixty-eight members and visitors present. President Smith directed the meeting.

The gift to the State by Mrs. H. Terry Andrae of Milwaukee of a tract of land on the Lake Michigan shore, south of Sheboygan, was announced by Secretary Brown. This includes a part of the noted Black River Indian village sites long a favorite collecting ground of local archeologists. Mr. Walter J. Kohler of Kohler is the owner of the remainder of these dunelands, which he is also administering as a preserve.

Mr. McKern presented resolutions on the death of Vice President Dr. H. L. Tilsner, which were adopted.

Mr. McKern gave an illustrated lecture on "Mound Explorations at Trempealeau." Especially interesting among the results of these excavations was the discovery in one of the mounds of remains of a

character similar to those designated in Ohio as the Hopewell culture. Other evidences of this mound culture had been found in previous years in certain mound groups in Crawford County by Dr. Cyrus Thomas.

Exhibits of specimens were made by Charles G. Schoewe, E. F. Richter and other members.

At the meeting of the directors of the Society, Rev. O. Warren Smith, Oconomowoc, was elected a life member. Col. Marshall Cousins, Eau Claire, and Mr. Charles E. Hard, Milwaukee, were accepted as annual members. The recent death of Mr. William Haertel, a former member, was announced. A special committee on program projects consisting of the Messrs. McKern, West, Brown and Kuhm was appointed. Plans for the annual joint meeting of the Society and the Wisconsin Academy of Sciences were discussed by Secretary Brown. A special committee on biographies of members consisting of the Messrs. Notz, Schoewe and Smith was also appointed. This committee to undertake the duty of collecting facts concerning the life history of the members of the Society.

President Smith conducted the meeting of the Wisconsin Archeological Society held at Milwaukee on Monday evening, January 21, 1929. Dr. E. J. W. Notz, chairman of the special committee on biographies of members, announced that a questionnaire had been mailed to all members. Mr. McKern, chairman of the program projects committee, reported that a meeting of the committee (Messrs. West, Brown, Smith and himself being present), had been held and a program for future meetings prepared. Secretary Brown announced the election by the Executive Board of Mr. A. E. Hollister, Tomah, as a life member of the Society. Mr. Gilbert Hacker, Sheboygan, and Mrs. Walter K. Richards, Milwaukee, were elected as annual members. Members were urged to send in the titles of papers to be read at the Joint Meeting to be held at Williams Bay on April 12 and 13. He read a letter from an Indiana dealer in fraudulent Indian relics, giving the prices at which such articles as pipes, dis-coidals and ceremonial forms could be purchased.

Mr. Huron H. Smith gave an illustrated lecture on "Among the Winnebago," in which he presented an account of the home life and ceremonies of members of the Wisconsin members of that tribe.

Mr. Charles G. Schoewe exhibited a fine series of wooden bowls, dishes, ladles and spoons collected from the Wisconsin Potawatomi Indians.

Fifty-three members and visitors were present at this meeting.

A meeting of the Wisconsin Archeological Society was held at the Milwaukee Museum on Monday evening, February 18, 1929. President Smith occupied the chair. There were fifty-five members and visitors present.

Mr. George A. West gave an illustrated lecture on "The Prehistoric Indian Copper Miners of Isle Royale". He presented an interesting account of the last year's McDonald-Masse expedition to this Lake Superior island, which he and Mr. George R. Fox accompanied as archeologists, and which resulted in the discovery of a large number of additional copper mining pits, of several village sites and burial places, and other features of interest. Mr. Vetel Winn made an exhibit of copper implements.

Secretary Brown announced the deaths of two members of the Society, Mr. Caspar Whitney, of Irvington-on-Hudson, New York, and Mr. Oskar Korthals, Milwaukee, and spoke briefly of both men. At the meeting of the directors of the Society there had been elected

as annual members, the Messrs. Dr. E. B. McDonald, Little Rock, Arkansas, Clarence Sorenson, New Lisbon, and S. J. Carter, C. C. Johnson and H. A. Moussa, Milwaukee. The biographical committee reported that good progress was being made in its work.

The Wisconsin Archeological Society held its Annual Meeting in the trustee hall of the Public Museum at Milwaukee, on Monday evening, March 18, 1929, President Smith presiding. There were ninety members and visitors present.

Secretary Brown announced the deaths of three members of the Society—these being, Mr. William H. Vogel, a vice president at the time of his demise, Mr. George E. Copeland of Milwaukee, and Mr. Rudolph Kuehne of Sheboygan. All were old members of the organization and their loss was greatly regretted. Dr. Ralph Linton, Madison, and Mr. Alfred Korth, Fairwater, had been elected annual members by the Executive Board. Mr. Albert Thunder, Kilbourn, had been made an honorary member. The Messrs. Dr. Notz, Dr. Kastner and Mr. West had been appointed a committee to prepare resolutions on the death of Vice President Vogel. The annual report of the Secretary was read and adopted.

A nominating committee to select officers for the ensuing year was appointed. This committee, consisting of the Messrs. Winfield W. Gilman, G. M. Thorne and W. C. McKern, retired to an adjoining room and on its return nominated the following offices: President—Huron H. Smith; Vice Presidents—Charles G. Schoewe, Mrs. E. H. Van Ostrand, Aden T. Newman, Winfield W. Gilman, Dr. Alfred L. Kastner, Mrs. Theodore Koerner, and Arthur P. Kannenberg; Directors—Dr. S. A. Barrett, Milo C. Richter, Vetat Winn, Dr. F. C. Rogers, E. F. Richter, L. R. Whitney, Dr. E. J. W. Notz, Geo. A. West, W. C. McKern and Mrs. A. E. Koerner; Secretary—Charles E. Brown; Treasurer—G.M. Thorne. These officers were unanimously elected.

Mr. John G. Gregory delivered a very interesting lecture on "Early Milwaukee", in which he described the visits to the site of the present city of the early French explorers and missionaries, the early Potawatomi and Menomini Indian villages and early fur-trading posts.

The Messrs. West, Gregory and Brown were appointed a special committee to report on the desirability of marking the sites of the early Indian villages of Milwaukee with appropriate tablets.

The Annual Joint Meeting of the Wisconsin Archeological Society, Wisconsin Academy of Sciences, Arts and Letters, and Midwest Museums Conference was held at Yerkes Observatory, Williams Bay, on Friday and Saturday, April 12 and 13, 1929. Members of the Wisconsin Archeological Society who presented papers in the program were Dr. Paul B. Jenkins, Dr. Louise P. Kellogg, George Overton, Dr. Albert B. Reagan, Geo. A. West, Geo. R. Fox, Chas. E. Brown, Dr. O. W. Smith, Alton K. Fisher and Dr. H. W. Kuhm, and Huron H. Smith. The annual dinner was held at the Rose Lane Resort on Friday evening. Members of the Society came to the meeting from Appleton, Ripon, Milwaukee, Elkhorn, Madison, Beloit, Janesville and other Wisconsin cities.

A meeting of the Wisconsin Archeological Society was held at Milwaukee on April 22, 1928. Called to order by President Smith. Sixty were in attendance.

Secretary Brown made a report on the results of a meeting of the Executive Board. He described briefly the six early Milwaukee Indian villages which it was desired to mark with tablets. A report of the Joint Meeting held at Williams Bay, on April 12 and 13, was presented.

Mr. T. L. Miller read a paper describing the method in use by the Milwaukee Museum in making mound group surveys. This he illustrated with several lantern slides. This was discussed at length by the Messrs. Dr. E. J. W. Notz, Milo C. Richter, Paul Joers, Geo. A. West, W. C. McKern, Dr. S. A. Barrett, C. E. Brown and others present. Other methods were shown to have been employed by Dr. Lapham, W. H. Canfield, L. L. Sweet, pioneer archeologists and practical surveyors, and others by Prof. Cyrus Thomas, Moses Strong, Jr., Prof. T. H. Lewis, Dr. S. D. Peet, Ira M. Buell, Dr. Louis Falge, G. R. Fox, G. A. West, W. A. Titus, Alonzo Pond, and others. Dr. A. B. Stout had employed a very simple method, which H. E. Cole, H. L. Skavlem and others had followed with good results. Sometimes the services of professional civil engineers had been employed. The Museum's method was thought by some to be too intricate for the use of some amateur contributing members. Printed report forms and cross-hatched paper for use in surveys were exhibited. Dr. Stout was the first to make use of the latter. It was shown that in the thirty years of its life the Society had endeavored to systematize more and more the character of all field work. During the State Survey of 1911-15 supplies of cross-section paper and other necessary supplies and full instructions for field work had been furnished by the Committee on Survey, Research and Record. Mr. Brown called attention to the fact that the Committee on State Archaeological Surveys of the National Research Council was proposing to soon print a short manuscript dealing with the essentials of archeological record. By this means it was desired to secure a certain degree of uniformity of work in all states. A large field manual of archeology would probably follow.

Mr. Robert J. Kieckhefer exhibited a series of three films illustrating the results of several long canoe journeys through the beautiful streams and lakes of northern Ontario, during which Indian sites, platform burials, pictographs and other aboriginal landmarks were encountered. The introductory descriptions of all of these interesting and beautiful films were given by Dr. E. J. W. Notz, his associate on these pilgrimages.

Mr. C. G. Schoewe exhibited an interesting stone celt, Mr. E. F. Richter a small fluted stone hammer and Mr. Paul Joers an Indian scalplock.

### Publications

Indian Notes, the quarterly publication of the Museum of the American Indian, April 1929, contains, among others, an interesting paper by Frank G. Speck, on "Boundaries and Hunting Groups of the River Desert Algonquin", of Quebec.

A book, "History, Tradition and Adventure in the Chippewa Valley", by Wm. W. Bartlett, is printed by The Chippewa Printery, Chippewa Falls. It is a very interesting contribution to northern Wisconsin history.

Charles C. Adams, director of the New York State Museum, Albany, is the author of a pamphlet, "The Importance of Preserving Wilderness Conditions." In this publication, John Muir, Wisconsin-bred, is lauded as "our first and greatest champion" of the nature sanctuary.

Two recent issues of the North Dakota Historical Quarterly contain a very interesting paper by Louis A. Tohill on "Robert Dickson, British Fur Trader on the Upper Mississippi."

In a recent issue of the University of California Publications, E. W. Gifford contributes a very interesting paper on "Pottery-Making in

the Southwest". Among a number of pottery trowels (which he designates as "anvils"), are several specimens from Aztalan, Wisconsin.

A Logan Museum bulletin (Vol. 1, No. 2), entitled "A Contribution to the Study of Prehistoric Man in Algeria, North Africa", is by Alonzo Pond, assistant curator of the Museum. Copies can be obtained through Dr. George L. Collie, Beloit.

In the bulletin, Research Records of the Rochester Municipal Museum, William A. Ritchie describes the results of the excavation of "An Algonkian Village Site Near Levanna, New York". It is illustrated with ten plates and a map.

A publication of which some of our friends may have failed to obtain a copy is Dr. W. B. Hinsdale's illustrated booklet on "The Indians of Washtenaw County, Michigan."

Edith L. Watson contributes to the April-June issue of the American Anthropologist a paper on "Caves of the Upper Gila River, New Mexico," and W. C. McKern an article on "A Hopewell Type of Culture in Wisconsin".

The January-March issue of the American Journal of Archaeology contains, among other papers, one on "The Genesis of the Greek Black Glaze", by Charles F. Binns and A. D. Fraser, and one a "Preliminary Report on the Excavations at Olynthos", by David M. Robinson.

Members can obtain from the U. S. Smithsonian Institution a separate of a paper, "The Interpretation of Aboriginal Mounds by Means of Creek Indian Customs", by John R. Swanton.

An interesting catalogue of the Nature Guide School of the School of Education of Western Reserve University for the summer session of 1929 can be obtained by addressing 2060 Stearns Road, Cleveland, Ohio.

A booklet of "Paul Bunyan Tales", offered as a contribution to American folklore, by C. E. and T. T. Brown, can be obtained by addressing 2011 Chadbourne Ave., Madison. Cost 30 cents.

### Researches

All members and friends of the Wisconsin Archeological Society are invited to assist in its field work during the season of 1929. It is desired that as many as possible will do so. Instruction and assistance will be given when desired. Reports and all other information should be filed with the Secretary. Descriptions of collections and specimens, and photographs and drawings of the same will be acceptable.

# The Wisconsin Archeologist

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No. 4

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ARCHAEOLOGY AS A HUMAN INTEREST  
WINNEBAGO COUNTY INDIAN EARTHENWARE  
AMERICAN INDIAN CROSS-BOW  
CARTOGRAPHIC SYMBOLS  
IOWA ARCHEOLOGICAL SURVEY  
APACHE PLANT USES



PUBLISHED QUARTERLY BY THE  
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# **Wisconsin Archeological Society**

## **Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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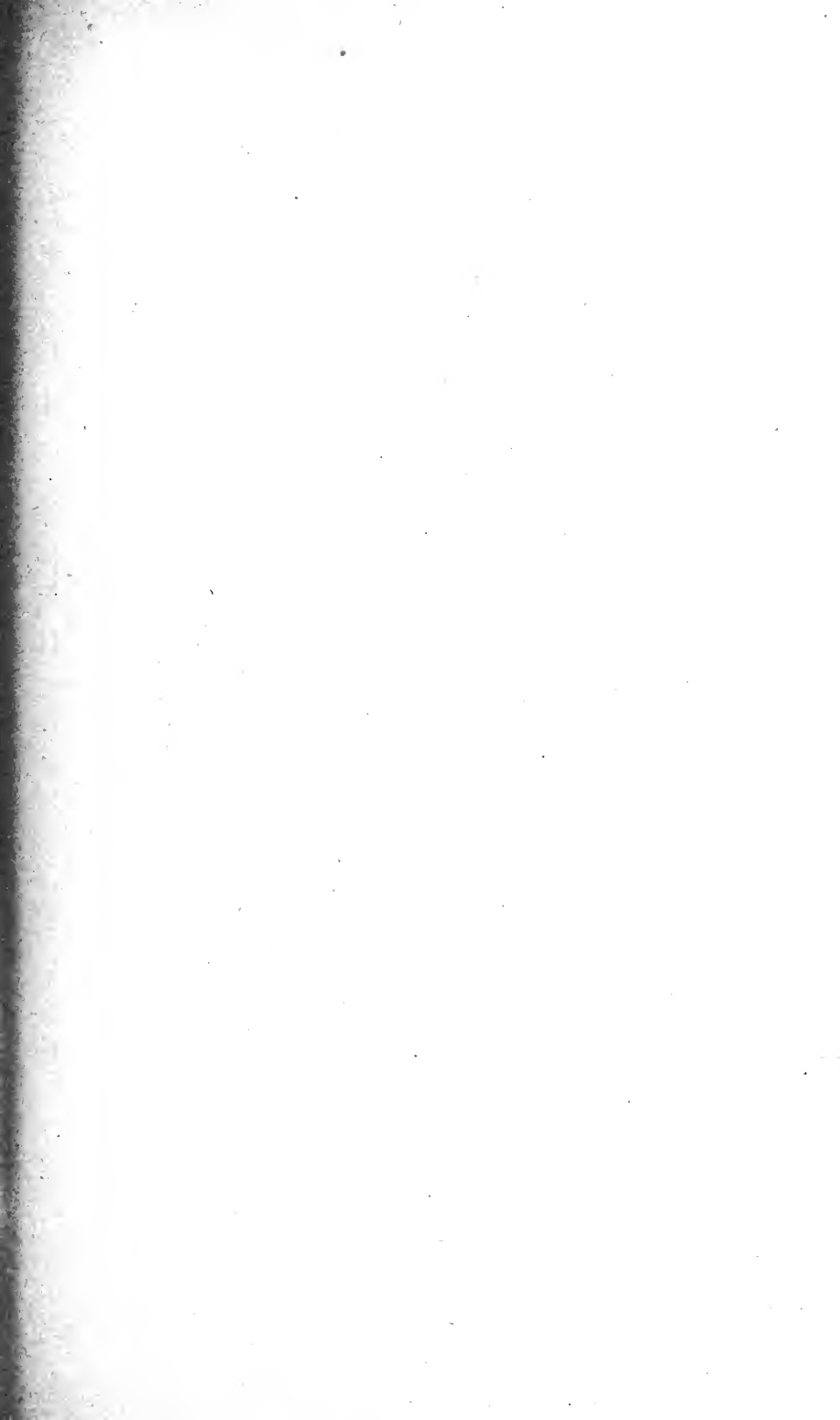
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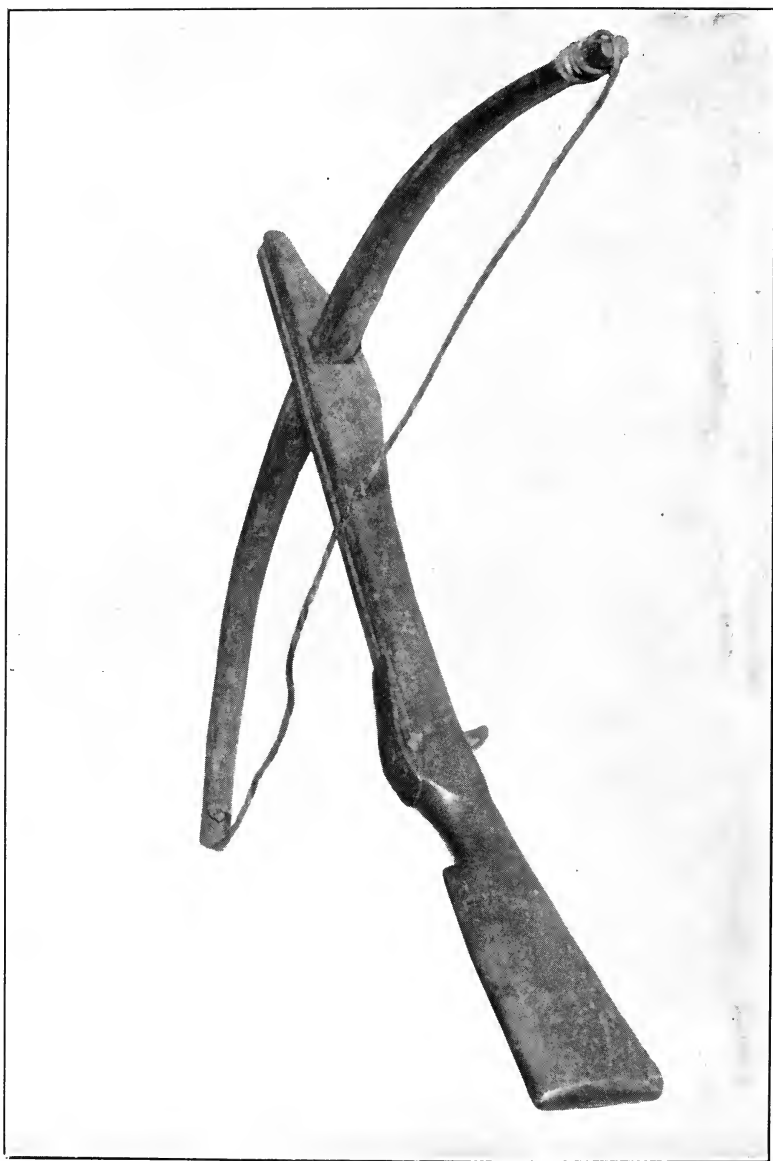
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Croatan Cherokee Cross-bow.

# The Wisconsin Archeologist

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## ARCHAEOLOGY AS A HUMAN INTEREST

Clark Wissler, Ph.D.

Curator-in-chief, Division of Anthropology, American Museum of Natural History, New York.

The matter of state archeological surveys is presented here from the point of view of the layman rather than the specialist. The interest in mounds, stone implements, etc., is universal and spontaneous. Every man is interested in the past of his race. The farmer or the boy scout picking up an arrowhead is spontaneously carried back in imagination to a life different from now; at this spot, he says, a man once hunted the deer, or perhaps launched an arrow at his enemy. In brief, the old, whether it be historic or prehistoric, makes a spontaneous appeal. So by the nature of the subject, state archaeology touches one of the basic interests in human life. Whenever, therefore, we take up a survey or any study of a state's archeology, we touch a universal human interest.

## HISTORY AND ARCHAEOLOGY INTERRELATED

It is well to bear in mind that history and archaeology are inseparable in the public mind. The Indian was on the ground when the explorers came upon the scene. The pioneers, traders, trappers, and settlers, dispossessed the Indian, and in the clash that followed, local history was made. So the place where the Indians lived, the sites of first settlement, old trails, etc., are all objects of spontaneous interest. Mounds, stone implements, prehistoric graves, are all associated with the Indian, because his ancestors near and remote were responsible for them. There is no more inspiring and romantic period in our history than the settlement of the great valley of the Mississippi. It thrills everyone to think

of the great forests and plains, the hidden dangers that lurked therein, and the fearless, heroic, forward movement of our forefathers into this region. There are to be placed at convenient points along the Old National Road, extending from Cumberland, Maryland, to St. Louis, a series of statues commemorating the pioneer woman, my great-grand-mother and doubtless yours also. These statues are symbolic of the future regard for the outstanding events of the pioneer period and we shall be blamed if we neglect to make adequate record of these events before trace of them is lost.

The Indian is a part of this pioneer picture; he is the human element in the background against which the achievements of our great-grandparents are projected. Without them and without due regard to the life of their ancestors, the true life of the pioneer can never be shown.

#### THE HISTORICAL AND ARCHAEOLOGICAL BACKGROUND AS AN ASSET

The historical and archeological background of a state is one of its great cultural and educational assets. It possesses recreational possibilities also. The rapid advance in the mechanization of modern life has left men and especially women, with time on their hands. We have made wonderful provision for the education of our children, but when they leave school and settle down to the round of life, the doors of the school are closed to them. There may be a library accessible, but no personal leadership. Women's clubs have in part solved the problem for the woman, but in recent years our educational leaders have come to recognize the need of something more for the adult. The problem is to find his spontaneous interests and to draw them out. Everyone agrees that the best adult education is that which calls for the least teaching and the most learning on the part of the student—that which leads him to follow a real interest.

#### OPPORTUNITY FOR LEADERSHIP

The conservation movement is another expression of this deep interest. What we hear now is, preserve these antiquities, they are the culture heritage of the State. The mere

fact that people rise in protest when antiquities are removed or destroyed is sufficient proof of the culture value of such things. Conservation is here, is taking care of itself, as evidenced in the rapidly increasing number of state parks in the Mississippi Valley. What is now needed, what the time is ripe for, is real leadership in interpreting the things conserved.

The preceding speakers have stressed the need for taking stock of your antiquities, to interpret them, to sketch the outline of the prehistory of this country. That must be done, even to conserve wisely the antiquities you have; but in the doing of it is the opportunity to give intellectual leadership to the spontaneous interest of your people, and especially to the amateur archaeologists and historians in every community. A survey must be a cooperative effort; to succeed such an effort must be led.

#### THE NATIONAL AND STATE PARK MOVEMENT

Already several states in the Mississippi Valley have developed systems of State Parks deserving of study. The incessant public demand for more state and national parks is registered in bills now pending in Congress and in the legislatures of many states. For one thing, a park is a place for recreation, but it is more. Our people demand that each park contain something inspiring and informing, as objects of natural and historical interest. As populations increase and highways become better and better, more such parks will be established. The experience of Ohio shows that archaeological antiquities are eminently suitable materials for state parks. Further, the tendency is now to make our parks centers of inspirational and educational interest, to so staff them and equip them that they will be recreational in the highest sense. Again experience proves that the mass of the people are eager to see historical and archaeological evidences of past happenings. In the archaeological assets of the country are to be found rich materials for such a program.

#### OUR AMERICAN BACKGROUND

Lewis H. Morgan, one of America's great social students, was impressed by the fact that every people regarded some

land as their own placed its possession above everything else. He went even farther, by pointing out that national feeling is chiefly the emotion that arises with the memory of events and objects in that homeland. We in this Mississippi Valley first of all feel that here is home, the base upon which all our activities rest. But we, as a people, have not been here long; we are still strangers in this land. To know a land well, we must know its past. We were transplanted here from Europe and still think of her history as our history. Yet the land we took over had a long history of its own. People preceded us not unacquainted with great deeds. Just across the river from here [St. Louis] lies the great Cahokia. No child's play produced that. Go to Fort Ancient in Ohio and marvel at what you see. No mules, no steam shovels, aided in these works. Go to our museums and see the pottery and stone carvings of these Prehistoric folk; there were artists in those days. To say that all this is the work of the Indian and his ancestors is commonplace; but seldom do we consider in how far we are like the Indian in all that is truly American. In our pride of 100% Americanism, we make large claims for originality and efficiency; we have good ground for congratulating ourselves upon the past, but we may claim too much. If we ask what the Indian contributed to our civilization and through us to the world, the first thought may be nothing but misery and trouble; the atrocities of border warfare come at once to mind. Yet if we take stock of the things distinctively American, we are obliged to credit the Indian with a respectable number of them. For one thing, our language contains many concepts borrowed from the Indian,—war path, war paint, scalping, peace pipe, burying the hatchet, scouting, etc. Of more material things; moccasins, snowshoes, birch canoes, toboggans, lacrosse, totem, wigwam, tipi, and so on. The very art of woodcraft was learned from the Indian and followed by the pioneer; and is still the technique of scout and other outdoor organizations. In the matter of place and river names, Indian words are found on every hand, as Missouri, Mississippi, Ohio, Chicago, etc. Many more Indian names lie behind such translations as Buck Creek, Moose Jaw, Devil's Lake, Pipestone, etc. Finally, note may be taken of the great economic gifts from Indian cultures.



Even the man who counts everything in dollars must bow to the Indian. It is not merely that we took the Indian's land; we acquired tobacco, maize, potatoes, peanuts, tomatoes, and some forty additional food plants. The yearly value of these products produced in the United States alone, when stated in dollars, is incomprehensibly large. Even in terms of pounds and bushels the statistics are meaningless; as:

|          |       |               |      |
|----------|-------|---------------|------|
| Maize    | ----- | 2,700,000,000 | bu.  |
| Tobacco  | ----- | 1,200,000,000 | lbs. |
| Potatoes | ----- | 400,000,000   | bu.  |
| Peanuts  | ----- | 860,000,000   | lbs. |

If all the maize raised in the United States alone were placed in bushel baskets and these set in a row, the row would be about 1,000,000 miles long, reaching about forty times around the earth. If the peanuts raised in the United States were placed in pound paper bags and set in a row, the row would circle the earth twice. All this and more rests upon the gifts of the Indians to the white man.

But you say we would have found these plants in the wild state and reduced them to cultivation? That is doubtful. Remember that the wild ancestors of several of these plants are still in doubt. They were developed by ages of patient study and cultivation; whereas our pioneers had them tossed into their laps. Let us try to imagine what would be the nature of these United States today if Columbus had found an uninhabited land. No Indian with cigars would have greeted Columbus, Sir Walter Raleigh's servant would not have drenched his master with the swill pail, Queen Elizabeth would not have experienced a kick from the first pipe-full. But you say, we would have discovered tobacco in time; maybe, but it took the Indians centuries to develop the art and the plant. Maize, the economic backbone of agriculture in the Mississippi Valley, would have remained undiscovered for a long time at least; think what a different country this would be, if corn were out of the picture. But we have not considered all that the Indian gave; it was native Indian trade that enriched Europe and made the rapid development of our country possible. The Indian was a consumer of goods, eager to buy and to pay extravagantly in furs and other products. In truth, it may be said

that the American Indian put the white man on the map. He certainly laid the foundation to the economic greatness of the United States.

So we see ourselves the inheritors of the best that was in Indian culture; we have incorporated this heritage into our own culture. The original cultures of the Indian were slowly worked out as an adjustment to climate, flora, fauna and the topography of America; an adjustment perfected by time. Our pioneer fathers needed but to learn what this culture had to offer and to choose according to their needs. All this you know already; my reason for reviewing it, however, is lest we forget that the very subject you are now discussing deals with the existing records of that Indian culture to which we owe so much. The American people have taken up the job of the Indian; to make this America an ever better place to live in. Though the Indian may have been no more conscious of the fact than you are, he also was striving to make America a better place to live in.

There seems then good reason why some serious attention should be given to the facts of Indian culture, as part of the background to which we and those who come after us, must look for inspiration and wisdom.

Finally, it all comes down to this. We all want to know how the Indian came here before us; what place he had on the family tree; we yearn for a glimpse of his history; we want to know more about the mounds and earthworks; how the Indian discovered corn and learned to put four grains in a hill; and where he first discovered the joys of the pipe. These and many other things not only haunt us but they are parts of our ill-assimilated heritage. A large part of the answer lies in the ground and it is the retrieving of this record that we advocate, that it may be an inspiration to succeeding generations.

## WINNEBAGO COUNTY INDIAN EARTHENWARE

Arthur P. Kannenberg

Winnebago County is located in what might be termed the heart of Wisconsin. It is bounded on the east by the beautiful shores of Lake Winnebago, on the west by Wau-

shara and Green Lake Counties, on the south by Fond du Lac County and on the north by Outagamie and Waupaca Counties. It is a county with a number of inland lakes and rivers, chief among the rivers, are the Wolf and the Fox.

At the coming of the white man to Wisconsin, Winnebago County was inhabited by various tribes of Indians, who made their homes on the shores of these waters.

The Winnebago tribe, from whom this county derived its name, was by far the largest. Other tribes such as the Menomini, Sac and Fox, Potawatomi, and others are known to have lived within the boundaries of Winnebago County.

Numerous Indian villages and camp sites are visible and open to investigators.

Most common among the artifacts found on these sites are the fragments of earthenware vessels. This department of archeology, has been somewhat neglected from the point of study and observation. It is most important in determining the culture of the early Indians.

Pottery, to my idea, is at the pinnacle of aboriginal art. I am convinced that it ranks above pictographic art. The pottery makers' industry was a very difficult one, investigation shows.

The right kind of materials to be used in pottery making had to be obtained. These consisted of clay, coarse sand, disintegrated granite, clam shells, and of a kind of glue-like substance to hold the entire mass in shape, before being baked in the kiln.

I have come to the conclusion that this method must have been used. Possibly the pitch from the pine trees, or the sap from almost any kind of bush, shrub or plant, from which a sticky substance could have been drawn. It is also stated that the blood from animals was used for this purpose.

The pottery maker had no molds or forms of any kind, the pots, bowls and other vessels being shaped entirely by hand. A hole may have been made in the earth or sand, in which the piece to be made was started. The vessels were left in position until they were dry enough to be handled. A larger hole, sometimes round, sometimes square, was then dug into the earth, a small fire was built at the bottom of this pit. The finished bowl was placed on the

hot embers and burnt until it became hard and firm. Such kilns are still to be found on the Menomini Indian Reservation.

The lower part of the bowl usually was a smooth surface, and in most cases is thinner at the bottom than at the top. Starting at the very base, the thickness usually runs from one-eighth to one-quarter of an inch, that tapers upward to the rim of the bowl to a thickness of from one-quarter to one-half of an inch.

The larger bowls or pots average from one to five gallons capacity. These were storage vessels for food, and were placed in graves to aid the departed on his journey to the spirit world.

The smaller vessels were used for domestic purposes and in some instances, were placed in the grave, as were the large vessels.

In making a bowl, the manufacturer would select a smooth red or dark clay. Clam shells, disintegrated granite, coarse sand, or, as suggested by a prominent archeologist, a particular kind of micaceous shale, would be pulverized and thoroughly mixed with the clay. As this mixture would not stand up under the slightest pressure or weight from the rim and part of the shoulders, a fluid composition of either gum, pitch or blood, would be absolutely necessary to make the composition tough and elastic enough to allow handling possible, while under construction.

The decorations were applied by various methods. Finger-tip indentations for scalloping was the most common method used. Braided grass or twisted-cord, bark-marked, stick-marked and perforated decorations are common types. These are found extensively in Winnebago County. We have approximately one hundred and twenty-five different types of decoration represented in body sherds and rims in the Oshkosh Public Museum. They are of seven distinct colors of clay.

Potsherds can be collected by the peck on the various camp and village sites in Winnebago County. Several thousand specimens are now a part of the collections in the Oshkosh Public Museum. There are hundreds of other specimens in private collections.



PLATE I.  
Winnebago County Pottery Vessels, Oshkosh Public Museum.



The most noteworthy discovery of pottery vessels, was made in 1922, by Mr. Walter Karow, on his farm five miles north of the city of Oshkosh on the Lake Shore Road. While plowing a new piece of land, located in the northeast quarter of Section 30, Township 19 North, Range 17 East, Mr. Karow found in a sandy kiln which runs parallel with the west shore of Lake Winnebago, a very old burial. Several ribs, vertebrae and a broken bowl came to the surface. As several very interesting surface finds had been made in this region, Mr. Karow hurried back to the house for a spade, to excavate this grave. While at the house he called me by telephone and told me of his discovery. I asked him to wait and not do any digging until I came. I told him he might miss valuable material and lose interesting data. Although I hurried out to his farm as fast as I could, Mr. Karow had dug out most of the material and the remains of the Indians, when I arrived. There were two bodies in separate shallow graves. They were buried lying flat on their backs, heads to the west. There were two large flat bowls, bottoms of both were burned black, as though they had been used over a fire. They are rather heavy at the base and taper up to about a thickness of one-quarter of an inch at the rim. One of these bowls has a straight handle or lug on each side extending out from the side about one and one-half inches and about three-quarters of an inch below the rim. It is made of a reddish clay, tempered with crushed clam shells. A deep incised line encircles the entire bowl. Between this center line horizontal short lines run from the rim to the center line, also from the center line to the curve of the bottom. The rim itself, is plain.

The other large bowl is of the same form, except that the lugs or handles are absent. The rim of this bowl is notched in diamond shape. Each of these bowls weighs about five pounds.

Two small cups were also found. These are in perfect condition. The decoration on these is the same as on the large bowls.

Another round, rather flat bowl, was also found. This has a flanged rim and is very heavy for its size. It holds about a quart. Another flat dish was found. The one which was broken by the plow was reconstructed. It bears

the greatest amount of decoration. The rim is notched and vertical lines run from the rim to the base.

Sixteen pipes, seven of them made of pottery, were found with these burials; besides a large number of bone implements, several copper specimens and many prehistoric artifacts. It is considered the most valuable archeological find made in Winnebago county to date.

The genuineness of these bowls or pots was questioned by the late Alanson Skinner on account of their peculiar forms. I am absolutely sure of their genuineness. I agree with others, that they are a southern type of vessel.

The location in which this find was made, is the village site of the Winnebago Chief Wild Cat, or Pescheu. Hopokoekau (Glory of the Morning), the Winnebago princess famed in history and drama, also lived on this spot.

Undoubtedly these bowls were brought from a long distance as a gift, or in barter with the Winnebago. Several obsidian, jasper, and artifacts made of other foreign materials were found on this village site, which appears to indicate that these articles were brought to Winnebago County by roving Indian bands of another tribe.

Another very large pot was uncovered on the Lake Shore Road in Section 33, Township 17 North, Range 17 East, on the Warren Bessey farm, about seven miles south of Oshkosh. Workmen hauling sand from a pit, came upon a burial containing a very large pot. It was broken to pieces with a shovel, while trying to get it out. About forty pieces with a part of the beautiful rim are now in my collection.

A fine bowl was uncovered with a camp burial disturbed near the city of Menasha. It was broken in getting it out, but was restored to its original form. It is of three gallons capacity.

An elaborately decorated bowl was found with a burial while excavating for a basement in the city of Neenah. It was recovered intact, but was slightly damaged before thoroughly dry, by a bystander who wanted to examine it. It was secured by the late P. V. Lawson of Menasha, a former active member of the Wisconsin Society, and is now in the Oshkosh Public Museum.

A very odd shaped handled pot was uncovered while dig-



ging a trench for a drain on the Charles Kempf property in the Town of Poygan, on the south shore of Lake Poygan. It was broken in many pieces, but reconstructed, with a very few pieces missing. Both handles are in perfect condition. This bowl is in my collection.

While excavating for a garage in the city of Oshkosh, on the McCauley property on the Lake Drive, workman uncovered several Indian burials. A number of stone artifacts and a large pottery vessel were obtained. As usual, the pot was broken in many pieces. For this reason, the workman paid slight attention to it, and it was shoveled into a wheelbarrow and dumped on a rubbish heap. Several hours later, I learned of this discovery and immediately went to the scene and recovered what I could find of the pieces. This was evidently a very large pot, artistically decorated.

An elk's horn was also found, with every prong cut off square. One quite similar was found in Omro township several years ago; both are in my collection.

We expect to carry on extensive excavation work near this spot within a short time and it is hoped other burials may be found.

It is more than likely that many pottery vessels have been found in Winnebago county by persons who did not appreciate their value, and for that reason, their existence was never recorded. Many more will be found, without a doubt.

We are on the lookout for these. Contractors have all been requested to report these finds to us, so that they may be preserved for the benefit of future Wisconsin archeologists.

## CARTOGRAPHIC SYMBOLS FOR ARCHEOLOGICAL SURVEY MAPS

Charles E. Brown

The late Prof. Cyrus Thomas was among the first investigators to make use of cartographic symbols in the preparation of archeological survey maps. In the introductory pages of his "Catalogue of Prehistoric Works East of the Rocky Mountains," which was published by the Bureau of

American Ethnology in 1891, he presents "a scheme of conventions adopted for Archeologic Cartography of North America." This table contains a total of 59 symbols and which are employed on the maps accompanying this report. Of this number 23 designate different types of aboriginal habitations such as village sites, wood lodges, earth lodges, stone lodges, igloo lodges, cliff lodges, cave lodges, towers, and groups of these. Twelve designate various classes of earthworks, such as round or conical mounds, effigy mounds, domiciliary mounds, assembly mounds, mounds with stone graves, and enclosures, and groups of all of these. Six designate different types of interment in graves, such as ordinary graves, stone graves, cave burials and ossuaries, and groups of these. The remainder are in use in locating such other archeologic features as quarries, mines, shell heaps, refuse heaps, sculptures, cairns, pits, reservoirs, trails, and undefined antiquities. His symbols appear to be very well chosen and nearly all American archeologists who have since found it desirable or necessary to construct archeologic maps of any state or region have adopted some or many of his cartographic symbols.

In the fine "Archeological Atlas of Ohio" prepared by him and published by the Ohio State Archeological and Historical Society in 1914, Dr. William C. Mills has employed only thirteen symbols. In his cartographic table the symbols which he employs to locate enclosures (square), graves, cemeteries, petroglyphs, flint quarries and caches are identical with those used by Professor Thomas, and are no doubt adopted from his table of these. Dr. Mills, however, employs devices to designate the locations of mounds, effigy mounds and village sites which are different from those employed by Thomas. He also has symbols for enclosures (circular), enclosures (crescent), and rockshelters, none of which Indian remains Thomas designates in his maps. To designate the courses of trails Dr. Mills uses lines consisting of alternate dots and dashes, whereas Thomas uses dotted lines. Dr. Mills maps are very easily understood because all of his symbols and trails appear on them in red.

Alanson Skinner and Max Schrabisch in their "Preliminary Report of the Archaeological Survey of the State of

New Jersey," published in 1913, employ seven symbols to designate as many different classes of Indian remains. These, which are printed on the map in red, are the least intricate of any. Thus a solid red circle represents a village site, a solid red square a burial ground, a solid red triangle a camp site, an open or ordinary square a shell heap, an open triangle, a rockshelter, an open circle a cache, and a St. Andrews cross scattered finds.

In a report on the "Archaeology of Warren and Hunterdon Counties", of New Jersey, published in 1917, its author, Max Schrabisch, employs four symbols on his map. A solid red circle (dot) represents a camp site, an irregular oblique oval a village site, a double-barred cross a burial ground and a Y-shaped figure a rock shelter.

Archaeological maps of other states and regions east of the Mississippi River show these and other symbols in use in designating the locations of Indian remains.

In 1923 a bulletin of information entitled "State and Local Archaeological Surveys", containing suggestions in method and technique was prepared by Dr. Clark Wissler, then chairman of the Committee on State Archaeological Surveys of the Division of Anthropology and Psychology of the National Research Council. This was printed for the Committee by the State Historical Society of Iowa. Included in this pamphlet is a figure showing "conventional signs for use in field maps", these being adapted from Mills' "Archeological Atlas of Ohio", and Parker's "Archaeological History of New York." The symbols suggested for use are only 22 in number and are intended to represent such archaeological remains as mound groups of several classes, village sites, camp and workshop sites, lodge circles, garden plots, enclosures of several kinds, boulder effigies, burials, cemeteries, shell heaps, rockshelters, quarries, petroglyphs, caches or pits, Indian springs, and trails. This report was re-printed by permission of the Iowa Society, by the National Research Council, in the same year.

This bulletin has well served its purpose. If it is republished or a large and more complete archaeological field manual is printed, which appears to be now highly desirable, the cartographic table recommended for the use of

archaeological investigators, should be made much more complete than it now is. For instance if a separate symbol is assigned to designate each one of a number of distinct classes of mounds, as is done in the 1923 bulletin, there is every reason why the same should be done to designate the different kinds of aboriginal stone quarries, as—flint, quartzite, quartz, rhyolite, pipestone, steatite, etc.; of mines, as—copper, lead, hematite, mica, etc.; of Indian springs, as—sacred, medical, salt, etc.; of shrines, as—spirit stones, sculptured rocks, pictograph rocks, etc.; of pits, as—fire pits, refuse pits, game traps, threshing pits, etc., and of trails as main trails, minor trails (laterals), water trails, etc.

There can be no real objection to the number of symbols employed in the preparation of a state or regional archaeological atlas or map as long as the classification of archaeological features thus designated is a proper one, and if a cartographic table of these accompanies the atlas or map.

## AMERICAN INDIAN CROSS-BOW\*

Paul B. Jenkins

American Indian cross-bow, made and used by the Croatan (pronounced Croa-tán) branch of the Cherokees.

Dimensions: Center of butt to front end of stock, 34½ inches. Bow, tip to tip, 36½ inches. Center of butt to center of front face of trigger, 13 inches. Weight, 3 pounds, 12 ounces. Stock of oak; bow, hickory. Bow-string, twisted raw-hide. No sights of any kind.

The arrows used with these bows were of light, stiff reeds or of dogwood and similar common arrow-shaft material. Arrow-points were of flint or merely the shaft

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\*“Passing reference should be made to the cross-bow in the Virginia tidewater area where its introduction by Europeans among the Indians of colonial times parallels what happened northward as far as the Montagnis Nascapi. It is reported among the mixed Indian groups as far south as the Carolinas.” Frank G. Speck, “Chapters on the Ethnology of the Powhatan Tribes of Virginia,” bulletin of the Museum of the American Indian, Monographs, v. 1, No. 5, 1928.

His illustration of this cross-bow shows a slightly curved bow and a straight stick-like stock, with a groove and simple “trigger”. The length of this weapon is given as 32 inches.

sharpened to a point and hardened by fire. Effective range, up to 30 yards.

With these bows there were used true Indian arrows—as the length and construction of the arrow-groove indicates—and not an entirely different projectile, like the “bolt” of perhaps the majority of mediaeval cross-bows.

It will be noted that the operation of the simple pivoted trigger of this weapon—whose rear face simply shoves the drawn cord up and out of the notch to which it is pulled back—is totally different from the revolving “nut” or catch, and separate trigger, of the English and Continental cross-bows. (It seems to the writer very doubtful whether such “mechanical ingenuity” as the American Indian ever possessed, was capable of copying exactly the more complicated mechanism of the trigger-and-“nut” cord-release of the mediaeval cross-bow.)

The hump directly above the trigger and cord-notch is a fixture for preventing the released cord from jumping, on its release from the notch, so high as to fail to strike the rear end of the waiting arrow.

The entire weapon—save the bow-string—is of wood, not a piece of metal having been originally employed in its construction (though the mentioned hump has at some time been broken and repaired with small nails, which may be seen in the photograph.)

In the use of the weapon an increased or decreased tension of the bow—with corresponding changed velocity and power of the arrow—was effected by winding or unwinding the raw-hide bow-string from one end (in this case, the right-hand) of the bow.

### THE CROATAN INDIANS AND THEIR CROSS-BOWS

The Croatan Cherokees have lived since the discovery of America in eastern North Carolina, where the majority of them, probably some eight thousand in number, constitute nearly the entire population of a tract along the Lumber River, in Robeson County, a portion of which is a Government reservation. They and their leading white protagonists have long claimed that the famous “Lost Colony” of Roanoke Island in 1587, one of several expeditions

organized by Sir Walter and whose complete disappearance by 1591 has ever since remained an historic mystery, joined the ancestral tribe near by, and intermarried and merged with it. While it is undeniable that there has occurred in the past, and is still practiced, a considerable infusion of white (and negro) mixture with their people, their claim to descent from the "Lost Colony" has, however, received scant acceptance from leading historians. Among the principal evidences offered in support of the allegation are (1) the recorded finding by a would-be rescuing party in 1591, of the name of the tribe carved in English letters on a tree on the site of the vanished colony; (2) their long-standing family-names, of which not less than 60 are identical with known names of members of the "Lost Colony," (3) some apparently old-English words still current among them; and (4) the manufacture and use of these cross-bows, which are known to have been in use by them for long in the past, and up to 1870, or probably even later.

It is indisputable that the manufacture and use of the cross-bow must have been learned by their ancestors from European arrivals. The cross-bow was in use in England for shooting deer up to 1621, on the Continent to 1635, for birds and small game as late as 1720, and for sport and target-shooting until even much later. It is thus entirely possible for their use to have been acquired at any period between 1590 and the early part of the eighteenth century. The distinctly gun-shaped butt and grip of the weapon shown is, however, a very late development of cross-bow construction, not earlier than the late seventeenth century; and in the case of this arm was certainly copied directly from the stock of a gun, to which it bears every resemblance of form, line and proportion.

One of the leading elders of the tribe today (Mr. Calvin Lowrey of near Pembroke, Robeson County,) is authority (1929) for the statement that the weapon shown is believed to have been made between an hundred and an hundred and fifty years ago, and at the time of its construction to have been copied from others of then great antiquity. It was recently secured for the Museum of the North Carolina Historical Commission, at Raleigh. The photograph was secured through the courtesy of Col. Fred

Olds, in charge of the Museum. A duplicate is still in the possession of the recognized head-chief of the Croatans. Owing to the present modernization of the younger members of the tribe and the remoteness of residence of many of the older people with their reverence for their relics of the past, the existence and one-time use of these arms has been practically unknown until recent years.

Whatever be the true story of the origin of these arms, they certainly constitute the most unique and remarkable weapon known to have been made and used by any American Indians, and they possessed qualities and an efficiency which sufficed to retain their use side by side with early firearms, for many years.

## SOME METHODS AND RESULTS OF THE IOWA ARCHEOLOGICAL SURVEY

Charles R. Keyes\*

In the fall of 1921, the writer was asked by Dr. Benj. F. Shambaugh, Superintendent of the State Historical Society of Iowa, Iowa City, to direct for the Society an archeological survey of the State. After conferences with Dr. Shambaugh, Dr. Clark Wissler, then chairman of the National Research Council Committee on state archeological surveys, Mr. Edward K. Putnam, Director of the Davenport Academy of Science, and others, it was decided that the survey should be preliminary in character and that work should begin as early as possible in 1922. Summer seasons and such other time as was available were to be devoted to the investigation.

By a preliminary survey was meant the collecting of all possible existing information rather than the intensive study of a few sites. This meant of course the gathering of all possible published data and the locating of the largest possible number of people capable of making any contribution of facts.

As preparation for the survey activities, it was decided that a personal visit to places in nearby states where arche-

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ological work was being carried on would be highly desirable and profitable. Accordingly, in March of 1922, visits were made to Madison, Wisconsin, to consult with Mr. Charles E. Brown, Chief of the State Historical Museum; to Milwaukee to confer with Dr. S. A. Barrett, Director, and Mr. Alanson Skinner, Curator of Anthropology, of the Milwaukee Public Museum; to Columbus, Ohio, to interview Dr. Wm. C. Mills, Director, and Mr. H. C. Shetrone, Curator of Archeology, of the Ohio State Museum. On the first trip, the Field Museum in Chicago and the Historical Commission in Indianapolis were also visited. Later, as the survey progressed, trips were made also into Nebraska, South Dakota, and Minnesota, as well as return trips to the states first mentioned. Incidentally too a number of libraries and museums in eastern states have been visited and used.

The first product of the survey was a bibliography of several hundred titles. This included newspaper items and articles so far as these were accessible without the expenditure of an inordinate amount of time. In general the literature, with the exception of the articles and notes in the early volumes of *Proceedings of the Davenport Academy of Sciences* and the extensive manuscripts of "The Northwestern Archaeological Survey" (conducted by Hill and Lewis from St. Paul as a base, 1881-1895) found in the State Historical Society library at St. Paul, Minnesota, proved rather barren, though of course many items are valuable in themselves or provide a starting point for subsequent investigation. Most of the early work fell far short of scientific standards and all of it together was insufficient to give any idea of the prehistoric culture areas of the State. While the writer is glad to have in manuscript a rather extensive bibliography of the antiquities of Iowa, he feels like advising those who may contemplate a similar undertaking to collect the pertinent titles as a by-product of the survey rather than to devote a considerable amount of time exclusively to the quest.

Efforts to find those persons within the State and outside of it who possess unpublished information have been fairly successful. Some fifteen hundred letters mailed in January, 1924, to members of the State Historical Society and others produced the unexpectedly large return of about one



hundred answers, many of these with new and valuable information concerning mound groups, village sites, names of collectors, and the like. A considerable amount of newspaper publicity was comparatively barren of results. Evidently people did not take newspaper appeals very seriously.

Much the largest part of the substantial information possessed by the Iowa survey has been gathered through some six seasons of personal contact with the field. Each of the ninety-nine counties has been visited, some of them several times, and the number of contacts with persons capable of giving real assistance has been built up to exceed five hundred. As was anticipated, the collectors, with their collections, were most prolific of information, although other possible informants, especially the county agents and the county engineers, were also canvassed. A fortunate finding of the survey has been the fact that the great majority of the collectors are interested in local specimens only and thus are not burdened with a mass of uncataloged and worthless specimens obtained by exchange or purchase. Many are farm collectors whose finds are made on their own land only or at most extend no farther than the lands of their immediate neighbors. Others have gone a little farther afield and are able to tell of neighboring mound groups, cemeteries, cave deposits, and other antiquities. And even though the collector was not always aware of the existence of a village or camp site nearby, the presence in his collection of such objects as scrapers, hand mullers, and potsherds was often enough to point the way to these all-important locations. With these collectors hundreds of miles have been traversed by almost every known method of land travel. Many miles were covered on foot or in boats in places where other means of transport did not avail.

In several localities where cultural boundaries were especially difficult to surmise from the collections studied or other indications found, excavations were carried out to a limited extent, in a few cases entire mounds being carefully examined, in most cases test excavations only being made. From the first all evidences uncovered were carefully noted and if possible collected for the survey: Artifacts of all kinds; skeletal materials; flint chips and other stone refuse; kitchen refuse, including especially the potsherds. The sur-

vey possesses materials from one hundred thirty-eight pottery-producing sites (village sites, mounds, cemeteries, cave deposits) and has examined materials which include potsherds from more than fifty others. On the basis of these, supplemented by the evidence furnished by the numerous collections and by the published accounts, it is believed possible at this time to outline roughly the prehistoric culture areas of the State.

The available evidence indicates, first of all, that the prehistoric culture of most of the State, nine-tenths of it possibly, was of the Western Woodland type. This seems surprising, perhaps, in view of Iowa's reputation as a prairie, not a timberland state. As a matter of fact, however, nearly all of the Iowa streams originally carried more or less extensive belts of timber, and the lake margins also were nearly always furnished with their groves of oak and other native trees. The village sites, generally covering only an acre or two each, are situated (1) on the terraces of streams, both large and small; (2) on sandy ridges or knolls close to the streams; and (3) on the margins of the numerous lakes of the north central portion. A fourth type of inhabited site is to be found in the numerous rock shelters of the Niagara dolomite cliffs of the east central portion, some sixty of which are now known. All these inhabited sites produce potsherds of a type generally regarded as characteristic of the Algonkian, roughly described as a rather soft, porous unpolished ware of a brown or red color; tempered with rather coarsely crushed granite; ornamented with fabric impressions, stamped, punched, rouletted, and occasionally incised designs; fashioned into vessels that usually have a rounded or round-pointed base. The vessels seem never to be supplied with handles, though occasionally small protuberances on the rims may have served as lugs. Smoothly drilled holes, the purpose of which is none too clear, are frequently found perforating either the rims or the bowls. In his *Neale and McClaghry Mound Groups*, McKern, without committing himself as to authorship of this type of pottery, which he says is also the type most common in Wisconsin, describes it in detail and designates it as Type I. Other criteria found on the inhabited sites, as well as on the adjoining

fields, also indicate the Algonkian type of culture: weak development of bone artifacts; strong development of work in stone, this last resulting in a great number of types of chipped implements, ground-stone implements, and problematical forms. A statement to the effect that all these woodland sites, as well as the wide spaces that lie between them, were actually occupied and controlled at some time by people of the Algonkian stock would be premature at present for two reasons: 1) Algonkian criteria are not settled beyond all doubt for the Central Algonkian area and 2) certain Siouan tribes, especially the Winnebago and the Ioway of the Chiwere group, are known to have been much under Algonkian influence and may have had a material culture not always distinguishable from the Algonkian. The Winnebago presumably had little to do with prehistoric Iowa, but all accounts agree that the Ioway had much to do with it. Up to the present, unfortunately, little is certain as to the Ioway prehistoric culture.

All of the so-called "Algonkian" area, with the exception of a few counties in southwestern Iowa that are practically barren of tree growth, is plentifully provided with mounds. These are generally conical in shape, a few are oval, and a considerable number are linear. Of great interest are seven groups in the Des Moines valley between Ft. Dodge and Boone, where numerous linears are found mingled with the conicals. The mounds usually stand in groups on the stream terraces or the bluffs overlooking streams—never, apparently, on the village sites themselves, but rather in proximity thereto. A rough estimate would place the number of known mounds at about 8000. Their size is generally moderate, ranging for the conicals from 25x25x2 feet to 80x80x8 feet and for the linears from 12x60x1½ feet to 18x120x3 feet, approximately. The burials thus far encountered have been of the bundle reburial or flexed primary types, ordinarily without artifacts, though rather often accompanied by numbers of potsherds.

Two comparatively small areas in Iowa, the area of the effigy mounds, running along the Mississippi bluffs and terraces from near the Minnesota line to the Dubuque line, and the Hopewell area, extending similarly from Bellevue in Jackson county to Toolesboro in Louisa county, appear

also to belong to the woodland culture, the one separating itself from general Algonkian criteria (as these are now understood) only in respect to effigy-mound forms and the other only in respect to mound contents. The effigy-mound area shows many mounds of the effigy type, the bear and the bird predominating, intermingled with linear and conical mounds, while the sizes and locations of village sites, the village-site criteria, and the mound contents (bundle reburials and flexed burials, generally without artifacts) are not thus far distinguishable from the "Algonkian" of most of the State. A rough estimate would place the number of mounds of all kinds in the effigy area at about 2000. The Hopewell area shows the same mound types, without enclosures, and the same village-site criteria as the woodland part of the State generally, but the mounds have produced materials very similar to those of the type region of southern Ohio: copper axes and ornaments, curved-base, plain and effigy-bowl pipes, pearl beads, and extended, log-enclosed burials. The number of known Hopewell mounds is about 100, though other mounds within the limited area noted may well prove to belong to the same culture. A single mound on the upper Turkey river in Fayette county near Clermont produced Hopewell materials, while neighboring mounds produced bundle reburials only. Elsewhere in eastern Iowa also there are suggestions of the Hopewell which await fuller investigation.

A very distinctive culture that occupied solidly the valley of the Upper Iowa river in Allamakee county, the north-eastern county in the State, is unidentified up to this time and is called for the present the Oneota, after the old name of the river where its remains are most continuous. In addition to the valley of the Upper Iowa, several village sites overlook the Little Sioux river in Dickinson and Clay counties; again, the Little Sioux is occupied almost continuously for some five miles south of Correctionville in Woodbury county; a very large site overlooks the Big Sioux in the northwest corner of the State in Lyon county; another stands on the Des Moines river bluffs in Warren county; and finally a large site is found on the Mississippi bluffs adjacent to the Hopewell mounds at Toolesboro in Louisa county. In a general way this strange distribution cor-

responds to what we know of the wanderings of the Ioway; but, if these sites are those of the Ioway, then their prehistoric culture was far removed from the Algonkian. The sites themselves, covering from ten to a hundred acres each, are much larger than the Algonkian and also their situation is very different. Instead of being hidden away in the timber belts, they stand out in the open on high river terraces or broad, rounded bluffs of prairie type. They produce quantities of shell-tempered, unpolished potsherds, generally light brown in color, with plain decorations of trailed or punctate designs, and with the finger-imprinted rims either vertical or recurved. The vessels generally have either two or four handles set in the angle between the rim and the bowl. Hand mullers of granite and grooved hammers and mauls of the same material abound; celts far out-number the rather crude all-round grooved axes; small triangular flint arrowheads and flake scrapers are the usual and simple types; and bone implements are plentiful. Both conical and oblong mounds, also enclosures of various sizes and shapes (square, round, elliptical, and irregular) originally stood on or near the village sites; but, as the sites were in the open, these works have suffered much from cultivation. Drawings of some of them may be seen in Thomas, *Twelfth Annual Report*. About a dozen Oneota enclosures are on record and some 500 mounds appear to belong to the culture. Burials both in the mounds and in the nearby cemeteries are primary, usually extended, and often accompanied by artifacts: small mortuary pots of globular shape, diminutive Siouan and disk-stem pipes, tubular beads of thin copper, bone awls, and other objects. Petroglyphs on nearby cliffs of Jordan sandstone, and incised pictographs on small polished slabs of catlinite, these last usually field finds, appear to be products of this culture.

Another very distinctive culture, also an unknown, is found in northwestern Iowa. On the Little Sioux and two of its tributaries, Waterman's creek and Mill creek, beginning in the northwest corner of Buena Vista county, crossing the southeast corner of O'Brien county, and running southward nearly across Cherokee county, are thirteen compact village sites of from one to two acres each, situ-

ated, except for a single hill-top site, on the edge of the second terrace next to creek or river and surrounded by a broad, shallow ditch. Two of the sites which have not been cultivated show plainly the circular depressions of large earth lodges, one a fourteen-lodge village, the other twenty-two. A single site of the same culture stands on Broken Kettle creek in Plymouth county about a mile from its confluence with the Big Sioux. The village refuse is deep and consists of great quantities of potsherds and other artifacts, fire-place stones, clam shells, animal bones, ash beds, and other debris. Broadly speaking the artifacts, except the pottery, parallel to a degree those of the Oneota. A larger proportion of the small triangular arrowheads have notched bases, the celt seems to displace the grooved ax even more completely, bone implements appear to be even more numerous, and there are other minor differences. A few discoidal stones are found and also a few shell and pottery animal effigies. The type of pipe most characteristic is uncertain, as but few specimens of any kind have been found. The pottery is distinctive, with rather hard, fine texture; tempering of finely crushed granite; gray or black color; globular bowls of small to medium size, often showing polish on one or both surfaces; vertical and recurved rims, which may be plain, provided with handles, or surmounted by small animal-head effigies. Further, the rims often show cross hatching or shallow notches at the top and designs of diagonal, incised lines on their outer surfaces. The bowls are either plain or encircled by parallel trailed lines. Some 200 rather small conical mounds are found on the neighboring hills and ridges, which apparently belong to the culture; however, as only a small amount of amateur work has been done on these, their characteristics remain uncertain. The village sites themselves call to mind at once the Mandan villages of the Upper Missouri; the artifacts, however, including the pottery, appear not to support very strongly a theory of Mandan origin.

In several parts of Iowa there are suggestions of cultures which, on fuller examination, may well prove to differ from any of those to which reference is made above. Time sequences are entirely unsolved, as no undoubted case of

stratification has been discovered. There are several claims to mound building within historic times, but none appears to be proven beyond all question of doubt. The absence of inclusive deposits of objects of white manufacture indicates that the mounds are all, or nearly all, of pre-historic origin.

## PLANTS USED BY THE WHITE MOUNTAIN APACHE INDIANS OF ARIZONA

Albert B. Reagan, Ph.D.

The White Mountain Apache region in Arizona may be divided into four distinct plant zones, according to altitude:

1. This zone includes all the lands of the region above 5,800 feet. It is well timbered, the principal trees being pine and fir.

2. This zone includes all the lands whose altitude is between 4,900 and 5,800 feet. In it the common juniper, *Juniper occidentalis* (cedar), pinyon, and cactus flourish, and grass grows fairly well.

3. All the lower Canyon creek, Cherry creek and Salt river canyons, the foothills of the Apache mountains, and the region of the Hinton (Tertiary) formation included between the altitudes of 3,500 and 4,900 feet are known as the zone of Cactus, Agave, "Oboine," and *Artemisia* (greasewood and sagebrush). It is further characterized by the fact that its grass (Filaree and Grama), with few exceptions, is poor, the soil on which it grows being derived from granite or late volcanic rocks.

4. This is the zone of Cactus (*Cereus giganteus*, predominating), Yucca, and Agave (mescal, most nearly related to *Agave decipiens*). The altitude of this zone is from 3,000 to 3,500 feet. It has a scanty vegetation, scarcely any grass at all; but where there is water, a most luxuriant vegetation springs up.

Below are some of the uses the Apaches made of the plants of the region.

The Apaches, for the most part, live in tepees (which are also termed wickiups). They are somewhat dome-shaped,

sometimes with conical top. They are of a framework of poles and limbs tied together, over which matting of brush, yucca leaves, rushes or flags are placed. Over this a canvas is stretched, or yucca leaves, bark and flags are placed in thatch-work. The edifice is open at the top for the escape of smoke. The door is a low opening on one side, over which a blanket or a piece of skin is stretched. The fire is built in the center of the tepee. Also in summer the family often lives out doors within a circular, brush wind-break. They also sometimes set posts in the ground in the form of an oblong, on which they tie horizontal poles. They cover the inclosure over with a brush roof. Also, on the side poles they intertwine twigs and brush in a thatch-lattice work. Such a house, called a "wick-e-up," makes cozy quarters in summer. Sometimes only the posts are set in the ground and only a brush roof is made, forming an open arbor.

In the summer wick-e-up, wooden frames are sometimes made with a pole base some two or three feet above the ground and on this, brush and dry grass are placed, over which blankets are spread for a bed. Sometimes the young men will also have a "fiddle" made out of a mescal stalk, on which they play "tunes" for their sweet-hearts. This about completes the furniture.

The Apache woman still has her *tus*, water jug, made of woven willow splints, and daubed over both within and without with native resin. She grinds corn much as the Pueblo woman does, but has but one *metate* and one *mano* and no grinding box. To make the meal finer, she regrinds it. Flour is now purchased, not ground by the Apaches. Corn pone is baked in or under the ashes, or in lard in a skillet. A sort of pancake is also made of corn meal in which no salt is used in the making, nothing except meal and water is used. When thoroughly stirred it is baked in a skillet held right side up. Mush is also made much as the white women make it, except it is stirred with two sticks. A corn bread and also a flour dough bread are also wrapped in green corn husks and baked in the ashes, as is also grass-seed occasionally. Corn smut is also eaten; on August 22, 1901, the writer saw one Apache, V-29, make a meal on



honey and boiled smut\*. Also, green corn when not yet in the "milk" is boiled and eaten cob and all. Walnuts are mashed, kernels, hulls and all, and when mashed fine, the women pour water over the mixture and boil it. They then filter the product; the filtered material is white and tastes much like milk. It is a very nutritious food. Green corn is also roasted before the fire or in the husks under the ashes, or boiled.

Also, at husking time, green corn is gathered and thrown into a pile by itself. When the field is all gathered and the ripe corn husked, a pit is dug and a large quantity of wood thrown into it. On this stones are piled. The wood is then ignited. When the wood has burned down to the live coal stage, wet grass, twigs or corn husks are thrown over it and the green corn, with the husks on, is hurriedly thrown on same. More wet grass or fodder is thrown over the corn and about six inches of dirt heaped over the pile. Just before closing the top, a quantity of water is poured in to make steam. The cooking process is then let have its course for twenty-four hours, when the dirt is removed and the corn taken out. The husks are then stripped up and tied together and the corn hung out on the cob to dry. When dried it is shelled and stored in large storage baskets or jugs for use when needed. The pit is left as a sort of mound for future generations to speculate over.

The bean pod of a species of locust tree that grows in the region, probably *Robinia neo-mexicana* Gray, or the mesquite bean, a tree that resembles our eastern locust tree very much, is taken when quite matured and dried. The pods and beans are then crushed on the *metates* to a fine powder which is sweet and is called "sugar" by the Apaches. The pounded-up pulp is mixed with water and cooked or is eaten raw.

In gathering and preparing *mescal* tubers (*mescal* or maguay plant, our Century plant (*Agave americana*) or a close relative (cousin) of it, is the plant referred to, it having a very large beet-like root), the women go in a company to

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\* It ought to be stated that the corn smut (*Ustilago maydis*) is used in the solid state only, while it is firm and white, otherwise the reader may form a very erroneous conception. Corn smut is eaten as other fungi, such as mushrooms, are eaten.—M. R. Gilmore.

the hills where it grows, the best place being in the break-country east of Canyon creek and in the Oak creek region. Here they camp and proceed to the hills to collect the tubers. There are usually six or eight women in the group and it takes them about two days to gather a ton of tubers and carry them to the camp (the beet-like root being gathered just before the stem is run up by nature to go to seed). When enough are gathered, a large pit is dug and filled with dry wood. On this a large quantity of stones are piled. The wood is then ignited and when it burns down to live coals and the stones are a white heat, wet twigs, or rushes or flags are placed on them to a thickness of about a foot. The *mescal* roots are then hurled on the smoking mass and wet grass and twigs placed over them and then all snugly closed over with a foot or more of earth. A fire is then kindled over this pile and kept burning. The cooking process is let have its course for a whole day. The pit is then opened and the tubers taken out and the mound left to puzzle the world after the Indians will have disappeared from it. The tubers are then packed on *burros* or carried by the women to their tepees and stored for future use. They taste like squash, except that they have a slightly burned taste. They are good food. The Apaches also prepare an intoxicating beverage, called *tiswin*, from the "heart" or center of the unopened cluster of leaves of this plant. This heart is cooked in the same manner as the tuber, as described above. When it has been thoroughly cooked for about fifteen days, the roots and heart are of a semi-gelatinous consistence. They are then crushed on the *metates* or in a vessel made for the purpose and the liquor poured off into retaining vessels, where it is kept until fermentation sets in, when they call together all their friends and relatives, sometimes the whole tribe, and have a dance, which often terminates in a drunken carousal.

In picking berries, the Indian woman goes to the woods and picks them and brings them home. She then usually sets them before her host without cooking them. There are not many berries in the region.

There is a great variety of cactus in the region, ranging from sour to sweet. The Indian women know when each kind ripens and they make long journeys to secure them.

The fruit is spiny, but fine eating when the spines are removed. These the women remove by rolling the fruit in the sand or by rubbing it with a piece of buckskin. All kinds of the fruit are eaten as we would eat an apple, except the sweet kind, the fruit of the giant cactus (*Cercus gigantea*), which is made into a kind of butter.

The women go in large numbers to gather pine (pinon) nuts every fall. Sometimes a whole band will go. Once the writer saw all the Apaches of the reservation from Carrijo westward scouring the Catholic buttes and Cherry creek region west of the reservation for nuts. The nuts are gathered in the cone which is either burned off the nuts near where gathered or after the return home. In this process of charring the cones, the nuts are roasted. The nuts are next beaten out of the cones. Usually the cone is burned or dried till the nuts fall out. These are collected and stored in storage jars or baskets for future use. When needed the quantity required is placed in an open tray and live coals placed with them to further roast them. Then the tray is shaken and lightly tossed to aid the parching process and to keep the tray from burning. When sufficiently roasted, they are taken from the tray and the charcoal and ashes removed by tossing (winnowing) them in the wind. They are then eaten after removing the "hulls." They are also ground on the grinding slabs, hulls and all, and then the pinon-nut-flour, thus made, is made into soups and also baked like bread cakes, which is good to eat.

One of the yucca plants (*Yucca baccata* Torr, and also *Y. glauca* Nutt.) that grows in the region has a pod on it which looks something like a bean pod but much larger, resembling a banana somewhat in shape. This pod is gathered by the women and roasted before the fire or in the ashes. The pod, not the seed, is then eaten, after the epidermis is removed. It has a slightly burned squash taste, but is relished by the Indians. The pod of this plant is also dried, after it is split open and the seeds and seed-ribbon are removed. It is then boiled when needed. When thus prepared, it has a pumpkin flavor. The Apaches also use the leaves of the *Yucca baccata* for strings, splitting the leaves into the desired size of the strings. In earlier times this yucca leaf was reduced to fiber and made into cloth,

ropes, cords, etc. The *Y. glauca* leaf is also used as "mocasin strings," cords, and as counters in various games.

A certain acorn (*Quercus undulata*, var.), called *chechil* by the Apaches, is hulled and the kernel then ground and mixed with flour or meal in parts one to five and made into bread. "Coffee" is also made out of this preparation, by browning the acorns; and they are also eaten raw.

Pumpkins are eaten much as we use them. The common pumpkin when only half grown is also cut into slices and cooked (boiled) seeds and all and then eaten without being salted. Squash is also eaten in the same way.

Melons are raised and eaten ripe or green, rind and all. The eating of green melons is the cause of much sickness.

The leaves of a certain gourd (*Cucurbita perennis* Gray?) that grows in the region are ground up and used as "green paint" in making sand paintings. Green corn is cut from the cob and mashed to a pulp on the *metates*, as previously noted. It is then often just salted and made into a cake and baked in the ashes. The wedding cake, when one is made, and the coming-out ceremonial "cake" are also made of this mashed green corn, or from finely ground corn meal. It is "sweetened" with a yeast preparation made from the chewed root of *Euphorbia serpyllifolia* Pers., very similar to the way the Zuni, Hopi, and Navajos prepare the "cake" for the same ceremonies. The dried root is preserved in sacks for this use. In the preparation, a piece of the root is chewed and kept in the mouth for a couple of days, a virgin usually doing this stunt. The meal is then chewed in the mouth with the chewed-up root, or in the "freshened mouth" without it, to sweeten it. Often the meal is just held in the mouth until the accumulation of the saliva forces her to eject the mass, which is deposited in a containing vessel. This is continued till enough meal is sweetened for the "cake." The Apaches now also use sprouted corn and partly sprouted wheat to produce this "sweetening." The root of *E. serpyllifolia* is also used in making *tiswin* and *tulapai*, as will be mentioned later.

Walnut kernels and green corn are also mashed together on the *metates* and baked in cake-form.

The roots of both *Yucca boccata* Torr. and *Y. glauca* Nutt. are used as "soapweed." The roots are collected and taken

home and when needed they are pounded up into pulp and put in water, which is soon a lather. Baths are then taken in it. It is used especially for the hair. The hair is shampooed in it, then combed with a stiff (*Bouteloua gracilis* (H. B. K.) Lag.) blue grama grass comb, a wisp of stiff grass tied in a bundle by a cord and the stiff ends used as a comb, the other end often being used as a broom\*. The hair is then hung over the uplifted arm to dry in the sun, after which it is combed and done up according to the custom of the Apaches.

The hay of the region is alfalfa and wild hay. There is not much of the former and what there is, is put up somewhat in the ordinary way. The wild hay, *Bouteloua gracilis* Lag., *Eriocoma cuspidata* Nutt., *Sporobolus strictus* (Scribn.) Merrill, *Epicompes rigens* Benth; and other grasses, grows in bunches as bunch grass and grasses that fill little vales in the mountains and along the canyon sides. The hay is sold to the U. S. Indian Department and formerly to the Fort and is cheaper than hay that is shipped from Holbrook (?). When haying time comes, the Indians go to the hills to cut hay. As the hay is usually in bunches and small patches it is cut by hand, usually by the women with the old fashioned sickle and even with butcher knives; if a scythe is used, it is usually wielded by the men. When a sufficient quantity of the hay is cut, dried and collected, often being carried long distances by arm loads, it is loaded on *burros* and pack horses and packed to the agency or military post for sale; there are but few wagon roads on which to haul the hay. It is a picturesque sight to see a long train of *burros* descending from the mountains laden with hay. The year the writer was at the Fort, more than 200 tons were delivered by the Indians in this manner.

In the old times the seeds of these same grasses and other grasses were gathered, ground, and made into bread. The Apaches told the writer that they also mixed the ground seeds with meal and water and made the mixture into a mush, or a pone which they baked in husks or in the ashes.

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\* All the tribes of the Plains of my acquaintance made such hair brushes from the stiff awns of *Stipa spartea* (needlegrass).—M. R. Gilmore.

In the making of baskets and water jugs, the Apache women gathers a great quantity of willow withes or switches of the younger growth of *Salix irrorata* Anders and stems of a sumac (*Rhus trilobata* Nutt.?). These she ties in bundles, which she keeps in a moist place till used. When needed, she splits the withes into halves with her fingers and teeth, beginning at the heavy end. Then she scrapes them to remove the bark and to get them the proper thickness; the sprouts are sometimes steamed to aid in the splitting process. When a sufficient number is prepared, the basket weaving is begun. A certain number of stiff switch-sprouts are woven into a circle with the sticks for a base or bottom. The unsplit sticks are then let project in the vertical as ribs or framework around which the split sticks are interwoven and intertwined, often so closely as to make the receptacle practically water tight. Rib sticks are added as needed with the enlarging structure, and if the article is to be a jug, they are cut out as it narrows-in. To finish the article, the rib pieces are often interwoven as the finishing layer and the whole layer tied down with buckskin or interwoven slender withes. Sometimes a strong withe or a wire is added to make it strong, especially in the case of the carrying baskets. Ears are also interwoven in loop-form on the opposite sides of the article for the attachment of straps, if the article is to be used for carrying purposes. In the making of the *tus*, or wide-mouthed water jug, it is woven as carefully as possible and then gummed with warm pinon (*Pinus edulis* Engelm.) pitch both inside and out. A stopper for it is then made of a bunch of grass or small brush, as needed. In finishing the *tus*, attachments are woven in the opposite sides, about at the top of the bulge, for the fastening of the head strap used in carrying it. The *tus* vary in size, the larger carrying ones holding about five gallons. A large, unpitched, wide-mouthed storage jar is also made, varying in size from a few gallons to a fifty gallon size. The baskets vary in size and form according to use. The principal kinds are carrying baskets, which will hold about a sack of grain, and the smaller baskets made for sale. Flaring trays of various shapes and sizes are also made in large numbers.

The gathering of the cattail flag (*Typha latifolia* L.) pollen for religious use is done by the women, though the writer was advised that some of it was collected by the members of the medicine fraternity. This pollen is called *hadn-tin* or *hoddentin* by the Apaches and *Tadatin* by the Navajos. It is used in every important ceremonial performance. It is also sprinkled upon the surface of the water before crossing a stream.

The women make *tiswin* or *tulapai* as ordered by their husbands or by the band. This is an intoxicant made from corn or fermented mescal stalk and root. If made from corn, the corn is soaked, then placed under the sheepskin or blanket bed and slept on to make it sprout. The Apache bed is usually a little excavated place in the ground to fit the hips over which is placed the bedding. The corn is then dried, after which it is crushed on the *metates* into meal. Then various perennial weeds and roots are added, including that of the *Euphorbia serpyllifolia* Pers., also a small quantity of the root-bark of the "lignum-vitae" tree, some loco weed, the peyote bean (the same part of the cactus plant as is used in the Peyote Society ceremonies), and also the juice of the jimson weed (*Datura meteloides* DC.), or the powdered root of that plant. The whole is then put into five gallon coal oil cans, water added and the whole boiled for several hours. The "white water" is then poured off into empty cans and the residue recrushed on the grinding slabs. This residue is then put into the "white water" again and the whole reboiled. It is then set away and let ferment for from sixteen to twenty-four hours when it is ready to drink. The Indians claim that it is nutritious, but as an intoxicant, it is proving a great detriment to the tribe.

Not only is this *tulapai* or *tiswin* an intoxicant but various herbs, including the loco and jimson weed are often added to give the desired effect, although they undermine the health. This drinking also causes indolence besides the loss of the grain consumed. While drinking, fights and immoral practices that otherwise would not occur are indulged in. The drinking not only lowers the Indian's resistance against disease, but the exposure often indulged

in while drunk brings on (or conduces to) pneumonia and consumption.

An Indian in one valley makes his wife take the corn the family needs, sprout it, and turn it into tulapai. The day it ferments he invites his male friends from far and near to come and drink with him, and the women in the immediate vicinity also partake of the liquor. The brawl lasts throughout the night. Men and women get drunk and do not know what they are doing. Besides indulging in immoral practices and fights, they lie in the night air often entirely naked, for hours at a time so that consumption and pneumonia often decimate the tribe as a result of such exposures. The next day there is a tulapai drinking in another valley and all the men go to it, while the women, weakened by the previous night's brawl, are left at home to do the farm work that their husbands should be doing. The next day there is a drunk in another valley, and so on throughout the revolving year.

Drinking mothers often give this tulapai, in large quantities, to their children even when babies. As an example of the effects of tulapai I may cite the instance of a woman west of Fort Apache who gave her two weeks old baby tulapai at one of their drunks in the spring of 1901. The little one died from the effects before morning.

At Cibicue an Indian stabbed another in the bowel-region with a butcher knife, and the writer had to put his intestines back and sew him up. Another Indian stabbed another nearly to death on Cibicue creek the same year. Two chiefs also killed each other while drunk there some years previous, and it was an attempt to restore these two men to life that brought on the battle of Cibicue in an effort to arrest the chief medicine man Nakaidoklinni, and so on. The writer has seen more than 100 Apaches drunk on tulapai at one time. There can be no more damaging thing to their race. Unless stopped, consumption and kindred diseases will in time end this race of once hardy people. The writer is glad to note that the Indian Department is using strenuous measures to suppress the tulapai traffic and has special officers, both white and Indians, for that purpose.

All the Apaches have fetishes and other things of like



nature. Some are arrow heads and relics from the ruined villages of the region. Feathers, skins of birds and animals, claws, bear feet, shells and fossils are sometimes used for this purpose. Carvings of parts of trees that lightning has struck, the wood being considered sacred, also scalps of people killed in the raids of the long ago, rock crystals, etc., are used for the same purpose. Many of these are alleged to keep their fetish power if rubbed with blood now and then. Deer or human blood is usually used. The wood carvings are often in effigy shape, though in miniature. The smaller trinkets are often worn suspended over the chest from a cord surrounding the neck. Claws, bear feet, and the like are often worn as beads suspended from the neck. They are also often inclosed in a buckskin sack and worn suspended over the chest or tied in the clothing. The medicine men have different fetishes for each special use. The Apaches believe that these fetishes give power in the sphere in which the fetish is supposed to control, even conferring supernatural powers to the medicine man. There are fetishes controlling every undertaking in life, also those that control sickness and death and the mysterious powers of the universe.

The medicine bag is a little buckskin sack filled with various powders, cat-tail flag pollen, berries, seeds, and small trinkets. This bag is concealed somewhere about the clothing. Its contents are sprinkled in prayer to the gods of the universe and over altars to same, over people in the dances, and over the sick in the medicine ceremonies. The Apache thinks this "medicine" has the power to carry the prayers of men to the deities and to bring about the result prayed for.

The medicine accoutrements of the Apaches are their fetishes, tokens, medicine bags and other things of a similar or allied nature. Medicine hats and various forms of regalia and the things of war, such as shields, tomahawks, bows and arrows, which are now regarded as having medicinal value though formerly used in war, also medicine staffs, effigies, wooden gods, wooden lizards, wooden snakes, wooden frogs, yucca lath wands, yucca lath playing sticks used in the medicine game, yucca lath masked hats, the three dice-sticks used in the Setdilh game, medicine hoops, medicine

canes, and many other things are used in doctoring the sick. These things are considered not only as medicine accoutrements, but are sacred to the Indians; and it is with a great deal of reluctance and mental pain that any of them will be parted with.

The Apaches are a much diseased people. The drinking of so much Indian whiskey and exposure while drunk, filth and sleepless nights at medicine ceremonies are breaking down the race. The principal diseases are pneumonia and tuberculosis in its various forms, pneumonia usually being followed by consumption; tracoma and other eye diseases and much-stomach trouble, which medicinal practices tend to spread rather than cure.

As remedies for diseases, the Apaches also effect some cures through the use of herbs and minerals. For pains in the back, fits, faints, etc., the patient is rubbed with scorching cedar and pinon twigs, or burning spruce twigs. For stomach trouble, the root of the common reed (*Phragmites communis* Trin.) and the root of a "calamus" plant is used. The tea of sassafras bark is used as a blood remedy. For gonorrhea and syphilis they take a tea concocted from *Ephedra nevadensis* S. Wats, which colors the urine white. For these same two diseases they take certain quantities of the saline deposits that cover the muddy bank of Carrixo creek, which seems to consist of sodium-magnesium chloride, sodium sulphate and possibly some potassium iodine. They also use the bark of several herbs and trees, among which are the bark of *Populus tremuloides* and the stems of *Ephedra nevadensis* Wats, to cure ague, fevers and gonorrhea. The bark and herbs are pounded up, crushed into a semi-pulverulent condition, then made into a tea and the concoction drunk in great quantities. In venereal diseases the male genitalia is wrapped in the pulverized decoction, and the vagina filled with it. A splint made of cedar bark is also sometimes used to splint fractures of legs and arms. As a remedy for diseases, the medicine game is also played, the dice-sticks being yucca lath; and as a last resort the sand-painting, gunelpieya-yavachai ceremonies are held, ground up charcoal, various colored sand rocks and green leaves being the principal paints used in making the painting. Following the said

painting ceremonies comes the medicine dance, which is the final act, as the patient usually dies soon thereafter.

### LIST OF PLANTS ACCORDING TO SCIENTIFIC NAMES

*Agave americana?* and *A. decipiens*' Amaryllis family.

The mescal tubers of these plants are baked in a pit oven and eaten, tasting much like slightly burned squash. A fermented drink, called *tiswin*, is also made from the heart and tubers of the same plants.

*Agropyron repens* Beauv. Blue Joint Grass. Grass family. The seed of this plant was formerly eaten. The grass is now cut for hay.

*Allium bisceptrum* Watson, var. Onion, Lily family. Bulbs eaten, both raw and cooked.

*Alnus tenuifolia* Nutt. Alder. Birch family. The bark is employed in dyeing deerskin and other skins a reddish brown.

*Amaranthus albus*, *A. blitoides* S. Wats (Tumble weed), and *A. hybridus paniculatus* (L.) Uline & Bray (Purple Amaranth). Amaranth family. The seeds of the first two were formerly eaten, and the flowers of the last were used as face paint.

*Artemisia tridentata* Nutt. Sagebrush. Composite-Thistle family. Used as tea and seasoning.

*Artemisia wrightii* Gray. Thistle family. Used as food.

*Asclepias galioides* H. B. K. Milkweed. Milkweed family. The children eat the first buds of this plant.

*Astragalus diphysus* Gray. Milk Vetch. Pea family. The pea fruit is gathered and eaten both raw and cooked.

*Berberis fremontii* Torr. Barberry. Barberry family. Used in the ceremonies, because of its yellow wood.

\**Berula erecta* (Huds.) Colville. Water Parsnip. Carrot family. Leaves and blossoms were occasionally eaten in the old times. They were also used as medicine.

*Bouteloua gracilis* (H. B. K.) Lag. Blue Grama. Grass family. Securely wrapped bunches of this grass serve for several purposes. The stump end is used as a hair brush, while the other end is used as a broom, when a brush is not used for that purpose. The seed of this plant was also eaten in the old times.

*Castilleia integra* A. Gray, *C. miniata* Dougl., *C. parviflora* Bong., and *C. minor* Gray. Indian Paint brush. Figwort family. The bark of the root is used with other substances in coloring various kinds of skins, especially deer skin.

‡*Cercocarpus parvifolius* Nutt. Mountain Mahogany. Rose family. The wood of this plant was made into bows, and powdered charcoal, made from it, was used on burns.

*Cereus gigantea* and other *Cereus* species. Cactus family. The fruit of these species, which is usually sweetish, is collected and used as food, often being made into a kind of butter.

*Chenopodium leptophyllum* (Moq.) Nutt. (Pigweed or Narrow-beaked Lambs-quarter), and *C. incanum* Watson (Desert Lambs-quarter). Goosefoot family. The seed was ground and used as food in the old times. The young sprouts were also boiled with meat and eaten.

*Chrysothamnus bigelovii* (A. Gray) Greene. Rabbit Brush. Thistle family. Seed ground and used as food. Blossoms were formerly used in dyeing yellow.

*Coreopsis cardaminefolia* Torr. & Gray. Thistle family. Used in dyeing things a dark rich red.

‡*Cowania mexicana* Don. Cliff Rose. Rose family. Leaves used as medicine.

‡*Croton texensis* (Klotzsch) Muell. Croton. Spurge family. A tea made from this plant is used for stomach trouble, and as a purgative.

*Cucurbita pepo* L. Squash. Gourd family. Used as food as previously described. The blossoms of the squash and pumpkins were also eaten, being cooked with other things, or baked as parts of certain kinds of cakes. Watermelons are also highly prized by the Apaches, being eaten whether ripe or green and eaten rind and all.

*Cucurbita perennis* Gray? Gourd family. The ground-up leaves of this plant are used as "green paint" in making sand paintings.

*Cycloloma atriplicifolium* (Spreng.) Coulter. Winged Pigweed. Goosefoot family. Flour was formerly made from the seed of this plant.

‡*Datura meteloides* DC. Jamestown Weed, Jimson Weed, Thorn Apple. Nightshade family. The juice of this plant

and also the ground-up flower and roots are used as a disinfectant. The juice or ground-up root is put in tulapai to make "heaven and earth meet," and the straight juice, mixed with water and let ferment, is drunk for the same purpose. The same effect is also obtained by eating the root and blossom, whether fresh or dried. The powdered root is a strong narcotic, and is used in the religious-medicine ceremonies to produce a happy, prophesying state.

This plant is similarly used by the Navajos and Zuni. A case of a half Piute-Navajo, Natannie, at Kayenta, Arizona, getting drunk on the *Datura* root and being delirious for four days is one which the writer and other white men had to watch to keep the Indian from falling into the fire or committing suicide.

\**Dithyrea wislizeni* Engelm. Spectacle-pod. Mustard family. Drunk as a tea in some of the medicine ceremonies, producing a sort of intoxication and "much talking," for which effect it is drunk. It is also used as an external medicine. The entire plant is pounded up, mixed with a little warm water and applied externally for throat trouble and for reducing swellings.

*Epicampes rigens* Benth. Grass family. Seed used as food. Grass now cut as hay.

\**Ephedra nevadensis* S. Wats. Teamster's Tea; Mormon Tea. Joint-fir family. A tea, made from the stem and leaves of this plant, is drunk as a beverage. This same tea is drunk as a remedy during the first stages of syphilis. It is also used as a remedy for gonorrhea. It causes the urine to be whitish, or milky in color.

The Navajos and Zuni also use the tea made from this plant as a remedy for venereal troubles. The Navajos also use it for kidney complaints. However, it is not given the Navajo women as a remedy for venereal diseases, another plant furnishing a remedy for these diseases in their case, a remedy that makes them sterile thereafter, the Navajos advise.

*Eriocoma cuspidata* Nutt. Grass family. Seed used as food in the old times. The grass is now cut for hay.

\**Eriogonum jamesii* Benth. Buckwheat family. Used as medicine and in the medicine ceremonies. The plant is also chewed to sweeten the saliva.

*Euphorbia serpyllifolia* Pers. Spurge. Spurge family. Used as a mouth sweetener, etc., as previously mentioned.

‡*Helianthus annuus* L. Sunflower. Thistle family. Seeds were made into flour in the old times. This plant, with other plants, is used as a remedy for snake bites. The plants are crushed together on the *metates* and the ground product is placed on the wound.

‡*Juniperus californica*, var. *utahensis* (*J. utahensis*) (Juniper); *J. monosperma* (Engelm.) Sargent (Cedar); and *J. occidentalis* Hook (Cedar). Juniper family. A tea, made of the leaves of the trees of this family, was used for coughs and colds. The berries were also boiled and eaten. The tea was also taken by women previous to childbirth, it being supposed to cause muscular relaxation. Scorching juniper and cedar twigs are also rubbed on people, as a remedy for fits.

*Lactuca pulchella* DC. Wild Lettuce. Chicory family. A gummy substance from the root is used as chewing-gum. The Navajos and Zuni also chew this gummy material as chewing-gum.

*Lavauxia triloba* (Nutt.) Spach. Evening Primrose. Evening Primrose family. The ground-up root was occasionally used as food in the old times.

‡*Linum puberulum* (Engelm.) Heller. Yellow Flax. Flax family. The "juice of the berry" of this plant is used as eye medicine, at times.

*Lycoperdon* sp. Puffball. Puffball family. Puffballs, just before reaching the powdered state, and mushrooms are gathered and eaten, but their preparation is unknown to the writer.

‡*Malacothrix glabrata*. Arizona Dandelion. Composite family. Roots used as a blood medicine.

*Mamillaria* sp. Cactus family. After the removal of the outer portion the inner part is used as food, and is good eating.

‡*Mentzelia pumila* Torr & Gray. Stick-leaf. Loasa family. A very common pest in the region. The powdered root is sometimes used as medicine for constipation.

‡*Nicotiana attenuata* Torr., and *N. palmeri* Wild.? Wild Tobacco. Nightshade family. Smoked in the medicine cere-

monies. It was smoked more formerly than at present, commercial tobacco taking its place.

*Opuntia arborescens* Engelm., and *O. whipplei* Engelm. Cane Cactus. Cactus family. The spines on the fruit of these plants are carefully rubbed off. The fruit is then usually eaten raw, though it is occasionally stewed. It is also sometimes dried for winter use.

‡*Pentstemon torreyi* Benth? Bear-tongue. Figwort family. Used as magic medicine.

*Phaseolus angustissimus* A. Gray. Wild Bean. Pea family. The use of this plant was not learned.

*Phaseolus vulgaris* L. Bean. Pea family. Beans of all kinds are eaten by the Apaches.

‡*Phragmites communis* Tri. Common reed. Grass family. The root of this plant is used as medicine for stomach trouble, diaorrhea, and kindred diseases. The reed, between the joints, is used as pipe stems, and the reed stalk is used as an arrow shaft when hunting small birds with arrows. The reed between the joints is also used as a cigaret, much as the Navajos use it. The hollow is filled with tobacco and ignited. The smoker then puffs the smoke in turn to each of the sacred regions.

*Physalis fendleri* A. Gray. Ground Cherry. Nightshade family. The fruit of this plant is eaten both raw and cooked, though not eaten as much as formerly.

‡*Pinus edulis* Engelm. Piñon. Pine family. The nut of this tree is eaten raw and prepared for use, as previously described. The chewed leaves are used as a remedy for venereal diseases.

‡*Polygonum lapathifolium* L. Smartweed. Buckwheat family. Used as medicine, much the same as the whites used to use it.

*Populus angustifolia* James, and *P. wislizeni* (S. Wats) Sargent. Cottonwood. Willow family. The buds of these trees are eaten, or used as chewing-gum. They are also similarly used by the Navajos and Zuñi.

‡*Pseudotsuga mucronata* (Raf.) Sudw. (Douglas Fir), and *p. taxifolia* (Spruce). Pine family. The pitch of these two trees is used as gum, also in pitching *tusses*, etc., also for coughs.

*Psilostrophe tagetina* (Nutt.) Greene. Thistle family. A yellow dye is produced from the blossoms.

‡*Ptiloria tenuifolia* (Torr.) Raf. Chicory family. Said to be a cure for rattle-snake bite. The ground-up powder of the dried plant is applied to the bite, the wound being first sucked to draw out the poison.

*Quercus undulata* Torr., var, and *Q. gambellii* Nutt. Rocky Mountain Oak. Oak family. The acorn of the oak is eaten, as previously described. The bark is also used in tanning skins.

*Rhus trilobata* Nutt. Sumac. Sumac family. Used in basket weaving. The berries were also eaten in the old times.

*Ribes inebrians* Lindl., and other *Ribes* species. Wild Currant. Gooseberry family. The fruit is eaten both raw and cooked.

*Robinia neo-mexicana* Gray. Locust. Pulse family. (Leguminosae). The beans and pods are eaten, as previously described.

‡*Rumex mexicanus* Weinn. Dock. Buckwheat family. Used as a sore-throat remedy, the remedy being a tea made from the leaves. The tea is also given to childless women so they will become pregnant.

*Sambucus racemosa* L. Elder. Honeysuckle family. The berries are eaten.

*Salix irrorata* Anders. Willow. Willow family. Willow withes, tied together, are used in stirring mush and other foods that are being cooked over the fire. The poles and hoops used in the pole game are of willow. The three dice sticks (throwing sticks) used in the setdilh game are halves of green willow. The split withes are also used in basketry, and tepee and wick-e-up thatching, as has been previously mentioned.

‡*Solanum elaeagnifolium* Cav. Bull Nettle. Nightshade family, also *S. fendleri* A. Gray, of the same family. The former is used as medicine, but how and for what purpose was not learned. The latter (the native potato) is eaten both raw and cooked.

*Sporobolus striatus* (Scribn.) Merrill. (Drop Seed Grass), and *S. cryptoandrus* Gr. Grass family. Used in thatching.



*Svida stolonifera riparia* Rydb. Dogwood. Dogwood family. Use unknown to the writer, but probably connected with the medicine ceremonies.

*Triticum vulgare* L. Wheat. Grass family. The breads made from flour have been previously mentioned, to which the reader is referred.

#*Typha latifolia* L. Cat-tail Flag. Cat-tail family. The use of the Cat-tail flag pollen has already been given. The flags are used in thatching the tepees and wick-e-ups.

*Ustilago zeae*. Corn smut. This smut is boiled and eaten. Once the writer saw an Apache making a meal on smut and wild honey.

#*Xanthium commune* Britton. Cocklebur. Ragweed family. In the old times the seeds of this plant were ground and made into bread, usually being mixed with meal. A blood medicine was also made from the roots and leaves of this plant.

*Yucca baccata* Torr. (Datil), and *Y. glauca* Nutt. (Soapweed). Lily family. The uses which are made of these plants have been previously given in detail, to which the reader is referred.

*Zea mays* L. Corn. Grass family. The various uses made of corn have been previously given.

## ARCHEOLOGICAL NOTES

### Meetings

A meeting of the Wisconsin Archeological Society was held at the Milwaukee Public museum on Monday evening, May 20, 1928. President Huron H. Smith occupied the chair. In the absence of Secretary Charles E. Brown, who was returning from attendance at the Conference on Midwestern Archaeology at St. Louis, Missouri, Vice President W. W. Gilman was appointed to act as secretary. Mr. Arthur P. Kannenberg of Oshkosh, a vice president of the Society, presented a very interesting paper on Indian Earthenware Vessels in which he described particularly a series of these now in the collections of the Oshkosh Public museum. This paper was afterward discussed by the members present.

Mr. Roy S. Corwin gave an interesting illustrated talk on The Ohio Valley-Arterial Highway of Pioneers. Dr. Barrett presented a report on the Conference on Midwestern Archaeology at St. Louis, and President Smith a report on the meeting of the Central Section of the American Anthropological Association, at Evanston. Mr. Rudolph Boettger exhibited specimens collected from Muskego Lake sites.

At the meeting of the Executive Board, held earlier in the evening, there were elected as annual members of the Society Clarence Stark, E. W. Dieffenbach, Karl Aichelen, Dr. E. G. Bruder, L. L. Greget, Dr. N. P. Justin, Arthur Nolde, D. E. Roberts of Milwaukee, and Iran Otto of Fairwater. Governor Walter J. Kohler was elected an honorary member. Princess Chiquilla, a Cheyenne woman, and Albert Thunder and Mike White Eagle, members of the Winnebago tribe, were elected Indian honorary members. Resolutions on the death of Mr. William H. Vogel, a recently deceased vice president of the Society, prepared by a special committee, the Messrs. Dr. A. L. Kastner, Geo. A. West and Dr. E. G. W. Notz, were adopted. Mr. West reported that Mr. Walter Schroeder had generously agreed to place on the Hotel Schroeder at Milwaukee a tablet marking the site of the Potawatomi Indian village once located there. This at the request of the special committee, Messrs. C. E. Brown, Geo. A. West and J. G. Gregory, appointed to urge the marking of this and other local Indian villages.

The Messrs. Vetal Winn, Louis Pierron, Anton Sohrweide, and Dr. E. J. W. Notz, were appointed to report on the condition of the existing Milwaukee County Indian mounds, and the desirability of preserving and marking those at present unprotected and unmarked. The Messrs. Winn, Notz, Rev. Thomas M. Schmitz and Milo C. Richter were appointed a committee to report on the condition of the mounds preserved in State Fair Park at West Allis. Mr. Robert P. Ferry was authorized to make further improvements at Aztalan Mound Park.

The directors again voiced their interest in the movement begun by the History and Landmarks Committee, Wisconsin Federation of Women's Clubs, to preserve the old U. S. Indian Agency House at Portage. Messrs. Edward F. Richter, Chas. G. Schoewe and W. W. Gilman were appointed a committee to cooperate in this worthy undertaking. Appointments of several members and others to assist in archaeological researches in several counties were made.

An invitation extended by Mr. Robert J. Kieckhefer to hold a meet-

ing at this woodland preserve at Brookfield, on Saturday, June 15, was accepted.

An invitation received from the Winnebago County Archeological and Historical Society to attend the unveiling of a tablet on the site of the Grignon-Porlier trading post at Butte des Morts on June 16, was also accepted.

The Eighth Annual Meeting of the Central Section, American Anthropological Association was held at Harris Hall, Northwestern University, Evanston, Illinois, on Friday and Saturday, May 10 and 11, 1929. Dr. Carl E. Guthe, of Ann Arbor, president of the Association, conducted the meetings.

Of twenty-five very interesting papers presented at this meeting, nine were presented by members of the Wisconsin Archeological Society.

These were as follows:—Comparison of the Upper Palaeolithic of Algeria with that of France, Dr. Geo. L. Collie; Plants Used by the White Mountain Apache of Arizona, Dr. Albert B. Reagan; Notes on the Natives of Africa, Dr. S. A. Barrett; Ethnobotany of the Winnebago Indians, Huron H. Smith; The Isle Royale Archeological Expedition, Geo A. West; The Algonquin in Iowa; Prof. Chas. R. Keyes; Cartographic Symbols for Archeological Survey Maps, Charles E. Brown; Maps—New and Old of the Great Lakes Region, Dr. W. B. Hinsdale, and Megalithic Monuments of Madagascar, Prof. Ralph Linton.

Mr. George R. Fox, director of The Warren Foundation, Three Oaks, Michigan, is the very efficient secretary-treasurer of the Central Section.

On the afternoon of Saturday, June 15, a field meeting of Milwaukee and other members of the Wisconsin Archeological Society was held at the woodland nature preserve of Mr. Robert J. Kieckhefer, at Brookfield, in Waukesha County. Among those who were in attendance at this gathering of archeologists were, Dr. A. L. Kastner, Chas. G. Schoewe, Charles E. Brown, Huron H. Smith, Edward F. Richter, Joseph Ringeisen, T. M. N. Lewis, Theodore T. Brown, Dr. Frank Ehlman, Alfred R. Rogers, Edward Grobben, Irving McHenry, Dr. William H. Brown, Frank Ames and Richard Phillip. An opportunity was given to view the fine log cabin retreat which is being erected on the edge of this large woodland preserve and to visit the Indian wigwams, tipis, and other structures erected, and the woodland trails laid out by Mr. Oliver Lemere. A campfire supper was served by Mr. Kieckhefer. The meeting was in every respect a most enjoyable and interesting one. An old Indian camp site is located in one of the Kieckhefer fields, which borders on the Fox (Pishtaka) river. Near at hand are the well known Showerman Indian mounds.

The Winnebago County Archeological and Historical Society on the afternoon of Sunday, June 16, 1929, unveiled a boulder monument on the site of the old Grignon-Porlier fur-trading post, on the Overton farm at Butte des Morts. A large company of members of the society and of friends from Oshkosh and neighboring cities and villages were present during the very interesting ceremonies. Miss Gene Sturtevant, corresponding secretary of the society lead the company in singing at the opening of the program. President Robert J. Barnes introduced the speakers. Mr. George Overton gave a very interesting account of the early history of the region and of the trading post which was situated on one of the fields of his farm on the Lake Butte des Morts shore. Three young people of the Overton family unveiled the monument. Following the unveiling Mr. Charles E. Brown, secretary of the Wisconsin Archeological Society, delivered

an address on "Augustin Grignon, Fur Trader", in which he paid a fine tribute to the memory of this most noted of French traders," whose influence during the early years of the nineteenth century extended from Green Bay to the Mississippi River," and whose very interesting recollections the State Historical Society published. Another song, directed by Miss Sturtevant, closed the program. Many of those attending the dedication afterwards ate their picnic suppers together on the lawn of the hospitable Overton farm home. Here Mr. Overton displayed a large collection of American trade implements and Indian stone implements collected from the site of the old trading post. Some of those present, under the guidance of Mr. Thomas Petford, made a visit to a number of plots of old Indian garden beds in the pasture of the old Petford farm. Some of these were reported to have had growing crops upon them when the owner's father came as a pioneer settler to the region. The monument erected by Mr. Overton to mark the old post site is unique among boulder markers in Wisconsin. It consists of a pyramid of large boulders firmly cemented together on the top of which a large upright boulder has been placed. This bears an artistic bronze tablet. Mr. Arthur P. Kannenberg was Mr. Overton's principal assistant in erecting this fine monument which stands by the side of the Oshkosh to Butte des Morts highway.

The Conference on Midwestern Archaeology arranged by the Committee on State Archaeological Surveys, Division of Anthropology and Psychology, National Research Council, was held at Hotel Coronado, St. Louis, on Friday and Saturday, May 17 and 18, 1929.

The meeting began with an open meeting of the Committee on State Archaeological Surveys, at which various matters connected with the surveys in different states were discussed. Papers were presented by Dr. Warren K. Moorehead, Dr. Greenman, Peter Brannon, Dr. S. L. Barrett and W. C. McKern. In the afternoon a visit was made to Monks Mound of the Cahokia Mound Group at East St. Louis, under the direction of Dr. Moorehead. In the evening H. C. Shetrone, director of the Ohio State Museum, gave an illustrated lecture on "The Ancient Indians of the Mississippi Valley" in the auditorium of the Medical Society building.

The Saturday program included papers on "The Conservation of Public Sites by Prof. Fay Cooper-Cole, on "The importance of Systematic and Accurate Methods of Investigation" by Dr. F. W. Hodge, "The Values of Prehistoric Sites to the States in Which They Lie", by Dr. Arthur C. Parker, and "The Human Interest of Archaeology", by Dr. Clark Wissler. All of these papers were fully discussed. A banquet was served in the evening.

The arrangement of this fine meeting of American archeologists reflects great credit on Dr. Knight Dunlap, chairman of the Division, and on Dr. Carl E. Guthe, chairman of the Committee, which consists of the Messrs. Peter A. Brannon, Amos W. Butler, Charles E. Brown, Roland B. Dixon, Frederick W. Hodge, Chas. R. Keyes, A. V. Kidder, Warren K. Moorehead, and H. C. Shetrone.

Perhaps the greatest good obtained from this Conference was not the scholarly papers read, or the discussions which followed, but the personal contacts which many archeologists from the Middle West, the East, the South and West were thus enabled to thus make with each other. Of the representatives from the Southern and Western states many brought with them fine collections of interesting specimens which they exhibited in their hotel rooms after the meetings.

Among the many who were in attendance, and who are not elsewhere mentioned, were Dr. Calvin Brown and George Williams of Mississippi, Dr. S. C. Dellinger, Harry J. Lemley and Jay L. B.

Taylor of Arkansas, Dr. Franz Blom of Louisiana, Prof. J. E. Pearse of Texas, E. E. Baird and Dr. F. P. Titherington of Missouri, P. E. Cox of Tennessee, William Webb of Kentucky, Lawrence K. Fox and W. H. Over of South Dakota, G. F. Will of North Dakota, Wiloughby M. Babcock of Minnesota, Geo. R. Fox and Dr. W. B. Hinsdale of Michigan, H. K. Putnam of Iowa, Dr. Don C. Dickson of Illinois, and Theodore Brown of Wisconsin.

On Friday, June 14, 1929 (Flag Day), a fine bronze tablet mounted on a huge glacial boulder was formally unveiled on the site of a group of four prehistoric Indian effigy and other mounds located in the new Soldiers' Memorial plot of Forest Hill Cemetery, at Madison, by the ladies of John Bell Chapter, D.A.R. Mr. Charles E. Brown, director of the State Historical Museum, Madison, delivered the unveiling address.

These mounds are the remaining earthworks of a group of seven formerly located here and which were first surveyed by Dr. A. B. Stout, for the Wisconsin Archeological Society, on July 4, 1905. After lying in a neglected state for years the preservation of these mounds was urged upon the cemetery board by the landmarks committee of the Chapter, at Mr. Brown's suggestion and their restoration and preservation secured. Of the effigies two are fine examples of the panther type, one having a length of 121 and the other of 163 feet. A linear mound, in line with these, has a length of 115 feet. A small wild goose effigy is to be restored. These mounds are beautifully located for public inspection in a fine grove of tall oak trees.

On Saturday, July 8, a pilgrimage was made by a large number of representatives of state and county historical societies to the old U. S. Indian Agency House on the Fox River, at Portage. This was conducted under the auspices of the Committee on History and Landmarks of the Wisconsin Federation of Women's Clubs, of which Mrs. Charles E. Buell of Madison, is the present chairman. The arrangements for the meeting were made by a Madison committee consisting of Mr. Theodore T. Brown, chairman, Mr. Burt Williams, Mrs. E. H. Van Ostrand, and Mr. Albert O. Barton. A local committee, of which Mr. H. E. Andrews was chairman, cooperated with the Madison Committee.

The members of the pilgrimage gathered beneath the three great elms on the Agency House lawn at noon and here a picnic lunch was served. The program consisted of addresses by the following:—Judge Chester A. Fowler, "Early Wisconsin History"; Burt Williams, "The Plan Proposed for Preserving the Old Agency House"; Dr. Louise P. Kellogg, "The Historic Significance of the Agency House"; Col. Howard Greene, "State Landmarks", Charles E. Brown, "The Present Need of Preserving Additional Historic Sites;" and H. E. Andrews, "Early Life Within the Old Agency House."

The plan of various organizations for preserving the old Indian Agency House, beneath whose roof Mrs. John H. Kinzie wrote "Wau-Bun", is the most important historical undertaking now before the people of the state.

The Michigan State Archaeological Society held a two-day meeting at Three Oaks, on June 24 and 25, which was very well attended.

Among the many interesting papers presented was one by Mr. Edward Stevens of Kalamazoo who gave an account of a state archaeological map which he had prepared, and exhibited a section showing the Indian village sites, mounds and trails of southwestern Michigan. Dr. Alvin LaForge of Chicago presented a report on the Isle Royale Archaeological Expedition, of which he was a member. Dr.

Carl E. Guthe gave an illustrated talk on "The Hidden Story of the Indian". Mr. Geo. R. Fox, Mrs. Vina S. Adams of Battle Creek, Robert Burgh of Three Oaks, Dr. H. T. Montgomery of South Bend, Mr. L. Ben Reber of Royalton, Mr. Wilbur D. Marshall of Paw-Paw, Mrs. Fred Dustin of Saginaw and Mr. Michael Williams also presented interesting papers.

On the second day of the meeting a pilgrimage was made to the Warren Woods, the Warren Dunes, and to Indian village sites at Glendora Corner, Painterville, Bear Cave and near Three Oaks.

The indoor meetings were held in the Chamberlain Memorial Museum. Mr. Geo. R. Fox was re-elected president of the Society and Mr. Edward Stevens, secretary treasurer, Mr. Fred Edinger was elected vice-president.

On Decoration Day, May 30th, the Geneva Lake Historical Society unveiled a metal tablet marker on the site of the grave of one of the wives of the early Potawatomi chief Big Foot at Williams Bay. Simon Kahquados, an aged chief of the Forest County band, whose mother was a Williams Bay Indian woman, delivered the principal address on this occasion. A large number of citizens and others were present. Dr. Paul B. Jenkins deserves particular praise for his activity in bringing about the marking of historical sites about beautiful Lake Geneva.

On Saturday, July 13, Mr. Charles E. Brown conducted the annual excursion of University of Wisconsin Summer Session students, nearly 150 participating in the pilgrimage. Two steamboats made the circuit of Lake Mendota landing at the State Hospital grounds, Morris Park, West Point and the University farm where features of scenic, archeological and historic interest were visited. Dr. Louise P. Kellogg, Mr. H. R. Briggs and Chief Albert Thunder, a Winnebago Indian, were the speakers at the several points visited. At West Point the company were entertained by a quartette of Sioux Indian singers who came from the pageant ground at Kilbourn for this purpose.

### New Publications

Mr. George A. West is the author of a monograph bearing the title, "Copper :Its Mining and Use by the Aborigines of the Lake Superior Region", and which is published by the Milwaukee Public Museum. Part I of this bulletin is devoted to a very interesting report on the McDonald-Massee Isle Royale Expedition of 1928 of which Mr. West and Mr. Geo. R. Fox were the archeologist members. Part II is devoted to a consideration of "Prehistoric Copper Mining," and Part III to "Aboriginal Copper Artifacts". This bulletin is well illustrated. The author acknowledges the assistance given in its preparation by many fellow members of the Wisconsin Archeological Society, and of other investigators in this interesting field.

Mr. West has been a devoted investigator of Wisconsin archaeological history for many years. We expect to often refer to his report in future issues.

The Museum of the American Indian, Heye Foundation, New York, has published a fine monograph on "Beads and Beadwork of the American Indians", by William C. Orchard, being a study based on specimens in that institution. In the introduction of this contribution the author says:—"Beads owe their origin to the desire by primitive man for personal adornment; but so ancient are they that attempts to trace their earliest sources have thus far been futile. So

far as the New World is concerned, beads in a great variety of shapes and materials have been found on prehistoric sites almost everywhere, and some of them are undoubtedly of great age. It is therefore quite evident that early aborigines of the Western Hemisphere were quite familiar with the use of beads for purposes of adornment, in some cases as potent charms and in others as a medium of exchange. But many of the uses to which beads have been put by early man can only be surmised. Their use was and is worldwide."

Bulletin 86 of the Bureau of Ethnology is a monograph by Frances Densmore on "Chippewa Customs." It is a very welcome addition to our knowledge of the customs of the people of this numerous American Indian tribe, and presents information gathered among these Indians in Minnesota, Wisconsin and Canada. Chapters are devoted to the results of a study of their history, totemic system, dwellings, clothing, food, life cycle, dreams, Midewiwin, games, and industries. Every member of the Wisconsin Archeological Society should secure a copy of this report while it is available.

Professor Warren K. Moorehead is the author of a fine report on "The Cahokia Mounds", this presenting an account of the explorations carried on at this great group of Indian earthworks located in the American Bottoms, near the city of East St. Louis, during the years 1922, 1924 and 1927. The "Mound Technique" is by Dr. Moorehead's able assistant, Jay L. B. Taylor. Part II of this report consists of a paper on "The Geological Aspects of Some of the Cahokia (Illinois) Mounds" by Morris M. Leighton, chief of the Illinois Geological Survey. Dr. Frank C. Baker has made a report on "The Use of Molluscan Shells by the Cahokia Mound Builders." The Cahokia report is published by the University of Illinois.

Among other recent anthropological publications is one on "Polychrome Guanaco Cloaks of Patagonia", by S. K. Lothrop, printed by the Museum of the American Indian. Lewis H. Morgan Chapter, The New York State Archeological Association, has published a bulletin, "Notes on Rock Crevice Burials in Jefferson County at Point Peninsula." The Green Bay Historical Society has printed a bulletin on "Fort Howard (1824-1832). This is one of the last papers printed by our late co-worker, Mr. Arthur C. Neville of Green Bay. A University of Wisconsin Summer Session leaflet on "Insect Lore", is written by Charles E. Brown. George B. Catlin has contributed to the spring number of the Michigan History Magazine a paper on "Michigan's Early Military Roads." The National Museum of Canada, Ottawa, has issued a report of the activities of the museum for 1926. It contains anthropological papers by Harlan I. Smith and D. Jenness. Dr. W. B. Hinsdale has published in the report of the Michigan Academy of Science a paper on "Indian Mounds, West Twin Lake, Montmorency County, Michigan".

### Researches

Mr. T. M. N. Lewis has explored with interesting results the Heger group of Indian mounds near Aztalan in Jefferson County. Mr. M. K. Hulburt has made a re-survey of the Brooks group of mounds near Reedsburg and reported on a number of village and camp sites in Sauk County. Mr. J. P. Schumacher has reported on certain village sites and burial places in Manitowoc, Kewaunee and Shawano counties. Mr. L. R. Cooper excavated an effigy mound at Morris Park. Mr. C. E. Brown has prepared a report on the exca-

vation of a grave at Crystal Lake and the excavation of a bird effigy mound at Mendota. Mr. T. T. Brown is engaged in preparation of trails maps. Dr. Gerend has supplied information concerning the location and character of mounds and sites in Wood and Portage counties. Messrs. Geo. Overton and A. P. Kannenberg, are engaged in surveys and investigations in Winnebago County. Rev. F. P. Dayton is continuing his researches in the region about New London. Other members and friends of the Wisconsin Archeological Society are sending reports of new discoveries and investigations to Secretary C. E. Brown at Madison. Other members are requested to engage in field work, as the opportunity offers during the summer and autumn, and to send to him the results of their surveys and investigations. Report forms will be supplied on request.



# The Wisconsin Archeologist

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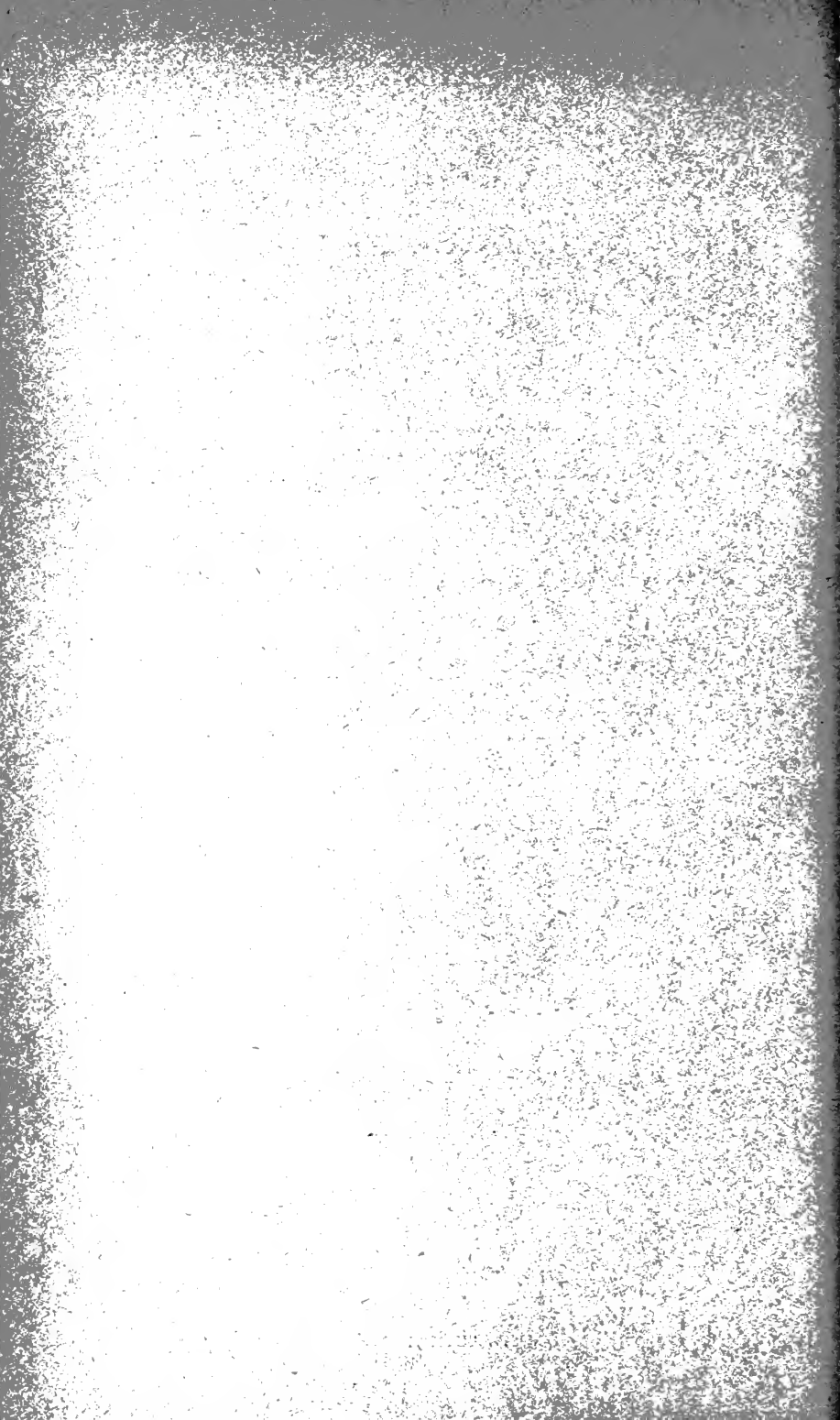
October, 1929  
NEW SERIES

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No. 1



PUBLISHED BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE



# The Wisconsin Archeologist

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Vol. 9

October, 1929  
NEW SERIES

No. 1

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## INDIAN VILLAGE AND CAMP SITES OF THE LOWER ROCK RIVER VALLEY IN WISCONSIN



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

**Wisconsin Archeological Society**  
**Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and  
preservation of Wisconsin antiquities

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**BIOGRAPHY**—Dr. E. J. W. Notz, C. G. Schoewe and H. H. Smith.

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

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## MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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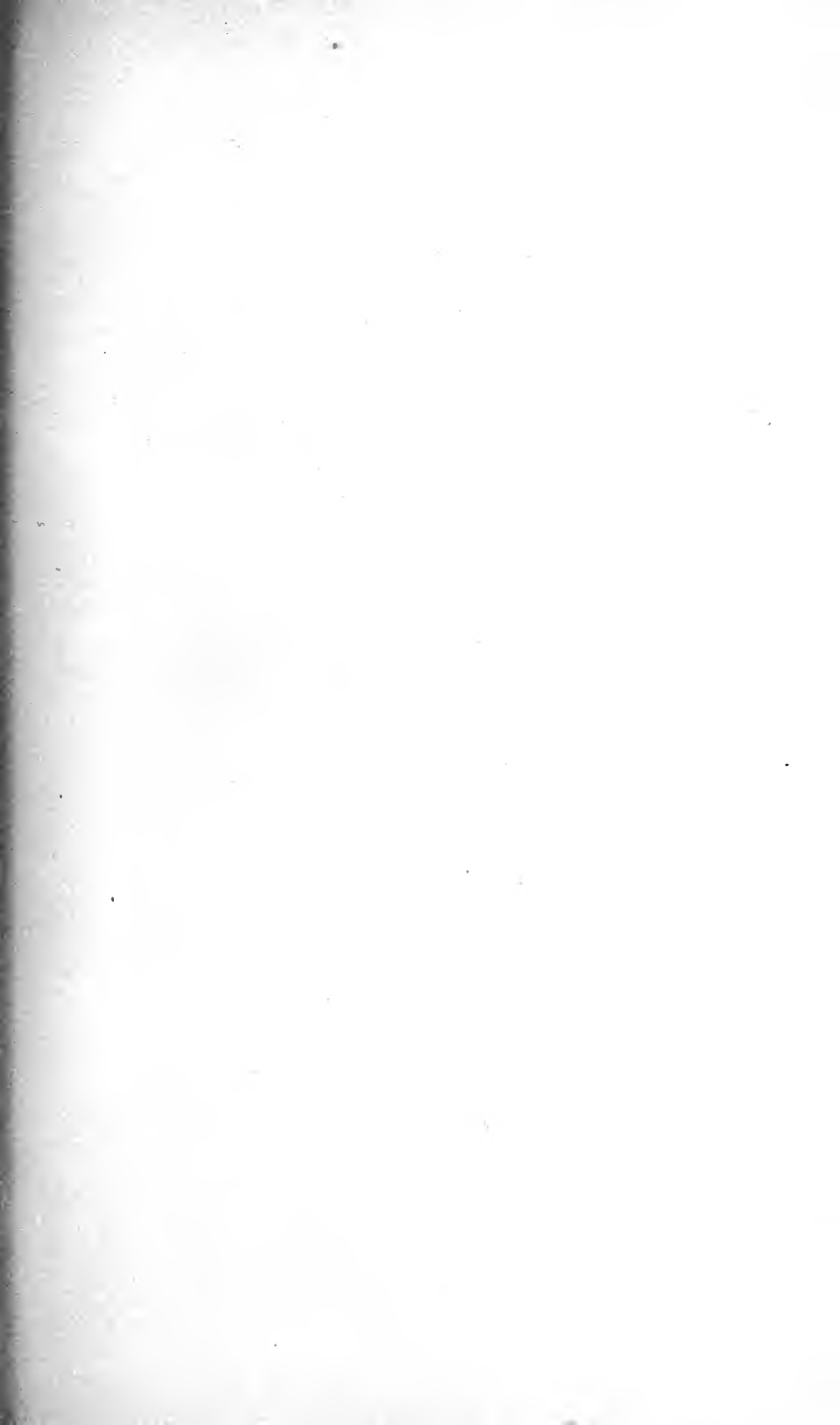
Vol. 9, No. 1, New Series

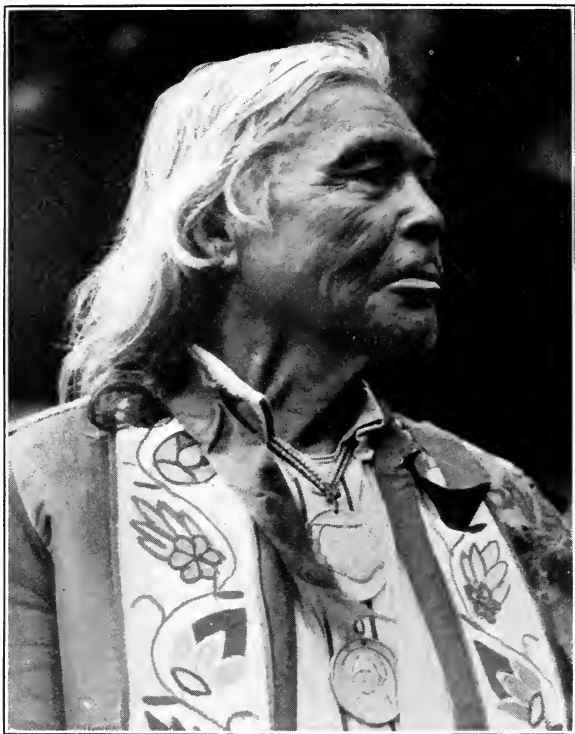
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CHIEF SIMON KAQUADOS  
Prairie Potawatomi



# The Wisconsin Archeologist

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## INDIAN VILLAGE AND CAMP SITES OF THE LOWER ROCK RIVER IN WISCONSIN

*(Logan Survey)*

Charles E. and Theodore T. Brown

### THE ROCK RIVER

From the southern extremity of Lake Koshkonong the Rock River pursues a winding southwesterly course through Fulton Township as far as the mouth of the Catfish or Yahara River at Fulton, then it flows in a southeasterly direction to the northwest corner of Janesville Township and from there continues in the same direction as far as the city of Janesville. In the southern part of Janesville it makes a turn and flows west for a distance of about two miles. From this point it flows in a southwesterly direction through Rock Township to the village of Afton. Here its course changes and it flows in a southeasterly direction to Riton. From this point, in the northeastern corner of Beloit Township, it flows south to the city of Beloit in the southeastern corner of this township. From the foot of Lake Koshkonong to Beloit the distance along the river bank is thirty-two miles.

The principal streams which merge their waters with those of the Rock along this part of its course in Wisconsin are the Catfish or Yahara which drains the beautiful Four Lakes at Madison; and which enters the Rock at Fulton; Three Mile Creek, which flows into the Rock at a distance of a mile and a half north of Janesville, and Bass Creek which flows into it at Afton. All of these flow into the Rock on its western bank. Turtle Creek, which has one of its sources in Delavan Lake, unites with the Rock at Beloit,

on its eastern bank. A small creek flows into the Rock on its eastern bank about a mile north of Riton and a similar brook enters it on its western bank at about the same distance south of this place.

The Rock in this part of Wisconsin, after ninety years of occupation of its shorelands by white settlers, who have placed these under cultivation or put them to other uses, have drained its lowlands, and built cities and established summer resort colonies, is still a very attractive stream. Of the rather dense forests which once clothed its banks wooded areas of considerable size remain at different places along its course, and trees fringe its banks in other places.

In the rear of its bluffs and lowlands there formerly stretched broad prairies with oak openings. South of Lake Koshkonong and east of Indian Ford was a large prairie to which early maps and settlers gave the name of *Prairie-du Lac*. South of it was *Rock Prairie*.

The old Winnebago Indian name for the Rock was *E-neen-ne-shun-nuck*, or "river of big stones." An early Algonkian Indian name was *Assini-sipi*, or stone river. Since this stream became known to white men it has borne the names of "*Kicapoue R.*", "*Stoney R.*" and "*Rocky R.*", and other names. Louis Hennepin's map of 1683 names the Rock as the "*Seignelai R.*" and shows the Illinois located north (east) of it.

The Catfish or Yahara River appears on some early maps as the "*Goosh-ke-hawn*" (*Koshkonong?*), "*Cos-ca-ho-e-nah*," and "*River of the 4 Lakes.*"

Its Winnebago Indian name was *Ho-wich-ra*, "catfish."

The Winnebago Indian name for Turtle Creek is given by Dr. N. P. Jipson as *Ke-chunk-nee-shun-nuk-ra*.\* This stream is described in the "*History of Rock County*":—"A stream flowing out of Turtle Lake in the northwestern corner of the town of Richmond in Walworth County, unites near the west line of the town of Delavan with the outlet of Delavan Lake, and the united streams form Turtle Creek, which following a westerly course enters Rock County on Sec. 13 in the town of Bradford, flows west and southwest and empties into Rock River just below the State line at Beloit."

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\* 2 Wis. Archeo., 3, p. 128, n. s.

To this information Mr. Robert H. Becker has added: "This description of Turtle Creek tells nothing of the beauty of this stream and the fertile valley through which it flows. Near Beloit, where the Creek is quite large it is especially beautiful, cutting deep into the limestone hills, or, as it winds through broad rolling valleys, joined here and there by brooks of clearest spring water."\*

The length of this creek is about twenty-five miles.

### EARLIEST ROCK RIVER MAPS

A Dutch map of Marquette and Joliet printed by Pieter Vander Aa, at Leyden, 1673, gives the name of the Rock as the "Kicapoue R." It is shown as flowing from the western shore of Lake Michigan directly west to the "R. Missipy." The "Maskoutenten" are shown as occupying the lands directly north of the Rock, and the Kikabeux," Miamis and "Illinoysen" those directly south of it.

Louis Hennepin's map of 1683 names the Rock as the "Seignelai R." with the Illinois located north of it.

A French map of "Louisiana and Course of the Mississippi," dated 1718, shows the "R. a la Roche" flowing from the region of the "Mascouten or Fire Nation," west of Chicagou," straight westward to the Mississippi instead of in a southwesterly direction to that stream. On an English map of 1720 the course of the river is the same and its name is given as "Assenini or R. a la Roche." The John Senex map of 1718-21 also gives this course and this name for the Rock. On all of these maps the presence of a "Christal de Roche" or "Christal Rock" is indicated south of the river, not far from its mouth.

An English "Map of the Western Parts of the Colony of Virginia," 1754, gives the name of "Assenisipi R." to the Rock river. On Debrett's "Map of the United States of America," 1795, the stream is called the "Rocky R." This map and some other maps of this time show a range of hills or mountains extending westward from near the foot of Lake Michigan toward the mouth of the Rock. Thos. Hutchin's "Map of the Western Parts (Etc.)," 1778, shows the "Riviere a la Roche" flowing in its proper direction.

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\* 12 Wis. Archeo., 1, p. 7.

The name "R a la Roche" or "Stoney R." appears on a United States map of 1783. This map shows a "carrying place" or portage between the headwaters of the Rock and those of the Fond du Lac river. Another map of the same date, engraved by Wm. Faden, carries the name "Rocky R." and shows the Kickapoo located on its south bank midway between its source and mouth. Other American and foreign maps of the years 1790 to 1820 carry the names "R. Assenisipi or Rocky R.", "Stony R." or "R. Roche." On the J. Warr. Jr., map, 1825, the name "Rock River" appears.

Some of the maps of the years 1796 to 1817 are curious in that they show the Rock river as a rather insignificant small stream. In at least one map it is shown as flowing into the Illinois river.

The Rock River does not appear on Jean Boisseau's map of New France, 1643, on Joliet's map of 1674, or on Lahontan's map of the Longue River, 1703. It is apparently indicated by a small stream on Hennepin's map, 1698. Samuel de Champlain's interesting map bears the date 1632, two years before Jean Nicollet's discovery of Wisconsin.

### ROCK RIVER TRAILS

A considerable number of Indian trails connected the Indian camp and villages on the lower Rock River in southeastern Wisconsin with each other and with other similar sites at a distance in every direction. These ancient travelways were of two kinds, those which followed the course of the stream from north to south, and those which approached it from various directions. The courses of some of these aboriginal paths are preserved on the government maps, and others on other early Wisconsin maps in the possession of the Wisconsin Historical Society. The courses of some others and which the pioneer settlers of this part of Wisconsin knew and traveled, are not shown on any known map.

One of the most important of the early trails of the lower Rock River region in southeastern Wisconsin came from the present location of Newville, at the foot of Lake Koshkong. This trail followed down the east bank of the river avoiding the marshy lands in the northeastern part of Ful-

ton Township, then following more closely the bank of the stream to the site of the present settlement of Indian Ford. For this place the Winnebago residents of this river had the name of Ho-ru-tchka-ch, or "stream crossing." Here, in the shallows, the Indians waded across the Rock to its western shore.

From Indian Ford settlement a trail ran down the east bank of the Rock to the present site of Janesville. This appears on Capt. T. J. Cram's "Map of Wisconsin Territory," 1839. A small remnant of this old east bank trail is preserved in a small tract of woodland near Newville.

On the west bank of the Rock a trail from the foot of Lake Koshkonong traversed the high land, following the curves of the river rather closely to Indian Ford and the mouth of the Yahara River. From this point it continued in a southeasterly direction to the site of the present city of Janesville. Here it crossed the Rock at a ford, and continued in a southerly direction through the townships of Rock and Beloit to the present city of Beloit. In Rock Township, south of Janesville, this trail was in places from a mile and a half to two miles east of the river. In Beloit Township it followed the river rather closely.

Another trail, from the southwest shore of Lake Koshkonong, ran in a southwesterly direction over the southern part of the site of the present city of Edgerton and on to Fulton. Here the west bank trail united with this trail, which crossed the Catfish River at Fulton and continued in a southwesterly direction. In Section 9 of Fulton Township (in present Edgerton) a trail from the west shore of Lake Koshkonong united with the Lake Koshkonong-Edgerton-Fulton trail.

### OTHER TRAILS

A trail from the present site of Koshkonong Station on the east shore of Lake Koshkonong ran southward across the prairies to the present site of Milton, and from that point in a southwesterly direction to the site of Janesville. The portion of this trail which runs through Milton Township is shown on a map prepared by William C. Whitford and published in the Milwaukee Sentinel, February 25, 1900. He designates it as the "Army Trail." He shows two other

trails west of this one and leading southward across the prairies from an Indian village site and the Thibault and other French traders' cabin sites on the southeast shore of Lake Koshkonong. The eastern of these two trails forked, the east fork running in a southeasterly direction for three miles and uniting with the Army trail. The western trail ran to Janesville. All of these trails united with or intersected a trail running from the northern end of Lake Koshkonong to the present site of Newville at the foot of the lake. Just before reaching the foot of the lake, in Section 8, this trail forked, the northern fork crossing the Rock at a ford at the foot of the lake, the other following southward along the river bank as already described.

A trail from "Caramanee," an early "paper city" located south of the mouth of the Catfish River at Fulton, ran westward across Rock County to the Sugar River at Livingston. It continued on to Monroe.

A trail from "Rockport," on the west bank of the Rock, opposite Janesville, pursued a northwest direction across Rock County toward the Madison lakes. Another trail from the site of present Janesville ran across the Rock County prairies in a southeasterly direction to the site of present Delavan in Walworth County.

These trails and the trail from Janesville to Milton and Lake Koshkonong, appear on Capt. Thomas J. Cram's "Map of Wisconsin Territory," 1839. The trail from Fulton to Livingston is also shown on a map of Tanner's Wisconsin atlas of 1844. This map shows the Delavan to Janesville trail continuing westward from Janesville to De Munn's trading post, "Centerville," on the Sugar River near Brodhead in Green County. A trail from the east, from "Waukeeshah," also came to Janesville. It appears on Farmer's map, 1830.

Beloit was a center for a number of trails besides the one already noted. One trail ran from the west bank of the Rock, above Beloit, in a northwest direction. In the southeast corner of Section 17 of Beloit Township this trail forked, the north fork running in a northwest direction to Orfordville and on to the Sugar River. The south trail ran in a northwest direction to the vicinity of present Brodhead on the Sugar. These are shown on Tanner's map. Most

of these trails also appear on Aug. Mitchell's map of Wisconsin and Iowa, 1838.

A trail from Fontana, at the western end of Lake Geneva, ran to Beloit. This was the Chicago trail. Fontana was the location of Chief Big Foot's Potawatomi village. Its curving course was at different points from two to six miles south of Turtle Creek.

At a distance of about three miles east of the present limits of Beloit this trail was intersected by a trail running west from the site of Delavan. This trail crossed the Creek and ran in a southwest direction to the mouth of the Creek in Beloit. These appear on Cram's map of 1839. A trail also followed the north bank of Turtle Creek.

A trail from the southwest shore of Lake Kegonsa in Dane County ran down the west bank of the Catfish River to about two miles below Dunkirk where it crossed the river. It continued down the east bank to Fulton where it again crossed the river. Its course is shown on the Milwaukee Land District map, 1840.

## FORDS

The Rock River was forded by the early Indians in a number of the shallow places along its course. The exact site of some of these river crossings is well known. One of these was at the foot of Lake Koshkonong at the site of present Newville. At Indian Ford the river crossing is reported to have been at the river bend just north of the settlement. The Indians are also said to have crossed at times in the shallows just below the present highway bridge and power dam.

There was a ford about a half mile below the mouth of the Catfish River where a highway bridge was afterwards erected and later removed. Another ford was located opposite the Parish and Shoemaker farms at the Four Mile bridge, north of Janesville. At Janesville there were several fords, "Rock Ford," the best known crossing, being near the present Janesville to Beloit highway bridge, formerly known as the Monteray bridge.

Another crossing was probably north of the mouth of Bass Creek at Afton. At Beloit there were several cross-

ings of the Rock, and at least one of Turtle Creek. The exact locations of these we have been unable to learn. One was near the northern limits of the city.

### ROCK RIVER INDIANS

A Dutch map, elsewhere referred to, evidently based on the explorations of Marquette and Joliet, printed at Leyden, in 1673, names the Rock the "Kicapoue." On this map the "Maskoutenten" (Mascouten) are shown as occupying the lands on one side, and the "Kikabeux" (Kickapoo), "Miami" and "Illinoysen" (Illinois) those on the opposite bank. Hennepin's map of 1683 shows the Illinois located there. Doubtless they had camps and villages along the Rock in both Northern Illinois and southeastern Wisconsin.

In 1727 some of the Winnebago, who were at and near Green Bay, moved to the Rock River. By 1742 half of the tribe were located on this river. From that time on the Rock River Band maintained its position on the Rock with villages at Horicon, Hustisford, Watertown, Lake Koshkonong, Janesville and other places in Wisconsin, and others in Illinois to as far south as Dixon. Dr. N. P. Jipson has written an account of the history of the Winnebago villages located between Lake Koshkonong and Dixon and which has been freely drawn upon in preparing parts of this survey report.\*

Royal B. Way in his book, "The Rock River Valley," says: "The Winnebago Indians were the first settlers of the county (Rock). From the north line of the county near the south end of Lake Koshkonong to the State line at Beloit, along the Rock River, an almost continuous line of Indian mounds, villages and camp sites testify to the fact. Before 1835 and the advent of the white man the Indians had left.

The Winnebagoes never had, however, unassailed possession of the county. The Sauk and Foxes and Pottawatomies claimed with them an ownership of the Rock River country, while the Pottawatomies disputed the possession of Rock County with them. The first treaty made by the United States for any of the lands of the Rock River was

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\* 2 Wis. Archeo. 3, n. s.



made with the Winnebagoes, January 30, 1816, followed by those of 1826 and 1833. The remaining part of the county was secured to the United States by the treaty with the Chippewa, Ottawa and Pottawatomie Indians at Chicago in September, 1833. All doubt as to the title was removed by the treaty with the Winnebagoes in 1838 in which that tribe ceded all of their lands east of the Mississippi.

"The treaty of 1832 with the Winnebagoes secured to the United States for settlement the western half of Rock County, while that of 1833 with the Ottowas, Chippewas and Pottawatomies secured the east half of the county."

### TRADERS AND TRADING POSTS

The many Indian villages located along the course of the Rock River between its source and its mouth made this stream a rich field for the fur traders. The earliest of the French traders came from the post at Green Bay, visiting the Indian villages and gathering the furs and skins which their inhabitants possessed. In later years British and American traders operated over the same route. Some of these traders came by canoe following a water trail up the Fox river to Lake Winnebago, then going to the foot of the lake and up the Fond du Lac river. At its source was a portage or "carrying place" across which they transported their goods to the head of the Rock river. Another route was by way of the Fox and Wisconsin and from the latter river by means of Pheasant Branch to Lake Mendota. In wet years the waters of these two streams so closely approached each other that no portage between them was necessary. The remainder of the route to the Rock was through the Madison lakes and down the Yahara or Catfish river to the larger stream. In 1778 Charles Gauthier de Verville made a journey over this course from Green Bay to the Rock.\*

One of the early traders on the Riviere Roche was Pierre La Porte, a Canadian Frenchman, who worked for the old American Fur Company for a great many years. Beginning with the nineteenth century, and for a period before that time, he had as his territory the Rock River running

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\* W. H. Colls., 10-72.

from a point just above where Janesville is now located." "The great double bend about half way up the Ouisconsin line was one of the camping spots or trading stations. The mouth of the Rock River was the downstream terminal. On a few occasions LaPorte traded up-stream along Rock River and at the end of such trips he sold his furs at Green Bay."\*

Capt. Thomas A. Anderson spent a winter in trading with the Winnebago on Rock river, probably at the foot of Lake Koshkonong, in 1802 and 1803. There were some French traders located near him at the time.\*

Two trading cabins were located on the shores of Lake Koshkonong. One of these was located on the west shore of the Lake on the Bingham farm on Crabapple point. Here on a former Indian village site, Mr. Rufus Bingham in 1839 found the excavation, rotting timbers, and fallen stone of an old trading cabin and its chimney. Nothing is known of the trader, whom Rev. Stephen D. Peet supposes to have been Le Sellier. This site is about three miles from the foot of the lake.\* On the east shore of the lake, about a mile north of its Rock River outlet, was located until the winter of 1837-38 the log cabin home of Joseph Thibault (Thie-beau). Three other traders, Charley Poe, Elleck (Alex.) Le Mear (Lemere) and Cavelle, occupied three other log cabins in this first white settlement on the shores of the lake. Thibault was an agent for the Milwaukee trader, Solomon Juneau, who is reported to have made more than one visit to the lake to see him. He was a Canadian, the earliest settler at Beloit. He had two Indian wives and three or four children.\*

Joseph Thibault was the American Fur Co. trader at the Winnebago village at Turtle Creek at Beloit for about a dozen years before 1836.\*

Other traders who supplied the Indians of the Rock River villages with trade goods in return for their furs were Shephen Mack, whose post in 1829 was at Bird's Grove, on the Rock at the mouth of the Pecatonica River, in Illinois. The Indians were very fond of him and he settled many disputes between the Winnebago and Potawatomi. At

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\* A. B. Way, *The Rock River Valley*, 137.

\* *Wis. Archeo.*, 7, 78-79; 99-100.

\* A. B. Way, *The Rock River Valley*, 141.

\* W. H. Colls., 9-152.

Grand Detour on the Rock was the trading post of Pierre Lasaliere (Le Sellier), a Canadian and long an employee of the American Fur Co. His name is mentioned as one of its employees at Mackinac in 1818-19. He made visits to the Indians of the Rock and Wisconsin in the fur trade interests as early as 1813. Near Dixon was located the trading post of John Dixon, founder of the Illinois city which bears his name. Other traders located not far distant from the Rock were Jules de Munn whose trading house was on the Sugar River near the site of the present city of Brodhead; on the shore of Lake Kegonsa at its Yahara River outlet the cabin of the trader Abel Rasdall, and in Madison the post of the French trader, Oliver Armel. De Munn was a near relative of the Choteaus, the noted company of St. Louis Indian traders.\* All of the later traders also traded with the Rock River Indians.

#### LITERATURE

In "The Antiquities of Wisconsin," published by the Smithsonian Institution in 1855, Dr. Increase A. Lapham devotes a chapter to a description of the "Ancient Works in the Basin of Rock River and its Branches." He describes and figures the group of mounds located on the Beloit College campus, another group three-fourths of a mile north of Beloit, those at "Indian Hill" at the mouth of the Catfish River, the enclosure at Fulton, and mentions some of the other mound groups formerly existing near the latter place.

Rev. Stephen D. Peet, in *Prehistoric America* (v. 2) figures and describes the principal mound groups in the Rock River valley between Beloit and Lake Koshkonong. He presents a map prepared by James Wilson, Jr., C. E. of the Indian mound groups located along the Rock River and its tributary, Turtle Creek, in the vicinity of Beloit. Twelve mound groups are located on the Wilson map which appears to have been carefully prepared. Dr. Peet's book was published in 1895.\*

In 1908 the Messrs. A. B. Stout and H. L. Skavlem published in *The Wisconsin Archeologist* (v. 7, no. 2) their report on "The Archeology of the Lake Koshkonong Region."

\* Lower Rock River Winnebago Villages, Wis. *Archeo.* 2-3.

\* Papers first printed in *The American Antiquarian*.

This report contains descriptions of the mounds and village sites at Newville, at the foot of Lake Koshkonong, and which are within the river region covered by the present investigations.

Mr. H. L. Skavlem in 1914 published a description and plat of the mound group at "Indian Hill" near the mouth of the Catfish River. This is a correction of the survey made by Dr. Lapham in 1850. (Wis. Archeo., v. 13, no. 2).

A report on the Indian mounds and village sites on the banks of Turtle Creek was published by Robert H. Becker in 1913. (Wis. Archeo. v. 12, no. 1). In 1919, Mr. Ira M. Buell published a report, "Beloit Mound Groups," in which he presented the results of a re-survey with illustrations of the Indian mound groups on the banks of the Rock River and Turtle Creek near Beloit. (Wis. Archeo., v. 18, no. 4). He mentions the surveys made in previous years of some of these groups by Lapham, Lathrop, Peet, Collie, Riner, Riggs, Becker and Hyde.

A paper on the "Winnebago Villages and Chieftains of the Lower Rock River Region" in Wisconsin and Illinois was published in The Wisconsin Archeologist (v. 2, no. 3, n. s.) in 1923.

Other references to Lower Rock River Indian history and prehistory occur in the Wisconsin Historical Collections, in other volumes of The Wisconsin Archeologist, and in the several histories of Rock County. Both Mr. H. L. Skavlem and the late Mr. W. P. Clarke have published descriptions of Mound groups at Janesville, Afton and elsewhere in the Rock River valley in past issues of the Janesville Gazette.

## INDIAN SITES AND MOUND GROUPS

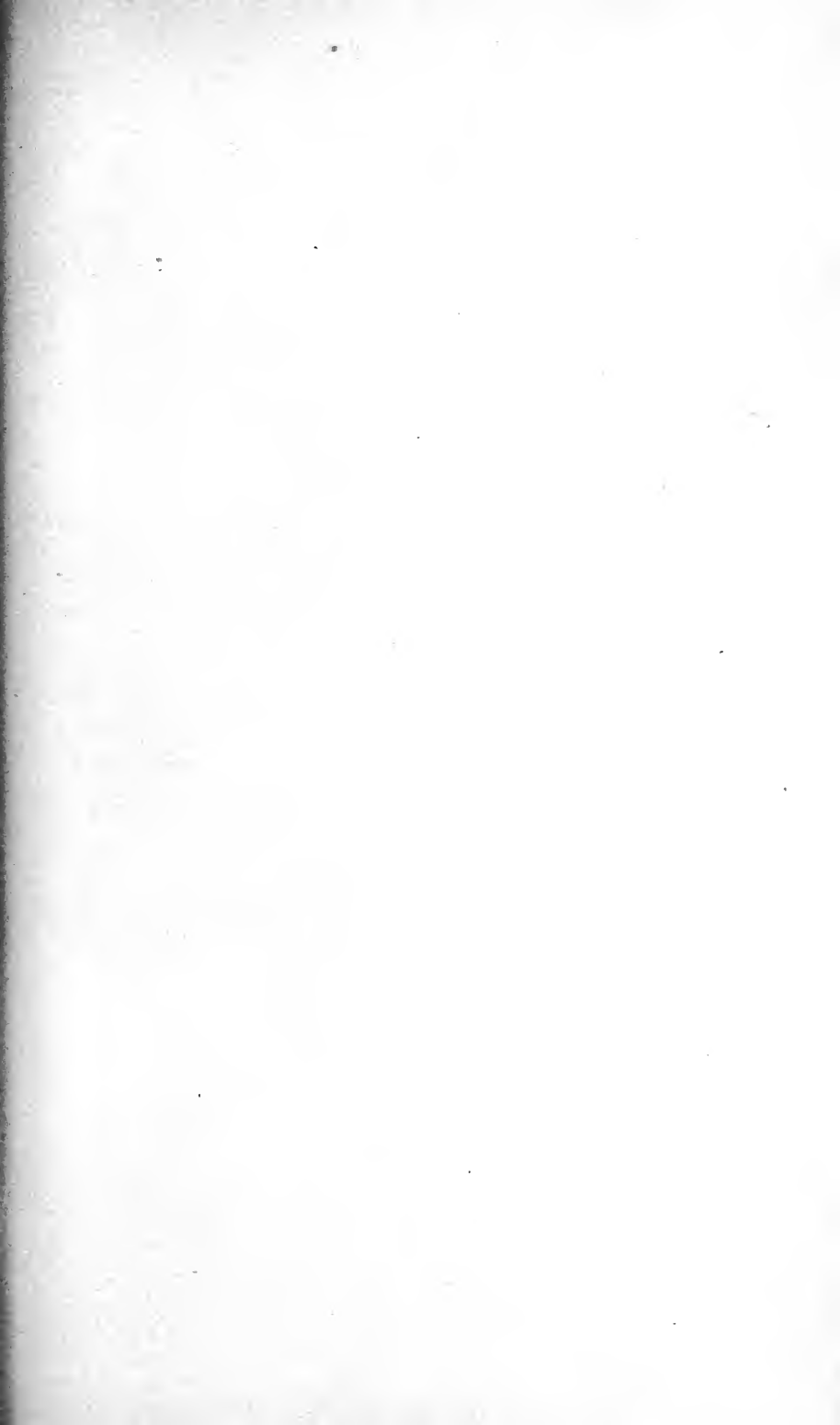
### MILTON TOWNSHIP

#### *Black Hawk Village Site*

(Cent. Sec. 7)

The site of the camp ground, occupied by the Sauk chief Black Hawk and his warriors in 1832, is described by Geo. W. Ogden in the History of Rock County, published in 1856:

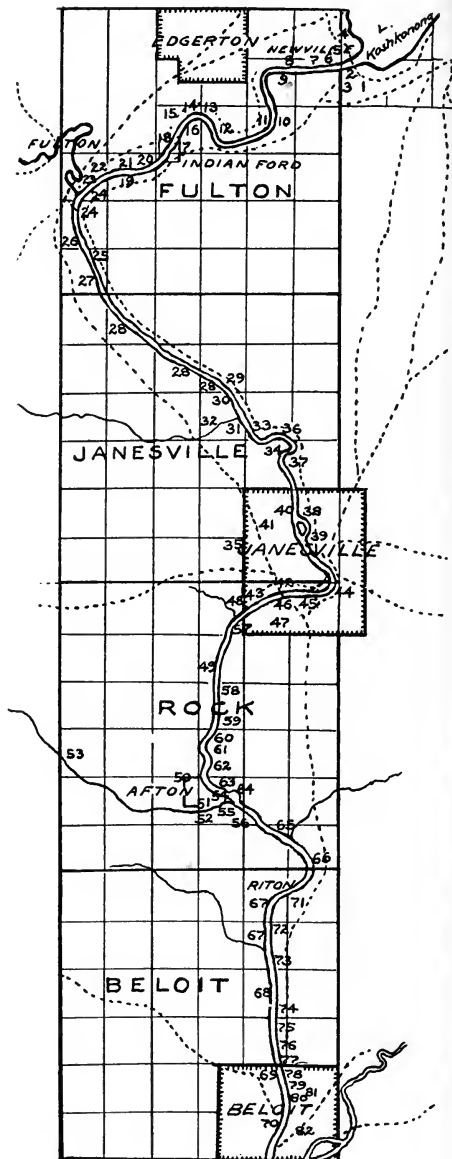
"We left Milwaukee in the month of September, 1836, with an ox team wending our way westward for the Rock



# ARCHEOLOGICAL MAP OF THE LOWER ROCK RIVER

The numbers correspond with those on the map adjoining

1. Black Hawk Village Site
2. Quarry Mound
3. Newville Cache
4. Rock River Village Site
5. Pierce Village Site
6. Newville Village Site
7. Riverview Resort Village Site
8. Ridgeview Village Site
9. South Bank Camp Sites
10. Oak Ridge Village Site
11. River Bend Shell Heap
12. Edgerton Camp Sites
13. Miller Camp Site
14. Devil's Oven
15. Brown Camp Site
16. Southworth Farm Village Site
17. Indian Ford Camp Site
18. Indian Ford Heights Camp Site
19. South Indian Ford Camp Site
20. Indian Ford Flats Village Site
21. Rainbows End Corn Field
22. Indian Hill Mound Group
23. Catfish Village
24. Stone Farm Village Site
25. Murwin Camp Site
26. Hubbell Village Site and Mounds
27. Beggs Camp Site
28. Northwest Sections Camp and Village
29. Four Mile Bridge Village Site
30. Parish Camp Site
31. Elmhurst Village Site
32. Three Mile Creek Camp Sites
33. Wixon Hill Site
34. Riverside Park Village Site
35. Sutherland Graves
36. Crystal and Hiawatha Springs Village
37. Stonehenge Camp Site
38. Broege Island Camp Site
39. Riverbank Camp Sites
40. West Bank Camp Sites
41. Pearl Street Cache
42. Round Rock Village
43. South Palm Street Camp Site
44. Spring Brook Mounds
45. Bailey Mounds and Corn Fields
46. Eastern Avenue Village Site
47. Kellogg Corn Field
48. West Janesville Mounds
49. Rulondale Camp Site
50. Afton Mound Group
51. Afton Mill Camp Site and Mounds
52. Holzapfel Camp Site
53. Antisdell Village Site
54. Mouth of Bass Creek Camp Site
55. Bass Creek Site
56. M. E. Church Picnic Ground Camp Site
57. River Heights Camp Site
58. Willard School Camp Site
59. Riverside Camp Site
60. Coates Camp Site
61. Woodstock Mounds
62. Oakley Farm Camp Site
63. Inman Camp Site
64. Rasmussen Camp Site
65. Rice Camp Site
66. Clam Shell Site
67. West Bank Camp Sites
68. Big Hill Camp Site
69. Poe Mound
70. West Beloit Camp Sites
71. Roth Mounds
72. The Oaks Camp Site
73. Yost Park Village Site\* and Mound
74. Baldwin Mound
75. Weirick Mound Group



76. Beloit Country Club Camp Site
77. Henderson Effigy
78. U. S. 51 Camp Site
79. Adams Mounds
80. Water Tower Mounds
81. Beloit College Mound Group
82. Turtle Village

\* Standing Post Village.

River Valley. We reached Rock River at the foot of Lake Koshkonong. Here we concluded to stop and commence our future home. My claim included the camp ground of Black Hawk and from indications the Indians must have remained several weeks living on clams, fish, wild rice and game. We found heaps of clam shells, three or four feet across and a foot deep. And even at the present day (1856), I frequently run my plow through these heaps of shells. This old camp ground covered nearly two acres. The tent poles were then standing together with his flag pole painted in a fantastic manner. These poles remained standing several years. Here were several recent graves, also one skeleton placed in a wood trough with another turned over it, inside of a small pen laid up of small poles all on the surface of the ground. I have plowed out at various times large shells at least a foot and a half in length, shaped like the periwinkle (undoubtedly sea-shells) but how they came there is the question.

A large number of ancient mounds are here. I have, however, leveled several of them with my plow and turned out various relics, such as human bones, heads, pieces of wampum, stone battle axes, etc. The Indians in considerable number remained around in this vicinity for several years (after 1836) and even until very recently they have made annual visits to fish and gather rice."

Mr. H. L. Skavlem describes this village site:

"At the south end of Lake Koshkonong the river is again confined within its ordinary channel. Near the center of Section 7, Town of Milton, the shore on the south side is low and marshy for some distance back from the river.

It gradually rises to a dry and sandy plane. Back of this to the south and east are moranic gravel ridges rising from 40 to 70 feet above and enclosing this almost level plateau, forming a beautiful amphitheatre of several hundred acres. Here is where the pioneers located Black Hawk's camp in 1832. Vestiges of the shell heaps mentioned by Mr. Ogden are still discernible in the plowed fields and the mounds described as being leveled by his plow can still be located."\*

This village site, located south of the Rock River at the foot of Lake Koshkonong, was an important one being sit-

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\* 7-1 Wis. Archeologist, 74.

uated on the Indian trail which ran down the east shore of the lake, and which forded the river at this point. A fork of this trail followed the south bank of the river.

There were Winnebago camps on this site for many years before its temporary occupation by the Sauk Indians of Black Hawk's band, in 1832. Small numbers of Winnebago continued to camp here for some years after 1836.

Large numbers of stone, and some bone, shell, copper and other implements and ornaments have been collected from the fields of this site in past years, the character of some of which appear to indicate that it was also occupied by some Algonquian people before its Winnebago residents erected their rush and bark covered wigwams here.

Among the specimens collected there were stone celts, grooved axes, adz-celts, chisels, grooved hammers, mauls, notched sinkers, balls, rubbing stones, grinding stones, flint, blanks, arrow and spearpoints, knives, scrapers and perforators, of many different shapes, bone awls, flakers and scrapers, copper knives and spearpoints, a hematite celt and cone, pieces of cut antler, lumps of galena ore. A slate gorget, stone beads, shell disk beads and an oval shell pendant, stone discoidal, fragmentary pottery pipe, rectangular catlinite pipe, sea-shell pendant, lead disk bead, bone tube, wampum beads and two stone plummets. Some of these specimens were in the collection of W. P. Clarke, the former Milton collector. The unearthing by the plow of a cache of several large sea shells has been mentioned. Burned hearth-stones were scattered over the site. Potsherds were once commonly found. Some of these were cord-marked and crushed-rock tempered, some were unornamented sand-tempered sherds, and others were ornamented with indented and incised markings and made of shell and sand-tempered clay. Years ago much more might have been learned from an examination of this site. Mr. Clarke found that both flint implement manufacture and stone celt or axe making had been engaged in on this site.

Near this site on a hill crest Messrs. Stout and Skavlem found two conical mounds, and about 300 feet west of these on a slight ridge another. Five hundred feet beyond were

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\* Wis. Archeo., v. 7, no. 2, p. 50.



two nearly leveled earthworks of the same class. About one-quarter of a mile to the southeast, near the farm buildings (N. W.  $\frac{1}{4}$  of S. E.  $\frac{1}{4}$  Sec. 7) were three linear mounds. These mounds they have named the "Ogden Group."\*

### *Quarry Mound*

(NW.  $\frac{1}{4}$  Sec. 7)

A solitary conical mound, about 45 feet in diameter and 3 feet high at its middle, is located on a river field of the W. Splitter farm near Newville. It is in a grassy pasture near the marshy bank of the Rock River. This pasture is on the west side of the new highway from Newville to Fort Atkinson. The mound is about 60 feet from the highway and 150 feet from the edge of a small abandoned limestone quarry. It shows indications of having been dug into at its middle. Of the results of this digging nothing was learned. We mention this mound because it appears to have been missed in earlier surveys of the archeological remains of this region.

Flint chips and fragments and some hearthstones were found in this field which is very likely a camp site. Being under sod other evidences of this could not be found. Some flint implements and burned stones have also been found in the cultivated fields on the opposite side of the road. In times of high water the pasture field would be subject to at least partial overflow.

Winnebago Indians camped along this shore in early years of white settlement. The cabin of Joseph Thibault, a trader, was located two miles north of this site on the east shore of Lake Koshkonong.

### *Newville Cache*

(NW.  $\frac{1}{4}$  Sec. 7)

A cache or hoard of leaf-shaped flint blanks was found some years ago by Louis Pierce of Newville on the present August Rutz farm, on the highway from Newville to Milton. These were found in a small area having been unearthed and scattered by the cultivation of the land. They had probably been placed beneath the surface of the soil by their former Indian owner to keep the material in good condition for later use in implement making. A few speci-

mens from this deposit of blanks are in the collection of his brother, W. S. Pierce, at Newville. These specimens are about  $2\frac{1}{2}$  inches in length.

Similar caches of blanks and blades have been found on many Indian village sites in Wisconsin. Several are in the collections of the State Historical Museum at Madison.

### *Rock River Village Site*

(SW.  $\frac{1}{4}$  Sec. 6 and NW.  $\frac{1}{4}$  Sec. 7.)

Mr. H. L. Skavlem has described this village site in 'The Wisconsin Archeologist' issue of April-June, 1908.\*

"Here are abundant indications of an extensive aboriginal village site and long continued occupation.

On the extreme edge of the steep river bank, which here rises from ten to twenty feet abruptly above the water, are extensive shell and refuse heaps several feet in depth and extending along the edge of the river bank for several hundred feet. Lake erosion of the river bank shows this "kjokken mödding" in some places to be over 3 feet in depth and extending back and some distance up and along the sides of the larger tumuli. Remains of shell heaps and the burned stones of fireplaces are scattered over an area of at least a hundred acres. Broken pottery, large quantities of flint-arrow and spear points, spalls and chips, hammerstones, stone axes, mauls, celts and gouges and numerous copper spears, axes and knives, have been collected on these grounds. Iron, brass and copper materials of trade origin, appear to be of rare occurrence."

This village site begins north of the creek bed which forms the eastern boundary of the Pierce Village Site. It occupies the fields of the Morris Cooper (formerly Benjamin Cooper) farm on both sides of the road, and extends on to the more elevated lands of the Herman Krueger farm beyond on the Lake Koshkonong shore. Mr. Skavlem's description applies more particularly to the latter part of this site.

On the Cooper farm the richest part of the site occupies a level field about two city blocks in extent on the south or river side of the road. It is elevated only a few feet above the waters of the river. It extends from the hillside slope in

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\* 7—2 Wisconsin Archeologist, 73, 50-51.

the rear of the Krueger home westward to the line of summer resort cottages known as "Koshkonong Retreat" and most of which face the creek bank.

Across this field and the adjoining lands formerly extended the group of eleven conical mounds described by Dr. Arlow B. Stout in 1908 as the "Rock River Group."\* Most of these mounds have now been plowed out of existence or removed. Two remain near the Cooper house and in the orchard west of it. One is indicated by a slight dark elevation in the Cooper river shore field, and one is located by the side of the road (the Milton-Fulton town line) in a grove of oak trees near the "Shadow Hill" shack of the Retreat cottages. This mound is 24 feet in diameter and about 11½ feet high. An oak tree about one foot in diameter stands on its top. Human bones were recently disturbed in digging a hole for a telephone pole in the mound near the Cooper house.

Evidences of aboriginal occupation are abundant in the river shore field. Hearthstones and flint refuse are abundant. Here and there along the river bank and in the field itself are traces of former clam shell heaps and pits of small size. One appears to have encroached on one side of a former mound. The largest was located on the river bank just east of one of the Retreat cottages. All of the former shell heaps the plow has demolished and scattered.

Deer and other animal bones and pieces of turtle shell were in some of these heaps. The part of this village site in the Cooper field on the north side of the road also shows traces of former shell deposits.

The number of flint implements, chiefly arrow and spear-points, collected from the Cooper fields has been very large. Mr. Morris Cooper states that in the past twenty-nine years fully one thousand of these have been gathered here. Three collections of these have been made one of which is the property of Horatio Marsden at Albion and another remains in his own possession. Of his collection about 250 specimens are displayed in a frame in his house. Seven of these are perforators of the simple stemless form and the balance arrow and spearpoints of the triangular, stemmed, notched and barbed forms. Twelve are small triangular points. A

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\* 7—2 Wisconsin Archeologist, 73, 50—51.

fine notched spearpoint with a finely serrated edge is about three inches long. Another is of about the same shape and length without the serration. These points are made of white, grey, bluish-grey, red, light brown, pink and flesh-colored flint, fragments, and chips of which material are scattered over the surface of the site. Three of the notched points are made of light brown quartzite.

On October 17 we excavated a small refuse pit located within a few feet of the "Koshkonong Retreat" cottages. This was located on the river bank. This small pit about three feet in diameter and two feet deep was entirely filled with closely packed valves of partly decomposed clam shells. This heap must have once extended above ground. Near it small pieces of shell are scattered by the plow over an area about sixty feet long and ten or more feet wide. Test pits were dug elsewhere in this vicinity but no other shell deposits were encountered.

One hundred and fifty potsherds dug from or collected from the surface of the western third of this site on October 11 and 12 are evidently fragments of vessels of both large and small sizes. All are crushed rock tempered. Of these sherds, the majority, are thick and made of brown clay. Some are made of red clay, some of these are thick, others thin. Some are of dark colored clay, surfaced on one or both surfaces with red clay.

Of six rim pieces, four have straight and two outward turned rims. Three thick brown clay rims show no ornamentation. One (brown ware) is surfaced on both sides with red clay. Its rim is ornamented with small indentations and its outer surface with faint markings.

One piece (brown ware) is ornamented below the rim with small elliptical diagonal indentations. One (thin red ware) is unornamented.

Three sherds (dark brown clay) are ornamented with rows of parallel incised lines unequal distances apart. One shows twelve such lines.

Forty-one sherds (brown ware, and brown ware surfaced with red clay) are ornamented with coarse or fine twisted-cord impressions.

One sherd (brown ware surfaced on the outer surface with red clay) is ornamented with two parallel rows of small roulette impressions.

One sherd (thin, red clay) is ornamented with several parallel rows of small oval indentations.

One sherd (brown ware) shows cord impressions and a single incised line below them.

One sherd (thin, red clay), the best ornamented of the lot, is ornamented with a series of twisted-cord impressions above which is an incised curved line above which are several parallel lines of small circular impressions probably made with a hollow plant stem.

So far as known no perfect vessel has as yet been obtained from the black, sandy soil of this field.

Test pits dug at a number of points on this village site show that in places the village refuse (flint chips and fragments, pieces of broken bone, shell fragments, etc.), the relic-bearing layer, extends at least from three to four feet beneath the surface.

The Lake Koshkonong west shore trail passed over or near this site, which appears to have been an early Algonquian place of residence.

## FULTON TOWNSHIP

### *Pierce Village Site*

(SE.  $\frac{1}{4}$  Sec. 1)

At Newville on the north side of the Rock River road on the Henry Pierce farm is a very sandy cultivated field. In this field, extending back from the highway, are four sand ridges elevated but a few feet above the road. On the top of these ridges evidences of aboriginal occupation are very abundant. Hearthstones of all sizes are of very frequent occurrence. Flint chips, flakes, spalls and fragments of various colors and kinds of flint are very numerous. Nearly three hundred of these were counted on the top of the most westerly ridge within a radius of about thirty feet.

Although this site has been frequented by collectors for the past twenty or more years and hundreds of flint arrows and spearpoints, and many scrapers, perforators, knives and some axes and celts collected we were able to gather from the several wigwam and workshop sites on the three ridges in less than an hour's search a number of flint blanks,

entire and broken, several arrowpoints, a scraper, several rejects, several entire and broken hammerstones, flint pecking hammers, broken flint nodules, an anvil stone, a red sandstone smoothing stone, and two notched stone net weights. A single cord-ornamented potsherd was also found.

These three low ridges are about 400 feet north of the river bank. The most westerly ridge is separated from the one east of it by a distance of about 175 feet, and this one from the next east by a shorter distance. Each of these ridges appears to have been occupied at some time by a wigwam, the west ridge probably by two.

On the east side of the road, in the NE.  $\frac{1}{4}$  Sec. 2, evidences of former camp life also occur, though not so abundantly, on several knolls or elevated spots in a field thinly overgrown with grass and in use as a pasture. Such evidences also occur on knolls and level places in a field adjoining this one on the west.

At the eastern end of this rich village site a brook flows down to the river through a small marshy bed from a high wooded ridge in the rear. The river bank is here steep and abrupt.

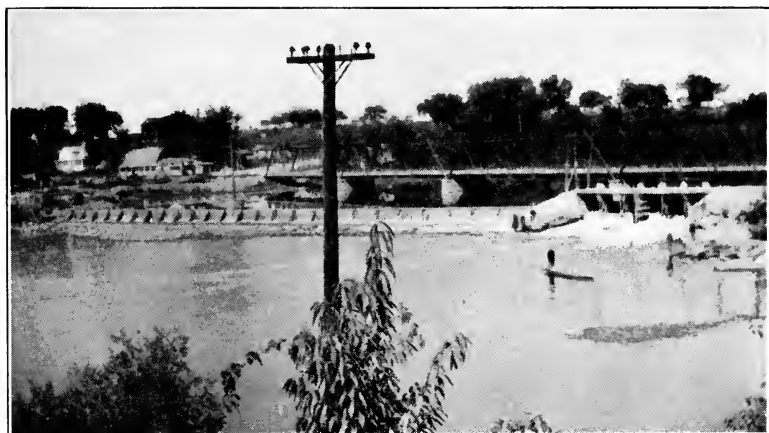
The two net-weights found on the Pierce site are rather unique. The largest, made of red sandstone, is  $2\frac{3}{4}$  inches in length and  $1\frac{5}{8}$  inches in width and  $1\frac{1}{4}$  inches thick. Its surface is roughly flaked. Its two edges are notched by the use of a pecking hammer. The other specimen, made of red granite, is  $2\frac{1}{4} \times 1\frac{5}{8} \times 1\frac{1}{4}$  inches in size. It is roughly flaked, the notches at the two sides being made in the same manner. They were found within a short distance of each other. Several similar specimens have been collected here. They may be part of a set or quantity of such weights.

The flint worked here is largely of greyish-white, buff, and flesh (to pink) colors. Blanks of all of these, some broken, occur here in fair numbers. All is Wisconsin material and its source was probably not distant. Other flint used in implement manufacture is of bluish-grey, white and dark red colors. This is not as common. One rhyolite (black) and one quartzite (buff) chip were found.

Mr. Geo. H. Sherman of Newville has in his collection five pieces or lumps of galena or lead ore which he collected at



PIERCE VILLAGE SITE, AT FOOT OF LAKE KOSHKONONG



POWER DAM AT INDIAN FORD





different times from the Pierce farm site. The largest of these weighs 5 pounds and the smallest about one pound. Mr. Sherman has in his collection of about one thousand flint implements many which were found here.

Opposite both the Rock River and the Pierce village sites there were when the first white settlers came to this region large beds of wild rice which the Winnebago Indians then encamped here gathered. Mussels were also abundant in the river. Some of these the Indians dried for future use. Both sites might be termed fishing villages, their inhabitants depending on water products (fish, mussels, wild rice and the edible roots of water plants) to a very considerable extent for food. Both sites exhibit evidence of having been occupied by an Algonkian people at an earlier date.

### *Newville Village Site*

(NE.  $\frac{1}{4}$  Sec. 12)

John Farmer's "Map of the Territories of Michigan and Wisconsin," published in 1836, shows the location of a Winnebago village at Newville. This was on the south bank of the Rock River a short distance from the foot of Lake Koshkonong, and on the trail leading from the lake down the Rock. On a map of "Wiskonsin Territory," 1837, the name of this village is given as Tay-cheedah, translated as "mud village." Of this village and the number of its inhabitants during these years very little is known. Its chief or chiefs were not sufficiently prominent to have won historical recognition. It was a good fishing locality and Indians continued to visit and to camp in this locality in numbers for many years after the white settlers came to this region.

L. B. Carswell, who resided at the foot of Lake Koshkonong with his parents who settled in this locality in 1837, stated that the lake was a great resort for Indians who camped here often by hundreds. These were principally Winnebago and Potawatomi. The Indians subsisted on fish, game and wild rice. The wild rice was gathered by means of canoes and after being hulled and winnowed was stored for future use in sacks made of hides or rushes. The lake had the appearance in the summer time of a large meadow. The growing wild rice completely covered it and water was scarcely visible. The water was uniformly only

four or five feet deep. The prairies and oak openings of the locality were smooth and easily travelled. The prairies were very beautiful. The Indians burned the prairie grass every year.\* Other old settlers state that fish were taken by the Indians in several ways—by spearing and clubbing them, and by pinning them in the shallows with a split, forked pole.

The great number of stone implements and of other Indian artifacts collected in this region, on both banks of the Rock, in the past ninety or more years, appears to bear abundant testimony that as an Indian dwelling place this locality goes far back into the prehistoric period, and that Algonquian as well as Siouan Indians have occupied it.

On the William Alds place on the north bank of the Rock a camp site is indicated by scattered hearthstones, ashy areas in the soil, bits of mussel shells and flint rejectage. Mr. Louis Pierce of Newville has collected a number of flint arrowpoints here and other collectors have gathered others and a few stone celts and grooved axes from these fields in past years. In Newville itself a few burials have been unearthed in road construction and house building. Very little exact information concerning these is now obtainable. The Alds property is in the northern part of the northeast quarter of Section 12. A Winnebago name for this locality is Nee-ouitch, or foot of the lake.

At Newville Indian camp and village sites extend from the Rock River bridge down the north bank of the Rock to the bend of the river, a distance of a mile or more.

The first indications of a former Indian village site on the north bank of the river were found in a small potato patch on rather low black, sandy soil several hundred feet in the rear of the Simon store in the village. At this place, within a few feet of the river bank, aboriginal camp refuse consisting of hearthstones, flint chips and spalls, blanks and pieces of clam shell were abundant. Small sherds of cord-marked and indented earthenware were also found. This site extends eastward to the main street of Newville but this portion was occupied by weeds and tall grass and could not be examined. It also extends westward along the river on more elevated land into a barnyard adjoining the potato

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\* Hist. of Rock Co., C. F. Cooper & Co., 1908.

field. In past years a goodly number of flint points, several stone celts and axes, and several native copper implements were gathered from this site.

*Riverview Resort Village Site*

(NW.  $\frac{1}{4}$  Sec. 12)

A short distance west of the foregoing site there is near the river bank a picturesque small limestone and yellow sandstone outcrop, where some quarrying has been done. At its base runs a river road. On the grass-grown top of this quarry flint chips and hearthstones also occur, these indications extending into the cultivated field in its rear. Beyond the quarry flint refuse occurs in the road and in the road bank. Here was located in the bank a small deposit of partly decomposed and broken clam shell valves. These were tightly packed in a small cavity or refuse pit, the deposit not exceeding eighteen inches in depth. This small pit was excavated but disclosed only the clam shells.

Beyond this place the land along the river bank is rather level and covered with sod. This common, over which are scattered the cottages of the Riverview resort (most being grouped at its western end) is about a thousand feet in length and at different points from 60 to 80 feet in breadth. On it are scattered oak and other trees. It is traversed by the river road. Near its western end a spring-fed brook runs from an adjoining field into the river. Throughout the entire length of this common flint refuse and hearthstones of workshop and wigwam sites are exposed at intervals in the road and in other places which are bare of sod. These sites extend into the cultivated fields in the rear of the resort. The river opposite the resort is about 400 feet wide from bank to bank.

Collectors of Indian artifacts at Edgerton, Indian Ford, Fulton and Janesville have gathered many flint implements and a smaller number of stone celts, hammers, stone balls and sandstone grinding stones here in past years. Among the more interesting finds were a bone awl, small circular clam-shell pendant and a copper spearpoint with a tapering blade and long pointed tang. No potsherds were collected.

*Ridgeview Village Site*(NE.  $\frac{1}{4}$  Sec. 11)

Beyond Riverview the lake bank is higher and the slope of a wooded ridge parallels the shore line for a short distance. Among the oaks on this slope are grouped half-a-dozen summer cottages. In a small sandy garden plot at the eastern end of this resort flint refuse and hearthstones of a former wigwam fireplace were exposed. Similar indications of former Indian occupation are found at intervals in the bed of the river road and the bank of the cottage lots fronting on the road.

In the sandy road bank in front of the "Snug Harbor" cottage, with flint chips and fragments, many pieces of a small cord-marked earthen vessel were dug out of the bank. About 120 feet beyond this place the road cuts through a shell heap which is irregular in outline. Its greatest length is about 50 feet and its width from four to twelve feet. This deposit of decomposed and broken clam shells mixed with earth is in places about two feet in thickness. It is located about twenty feet from the river bank and from ten to twelve feet above the water. It is nearly opposite the last of the line of cottages. We dug over parts of this shell heap but without other results.

Beyond this point the wooded ridge turns toward the north and then again to the west. Between its base and the river shore there is a cultivated field from which a tobacco crop had just been cut and removed. In this field, which slopes gently from the base of the ridge to the river bank, indications of a former camp site occur. The eastern end especially, of this field was littered with scattered flint rejectage and hearthstones. Several hammerstones and flint blanks were among these. Local and other collectors have found this field and several adjoining farm fields good collecting grounds for flint points. The latter fields were growing crops of clover and alfalfa and could not be examined. A narrow grassy common separates the southern margin of all of these fields from the river bank. This common the river road traverses. At a number of places the top of the river bank is at least ten feet above the water of the river. Here a line of large granite and other boulders had been moved from the fields to the river edge of the

road. At the western limits of these fields a dirt road comes down to the river from the Newville to Edgerton highway, and unites with the river bank road. A short distance beyond this road camp site indications are also found.

On the shore near the southward bend of the Rock are other summer resort homes. Here the land along the bank is forested and covered with sod, giving no present opportunity for its examination. Beyond this place, south of Edgerton, the higher river bluffs come down to the river bank with farm lands on their top.

A seemingly favorite flint in use by the former Indian residents of these north bank village sites between Newville and the river bend is of an attractive bright red color. This material, in the form of chips, flakes, spalls, fragments, broken blanks and small masses, is distributed over the length of these sites. Other kinds of flint in use on these sites are a flesh-colored, a dark bluish grey, and a grey and white. The first of these is also of quite common occurrence. All were very probably obtainable from Rock River or other local sources. Flint implements made of these are in local and other collections. Nodules of white flint occur in some of the fields.

We collected from these sites a notched arrowpoint made of red flint, a stemmed point made of the flesh-colored flint and broken points made of this material, hammerstones entire and broken, a small lump of hematite, and pieces of clam shell valves. Potsherds found on the Ridgeview site are some of them of a reddish color, and some of a blackish color. Some of the latter are ornamented with cord impressions and small indentations. All are tempered with crushed stone particles. The pieces of a small broken vessel found at "Snug Harbor" cottage are of a reddish color and are ornamented with cord impressions. These are also tempered with crushed stone.

Mr. D. Willard North has fragments of a large vessel which in the year 1922 or 1923 he excavated from beneath the roots of an oak tree standing about on the north and south boundary line of Sections 11 and 12. This location is by the side of the old trail from Newville to Indian Ford and the mouth of the Catfish River. This vessel was of a dark brown color, its surface paddled with coarse cord markings,

and with small elliptical impressions made with a small cross-lined stamp or object, also with small circular nodes punched out from the interior of the vessel. Some of the sherds are nearly one-half inch in thickness. This pot appears to have been quite a large vessel, perhaps a kettle. The clay is tempered with crushed stone.

Mr. North informed the writers that in the year 1918 he found on the Richardson farm at Newville, the bones of an Indian buried which had been exposed in the plowing of a field. It was a full length burial. The site of this interment was a short distance west of the stone outcrop on the river bank on that farm, and about 300 feet from the bank.

Mr. North has numerous flint implements from the village sites on the north bank of the Rock at Newville.

Mrs. George Doty of Edgerton has a small collection made by her son, Lawrence Doty, at Newville and elsewhere at the foot of Lake Koshkonong about thirty years ago. This small collection consists largely of arrowpoints of which there are about one hundred. Of this number 50 are stemmed points, 45 notched, 3 barbed, and 5 triangular in form (more common in Northern Illinois) with truncated or blunted barbs, one having serrated edges. There are a number of flint blanks. The points in this collection are made of red, flesh colored, pink, grey, white, and salmon colored flint. One notched point is made of light grey quartzite. One perforator is made of grey flint, another of greyish quartzite. Both are simple, elongated leaf-shaped forms lacking a stem. Two scrapers are both re-chipped arrowpoints. One is made of grey, the other of buff flint. The only heavy stone cutting implement is a five inch celt.

Mr. Darcey Biggar, Louis Pierce, Edward Amerpoll, Horace McElroy, H. C. Son, W. P. Clarke, are among many others who have collected from the sites at Newville in past years. The total number of Indian implements collected here must number in the neighborhood of 5,000 specimens.

In the Logan Museum at Beloit there is an arrowshaft grinder which was collected here, and in the Geo. A. West collection in the State Historical Museum, three flint perforators from Newville.

*South Bank Camp Sites*(NW.  $\frac{1}{4}$  Sec. 12 and NE.  $\frac{1}{4}$  Sec. 11)

On the south bank of the Rock River indications of former camp and workshop sites occur along the river road from near the Newville bridge westward to the Peek farm at the bend of the river. Remains of these early Indian homesites are here more difficult to locate than on the north bank of the river because of woodland tracts, an orchard and other conditions of the land which are unfavorable for the making of a satisfactory surface survey.

Several visits were made to this locality. On one of these occasions a deposit of flint chips and spalls, a small workshop site, was removed from the roadside bank opposite the Charles Zebell farm. Other flint rejectage was found in other places, in the river bank, along the road and in gardens. In the course of years quite a number of flint points and some stone celts and grooved axes have been picked up by Newville and other collectors of Indian implements along this stretch of river road. In places in the cultivated fields of the Peek farm wigwam hearthstones are quite numerous. The excavation of several of these former fireplaces produced only charcoal, and ashy soil. No pottery fragments were found on these sites.

The flint in use in implement manufacture in this locality is apparently the same as that which was in use on the north bank sites. Two notched arrowpoints found during our investigations are made of white flint, a broken point and a portion of a knife are both made of flesh-colored flint.

The river road above referred to is a picturesque country highway with scattered summer cottages between it and the rather high river bank. Beyond the most western of these cottages rather level cultivated fields extend to beyond the river bend. In early days of white settlement small groups of both Winnebago and Potawatomi Indians frequently camped here.

*Oak Ridge Village Site*(E.  $\frac{1}{2}$  Sec. 14)

The Rock River makes a big bend to the west opposite the road and rather level river fields of this farm. At this bend a large marsh extends inland in a southeasterly direc-

tion for a considerable distance. On the border of this marsh on the Ulysses O. Miller farm is a sandy knoll in use during the summer of 1928 as a watermelon patch. Here were found the scattered stones of a wigwam fireplace, flint refuse and a broken flint blank. Some flint points have been found here by the son of the farmer. Other likely spots in the Miller fields from which numbers of flint points have been collected were covered with grass and weeds and could not be examined. Across the marsh from the farm fields to the south is a woodland.

Indications of this former village site also extend on to the Mrs. Will Earl and adjoining farms. From this site Mr. Miller has made a very good collection of Indian implements. Other collectors have also visited and gathered flint and other implements here. The manufacture of flint implements was quite extensively engaged in. In recently plowing a field on the Miller farm the plowshare cut through a deposit of nearly a bushel of flint chips and spalls. In former years it frequently happened that similar deposits were disturbed in cultivating some of these river bend fields. Wigwam fireplaces and other hearths were also thus disturbed and the burned stones scattered.

The old Indian trail from Indian Ford to the foot of Lake Koshkonong passed over the Miller farm. A remnant of this prehistoric pathway can still be seen in the woodland north of the Miller farm house.

The Miller collection includes about 350 flint implements. Of these the greater number are arrowpoints, largely of stemmed and notched forms. A few are triangular in shape. One exceptionally large ( $3\frac{1}{2}$  in.) spearpoint of the "heart-shaped" form, with one broken barb, is made of white flint. The arrowpoints are largely made of white and grey flint, a few of reddish or other colored flint. Several are made of light brown quartzite and one stemmed spearpoint of blue hornstone. There are a small number of scrapers and perforators, the latter all provided with bases.

The heavier stone implements in this collection are a centrally grooved stone hammer, a rude grooved axe, and a number of stone balls. The only copper implement is a small triangular arrowpoint. A small conical copper point



was also found here. A small disk pipe made of white limestone comes from the sites at the foot of Lake Koshkonong.

Some shell-tempered potsherds are reported to have been found on this village site. We were unable to recover any specimens of this or other earthenware fragments during our several visits to this site.

This site also extends on to the Hurd farm adjoining the Miller farm on the west. On this farm, east of where the C. M. & St. P. R. R. line crosses the Rock, Mr. Darcy Biggar once collected a grooved stone maul weighing six pounds. This site is in the SW.  $\frac{1}{4}$  of Section 14.

### *River Bend Shell Heap*

(SW.  $\frac{1}{4}$  of the NW.  $\frac{1}{4}$  of Sec. 14)

A shell heap was formerly located on the A. Salisbury farm on the north bank of the Rock in the big bend of the river. When Mr. Darcy Biggar first noticed this refuse heap years ago it had been deeply plowed by the owners of the land preparatory to cultivating the field. He examined the ground at the time but no Indian implements were found upon or near it. This shell mound was low and of small dimensions and was a mixture of the valves, broken and entire, of river clams and earth. It was in appearance similar to other refuse heaps once located along the Rock River bank between this point and the foot of Lake Koshkonong. River mussels of, which there were formerly many beds, worked in recent years by pearl hunters, appear to have been a quite common article of food of the early Indian occupants of the Rock River.

This place is across the river from the Oak Ridge village site elsewhere described. The north bank trail from Newville and Lake Koshkonong passed over it.

### *Edgerton Camp Sites*

(N.  $\frac{1}{2}$  Sec. 15)

Camp and workshop site debris occurs in several cultivated fields on the north bank of the Rock overlooking a bend of the river. These are about three-fourths of a mile south of the southern city limits of Edgerton. The river banks are high at this place, a number of cottages being located on the river shore. The camp sites are on top of the

high banks at a distance of three hundred or more feet from the water's edge. The flint worked at these wigwam sites was of white, bluish grey, light brown and reddish colors. Several small broken flint blanks and the base of a small leaf shaped point were found. Of special interest is a small flint pecking hammer. Indications of its use in implement manufacture circle the edge of one of its faces.

The very weedy condition of the cornfields in which these evidences occur prevented our making a larger collection.

Both east and west of these farm fields are ravines and woodlands. Mr. Darcy Biggar has collected some flint arrow and spearpoints from a camp site located in the NE.  $\frac{1}{4}$  of Section 15.

### *Edgerton*

The southern city limits of Edgerton are at different points within a half mile or a mile north of the Rock River. Two trails, coming from the northwest, ran across the site of the present city in a southwesterly direction and united just beyond its southwestern limits, then continued on to the mouth of the Catfish River. In various collections and in other hands are Indian implements found in past years within the present limits of Edgerton, or near the city. The exact locations from which some of these were obtained is unfortunately unknown. The character of some of these is such that they deserve to be mentioned despite this uncertainty. These include an adz-axe made of greenstone, a grooved axe with a pointed poll made of basalt, a fluted stone axe made of grauwacke, and a bannerstone of the butterfly form made of hornblende schist, all of which are in the Logan Museum at Beloit College. In the State Historical Museum there is a copper knife (A 2451) found near the city. Also an iron trade axe cut out of the trunk of a large white oak tree at Edgerton and presented by Matthew Croft. Mr. H. C. Son has an antler point found near the city.

Within and near the city many specimens of such common Indian weapons and tools as flint arrow and spearpoints, and some stone celts and grooved axes have been found.

*Miller Camp Site*(NW.  $\frac{1}{4}$  Sec. 15)

Mr. Bert Cox of Indian Ford reports that a favorite camp ground of the early Indians was on the Charles Miller farm on the north bank of the Rock, in the northwest corner of this quarter section. This site is a short distance northeast of Indian Ford. The river trail passed over it. He has in his collection some flint points, blanks and a knife collected here. Flint chips and fragments and burned stones occur in a field on this place.

Mr. Cox has a large polished grooved axe with a deep groove and prominent ridges. This was found on the old Wm. Bell farm, where the slaughter house stands. It weighs 5 pounds. The Bell farm adjoins the Miller farm on the east. Numerous indications of flint working also occur here. Mr. David Van Wart, a former Evansville collector, had a flint hoe made of tan-colored flint which was found on the Miller farm site. This implement was bell-shaped in form and 8 inches in length. Its width at its squared top was  $2\frac{1}{2}$  inches and at the expanded base of its blade 6 inches. Its curved cutting edge was polished through long use. Hoes of similar form are of frequent occurrence in southern Illinois.

*Devil's Oven*(NE.  $\frac{1}{4}$  Sec. 16)

Two small caves occur in the limestone wall on the river bank on the William Wille farm. The larger of these is known as "The Devil's Oven." This cave is near the top of the sloping river bank at a distance of about 50 feet from the water's edge. Its mouth is somewhat circular in outline, about 5 feet high and 6 feet wide at the floor. Its length is about 18 feet. It becomes lower and narrower within. Its floor is of earth and loose fragments of rock. In an emergency it might shelter rather uncomfortably four or five persons. This cave has a local reputation of having been occasionally used by Indians in former years as a temporary shelter. A short distance south of it is a smaller "cave."

The riverbank fields of the Wille farm were in pasture

and could not be examined. Some stone implements have been found here in past years and it is probable that camp and workshop sites occur here also.

### *Brown Camp Site*

(SE.  $\frac{1}{4}$ , NW.  $\frac{1}{4}$  Sec. 16)

On the F. T. Brown farm indications of a former camp and workshop site were found in a level field between the farm barn and the high river bank. Hearthstones, a broken white flint blank, and chips and spalls of white, grey and red flint were scattered over a small area in this field at a distance of about one hundred feet from the top of the river bank. Mr. Brown, the owner of the farm, has also found a few flint arrowpoints here.

Limestone outcrops along this bank of the river and extends from south of Cliff Lodge as far north as the William Wille farm beyond the Brown farm. This stone has been quarried in several places one of these quarries being on the Brown and another on the river shore on the Wille property.

### *Southworth Farm Village Site*

(NE.  $\frac{1}{4}$  Sec. 16)

An Indian village site is located on the Southworth farm, formerly the John C. Hurd farm, on the eastern bank of the third bend of the Rock River. Its southern limit is at a distance of about two city blocks north of the northern limits of Indian Ford. Its northern limit extends into the southwest corner of the NW.  $\frac{1}{4}$  of Section 15. This site is located on ground now under cultivation. It was partly occupied by a large cornfield and partly by pasture fields during the summer of 1928.

Along the river front of these fields for a distance of nearly six hundred feet were scattered groups of hearthstones, flint fragments, chips, flakes, some flint nodules, fragments of animal bones and of river mussel shells, and occasional broken pebble hand-hammers.

From this site, in past years, numbers of flint implements, hammerstones, and some stone celts, hammers and grooved axes have been collected. A pebble pipe, the stem of a broken pottery pipe, a broken slate gorget, a bone awl

and several perforated shell disk beads were also obtained. Messrs. Bert Cox, Darcy Biggar, D. Willard North and other collectors have found these fields a good hunting ground. Some sherds of twisted-cord marked and indented earthenware are among other specimens gathered. We collected during our inspections of this village site broken hammerstones, flint blanks and a flint double-end scraper.

The flint in use in implement manufacture is largely of a reddish color, with some chips and fragments of white and bluish-grey flint. Years ago, when some of these fields were first cultivated small heaps of flint chips were overturned by the plowshare in different places in these river bank fields. Near the river bank were some shallow circular depressions, probably former provision cache pits. Evidences of Indian occupation extend from 150 to 300 feet or more inland from the river bank. The river bank along this shore of the Rock rises from 6 to 15 or more feet above the water the land sloping gradually upward toward the east.

The Rock River trail passed over this farm on its way to Indian Ford, according to early maps, a considerable distance back from the river bank.

The Rock River opposite this land is a very attractive stream, and is 400 or more feet in width. The banks on both shores are clothed with oak trees. On the opposite shore, across from the northern part of the Southworth farm, there is a limestone quarry.

### *Indian Ford*

At this settlement on the highway from Edgerton to Janesville there was an Indian crossing or ford of the Rock River from the trail on its eastern bank to that on its western. The old Winnebago Indian name of this locality was Nee-ru-tcha-ja, or "river crossing," also given as Ho-ru-tchkach. Pioneer and other old settlers remembered numbers of both Winnebago and Potawatomi Indians crossing the river in the shallows at this place, the women at times rather heavily laden with bundles on their backs and shoulders. They were on their way to Lake Koshkonong or to points down the river. The early ford is reported to have been just above the present highway bridge. Doubtless

there were other crossings. Even today the river bed is shallow below the dam and may be crossed by means of sand and gravel bars. One good crossing is about 300 feet below the power dam.

On some maps both the names Indian Ford and Fulton Center appear for the part of the settlement on the east bank of the river.

From the highway at the base of the river bluffs on the east bank the locality is quite picturesque. On the opposite shore the river hills, now occupied by farm and other houses slope down to the small settlement on this bank.

Mr. Bert Cox of Indian Ford has a collection of some five hundred Indian implements. Some of his best specimens were obtained from the village site on the old Stone (the present Flom) farm, on the east bank of the river about a mile southwest of Indian Ford. Others are from the Southworth and other sites up the river. Of special note in his collection are a perforated oval stone ornament or amulet with a groove extending from the perforation to the top and made of mica schist, and a polished black stone ball two inches in diameter. Two stone celts are triangular in form and from 3 to  $4\frac{5}{8}$  inches in length. The smaller is polished, the larger has a pecked surface. Three knives are made of rhyolite, purple-brown quartzite and light brown quartzite. These are from  $2\frac{1}{2}$  to  $3\frac{5}{8}$  inches in length. Six large stemmed, notched and barbed spearpoints are from  $3\frac{1}{8}$  to  $4\frac{1}{2}$  inches long. Five are made of flint and one of light brown quartzite. A grooved stone axe has a blade shortened by frequent sharpening of its cutting edge. Some flint scrapers, perforators and reamers are in this collection. A small lump of hematite is of interest.

### *Indian Ford Camp Site*

(SW.  $\frac{1}{4}$  Sec. 16)

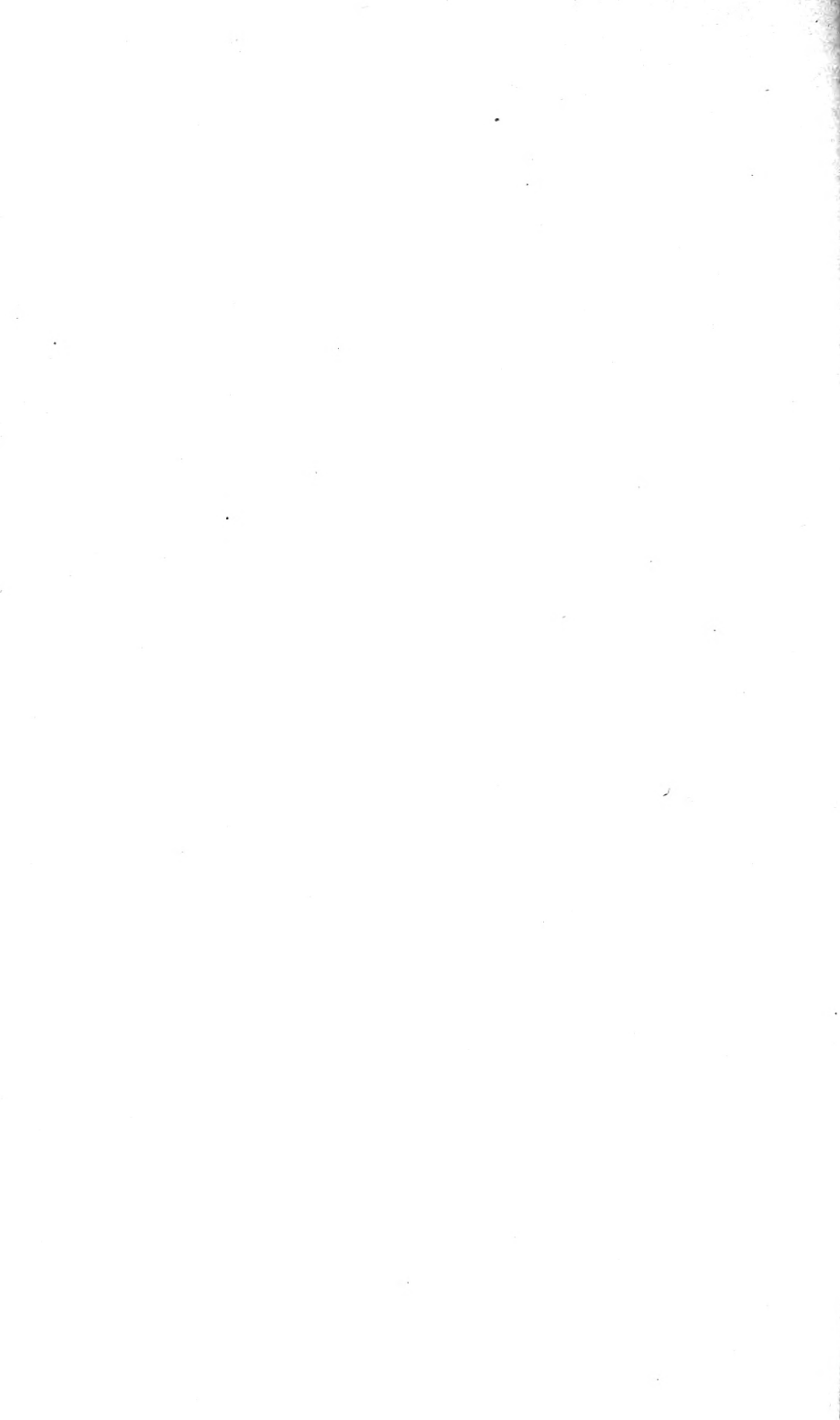
Within the part of the village of Indian Ford located on the east bank of the Rock traces of a former Indian camp site are exposed in a small garden field adjoining the M. F. Krueger home on the south. In this field located between the highway and the river bank hearthstones are most numerous in the southwest corner at a distance of about 50 feet from the river bank. An unornamented crushed-rock tem-



ROCK RIVER BELOW INDIAN FORD



THE MILL ON BASS CREEK AT AFTON





pered potsherd, a flint blank, a flint pecking hammer and an ordinary hammerstone were found here.

A short distance north of this field at the northern limits of the village a brook flows into the Rock. The Indian site probably covers the entire distance from this brook to the Indian Ford bridge. All of it but this field is now occupied by dwellings and barns of the village.

Several stone celts and numbers of flint implements have been found in this part of Indian Ford.

### *Indian Ford Heights Camp Site*

(SW.  $\frac{1}{4}$  Sec. 16)

On the west bank of the river at Indian Ford a camp site is located on the D. Willard North property on the heights overlooking the settlement and the river below. This is indicated by the presence of a few scattered hearthstones and flint chips and fragments in the garden south of the North cottage. This site extends across the highway into the garden of the Becker home. Here many flint arrowpoints have been collected. It also extends over parts of a cultivated field along the top of the river bluff from the barn on the North place northward to the Cliff Lodge resort.

Several examinations were made of the black soil of this field after its tobacco crop had been removed. These resulted in the finding of scattered hearthstones, chips and spalls of light brown and flesh-colored flint and of white quartz, two flake scrapers, a broken blue hornstone arrowpoint, a sandstone rubbing or smoothing stone, and a light grey flint blank. Some small sherds of cord-marked pottery were also found in the North garden.

This site probably extends beyond the Cliff Lodge resort.

### *South Indian Ford Camp Site*

(SE.  $\frac{1}{4}$  Sec. 20)

From Indian Ford in a southwesterly direction the south shore of the Rock for a distance of a mile westward to the SE.  $\frac{1}{4}$  of Section 20 is hilly and covered with woodland except where the hills have been denuded of trees. A number of small ravines lead from the tops of these hills down to river shore.

At one place along this stretch, just west of where a

brook enters the Rock, there is a small grassy flat between the base of the hills and the river shore. This is about the distance of a city block west of the present tourist camp ground at Indian Ford. This small area was recently under cultivation. It is known to have been an Indian camp site, and quite a few flint implements have been found here by collectors. Here, in a spot not entirely overgrown with the grass and weeds which have again taken possession of this former field, we found a group of fireplace stones, scattered chips of white flint and a broken hammerstone. The latter had probably seen secondary use as a fireplace stone. Bits of clam shell valves were also found. The river bank opposite this camp site is quite high. Opposite this point the Rock is about 300 feet wide.

The river trail passed over the top of these bluffs.

#### *Indian Ford Flats Village Site*

(NW.  $\frac{1}{4}$  Sec. 20)

On the north (west) bank of the Rock south of the village of Indian Ford the land along the river is quite level. Along the shore south of the power plant at the dam a number of summer cottages have been erected and the name "Sunny View" given to this addition. In the rear of these is a grassy pasture which rises gradually toward the Fulton road.

Adjoining Sunny View on the south is a large cultivated field of the Schofield farm. In this field, bearing a crop of corn at the time of our visit, the evidence of former Indian occupation was abundant. Burned stones from wigwam fireplaces and fragments, flakes and chips of flint were scattered over the entire river frontage of this field and extended for a considerable distance toward its rear. Hearthstones of all sizes were more numerous here than on any site along the river which we have recently examined. Small fragments of clam shell valves were also scattered over some parts of the field.

The flint employed here in implement making is of white, grey, tan, flesh, and reddish colors. All or nearly all of it could have been very conveniently obtained from some of the gravel hills or gravel slides along the river between this point and Janesville. The character of some of the numer-

ous flint implements found on this site appears to show, however, that some other flint was imported, coming from greater distances. Flakes and chips of light colored quartzite show that this material was also in use in implement manufacture at this village. Other artifacts found in the course of a search of this site were pebble hammerstones of different sizes and weights (some of them evidently broken in use), sandstone smoothers, flake scrapers, flint blanks, pieces of broken arrow and spearpoints and knives, flint nodules and masses of white flint. No potsherds were obtained although a number have been collected here by other persons.

This village site extended over the adjoining grassy field of "Sunny View," also into the woodland cottage resort of "Rainbow's End," which adjoins the Schofield field on the west. Mr. W. C. Schofield has a small collection of Indian artifacts collected from this site. Mr. Darcy Biggar has collected some twenty-five or thirty flint arrowpoints and two or three flint knives from here. A grooved stone axe has also been found. The river bank opposite this field is from six to ten or more feet high and the stream opposite about three hundred feet wide.

#### *Rainbow's End Corn Field*

(NW.  $\frac{1}{4}$  Sec. 20)

West of the Hansen cottage at Rainbow's End woodland numerous Indian corn hills are to be seen near the river shore. These are covered with sod and although they have been trampled over by cattle the hills of the old planting ground are still fairly distinct. The hills are not arranged in rows but are scattered about here and there and are quite close together. This cornfield covered about a third of an acre of ground. Some of the hills are within a few feet of the lake bank which is rather low. The Indians are reported to have been still growing some corn here after the first white settlers came to this part of Rock County.

#### *Indian Hill Mound Group*

(NE.  $\frac{1}{4}$  Sec. 19)

This interesting group of mounds was first described by Dr. Increase A. Lapham.\* It was replatted in recent years

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\* The Antiquities of Wisconsin, 1855.

by Mr. H. L. Skavlem (See Wis. Archeologist, v. 13, no. 2, 1914.)

There are 28 mounds in this group, nine being tapering linears from 74 to 205 feet in length, and the balance short, straight linears, oval and conical earthworks.

This group is located on the bank of the Rock between the Pratt pasture lands and the mouth of the Yahara or Catfish River. The mounds are near the river bank in an open woodland. This contains but little underbrush being in use as a pasture and most of the mounds can be plainly seen from the lakeshore path. Nearly all of the conical mounds have been dug into by relic hunters and some of the linears also. Although thus mutilated (the excavated holes being left open) this group of ancient earthworks makes a fine appearance on the green woodland sod beneath the fine oak and other trees. In its arrangement, nearly all of the tapering linears being located at right angles to the lake shore with their heads toward the water, this group is more or less unique among southern Wisconsin mound groups. It deserves to be saved and preserved as a county park by Rock County.

Brief accounts of the results of the exploration of a few of the mounds have been published. At least one exhibited evidence of human cremation. One was excavated by Mr. Darcy Biggar years ago. In this conical mound he found a flexed (?) human burial the bones being stained with red ochre. With this burial were found two elliptical blue horn-stone knives. One of these is  $5\frac{3}{8}$  inches long and 2 inches wide at its middle, and the other  $5\frac{5}{8}$  inches long and  $2\frac{3}{16}$  inches wide at its middle. They are fine specimens of this class of implements. Dr. Lapham gave the name of "Indian Hill" to this locality.

### *Catfish Village*

(NE.  $\frac{1}{4}$  of the SW.  $\frac{1}{4}$  Sec. 19)

At the mouth of the Catfish or Yahara River, where it empties its waters into those of the Rock, was located the Winnebago Indian village known as Catfish Village. This location is one and three-quarters miles southwest of Indian Ford and less than a mile south of Fulton.

This was a village site of some importance. Several

trails from the northeast, the north and the south centered here. There was a ford across the Catfish at the village and one across the Rock a short distance below the mouth of the Catfish at the location of the later highway bridge. The Catfish was the canoe route from the Four Lakes at present Madison to the Rock. It was a stopping point for Indians passing down the Rock from the Indian villages on the shores of Lake Koshkonong by canoe or by trail.

Tradition and history appear to indicate that the Winnebago occupied this site for at least a hundred years before the first white settlers arrived in this region. The Winnebago name, or one of their names, for the site was *Howinch*, "catfish" The chief of the Catfish Village was *Little Priest* (*Little Chief*), whose Indian name is given as *Houunk-kono-nik-ka*. His knife and its sheath are preserved in the State Historical Museum. Whatever may have been the number of its early Indian inhabitants there were only two lodges with thirty-eight inhabitants here when U. S. Indian Agent John H. Kinzie made his official census of the Winnebago in 1829. Small numbers of these *Hochungara*, as they called themselves, continued to camp and to grow corn here for years after the whites appeared. Their planting ground or "Indian garden" was on the river flat on the north side of the mouth of the Catfish. This locality has long been known to the settlers and their descendants by this name. The site of the Indian garden lies a short distance beyond the wooded slope on which are located the "Indian Hill" group of mounds. Several of these mounds, now nearly leveled, intrude on the village site on the elevated fields above the garden.

The site of the Indian garden is a tract of low, flat land which has this year been under cultivation as a grain field. A broad border of rank weeds lies between it and the waters of the Rock, and a narrow strip of woodland pasture between it and the Catfish River at its mouth. The peaty black soil of this field is subject to occasional (or frequent) overflow. Scattered over its surface are numerous shells of land and water snails. In its rear are brush and trees, a wildwood tangle. No good description of this Indian planting ground has been preserved. Doubtless the Indians also grew beans, gourds and squash here.

Although the principal part of this Indian village site was on the elevated fields of the Jensen farm above and north of the planting ground the aborigines also camped in, or on the edge of the garden itself. In various places in this field the burned stones of wigwam, and perhaps outdoor fireplaces, flint chips, broken clam shells, bits of animal bones, potsherds, flint blanks, and occasional stone implements are found. Local and other collectors have visited this planting ground site for many years. From their accounts it appears that fragments of earthenware vessels were once numerous here and that many flint and other stone implements have been gathered from this field.

The special interest to us were the considerable number of fragments of earthen vessels scattered over a number of places on its surface. Most of these were of small size, probably broken up during the cultivation of the field. The greater number of these sherds were made of light brown clay and were tempered with crushed rock and particles of sand. Several are of a grey color. To the outer surface of one of these a light reddish slip has been applied. Another grey sherd has had a light reddish slip or surfacing applied to both its inner and its outer surfaces. One small unornamented sherd is of a black color.

Among the ornamented sherds (rim and other pieces) are ten belonging to as many different vessels. These are ornamented with twisted cord impressions, the cords being applied to the clay vertically, horizontally and diagonally in different sherds. One bears both diagonal and horizontal cord impressions, the latter being applied over the other. In two instances cord impressions extend over the rim on to the interior of the vessel. Twisted cords of several thicknesses, fine, medium and coarse, were in use in ornamenting these vessels. Some of these sherds are further ornamented by indentations made with seeds (?) or with pointed instruments, and arranged in single or double concentric rows. One sherd bears a small perforation as if the vessel had been cracked and mended by tying through this hole.

The thickest of the sherds recovered from this site is not quite  $\frac{3}{8}$  of an inch thick, and the thinnest a little over  $\frac{1}{16}$  inch. Most appear to be sherds of vessels of small or med-

ium size. The patterns are well-known Algonkian ornamental patterns.

Two other specimens of special interest found on this site are a pebble hammerstone (5 inches long,  $3\frac{3}{8}$  inches wide at its widest part, and  $2\frac{1}{2}$  inches thick) made of a tough crystalline rock and having abrasions at its pointed end, one edge, and two sides, the latter being probably finger-holds. This tool weighs two pounds.

An irregular boulder is somewhat conical in form, the conical top being battered as if it had been employed as an anvil. This weighed about five pounds.

A spearpoint, stemmed, is made of grey flint and is  $2\frac{1}{2}$  inches long.

To the east and south of Fulton the Catfish winds in beautiful curves like a silver ribbon through an extensive area of marshy meadows southward for a distance of a mile to where its waters unite with those of the Rock River. At its mouth is a small wooded island with another similar island in the Rock just beyond it.

On the Paulson (Jensen) farm, which occupies the entire eastern bank of the Catfish from the Fulton to Indian Ford highway southward to the mouth of the river, evidences of former Indian residence are found on a large part of the cultivated fields bordering on the river marsh and on the bank of the Rock and the Indian garden already described. Along the Catfish this cultivated land, at its margin, is in some places elevated as much as twenty feet above the marshy meadows.

These fields we examined, finding on their surface numerous scattered hearthstones, flint-workers' refuse, bits of decomposed clam shells, burned and cracked animal bones, jewel stones of the sheepshead perch, occasional pieces of deer antler, fragments of plain and cord-marked pottery, and other village site debris. Among the implements recovered in our search were pebble hammerstones, flint blanks, rude scrapers, arrowpoints and a rude or unfinished stone celt. A curious sharply-pointed light grey flint point with a deeply serrated edge was probably fashioned for use as a fish spear or harpoon point. This is  $3\frac{1}{4}$  inches in length and one inch wide at its middle. It is of an elongated oval or elliptical shape.

The flint employed in implement manufacture is of white, light brown and flesh colors. Some white quartz, and brown and bluish-grey quartzite was also in use. The latter is probably Waterloo quartzite.

The potsherds found on the part of the site along the Catfish marshlands are plain or ornamented with twisted-cord or other indentations. Some are sand tempered, some sand and crushed quartz tempered, and some sand and shell tempered.

Hundreds of flint points, scrapers, perforators and knives have been gathered from the Paulson fields on this site by local and visiting collectors in the course of the past thirty years or more.

The best collection made from this village site is that of Mr. Darcy Biggar, a former resident of Fulton, who began to gather specimens from these fields during his boyhood. His collection, recently presented by him to the State Historical Museum, includes quite a wide variety of interesting Indian materials:

|                             |                                       |
|-----------------------------|---------------------------------------|
| 45 Flint blanks             | 2 Shell beads                         |
| 2 Quartzite blanks          | 1 Pottery pipe, broken                |
| 170 Flint arrowpoints       | 3 Stone pipes                         |
| 117 Small flint arrowpoints | Pieces of worked steatite             |
| 32 Flint spearpoints        | 1 Lead disk bead                      |
| 2 Quartzite spearpoints     | 1 Bear tooth ornament                 |
| 76 Flint scrapers           | 1 Elk tooth                           |
| 40 Flint perforators and    | Pottery fragments                     |
| reamers                     | Gun and pistol flints                 |
| 17 Flint knives             | Gun parts                             |
| 1 Flint celt                | Section of gun barrel                 |
| 5 Stone celts               | Lead musket balls                     |
| 1 Grooved stone axe         | Galena lumps                          |
| 1 Stone ball                | Section of lead bar                   |
| 1 Copper wedge              | Lead steelyard weight                 |
| 1 Copper stemmed arrowpoint | Glass beads                           |
| 1 Clay tube                 | Fragments of brass and copper kettles |
| 1 Catlinite effigy pendant  | Silver button                         |
| 3 Stone gorgets             |                                       |

Of the small flint arrowpoints sixty are triangular in form. The flint scrapers present quite a variety of form. Many are flint flakes or spalls one extremity or edge of which has been chipped for such use. Others are oval, circular or triangular in shape. Others are broken arrow and spearpoints which have been re-chipped for use as scrapers.

Fifty ornamented potsherds in the Biggar collection are fragments of nearly as many different vessels, nearly all of



vessels of small or medium sizes. This earthenware was nearly all of a dark brown color, some of it of a reddish brown color. The majority of these sherds are shell-tempered, some show no tempering material in the clay.

Forty-three rim sherds are as attractively ornamented as any found on any Rock River site. No two of these are alike in ornamentation. Most are ornamented with decorative designs made by impressing thin twisted cords of short lengths into the clay. These are arranged in horizontal, vertical and oblique lines, or in combinations of these. In some specimens these extend over the rim on to the interior surface of the vessel. The cord-impressed decoration is in some sherds varied by one or more parallel rows of indentations made with blunt-pointed implements, or very short pieces of twisted cords. A small number of sherds are ornamented with trailed parallel lines with small circular or other indentations made with round ends of plant stems or sticks, fossils, or other objects. One sand-tempered sherd, of red clay, has a cord-paddled surface with rows of circles made with a hollow implement. Several sherds show small drilled perforations.

Those who hold to the belief that the Wisconsin Siouan Indians used crushed shell as a tempering material more or less exclusively, and that cord-impressed decorative patterns are confined to crushed-stone tempered Algonkian earthenware, may find in this collection a need to modify their ideas on this subject.

Mr. Harvey Pease of Fulton and other collectors have also gathered many interesting specimens from the Catfish Village site. A catlinite disk pipe, bone awls, stone bead and a pottery disk are among these.

Several of the conical and oval mounds of the Indian Hill group occur in the fields of the Catfish Village site. These have been under cultivation for many years and have been pretty well leveled.

In early days of settlement Indians also camped now and then on the lands on the south side of the mouth of the Catfish River. On this side of the river the fields are sod-grown and in use as cattle pastures. They have been in such use for many years. The digging of a few test pits

and examination of the river bank produced no evidence of an earlier occupation, traces of which may, however, yet be revealed.

A few willow trees grow along the river bank which is six feet high in one place and low and marshy in others. Along the Rock River frontage of these fields the land is also marshy. A broad marshy area lies west of the pasture. At a distance of about 150 feet from the Catfish bank is what appears to have been a low oval mound. Its outlines have been disturbed by the feet of cattle and other causes. Its present length is 45 feet and its width 24 feet.

Maps of 1836 and later locate a "chalybeate" spring, or spring with iron-charged waters, south of the mouth of the Catfish. This the Indians are reported to have regarded as a medicinal spring. There are a number of springs now in this locality. South of the mouth of this stream was the location of the early Rock County "paper city" of Caramanee, plotted here by land speculators. The name is no doubt obtained from that of the noted early Winnebago chief Karamaunee.

The character of some of the implements recovered from the Catfish Village site and other evidence at present available appears to indicate that this site has been inhabited by Algonkian people before its later Winnebago occupancy.

### *Stone Farm Village Site*

(SE.  $\frac{1}{4}$  and SW.  $\frac{1}{4}$  Sec. 19, and NW.  $\frac{1}{4}$  of Sec. 30)

This village site is located on the east bank of the Rock a mile and a quarter southwest of Indian Ford. A part of it lies directly across the river from the Catfish Village site. This village site appears to have extended over the fields and pastures along the banks of the river for a mile or more. Only a part of this site, the northern and southern ends, were in condition for examination, the balance of the land being under a covering of thick grass.

For many years the old Stone farm, now the Ellingson and Flom farm, has been a quite widely known collecting ground. Mr. Biggar, Bert Cox, Mr. North, Horace McElroy and others have visited this site in past years and been rewarded by the finding of many interesting and some rather unusual specimens. A Dr. McChesney collected thirty-three flint arrowpoints during one visit to this site.

The most productive part of this site during our investigations was in a tobacco field on the river bank, in the rear of the farmhouse and barns. Here hearthstones from Indian fires were numerous. Broken flint blanks, and chips and spalls of white, grey, brown and flesh-colored flint were scattered about among the tobacco plants. In several places in this field were quantities of broken clam shells. We collected several broken pebble hammerstones, a single stemmed flint arrowpoint and fragments of other points. No potsherds were found.

The land along the river shore on this farm is rather level for the entire distance. All of it except a narrow strip at the southern end of the farm is, or has been under cultivation.

Beyond the southern end of this site a small creek enters the river. On a small knoll on the south side of its mouth the hearthstones of a wigwam fireplace were found. In this pasture field, at a distance of about 300 feet back from the shore a remnant (about 300 feet) of the river shore trail is still to be seen. This is nearly a foot in depth in places, and three or more feet wide.

Some Winnebago camped on the river bank on this site in pioneer days. Mr. Geo. St. John of Stoughton reported that in about the year 1888 an Indian burial was disturbed in digging for the foundation of a cattle-shed on the Stone farm. This site was about eight or ten rods south of the east and west road to the river bank, among the present farm buildings. It was four or five feet beneath the surface of the ground. So far as known no implements or other Indian materials accompanied this burial.

Mr. Darcy Biggar states that Mr. Stone in former years pastured his hogs in the field at the northeastern limits of this large farm. These rooted up the sod and the soil in such a manner as to make collecting easy. He collected nearly two hundred flint arrowpoints of a great variety of forms from this site, also notched flint scrapers and some perforators, a broken pipestone pipe, stone celt, quartzite knife, flint saw and a broken gorget made of mica schist. A son of Mr. Flom has a collection of flint arrowpoints from this site.

The east bank trail passed over the old Stone farm. Opposite this farm there was a river ford to the west bank.

### *Murwin Camp Site*

(NE.  $\frac{1}{4}$  Sec. 31)

A camp site is located on the James Murwin farm, south of the Ellingson and Flom farm, on the east bank of the Rock. Here a creek flows westward into the Rock. We found here a few flint chips, hearthstones, flint nodules and a single sherd of plain shell-tempered pottery. Mr. Dell Murwin has a small collection of flint arrow and spear-points obtained here.

### *Hubbell Village Site and Mounds*

(Secs. 30 and 31)

Miss Minnie F. Hubbell informed us of the former existence of a group of isolated Indian mounds on the Alfred Hubbell farm (SW.  $\frac{1}{4}$  Sec. 30 and NW.  $\frac{1}{4}$  Sec. 31), on the west bank of the Rock River, at a distance of one and one-half miles south of Fulton. One large mound was located where is now the farm garden and another at the barnyard gate, both near the Hubbell farmhouse. These have been obliterated.

Other mounds, conical and linear in form were located in a field north of the farm buildings, between the river bank and the road to Fulton. All but one of these have been completely destroyed. This conical mound, which must have been of large size, now appears as a slightly elevated earth heap near the middle of the field. It is at present about 33 feet in diameter and  $1\frac{1}{2}$  feet high at its center. This field is very level. The mound is situated at a distance of about 200 feet east of the road and 300 feet from the river bank to the north.

This site was covered with grass at the time of our visit to it on August 30 but scattered hearthstones, flint chips, spalls and occasional flint pebbles were found all along its northern and eastern margin.

South of this field and separated from it by a sparkling spring brook which flows to the Rock from the west, is another very level field, at this time in use as a pasture. This is a part of the old Indian village site from which

many flint and stone artifacts have also been collected. This village site has been referred to locally as an Indian "battle-field." The very level fields of this site are bordered on the south and west by a semicircle of hills and elevated land once covered with forest.

Mr. Horace McElroy reported three tumuli on the Alfred Hubbell farm, on Section 30, one mile south of the mouth of the Catfish River.\* Some flint implements and a stone celt collected here were in his collection. The mounds are probably those formerly located in the level field near the brook.

The Hubbell family have a number of flint arrowpoints, a large flint blank or knife, a portion of a broken stone celt, and the blade of an iron trade axe from their farm. They formerly also had a large grooved stone axe. Many other stone implements were collected here by persons interested in making collections. We were unable to learn where these were.

#### *Beggs Camp Site*

(Cent. Sec. 31)

A camp site is located on the M. S. Beggs farm, south of the Hubbell farm, on the west bank of the Rock. Here and on the adjoining Farrington farm some flint points and scrapers have been collected. This site is slightly over a mile and a half south of the Catfish, as the river runs.

### JANESVILLE TOWNSHIP

#### *Northwest Sections Camp and Village Sites*

(Secs. 6, 5, 9 and 10)

Up to as late as the 70's small groups of Winnebago Indians occasionally camped on the Rock River banks at different places on both sides of the stream in Sections 6, 5 and 9. In the cultivated fields in these localities hearthstones, flint fragments and the finding of occasional flint arrow and spearpoints indicate that Indian folk have camped on or near some of these same spots in the distant past. One of these sites is on the Reid farm in the S. ½ of Section 5. On the

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\* Hist. Rock County, 59

west bank of the river near where the north and south center line of Section 9 meets the river bank Mr. Horace McElroy about twenty years ago collected flint points and a stone celt from a camp site. This was on the Pahl and Diehls farms where camp site debris was scattered over cultivated fields.

Cooper's History of Rock County (p. 59-60) mentions this site, which was discovered in breaking up eleven acres of land in 1908: "The writer and Mr. Horace McElroy procured from this locality a large number of broken chert spear and arrow heads, one stone axe and 110 knives, spear heads and arrow points that were intact. These implements were made of a variety of differently colored cherts, some hornstone, chalcedony, quartzites, and one arrow head of agate, a material not found in this part of the country."

Another village site is located on the M. O. Connor farm in the SE.  $\frac{1}{4}$  of Section 9 and the SW.  $\frac{1}{4}$  of Section 10. A ravine or wash extending down to the Rock River separates the two parts of this site which shows the usual indications of a former Indian camp ground. Here Mr. C. C. Babbitt of Janesville has collected flint arrowpoints, perforators, a scraper, a small flint knife, pebble hammerstones and a "drill-weight."

We were not successful in finding any potsherds here.

In the rear of the summer resort cottages on the Hackbarth farm, on the west bank of the Rock, in the SE.  $\frac{1}{4}$  of the SW.  $\frac{1}{4}$  of Section 10, the presence of fireplace stones and flint chips and fragments furnish evidence of another camp site. At this place the old Janesville highway crosses the Rock over the old "Four-mile" iron bridge.

#### *Four Mile Bridge Village Site*

(SE.  $\frac{1}{4}$  Sec. 10 and NE.  $\frac{1}{4}$  Sec. 15)

This site is located on the eastern bank of the Rock River on land forming a part of the Shoemaker stock farm. It is opposite the Four Mile bridge crossing of the Edgerton to Janesville highway. This highway, running in an east and west direction at this point, cuts this site in two. The part of this site located north of the road is on rather level ground which rises gradually to the east to elevated ground. This field was under cultivation when examined and but lit-

tle information could be obtained concerning its early Indian inhabitants. Flint rejectage was found in several places, a broken hammerstone and several small pieces of shell-tempered earthenware. Mr. Horace McElroy was among those who have collected Indian implements here in former years. A Mr. John Thompson is reported to have collected hundreds of flint points and some stone celts and axes here in about the year 1902 and later. A river road runs northward along the river bank passing this site.

The part of the site lying south of the highway is in pasture at this time and could not be examined for traces of former Indian occupation. This land is similar in character to that on the opposite side of the highway.

#### *Parish Camp Site and Burial*

(W.  $\frac{1}{2}$ , NE.  $\frac{1}{4}$  Sec. 15)

An old Indian crossing of the Rock to the Shoemaker fields on the east (opposite) bank was located opposite the Ed. Parish "Riverside" farm on the west bank. There were several springs here and small groups of Winnebago Indians are reported to have erected their wigwams in a fine oak grove located here, in early days of white settlement.

About the fine spring at the southern end of this property Mr. C. C. Babbitt and others have collected some flint arrowpoints.

Mr. Babbitt states that flint refuse and other indications of a camp site were formerly exposed on the slope between the river bank and the Parish farm cottage. A single Indian grave was formerly located near the river bank south of this point. This was exhumed by a man named Chapelle and a stone pipe found with the burial. Every trace of this burial place has been lost by the cutting away of the river bank by the waters of the Rock.

#### *Elmhurst Village Site*

(SE.  $\frac{1}{4}$  Sec. 15)

A short distance south of the Parish site Three Mile Creek, a clear and very attractive stream, flows from the west through the northern part of the farm of Louis Anderson, called "Elmhurst," into the Rock River. The creek is

from fifteen to eighteen feet wide in places and its banks lined with willow and other trees.

The soil of the level fields of the Anderson farm is clay. These fields, once covered with rather heavy forest were a very favorable location for an Indian village site. In pioneer days Indian dugout canoes were occasionally seen passing this place or drawn up on its banks.

Only a part (the central part) of the fields of the Elmhurst farm could be examined for traces of former Indian occupation. Numerous fireplace stones were found scattered over the entire river frontage of this particular field and ashy areas indicated where these had probably been imbedded in the soil in shallow hearths until disturbed by the plow and harrow. The sites of at least three former wigwams appeared to be thus indicated. Near these locations the manufacture of flint implements had been carried on, small areas disclosing fragments and chips of white, grey and flesh colors. Here also were found a small notched spearpoint made of flesh-colored flint, and parts of several broken points. Nodules of white flint, entire or broken, lay in several places. Several small fragments of cord-marked pottery were also obtained.

Mr. Anderson had recently found here a dark bluish-grey blade, a knife or spearpoint, five inches in length; a notched pink flint spearpoint,  $4\frac{1}{4}$  inches in length; a broad greyish-white flint spearpoint with oblique notches, about  $2\frac{3}{4}$  inches long, and a light brown stemmed quartzite spearpoint about  $2\frac{7}{8}$  inches long. During the past thirty years of his residence on this farm he has given away to friends many other flint implements found here.

The south field of the Anderson farm we were unable to examine as they were under grass on the occasion of our visits to this place. This field, opposite the river bend, Mr. C. C. Babbitt regards as the richest part of this village site. Here the manufacture of flint implements was also carried on and scattered hearthstones are numerous. Mr. Babbitt has collected from this site in past years numerous flint arrow and spearpoints and some scrapers, pebble hammers, a flaked stone celt, and a copper spearpoint. Mr. McElroy also found this site a rich collecting ground. He collected here a plummet made of porphyritic syenite. Its tip is encircled by a shallow groove.



Across the Janesville highway from the Elmhurst farm is the suburban residence plat advertised as "Sunshine Hills."

### *Three Mile Creek Camp Sites*

(Section 15)

Camp sites occur at a number of different places along the course of Three Mile Creek. One of these is on the William Hackbarth farm (SW.  $\frac{1}{4}$  Sec. 15), at a distance of about a half mile west of the Elmhurst site. Mr. Babbitt has collected here a grooved stone axe, hammerstones, and flint points and scrapers, and other stone implements. This site extends to both banks of the creek.

This creek is nearly eleven miles in length, having its source in the northwest part of Center Township of Rock County and flowing in an easterly direction through Leyden Township and Janesville Township. At different places along its course former camp sites are indicated. The implements collected from these and other places are chiefly flint points and several stone celts. Some of these were in the former David Van Wart collection at Evansville.

### *Wixon Hill Site*

(SW.  $\frac{1}{4}$  Sec. 14)

Across the Rock River from the Elmhurst site are wooded river bluffs. One of these, Wixon Hill, has the local reputation of having been a camp site of the Sauk Indian chief, Black Hawk, during his northward flight with his warriors to Lake Koshkonong, in 1832. On its top we found in a few spots barren of sod numbers of flint chips indicating the presence of a small workshop. The crest of this particular portion of the bluffs is bare save for a small group of prickly ash shrubs, some hop hornbeam trees and a single hickory tree. A fine view of the surrounding river country is obtained from Wixon Hill.

### *Riverside Park Village Site*

(S. line of Sec. 14 and NE.  $\frac{1}{4}$  of Sec. 23)

What is probably the most important old Indian village site north of the City of Janesville, in Janesville Township, is located in the Big Bend of the Rock River, on the west bank of that stream.

In this beautifully located recreation park of the City of Janesville traces of former Indian residence were found on the grounds of the park athletic field. This field occupies a large level grassy river flat and is now occupied by a baseball diamond, tennis courts, a park pavilion and a curving river road. To the south of this playground are the high hills of a municipal golf course, the sides of which are covered with forest trees. In the river bed, opposite the eastern edge of the athletic field, is a long narrow island bearing a growth of tall willow trees, and with a luxuriant growth of arrowhead about its shores and extending downstream for a considerable distance from its point.

The rhizomes of this abundant plant of the water plantain family furnished the water potato, a favorite food of the Winnebago and of other Wisconsin Indians, being boiled or roasted by them in the ashes of their fires.

The river bank along the eastern and northern edge of the athletic field is elevated at different places from four to fifteen feet above the water.

This village site was a favorite collecting ground of Mr. Horace McElroy in past years. From the then cultivated fields on this river flat he obtained in the course of his collecting jaunts quite a large number of specimens, these including many flint implements, pebble hammers, stone balls, axes, celts and other artifacts. Some of his finest quartzite points and knives were found here. It is to be regretted that he is not alive to contribute such information as he possessed regarding his collecting experiences here.

Being under grass this site was in poor condition for examination during the year 1928. The evidences of aboriginal residence found by ourselves were obtained in the then thinly grassed strip of land between the river road and the river bank, which is here fringed with a growth of ash, oak and maple trees. Here, despite the thin sod, we recovered quite numerous chips, flakes and fragments of white, grey and flesh-colored flint, clusters of hearthstones, a large leaf-shaped grey quartz blank, a flint pecking hammer, a rude white flint scraper, a grey flint notched arrowpoint, and parts of several broken points. One of the employes of the park force informed us that he had frequently picked up flint points on this field in the course of his labors. No potsherds were obtained.

We examined the river banks south of this site to far beyond the south road entrance to Riverside Park but without further results.

### *Sutherland Graves*

(NE.  $\frac{1}{4}$  Sec. 34)

Several Indian graves were located on the Geo. S. Sutherland farm at Black Hawk, just outside the western limits of Janesville. Mr. Harry Young of Whitewater reported to the Wisconsin Archeological Society in 1922 that two of these had been excavated. With the human bones which they contained were found a stone axe, a stone celt and several flint arrowpoints. The Indian trail to Janesville passed this locality.

### *Crystal and Hiawatha Springs Village Site*

(SW.  $\frac{1}{4}$  Sec. 14)

This property, located on the eastern bank of the Rock River, across the stream to the north of the Riverside Park site, was formerly known as Burr Springs, and in an earlier day, according to Mr. George Richardson of Janesville, as Pope Springs, being so named for Anson Pope, the early owner of this land. A portion of this property is at present in use as a tourist camp ground. It is about a mile and a half north of the city of Janesville.\*

The Indian site at this place is on a rather narrow river flat at the base of a range of high wooded river bluffs. The land is posted as a Wild Life Refuge. At the eastern end of this property a crystal brook flows from a spring (Crystal Spring) at the base of the bluffs, through a small area of marshy ground to the river bank. This spring Mr. Geo. S. Parker of Janesville has kindly informed us was in former years visited by a large number of Indians. He believes their name for it to have been Mushawaba. This name Mr. Daniel Shepard, a Wisconsin Potawatomi, translates as meaning "rabbit man." He thinks that this designation may have been given to it because of the transformation of an Indian into a rabbit at or near this place. The spring was very probably a "sacred or medicine" spring.

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\* Here the late Capt. Buckles formerly maintained a public picnic ground.

In a small ravine or draw at the western end of the tourist camp another fine clear spring (Hiawatha Spring) supplies the campers with water. A former bottling works building stands in the rear of the camp ground. Years ago some deer antlers and other animal bones are reported to have been removed from this spring or the brook which flows from it. This may have been another "spirit" spring?

Midway between these two springs another brook (dry during the summer of 1928) flows from the hills to the river.

The Indian camp site at this place extends over the whole of the property, the evidence of the redman's former occupation being now largely obscured beneath the sod. Traces of it, however, are found here and there. Hearthstones and and large flakes of white flint were found in the roadway in front of the old bottling works building. Some distance beyond the Hiawatha Spring flint chips were found in a small cottage garden. At the northern end of the park in a disturbed place in the rear of another cottage chips of grey and flesh-colored flint were found and a fine barbed, white flint spearpoint,  $3\frac{1}{8}$  inches in length.

On a grassy flat south of the Crystal Spring brook white flint chips and a pebble hammerstone were collected. C. C. Babbitt has collected flint points near this place.

Many flint points have been picked up here in past years by collectors. Mr. George S. Parker's country estate, "Stonehenge," lies a short distance south of this site, at the bend of the Rock River.

North of the park the bases of high gravel hills come down to the river bank. These are forested on their slopes and tops, except at one place where there is a large gravel slide. Among its pebbles and boulders are many rocks of white and other flint which could have been utilized by the natives for implement manufacture. These hills extend along this bank of the stream for nearly a mile.

This village site may be the one referred to in the "Diary of Aaron P. Walker," an early settler of Janesville, as the location of "an Indian village on the east side of Rock River, about three miles north of the Janes' tavern, where a small brook entered the river."

*Stonehenge Camp Site*(NE.  $\frac{1}{4}$  Sec. 23)

A camp site is located on the cultivated fields of the Knutson and Cosgrove properties on the east bank of the Rock just north of the city limits of Janesville. On the river fields of both of these small "farms" scattered hearthstones and flint fragments and chips occur and a few flint points have been collected in the course of cultivating the fields. Mr. C. C. Babbitt has collected some arrowpoints in the field adjoining the Knudson place on the south.

"Stonehenge," the beautiful country estate of Mr. Geo. S. Parker, adjoins the Cosgrove place on the north. This estate occupies a high wooded ridge with picturesque limestone outcrops along its river bank frontage.

The Indian trail from the north to Janesville passed over this property. A few flint arrowpoints, probably lost by Indian hunters, have been picked up on the Stonehenge bluffs and along the river bank. From "Stonehenge" a fine view is obtained across the river of Riverside Park. Over the river bluffs, a short distance west of Stonehenge are the Crystal and Hiawatha springs elsewhere described.

*Broege Island Camp Site*

(Janesville)

Indications of a former Indian camp site occur in a cultivated field at the southern end of this island. Here we collected a large oval pebble hammerstone, a granite ball, a white flint reject and some stone chips and hearthstones. Mr. Frank F. Broege, the proprietor of the Rock River Service Station located by the side of the Janesville highway, opposite the island, states that in cultivating this site quite a few flint implements have been collected by himself and others.

This island in the Rock River at the northern limits of Janesville, now largely overgrown with weeds and grass, was in former years occupied by large trees. It is about a third of a mile in length and four hundred or more feet wide at its southern extremity. The soil is black, somewhat sandy and gravelly. It is elevated but a few feet above the river. A road now connects it with the river shore. The water between it and the river bank is being gradually filled in.

The Winnebago name of this former camp ground is given as Weetch-chi-nuk, "island camp."

South of this island is Goose Island which by filling in has now been attached to the river bank.

### *Riverbank Camp Sites*

(E. 1½ Sec. 23)

On the east bank of the Rock north of the City of Janesville indications of former camp sites occur in cottage and other gardens between the highway and the river bank. The late Horace McElroy of Janesville had in his former collection a small number of flint arrow and spearpoints and several knives collected along this shore, between Stonehenge and the city limits.

In past years Indian burials have been disturbed in digging for gravel in the hills on the east side of the highway, north of the city. As they were unearthed by the caving of the walls of the pits but little attention was paid to them by the men engaged in the digging.

### *West Bank Camp Sites*

(Secs. 26 and 36)

On the west bank of the Rock River in the City of Janesville the river banks are high. Indians camped on these wooded bluffs, sometimes in considerable numbers, when the first white settlers came to this region. Some stone celts and axes and flint implements have been found on these bluffs. This locality, lying east of N. Washington Avenue, is now quite largely occupied by streets and buildings.

According to the early land survey map an Indian trail from the west forded the Rock River in the southeast corner of Section 36, in the present limits of Janesville.

Mr. Horace McElroy reported the presence, years ago, of three Indian conical mounds near the river in the northeast corner of Section 26. Every trace of these appears to have disappeared.

### *Pearl Street Cache*

A cache or deposit of five blue hornstone knives of the prized "turkey-tail" type was obtained in November, 1903 by laborers engaged in digging a trench at the corner of Pearl and Elizabeth Streets in Janesville. Three of these speci-

mens were in perfect condition and two were broken, only parts of the latter being obtained. With them were found the pieces of a broken brown hornstone knife. All were unearthed at a depth of nearly four feet beneath the surface of the undisturbed prairie soil. No human remains were found with the deposit although the ground was carefully dug over. A slight discoloration of the soil suggested a possible burial.

The three unbroken knives were  $5\frac{5}{8}$ ,  $5\frac{5}{8}$  and  $6\frac{1}{8}$  inches in length, and  $1\frac{5}{8}$ ,  $1\frac{5}{8}$  and  $1\frac{7}{8}$  inches in width at the broadest part of their long leaf shaped, pointed blades. Their notched tangs were the short triangular stems of this very graceful form of prehistoric Ohio and Indiana blue hornstone knife. Mr. W. H. Elkey, a former Milwaukee collector, reported the finding of this cache to the Wisconsin Archeological Society in 1903, Mr. Horace McElroy furnishing the detailed information on January 30, 1907.

Mr. McElroy retained the three perfect blades in his collection, the fragmentary ones being given to Mr. W. P. Clarke of Milton, and the broken knife to the Milwaukee Museum.

A Mr. Kenyon, who resided at a distance of about fifty feet from the Pearl Street corner, reported to Mr. McElroy that when he built his home here there was a round mound on the premises. This he removed to fill his yard. This locality Mr. McElroy stated to be at a distance of about fifty rods from the bank of the Rock River, on the west side of the City.

## ROCK TOWNSHIP

### *Round Rock Village*

(Near N. Line of Secs. 1 and 2)

The most important historic Winnebago village between the Catfish Village near Fulton and the Turtle Village at Beloit was the village located on the Rock River at Janesville. The Indian name of this village was E-nee-poro-poro, meaning "round rock or stone," taking its name from the large stone outcrop in the river known as Monteray Point.

John H. Kinzie in his Winnebago Indian census of 1829-1832 gives the name of this village as Round Rock and its

distance from his agency at Fort Winnebago as sixty miles. He reports that at that time it contained two lodges and 31 inhabitants. Coming Lightning, Jump-ho-ha-ga, was its chief. A few years later the number of Indians camping here had largely increased.

This village was located on the north bank of the river in the part of Janesville located along Western Avenue and known in former years as Monteray.

Of this village site, which must have been occupied by Indians for a long period of time, the only traces which now remain are a few flint chips and spalls which occur in a few of the gardens and vacant spaces along Western Avenue and River Street. This section of the city has long been occupied by homes and other buildings. Mr. Horace McElroy, the formerly well known Janesville collector of Indian artifacts, knew this site well and mentions it in an article contributed to the History of Rock County (C. F. Cooper & Co., Chicago, 1908, p. 60). He states that many stone implements have been collected here. Of these he himself possessed several grooved stone axes and celts, and many flint arrow and spearpoints. Other collectors state that flint workshop sites, wigwam sites (marked by hearthstones, charcoal and ashy soil), occasional clam shell deposits and other village site debris were found in favorable locations at various points back from the river bank along nearly the entire distance of a mile or more from near Center Avenue eastward to the bend of the Rock.

This part of the Rock River was in early Indian days, and still is, a good fishing ground. In the broad bed of the stream, opposite Western Avenue, there is an extensive marsh area composed of arrowhead, cattail and other aquatic growth. This extends from east of the Center Avenue Rock River bridge as far east as the foot of Stone street.

Monteray Point, a picturesque narrow point, extends into the river from near the north side of the Rock River bridge at Center Avenue. An ice house building stands at its base. Its narrow apex is a limestone and sandstone outcrop. At its tip is a small cave about 20 feet in length, 10 feet across at its mouth and about 8 feet high. This is excavated in the light colored sandstone with a layer of limestone at its top. The cave mouth is about 25 feet above the water. It has



been stated that years ago there were on the walls of this cave some rude incised markings thought to have been Indian pictographic records. These have gone. The Winnebago name of this rock appears to have been E-nee-wa-kan-junk, "medicine rock or spirit stone."

Opposite the "Big Rock" on Monterey Point was the Indian ford from the one bank of the river to the other. It was early known as "Rock Ford," the rock serving as a guide to the river crossing. Rev. H. Foote in discussing this ford in 1856 said that the water in the river was then a third lower than when the white settlers came in 1836.\* Many settlers and travelers coming over the Indian trail from Beloit crossed the river at this ford. The rock itself appears to have had some traditional sacred significance for the early Indian inhabitants of this region, the exact nature of which has not been recorded. In the State Historical Museum are eighteen flint arrowpoints found by W. H. Prisk here at the "Rock Ford."

Mr. Levi St. John, who settled at Janesville in 1836, says of the early Indian inhabitants of this vicinity: "At that early day the Indians were quite numerous in this part of Wisconsin. I have frequently visited their camps, gone into their wigwams and bought honey and maple sugar from them. At times as many as a dozen Indians have rôde up to my house armed with tomahawks, knives and loaded guns; and I have at such times thought how easy a matter it would be for them to butcher my family, if they were so disposed. It was reported from time to time that they intended to have a general uprising. But they were always friendly to me and I have traded a great deal with them. They learned to be quite shrewd in their traffic. If they had a large lot of peltries or fish to sell, they would show only a few of the poorest at first, then producing more, and so on until sold out."\*\*

#### *South Palm Street Camp Site*

Hearthstones were found on a small plot of cultivated ground at the southwest corner of Western avenue and S. Palm Street in Janesville. Others and a few flint chips and

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\* Guernsey and Willard's History of Rock County, 1856, p. 153.

\*\* Do., p. 173.

fragments were found in gardens along Western Avenue as far west as the Afton road. The S. Palm street locality is one block north of the Rock River bank. Some flint arrow and spearpoints and a hammerstone or two have been collected on the land in the rear of the R. F. Murphy home on S. River Street.

### *Spring Brook Mounds*

#### (Section 1)

Two Indian mounds were located on the edge of a very steep gravelly bluff overlooking the Rock River and its wandering tributary, Spring Brook, at the southeastern city limits of Janesville. This locality was east of the bend of the river and east of Main Street.

One of the mounds was a tapering linear earthwork ("tadpole"), with a length of 85 feet, its greatest width being about 24 feet, and its greatest height  $6\frac{1}{2}$  feet. Its axis lay "in a north by 30 degrees east direction, with the head, or larger part to the northeast. The attenuated part is about as long as the main body with an elevation of about one foot and a width of five feet. The whole south side is cut out by erosion. A depression in the center of the highest part indicates a partial excavation of the mound."

About 80 paces (240 feet) east of the "tadpole" mound, and about 30 feet from the edge of the bluff there was a round mound 55 feet in diameter and  $3\frac{1}{2}$  feet high." Excavations recently made in this mound near its center revealed several thin, irregular layers of charcoal. The mound was constructed of sandy loam, similar to that of the surrounding surface soil." These mounds were later destroyed by workmen engaged in "stripping" the bluff to obtain material for the Janesville Cement Post Co.

Mr. H. L. Skavlem described the mounds and published a copy of his survey of them in the June 19, 1907 issue of The Janesville Gazette.

The above information is quoted from his description.

### *Bailey Mounds and Corn Fields*

#### (SE. $\frac{1}{4}$ , NW. $\frac{1}{4}$ Sec. 1)

Mr. H. L. Skavlem described and figured in the June 19, 1907 issue of The Janesville Gazette a group of three coni-

cal mounds located on the level plain or bottom land just south of Eastern Avenue, and about thirty feet west of where this thoroughfare crosses the north and south center line of Section 1 of Rock Township. They were between Eastern Avenue and the C. M. & St. P. R. R. tracks. All had been much levelled by long cultivation of the land. Dr. J. W. St. John remembered when they were well preserved Indian earthworks the largest perhaps 25 feet in diameter and from 5 to 6 feet high. The other two were of considerably smaller size. Mound No. 2 was located 20 paces (about 60 feet) south of the largest mound (No. 1), and mound No. 3 about the same distance south of No. 2. The largest mound had been excavated years ago and some Indian implements reported found, presumably with a burial or burials.

Some distance southwest of the mound group, in a strip of woodland locally known as the "Bailey Woods," were plots of Indian corn hills. These were on both sides of the C. & N. W. R. R. tracks. Mr. Skavlem's plat shows two or three separate plots of these, two being north of the railroad tracks and one south of them. They were on gently sloping land. Dr. St. John informed Mr. Skavlem that when the first settlers came, in 1836, cornstalks were still standing on some of these corn hills.

#### *Eastern Avenue Village Site* (Secs. 1 and 2)

Another Indian village site was located along present Eastern Avenue and adjoining city streets on the south bank of the Rock River in the southern part of Janesville. This site appears to have extended from the Monteray bridge crossing of the Rock (present Center Avenue) eastward along the river bank to beyond the point where Spring Brook flows into the Rock at the proposed Jeffris city park. This part of the city is now occupied by the buildings of the Chevrolet automobile factory and the homes of its employes and others.

The land along the river in this part of the city is level with hills some distance in the rear to the south. In gardens and bare spots along the river bank flint rejectage and hearthstones occur. When the prairie sod is removed from

some of the unoccupied grass lots and small tree and brush-grown tracts further evidence of early aboriginal occupation is likely to be found. Mr. McElroy years ago collected a few flint and some heavier stone implements here. Some Winnebago camped on this bank of the river in the thirties and later.

### *Other Janesville Implements*

Numbers of Indian artifacts have been found in past years at different places about the city, specimens lost or left by their former Indian owners at the scattered points where they were recovered in the progress of house building, garden making or in other ways.

Mr. Horace McElroy had in his collection a fine specimen of long-bitted axe. This granite axe was 10½ inches in length. It had a diagonal handle groove with a prominent ridge below. He also had the head of a broken birdstone with prominent eye disks. The exact locations of the finding of these are unknown. Some of his flint implements are in the local Legion museum.

In the State Historical Museum there is a notched spear-point 10 inches in length which was found at Janesville.

### *Kellogg Corn Field*

(Sec. 2)

Mr. M. S. Kellogg reported to the Wisconsin Archeological Society in 1911 that a plot of Indian corn hills was formerly located on the land occupied by Kellogg's Nursery. This location was in the Fourth Ward of the City of Janesville. The corn hills were on the edges of an oak grove. Every trace of this planting ground had been destroyed about twenty years before.

## WEST BANK OF THE ROCK RIVER BEYOND AND BELOW JANESVILLE

### *West Janesville Mounds*

(NE. ¼ Sec. 3)

A short distance west of the City of Janesville, north of the road to Afton, Mr. H. L. Skavlem located three small

round mounds, the existence of which he reported in 1907. They were located between the river and the railroad track. They were east of the creek, which flows in a southeasterly direction into the Rock. On the north side of the mouth of this creek traces of a small camp site were located. This is in the NW.  $\frac{1}{4}$  of the SE.  $\frac{1}{4}$  of Section 3 of Rock Township.

A camp site is also located on the south side of this creek in cultivated fields extending from the Janesville to Afton highway to the Rock River bank. These fields could not be carefully examined because of the heavy crop of corn with which they were largely occupied. This site is also in the NW.  $\frac{1}{4}$  of the SE.  $\frac{1}{4}$  of Section 23.

Between this place and Afton much of the land along the Rock River bank is low and unfit for camp locations.

#### *Rulondale Camp Site*

(SW.  $\frac{1}{4}$  Sec. 10)

A camp site is reported to exist in a field located on the bank of the Rock, on the L. A. Markham Rulondale Farm. This field is situated between the river bank and the C. M. & St. P. R. R. track. Between it and the Afton road, where the farm buildings are situated, there is a marshy meadow. At its southern edge a spring brook flows eastward into the Rock. From this site a few flint implements have been collected. The field was in pasture during the present summer and could not be examined.

#### *Afton Mound Group*

(SE.  $\frac{1}{4}$  of NE.  $\frac{1}{4}$  Sec. 28)

This group of twenty-two mounds was located about a mile and a half north of the village of Afton. A survey of it was made by H. L. Skavlem and Horace McElroy for the Wisconsin Archeological Society, on June 1, 1907. Of these mounds, which formed a rather compact group, five were round mounds, two oval mounds, three straight linear and seven tapering linear mounds, four mammal effigies and one a bird effigy. They were located in a wooded pasture and were all well preserved. The direction of all of the effigies and of the linear mounds was to the southeast.

When we visited this site on July 20, 1928 there remained of this fine group of prehistoric Indian earthworks only a

short straight linear mound and a remnant of another, all of the other mounds having been destroyed in the operation of the immense gravel pit of the Central Lime & Cement Company of Chicago. The single remaining mound is situated about 50 feet in the rear of the Afton public school.

An effort should be made by the local school trustees to preserve this last mound of a once great group of prehistoric monuments.

*Afton Mill Camp Site and Mounds*  
(SW.  $\frac{1}{4}$  Sec. 27)

On the north bank of Bass creek east of the Afton Mill in the village of Afton is a cultivated field. This small field lies between the creek bank and the C. & N. W. R. R. track. Its soil is black and sandy and it is elevated about six feet above the river at its highest parts. Flint chips and fragments and hearthstones are scattered over several small areas in this field where wigwams were probably once located. An oval hammerstone was also found. Village boys have found quite a few flint arrowpoints here. The flint chipped here is from local sources (reddish, white, light brown and flesh-colored). A single potsherd, sand-tempered, and ornamented with cord-marked, indented and trailed markings was also found here.

In an irregular line along the creek edge of this field are four and possibly five Indian mounds. The first of these is about 300 feet east of the Mill, and about 50 feet from the water's edge. Eighteen feet east of it is another small conical mound, and 20 feet beyond this a third small mound of the same character. About 100 feet beyond this is what appears to have been a slightly tapering linear mound. Its outline has been greatly disturbed by long cultivation and not much can now be made of it. Twenty feet beyond this is another small conical mound.

All of these mounds have been long under cultivation. Their present dimensions and heights are as follows:

- No. 1 Diameter 30 feet, height  $1\frac{1}{2}$  feet.
- No. 2 Diameter 28 feet, height  $2\frac{1}{2}$  feet.
- No. 3 Diameter 21 feet, height  $2\frac{1}{2}$  feet.
- No. 4 Length about 125 feet, width 24 and 18 feet, height  $1\frac{1}{2}$  to 2 feet.
- No. 5 Diameter 15 feet, height 1 foot.

This group appears not to have been previously recorded. We were unable to learn whether any of the mounds had been excavated. East of the mounds is a piece of rather low rough pasture land.

It is likely that this camp site extends along the river bank west of the Mill into the gardens of a few of the village homes.

#### *Holzapfel Camp Site*

(SW.  $\frac{1}{4}$  Sec. 27)

A camp site is also indicated on the Holzapfel land on the opposite (south) bank of the Bass Creek in a small cultivated field where the usual indications of aboriginal occupation have been found. Potatoes had been dug and corn harvested on this field so that no examination of its surface was possible.

#### *Antisdell Village Site*

(SW.  $\frac{1}{4}$  and SE.  $\frac{1}{2}$  of Sec. 19)

From a village site on the Simon Antisdell farm on the north side of Bass Creek, about two and a half miles west of Afton, Mr. Horace McElroy collected many flint points and some perforators. Considerable numbers of potsherds were also found. A flint workshop was located in the southeastern corner of this farm. An Indian camp site was also located on the old Bartels (now the Gokey) farm on Bass Creek above Afton. Here many flint points are reported to have been found.

#### *Mouth of Bass Creek Camp Site*

(SE.  $\frac{1}{4}$  Sec. 27)

In early days of settlement the Winnebago Indians camped at the mouth of Bass creek at Afton. The level field at the mouth of this pretty stream is bounded on the east by the Rock River, on the north by a river slough and on the south by the creek bank. In its rear is the C. & N. W. R. R. track. It was in use as a pasture and could not be examined for evidence of early Indian occupation. Wild tobacco plants formerly grew here probably self-seeded from earlier Indian plantings.

In the Rock River opposite this camp site is Inman Island, an island reported to be about 12 acres in extent. This is-

land the Indians also camped upon. It is approached from the mainland by a ford across a gravel bar, the water being shallow there at this time.

This island is well elevated above the water and is probably not overflowed by the Rock except in years of very high water. It is a very attractive place. On its shores are tall elm, maple, ash and other trees. In its middle is a large clearing carpeted with tall, soft matted grass. At its northern edge are a number of large burr oaks which this year are yielding an abundant harvest of acorns. Large grape vines clamber over several of the trees. Here also are several patches of the stately mullein. The greatest length of this island appears to be about 600 feet. At various places in the river bed in its vicinity are beds of river clams. This locality is today and has long been a good locality for the catching of catfish.

#### *Bass Creek Site*

(SE.  $\frac{1}{4}$  Sec. 27)

On the south bank of Bass Creek, near its union with the Rock River, between the creek bank south of the road to Af-ton, there is a small cultivated field. In this field hearthstones and scattered flint rejectage occur. Many flint implements have been found here. This site is a short distance east of the Holzapfel site, of which it may be merely an extension.

#### *M. E. Church Picnic Ground Camp Site*

(SW.  $\frac{1}{4}$  Sec. 26)

At this place the land along the west bank of the Rock River is very level. At this picnic ground indications of a former Indian camp site occur in a field near the river bank which in 1928 had been recently plowed and sown with a crop of winter wheat. The soil of this field is black and sandy. Lying on its surface we found a stemmed arrow-point, several flint blanks, hearthstones, clam shell fragments and scattered flint chips. No potsherds were obtained. The river bank at this place is high and fringed with trees.

Indications of former wigwam sites also occur in the cultivated fields of the Henbest farm both south and west of



the above site, these extending into the SE.  $\frac{1}{4}$  of Section 27 and the NW  $\frac{1}{4}$  of Section 35. In the latter locality Bass Creek flows into the Rock.

Three Indian mounds were reported as existing in the Henbest fields adjoining the Picnic Ground. These were oval in form. They have been under cultivation for many years. These are the mounds reported to the Wisconsin Archeological Society by Mr. Horace McElroy in 1908. They are in the NW.  $\frac{1}{4}$  of Section 35.

Indications of a camp site also occur in the river fields in the S.  $\frac{1}{2}$  of the NE.  $\frac{1}{4}$  of Section 35.

#### EASTERN BANK OF ROCK RIVER BELOW JANESVILLE

##### *River Heights Camp Site*

(SE.  $\frac{1}{4}$  Sec. 3)

On the farm fields of the State School for the Blind, on the east bank of the Rock at River Heights, southwest of Janesville, traces of a small camp site were formerly to be seen. A few arrowpoints have been collected here. These fields were grass grown and could not be examined. They lie high above the water. Traces of this camp site probably extend into the farm grove pasture north of the buildings, at a bend of the river.

In a small case in one of the school rooms of the institution is a lot of about a dozen flint points, blanks and knives, some of which were probably collected here.

From the School for the Blind lands southward as far as the Frances Willard country school building the river banks are generally high and in cultivation and in pasture. In some of the pastures and on the banks are scattered specimens or small groups of young cedar trees, these adding much to the attractiveness of the green pasture banks. Here the river road is some distance east of the river bank. Beyond (south of) the Willard schoolhouse it follows the river bank more closely to as far south as the Afton Rock River bridge. In many places it is not more than 25 or 30 feet from the river bank. Along this stretch the river is from 200 to 300 feet wide. Farm lands and occasional oak groves lie along the entire course of this picturesque but lit-

tle traveled dirt road for over three miles. The banks of the coffee-colored Rock are curtained with a fringe of trees.

In the river opposite the State School farm is a small willow-overgrown island.

### *Willard School Camp Site*

(NE.  $\frac{1}{4}$  Sec. 15)

Remains of a small camp site are scattered through a part of a small field near the river bank on a farm which adjoins on the north the yard of the tiny frame school building which Frances Willard attended during her childhood. Her early home (Forest Home, 1846-1858) is located about half-a-mile north of this place, and is marked with a tablet erected by the Rock County W. C. T. U.

The flint in use in implement making at this site is of grey and light brown colors. A few flint blanks and arrowpoints have been found here.

### *Riverside Camp Site*

(SW.  $\frac{1}{4}$  Sec. 15)

Some flint arrowpoints have been collected in the southern fields of the E. Zeaman "Riverside" farm. Here hearthstones and the scattered refuse of a small flint workshop were found.

This farm is on the east bank of the Rock. The old river trail passed over it.

### *Coates Camp Site*

(NW.  $\frac{1}{4}$  Sec. 22)

Opposite the small Marion Coates farm a brook flows down to the Rock River through a small ravine which the river road crosses. In a cultivated field on the east side of the road, south of the brook, evidences of a former camp site occur. Other similar evidences (hearthstones and flint chips) occur on the west side of the road in a cultivated field south of the Coates farm house, also in another field of the Emerson farm adjoining this on the south. This latter field is a river flat bordering on a bend of the river. South of this field is a small tract of woodland.

On this camp site, with scattered indications of the sites of about three or four wigwams, the flint in use in imple-

ment fashioning is of white, grey and light brown colors. It was very probably obtained from some local source. Here we also found a broken white flint notched arrowpoint, the tip of another, and two flake scrapers.

Farmer boys have collected a few arrowpoints here. The river bank is low, with a fringe of trees along the edge of the Coates field.

#### *Woodstock Mounds*

(NE.  $\frac{1}{4}$  NW.  $\frac{1}{4}$  Sec. 22)

The existence of a group of three conical mounds on the Arthur Woodstock, formerly the J. Kilmer farm, was reported by H. L. Skavlem, on May 19, 1907. The mounds were then in a cultivated field. Two were 20 and one 24 feet in diameter. They were then from a foot to  $1\frac{1}{2}$  feet high. Mr. Horace McElroy reported the same group in 1908.

#### *Oakley Farm Camp Site*

(SW.  $\frac{1}{4}$  Sec. 22)

A camp site was located on the T. J. Oakley farm, on the edge of a cultivated field on the east side of the river road, north of the farm house. Here hearthstones were found grouped in two places, probably wigwam sites, with a few flint chips and fragments scattered over the ground in their vicinity. The flint was of grey and light-brown colors. These sites are within about thirty-five feet of the river bank. A few flint arrowpoints have been found here and in the field south of the Oakley farm bulidings.

#### *Inman Camp Site*

(NW.  $\frac{1}{2}$  Sec. 27)

The river lands along the east bank of the Rock River from the Afton bridge road southward to the bridge crossing of the river on the south boundary line of Rock township are for the most part broad and level areas with low hills rising in their rear. None are elevated more than a few feet above the river and some are so low as to be overflowed in years of high water. Most of these fields are this year in grass and in use as pastures for cattle. Groves of oak and other trees occupy some areas and other fields are overgrown with young trees and brush. Trees line the river bank.

On the broad fields of the former Inman Estate running southward from opposite the Afton bridge for nearly half a mile along the river bank the indications of former camp and workshop sites were found to be quite abundant. These fields are not under cultivation this year but despite the growth of grass and weeds with which they are covered hearthstones, flint rejectage, pieces of clam shells and fragments of animal bones occur in a number of places not far from the edge of the river bank where Indian wigwams were once located. Other specimens recovered during an inspection of these places were a granite hammerstone, several broken hammerstones, broken flint blanks, a broken leaf-shape arrowpoint, a small white flint core. In past years several flint celts and numerous flint implements have been collected from these fields. When they are again under cultivation additional specimens are almost certain to be found. Search was made in one of the fields for traces of a refuse pit said to have existed here but no trace of it could be found.

#### *Rasmussen Camp Site*

(SE.  $\frac{1}{4}$  Sec. 27)

Brush overgrown fields of the Schuette farm separate the Inman sites from a well marked camp site on the river bank farm fields of Mr. C. L. Rasmussen. These fields are sandy and well elevated above the water. Near the southern edge of these fields, at a short distance from the river bank, Indian camp and workshop site refuse is scattered over the surface of the ground. Here were found hammerstones, sandstone rubbing stones, broken flint blanks and a bluish gray flint notched arrowpoint. Mr. Rasmussen has a white flint stemmed spearpoint, about three inches in length which he found here in cultivating this land. This farm was formerly owned by H. Fessenden.

Adjoining this field on the south is a tract of pasture land in which are a number of tall walnut trees, being the survivors of a former considerable number of such trees once located here. This pasture land is sometimes overflowed by the river.

According to old settlers in this locality an old Winnebago Indian who employed his time in making splint baskets, once lived on this land. His dwelling was a dugout, roofed-

over place in a bank at a distance of about 600 feet from the river shore. This site is now marked by a group of young poplar trees.

In the river opposite the Rasmussen fields is a small tree-covered island which is subject to overflow in high water.

#### *Rice Camp Site*

(NW.  $\frac{1}{2}$ , NE.  $\frac{1}{4}$  Sec. 35)

Beyond the Rasmussen site a camp site occurs on the Rice farm and the Noyes farm adjoining it on the east. Here hearthstones, flint refuse and clam shell fragments occur in the river fields.

#### *Clam Shell Site*

(SW.  $\frac{1}{4}$  Sec. 36)

Less than a half mile beyond The Oaks site, between the highway and the river bank, is a small field, the land areas to the north and south of which are boggy, grassy pastures. This field consists of very black soil and was occupied by a corn crop. No evidences of a camp site were found here. Scattered over its surface in a number of places are pieces of partly decomposed and broken valves of river clams, the probable refuse of clam hunting in the river by the Indians, possibly of small shell heaps which the plow has scattered. A battered and broken granite pebble hammerstone was picked up in this field. The weeds and tumbled corn stalks (partly leveled by a recent windstorm) prevented a more careful examination of this field.

### BELOIT TOWNSHIP

#### *West Bank of Rock River*

#### *West Bank Camp Sites*

(Secs. 2, 11 and 14)

On the west bank of the Rock indications of former camp sites are scattered along the edge of the cultivated fields along the river bank from the old Kellogg farm in Section 2, at the northern line of the township southward through the western halves of Sections 11 and 14, nearly to the "Big Hill" opposite Beloit. These indications, consisting of

hearthstones and scattered flint chips, are widely separated from each other. A few flint points have been found in these places.

A narrow strip of pasture land lies along the river bank along the edge of these fields. The river bank is in different places from 6 to 12 feet high, the river from 200 to 250 feet wide. The fields are very level and the soil black and sandy in places.

Just north of the "Big Hill" a spring brook courses through a flat to the Rock. Opposite its mouth is a marshy area. Along the north bank of this brook are cultivated fields. These were examined but no indications of former Indian residence found here.

### *Big Hill Camp Site*

On the top of this high hill on the west bank of the Rock River, opposite Beloit, the Sauk chief Black Hawk is reported to have camped during his northward flight from Illinois in 1832.

This high hill rising several hundred feet above the river is largely covered with a fine oak forest. It is now, through the efforts of the Beloit Izaak Walton League chapter, become a wild life sanctuary park.

There is at the southern end of this hill a place where there is more or less of an open space. Here we examined a number of bare places where the sod had been removed or killed out. In these spots we found several hearthstones, a small number of flint chips, two small leaf shaped, greyish-white flint blanks, and a small grey flint scraper.

The presence of these specimens appears to indicate that Indians have camped upon this hill long before the Sauk warriors reached it. The Winnebago Indian name of Big Hill was Cha-cha-tay.

"When the first agricultural settlers came into Rock County, the tent poles and remains of the Indian camp fires were still to be found in Black Hawk's Grove, and are remembered by some of these settlers, who are still with us. They indicated a more permanent camp than that of retreating Indian foes."\*

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\* Hist. of Rock Co., Guernsey & Willard, 1856, p. 20.

*Poe Mound*(NE.  $\frac{1}{4}$  Sec. 26)

Mr. Ira M. Buell in his report on the Beloit Mound Groups \*says of this mound on the west bank of the Rock River: "Directly across the river from this group (the Adams group in Beloit), in the midst of a grove on the river bottom and north of a little inlet is the site of a mound now obliterated. This conical burial mound was small, less than twenty feet in diameter and about one and one-half feet high. This inconspicuous "hummock" when disturbed disclosed seven burials, a central form encircled by four others and at one side two skeletons, one lying partly upon the other. These burials were close to the surface, the bones being uncovered by the plough in grading the field. No other remains were found."

*West Beloit Camp Sites*

In early days of white settlement groups of Winnebago and of Potawatomi Indians frequently camped on the west bank of the Rock River in West Beloit. A band of Winnebago, gathered here for removal, were encamped here when Caleb Blodgett came to Beloit in 1836.\* Others were here in 1837 and other Indians camped here from time to time in small numbers for many years afterward. A search made by ourselves failed to locate any evidence of earlier camp sites in likely places along the river banks between this locality and the Big Hill. In the city such evidence has been destroyed by the erection of buildings and grading of streets.

*East Bank of the Rock River**Roth Mounds*(SE.  $\frac{1}{4}$  Sec. 1)

A brief description of these mounds on the Roth farm is given by Mr. Ira M. Buell in his report on the "Beloit Mound Groups," published by the Wisconsin Archeological Society in November, 1919. The two short linear or oval mounds located here he reports as being about 70 feet long, 35 feet

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\* Wis. Archeo. 18, no. 4.

\* Cooper's History of Rock County, p. 24.

wide and 3 feet high. He says that they are among the largest tumuli in the Beloit region. These mounds are located on the brow of the river terrace. In the cultivated field in the rear of the mounds are faint traces of several other mounds. Flint refuse, scattered by the plow, indicates the former location of a camp site here.

Mr. H. L. Skavlem in about the year 1902 also located these two mounds on the Roth farm.

### *The Oaks Camp Site*

(NW.  $\frac{1}{4}$  Sec. 11)

Adjoining the Yost Park summer resort settlement on the north is a large grassy field not at present under cultivation. Beyond this is another large field this year under a fine crop of corn. This field we examined as carefully as possible. In this field nearly all of the evidences of former aboriginal occupation are in the part nearest the bank of the Rock River. A narrow strip of uncultivated land, not more than thirty to thirty-five feet wide with a few scattered young oaks growing upon it separates the western edge of this field from the low river bank. All along the edge of this field scattered Indian fireplace stones are very common. Most occur no farther than 50 feet from the edge of the field.

With them were found scattered chips and flakes of pink and white flint, three broken pebble hammerstones and a small rudely made white flint implement, probably a scraper. No hearthstones were found more than about 100 feet from the edge of the field. Doubtless this site extends into the grassy field previously mentioned. Here the Indian wigwams must have been located very near the river bank as indicated by the scattered hearthstones. Arrowpoints have also been collected here. The highway is here hundreds of feet east of the river bank.

The Oaks Gasoline and "Tourist Rest" station is located by the side of the highway, north of this camp site. Beyond this is a bridge across the river.

### *Yost Park Village Site and Mound*

(SW.  $\frac{1}{4}$  Sec. 11)

At this place, on the east bank of the Rock River, on the John A. Yost farm and at Yost Park adjoining its fields on



the north was located the early Winnebago Indian village of "Standing Post." Its location is given as about two miles north of Beloit. Its Winnebago name is given as Ho-bo-sache-nug-ra. U. S. Indian Agent John H. Kinzie gives the number of its inhabitants in 1829 as seventeen, and Kaw-ray-kaw-saw-kaw, White Crow, as their chief. According to Dr. N. W. Jipson White Crow was also a chief of the Winnebago of Turtle Village at that time.\*

Mr. Yost states that in cultivating the very level fields along the river bank on his farm many flint implements and one stone axe have been found in past years. These fields were in pasture during the summer of 1928 and could not be carefully examined. Scattered hearthstones were found at different places in them. When his father settled here these very level lands were covered with a forest. There were two good springs on the river bank. Several former Beloit collectors of Indian implements have obtained flint arrow and spearpoints from the Yost fields.

Adjoining the Yost farm on the north is the Beloit summer resort settlement known as Yost Park.

On the side of the ridge on the east side of the highway (U. S. 51) opposite the Yost farm house is the single short linear mound described by Mr. Ira M. Buell.\*\* He gives its length as 80 and its width as 16 feet. He gives its location as in the center of the SE.  $\frac{1}{4}$  of Section 11.

The preservation of this mound the Beloit Historical Society should now endeavor to secure. Bur oak trees grow on the ridge about the mound and it is crossed by a wire fence. A small ravine lies south of it. Here are the Beloit Gun Club grounds, now no longer in use.

### *Baldwin Mound*

(SE.  $\frac{1}{4}$  Sec. 14)

Mr. Buell in his re-survey of the Beloit mound groups found a single conical mound about 25 feet in diameter on the edge of the terrace on the F. and H. C. Baldwin farm. Two other mounds located here by Mr. James Wilson, Jr., in 1898 had probably been destroyed by the erection of the

\* Wis. Archeo. 2, no. 3, n. s., 130.

\*\* Wis. Archeo. 18, no. 4, 126.

farm buildings. This mound was excavated some years ago but without the finding of human remains or implements according to Buell.

*Weirick Mound Group*

(NE.  $\frac{1}{4}$  of Sec. 23)

These mounds were located on the W. C. Weirick farm on the Rock River road, about three-fourths of a mile north of the northern city limits of Beloit. Mr. Buell gives a description and plat of the group of fifteen mounds, five of which were located on the terrace east of the highway and ten in the river fields west of it. Seven of the mounds were effigies, five were linear mounds, and three conical and oval mounds.

Some indications of a former Indian camp site were found in the river fields near the mounds. Relic hunters have dug into and mutilated most of the mounds of this once fine group. One effigy mound was destroyed in constructing the electric line right-of-way.

Of the mounds in the river fields two linear mounds of a group of three still exist on the Conrad Hansen, Joseph Mason and William Wilford residence properties, opposite the electric line station known as Ridgeway and near the Beloit Country Club grounds. The finest of these, a tapering, club shaped linear, is on the Hansen property, and runs from the electric line tracks to the front entrance of the residence. This mound is 126 feet in length, and 24 feet in width at its head, where it is about  $3\frac{1}{2}$  feet high. The other mound runs diagonally across the Mason lot (south of the Conrad place), its head extending under the Wilford residence. A third mound was destroyed when the Earl Matson house on the lot adjoining the Hansen place on the north was erected. This was a linear of the straight type with rounded extremities. It had a projection on one side of the end nearest the electric line. The highway passes near these mounds. The other river field mounds of this group were a short distance north of these.

Faint traces of a camp site were found in back yards along the river bank near these mounds. The Hansen mound, being a fine specimen and conveniently located for inspection, should be marked with a metal tablet.

### *Beloit Country Club Camp Site*

An examination was made of the grounds of the Beloit Country Club along their Pleasant Street frontage for evidences of former aboriginal occupation. Every dirt roadway and bare spot was examined both on the top and at the base of the ridge. There were many of the latter. On the top of a knoll where dirt had been removed in making some small road improvements a fine English gunflint was found and near it a small number of white flint chips. Other chips and fragments of the same material were recovered from a bare spot at the base of the ridge a short distance beyond this point. Additional chips were found in other places where the sod had been disturbed. The knoll where the gunflint was found is about 225 feet north of the clubhouse.

The other spots where evidence of flint working was found extend northward as far as Henry Avenue. The land along the edge of Pleasant Street is rather level, rising gradually to the ridge (knolls) above. The trees on the ridge and slope are oaks. The distance from the edge of the street to the river bank is about 150 feet. Opposite this land the river is at present about 500 feet wide.

I am informed that in former years many flint points were found on this part of the Country Club grounds. Hearthstones have been dislodged in a number of places on and at the base of the ridge where wigwams were probably once located.

### *Henderson Effigy*

(SE.  $\frac{1}{4}$  Sec. 23)

This turtle effigy is on the terrace edge on the Henderson property less than a half mile north of the Beloit city limits. Buell gives an illustration and brief description of this mound.\*

### *U. S. 51 Camp Site*

Another Indian camp site is located in a small tract of cultivated land on the Rock River bank on the east side of U.S. 51 highway (Wisconsin 13 and 26), being an extension of Pleasant Street of the City of Beloit. This field, especially along the river bank is rather low and doubtless at times subject to overflow of the river. On a small rise of land in

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\* Wis. Archeo., 18, no. 4.

this field, at a distance of about 150 feet, scattered Indian hearthstones were found, chips and fragments of white and pink flint, a broken pebble hammerstone, a tiny fragment of a pottery vessel and a well made white flint notched arrow-point. These tell plainly of the former location of a wigwam at this place. A few chips were also found in another small field recently plowed adjoining this field on the north. This field was growing a crop of corn at the time of our inspection of it. William Acker, a Beloit collector, has a stone celt which was collected on or near this site. This specimen is oval in form and six inches in length. Near its rounded cutting edge and poll its width is about  $2\frac{1}{2}$  inches.

Just beyond this place are the Hansen and other mounds visited on one of our previous visits to this vicinity. The tourist camp ground maintained by the Beloit Real Estate Board is opposite these mounds. These grounds were also examined but without result, these being covered with a tough sod. Yost Park lies north of these places.

#### *Adams Mounds*

This mound group "is at the north end of an 80 acre tract now a part of the Fairbanks Morse Co. property (Pageant Park)." Buell gives a plat and brief description of it. The group consisted of thirteen mounds. Three of the mounds were turtle effigies, four conical mounds, and six oval and short linear mounds.

Dr. S. D. Peet also presents an illustration of this group in his book *Prehistoric America*, II, (Fig. 162). This is incorrect and shows only seven of the mounds.

In 1920 one of the mounds of this group was destroyed: "It happened at the location of the new Fairbanks, Morse & Co. plant on the Riverside drive where the Leonard Construction Co. is excavating. Shovels were scraping the surface from a hillock when the mound suddenly collapsed. Digging deeper into the mound workmen uncovered a skeleton, believed to be that of an Indian. The red man was lying on his back, his knees drawn up over his breast almost to his chin and his arms outstretched, the palms of his hands up. There were no stone or copper implements in the grave."\*

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\* Beloit Daily News, Oct. 1, 1920.

In the Rock River, opposite the Fairbanks, Morse Co. plant there is in the stream a very attractive large bed of arrowhead (*Sagittaria* sp.) This floral "island" is long and narrow, about two city blocks in length and at its widest part about 150 feet across. The tops of the plants are a foot or more above the top of the water. There is a bed of these plants also along the Pleasant Street shore of the stream. The Indians ate the root of this plant and if these beds or any part of them were here in early days of Indian occupation there was at hand an abundant food supply.

Some indications of a former camp site were found in past years on the site of the Fairbanks, Morse Co. factory. These included flint points and a small knife and several pebble hammerstones. Mr. Theodore Dustrude of Beloit has a stone axe and a flint knife which he picked up on land along the switch track of the plant.

### *Water Tower Mounds*

Buell mentions that some mounds formerly surrounding the Beloit water tower have been destroyed. Vague outlines of several remain.

### *Beloit College Mound Group*

In 1855 Dr. Increase A. Lapham published in *The Antiquities of Wisconsin* Prof. S. P. Lathrop's survey of the group of Indian mounds surrounding Beloit College and of the road, an old Indian trail, which crossed the campus, running between and also over some of the mounds. This original map shows fourteen conical and five linear mounds. Mr. Buell gives a rather full description of this group and presents a plat of the remaining mounds of it as preserved among the buildings on the campus today. This shows a total of 21 mounds 14 of which are conical or round mounds, 1 oval, 5 linear, and 1 effigy (a turtle) mound. A fine tablet now marks this group. Some of the mounds have been excavated.\*

Logan Museum, in whose exhibition halls Dr. Frank G. Logan, Dr. George L. Collie and Mr. Alonzo Pond have in recent years gathered so rich a collection of the world's archeological treasures, stands near this imposing group of

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\* Wis. Archeo. 18, no. 4.

prehistoric earthworks, the early wisdom of the permanent preservation of which has inspired so many Wisconsin and other archeologists.

We examined the ridge of the Beloit College campus along Pleasant Street and especially the area about the Turtle Mound. This ridge is about a half block east of the bank of the Rock River. The top of the ridge is at least thirty feet above the street. Opposite this place the river is about 200 feet wide.

Owing to the ridge top being largely in sod no evidence of aboriginal occupation could be found. Some flint and other stone implements have been reported as found here in past years.

We also examined the east bank of the Rock (gardens and lots) from the Portland Street bridge northward along Fourth and Fifth Streets to Goss Addition and the cultivated farm lands beyond, but with no results.

### *Turtle Village*

The present site of the City of Beloit was the early site of a large and important Winnebago Indian village, being the largest of the historic Winnebago villages along the Rock River between the Illinois-Wisconsin boundary and the foot of Lake Koshkonong. Concerning the history of the Turtle Village there is much scattered information in the Wisconsin Historical Collections, The Wisconsin Archeologist and the Rock County histories.

This village was located on the former bottom lands between the Rock River and the mouth of its tributary, Turtle Creek. North of it were high hills with broad prairie lands on their tops.

Dr. S. D. Peet gives a description of this village: "There was a council house and garden beds at Beloit. The garden beds were situated on the bank of the Rock River, near where the Northwestern depot formerly stood. The first settlers raised their first vegetables on the spot where the garden beds had been. There were corn fields on the bottom of Turtle Creek, near where the athletic grounds are at present. A council house built of bark, forty feet square, with poles in the center supporting the roof, stood near Turtle Creek, where the road to Shopiere crosses the creek with

wigwams around it. There were trails which led to Rockton and to Janesville, on each side of the river, and another leading across the prairie toward Delavan Lake. One of these crosses the campus through the group of mounds.”\*

Where the cemetery or burial places of this village were located has not been recorded. Burials are reported to have been unearthed at Beloit in the construction of streets and buildings at various times since 1850.

The Winnebago Indian name for Turtle Village was Ki-chunk, the name for Turtle Creek, Ki-chunk-ne-shun-nucker-rah. U. S. Indian Agent John H. Kinzie in his Wisconsin Winnebago census of 1829-32 gives the Indian population of “Turtle River” (Turtle Village) as thirty-five lodges with six hundred inhabitants. General Atkinson, who passed through Turtle Village, then deserted, with his troops in pursuit of the Sauk chief Black Hawk and his warriors, on June 30, 1832, said: “It is a considerable Winnebago town, but it was deserted.”\*\*

The early Winnebago chief of this village is reported to have been Walking Turtle, or Karramaunee, an Indian of considerable prominence among the Winnebago chiefs of his time. Mr. P. V. Lawson in his monograph, “The Winnebago Tribe,” presents a very full account of his life history.\*\*\* Karramaunee’s calumet, 1832, a pipe of Siouan type made of catlinite, lead-inlaid, is preserved in the Green Bay Public Museum.

Kinzie’s census shows that White Crow (Kaw-ray-kaw-saw-kaw), the Lake Koshkonong chief, became its leader in 1829. In 1832, sub-Indian agent Henry Gratiot, designated Whirling Thunder, “a man of great repute for his sagacity in council,” as chief of Turtle Village. His Indian name is given as Wau-kaun-ween-wak, or Wau-kon-ge-weka. Little Priest or Little Chief (Mor-ay-tshay-kaw), chief in 1829 of the Catfish Village, was also identified with Turtle Village.

By the provisions of a treaty concluded with the Winnebago at Washington on November 1, 1837, that tribe ceded to the United States the balance of their lands in Wisconsin. Their removal followed.

\* Prehistoric America, II, 1898, p. 391.

\*\* West. Hist. Co., Hist. Rock Co., p. 331.

\*\*\* Wis. Archeo. 6, no. 3, pp. 150-152.

Their lands along the Rock they ceded to the Government in 1832.

The Indian trader at Beloit was Joseph Thibault, a French Canadian, and the agent of the Milwaukee trader, Solomon Juneau. His log cabin trading post is reported to have been located in 1836 "at the south end and west side of what is now State Street.

He claimed to have been living in the general region about twelve years. He was succeeded as trader by Alex. Lemere, who occupied his post for the next eight years.\*

In past years, when the City of Beloit was being settled, considerable numbers of Indian relics, including flint implements, stone axes, celts, hammers, some stone ornaments and pipes, and some copper implements and beads, were found by residents and others on and near the site of the Indian village and gardens. Very few of these remain in private hands and a very small number appear to have found their way into the collections of the Logan Museum at Beloit College. There are several small collections in the city but their contents are largely from other parts of Wisconsin and from other states. A flint spade found here years ago is  $7\frac{3}{4}$  inches in length and  $3\frac{3}{8}$  inches in width at its widest part.

The museum of the Beloit Historical Society has not been in existence long enough to have assembled any local Indian implements.

### THE MOUNDS

Our survey permits the making of a count of the Indian mounds located in the Rock River Valley between the foot of Lake Koshkonong and Beloit. This count gives the following figures:

| Township         | Conical  | Oval    | Linear   | Effigy   | Totals    |
|------------------|----------|---------|----------|----------|-----------|
| Milton -----     | 17       |         | 1        |          | 18        |
| Fulton -----     | 18       | 2       | 14       |          | 34        |
| Janesville ----- | 7        |         |          |          | 7         |
| Rock -----       | 19       | 5       | 12       | 5        | 41        |
| Beloit -----     | 26       | 1       | 18       | 12       | 57        |
|                  | <hr/> 87 | <hr/> 8 | <hr/> 45 | <hr/> 17 | <hr/> 157 |

This total of 157 mounds does not include several mounds on the Hubbel farm which have been destroyed and of

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\* Hist. of Rock Co., C. F. Cooper & Co., 1908, p. 128.



which no accurate record exists, or of several mounds on the Roth farm north of Beloit of which Buell found faint traces remaining. Nor does it include the so-called Waterworks mounds in Beloit, a small group of which there appears to have been no survey made before they were destroyed.

In making this count we acknowledge our indebtedness to the Messrs. A. B. Stout and H. L. Skavlem who published a report on the Lake Koshkonong mounds in 1908, to H. L. Skavlem and Horace McElroy who surveyed and reported on the Janesville and Afton mounds in 1907 and 1914, and to Ira U. Buell, who re-surveyed the Beloit groups and published a report on these in 1919.

The several largest mound groups along the banks of the Rock River between the foot of Lake Koshkonong and Beloit were the Rock River group at Lake Koshkonong with 11 mounds, the Indian Hill group at the mouth of the Catfish River with 28 mounds, the Afton group at Afton with 22 mounds, the Weirick and Adams groups north of Beloit with 13 mounds each, and the Beloit College group with 21 mounds. Of the 17 effigy or animal shaped mounds located in these surveys in the five different groups which include effigy mounds (in the Afton, Weirick, Henderson, Adams and Beloit College groups) 7 are mounds of the turtle, 2 of the bear, 2 of the panther, 2 of the mink, and 1 of the bird type. Three are nondescript effigies.

### COLLECTIONS

For the past eighty years or more collectors of Indian implements have made collections, small or quite extensive, from the numerous camp and village sites along the banks of the Rock River between Beloit and the foot of Lake Koshkonong. Most of these collections have been either sold, or given away, or been carried away to other states or other parts of Wisconsin by their owners. Very little of the material gathered from these sites or from the cultivated fields along the river banks is preserved in Wisconsin museums. This public loss appears to emphasize the need of establishing public historical museums at Beloit, Janesville and Edgerton where such collections and specimens can be assembled in the future and saved for educational purposes.

The most widely known collector in this region was Mr. Horace M. McElroy of Janesville. Most of the specimens in his large collection were obtained from Indian sites within and near the present limits of the city in which he resided. Others were collected from sites as far south along the river as Afton, and as far north as Lake Koshkonong. He also obtained specimens from other parts of Rock County. Before his death Mr. McElroy sold many of his choicest specimens. His widow and some of his friends presented what remained of his collection to the Janesville public library in 1916. These specimens consisting of flint, quartz, rhyolite, chalcedony and other arrow and spearpoints, knives, scrapers and perforators are mounted in glass frames. One frame, containing about fifty such artifacts, is labelled "Rock River." Most of the other specimens are from other regions and from other states. In the Rock River frame are five of the broad, barbed spearpoints made of white and grey flint. No catalogue of Mr. McElroy's former collection appears to exist. Fortunately sketches of some of his specimens were made during his lifetime and these are available for study.

At Fulton collections of Indian artifacts were made by Mr. Darcy Biggar, Mr. Harvey Pease and Mr. J. T. Thompson. All were very active collectors. Mr. Biggar began to collect specimens in his boyhood. Most of his collecting was from the site of the Catfish Village at the mouth of the Catfish River and from the old Stone Farm site on the opposite bank of the Rock. He also gathered specimens from other sites along the Rock River banks as far north as Newville. His interesting collection was recently presented by him to the State Historical Museum at Madison. Mr. Thompson's collection was on exhibition in a case in the Edgerton high school. It has recently been withdrawn.

At Indian Ford Mr. D. Willard North and Mr. Bert Cox both have interesting collections made from local sites. At Edgerton Mr. Harry C. Son has a collection made from sites at Newville and Lake Koshkonong.

A collection made by George Doty, deceased, from this same region is in existence.

One of the best collecting grounds along the entire lower Rock River region in Wisconsin was at Newville. There in-

teresting collections were made by George H. Sherman, Henry Pierce, Ulysses G. Miller, Edward Amerpoll of Janesville, the late W. P. Clarke of Milton, and C. A. Skibreck of Stoughton.

At Beloit Theodore Dustrude has a small collection. A collection made by C. C. Babbitt of Janesville is deposited in the Oshkosh Public Museum. Miss Minnie Hubbell of Fulton has a small number of specimens from a site on the Hubbell farm at that place. Other less important collections and specimens are in the possession of various persons residing on some of the river farms.

The Logan Museum of Beloit College has a comparatively small number of lower Rock River region specimens in its otherwise rich collections. Unfortunately none of these have any definite data as to the exact locations where they were obtained. Among them are a bannerstone of the butterfly type, made of hornblende schist, and collected at Edgerton, a grooved stone axe of the pick type, with a battered poll, found at Albion, and a sandstone arrowshaft grinder found at Newville. Other Rock River specimens are a fluted stone axe, an adz-axe, and five other grooved stone axes.

Outside of those contained in the Darcy Biggar collection the State Historical Museum has only a small number of specimens from Rock River, Rock County sites. Among these is a large flint spearpoint 10 inches in length. This is from Janesville. There are a copper knife found at Edgerton, and a copper perforator from near the Catfish Village, and flint implements and potsherds, sinkers, hammerstones, and other artifacts from sites at Newville, Indian Ford, Janesville and Afton.

A few Rock River implements collected by W. P. Clarke are in the museum at Milton College.

## VILLAGE AND CAMP SITES

After urging for some years the importance of engaging in a survey of the prehistoric and historic Indian village and camp sites located along the banks of the Rock River in the region between the foot of Lake Koshkonong and the Wisconsin-Illinois boundary, this very desirable undertak-

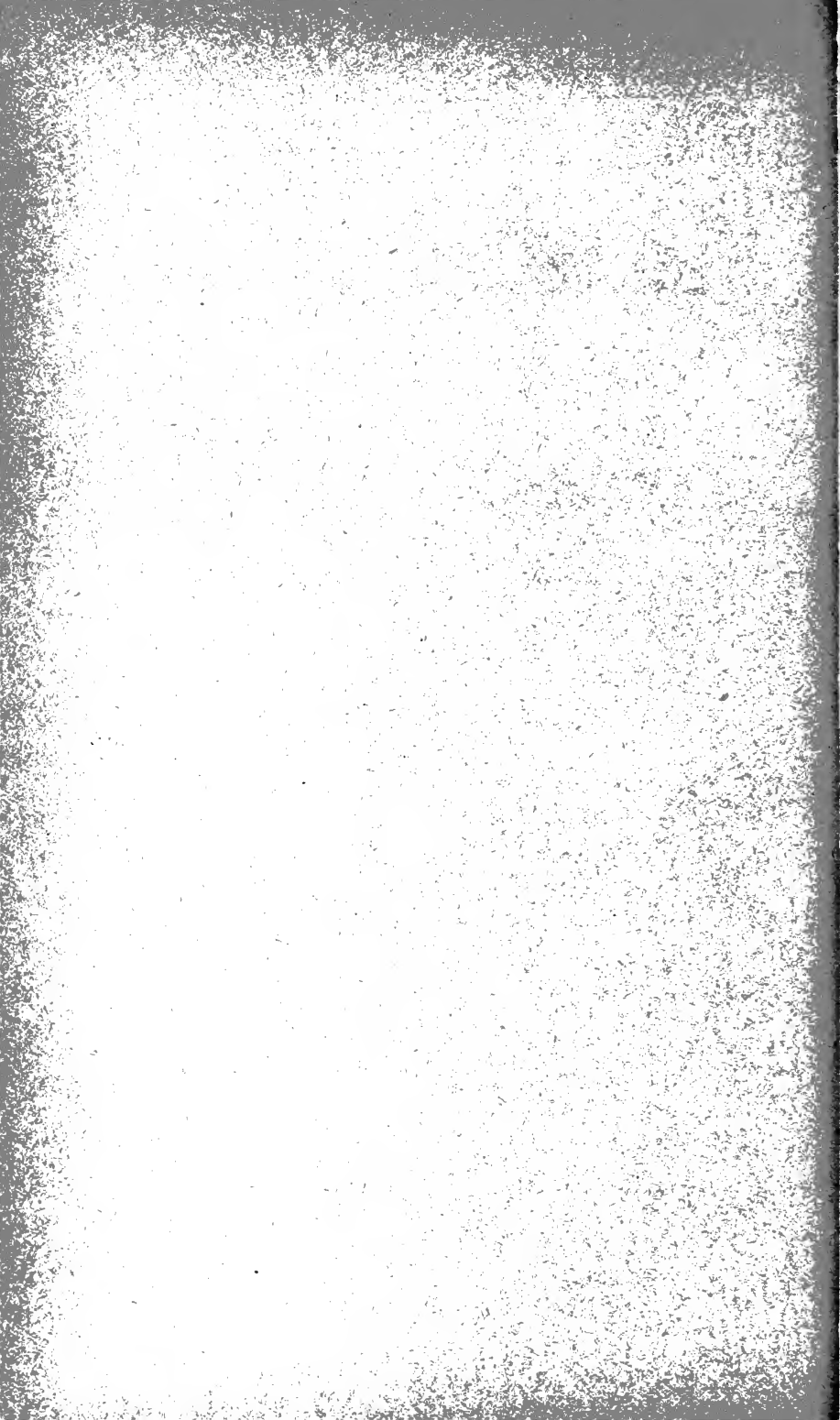
ing was at last made possible through the generous interest of Dr. Frank G. Logan, who supplied the funds required for a surface survey. Very little or nothing was known concerning the location or character of any of these camp and village sites. Survey field-work was begun during the early summer of 1928 and continued to near the end of the year. Some of the sixty-five camp and village sites and other aboriginal remains located along the Rock River were re-visited during the summer of 1929. As the funds available were not sufficient to engage in more than a small amount of excavating such work must wait until some future time. A condensed report of our researches is presented in this bulletin. A report on the sites along the Catfish River between Lake Kegonsa and its mouth, at the Rock at Fulton, is being held for future publication.

The results of our investigations show that some of these village sites are Algonkian, some are Siouan, and some appear to have been occupied successively by representatives of both Indian stocks. Some are contact sites. The presence of artifacts characteristic of both the Cahokia and Hopewell cultures on the sites, and in some of the mounds excavated by others, probably indicates an early residence of some of these prehistoric Indians in the Lower Rock River valley also.

We have the pleasure of realizing that through our efforts much useful information concerning the early Indian inhabitants of the Rock River valley has been rescued from more or less complete loss. We wish to strongly recommend the permanent preservation and marking of some of the mounds yet remaining at the foot of Lake Koshkonong, at "Indian Hill" at Fulton, and along the Rock River highway north of Beloit. The interest of the county board and of the local historical societies and women's clubs should be aroused in the great value of their preservation as historical landmarks. Their loss would be greatly deplored by present and future residents of the Rock River cities. Markers should also be placed on the sites of the historic Winnebago villages of the region, especially on the sites of those located at Beloit, Janesville, Fulton and Newville. We hope to see the archeological collections in the museums at Janesville

and Beloit greatly increased and made educationally useful to the public. At Edgerton a public museum should be established.

We desire to express our thanks to the many good friends who, in one way and another, have assisted us in this work.



# The Wisconsin Archeologist

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Vol. 9

January, 1930  
NEW SERIES

No. 2

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TRAILS  
PETROGLYPHS AND PICTOGRAPHS  
STONE ADZES  
HORNSTONE KNIVES



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
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# **Wisconsin Archeological Society**

## **Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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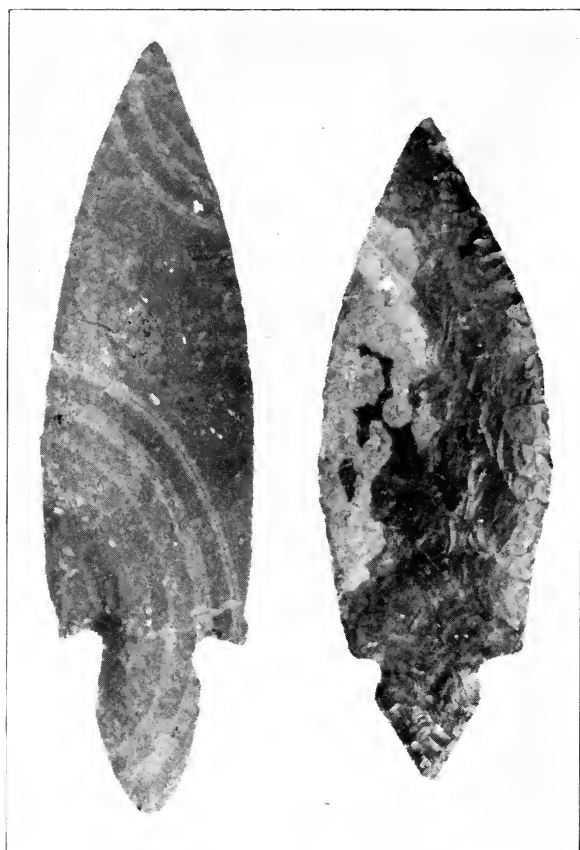
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Vol. 9, No. 2, New Series

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BLUE HORNSTONE POINTS  
"Turkey-tail Point" at the Right  
Courtesy of Ohio State Archeological  
and Historical Society

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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No. 2

## "TURKEY-TAIL" POINTS

By this fanciful name there have long been known to collectors of Indian implements throughout the Middle West a class of flint implements of very graceful form, and quite generally conceded to be among the very best productions of the prehistoric Indian flint worker. A specimen of these implements is illustrated in the frontispiece of this issue of *The Wisconsin Archeologist*.

The first published description of these very interesting implements appeared in a monograph, "The Implement Caches of the Wisconsin Indians", published in 1907.\* A part of this description is here quoted: "The points are generally elliptical in shape and are provided with two notches near one extremity, producing a short, angular or rounded tang. [This tang is triangular or somewhat lozenge-shaped.] They are generally considered to be best adapted for use as knives, the tang being generally too short and fragile in comparison with the length, breadth and weight of the blade to permit of their being very securely hafted for service as spearpoints.

"In almost every one of several hundred Wisconsin collections in existence to-day, there are to be seen one or more of these implements. Many of them are known to have been found en cache, indeed it is an open question whether the majority of them were not so obtained, the continual selling and exchanging going on among collectors and the frequent carelessness of the finders being responsible for our present inability to trace the facts of their original disposition.

"The material from which these implements are fashioned is generally the bluish or grayish hornstone, identical

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\* *The Wisconsin Archeologist*, V. 6, No. 2. See also V. 20, No. 1, p. 12.

with, or resembling that of the Wyandotte cave region in [southwestern] Indiana. Some exhibit traces of brown color mingled with the blue or grey. [Some are dark blue in color or almost black.] All are admirable examples of the flint chipper's art."

A description of the caches or deposits of these "turkey-tail" points recovered up to that time, the year 1907, is given.

1. Cache of fourteen found in about the year 1878 on the Bonn farm, in Section 31, Two Rivers Township, Manitowoc County.

2. Cache of six found in Section 18, Ellington Township, Outagamie County.

3. Cache of four found beneath a stump near Boltonville, Washington County.

4. Cache of eight found in 1904 by Seymour Harris within the limits of New Lisbon, Juneau County.

5. Cache of six reported found on the east shore of Pewaukee Lake, Waukesha County.

6. Cache of three found at the corner of Pearl and Elizabeth Streets, in Janesville, Rock County.

A few sets of these knives have accompanied interments in mounds. A set of eighteen were obtained by Dr. Alphonse Gerend in the excavation of a mound located on the edge of the Sheboygan Marsh, in Sheboygan County. These were found near the right and left hands of a burial and were wrapped in pieces of rawhide. Three of these implements accompanied a burial in a mound at Lisbon, Waukesha County.

No attempt to plot the distribution of these notched blue hornstone knives in Wisconsin has yet been made. This may be possible with the coöperation of collectors of Indian implements. We know that in eastern Wisconsin they range at least as far to the north as the shore of Green Bay and that at least one specimen has been found in Chippewa County in northern Wisconsin. Their northward distribution in the Mississippi Valley counties remains to be determined. The secretary will be pleased to receive information on this subject from members and friends located in these and other parts of the state.

Concerning the distribution and frequency of occurrence

of these blue hornstone implements in the neighboring states of Michigan, Indiana, Illinois, Iowa and Minnesota there is a deplorable lack of information. Published archeological reports contain very little information concerning them. We look to our brother archeologists in those states to rectify this lack of data. By every right both caches of these implements and single specimens should be quite numerous in Indiana and Illinois. We should expect to find them not uncommon also in southern Michigan and eastern Iowa. Moorehead has figured a single specimen secured by Harlan I. Smith in the Saginaw Valley, Michigan. He states that this form "is peculiar to Indiana, Illinois, Michigan, Canada, etc."\* He also illustrates a specimen from Tennessee. The finding of a cache of six in Christian County, Kentucky, is mentioned. We would expect them to be of not uncommon occurrence in these states south of the Ohio River.

During the month of November 1929 the writer wrote to Mr. H. C. Shetrone, director of the Ohio State Archaeological and Historical Society, at Columbus, for information concerning these interesting knives. To this communication Mr. Shetrone replied also enclosing outline drawings of specimens of these and several related forms in the collections of the Ohio State Museum.

"These specimens, conforming to a very definite type and made exclusively, insofar as I am aware, of the hornstone or nodular flint, presumably from the Wyandot Cave region of southern Indiana, are most intriguing. I had known that their distribution is rather wide but I am surprised to find them occurring as far north as Wisconsin.

"Whether or not they are peculiar to any given 'culture' I have been unable to determine. This particular variety of flint was used by the Hopewell peoples but I cannot say that the specific type is theirs. The type is purely a double pointed oval with or without notches, usually notched however. I consider the two specimens which you outline as being identical, the only difference being that one has received the notches.

"A number of caches of this interesting type have been

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\* Prehistoric Implements.

found in Ohio, the most notable being one of more than a hundred specimens, ranging in size from three inches to more than one foot, found not more than fifteen inches below the surface in excavating for a basement near Chillicothe, Ross County.\* The place of the finding of this cache was immediately adjacent to the Mound City Group, Hopewell culture, but since they were unaccompanied by any other objects there was nothing to indicate definitely affinity with Hopewell. Their wide distribution, close conformity to type and the fact that they are made from identical or very similar nodular or concretionary chert or hornstone is very striking.

"As of possible interest to you I am outlining several specimens from the Chillicothe cache, and some others from another cache found near Fort Ancient and constituting absolutely the highest artistic development in flint-chipping which we have observed here in Ohio."

The Fort Ancient cache was one of forty-five specimens. These differ in form from those of the Chillicothe cache and those in the Wisconsin caches in that they have longer and more substantial tangs, larger and deeper notches giving a pronounced shoulder with a suggestion of a barb. The edges of the blade from the base nearly to the middle are nearly parallel or slightly curved. From the middle they curve to the point. These also are narrower implements than those commonly included under the head of "turkey-tail" points. Their shape and stout tangs would permit their use as spearpoints, which they probably were. Implements of this particular form also occur in Wisconsin.

From them it is only a step to the stemmed blue hornstone spearpoint. For the present at least we may conclude that the blue hornstone disks (of which 8,000 were obtained from one of the Hopewell Mounds) the double-pointed hornstone knives, the "turkey-tail" knives, the notched spearpoints, and the stemmed spearpoints, and perhaps other implements made of this attractive material, can all be traced to the workshop sites of the same prehistoric aboriginal people. It will be interesting to learn through the future investigations of the archeologists of Indiana,

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\* Probably the Spetnagel Cache.



Ohio and Illinois just where these workshops were situated, how the hornstone was obtained and transported, and who these people probably were. Brother archeologists in many states will be pleased to have this and other information which should be procurable. Implements of various kinds made of this fine and attractive material are very numerous throughout the states of the Middle West.

To date no actual evidence, or only faint evidence, of the manufacture of any blue or brown hornstone implements on Wisconsin workshop or village sites has been reported. Several unworked or roughly worked nodules have been recovered. It would appear that most, if not all, of the specimens must have been brought to this region in their already finished state from centers of their manufacture, over well known trade routes.

The largest blue hornstone "turkey-tail" knife as yet found in Wisconsin, a specimen from the Ellington Township, Outagamie County cache, measures  $9\frac{1}{2}$  inches in length and  $3\frac{1}{2}$  inches in width at the widest part of its blade. It is in the H. P. Hamilton collection in the State Historical Museum. Only the fine specimen in the Chilibotho cache, measuring about  $10\frac{3}{4}$  inches in length and about  $2\frac{7}{8}$  inches in width, exceeds it in size.

—CHARLES E. BROWN.

## THE CHICAGO-MILWAUKEE-GREEN BAY TRAIL

Louise Phelps Kellogg

An Indian trail from time immemorial ran somewhat back from the Lake Michigan shore, connecting the three historic places of Chicago, Milwaukee, and Green Bay. It may have been there when heroic Tonty in 1680 wandered through the woods of southeast Wisconsin on his retreat from Illinois before the dreaded Iroquois. If so he and his companions did not find it, but stumbled on half-starved until rescued on the Sturgeon Bay portage trail by friendly Indians. No doubt the trail was worn in 1684 when La Durantaye, commandant at Green Bay, hastened to the aid of the beleaguered garrison on what is now known as "Starved Rock", on the Illinois River, near Ottawa. All

through the eighteenth century there was communication between these three favored sites on Lake Michigan. Fur traders and voyageurs came and went, war's alarm was hurriedly carried from one place to another. During the American Revolution, it was at one time feared that General George Rogers Clark would march north and capture Mackinac. The fort at that place was transferred to the island, where it has since remained; detachments were hurried to the mouths of the Milwaukee and Chicago rivers; but Clark and his men never came nearer than Rock River, and the British officers retained control of Lake Michigan's shore until almost the close of the century.

It was not until the Americans in 1816 built Fort Howard at Green Bay and rebuilt Fort Dearborn at Chicago, that this trail became an important link in the military occupation of the Northwest, and troops, mail carriers, cattle drivers, and others than Indians began to use it. Travel by land was almost wholly confined to the winter months, the communication in summer being wholly by boats. At Fort Howard a soldier was detailed to make the long five hundred mile round trip with mail to Fort Dearborn and return. He went on foot with an Indian or half-breed companion, carrying both mail and provisions on their backs. The journey took a month in good weather and the mail-carrier was often delayed by storms and bad weather beyond the customary time. It was a trip of great danger since there were no human habitations except at Milwaukee, and later at Skunk Grove west of Racine until the vicinity of Chicago was reached where Antoine Ouilmette [Wilmette] cared for the weary travelers.

One such mail carrier has given his route on the trail; he said he saw the lake only at Two Rivers and Sauk River, now Port Washington, and again at Gros Point, Ouilmette's home. In detail the trail has been thus defined from Chicago northward. Starting at the north bank of Chicago River, now the end of the Michigan Boulevard bridge, the trail ran north along the height of land, on about what is now Rush Street to Chicago Avenue. Thus it turned north northwest a mile to the present intersection of Clark Street and North Avenue, then followed North Clark Street to Ridge Avenue, Evanston. The trail then turned at Demp-

ster Street into Greenwood Avenue, thence north to Simpson Avenue, swinging in an eastward curve through Wilmette. From here it ran north through Kenilworth to the Sheridan Road, which it followed almost to Lake Bluff. There it turned northwesterly to three miles west of Waukegan. Here the trail went due north and came into Wisconsin on what is now United States Highway 41. This road was followed to State Highway 50, five miles west of Kenosha, thence it ran west a short distance then turned north through what is now Franksville, passing five miles west of Racine. Thence it continued north through Caledonia and Oak Creek, falling into what is now State Highway 15 at about the present town of Cudahy. From here the trail turned northwest, crossed Kinnikinnic Creek just beyond Twenty-second Avenue, Milwaukee, here again coinciding with United States Highway 41. From this point what is now Forest Home Avenue was followed to Lincoln and Seventeenth Avenue, then to Vieau's post in the present Mitchell Park. From Vieau's place the trail followed the south bank of the river to Walker's Point, now South Water and Reed Streets. There the Milwaukee River was crossed either by swimming or later by a ferry, and the line of East Water Street was followed to Juneau's post at the present East Wisconsin Avenue.

On leaving Milwaukee those who followed the trail kept quite near the east bank of Milwaukee River up as far as the present Grafton or a little beyond. Thence they turned northeast to the lake shore at what is now Port Washington. From there the height of land was followed as far as Manitowoc Rapids, keeping near but not exactly on United States Highway 141 and following that from the Rapids all the way northwest to Green Bay.

The trail which was worn deep by the moccasined feet of many Indians and white travelers was not a straight road, it wound in and out about obstacles or water courses and took its leisurely way along. After American settlers began to come in, they shortened the trail at many points, cutting across curves and straightening links in the old trail. In 1832 Congress passed a law to build a military road between Fort Dearborn and Fort Howard, but this did not become much of a road until 1838. Even then wagons

could only go as far as Milwaukee and that only in the most favorable time of the year.

The Wisconsin Society of Chicago has begun to mark this old trail and the early road which succeeded it with markers a mile apart. A number have been set beside the road, and before long the entire road from Chicago to Green Bay will be carefully followed by these historic markers.

## THE HOPEWELL PEOPLE

In an address on "Mound Areas in the Mississippi Valley and the South" delivered by him at the Conference on Mid-western Archaeology, held at St. Louis, Missouri, on May 18, 1929, Professor Warren King Moorehead, said of the Hopewell people and the so-named Hopewell culture:\*

"As to the origin of the Hopewell culture, I might offer a theory. Years from now, when explorations throughout the Mississippi Valley shall have been completed, more competent observers will probably solve the question of origins. My hypothesis may not be correct, although I desire to have it recorded. It cannot be set forth very briefly.

"I have never believed that the Hopewell people originated in the lower Scioto valley [in Ohio]. There is no evidence that they dominated Kentucky to the South, which is a buffer state between the Tennessee-Cumberland and the Ohio. The Kanawha valley has not been explored, but such specimens as are available indicate a considerable divergence from pure Hopewell. The Muskingum in eastern Ohio is probably Hopewell, or closely allied to it. No Hopewell objects were carried down into the South so far as we can ascertain. There may be some in Kentucky, but I am speaking generally, keeping in mind preponderance of evidence. Trade objects at Hopewell indicate a knowledge of the South, and that is more recent than the Southern works. "Far up in the Northwest have been found a few monitor or platform pipes, log burials occur in the Liverpool district (Illinois), human maxillaries worked into ornaments, and grizzly bear tusks—favorite Hopewell trophies—and some other objects. It may be, as claimed by some, that this indicates an offshot of Hopewell in southern Illinois, eastern

Iowa, or central Wisconsin. With due respect to my distinguished co-workers who differ with me in this matter, permit me to state that while objects may have been introduced through barter, or small colonies sent out by the home village, I do not believe that that is the correct solution.

"My theory is to the effect that a certain band or tribe of Indians—probably very early Algonkin—reached or originated in eastern Iowa. One branch may have worked up into Wisconsin. The other proceeded eastward through Illinois and Indiana to central Ohio. The objection to the southern theory of origin lies in the fact that the ceramic art so prominent in the South is not in evidence to any extent in the Hopewell tumuli; that is, they have found a few pots, but in the scores of mounds explored from whence they (Putnam, Mills, Shetrone and I) took hundreds of burials, it may be said that pottery is practically absent. On the Nettler farm in 1927 in one tumulus we found considerable pottery, six or seven typical Hopewell axes of copper, cut human jaws, etc. This is the region where it is now claimed there was distinct Hopewell development.

"Mr. Charles C. Willoughby, who has given some attention to the subject, is of the opinion that the solution to this mound problem lies in a complete study of symbolism, and that there were very highly developed mound cults regarding which, at present, we know little or nothing. He has not perfected his study of the earthwork and cosmic symbols as evidenced in copper, on bones, or presented by the earthworks themselves. All of us join in the hope that at some future time he will undertake this important investigation."

### THE CAHOKIA PEOPLE

"I have purposely omitted the great Cahokia group from my remarks. It is in a class by itself. It is distinctly southern. Five seasons spent at that place in extensive work have not yet produced the mortuary edifice of these people. It is the largest known village north of Mexico, being, by actual tests, about six miles in extent. That so large a population made use of one or more structures for the interment of their distinguished dead no one doubts. Until this discovery is made, it is impossible for us to pre-

sent conclusions worthy of the name concerning the Cahokians, for, obviously, we cannot study art unless we possess art objects.

### THE ETOWAH PEOPLE

"I have said nothing as to the origin of mound building in general in our country. That, as writers say, is another story and too lengthy to be inserted here. One might remark, however, that Mrs. Nuttall has found seven distinct comparisons between early Toltec art and our Etowah finds. Whether this is a mere coincidence, or whether it indicates that the Etowahans worked their way gradually from central Mexico to Georgia, is problematical.

"A chief objection to this theory lies in the fact that it is some 1500 miles from the last tumuli of central, northern Mexico to the first mounds of size in eastern Texas. Indians, familiar with mound building, would scarcely traverse 1500 miles and leave no remains. Yet how are we to explain [the presence of] the monolithic axe, idol heads, plumed serpent, seated figures, and other similarities?"

### DISCUSSION

In discussing Professor Moorehead's paper Professor Fay-Cooper Cole said: "I agree very heartily with Dr. Moorehead on the desirability of the study of skeletal material. However, we must not depend too much upon such studies for this reason: that if we go to any ethnological situation—in California, for instance—we find a very similar culture spread over a large number of tribes and groups. If we consider our ethnological field in general we find a similar culture will spread over diverse physical groups. It is quite evident from the little work we have done in Illinois that there are several physical types in this culture area. While it is important to study skeletal material, the results obtained do not necessarily affect cultural history."

## INDIAN TRADE BEADS

The Museum of the American Indian has published a monograph by William C. Orchard on "Beads and Beadwork of the North American Indians." It covers this very interesting subject very fully and is finely illustrated. Of "Trade Beads" the author writes: "Early explorers in all parts of the world found beads of glass, porcelain, and metal so acceptable to the aborigines of the lands in which they traveled, that a flourishing industry was established in Venice for the manufacture of glass beads, in the early part of the 14th century, and probably before. Among these aboriginal peoples the Indians of America were no exception, for they at once recognized the value of beads as a medium of exchange through which to express their estheticism and soon developed an art which has nowhere been surpassed.

"The variety of beads most commonly used as gifts and for trade was known as seed-beads, a flattened globular form ranging in size from about a sixteenth to an eighth of an inch or more in diameter.

"The colors are of almost unlimited range. A preference prevailed, however, for bright red, blue, yellow, green and opaque white. Intermediate shades were acceptable, but were used sparingly in comparison with others. Beads of clear, colorless glass, commonly known as crystal, and black beads, were also used. The seed-beads were used chiefly for covering surfaces with fanciful designs, rather than for stringing as necklaces. Larger varieties of many forms were introduced for which other uses were found. These consisted of spherical, ovoid, tubular, and various bizarre shapes and sizes; indeed they are in such great variety that only a representative selection can here be considered."

He describes and figures a number of varieties of glass beads such as "star" or "chevron" beads, Moorish beads, corn kernel, and polychrome beads. He also discusses the trade values of beads such as were established by the Hudson's Bay Company for their Indian trade.

## URN BURIALS IN ALABAMA

At the Conference of Midwestern Archaeology, held at St. Louis on May 18, 1929, Mr. Peter A. Brannon of the Alabama Anthropological Society presented an interesting account of urn burials in Alabama.\*

"The custom of placing the dead in pots at interment is said to have been a Choctaw culture indication; if so, these people extended their influence as far east as the source of the Alabama River. The traditions of these people say they put the bodies out on pole racks or brush arbors when death occurred, and then when the flesh had sufficiently decayed, they gathered up the bones and buried them. The finding of a group of vessels suggesting that they were all placed in the grave at the same time corroborates these traditions.

"Recent finds of pottery washed by the rains of early spring (1929) from their original deposit place, at a site known in later years as Autosse, in Macon County, indicate these people as having been far above their later descendants, as far as their cultural status went. The vessels are of a heavy earthenware, shell tempered, glazed with charred grease, and some of them of a capacity of eight gallons. One recent day's work by five members of our Society resulted in the taking out of eleven of these fine pots, all in a perfect condition. A number in fragments, beyond recovery, were also found. These had no skeletal remains in them and do not indicate a use other than economic. I believe that they were used to store walnut oil, a commodity much prized in this section.

"Less than thirty days ago, Edgar M. Graves, Dr. P. R. Burke and Howard H. Paulin of Montgomery located in a cache-like arrangement twelve urns, every one covered with a bowl, and all containing skeletal remains. The largest is twenty-six inches in diameter, about two feet deep, and had in it eight skulls and the larger number of the bones of these skeletons. Several were adults but there were also children and babies. Several of the other pots or urns had more than one skeleton in them. The smallest is just eight inches in diameter, but in it was the complete skeleton of a

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\* Bull. Nat. Research Council, No. 74.



baby. The arrangement of the group of vessels may have been intended to represent a constellation. The vessels were very close to the surface, in fact plowing had carried off the cover of one of them.

"The first indication of this kind of an arrangement of vessels noted in this state was on this same stream, Pintala Creek, but nearer the mouth than those found in April of this year. Several years ago we found nine urns grouped around a central zone. In this case a vault-like placing had been attempted. A hole about twenty-five feet in diameter was apparently first cut in the solid red clay. Into this was poured quartz gravel, then periwinkle and river mussel shells from the kitchen middens or refuse piles, and into this ashes.

"The vessels after arrangement were surrounded with layers of gravel, shell and ashes, and then covered with clay. This had been hardened by burning, indications of fires on the pile being very evident.

"Frequently interments in the earth alone accompany those within the pots and are apparently contemporaneous. In most cases these are flexed; that is, bent up with the knees under the chin and sometimes with the elbow over the head. Occasionally, bark or wood slabs were used in covering vessels, and in casing the loose burials, though usually an attractive bowl was used to cover the vessels. Burial-urns are nearly always of a thin, poor quality of earthenware, and suggest that they were made altogether for this purpose, and rarely served any previous economic need. The bowls which we find serving as covers are nearly always works of art, many having the ornamentation on the inside of the lip. No bowls and few pots have handles. Whenever a vessel does have handles, it is more apt to have six than four. In no case have we ever found a burial urn with legs.

"The conventional roll-forward and loop-back serpent scroll design, and the design in some manner suggesting the rising sun, are the most common from central Alabama, while the woodpecker and the hand and eye are found most common in our Moundville culture.

"Mr. Clarence B. Moore, of Philadelphia, first noted our urn burials. Those most prominently figured by him are

located at Durants Bend on the Alabama River. In recent years, most of our finds have been in Lowndes County at a site passed by DeSoto in September, 1540, and noted by one of his chroniclers as "an old abandoned town." No evidences of European contacts have ever been suggested in connection with urn burials indicating that the custom was obsolete here before the explorers passed through."

### CACHE OF INDIAN STONE ADZES

At Prairie du Chien in a hog yard, which occupies a part of a former Indian village site, probably prehistoric, a cache or deposit of three stone adzes was recently found. Two of these large implements were each nearly a foot in length, the third was broken in two, only a half of it being recovered. The two perfect adzes each weigh about three pounds. They are long and narrow implements with a flat lower surface or base, and a ridged, slightly curved back. One extremity is pointed and the other ground to a cutting edge. They are triangular in section. In their form they are like other implements of this character which have been found in the state and are preserved in Wisconsin museums. Doubtless they were once mounted, or intended to be mounted, on stout wooden handles. These adzes are considered by archeologists to have been wood-working tools and were probably used in shaping timbers, shaping and excavating dugout canoes, and in performing similar woodworking tasks, with or without the aid of fire. The smaller specimens could be best employed in the fashioning of both upright and horizontal mortars, sap troughs, wooden bowls and similar utensils.

In 1903 Mr. H. A. Crosby published in *The Wisconsin Archeologist* the first known description of specimens of this class of Indian stone implements. He described nine of these adzes these being found on Indian sites located at different places in Racine, Sheboygan<sup>2</sup>, Columbia, Richland<sup>2</sup>, Vernon, Wood and Waupaca counties, a rather wide distribution in southern Wisconsin.\* Illustrations of two of these implements were given. The specimens described

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\* V. 2, No. 4, 91-93.

were from six to eighteen inches in length. The largest was obtained on the old Richland City village site, in Richland County.

Since the publication of this paper, twenty-seven years ago, additional examples of these implements, in large and small sizes, and occasionally broken, have been found on Indian sites in Waukesha, Rock, Dane, Dodge, Sauk, Winnebago and Crawford counties. Mr. Joseph Ringeisen, the well-known Milwaukee collector, at a recent meeting of the Wisconsin Archeological Society, exhibited a series of six of these triangular adzes, all being especially fine specimens. The largest of these, 16 inches in length, was obtained in Sumpter Township, Sauk County. The others came from Richland Township, Richland County; Pewaukee Township, Waukesha County; Fox Lake Township, Dodge County; Omro Township, Winnebago County, and Vernon Township, Waukesha County. The smallest was about seven inches in length. Mr. Ringeisen also exhibited three adz-celts at this time, one of these, a most unusual form, having a groove across its back between the middle of the implement and its poll. This specimen and another ungrooved adz-celt were found lying together on an Indian site in Norway Township, Racine County. Doubtless these adzes were implements in fairly common or at least occasional use at many early aboriginal villages and the recovery of many more is to be looked for in coming years. Members and friends are requested to report the finding of such specimens to the secretary's office.

It will be interesting to learn whether such implements also occur in Michigan, Ohio, Indiana, Illinois, Iowa and Minnesota. We request our members and friends in those states to be on the lookout for them and to report them in order that more information may be available concerning their distribution. Photographs, sketches, measurements, weights, and other descriptive and historical data should be provided.

Mr. W. J. Wintenberg of the National Museum of Canada, Ottawa, mentions the finding of a number of broken specimens on a site in eastern Canada.\* These are very

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\* 1928 Report.

similar to our Wisconsin specimens in form. These he says seem to have been from about 8 to 10 inches long. He has not seen adzes of the same type anywhere else in eastern Canada. He was interested to learn of their occurrence in Wisconsin.

## INDIAN OVERLAND TRAVELWAYS

In a paper presented at the Geography Conference of the Michigan Schoolmasters' Club in April 1929, Dr. W. B. Hinsdale, an honorary member of the Wisconsin Archeological Society, presented a very interesting paper on "Trade and Lines of Overland Travel of the Michigan Indians." From this paper, with the author's kind permission, we take the liberty of extracting some information which our members may find of particular interest. We regret that the entire paper may not be re-printed.

In his paper, which is accompanied by a map, the author describes the course of some of the important overland Indian trails of the region lying east of the Mississippi River and which lead to or through the State of Michigan, one of these the well-known Chicago-Green Bay-Sault Ste. Marie trail, also passing through the State of Wisconsin.

One of the most important of these old aboriginal trails had its beginning on the shore of the Gulf of Mexico, on the northwest coast of Florida. From this place it ran northward through the country of the Muskhogean tribes in Georgia, crossed Tennessee, then crossed Kentucky to Cumberland Gap. It crossed the Ohio River and passed up the east side of the Scioto River in Ohio. From the headwaters of this stream it passed on to the Sandusky River and up its west side to Sandusky Bay of Lake Erie. In Kentucky this trail was the famous "Warriors Path" of early American history. A main trail from the Georgia coast united with this trail in eastern Tennessee. "Over these lines, many of them, went Michigan copper and back came shells from the Gulf".

The Potomac Trail from the shore of Chesapeake Bay passed through Maryland and West Virginia to the Scioto in Ohio crossing the Allegheny Mountains on its way. Its course is in part followed by the Baltimore and Ohio Rail-

road. From the point where this trail reached the Ohio River a trail ran northward to the shore of Lake Erie.

"A most important line of travel coming into Michigan and now paralleled by great arteries of commerce, was the Great Trail, probably so designated because of its special importance in Indian and pioneer affairs. Its eastern branches came from the country around Chesapeake and Delaware Bays. It connected with two or three branches as it bent around the west end of Lake Erie, and the Sauk or Chicago Trail. It was a continuous path between the tidewater and the Great Lakes. Over it, in prehistoric and historic times, traveled men, savage and civilized, upon missions of vital importance in their domestic and political affairs. For uncounted years, moccasin-footed Indians, then Indians upon ponies, soldiers mounted and on foot, pioneers with ox-teams and travelers in stage coaches, all upon some mission or other, war, adventure, trade, chase, exploration, home-seeking, passed over this trail. From the East the trail came to the junction of the Monongahela and Allegheny Rivers, which form the Ohio where Fort Pitt and afterwards Pittsburg were built." From this point the trail extended to the Ohio border, then continued almost due west and forded the Tuscarawas at the site of old Fort Laurens. Then it ran in a westerly direction to Mohican Johns Town. A few miles west of this place it bent northwesterly, passing Sandusky Bay of Lake Erie to Perrysburg at the Maumee Rapids. One branch extended west from this ford of the Maumee, turned northwest and entered Michigan, where Morenci is now situated. It continued northward and joined the main Chicago trail. The main trail bent north to where Toledo is now located.

"The Shore Trail, as it is known historically, followed the southern shore of Lake Erie, going east from the various Michigan trails that converged at Toledo. It paralleled the Great Trail to Sandusky Bay where the two met and parted. The Shore Trail then led on to Erie, Pennsylvania, and to Buffalo and Niagara, New York. In western New York the same kind of branching of the main trail that existed at its western end made connections with various points in the Iroquoian territory. The direct Iroquois trail followed down the Mohawk River to the Hudson. There

were trails leading from the Hudson River to Massachusetts Bay. The Shore Trail led through bloody country; the country that had been held by the unfortunate Erie or Cat Tribe, who were virtually exterminated by the Five Nations, their own relatives. The highway from Cleveland and other cities of the Lake Erie shore followed closely the old Shore Trail."

"The Mohawk Trail was an extension of the Shore Trail connecting the middle west with the Hudson and points east. Not only were there trails to New England but there was, for instance, a branch of the Mohawk Trail in west central New York going to the old Iroquois town, Tioga, in northern Pennsylvania where the Chemung joins the Susquehanna. It was the gateway towards the Chesapeake and Virginia."

"The Sauk or Chicago Trail. There was a trail connecting Detroit with the Sauk town at the confluence of the Rock with the Mississippi in Illinois. The old road from Detroit to Chicago follows this route to a point near La Porte, Indiana. It deflects around the head of Lake Michigan and leads on through Chicago to the wild rice fields of Green Bay, the Lakes of Wisconsin and far away to the copper mines of Lake Superior. Article 6 of the Treaty of Chicago, August 29, 1821, states: 'The United States shall have the privilege of making and using a road through the Indian country, from Detroit and Fort Wayne, respectively, to Chicago.' As a matter of fact what has been referred to as the Sauk or Chicago Trail was only a small section and finally a branch of a two-thousand mile thoroughfare. Under the name of the Montreal Trail we mention a branch which crossed the Detroit River and went through Canada to Niagara Falls and Montreal. That part of this long path that extends through Michigan is now known as Trunk Line U. S. 112.

"Montreal Trail. According to maps of John H. Eddy, 1816, and Thomas Hutchins, 1778, a road, which undoubtedly had been a very old trail coming from Montreal and following the Chicago Trail from Detroit, branched off from Fort St. Joseph and led south to the Tippecanoe River in Indiana to Prophet's Town and Quiatanon upon the Wabash. From this village there was water communication by

way of the Wabash, Ohio and Mississippi Rivers to New Orleans, the total distance being given by Eddy as 1,871 miles."

Besides the long trails here described the author also gives the courses of several of the more important trails of the State of Michigan, among these being the Saginaw Trail, the Grand River Trail, and the "Territorial" and "Pottawatomie" Trails.

In discussing incentives to travel the author says: "At what stage in culture men became traders and engaged in commerce is a question that anthropologists may not have settled, although it is probably true that they became travelers and hunters before they traded. One of the differentiating traits between the prehuman and human stage was the development of cultures. The wants of animals are fully gratified with food and life-preserving shelter. Man wants more. He has acquired desires for something besides food and protection from heat, cold and storm. Early in his quest for what nature did not supply immediately, he looked for materials to be wrought into implements. Later, he began to give the products of his hands a kind of embellishment, that is, a neatness in form and finish. He acquired a fancy for colorful flint and stone. This may have been the beginning of the aesthetic sense, although it is probable that, earlier, such sense was manifested by personal adornment. A simple arrow head will illustrate. There was a necessity for such a tool or weapon which a rough chert nodule near home would satisfy; but later the workman strove to have his arrow look pleasing to the eye, as well as adapted to the hand, after it was finished, so he went afield searching for materials with texture and color that had the desired qualities. He began to travel for other purposes than the securing of food. He made contacts with others in distant parts who had something he wanted and took with him something that those others would take in exchange. They "swapped"; the beginnings of barter, the first step in commerce."

"It is not necessary here to discuss the beginnings of commerce, because the aborigines of the region under survey were sufficiently advanced to be engaged in it, however acquired. It may be stated that there were three major in-

centives to primitive travel. There was the hunt for food quest, there was war, and there was the search for materials to be used in the industrial and decorative arts. Of course, these three factors often worked together, as when upon expeditions of hostility, the warriors had to hunt for subsistence. In case a war party was victorious, trophies varying from prisoners to accoutrements were brought back. The New York Iroquois, for instance, ranged as far as the Black Hills. Returning, victorious with captives and spoils, they lost implements along the path or fragments of choice pipestone; at least such an explanation would account for the occasional finding of artifacts made of obsidian and catlinite in the southern parts of the state. The illustration may show how foreign specimens may have become scattered about. Copper from the Lake Superior mines traveled as far as the Atlantic and Gulf Coasts. Shells from the Gulf have been found in a great many Michigan burial grounds, and it would appear that the Indians had a peculiar and reverential fondness for them when they were made into ornaments and implements. Artifacts that must be regarded as intrusive and obtained either by trade, raids, or brought by sojourners from a distance, are found in our fields. The numerous occurrences in ancient graves of articles made of materials not natural to the vicinity is proof of the extent and variety of early commerce on all of the continents."

"What has been said must have convinced the reader that the Indians traveled considerably, and that communication was more developed than is, perhaps, commonly supposed. The Indian had no draft animal except the dog, no wheeled vehicle, but he was strong and inured to outdoor life, and traveled long distances both by canoe and on foot. As with the waterways he used the trails in war, in trade, in the hunt, and for various other purposes, from local visiting, we may suppose, to general wanderlust. In the course of events some trails became specialized as war trails, or hunting routes, and these uses, linking up with the general geographical and cultural situation, were important thereafter as determiners of the social process.

"The Indian was not in all cases the first or only one to locate the paths. Deer and buffalo also had the habit of



filing through the forest and across the openings. 'With an instinct no less shrewd than that displayed on the highland trail, the buffalo and the Indian found with great sagacity the best crossing-places over the streams of America.' Many of our substantial and costly bridges are built over streams at places the Indian had located as the most feasible crossings. By trial and error, the large ruminants and Indians chose the best possible paths, avoiding obstructions and mire, and selecting hard ground, not failing, by almost uncanny cunning, to come out at a point aimed for. These were not blazed trails. Blazing was a white man's invention. The Indian had other and just as unfailing signs for picking the way as if he had blazed.

"Many of our present roads follow these ancient highways. Those that do not follow the points of the compass, that turn and slant by diagonals and wind with curves for long distances are generally pursuing the courses of the old trails. The stages of change have been about as follows: the Indian's narrow foot-paths, 'cleared road', corduroy road, dirt road, gravel pike, cement highway; although a few went through the stage of 'planking.'"

In the closing paragraph of his paper the author says: "The trails which they made were involved in their decline and our rise. The native tribes had thus prepared helps for their own subjugation when the subduers arrived. They had covered the entire country, like a prodigious spider-web, with a network of trails through the forests and mountain passes and across the plains, connecting village with village, running to hunting grounds and bodies of water whence many derived the large part of their food supplies. Along these foot paths, with or without resistance, the Indian himself frequently acting as guide, the white intruders pushed their way into the new country. The streams which served them so well became tracks for the conqueror also, when the Indians' tool, the canoe, had been borrowed. Had it not been for these threads in the wilderness labyrinth, in Michigan as much or more than elsewhere, white occupancy would have been prevented or slowed down for many years. It was by the Red Man's own methods of communication that he was compelled "slowly and sadly to climb the distant mountains and to read his doom in the setting sun."

## THE HUFF MANDAN VILLAGE SITE

During the past summer the writer was given the opportunity of visiting under the guidance of Mr. George F. Will, well-known archeologist, and Mr. Russell Reid, curator of the State Historical Museum of North Dakota, a considerable number of the old Mandan and other Indian village sites located along the Missouri River near Bismarck.

Among these sites was the one which Mr. Will has described as the Huff Mandan site and which is located on the steep bank of the Missouri near the settlement called Huff.\* This site was visited and surveyed by Mr. Will and Dr. H. J. Spinden in 1919. This is Mr. Will's description of it, which in his report is accompanied by a map:

"This site proved perhaps the most interesting of any visited, especially because it is in the best-preserved condition of any of the ancient sites, never having been plowed or materially disturbed. Some of the other nearby sites may have been presented as interesting and unusual features, but they are now so nearly obliterated that it is impossible to tell. The map made showed many features which differentiated this site from any of the others, the most prominent feature being its almost perfectly rectangular shape. The rectangle lying along the high bluff overlooking the river is well outlined by a wall and ditch, still of considerable depth, with a number of regularly placed bastions. The river side is protected only by the very precipitous bank. An area of about twelve acres is enclosed within the wall, making this perhaps the largest enclosed site we have found. Most of this site is owned by the North Dakota Historical Society.

"A coulee cuts into the bluff a short distance beyond both the north and south ends of the site. A bastion occurs at each corner as well as those at regular intervals along the three sides. Within the wall the ground is now comparatively level, although the house rings are easily distinguishable. Apparently the site has drifted in with sand and dust, as very little trace of occupancy can be found without digging well down beneath the present sod. The house rings

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\* Anthro. Papers, The Am. Mus. of Nat. Hist., B. XXII, pt. VI.

are spaced much further apart than usual and seem to be laid out more or less in lines or rows with linear areas that might pass for streets. Pottery found here seems to resemble strongly that from Fort Rice, and the Schermer and Glencoe sites, although it was much more difficult to find in quantities since none of the area had been plowed. In connection with the unusual features of this site, it is interesting to recall its traditional importance. Supposedly this is the site of the first village built by the culture-hero chief, Good Furred Robe, when the Mandan reached this vicinity. One Mandan tale relates that the site was laid out with straight lines, the houses more or less in rows, to imitate the laying out of a field of corn, all as directed by the chief. A number of the oldest stories are also connected with this and the Eagle's Nose sites."

Within this enclosure are 104 hut rings and a number of refuse heaps. This Huff site was of particular interest to the writer because of a general resemblance which it bears to the prehistoric stockade—protected enclosure known as Aztalan and located on the bank of the Crawfish River near Lake Mills in Wisconsin. Both the Huff enclosure and that at Aztalan are U-shaped earthworks with the open side resting on a river bank. The river-front of the Aztalan earthwork was protected by a double line of upright timbers. The Huff site may have been similarly protected although there was not the same necessity here for such protection since the Missouri River banks are here high and very precipitous. Future exploration of the site will determine this. A prominent feature of the protecting earthen walls of both enclosures are the bastions or curved enlargements which project from the walls. Dr. Lapham's survey of the Aztalan enclosure, made in 1850, shows eight of these projections along the north wall of the earthwork, sixteen along its west wall, and eight along its southern wall. The Huff site is a smaller enclosure than that at Aztalan. Its greatest length, measured from the river bank to near the railroad tracks is only about 700 feet, and its greatest width 600 feet. This enclosure has four bastions along its north wall, three along its west wall, and four along its south wall.

Another North Dakota enclosure, the Schermer Site, also

described and figured by Mr. Will, also possesses these enlargements along its walls. "This site is one of those in which bastions play a part in the fortifications. A wall and ditch seem to have surrounded the whole site except along the bench edge and the wall projects at intervals into well made bastions." The Molander and Greenshield sites, and perhaps others, also have walls with bastion projections.

These interesting resemblances of the Huff and Aztalan enclosures may be merely accidental but they offer food for serious thought.

—CHARLES E. BROWN.

### BRULE RIVER COPPER SOURCES

The Astor Fur Company prospected for copper and silver all along the south shore of Lake Superior in the early days of Wisconsin history. In about the year 1820 they seem to have paid particular attention to this exploration work. The Indians had been getting copper from the Brule, in Douglas County, in extreme northwestern Wisconsin early in the eighteenth century and carrying it as far east as Montreal. The traders there ascertained its source from the Indians and an expedition was organized to prospect for the mineral along this rushing stream. This the Jesuit Relations mention.

In the early seventies another period of copper prospecting developed in the Lake Superior country. Gen. George B. Sargent, father of William C. Sargent, now of Duluth, headed a party of Eastern men in the copper exploration of the South Range. Associated with them was the noted geologist, James G. Percival. A promising location for copper was found on the Brule River, about nine miles upstream from its mouth, and where the river crosses the "Range." Here there is a belt of amygdaloid, carrying native copper. The rock formation is the same as that of the famous Calumet and Hecla of the northern Michigan district. The mine appears on a map as the Percival Location. Considerable prospecting was done, and much good copper was found, but the market price of the metal declined and for the lack of ready funds, the project was discontinued.

In 1890 another Boston company prospected these same lands, and for practically the same reasons exploration was discontinued. Native copper can be picked up around the old shafts, and it can be seen in the Brule River at about the contact of the sandstone and the trap rocks. If the price of copper metal ever goes back to where this copper can be mined profitably, there is no doubt but that paying mines could be located on this South Range, which is really the western extension of the Michigan copper belt. All of this territory is now interspersed with farms and summer homes. Many of the summer homes are very beautiful and are owned by people of extensive means, the owners being from all parts of the United States.

Benjamin G. Armstrong mentions the possession of native silver by Indians of the Lake Superior region in the forties, some or all of which must have come from localities or Indian workings along the Brule River.

—JOHN A. BARDEN.

## PETROGLYPHS AND PICTOGRAPHS

In a monograph published by the University of California, Julian H. Steward, describes the known "Petroglyphs of California and Adjoining States", the adjoining states being Nevada, Utah, Arizona and Lower California.\* The author explains in his introduction that the nucleus of his material "is the accumulation of many years at the Department of Anthropology of the University of California and is largely the contributions of private individuals." This data has been greatly added to by other contributions and extended correspondence.

In Part II of his admirable contribution to our knowledge of American Indian pictography the author presents a general consideration of his subject. This we take the liberty of quoting in part for the information of our own co-workers and for such other interested persons to whom this monograph may not be accessible, or readily accessible.

"The practice of making petroglyphs and pictographs is, or has been, world-wide. There is not a continent which does not have abundant examples of petroglyphy. In

America there are countless sites outside our area. They have been found in all parts of the United States, in Canada, and in Mexico, and groups are described from all of the regions of South America. Most of these groups are petroglyphs but this is to be expected in view of the greater perishability of pictographs."

"As a rule, all examples of petrography are extremely crude. From the point of view of art and execution they are vastly inferior to ceramic, textile or other decorative arts. It is only in such regions as Central America, where stone sculpturing reached a high perfection, that they are really good. Here, however, stone sculpturing was a specialty and the elaborate, nicely finished carvings can hardly be designated as 'petroglyphs'."

Mr. Steward presents a discussion of petroglyphs and pictographs.

"It is probably unfair to put too much emphasis on petroglyphs as products of art. In the first place, the difficulties of marking rough rock surfaces with sharp boulders preclude any high degree of finish. In the second place, the kind of figures represented and the localities in which the groups are placed show clearly that artistic merit was secondary in the mind of the creator. Elaborate figures consisting of circles, wavy lines, rake designs, and a multitude of other indescribable geometric elements with human, animal, and possibly plant representations worked in as parts of the designs; total lack of symmetry and not infrequent superimposition—all with a general absence of care in execution, can scarcely be regarded as attempts to give aesthetic pleasure. The usual remoteness of these groups from habitation sites is a further indication that they were generally not intended for the scrutiny of the community at large.

"The technique of making petroglyphs is usually simple. A comparatively smooth and even rock surface, usually vertical, is chosen and the characters are formed by pecking with a hammerstone. Small boulders showing unmistakable evidence of such use are frequently found in association with petroglyphs. Sometimes rubbing is also employed. Most figures show clear evidence of hasty or careless execution. Straight lines are seldom straight, wavy

and zigzag lines are uneven, circles are rarely true, and the few attempts at symmetrical figures fall far short of true balance. Anyone who has attempted to make a petroglyph, however, knows that it is a laborious task, and that considerable pains are rewarded by very unpleasing results.

"Petroglyphs are with few exceptions simple linear figures. Geometric designs while often complicated in their combination of elements are generally simple in detail. They are seldom more than body, arms, legs, and head; and while the general impression is good, details and nicety of finish are lacking. For this reason few quadrupeds can be identified. Mountain sheep are characteristically represented by a crescent-shaped or roughly oval body of solid pecking with four "pins" of legs, and a shapeless head. Ears are usually omitted but the long, recurving horns of the ram are clearly represented. Deer (or elk) may usually be distinguished by their antlers. But to venture a guess concerning the identity of other quadrupeds is extremely hazardous. Humans are likewise crudely done."

### PICTOGRAPHS

Of these he writes: "Pictographs as a rule are superior in form to petroglyphs. Lines are straighter, symmetry greater, and general execution is superior. We have no evidence of the method employed in making them, but assume that some kind of a simple brush was used.

"The colors comprise red, black, white, yellow and orange. Blue and green have been reported from Modoc county, California, but are rare. Red is by far the most common color in all areas. Black and white are next in importance in Modoc county, the Santa Barbara-Tulare county regions, and north eastern Arizona. We cannot definitely state the ingredients used since few analyses have been made of the pigments. Red, however, is probably often haematite or ocher and possibly cinnabar; black is charcoal or some manganese compound; white may be lime; yellow is probably ocher. Many mortars containing traces of pigment show that the paint was probably mixed with grease and ground in these."

## ANALYSIS OF PETROGRAPHY

In order to ascertain the relationships of the petrographs of the California and adjoining regions the author has analyzed the component designs, which make up the bulk of the petrographs, into fifty elements. Of these design elements those which are found to be generally distributed include concentric circles, wavy or zigzag lines, human figures, the sun disk, quadrupeds, mountain sheep, hands, human or bear tracks, spirals, snakes, stars, and dots. By means of a series of maps he shows the frequency and distribution of each of these within the entire area.

Other elements are found to occur in certain parts of the entire area, thus connected circles and netting, circle chains, bisected circles, connected dots, circular and rectangular gridirons, sheep's horns, cross-hatchings, angular meanders, bird tracks, rain symbols, outlined crosses and concentric diamonds are found in petroglyphs in the Great Basin and Lower California; parallel zigzags in southwestern California; lizards, spoked wheels, two-edged saws, ladders, herringbones and rake designs in California, and dotted lines, cogged wheels, human figures, pelts, many-legged insects, centipedes and others in the Santa Barbara and Tulare regions. In Utah and Arizona representations of lizards, birds and kachina-like figures are found. Of scattered distribution in southern California and Arizona are designs representing mazes, the horned toad, horned humans and men on horseback.

In discussing the meanings and purpose of petroglyphs and pictographs the author says: "The meaning and purpose of petroglyphs and pictographs can only be ascertained through careful study of the art and symbolism of present Indian groups and a comparison of these with pictographic elements." He points out that "many attempts have been made by various authors to deal with this vexing problem. Some explanations are guesses which fall within the bounds of probability. Others are theories of extreme absurdity and have not the least iota of truth." "Innumerable attempts have been made to ascertain the meanings from Indians living at present in the regions where they occur. These have invariably met with failure. The Indians dis-



claim all knowledge of their meaning or origin. This can hardly be due to reticence for intelligent Indians have themselves made efforts to ascertain something about the inscriptions with no success.

"We know that petrography was done by Indians. And, as pointed out, even the oldest petroglyphs probably do not date back more than a few thousand years at the most. Most of the groups are probably made by the ancestors of present day tribes living at or near the regions of the groups.

"Since design elements and style are grouped in limited areas, the primitive artist must have made the inscriptions with something definite in mind. He must have followed a pattern of petrography which was in vogue in his area. He executed, not random drawings, but figures similar to those made in other parts of the same area. The elements of design, then, must have had some definite significance which was the same over wide areas.

"We can probably never know precisely why many of the petroglyphs and pictographs were made. But we can guess that many of them were made for some religious or ceremonial purpose.

Attention is called to a custom of certain Pacific Coast tribes in which boys and girls made pictographs during their puberty ceremonies. These represented animals and objects seen by them in dreams. Other petroglyphs probably had to do with the hunt, or with the magical increase of game. Other realistic figures "were possibly clan symbols, individual guardian spirits, or shamans powers."

Some petroglyphs are "perhaps of Basket Maker culture which dates back to 1500 to 2000 B. C. Some are evidently Cliff Dweller or early Pueblo culture and some others of Apache or Navajo origin."

"Underlying the petrography of the areas discussed in this paper there was undoubtedly an older and more widespread development of this art. In widely separated parts of both North and South America are found innumerable groups of both petroglyphs and pictographs. The widespread petroglyphs are frequently strikingly similar to those in our areas. The most common designs are curvilinear and many are indistinguishable from those in Area

A. (Great Basin). Human representations, sun disks, concentric circles, and wavy lines are found everywhere. Animal representations are also widespread, and vary only with the local species. Hand prints, bear tracks, and bird tracks occur throughout the United States.

"The relation of our area to other areas can be determined only by a study of those areas. It may be that many of the geometric figures, particularly the curvilinear, are the natural result of crude conventionalization of symbolism and hence in separated areas represent many cases of independent origin with totally different purpose and significance."

## THUNDERBIRD LEGEND OF THE POST

### CHIPPEWA

"The Indians believe that thunder is the voice of an immense invisible bird that comes at times to warn them that the Great Spirit is displeased with something they have done, and that it always comes when the country is already storm-vexed, as the time is then opportune to add its voice to the naturally saddened feelings of the people, thereby making its presence more effective. The lightning they believed to be flashes from the eyes of this enormous bird, and when the storm is fierce and the flashes vivid it is taken as a warning that their bad deeds are many and that their retribution must be great. When one is killed by the fluid they believe it is a judgment sent by the Great Spirit through the agency of this mysterious bird.

"They call this bird Che-ne-me-ke. When they see distant flashes of lightning and do not hear the voice, as they believe, of this great bird, they know it is at a distance, but still believe it is teaching a lesson to distant people and will soon be with them. But should a storm pass by without the voice and the flashes coming near they they are happy again, for they feel relieved, believing that the bird is not angry with them. They firmly believe this bird to be an agency of the Almighty, which is kept moving about to keep an eye on the wrong doings of the people. When a tree is stricken and set on fire, the lesson which it wishes to impart

has been given and the rain is sent to prevent the fire from destroying the country.

"There is a point of land in this part of the country that the Indians call Pa-qua-a-wong—meaning a forest destroyed by the great thunder bird. I have visited this place. It is now almost a barren. The timber which was once upon it having been destroyed by lightning the Indians believed that the storm bird destroyed this forest to show its wrath, that they might profit by the lesson. A hunting party of Indians was once caught on this barren in a thunder storm, and took refuge under the trunk of a fallen tree, which had been burnt sufficiently on the under side to give them shelter. One of the party, in his hurry to get out of the rain, left his gun standing against the log. The lightning struck it, running down the barrel and twisting it into many shapes, and destroyed it, and the owner of this gun was thereafter pointed out by the whole band as the person upon whom the storm bird desired to bestow its frowns. (Benjamin Armstrong, *Early Life Among the Indians.*)

Pa-qua-a-wong was the Chippewa Indian name for the locality on the Chippewa River, in Sawyer County, known as The Post, and where an Indian trading post and Indian settlement was for many years located.

It is interesting to note how, even among the Christian Indians of our Wisconsin reservations, this superstitious belief in the thunderbird, or a flock of these storm birds, persists. Last year a prominent Potawatomi was asked whether he had noticed a thunderstorm which passed during the night. He replied that he had, and that he greatly regretted that he had had no Indian tobacco at hand to offer to the thunderer.

Some spherical stones obtained from a Winnebago Indian were said to be thunderbird eggs or arrows, and were believed by him to be a protection against lightning strokes. Similar thunder stones were collected among the pagan Menomini.

## WINNEBOUJOU

Winneboujou, the blacksmith, was an all-powerful manitou. His forge was near the Eau Claire Lakes, in northern Wisconsin. He used the highest flat-topped granite peak for his anvil. Here he shaped the mis-wa-bik, or native copper of the Brule River region, into various useful weapons and implements for the Chippewa Indians. He was especially skillful at shaping the strong copper spear points and fishhooks required for the catching of the giant sen-e-sug-ge-go, or speckled trout, which abounded in the clear spring waters at the Lake Superior mouth of the Brule.

Much of Winneboujou's forging was done by moonlight and the ringing blows of his pe-wabik (iron) hammer were heard by the Indians even as far down the shore of Lake Superior as the Sault Rapids. These booming noises yet echo down the Brule Valley and the Lake region, especially on clear, moonlight nights. The glow of his forge fire often lit up the entire sky.

The sound of the smith's great hammer was considered "good medicine" by the Chippewa, and was held in great awe by the visiting Sioux. An Indian, hearing the noise became possessed with industry and strength.

Winneboujou's summer home was on the Brule near its source because it was necessary for him to keep an eye on Ah-mik, the Beaver, a rival manitou, who might, if not watched, slip across the o-ne-gum (portage) to the St. Croix River, and then, by the way of the Mississippi River, reach the Gulf. (Chippewa Myth)

## ARCHEOLOGICAL NOTES

## Meetings

October 20, 1929. President Huron H. Smith conducted the meeting. There were sixty-five members and visitors in attendance. Mr. John G. Gregory delivered an address on "The Milwaukee Indian Villages". The speaker described in a very interesting way the several Potawatomi Indian villages located in an early day in the east, south and west sides of the city. These he stated it was proposed to finally mark with tablets for the information of present and future residents of the city. His address was discussed by the Messrs. West, Brown, Schoewe and other members present.

Mr. W. C. McKern presented a report on recent archeological investigations and publications in other states. Secretary Charles E. Brown reported on the meeting of the Executive Board, held earlier in the evening.

Mr. William H. Spohn, Madison, had been elected a life member of the Society. Annual members elected were Mrs. Rudolph Kuehne, Sheboygan; Albert H. Griffith, Fisk; Harvey W. Radke, West Bend; L. O. Winterhalter, Maywood, Illinois, and W. C. Congdon, Logansport, Indiana. W. S. Dunsmoor, a junior member, became an annual member. Charles Lapham, Milwaukee, a former annual member, was elected an honorary member. The deaths were announced of Mr. Arthur C. Neville, Green Bay; Mr. Rudolph Kuehne, Sheboygan, and Mr. John M. Wulfig, St. Louis; charter members of the Society.

It had been decided to unveil the marker on the Fourth and W. Wisconsin Avenue Potawatomi village site on the morning of October 29. This tablet, presented by Mr. Walter Schroeder, has been placed at the entrance of Hotel Schroeder. Mr. Gregory had been selected to give the unveiling address.

Tablets had been erected during the summer on a group of mounds located in Forest Hill cemetery at Madison, and on the site of the Grignon-Porlier fur-trading post at Butte des Morts. A movement was progressing to preserve the old U. S. Indian Agency House at Portage. Mr. C. E. Broughton had caused the erection of a tablet on an Indian village site at Adell, Sheboygan County. A field meeting of members of the Society had been held at Mr. Robert J. Kieckhefer's Pistaka farm preserve at Brookfield Corners, Waukesha County, on Saturday, June 15.

Exhibits of archaeological specimens were made by C. E. Brown and C. G. Schoewe.

November 17, 1929. This meeting was held at the log cabin of Mr. Robert J. Kieckhefer at Pishtaka Farm, at Brookfield. There were forty members and several guests in attendance. Mr. John G. Gregory, the speaker of the occasion, gave a talk on the "Early Indian Inhabitants of Milwaukee County" describing the chiefs and redmen which the earliest settlers found occupying the land. His account was very interesting and contained much information not recorded in county histories. Mr. Vetal Winn made a preliminary report on the condition of some Indian mounds located in Milwaukee and at West Allis. Mr. Arthur P. Kannenberg reported that he had undertaken a study of the Indian earthenware vessels of the state, the Oshkosh Museum agreeing to pay the expenses. The report to be published by the Society.

President Smith informed the members that the meeting was practically a house warming of Mr. Kieckhefer's fine log cabin retreat.

Mr. Kieckhefer, being called upon spoke briefly expressing his pleasure at the number and enthusiasm of those in attendance. At the meeting of the Executive Board, held before the opening of the regular meeting, Mr. Kieckhefer was unanimously elected a member of the Board.

Mr. T. M. N. Lewis and Mr. Milton K. Hulburt were elected members of the standing committee on Survey, Research and Record in recognition of their recent activities in survey and exploration work.

Exhibits of specimens were made by Mr. Paul Joers and Mr. Rudolph Boettger.

December 23, 1929. Meeting held in the trustee room of the Milwaukee Museum. There were thirty members present. President Smith occupied the chair. Mr. Ira Edwards gave an illustrated lecture on "The Making of Maps," being an account of the methods employed by the U. S. engineers in making coast surveys.

At the meeting of the Executive Board at which directors Smith, West, Brown, Kieckhefer, McKern and Koerner were present, Mr. W. H. Pugh of Racine was elected a life member and Mr. Arthur C. Soergel of Elgin, Illinois, an annual member of the Society. Mr. Smith announced the names of various members who were to be invited to engage in the study of various classes of Indian implements occurring in the state. Secretary Brown proposed that the site of the next early Milwaukee Indian village to be marked be that of the so-called Lime Ridge village located in an early day at 21st and Clybourne Streets, Milwaukee. This matter was referred to the special committee of which Messrs. West, Gregory and Brown are the members.

January 20, 1930. Meeting held at the Milwaukee Museum. President Smith opened the meeting. There were sixty-three members and visitors present. Mr. George A. West gave an illustrated lecture on "The Ancient Cave Dwellings of France", describing particularly those near Toulouse visited by him during the early part of the past year. Mr. Joseph Ringisen exhibited an exceptionally fine collection of nine stone adzes and adze-celts.

At the Executive Board meeting held at the City Club Mr. McKern, chairman of the special committee consisting of the Messrs. Gilman, Dr. Kastner, Drs. Notz and Thorne, appointed to consider plans for the entertainment of the Central Section, A. A. A., presented a tentative report of his committee. Mr. George Flaskerd of Minneapolis was elected an annual member of the Society. Dr. Barrett stated that the Milwaukee Museum welcomed the coöperation of the Society in entertaining the Central Section.

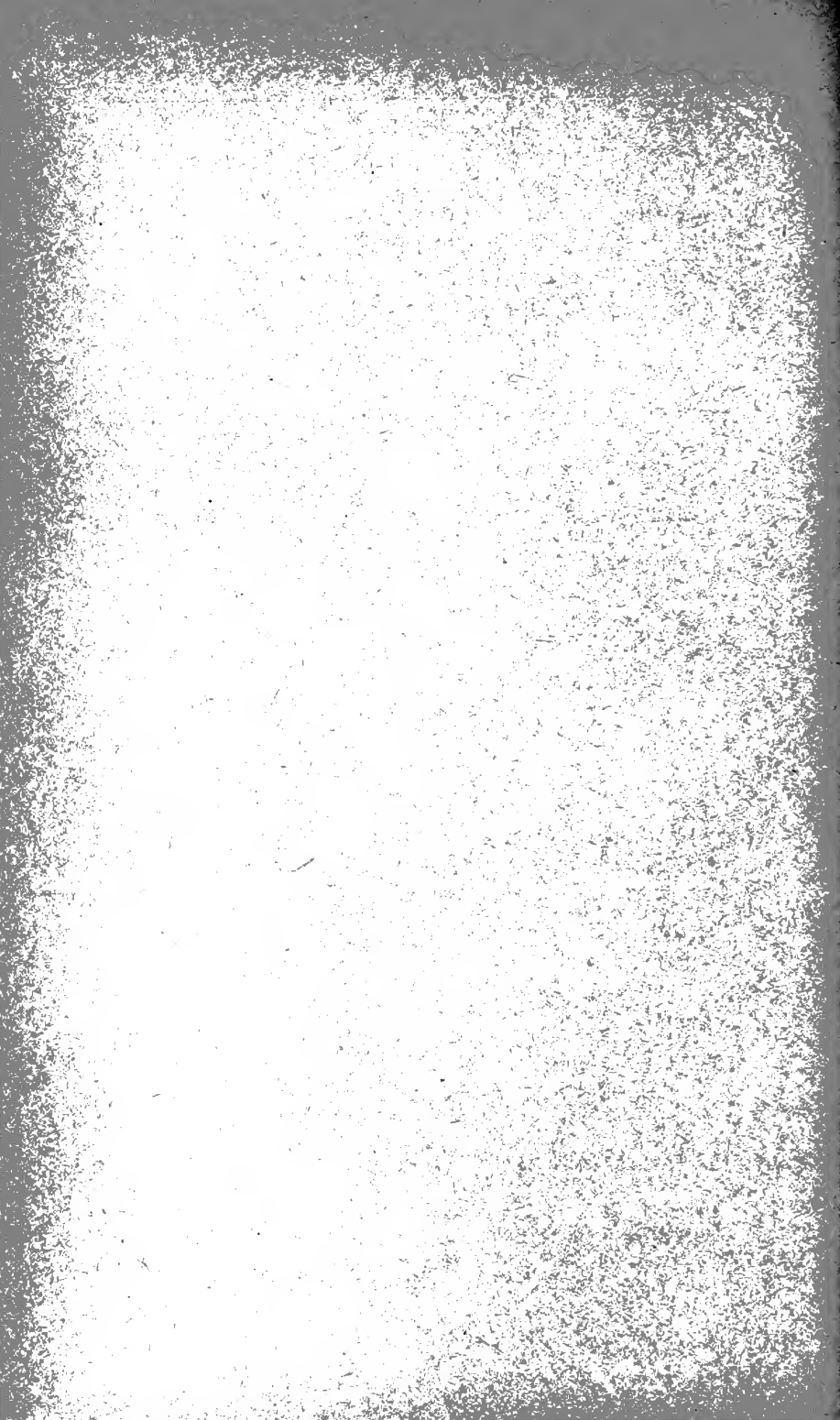
The Michigan State Archeological Society held its winter meeting at the University Museum at Ann Arbor, on Friday, January 24. Papers of interest to the members were presented by Dr. W. B. Hinsdale, Edward J. Stevens, Harry L. Spooner, Melvin R. Gilmore, Fred Dustin and Dana P. Smith. A visit was made to the exhibition rooms of the museum.

#### Other Items

Mr. Alonzo Pond has returned to Algiers to continue his hunt for remains of Aurignacian man in that country. Mr. George R. Fox has been conducting archeological researches in the Bahamas and elsewhere. Mr. Theodore T. Brown has succeeded the late Mr. Arthur C. Neville as superintendent of the Neville Public Museum at Green Bay. This is the seventy-fifth anniversary year of the State Historical Museum of Wisconsin. Dr. Louise P. Kellogg has been selected

to edit a new edition of "Wau-Bun". Col. Fred T. Best is the chairman of the committee appointed to prepare for its publication.

An announcement has been received of the publication of our late friend Mr. Harry Ellsworth Cole's book, "Stagecoach and Tavern Tales of the Old Northwest." The Arthur H. Clark Company, Cleveland, are its publishers. "The Old Northwest was settled in the days before railroads, when every pioneer provided his own transportation and every cabin offered hospitality. Soon stagecoaches began to ply over the first primitive roads and certain frontiersmen adopted the profession of innkeepers—others of bandits. In these early taverns and along these first roads occurred many amusing and tragic incidents, rich with the flavor of pioneer life and racy with the humor of the quaint personalities of the time."





# The Wisconsin Archeologist

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Vol. 9

April, 1930  
NEW SERIES

No. 3

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BARBED STONE AXES  
KOHLER MUSEUM  
CENTRAL SECTION MEETING  
COPPER KNIVES



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

# **Wisconsin Archeological Society**

## **Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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PUBLICITY—J. G. Gregory, A. O. Barton, E. R. McIntyre, R. K. Coe.

BIOGRAPHY—H. H. Smith, G. M. Thorne, C. E. Brown.

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

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## MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$ .50

Institutional Members, \$1.50

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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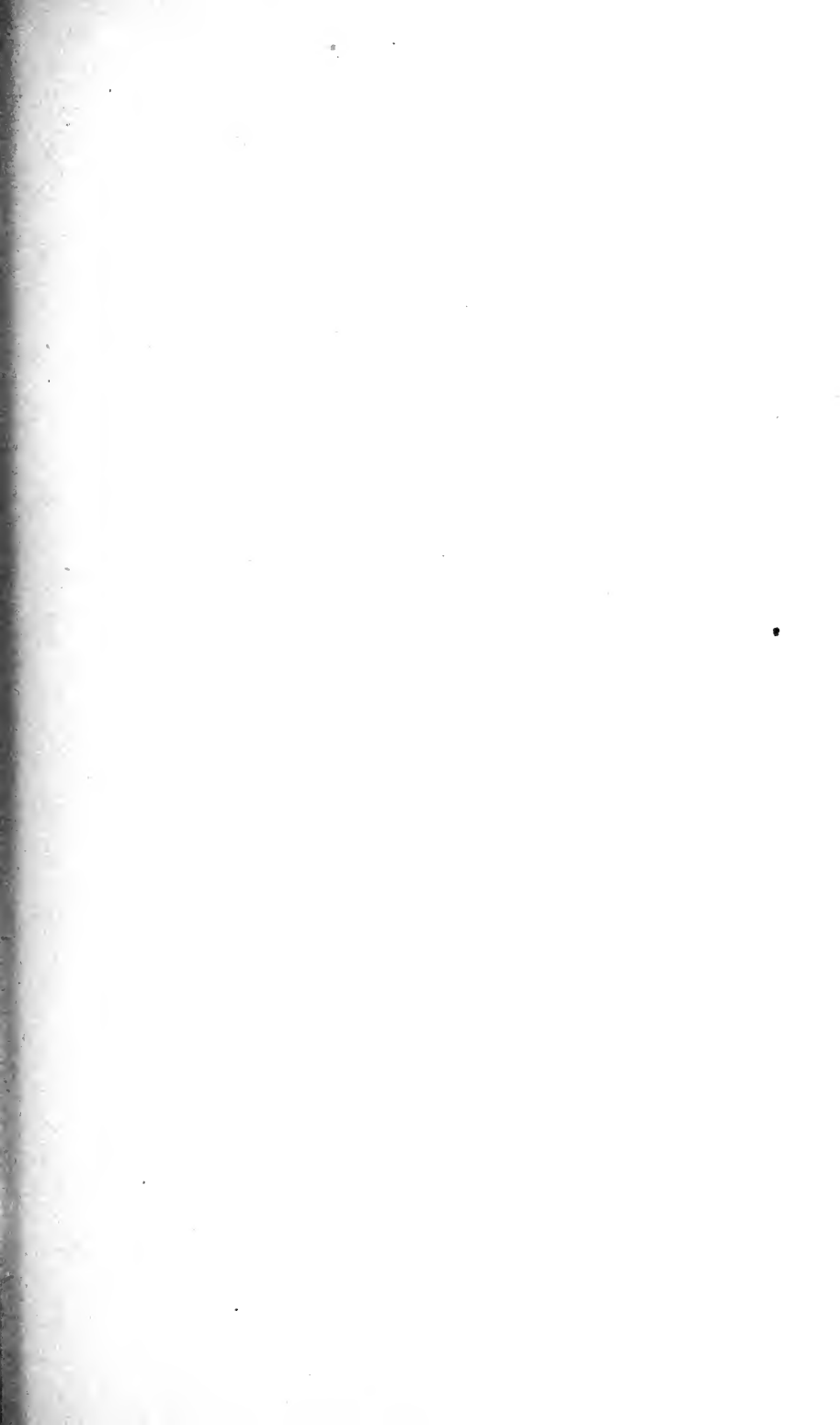
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RUDOLPH KUEHNE  
Wisconsin Archeologist

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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No. 3

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## BARBED STONE AXES

Charles E. Brown

The stone axes designated by Michigan archeologists as "barbed" axes are distinguished from other forms of grooved and notched axes in having a poll or head which is conical or "peaked" in outline and in having more or less prominent projections or "barbs" both above and below the handle groove. A few specimens have a poll with a flattened or rounded top (not "peaked") Some of these singular axes are merely deeply notched at the edges (they possess no groove) while others are encircled by a well fashioned groove. This groove varies in depth in different specimens, being rather shallow in some and of fair depth in others.

Some of these axes have a quite prominent ridge or elevation above and below the handle groove. These ridges separate the poll and the axe blade from the groove and undoubtedly helped greatly to hold the wooden handle more firmly in place. The blades of these axes are generally broad, narrowing gradually toward the curved or nearly straight cutting edge. Some possess blades which narrow rapidly toward the bit and are thus somewhat triangular in outline. The surfaces of the blades of some are flattened but most are elliptical in section. The character of the blades of some of these axes indicates that they were occasionally or frequently re-sharpened by grinding.

The largest and best collection of these barbed axes is that of Mr. M. E. Hathaway of St. Johns, Michigan. But few of the specimens in his collection are polished. They are as a rule well made and smoothly finished. The smallest specimen in his collection measures  $5\frac{3}{8}$  inches in length and  $3\frac{3}{8}$  inches in width at its widest part, below the handle groove. It is a pretty well polished axe. Its weight is

17 ounces. The largest axe, a rather remarkable specimen, is 10 inches long, and is 5 inches in width at its widest part, just below the handle groove. Its weight is three pounds and ten ounces. Some of Mr. Hathaway's most interesting and best specimens the writer has had the pleasure of examining, this through his kindness.

These barbed axes are made from a variety of rocks, among them being granite, syenite, porphyry, greenstone and diorite. Quite a few of the specimens show marks of use on their polls and blades.

### NUMBERS AND DISTRIBUTION

The number of these axes which have been found in Michigan is small when compared to the very large number of stone axes which have been recovered in that state. Mr. Hathaway has sixty specimens in his own collection at St. Johns. His collection was begun in the year 1890. Seventy other specimens are in the hands of other collectors, original finders and museums in southern Michigan. It is estimated that not less than 160 specimens have been found to date. All, so far as known, have been recovered from fields and Indian camp or village sites. None are reported from mounds or graves. No cache or hoard of two or more has been reported. Mr. Hathaway has never seen a typical barbed axe from any other state.

The specimens in the Hathaway collection were collected from the following closely grouped southern Michigan counties:

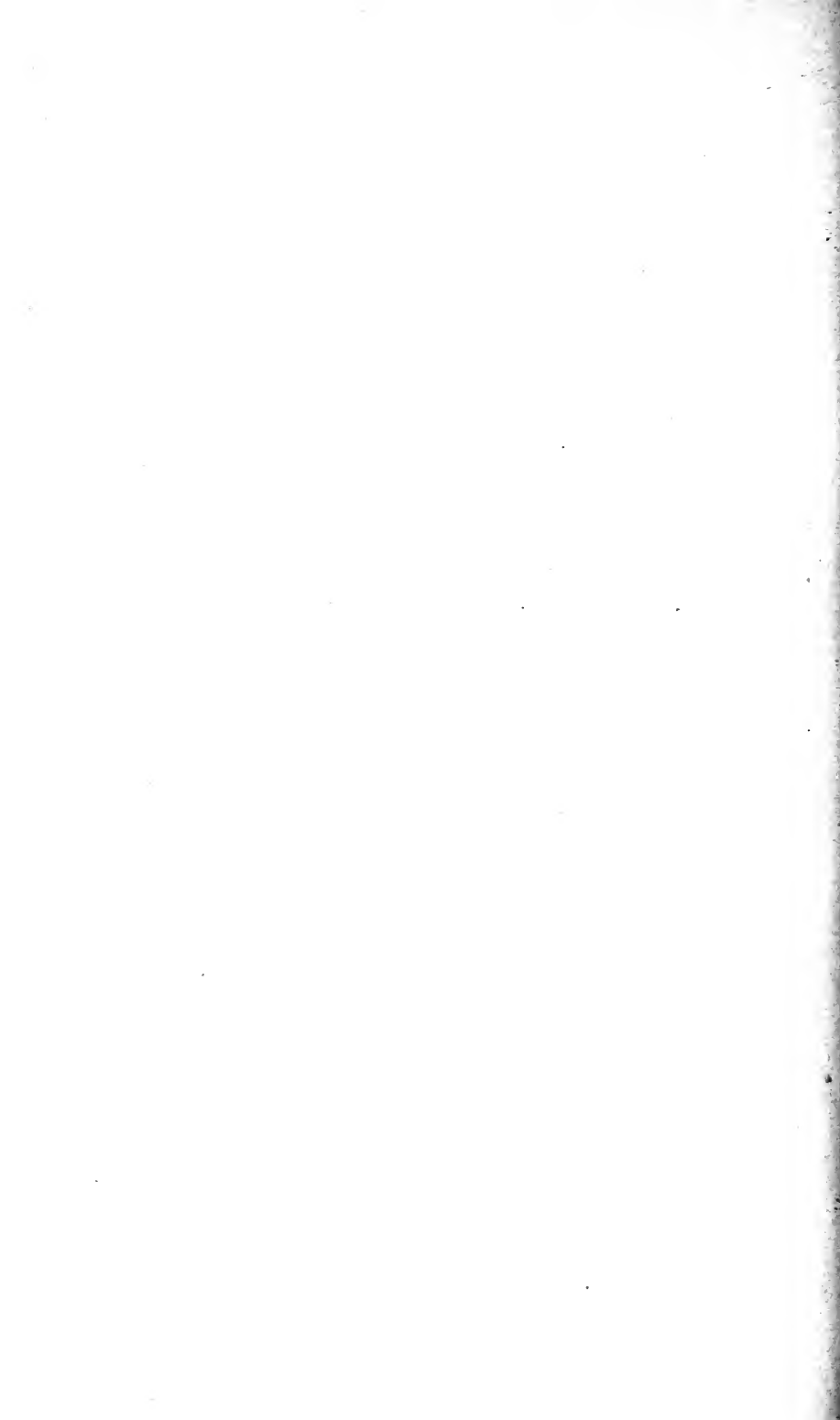
|                  |    |                |   |                 |   |
|------------------|----|----------------|---|-----------------|---|
| Clinton -----    | 27 | Montcalm ----- | 1 | Isabella -----  | 1 |
| Ionia -----      | 11 | Saginaw -----  | 1 | Mecosta -----   | 1 |
| Ingham -----     | 5  | Eaton -----    | 1 | Wexford -----   | 1 |
| Shiawassee ----- | 5  | Kent -----     | 1 | Missaukee ----- | 1 |
| Gratiot -----    | 3  |                |   |                 |   |

The area of distribution of barbed axes in southern Michigan is rather restricted. It may be roughly outlined as extending from near Bay City at the head of Saginaw Bay of Lake Huron westward through Midland County and into Mecosta County. From Mecosta County, its now known western limit passes southward into Montcalm, Ionia and Eaton counties. From Eaton County it continues eastward into Ingham County, and then northward through





MICHIGAN BARBED STONE AXES  
Hathaway Collection  
Plate 1



Shiawassee County to Saginaw County. Clinton County lies near the center of the area of distribution described. Mr. Hathaway believes that the manufacture of these axes centered in Clinton County. Most of his own specimens were collected within a triangle located between St. Johns, Pompeii and Pewano in Clinton County. Eaton and Ingham counties adjoin Clinton County on the south. Isabella County was the known farthest northern range of the barbed axe, but two specimens have since been obtained by Mr. Hathaway from Wexford and Missaukee counties, two tiers of counties farther north.

Mr. C. V. Fuller of Grand Ledge, Michigan, a well known archeologist, who has been an ardent collector of Indian implements for sixty years, says of these barbed axes in a letter bearing the date of March 2, 1930: "Of the stone axes classed under the head of barbed forms I have collected some fifteen specimens all told during the past fifty years and I have seen eight or ten more in the hands of finders. My opinion is that they were put to the same uses that the less elaborate forms were. My specimens were all found in the counties of Eaton, Clinton, Ionia and Gratiot. These counties adjoin each other. More of them have been found in Clinton County than in any other, so far as I have been able to learn. Most of Mr. Hathaway's specimens were found there. They are not found to any extent south of the Eaton County line. I have seen two specimens that were said to have come from Ohio. There is a collection numbering two hundred axes in the Pioneer Museum at Lansing, Michigan, which were collected in the southern part of the state and there is not one barbed axe in the lot. Yes, they show use and many appear to have been re-sharpened. I have seen several that have been broken and then used for some other purpose such as for a maul or hammer stone. I have seen others with one or more of the barbs broken off and also with the poll broken. The fractures showed age, as if broken in use.

"There are several collections in this part of the state in which there are one or more barbed axes, all local finds. Several of these barbed axes that have come under my observation have knobs or barbs on the flat side of the blade."

My own attention was first drawn to these interesting

axes about thirty years ago when engaged in a study of some of the heavier stone cutting implements of the Middle West states. The first specimens of which I then obtained a knowledge were in the collections of Rev. James Savage of Detroit and of Mr. Fuller. Prof. Warren K. Moorehead has figured three of the Savage specimens in his book "Pre-historic Implements", published in 1900. Two of these he also illustrates in his other book, "The Stone Age in North America", (Vol. 1, Fig. 275). These, he states, were found in Washtenaw and Jackson counties in southeastern Michigan. These counties lie south of Ingham County elsewhere mentioned. A double-bitted barbed axe, also in the Savage collection, comes from Lenawee County, south of these counties, in the southeastern corner of the state. (See Moorehead's Fig. 274.)

Some stone axes, single specimens, which approach the barbed axes in form but lack the prominent barbs of these implements have been found in Maine and Connecticut and in the Miami Valley in Ohio. (See Moorehead's Figs. 249, 254, 258, 260, and 265) A few Wisconsin axes also bear a general resemblance to them.

It appears to be evident that the barbed axe is a local type largely confined in its distribution to a more or less limited area in southern Michigan where it was probably developed, manufactured and used by some prehistoric Indian people. We may hazard a belief that it is an Algonkin artifact. It is not a Hopewell or Cahokia culture type.

To a recent issue of "Indian Notes", the quarterly publication of the Museum of the American Indian, New York City, Marshall H. Saville has contributed a paper in which he illustrates and describes some of the very interesting stone ceremonial axes of western Mexico.<sup>1</sup> He describes four distinct types of these figurine axes from as many distinct areas, each probably the product of a different prehistoric axe cult. Briefly described these are: 1. axes "with animal heads and more or less sickle-shape cutting edges", 2. axes with animal heads and ordinary curved cutting edges, 3. axes carved in human form, and 4. axes with a face worked on one side of the poll. He also mentions several other distinct Mexican ceremonial axe forms occur-

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<sup>1</sup> V. 5, No. 3, July 1928.

ring in other culture areas. He concludes his paper with the following information: "The writer knows of but two other culture areas in ancient America where unusual axe forms are encountered: these are the Antilles and Ecuador. In the Antilles especially are many one-utilitarian axes in a bewildering variety of bizarre shapes. In Ecuador, however, the axes seem to have been utilitarian, while many of the Antillean examples must have been purely ceremonial, revealing a cult of the axe in the West Indies. Into this category the monolithic axes treated in a former paper would be included."

There is reason to believe that the rather abundant fluted stone axes of southern Wisconsin, the long-bladed adze-form axes not so common in the same general region, the ridged-blade axes, also apparently a Wisconsin product; the pitted blade axes of northern Illinois; the Keokuk type axes of eastern Iowa, the Missouri axes having a groove extending over the poll to the handle groove; the barbed axes of southern Michigan, and the twist-grooved long-bladed actinolite axes of the Pueblo region are all the products of prehistoric Indian axe cults. They are utilitarian implements but probably also ceremonial in character. The knobbed gouges of Ontario and the bevelled-edge celts of New York may be the distinctive implements of other prehistoric cutting implement cults.

## THE KOHLER MUSEUM

The Rudolph Kuehne collection one of Wisconsin's richest and most valuable private archeological collections has been acquired by the Kohler family of Kohler, Wisconsin. It will form the nucleus of a future public museum at Kohler.

The donors, Governor and Mrs. Walter J. Kohler, Herbert V. Kohler and the Misses Evangeline Kohler, Marie C. Kohler and Lillie B. Kohler, purchased the collection from Mrs. Emma Kuehne, widow of Rudolph Kuehne, the well-known pioneer jeweler-archeologist of Sheboygan. Included with the purchase is a natural history collection

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About 70 of the Keokuk type axes have been found to date in Iowa.—C. R. Keyes.

of largely local material and Mr. Kuehne's library of scientific magazines and books.

"Only the indefatigable industry and painstaking care of a watchmaker such as Rudolph Kuehne, could have made possible so fine a collection of Indian artifacts," Governor Kohler asserted, in commenting upon the first step in the direction of the establishment of a future public museum at Kohler. The Governor had been a life long friend of Mr. Kuehne and because of his great personal interest in him encouraged the generous deed which preserves this valuable collection of archeological and other specimens to the people of Kohler and of Sheboygan County, within whose boundaries it was almost entirely collected by its former owner.

Mr. Kuehne, a member of the Wisconsin Archeological Society who died on March 11, 1929, began assembling his collection some thirty-five years ago, when conditions for gathering specimens were favorable. He lived near several former Indian village sites on the banks of the Black River south of Sheboygan and he was among the first to appreciate fully the opportunity there offered to engage in a study of the life and customs of their former inhabitants.

For many years he continued to visit regularly these aboriginal sites and to place in his collection his numerous finds of stone, copper and pottery and other artifacts. He also visited frequently a similar site at old New Amsterdam, on the Lake Michigan shore near Cedar Grove. He also made collections in other parts of Sheboygan County.

Besides a fine group of pottery vessels, some of them found entire and others restored with great care, the Kuehne collection contains a very considerable number of native copper implements and ornaments, and some fine fluted stone axes. One of the latter is without a doubt the finest specimen of its class as yet found in the state. It was collected near Cedar Grove.

Among the copper implements in the collection are 555 fishhooks, 88 spearpoints, 24 knives, 17 perforators, awls, needles, arrowpoints, axes, chisels, harpoon points, a spud, scraper, crescents, bangles, earrings, beads and other specimens. The collection of flint implements is very large and includes specimens of a wide range of form and purpose.

Stone ceremonials and ornaments include 23 gorgets, 10 pendants, 6 banner stones, 2 boat stones, a tube and a cone. There are a number of pottery and stone pipes. There are bone awls, needles, harpoons, flakers and other bone implements.

In the collection of earthenware are 5 large vessels, 8 medium size pots, 4 small pots, a miniature vessel, and 12 other vessels were in progress of restoration at the time of their owners death. The restoration of others remains to be undertaken. There are besides no less than a thousand potsherds nearly all showing ornamentation.

Milwaukee archeologists and collectors especially frequently visited Mr. Kuehne at his Black River summer home during his life time and always spent considerable time with him on the sites which were his constant study. All are pleased that his valuable collection has been preserved in his home county through the interest and generosity of his friends, the members of the Kohler family. When installed in a proper museum building at Kohler it will become a monument to his interest in Wisconsin archeological history and of permanent educational benefit to the general public.

## THE LARGEST COPPER KNIVES

The largest socketted native copper knife which has come to our attention is in the collection of Mr. M. E. Hathaway of St. Johns, Michigan. This fine copper artifact we have recently had the opportunity of examining. It was found, its owner states, by John Sheridan in Section 20, Fulton Township, Gratiot County, in central Michigan.

The long slightly curved blade of this knife is 11 inches in length and its socketted tang or handle  $2\frac{7}{8}$  inches in length, making its total length  $13\frac{7}{8}$  inches. The handle is about one inch in width at its end and  $1\frac{1}{8}$  inches in width where it unites with the blade of the knife. The widest part of the blade (one-half inch beyond the socket) is about  $1\frac{5}{8}$  inches. From this point it curves gradually to the point or tip of the blade. At a distance of 5 inches beyond the socket the width of the blade is one inch. The back of the blade of this knife has a slight median ridge,

an uncommon feature in copper knives. The color of this fine knife is a very dark green, almost black.

We may wonder to what particular use so large a knife may have been put by its aboriginal owner. Possessing a socket it may once have had a wooden handle or have been fastened to the end of a wooden shaft. If employed as a weapon it was a formidable one. The socket does not have a rivet hole.

A large socketted copper knife in the H. P. Hamilton collection in the State Historical Museum at Madison has a length of  $11\frac{3}{4}$  inches. It was found in Section 24, Pitts-ville Township, Brown County, Wisconsin. One of the largest known copper knives of any type was in the collection of the late James G. Picketts, a former member of the Wisconsin Archeological Society. This specimen measured  $17\frac{1}{2}$  inches in length. It is probably with the other copper specimens of this collection in the Oshkosh Public Museum. It had a pointed tang. It weighed 11 ounces.\* Mr. Geo. A. West has described a curved-back copper knife found in Fond du Lac County which is  $12\frac{1}{4}$  inches long.\*\* This is in the Milwaukee Museum. There are in the Logan Museum at Beloit and in the State Historical Museum six other large straight and curved copper knives which have lengths of 9,  $9\frac{1}{4}$ ,  $9\frac{1}{2}$ ,  $10\text{-}13\frac{1}{16}$ ,  $10\frac{7}{8}$  and 12 inches. The latter, a straight knife, is in the Hamilton collection previously mentioned and was found on Plum Island, Door County. A curved knife in the same collection, described as possibly a sword or sickle, measures about 20 inches from tip to tip. This remarkable specimen was found at Oconto, Oconto County.

We may look for the future finding of other large copper knives in both Wisconsin and Michigan.

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\* The Native Copper Implements of Wisconsin, Wis. Archeologist, v. 3, no. 2.

\*\* Copper Its Mining and Use. Bull. Milw. Pub. Mus., v. 10, no. 1.



## DR. LOUISE PHELPS KELLOGG

At the recent Chattanooga, Tennessee, meeting of the Mississippi Valley Historical Association; Dr. Louise Phelps Kellogg, for years a leading member of the staff of the State Historical Society of Wisconsin, received the great honor of being elected president of the Association, she being also the first woman to hold that office. Dr. Kellogg is recognized from coast to coast as one of the leading investigators and writers in the field of American history. She is the leading authority in her own special field, early Wisconsin and Old Northwest history. She is the author of many papers, reports and books on these interesting subjects. She has spoken on them also before various organizations in nearly every part of Wisconsin and in adjoining and other states. In recognition of her scholarship she was in 1927 honored by the University of Wisconsin, her Alma Mater, with the degree of Doctor of Letters.

Dr. Kellogg has been for years an honored and greatly beloved member of the Wisconsin Archeological Society. She has long been a member of some of its active committees, she has spoken or read papers at many of its meetings held at Milwaukee, Madison and in other cities, has participated in all of its field meetings and pilgrimages, and taken an active and helpful interest in all of its surveys and explorations, its Indian landmarks preservation work, its museum's organization movement, and in all of the other important and valuable work which this state society has in the past thirty years of its existence undertaken, organized and carried on for the educational benefit of the public, and which from Wisconsin have long been adopted and are now being carried on in other states.

Always willing and never too busy to lend a helping hand and wise counsel we are proud of Louise Phelps Kellogg and of what she has done for her native state. We are greatly pleased that through this great honor now conferred upon her another well-won eagle feather has been added to the chaplet of one of Wisconsin's most distinguished daughters.

## THE BEAR DANCE OF THE OURAY UTES

Albert B. Reagan, Ph. D.

The notched oak drumsticks are again being rasped over the tub-drums in northern Ute land, in the Uintah Basin, about Ouray, Utah. It is the beginning preparation for the annual "Bear Dance," so-called because the Utes assert that the bear originated the ceremony in the long ago. It is always held at about the time the bear comes from his hibernation in the early spring. It was formerly in the nature of a courting dance, but sociability and general good feeling appear now to be its chief characteristics, a ceremony in which the whites join with the Utes and all have an enjoyable time.

Preparatory to the dance a level plot of ground of about 100 yards in diameter is inclosed by a six-foot "fence" of upright poles, between which brush is woven horizontally. The door is on the east side of the inclosure, while a large drawing of a bear dancing with a woman is hoisted on the west side. Under this within the inclosure the musicians are seated on zinc sheets over a hollow space (cave) in the ground which is said to be connected with the bear and through which the rasping of the drumsticks over the tub-edge (or some other upturned hollow thing that will act as a reinforcer of sound) they produce a sound "like the sound made by the bear." And the song sung is a glissando on downward progressions which also gives an imitation sound like that made by the bear.

When dancing the men gather on the north side of the inclosure, within it, and squat on the ground against the fence, and the women squat on the south side likewise. Then when all is ready the musicians begin to sing, and as soon as the song "has warmed up to a sufficient pitch," they begin to keep time by rubbing an angled stick side-wise over the notched sticks which are placed slantingly on the tub-bottoms (or the notched sticks are themselves rubbed over the edge of the tub-bottoms), producing a reinforced, ear-grating sound.

After the first song on the final day, after a week of preparation and rehearsing, a speech—prayer service is

conducted by the chief of ceremonies. The women then choose their male partners by approaching and waving their hands toward the one of their respective choice, all being toggled out in their best finery. Preparatory to the dance the men and women then line up facing each other in column abreast, the women in one column, the men in the other. The members of each column hold hands, one column taking two or more steps forward and the other a like number backward to the time of the music, then *vice versa*.

Thus is the dance kept up till the final "set," which is to be an endurance test. In this last act some of the participants hideously paint themselves, even as though blood was dripping from their jaws, suggesting the ferocity of the bear. At this juncture a man and a woman chase each other around the inclosure, and if anyone laughs at them it is the custom to appear ferocious, running toward the person and pretending to scratch him. The dancing here also changes. The line of women approaching the line of men attempts to push it backwards, often pushing it across the inclosure against the fence. At other times it is changed to a single couple's partner dance in which the partners hold each other in a position similar to that taken in our waltzes; the step, however, is the same as before. If a dancer falls from exhaustion or because of a mistep in this act, a medicine man or the leader of the dances "restores the dancer." Taking one of the notched drumsticks as a wand, he collects the evil spirits on it, then sends them to the four winds: he lays the stick first on the fallen dancer's feet, then across his hips, then across his breast, then across his back, and lastly on his head. He then holds the notched stick toward the sky and passes the rubbing stick (or rubbing bone) upward over it as though he were brushing something from the drumstick into the air, some two or more of these treatments being necessary before the man rises and resumes dancing. Unless this is done it is believed some misfortune will befall him. Thus is the dance kept up till all the participants quit of exhaustion.

After the close of the endurance fête, the chief of ceremonies takes a cup and as he dances he holds it heavenward as a thank offering to his gods and as a prayer for rain.

A feast is then set out to all, after which they return to their respective homes, believing that the gods will bless them and give them a bountiful crop.

### A FLUTED HANDLED CELT

In studying the fluted stone implements of Wisconsin we have seen in addition to the quite numerous grooved stone axes which are thus ornamented, several fluted celts and one or two fluted stone hammers. Recently Dr. A. Gerend has brought to our attention the first handled fluted stone celt or spud which we have ever seen. This unique implement was found on the bank of the Little Eau Pleine River, in Wood County, Wisconsin. This implement is  $6\frac{3}{4}$  inches in length. Its rectangular blade is 3 inches in length and about  $2\frac{3}{8}$  inches wide. The handle or lower part of the implement is about  $3\frac{3}{4}$  inches long. It is narrower than the blade being about 2 inches wide where it connects with the former and  $1\frac{1}{4}$  inches wide at its rounded end. A shallow groove separates the blade from the handle.

On the blade of this implement there are three narrow vertical flutes which extend from the rounded cutting edge of the implement to a transverse flute or shallow groove extending across the base of the blade above the handle groove. Of the narrow vertical flutes or grooves one extends down the middle of the blade and one is located on each side of it, at the edge of the blade. All of these flutes are quite distinct though very shallow.

The implement is made of a hard close-grained rock. Its upper surface is convex and its lower surface flat. The presence of a groove indicates that it may have been bound to a wooden handle and used as an adze, in which case it might well be classified as an adze-celt.

A few handled celts of this general form have been found in Wisconsin none of these, however, are ornamented with flutes.

## FRAUDULENT INDIAN IMPLEMENTS

Last year the Wisconsin Archeological Society appointed a special committee to assist local archeologists and collectors in detecting fake Indian implements and in apprehending and punishing such offenders. The committee consists of the members Joseph Ringeisen, Jr., Edward F. Richter and George A. West, all being residents of Milwaukee. All are old members of the state society and experienced in the judging of fraudulent implements. Collectors and others desiring the assistance of the committee are requested to communicate with Mr. Ringeisen at his office at 606 Third Street, Milwaukee. Return postage or express must be paid by persons submitting specimens. On their receipt the chairman will call a meeting of his committee and will thereafter render without charge a report to the collector or person submitting the specimen or specimens. A copy of this report will also be placed in the Society's files for future reference.

For many years the state society has been very active in exposing makers of and dealers in spurious Indian implements. Through its efforts members of the notorious Robinette family of Flag Pond and other places in Virginia, the once very troublesome makers of inscribed tablets and fake coppers and ceremonial objects in Michigan, the recent Kentucky manufactory of pipes, discoidals, and ceremonials and ornaments, a collector-dealer at Clarksville, Tennessee and other makers and venders of fake artifacts were exposed. In 1911 the Society caused to be enacted a state law making the manufacture and sale of fraudulent antiquities of any class within the state an offense punishable by fine or imprisonment or both. This law other states have copied.

The committee has the power to cause the arrest and punishment of offenders. Its appointment and the services which it will render to persons interested in archeological studies should be appreciated by the public.

## THE CENTRAL SECTION MEETING

The Central Section, American Anthropological Society, held its ninth annual meeting at the Milwaukee Public Museum on Friday and Saturday, May 9 and 10, 1930, the Wisconsin Archeological Society and Museum acting as hosts to the enthusiastic gathering of archeologists, ethnologists and historians from the states of Ohio, Indiana, Michigan, Illinois, Iowa, Minnesota, Missouri, Kentucky, Alabama and Wisconsin, who attended the sessions.

At the opening session, held in the trustee room of the Museum, Mr. Geo. A. West, president of the board of trustees, and a past president of the Wisconsin society, delivered an address of welcome to which Dr. Ralph Linton, president of the Section, responded. The program of this session included interesting papers by Dr. Wm. M. McGovern of Northwestern University, Willoughby M. Babcock of the Minnesota Historical Museum, and by Dr. Berthold Laufer and Henry Field of the Field Museum of Natural History. At the afternoon session papers were read by Dr. A. T. Olmstead, of the University of Illinois, Dr. M. J. Herskovitz of Northwestern University, and Mr. Henry Field. Dr. Fay-Cooper Cole, chairman of the Division of Anthropology and Psychology, National Research Council, Washington, D. C., presented a tentative plan for the anthropological section of the Chicago World's Fair.

On the evening of that day the visiting anthropologists and their ladies were entertained by the Milwaukee members of the Wisconsin Archeological Society at a dinner held in the banquet room at the Hotel Schroeder, about one hundred persons being present. President Charles G. Schoewe presided. After the dinner Dr. S. A. Barrett, chairman of the Society's committee, in an interesting address, in which he fully explained its history, awarded the Lapham Medal to the Messrs. Dr. Ralph Linton, Dr. Carl E. Guthe, Mr. Joseph Ringeisen, Jr., and Mr. W. C. Kern. All of the recipients were pleasantly and agreeably surprised at receiving this honor. Dr. Guthe, chairman of the Committee on State Archaeological Surveys, delivered an address, in which he presented a very interesting report of the

progress now being made in archeological survey and exploration in many states. It was shown that seventy-five organizations and institutions located in thirty-four states were now engaged in archeological investigations. This report was received with great enthusiasm.

At the session held at the Milwaukee Museum on Saturday morning papers were presented by Charles R. Keyes of Iowa, F. M. Setzler of Indiana, W. S. Webb of Kentucky University, Peter Brannon of Alabama, and A. K. Fisher and W. C. McKern of Milwaukee. Discussions followed each paper. Dr. Cole and Mr. Shetrone pointed out the desirability of revising the names being given by local archeologists to the Indian culture areas now being created in different states. Some of these were being named after obscure and little known regions. Some would probably prove to be sub-cultures.

At the business meeting Mr. H. C. Shetrone, director of the Ohio State Museum, was elected president of the Central Section, and George R. Fox, director of the Chamberlain Memorial Museum, Three Oaks, Michigan, was re-elected its secretary-treasurer. The Secretary's report showed the Section to have about 107 members.

In the afternoon the Wisconsin Archeological Society took the visiting and local members on a pilgrimage to the Dewey Mound Group at Vernon Center, Waukesha County. President Schoewe was in personal charge of this interesting feature of the two day's meeting. In the evening a meeting of the Committee on State Archeological Surveys of the National Research Council was held at the Hotel Schroeder in which the Messrs. Dr. Carl E. Guthe, Dr. Fay-Cooper Cole, H. C. Shetrone, C. R. Keyes, C. E. Brown and Peter Brannon, participated.

Among the Milwaukee and state members of the Wisconsin Archeological Society who attended the sessions and dinner were Charles G. Schoewe, Geo. A. West, Dr. A. L. Kastner, Dr. S. A. Barrett, W. W. Gilman, Dr. P. B. Jenkins, Dr. E. J. W. Notz, L. R. Whitney, Dr. W. H. Brown, C. R. Keyes, W. M. Babcock, Mrs. Theo. Koerner, Mrs. Vina S. Adams, G. R. Fox, T. T. Brown, R. N. Buckstaff, Jos. Ringeisen, Jr., Chas. E. Brown, L. R. Cooper, Dr. R. Linton, W. C. McKern, Dr. G. L. Collie, N. E. Carter, Edw.

Richter, A. K. Fisher, T. L. Miller, H. H. Smith, J. G. Gregory, and E. G. Wolff.

The Central Section was organized at a meeting held in Milwaukee in 1911. It has since then held meetings in the states of Ohio, Illinois, Michigan and Wisconsin. Mr. Babcock delivered an invitation to the Section to hold its 1931 session at St. Paul. Mr. Fox invited the members to meet at Three Oaks, Michigan.

### STATE ARCHEOLOGICAL SURVEY, 1929

The State Survey was organized in 1911 the Wisconsin Archeological Society receiving an appropriation from the state legislature for that purpose in that year. For two years thereafter it was thus possible to organize and to pay the expenses of field parties which were dispatched to various parts of the state to conduct field work. Since that time it has been necessary to further the work of the survey almost entirely through the interest and activity of members who have also very generously defrayed their own expenses.

The field work undertaken by the Society begins in April or May and continues until about the middle of November. Those who contribute to this department of the Society's program give to this work parts of their summer vacations and such other time as they can spare from their occupations and homes during the spring, summer and autumn months. To all members and others who may desire to engage in such work for the state the Society furnishes printed or written instructions and printed blanks for the making of their reports. These reports are turned in to the secretary's office, or, if not, are called for at the end of the year. Each year a considerable number of non-members also contribute reports or information to the State records. The Society also receives some welcome assistance each year from persons engaged in the surveys of various state and University departments. The State Historical Museum places its own records at the Society's disposal. From the manuscripts of the State Historical Society valuable archeological and historical data is frequently copied.



The deaths of recent years of such active and enthusiastic field workers of the Wisconsin Archeological Society as the late Harry E. Cole, Dr. Louis Falge and P. V. Lawson, and the removal from the state of such devoted former assistants as G. R. Fox, C. E. Buell, Dr. A. Gerend, Robt. H. Becker and Geo. H. Squier, and the inactivity through advancing years of such men as H. L. Skavlem has noticeably retarded the Society's survey work. The former assistance given by Dr. G. L. Collie and Alonzo Pond has not been available because of the transfer of the major activities of the Logan Museum of Beloit College to foreign fields. The Society has found it necessary to continually recruit and train new volunteer workers.

Only a limited number of the Society's 300 active members are actively interested in, or in a position to devote even a part of their time to conducting even a small amount of field work. Other members not participating in exploration work are serving well in other departments of the Society's work such as the organization and management of Wisconsin museums (every one of the larger and many of the smaller of which are under the direction of a member of the Wisconsin Archeological Society), in the preservation and marking of the Indian landmarks of the state; in keeping the general public informed of the Society's plans and activities, in giving public lectures on our own and allied subjects, and giving courses in anthropology and Indian history at some of our educational institutions.

Of twenty-five members of the Wisconsin Archeological Society who engaged in field work in the state during the year 1929 fifteen have turned in reports of researches or information otherwise obtained to the secretary. The most active of these field workers were the Messrs. Milton F. Hulburt of Reedsburg; T. M. N. Lewis, Watertown; J. P. Schumacher and Theodore T. Brown, Green Bay, and Arthur P. Kannenberg, Oshkosh. Contributions were also made by Geo. F. Overton, Butte des Morts; Franklin Thomson, Plum City; Rev. Francis S. Dayton, New London; Carl F. Richter, Oconto; Don S. Howland, Madison; S. W. Faville, Lake Mills; C. G. Weyl, Fountain City; W. F. Yahr, Fredonia, and Dr. H. W. Kuhm, Milwaukee. The following non-members also contributed to the Society's files:

W. H. Ferber, A. G. Hall, Carl Marty, J. V. Satterlee, Felix M. Keesing, J. A. Bardon, C. A. Achtenberg, H. G. Dyer, Donald Hansen, E. T. Martner, W. H. Reiter, A. A. Griebeling, Dell Priest, Fred Zuehlsdorf, S. G. Bradt, B. M. Apger, J. M. Hamel, H. L. Hoard, W. W. Bartlett, and C. S. Weir.

These reports cover certain Indian earthworks, occupation sites and other features in the counties of Ashland, Adams, Bayfield, Barron, Buffalo, Columbia, Chippewa, Crawford, Dodge, Dane, Door, Douglas, Forest, Fond du Lac, Green, Grant, Jefferson, Kenosha, Kewaunee, Lincoln, Langlade, Milwaukee, Monroe, Oconto, Oneida, Ozaukee, Outagamie, Pierce, Sauk, Sheboygan, Shawano, Vernon, Waukesha, Waupaca, Waushara, Washington and Winnebago,—37 counties. These are records new to the state records. They include 50 Indian mounds in seven different counties and in eight different groups, one enclosure, 75 village and camp sites, eight workshop sites, one lead smelter, copper sources, one quartzite working, four cooking and other pits, three cemeteries, two single graves, one spirit stone, two stationary rock mortars, two plots of garden beds, one trading post site, four caches of flint and heavier stone implements, one pictograph, four spirit springs, one sugar bush, one rock shelter, and about 50 trails and river fords. A total of 210 new records for the state. When the reports of several other members have been received this number will be considerably augmented.

In addition to these new records a very considerable amount of information concerning archeological evidences previously reported from various counties has been received and filed.

Mr. Milton F. Hulbert has done especially noteworthy work in Sauk County. He has prepared an excellent map of the trails, village sites, mounds and other features of that county, locating a considerable number of these not previously recorded. Mr. Lewis has excavated mounds in both Jefferson and Sauk Counties. Mr. Theodore T. Brown has mapped the known trails of the state for the State Historical Museum.

## 1930 RESEARCHES

It is desirable that during the year 1930 as many of the members of the Society as possible engage in research work in Wisconsin. The necessary printed blanks and instructions for such investigations may be obtained from Secretary Charles E. Brown and all reports and information should be filed with him. The new handbook for archeological field work prepared by the Committee on State Archeological Surveys, of the National Research Council will then be ready for distribution.

The ever increasing demand of the general public, state schools, and tourist and summer resorters for information concerning the prehistory and recent Indian history of different section of our state makes it more important than ever that the surveys and explorations of the Society should continue with all possible momentum. Members who file reports or information with the institutions with which they are identified are requested to also favor the Wisconsin Archeological Society with copies of these. Thus the Society's records will always be complete and duplication of work be prevented. Promises of cooperation in survey and exploration work during the year have already been received from various members and other interested persons. Others are requested to communicate with Secretary Brown at Madison.

## GERARD FOWKE

A recent issue of the Ohio Archeological and Historical Quarterly\* contains a biography of the late widely known American archeologist, Gerard Fowke. The account there given of his ancestry and early life is very interesting. For many years Mr. Fowke was one of the leading archeological field investigators in the United States. The character of his exploration and survey work was such as to earn the praise of such former leading anthropologists as Dr. William H. Holmes, Dr. Cyrus Thomas, Dr. W. J. McGee, Dr. William C. Mills and others.

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\* V. XXXVIII, No. 2.

Mr. Fowke's interest in archeological investigation appears to have been begun in the seventies, when he was teaching school in Ohio, "his vacations being spent along the Ohio River and in the mountains of Tennessee." The list of his archeological and geological achievements in the years from 1881 to 1928 is far too long to be presented in this brief article. In those years he conducted surveys and explorations of mounds and other Indian remains in the states of Pennsylvania, Ohio, Virginia, West Virginia, Kentucky, Tennessee, Mississippi, Alabama, Louisiana, Arkansas, Missouri, Nebraska, New Mexico, Indiana, Illinois, Michigan, New York, Wisconsin, Minnesota and other states. He also conducted investigations in Japan and Siberia, British Columbia, Mexico and Guatemala and the Hawaiian Islands. In 1881, he made an examination of the country along the lower Wabash and Arkansas rivers, and along the Missouri between Kansas City and Omaha.

Among his notable undertakings were extensive researches carried on in the aboriginal flint quarries at Flint Ridge, Ohio (1884-85); in the flint deposits in Union County, Illinois (1886); a reconnaissance along the western shore of Lake Huron, the northern end of Lake Michigan and the southern shore of Lake Superior, and down the Mississippi River to St. Louis (1887).

In 1891, he was engaged in an examination of the James River Valley. He excavated a large communal burial mound in Orange County, Virginia, (1891) and located shell mounds along the Tennessee River (1893).

In 1901 he published his "Archeological History of Ohio," a book which probably did more to advance the scientific standing of American archeology than any other similar book of its time. In 1903, he explored 200 caves, also aboriginal flint and hematite quarries in Indiana, Illinois, Missouri and other states. In 1904 he was engaged in arranging the archeological exhibits of the Louisiana Purchase Exposition at St. Louis. At that time the writer made the personal acquaintance of Mr. Fowke and was so fortunate as to be able to accompany him and the well known patrons of Missouri archeology, Mr. David I. Bushnell, Sr., Judge Douglas, Pierre Choteau, Dr. P. D. Peterson, J. M. Wulfinf and Dr. Henry M. Whelpley, on several visits to the Ca-

hokia Mound region, the flint quarries at Crescent, Missouri, and other sites of archeological interest.

In 1905, Mr. Fowke excavated mounds at Montezuma and East St. Louis, Illinois. In 1906 and 1907, he examined numerous mounds along the Missouri River. In 1912, he excavated mounds in Guatemala. He examined numerous caves, village sites and burial places in the Ozark region in the years 1918 and 1919. In 1920 he was engaged in archeological researches in the Hawaiian Islands, and in 1926 in investigations in Ohio, Kentucky, Louisiana and New Mexico. His widespread investigations were conducted at different times under the auspices of the Bureau of American Ethnology, the American Museum of Natural History, Philadelphia Academy of Sciences, Ohio Archeological and Historical Society, Missouri Historical Society, and the St. Louis Branch of the Archeological Institute.

"Aside from the scientific interest attached to his work, he had little inclination for indoor life and was continually making pedestrian tours into regions remote from ordinary lines of travel, in the effort to observe and study natural features. It is a moderate estimate to say that he walked a hundred thousand miles in open country, traversing portions of nearly every state between Canada and the Gulf of Mexico from the Atlantic Ocean to the Great Plains; and he probably knew more from actual observation about the eastern half of the United States than did any one else.

"Compelled before the age of fifteen to depend entirely upon his own efforts for a living, too restless to remain long in one place, Fowke had but little opportunity to procure an education. But from boyhood he was an omnivorous reader of everything he could comprehend, possessed a tenacious memory, was a close and accurate observer, and thus managed to pick up considerable information on various subjects. However, his desultory reading and rambling life made his knowledge more satisfactory, mentally, than profitable, financially. He could never adapt himself—and never wanted to do so—to the restraints which were essential to success in any line of business or professional life. It was equally irksome to him to follow the plans or instructions of those who held erroneous ideas in regard to conditions as they existed, or to the proper meth-

ods of securing the best results. Had he been more complaisant and diplomatic, less contumacious and determined, his field of research would have been wider but his life would have been less satisfying."

A little anecdote which Mr. Fowke once told the writer about himself illustrates one of his characteristics. He was visiting a collector in his office in the lower Wisconsin River valley, who had in his cabinet a number of Indian copper implements. These the owner was convinced were "tempered," and despite all of the arguments to the contrary which his visitor advanced his belief was not to be shaken. Finally, despairing of being able to enlighten this stubborn collector, Gerard Fowke drew from his pocket the large and heavy pruning knife which he nearly always carried and with a sharp blow cut deeply into the copper implement which he held in his hand. Then amid the violent exclamations of the owner he made his escape by the office door.

The bibliography of Gerard Fowke's reports, papers and articles on archeological and geological investigations, as given in the Ohio Quarterly, is a long one, including 59 items. Various manuscripts await publication.

## HOPEWELL AND CAHOKIA CULTURES IN WISCONSIN

W. C. McKern

In a recent issue of the Wisconsin Archeologist\*, Professor W. K. Moorehead is quoted\*\* in regard to the distribution and possible place of origin of the Hopewell and Cahokia cultures. He suggests that Iowa may eventually be shown to be the center of Hopewell development, and that diffusion may have carried the culture north into Wisconsin and east as far as Ohio from this center. On the subject of the Cahokia culture, he is content with the mere statement of its southern origin, an opinion to which every student at all acquainted with the relevant data will probably subscribe.

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\* V. 9, no. 2, 106-08.

\*\* Report of St. Louis Conference on Midwestern Archeology.

I note with personal satisfaction that Professor Moorehead tentatively accepts the local interpretation of a western Wisconsin culture as Hopewellian in basic type. His full acceptance of this classification could not be expected until he has had opportunity to examine specimens and data. It is confidently anticipated that Professor Moorehead's opinion will concur with that of the other leading archeologists of the Middle West, who have examined the evidence upon which the Hopewell classification is based and who, without exception and without reservation, have conceded the accuracy of our interpretation.

Professor Moorehead's statements, as quoted in the article, refrain from any direct reference to our classification of the dominant culture at the Aztalan site as Cahokia. I am fully aware, however, that he is skeptical regarding the occurrence of Cahokia culture so far north of its previously conceived northern boundaries, and is withholding judgment until he may carefully examine the specimens and other data collected at the well-known Wisconsin site. Until that opportunity is afforded him, he could not be expected to correctly pronounce judgment. As stated regarding our Hopewell data, those Middle Western archeologists who have examined the Aztalan materials, and who are conversant with Cahokia culture data, have agreed unreservedly with the local interpretation.

The question of trade specimens does not apply to the culture assignment problems of either of these two Wisconsin cultures. It is not the occasional occurrence of a specimen of Hopewell or Cahokia type that has influenced our classifications. Iroquois specimens are not infrequently found in the province, and yet I never subscribed to the unwarranted conclusion that an ethnic group with Iroquois culture, as such, inhabited primitive Wisconsin. With regard to the local variants of Hopewell and Cahokia cultures, the data governing classification can not logically be explained on the basis of trade specimens. Both Cyrus Thomas and the Milwaukee Public Museum investigators found entire groups of mounds producing conclusive evidence that they were erected by representatives of an ethnic group with a pure culture strikingly foreign to all

other known local groups and possessing a dominant complex of specific Hopewell traits.

It is admitted that a much richer variant of the culture is found in Ohio, and it is suggested that the Ohio form represents a highly specialized local development of a simpler, widely distributed basic culture, of which the Wisconsin form is another, less specialized development. The suggestion that the center of this basic culture may have been in Iowa, offered by Professor Moorehead, is most interesting and should contribute materially to a wide support, by all interested students, of investigations contemplated and in operation in Iowa and adjacent states, including Wisconsin.

As in the case of the Hopewell sites, Aztalan was at one time inhabited by an ethnic group possessing a pure, foreign culture; but this culture was dominated by a complex of specific Cahokia traits. These not only include a highly developed type of pottery which is utterly distinct from and superior to other woodland wares, and possesses characteristics easily recognizable, but such elements as truncated pyramidal mounds, stone and pottery ear-spools, disc-shaped shell beads, type agricultural implements of chipped stone, perforated shell implements, a distinct type arrowpoint, and many of lesser importance. These do not occur sporadically but are typical of the site, as has long been recognized by local students.

The specifically interested student need not await publications covering these finds precedent to determining the accuracy or fallacy of our deductions; after all, publications are designed to serve those who can not see the actual subject matter, which should be examined first-hand where possible. If evidence is needed, it is available, on request, to anyone sufficiently concerned to visit the Milwaukee Public Museum.



## ARCHEOLOGICAL NOTES

## Meetings

On February 17, 1930 a meeting of the Society was held at the Milwaukee Museum at which fifty members and visitors were present. President Smith occupied the chair. Secretary Brown reported on the business conducted by the Executive Board at its meeting held earlier in the evening. At this meeting Mr. Bernard M. Palmer of Janesville was elected a life member and Mr. Emil J. Schaefer of Milwaukee an annual member. President Smith announced the arrangements which were being made by several committees appointed by the directors for the Central Section, A. A. A. meeting. Mr. Charles G. Schoewe spoke of the plans for the proposed pilgrimage to the Dewey Mounds. Mr. W. C. McKern gave a lecture on "Explorations in Southwestern Wisconsin" which he illustrated with lantern slides. He presented an account of the recent excavations of mounds and burial places conducted by the Milwaukee Museum in La Crosse, Vernon, Trempealeau and Crawford counties. He described and illustrated some of the characteristic artifacts of the Wisconsin Siouan and Hopewell cultures. Among the Siouan artifacts were disk pipes, arrowshaft grinders, short triangular flint arrowpoints, large elliptical flint knives, "snub-nosed" scrapers, and pottery vessels having scalloped rims and loop handles.

Mr. Ringeisen exhibited a fine 9 inch flint spearpoint found at Spooner, Wisconsin.

Secretary Brown announced that the annual joint meeting of the Society and of the Wisconsin Academy of Sciences would be held at the University of Wisconsin at Madison, on April 10 and 11. Members were urged to attend this meeting. Titles of papers to be presented were to be handed to the Society.

The Wisconsin Archeological Society held its annual meeting at the Milwaukee Public Museum on Monday evening, March 17, 1930. President Smith conducted the meeting. There were sixty-five members and visitors in attendance. Secretary Brown presented his annual report giving an account of the meetings held during the past year and of the various activities such as archeological field work, mound preservation projects, museum organization, publication, etc., in which the Society and its various members had been engaged. Treasurer G. M. Thorne presented a report on the membership and finances. Both reports were adopted.

A nominating committee consisting of the Messrs. Ringeisen, Kastner and Barrett brought in its report. There being no other nominations these nominees were regularly elected. President, Charles G. Schoewe, vice-presidents, Robert J. Kieckhefer, W. W. Gilman, Mrs. E. H. Van Ostrand, Dr. A. L. Kastner, Mrs. Theodore Koerner, W. C. McKern, A. P. Kannenberg; directors, Dr. S. A. Barrett, H. H. Smith, Dr. E. J. W. Notz, A. T. Newman, E. F. Richter, L. R. Whitney, Vetal Winn, Dr. M. W. Kuhm, T. L. Miller, G. A. West. Charles E. Brown was elected secretary and G. M. Thorne, treasurer.

Mr. G. A. West delivered an illustrated address, "An Archeologist in Britany", in which he described the interesting ancient stone and other monuments of that part of France. Mr. Smith exhibited a copy of the Society's Lapham Medal which was to be awarded to several of the archeologists attending the Central Section meeting. Secretary Brown announced the election of N. A. Enting, Milwau-

kee and E. F. Rintelman, Mukwonago, annual members. Mrs. H. A. Main had been elected an honorary member. President-elect Schoewe spoke briefly of the history and activities of the Society. Mr. E. J. Schaefer showed a film of the 1928 celebration at Lake Geneva.

At the close of the meeting Mr. Arthur Gerth exhibited a number of fine flint and quartzite implements and Mr. Joseph Ringeisen, Jr., an unusually fine fluted stone axe.

The annual Joint Meeting of the Wisconsin Archeological Society, the Wisconsin Academy of Sciences, Arts and Letters, and the Midwest Museums Conference was held in the auditorium of the Biology building, University of Wisconsin, at Madison, on April 11 and 12, 1930. The meeting was very well attended. Thirteen of the thirty-six papers in the program were offered by the Wisconsin Archeological Society. These were presented by Dr. Louise P. Kellogg, Dr. Albert B. Reagan, Mrs. May L. Bauchle, Milton F. Hulburt, E. R. McIntyre, George Overton, Will F. Bauchle, Theodore T. Brown, John G. Gregory, M. E. Hathaway, George R. Fox, Rev. Paul B. Jenkins and John B. MacHarg.

The annual dinner was held on the evening of the first day of the meeting in the Old Madison room of the University Memorial Union building. Following the dinner Dr. S. A. Barrett gave an illustrated address on "Tamest Africa".

The Midwest Museums Conference held a meeting of its own during the Joint Meeting at which the business of the Conference was discussed by Mr. Babcock, Mr. Buckstaff, Mr. Brown and Dr. Barrett. Mr. Willoughby M. Babcock was elected president of the organization, Mr. Ralph N. Buckstaff, vice-president and treasurer, and Mrs. May L. Bauchle, secretary. T. E. B. Pope, Theodore T. Brown, Mrs. Ruth M. Shuttleworth, Rev. F. S. Dayton, E. K. Putnam and A. C. Burrill were elected members of the board of directors.

President Charles G. Schoewe conducted the meeting of the Wisconsin Archeological Society held at Milwaukee on Monday evening, April 21, 1930. The meeting was very well attended seventy-five members and visitors being present. Among these were a number of Oneida and Winnebago Indians. Secretary Brown announced the election to membership of Mr. Herbert E. Kraft, Milwaukee; Richard Adams, Reedsburg, and Mrs. Vina S. Adams, Battle Creek, Michigan, annual members. The death of Dr. Frederick C. Rogers, Oconomowoc, a charter member and former officer of the Society, was announced. The President's appointments of members of standing committees were read. These are printed on the beginning pages of this issue of the Wisconsin Archeologist. All members of the Society were urged to attend the meeting of the Central Section, American Anthropological Association, to be held in Milwaukee on May 9 and 10. Special invitations to attend were to be sent to all.

The program consisted of an illustrated talk by Huron H. Smith on "Among the Oneida Indians", this being an account of his ethnobotanical investigations among these Wisconsin tribesmen during the summer of the past year. Mr. Emil J. Schaefer exhibited two very interesting Winnebago films prepared by himself, these bearing the titles, "The Winnebago Powwow at Pittsville", and "The Winnebago Harvest Dance at Kilbourn".

At the close of the meeting Mr. Joseph Ringeisen, Jr., exhibited some interesting stone implements found near Port Washington, and Mr. Paul Joers a pipe and flint points and an Indian pin and bone game.

A brief account of the meeting of the Central Section, American Anthropological Association, which was held at Milwaukee on Friday

and Saturday, May 9 and 10, is printed elsewhere in this issue. It was a fine meeting and those members of the Wisconsin Archeological Society who were able to attend were given the opportunity of meeting brother archeologists from other Midwest, Southern and Western states. For the birth of this now very active interstate organization the Wisconsin Archeological Society is to the largest part responsible, two of its members, Dr. Barrett and Mr. Brown, proposing the plan, and the organization meeting being held in Milwaukee, nine years ago. Both men have since served as presidents of the Association and have always been very active in its councils.

By invitation of the Wisconsin Society of Friends of Our Native Landscape a Regional and Rural Planning Conference was held at the State Capitol building at Madison on March 27-28. Among the other organizations and state departments participating in this gathering by means of their officers or other representatives were the Wisconsin Federation of Womens Clubs, Daughters of the American Revolution, State Historical Society, Wisconsin Archeological Society, the State Highway Commission, the State Conservation Commission, State Department of Agriculture, State Land Office, State Horticultural Society and several departments of the University of Wisconsin.

The purpose of the conference was to coordinate the work of all organizations in the state whose functions have a bearing on the beneficence of its lands, parks and highways, and the preservation of its historic and scenic landmarks.

### OTHER ITEMS

A movement is on foot to make a historical museum of the first capitol building at Leslie. "At present there is nothing aside from the old structure resurrected some years ago to hold the interest of thousands of visitors who come here each summer." It is pointed out that in the cities in the vicinity there are scattered about many pieces of old furniture and other furnishings and specimens which would be available for converting the interior of the old building into a shrine of unusual interest. An association is being formed in three southwestern Wisconsin counties to undertake this very desirable work.

We are not fully informed at this time as to what further progress has been made in the effort of the history and landmarks committee of the Wisconsin Federation of Women's Clubs to acquire for the state and permanently preserve the old U. S. Indian Agency House at Portage. In this undertaking a number of state societies and organizations have manifested an enthusiastic interest. Mrs. C. E. Buell of Madison, chairman of the committee, has done some excellent work for the project by having a state committee consisting of prominent men and women residents of Portage, Madison and Milwaukee appointed to undertake the preservation of the Agency House. We await the successful carrying out of their plans.

The department of anthropology of the University of Chicago has undertaken the making of a "pictorial survey" of the Indian artifacts of the Middle West states. Mr. F. M. Setzler of Chicago is engaged in this work which proposes to gather photographs and notes such as may be available to all American archeologists and enable the University to undertake researches tending to the unification of all information bearing on Indian cultures of this area. The Wisconsin Archeological Society has not yet formally invited to cooperate in this undertaking. Mr. Setzler has been engaged in examining the collections and records of the Milwaukee museum.

At Janesville a movement has been started by the local Association of Commerce in response to the suggestions of the Wisconsin Archeological Society to mark with metal tablets a number of places of Indian historical interest in the city. These include the site of the Round Rock village and Rock Ford and the old Indian village sites and camp grounds in Riverside Park; on Goose Island and in "Black Hawk" Park.

We trust that this will inspire our friends at Beloit to erect similar monuments on the early sites of Turtle village and Standing Post village and perhaps permanently preserve and mark some of the Indian mounds still remaining along State Highway 51 near the city. Rock County should endeavor to secure and preserve as a county historical park the site of the historic Catfish village and Indian Hill mound group at the mouth of the Yahara River near Fulton and Indian Ford. At the latter town a marker should be placed to mark the location of the early Indian ford of the Rock. All residents of Rock County should take an active interest in bringing about these now very desirable public undertakings. All of these sites are described in a recent Rock River report of this Society.

The Hudson Women's Club are marking a group of three mounds located on a bluff on the lake shore. This property a Mr. Birkenoe has presented to the city of Hudson for a park.

### PUBLICATIONS

Bulletin 86 of the Bureau of American Ethnology is a monograph on "Chippewa Customs" by Frances Densmore. All members of the Society should secure a copy for their libraries. The material presented was collected at White Earth, Red Lake, Cass Lake, Leech Lake, and Mille Lac Reservations in Minnesota, and the Lac Court Oreilles Reservation in Wisconsin, and the Manitou Rapids Reserve in Ontario, Canada.

The Committee on State Archeological Surveys, National Research Council has issued a "Guide Leaflet for Amateur Archeologists," the intention of which is to encourage systematic study of our fast vanishing Indian remains. Copies of this leaflet may be obtained through the Madison office of the Wisconsin Archeological Society.

For distribution at this year's Summer Session of the University of Wisconsin there have been printed by the State Historical Museum two leaflets, "Indian Star Lore" and "The Birds of the Campus". The latter is of interest to persons interested in folklore because of chapters which it contains on "Bird Beliefs of the Pioneers" and "Indian Bird Lore."

A recent issue of the Green Bay History Bulletin is devoted to an article on "Green Bay Plays Important Part in Early Newspaper History," by Abigail B. Robinson.

Mr. Charles E. Brown has published "Wigwam Tales", a booklet collection of about fifty selected Indian short stories for the fireside and camp fire. These stories are chosen from the best myths and legends of many American Indian tribes. They are particularly dedicated to the use of storytellers at boys and girls summer camps. Cost 50 cents. Address 2011 Chadbourn Avenue, Madison. The author has previously printed similar booklets of "Paul Bunyan Tales" and "Cowboy Tales".

# The Wisconsin Archeologist

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Vol. 9

July, 1930  
NEW SERIES

No. 4

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## POTTERY SMOOTHERS



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

# **Wisconsin Archeological Society**

## **Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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Charles G. Schoewe

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BIOGRAPHY—H. H. Smith, G. M. Thorne, C. E. Brown.

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

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## MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$ .50

Institutional Members, \$1.50

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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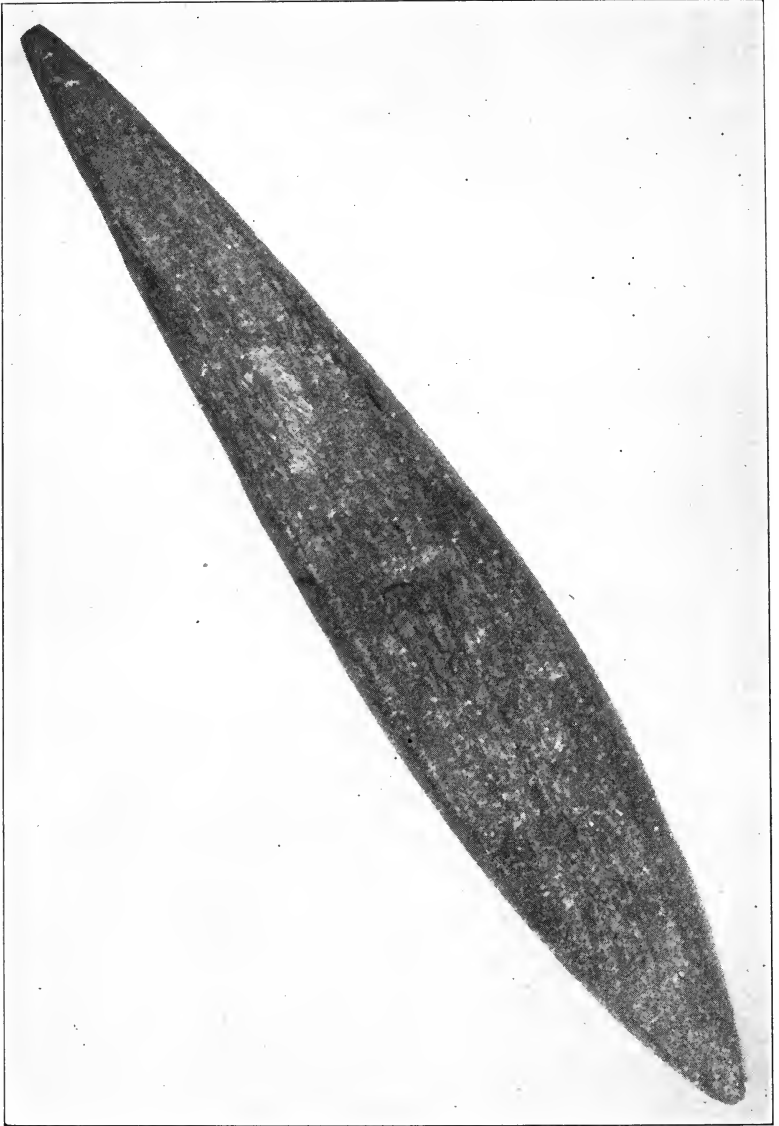
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Pottery Smoother, State Historical Museum

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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Vol. 9

MADISON, WIS., JULY, 1930

No. 4

New Series

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## POTTERY SMOOTHERS

Charles E. Brown

It appears desirable that some attention should be paid by archeologists and collectors of Indian stone implements to a class of artifacts, which, although seemingly not particularly numerous in Wisconsin are represented by one or a small number of specimens in nearly all of the larger public and private collections in the state. These have long been designated by collectors as "spindles" or "pottery slicks." The first name is not particularly significant, being probably applied to them because of the shape of some. The second name, which is in more general use, indicates a belief in their use as smoothing tools. Professor Moorehead appears to have favored this latter theory. In his book, "The Stone Age in North America", he presents a plate in which four of these interesting implements are shown.\* Beneath this plate is the printed text, "Stones used in smoothing pottery, kneading clay, etc." Doubtless Mr. Moorehead possessed very good reasons for this belief. Unfortunately for the student he does not give these in this volume. These "pottery smoothers" may be described as oval or elliptical in form, and oval, elliptical or somewhat rectangular or square in section. Some have rather sharply pointed extremities, others have slightly rounded ends. They appear to range in length from about 3 to  $8\frac{5}{8}$  inches and from less than an inch to  $1\frac{1}{2}$  inches in diameter or width at their middles. A typical specimen is shown in the frontispiece of this issue of The Wisconsin Archeologist.

It may be desirable to briefly describe a few of the specimens of this class of implements which are within reach at this time. An example in the collections of the

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\* Fig. 689, p. 293.

Neville Public Museum at Green Bay was found on an Indian village site at The Cove at Sturgeon Bay, in Door county, Wisconsin. This rather fine specimen is made of limestone. It is elliptical in form, both extremities being pointed. Its length is about  $7\frac{1}{2}$  inches and its diameter at its middle about  $1\frac{5}{8}$  inches. Mr. John P. Schumacher collected this implement. In the Schumacher and Duchateau collections in this very active Wisconsin museum there are at least half a dozen other implements of this class all of which come from village sites in the Green Bay region. Descriptions of these may be furnished in a future article.

In the Henry P. Hamilton collection in the State Historical Museum there are three very good specimens, one of these (A5638) being the largest specimen of which there is a present record. This implement was obtained from a village site in Gibson Township, Manitowoc County. It will be noticed (see Frontispiece) that in this specimen one part tapers more acutely to a point than does the other. Its length is  $8\frac{5}{8}$  inches and its greatest width  $1\frac{3}{8}$  inches. Its upper and lower surfaces are flattened and its sides rounded, giving an oval section. It is made of schist and its weight is 7 ounces.

A second specimen (A5640) is also elliptical in form with pointed extremities. It was obtained from the extensive village sites at Two Rivers, from which so very many of this noted collector's choicest artifacts of many classes were collected in past years. Its length is  $5\frac{7}{8}$  inches and its greater diameter  $1\frac{3}{8}$  inches. Like the foregoing specimen its upper and lower surfaces are flattened for their entire length and its sides rounded. These surfaces show the effects of weathering some of the otherwise smoothed limestone of which it is fashioned being scaled or worn off. It weighs 8 ounces, being heavier though of smaller size than the other specimen.

A third example (A5639) was also originally elliptical in form, a small piece of one end being broken off but again rounded by use or otherwise.

All of its surfaces are flattened for their entire length, giving a rectangular section. It is made of limestone and its weight is 3 ounces. Its length is  $4\frac{5}{8}$  inches and its

greatest width 15/16 of an inch. It was also collected from the Two Rivers sites.

A fourth specimen, preserved in the collections of the State Museum (A1982), comes from a village site at Big Suamico, in Brown County. This specimen, also elliptical in form, is made of a harder stone than any of the others, probably diorite. Its upper and lower surfaces are flattened and its sides slightly rounded. Its length is 4 inches and its greatest width  $\frac{7}{8}$  of an inch. One extremity is injured as in the foregoing specimen. Its weight is 3 ounces.

Another small specimen was collected by J. A. H. Johnson near Chetek, in Barron County. It was oval in form and section with rounded ends. This specimen was made of white quartz. Its length was 4 inches and its greatest diameter  $1\frac{1}{4}$  inches. Its weight cannot be given as it has for some years been in other hands in a neighboring state.

These descriptions will illustrate the character of this class of interesting prehistoric Indian artifacts. Whether or not they were employed as tools by our aboriginal potters in the smoothing of the surfaces of their earthen vessels during their manufacture remains to be determined. Favoring this theory are their generally flattened surfaces, their light weight and nature of the stone of which some or most specimens are made, and the absence on their surfaces of any marks showing rough usage.

The pointed ends of some would be useful in ornamenting a green vessel with indentations and trailed decorations. No one will perhaps deny that they would not prove to be very convenient tools for the aboriginal potter. The finding of all or most of these Wisconsin specimens on well known village sites, on which large quantities of earthenware vessels were evidently manufactured, may lend further support to this at present rather accepted theory of their use.

Similar stone implements have been found in Illinois, Indiana and no doubt in other states. We shall be pleased to have our co-workers in Wisconsin and archeologists and collectors in other states correspond with us concerning similar specimens in their collections, and to the end that some time a more complete monograph on this subject may be undertaken.

## ARCHBISHOP MESSMER

Archbishop Sebastian G. Messmer, head of the Milwaukee Catholic archdiocese, died while on a visit to his former home at Goldach, Switzerland, on Sunday, August 3. He was eighty-three years of age at the time of his death, and is said to have been in point of years the oldest Catholic archbishop in the United States. Before going to Goldach the Archbishop visited Rome, where he had an audience with the pope. He also attended the Passion Play at Ober-Ammergau.

Archbishop Messmer was for nearly thirty years a member of the Wisconsin Archeological Society, being one of its oldest members. During past years Secretary Brown exchanged occasional letters with him in matters of interest to the Society in whose activities in preserving antiquities, conducting researches and organizing and assisting Wisconsin museums he manifested a deep interest. When asked to contribute to any need of the Society he always willingly did so. When the Salzmann Museum was organized at St. Francis Seminary by the late Fathers Drexel and Metzdorf, and other former St. Francis members of the Society, he contributed towards the purchase of specimens and collections and lent other assistance. At least one member of the Archbishops household was then also a member of the Society. Through his kindly assistance the membership of other priests of the Catholic Church was secured.

In the death of this prince of the Church the Wisconsin Archeological Society mourns the loss of another devoted friend. The fine portrait of him printed in a recent issue of the Milwaukee Journal shows what a fine kindly gentleman the Archbishop was. His friends outside of his own church were very numerous. Archbishop Messmer was also for many years an officer and devoted member of the Wisconsin Historical Society.

## OLIVER LEMERE

Oliver Lemere, whose home for several years past was at Madison, died at Starved Rock State Park, in Illinois, on Friday, August 1, after a very short illness. He had gone to the Park but a short time before with the plan of there contributing to the recreation of summer visitors.

Lemere was a member of the Wisconsin Winnebago tribe and a descendant of the famous Indian daughter of Chief Four Legs of the early Doty Island village, Hopokoekau, "Glory of the Morning". His boyhood home was on the Winnebago Reservation in Nebraska. His great grandfather, Oliver Armel, a Frenchman, had an Indian trading post at Madison, within a short distance of the present capitol building, when the first white settlers arrived there in 1837. Angel Decora, the noted Indian girl artist, was his cousin and grew to girlhood as a member of his father's family. Between them there always existed a strong family attachment.

Lemere received his education at the former Indian school at Carlisle, Pennsylvania. He was a man of exceptional intelligence and fine manners and presence. His first appearance in Madison was in about the year 1914 when he spent a summer in the city as assistant to Dr. Paul Radin, then engaged in his Winnebago researches for the American Bureau of Ethnology. In the succeeding years he made frequent visits to the city making the acquaintance of many of its leading citizens.

Being exceptionally well informed on the ethnology, traditions and history of his people Lemere was during these years able to give much valuable assistance to both the Wisconsin Historical Society and the Wisconsin Archeological Society. Of the latter he was at the time of his death an always very helpful member. None of its Indian members has ever stood higher in its councils than Oliver Lemere. To many of its members he was very well known. He was highly regarded by a host of other friends in Wisconsin.

During these years Lemere supported himself by giving lectures in the city schools of Chicago, and before service

clubs, historical societies, Boy Scouts and Y. M. C. A. organizations and other bodies in Wisconsin and elsewhere. He frequently appeared in the programs of the Friends of Our Native Landscape and the Wisconsin Archeological Society. One summer he was engaged in giving a course in woodcraft at Culver Military Academy, and in another he was employed as a guide at the Wisconsin Dells. Governor Fred R. Zimmerman during his administration appointed him to a temporary position as a guide at the state capitol. He also acted as Indian custodian for a time of the Frost's Woods wild life sanctuary at Madison.

Lemere was not only a lecturer and entertainer, he was also skilled in the arts of the Indian silversmith and wood-carver. In the State Historical Museum and in other museums are specimens of his silver work and other valuable ethnological material obtained through him.

In 1928 in collaboration with Mr. Harold B. Shinn of Chicago he published a book, "Winnebago Stories", and which has had a good sale. Some years previous to this he assisted the late Dr. N. J. Jipson of Chicago in the preparation of a dictionary of the Winnebago language. The Wisconsin Archaeological Society has at different times printed folktales obtained through him. A large number of other Winnebago myths and legends collected by him for Dr. Radin await publication by the American Bureau of Ethnology.

He was at one time an officer of the once very active Society of American Indians. He stood high in the regards of both the educated and other Indians of his own and other tribes.

Oliver Lemere leaves behind a fine family of eight boys and girls. One of his sons, Francis Lemere, now connected with the Wisconsin Dells Indian pageant, is a vocalist of more than local note.

In closing these brief notes of the useful life of a dear friend we can only express the wish that his fine, gentle spirit may rest in eternal peace in the spirit world of his Winnebago warrior forefathers.



## INDIAN IMPLEMENT MANUFACTURE BY HALVOR L. SKAVLEM

The extraordinary achievements of Mr. Halvor L. Skavlem of Lake Koshkonong, Wisconsin, in the manufacture by Indian methods of chipped flint and pecked and ground stone implements are recounted in a fine monograph prepared by Alonzo W. Pond and recently published by the Logan Museum of Beloit College. In the preface of this bulletin, "Primitive Methods of Working Stone Based on Experiments of Halvor L. Skavlem,"\* the author says:

"In September, 1912, Mr. Halvor L. Skavlem was walking through the cornfield back of his summer home at Lake Koshkonong looking for arrowheads, axes and other relics of Indian handiwork as he had done many times a day for several years. On this particular occasion he found a broken celt and asked himself, "If I were an Indian how would I sharpen this broken celt?" Nearby he found a piece of chert and began to answer his own question by striking the celt with it. The details of this experiment are told later in this paper. It is sufficient here to note that he sharpened the celt with it and continued his experiments with most satisfying results. Arrowheads were his next problem and his success in shaping them was equally marked.

"It was the good fortune of the writer to call on Mr. Skavlem three or four days after these first attempts at the primitive manufacture of stone implements. The writer was at that time a student in high school but he had the pleasure of following Mr. Skavlem's work closely from the first series of experiments to the present time. It is in fact due to Mr. Skavlem's enthusiasm and teaching that the writer has followed the study of archeology in America, Europe, Africa and Asia for the past seventeen years. As no one else has had the opportunity to be as closely connected with Mr. Skavlem's work as has the writer, it is natural that he was asked by Dr. Frank G. Logan and Dr. George L. Collie of Logan Museum to prepare this manu-

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\* Bulletin, V. 2, No. 1.

script on Mr. Skavlem's experiments. "Mr. Skavlem is now eighty-four years old and is still making arrowheads with the same skill and rapidity he showed fifteen and more years ago. The writer appreciates the confidence Mr. Skavlem has manifested in allowing him to prepare this paper and he has submitted all parts of it for the experimenter's approval."

Mr. Pond presents his well-written descriptions of Mr. Skavlem's notable experiments in six chapters bearing the titles:—"Observations in Primitive Stone-Working", "Making Flaked Implements", "Flint Fracture by Man and Nature", "Making Pecked and Ground Implements", "The Skavlem Axe and Tree Cutting" and "Relation of Material to Types, Classes and Techniques". Several pages at the end are devoted to conclusions and a number of others to a very complete and useful bibliography. The monograph is finely illustrated with sixty-four plates showing all of the stages of Mr. Skavlem's experiments and of their interesting results.

As copies of Mr. Pond's monograph can be purchased through the Logan Museum by members of the Wisconsin Archeological Society and others desiring to possess copies, and as other copies of it may also now undoubtedly be obtained from all of our leading Wisconsin and other libraries it is unnecessary that much more be written about the very helpful character of this bulletin and the very useful information contained in its well printed nearly 150 pages. We may, however, print something concerning the subject of the monograph himself. "Halvor L. Skavlem belonged to a pioneer Norwegian family of Southern Wisconsin. In his boyhood the Indians lingered in his neighborhood. Their artifacts and other evidences of their former occupancy were then numerous. Naturally of an inquisitive mind, young Skavlem began to ask himself how they made these stone utensils. In his later life, after a long study of the matter, he began making Indian tools as he believed they were made originally. He became very skilful and adept in the fashioning of stone."

"Since September, 1912, when Mr. Skavlem first started making arrowheads and axes with the tools of primitive man his summer home on the site of Kaw-ray-kaw-saw-

kaw's (White Crow) village at Carcajou Point on the shores of Lake Koshkonong, Wisconsin, has been a gathering place for hundreds of visitors eager to see how the Indian made his weapons. These visitors have come from all parts of the United States and Canada and many of them have written articles for publication about the "charming old arrowmaker of Lake Koshkonong." One of the most interesting of these articles is "The Arrow-Maker" by Charles D. Stewart, which appeared in the *Atlantic Monthly* for June, 1923."

Mr. Skavlem, as well as Alonzo W. Pond, Dr. Frank G. Logan and Dr. George L. Collie have been active members of the Wisconsin Archeological Society for many years. In the passing years many members of this Society have sat on the hospitable porch of the Skavlem home at Carcajou Point. Here in a number of boxes he kept his flint and stone-working tools consisting of stone breaking and flaking hand-hammers, stone and flint pecking hammers, bone and antler flakers and sandstone grinders and other tools required for his experiments. Here also was a supply of flint and other stone, raw material obtained from neighboring stone heaps or sent to him by friends from aboriginal stone quarries and other sources. Here, on request, he was always willing to demonstrate and explain every step in the aboriginal manufacture of an arrowpoint or an axe. Many distinguished American archeologists and ethnologists have been among his visitors. Several years ago a group of members of the Central Section, American Anthropological Society, then meeting at Beloit, made a special pilgrimage to his Janesville residence to observe his experiments. Numerous photographs and several movie films of him at work have been made and numerous newspaper articles and several magazine articles written about him and his work. He has never commercialized the results of his experiments, no one has ever been able to purchase even an arrowpoint from him. In Eastern and Western museums are specimens or series of specimens of his manufacture all of which he has freely donated as contributions to archeological science.

Mr. Skavlem is in addition to his extensive archeological

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\* Pond, pp. 7, 12-13.

knowledge, a naturalist of distinction. He has often been referred to as the "John Burroughs of Lake Koshkonong." His knowledge of the flora and fauna of his home region is profound. His valuable collection of native plants is in the herbarium of the University of Wisconsin and a large collection of mounted birds and skins in his Janesville home. His library is large and valuable. He is the author of several survey reports published by the Wisconsin Archeological Society. He was an active member of the old Wisconsin Natural History Society and is one of the oldest living members of the Wisconsin Academy of Sciences and of the State Historical Society. No Wisconsin scientist of the present day has a larger circle of friends who respect him for his scientific knowledge and contributions in various fields of scientific research and investigation than Halvor L. Skavlem of Lake Koshkonong. To many a now successful investigator like Alonzo W. Pond, he has been the boyhood or young manhood inspiration.

## SOME VILLAGE AND CAMP SITES IN NORTHERN MICHIGAN

C. E. Brown and M. F. Hulburt

During the early part of the month of August, with Mr. Theodore T. Brown, superintendent of the Neville Public Museum, Green Bay, we made an excursion into the northern Michigan peninsula (Hiawatha Land) the purpose of which was that of a camping and sightseeing tour rather than of an archeological expedition. However, in the course of our travels some archeological sites were encountered. From these small collections were made and some field notes and photographs taken.

The first of these sites visited was located on the Green Bay shore of Lake Michigan several miles north of the village of Cedar River, in Menominee County. This village site is on the west side of Highway 35, opposite the Menominee County Park. The part of it lying east of the road, between the highway and the bay shore is overgrown with brush and trees and therefore not in condition for examination. On the west side of the highway about 450 feet

of this site is exposed in a series of shallow sand blows paralleling the road in a pasture. Here we found clusters of hearthstones in six different places, each doubtless marking the former location of an Indian wigwam. None of these clusters of burned and broken stones had been much scattered by the wind or other causes and all were on or very close to their original sites. Digging in the vicinity of several of these exposed small areas of burned and ashy soil and bits of charcoal no doubt marking the original sites of household fireplaces. On these wigwam sites were places where flint nodules had been broken and worked, the chips, flakes and spalls of this material being scattered over the surface of the soil. The flint worked here was of a bluish white color and of a white and dark bluish (nearly black) color. A few white quartz flakes and fragments were also found. Near these places were also pieces of broken bones of the deer, bear and other animals. The specimens recovered from this site in the course of an hour's search of its surface were a small triangular point nicely fashioned of white flint, blanks and rejects of the kinds of flint above mentioned, a scraper, nearly square in form made of bluish-white flint a stemflake scraper with a rounded blade, two pebble hammerstones showing signs of use, a small conical muller or grinding stone, pieces of a broken unfinished celt, the canine tooth of a bear, unperforated, and a notched pebble net weight. This site is one of the farthest north that these sinkers have been reported on this side of Lake Michigan to date, Manistique is the other. Pottery fragments were mostly found in small areas near the hearth sites where small and medium-sized vessels had broken and disintegrated. These sherds were of two kinds, one tempered with crushed shell and the other with crushed stone. Some of this earthenware was made of a reddish clay, and some of it of a dark-colored clay surfaced on both sides with reddish clay. Several rim-pieces have straight, up-turned rims ornamented on top and on the sides with small indentations. One shows twisted-cord impressions. Deer Creek flows into Green Bay a short distance north of this site. Doubtless the site itself will be later found to extend quite to the mouth of the creek. Because of its location near this county park this village site is un-

doubtedly much hunted over for arrowpoints by visitors to this park. Many were in the vicinity on the Sunday afternoon when we arrived here. Mr. John P. Schumacher, the Green Bay archeologist, has in past years also collected some specimens here. A short distance north of the creek there is a place on the east side of the highway on which is a sign bearing the legend "Old Indian Garden."

White Fish River Village Site, another Indian village site which we visited, is situated on the east bank of the White Fish River on a farm owned by G. M. Berquist in Delta County. This site is located a short distance northeast of the highway bridge crossing the river. It is a sandy field ten or more acres in extent, elevated from 10 to 30 feet above the flat land along the river bank and from 150 to 200 feet distant from the stream. Some large stumps indicate that this site was covered with pine trees. A short distance beyond the northern limits of this village site there is a fine spring which the early aboriginal occupants of this place must have appreciated.

From this site we collected ten flint scrapers, square, circular and snub-nosed in form, a stemmed spearpoint made of white flint, a notched spearpoint made of grey flint, one stemmed and two notched arrowpoints made of grey flint, broken flint blanks, a notched white quartz arrowpoint, a small piece of native copper, probably part of an implement, and a pebble hammerstone.

Flint chips and fragments and animal bones and burned stones are scattered over small areas in different parts of this site in such a manner as to indicate the former location here of at least four or five Indian habitations. A portion of this field is grass-grown and the site may extend over this land also.

The stone worked here by the Indian arrowmakers we found to be a greyish-white flint (the most common), a white flint, white quartz, flesh-colored quartzite, brown chalcedony, and a grey silica.

No potsherds were found near any of the wigwam sites but fragments of a single medium-sized vessel were found in the sandy bank at the edge of the site. This vessel was made of dark colored clay surfaced on both sides with red clay and tempered with crushed white quartz. It is orna-

mented with roulette markings, its lower surface marked by treatment with a cord-wound paddle.

The White Fish River is about 250 feet wide opposite this site. It is a fine, clear stream. To the north is a large tamarack swamp. It flows southward to the head of Little Bay De Noc. Mr. Schumacher has also collected from this village site.

Manistique Camp Site. At Manistique we found a camp and workshop site near the bank of the Manistique River in a small plot of sandy ground directly in the rear of Sellman's fish dock. The backyards of several city lots adjoin this site. The flint used in arrow manufacture on this site is of a lustreless light-grey color. Chips and flakes of it were very numerous and among these were found a broken pebble hammerstone and a single small triangular flint arrowpoint.

On the opposite bank of the river, between it and the Lake Michigan shore are extensive sand dunes some of these being partly covered with vegetation and pine and other trees. We spent several hours in searching the sandy areas on and at the bases of these picturesque dunes for Indian sites which we felt must be there, but with no result.

In the public library at Manistique there is a small collection of largely local archeological material. There are in this collection about one hundred flint arrow and spearpoints, blanks, a curved knife, several scrapers (bunts), a hoe blade, a notched pebble sinker and two grooved stone axes. The points are largely made of grey chert. The largest spearpoint, a stemmed point made of grey flint, is about 6½ inches long and its blade about 3 inches wide. A pebble pipe comes from the Dehtin farm at Indian Lake. There formerly was a single copper spearpoint in this collection.

In the museum of old Fort Mackinac on Mackinac Island there is an archeological collection consisting of flint points, celts, axes, a gouge, gorgets, bannerstones, and a pipe.

Densmore's Beach Site. At this Lake Michigan shore resort at St. Ignace there are evidences of a village or camp site. This we could not examine as most of the site was under sod. Some flint chips were found on the tourist camp ground of the resort. Mr. G. E. Densmore, son of the

proprietor, has a small collection of local material in which are a slate gorget, a small hemisphere, an unfinished gorget, three celts, three unfinished celts, a small rectangular catlinite pipe, two iron trade axes and about forty flint arrow and spearpoints and blanks.

Some copper beads are reported to have been found in a "mound" with a burial on the adjoining Miller summer residence site.

Sault Ste Marie. Mr. F. R. Vigeant who is the proprietor of the large and fine curio store in this city has a small collection of Indian implements on exhibition in a case in his establishment. In this collection are a grooved stone axe, six stone celts of ordinary forms, a small rectangular stone chisel and a considerable number of flint arrow and spearpoints. Most of his specimens are from Chippewa County. Mr. Vigeant, who is very well informed, says that Indian implements are not particularly common in the surrounding region.

We examined a considerable number of likely looking sandy areas in the region from Munising to Keweenaw Point but were unable to find traces of former Indian habitation at any of these. At Ontonagon there is a large sandy area which stretches from the north limits of the city to the tourist park. An examination made of this region located only a single camp site where hearthstones were in evidence and where white quartz had been chipped. As we were somewhat limited as to time we were unable to call on any of a considerable number of archeologist and collector friends who reside in the fine cities and villages of this fair country of crystal lakes, innumerable inviting streams, pine and hardwood forests, and iron and copper mines. Some day we shall adventure there again.



## PLANT GAMES AND TOYS OF CHIPPEWA CHILDREN

Theodore T. Brown

Frances Densmore in her recent report on Chippewa Indian customs describes some interesting flower games and toys of the children of this tribe.\* Some of these we take the liberty of quoting for the interest of our members and friends.

"The leaves of the pitcher plant (*Sarracenia purpurea* L.) formed a favorite plaything. The native name for the plant means "frogs leggings". If the older people were gathering berries the children filled the pitcher-shaped leaves with berries or sand and used them in various forms of childish play.

"The gathering and stringing of certain red berries formed an interesting pastime. The fresh red berries were pierced with a sharp instrument and strung on nettle-fibre twine. After they were dry the husks were removed by rubbing with the hands. No other berries and no beads were combined with them and four or five strands were usually worn around the neck.

"Little snowshoes" were made of the needles of the Norway pine. In making a little snowshoe the point of the pine needle is bent over and inserted in the socket of the needle at its base, forming a loop which somewhat resembles the frame of a snowshoe. Many of these are interlaced and worn in a necklace.

"Large flat lichens were cut from trees and etched in patterns resembling those on woven-yarn bags. These were used by little girls in their play, being placed on the walls in imitation of the yarn bags in the wigwams.

"In more recent times bright-colored autumn leaves were used by the children to represent letters, and the children "played post office", receiving these "letters" and pretending to read them.

"Leaves were selected with distinct markings which they read as words.

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\* Bull. 86, Bur. of Am. Ethno.

"The little girls made miniature mats from rushes and were encouraged to take the bark from small birch-bark trees and make rolls similar to those used for wigwam covers; they also made little birchbark utensils similar to those made by their mothers.

"Ducks were made of bulrush roots and were floated on little pools of water.

"Dolls—The simplest form of representing a human being was by means of a large tuft of needles of the Norway pine. This tuft was cut squarely across the end and about halfway up a part of the needles were cut across, suggesting the length of the arms, or perhaps a shawl hanging from the shoulders. A bit of wood was left at the top of the tuft suggesting the head. These little figurines were placed upright on a piece of zinc or in a large tin pan which was gently agitated. This motion caused the figurines to tremble in a manner suggesting an Indian dance and even to move back and forth, according to the skill of the person manipulating the tin on which they were placed. Dolls were also made of green basswood leaves and of bright autumn leaves with little splinters of wood.

"Figures of men and women were made from a portion of the root of bullrushes that is below the water. This was partially dried and made into figures by tying it with basswood fiber, after which the figures were thoroughly dried and could be handled without breaking.

"A step higher in development were the figures of men and women cut from the inner bark of the slippery elm."

Dolls were also made of grass, willow bark and birch-bark.

Miss Densmore's list of the plant games and toys of Chipewa Indian children is by no means complete. These children play other games and have devised other toys with seeds, wild fruits, leaves, stems, bark and flowers which remain to be described.

## THE BATTLE OF KINGS MOUNTAIN ANNIVERSARY CELEBRATION

Ray Jacobs

"That the Sesqui-Centennial Celebration of the Battle of Kings Mountain to be staged on the battleground on October 7, 1930, will eclipse in every particular all previous celebrations of the anniversary of the conflict, is conceded. The nations chief executive, President Herbert Hoover, has accepted an invitation to be the guest of honor and the principal speaker. Rear Admiral Richard Evelyn Byrd, the noted antarctic explorer, Sir Ronald Lindsay, British Ambassador to the United States and many other notables have been invited to attend. The governors of North and South Carolina, Virginia, Georgia and Tennessee are all closely identified with the coming celebration, representing as they do, the states which furnished the soldiers who here defeated the British. The governors of the other original thirteen states have also been invited and are expected to be in attendance." \*

In this battle, designated as "the turning point of the American Revolution", the companies of American mountaineer riflemen, "the Back Water men", from the states before mentioned, surrounded and destroyed on the crest of Kings Mountain, in York County, South Carolina, a British force under one of General Cornwallis' most able lieutenants, Colonel Patrick Ferguson, sent to subdue and capture the patriot commands.

"In one hour on the afternoon of October 7, 1780, the whole course of America's history had been changed. A volunteer army, untrained and undisciplined had completely defeated Colonel Ferguson's well-drilled militia and his trusted guard of British regulars. Not a man of the enemy had escaped; those who were not killed or wounded were prisoners. According to the official report of Colonel Campbell and his associate officers, Ferguson's losses were 206 killed (Ferguson himself was killed), 128 wounded and 600 taken prisoners. The American losses were 28 killed

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\* The Battle of Kings Mountain, Helen Deane Chandler, 1930.

and 62 wounded.”\* The opposing armies were nearly equal in strength.

The destruction of Ferguson’s expedition was a sad blow to Cornwallis. “He had hoped to step with ease from one Carolina to the other, and from those to the conquest of Virginia; and he had no choice but to retreat.” This retreat lead to his surrender to Washington at Yorktown.

The Battle of Kings Mountain is of particular interest to citizens of Wisconsin because the manuscript records of that fight, some eighteen bound volumes, are in the possession of the Wisconsin Historical Society. “Dr. Lyman C. Draper, secretary of the Society in its early days, spent a life time, commencing at the age of 15, studying this famous battle. The result of his studies, research and visits to the battlefield and its environs was an exhaustive history of the Battle of Kings Mountain, published originally by Peter G. Thomson, of Cincinnati, in 1881. Unfortunately the Thomson plant was burned shortly after the book was printed and all but about two hundred copies were destroyed along with the copy, proofs and plates. Hence for years it was impossible to secure a copy of Draper’s except at collectors prices which made it prohibitive from the standpoint of the average student. Recently, however, a reprint, an exact duplicate of the original edition in every respect, including the illuminated binding, has been issued by Dauber & Pine Bookshops, Inc., New York City.”

## ANCIENT CITIES OF NORTHEASTERN ARIZONA

Albert B. Reagan

Many people have read with interest the unearthing of the ruins of Chaco Canyon in New Mexico and especially that of Pueblo Bonito by the National Geographical Society. The Mesa Verde ruins in Colorado and those in the Gila and Salt river valleys of southern Arizona have also been of interest. On the mesas and in the valleys and canyons of northeastern Arizona there are prehistoric communities with equal mysterious interest.

Some men of science say these towns and small-house ruins, which are as numerous over the whole region as farm

houses dot central Iowa today, were built in the Stone Age. Others say they existed 4,000 years ago.

The whole area is an aggregation of ruins. Their builders had a high degree of engineering skill. Huge trees were transported to the villages from forests often sixty miles away and great masses of stone, in places, were brought from far off quarries. Irrigation canals, dams and reservoirs, probably some of the oldest known to the civilized world, are also found here and there in this region. And think of the enormous labor of constructing such works with stone implements and of carrying the excavated earth away in wicker baskets! Furthermore, to render the clay bed of the canal impervious, it was first puddled and then by means of burning brush and wood, it was burned to a terra cotta consistency. Moreover, the course of the canals now may be traced, centuries after they have been filled with sand and vegetation, by means of small black pebbles placed along the inner banks by the inhabitants, in the belief, held by the Zunis now, that they assist the motion of the currents, due to a mistaken idea of cause and effect, suggested by the sight of stones rolling in running brooks.

They grew great quantities of corn, some tobacco and cotton, and they also raised beans as well as two or three varieties of squash. They had also domesticated the turkey and had developed the art of basketry and pottery to perfection. Indeed, in places in the region one may walk for miles and find the sandy surface more or less mixed with pieces of broken pottery. The paint is still on them, and is not in the least faded, though they have been exposed for centuries.

The towns often consisted of a central citidel or "temple" building, sometimes in circular shape, surrounded with clusters of dwellings, sometimes contained within the walled inclosures, which, in turn, were surrounded by thatched huts. In each city was also (one or more) other large public edifices, usually oval in form, twenty to fifty feet in diameter, and conjectured to have been a place of worship. Stones and adobe were used as the building material; and the main earth walls and the walls of the outer buildings were often formed within a framework of timber and wattled cane and brush. Thus their architecture, like their pottery, were

obtained from original basket types. The small-house groups were similarly made, usually of a single tier of masonry-built rooms, oriented in an east and west line, accompanied by frailer constructed inclosures, each of which was the camp, refuse-dump site.

The relics taken from the exhumed buildings and tombs include pottery, stone implements, turquoise and other stones held in esteem, shells and shell ornaments, and human and animal remains. A few fragments of cotton cloth have also been preserved from decay, and considerable yucca-leaf woven work and several specimens of basketry.

The stone axes and other implements are particularly nice in detail and finish. Some of the implements show a degree of ingenuity not found among any tribe in the region nowadays. Many articles of personal adornment show that the mysterious race was entering that transition period which borders on the metallic and stone age. Many of these articles are shells and a few metals. Skillfully inlaid articles were made by these people by first coating a shell, or other article with a black cement, obtained from the gum deposited by insects on greasewood twigs, and other gums, and then imbedding mosaic fragments of turquoise and shells in the matrix thus formed. After the surface had been rubbed down smooth it made an ornament of merit. The same gum from greasewood was made a lacquering for preserving the color of basketry.

Many rock inscriptions have been found on the rocks throughout this region. They are purely of a religious significance, showing characteristic attitudes of the people at certain festivals, and apparently disclosing nothing of a narrative or historic nature. They give no idea of the ordinary manner of dress or of the textile fabric employed, but show the festive gown to have been a long robe, richly embroidered.

Apparently, religion was the main purpose of life among these people. Each action appears to have been vested with a significance of its own, even the location of the public structures being determined by certain mythological indications. They worshipped the sun, and had lodge rooms. Sacrificial stones have been dug up in some spots, but the nature of the sacrifice has not been determined. Like all

nature worshippers, these people endowed each object with its spirit counterpart, and either buried or burned the individual's belongings beside his body, that they might accompany him on his spirit journey. Likewise, the burial urns were "killed" by cracking or perforating their sides in order that the soul might escape.

The ruins divide themselves into three major groups, the Fort Apache-Montezuma group, the Black-Mesa-Segi Canyon series, and the Canyon de Chelly group.

The first group includes the ruins in the White Mountain Apache country, in the vicinity of the Roosevelt Dam and in the canyons that descend southward from the Mongollon Range to Salt river, among whose hundreds of ruins are the famed Fort Apache Cave, and Montezuma's Castle and the equally wonderful Montezuma's Well and ruins. In the second group are the renowned ruins of Snake House, Betatakin, and Keetseel in Segi Canyon, besides hundreds of smaller ones. And the Canyon de Chelly group in the chiseled in, thousand-foot deep, narrow De Chelly canyon and its sister Del Muerto Canyon, comprise hundreds of ruins (some estimates put them at more than a thousand), among which is the famed White House.

### The Fort Apache Cliff Cave

This cave consists of a series of chambers, halls and rooms, running back northward many feet beneath the mesa cap, eighty-five feet above the valley floor, north of the river. Moreover, to reach the entrance one must climb a notched-tree-ladder, a hazardous thing to do unless one is used to climbing such ladders. Furthermore, as the cave is tortuous, those who enter it carry a roll of binding twine, many candles, and also flashlights. The twine is tied at the entrance and let line the passages traversed so that on the return it can be followed back to the entrance. To make the return more safe the lit candles are also placed at regular distances and in conspicuous or dangerous places along the passages.

This cave seems to have been used by the ancients as a burial place, and when first visited the floors of several of the rooms were covered with human skeletons. In one of the rooms they were found to have been placed in a circle on

the cold damp floor of stone, as if they might have gathered there for mutual protection during some catastrophe, all perishing there; and a short distance apart from them also lay the frame of their medicine man, leaning against the wall opposite the entrance to the room, his chin resting on his breastbone, apparently just as he had died.

Many museums and private parties have secured fine collections from this cave.

### Montezuma's Castle and Montezuma's Well and Its Ruins

Beaver creek, a branch of the Rio Verde in Arizona, possesses a limpid stream of rippling water, a boon to that arid region. This life-giving stream is arched over and fully shaded by cottonwoods, aspens, juniper, walnut, ash, and sycamore trees, making the place a virtual paradise. On the right bank of this stream above the line of green, three miles from old Camp Verde, there is perched the wonderful Montezuma's Castle, known, also, as Casa Montezuma.

It is an awe-inspiring prehistoric cliff-dwelling, standing against the cliff, under an overtowering arch. It is constructed in a natural recess in the side of a limestone cliff. Its base is three hundred and forty-eight feet from the edge of the stream and about forty feet above it. It is five stories high, exceeding twenty-eight feet in height. The outer walls lean slightly toward the cliff, and are strongly but symmetrically curved inward. Some of the rooms are smoothly plastered and smoke-blackened; the plaster bears finger-marks and impressions of the thumb and hand. The rooms are ceiled with willows laid horizontally across rafters of black alder and ash. Upon this is a thick layer of reeds placed transversely and the whole plastered on top with mortar, forming the floor of the room above. The roofs are made in the same manner. The buildings show evidence of long occupancy in prehistoric times. Its origin is unknown.

Montezuma's Well is equally as interesting and more awe-inspiring than the castle. It is situated in the summit of a low mesa on Beaver creek, about nine miles north of Camp Verde. It is a large depression, in the form of a well or tank. Within the depression, the upper part of the "bowl," are well preserved remains of several cliff-dwellings. The



bowl is full of water to a certain level and never changes. However, it gets disturbed at certain intervals, like the ancient pool of Bethsaida. This mysterious and interesting phenomenon has given rise to many folk-lore stories about this well and its bubbling waters.

### White House

This ruin is overhung and blocked-in by large rocks in Canyon de Chelly in the northeastern part of northeastern Arizona. It is a double village, one part being at the foot of the canyon wall, the other upon a shelf in the wall above this one. The upper one is fifty feet above the floor of the canyon and can be reached only by ladders. Both are built of small, thin sandstone, laid in mud mortar. The front of the upper village measures one hundred and forty-six feet; the depth, forty-seven feet, and the height eighteen feet. The rooms are small, and the windows less than a foot square. A circular native "church" still shows. The whole ruin is whitewashed with gypsum, from which it gets its name "White House."

### Kinna Zinde

This is a well preserved ancient house, situated on a promontory, overlooking the flats to the northward, about thirty miles north of the station of Chambers on the Santa Fe Railway, in Arizona. Though in the open, it is still in a good state of preservation, its stone walls rising high above the foundation. It is constructed in the shape of a somewhat modified circular tower. Flooring indicative of two stories is visible, and the poles of an old ladder by which there was formerly communication from one story to another are still in place, the poles being notched for the insertion of rungs. This ruin was, no doubt, a lookout-summer home for the people who farmed the adjacent valley fields.

### Snake House

This is a cliff-house on the Arizona side, near Oljeto, Utah, the home of a forgotten people. Who these people were no one knows. Why they departed their village and where they went we know less. The ruin is along the

southeast face of a cliff and in two massive caves, one at each end of the ruin. The east cave is about one hundred feet deep—back into the cliff, and probably twenty feet wide. It seems to have been a large council hall. It is smoked from end to end and has much pottery debris on its floors. No sign of rooms now remains. The cave at the west side (end) is forty feet wide at the entrance, runs back forty feet, and then has two sets of additional rooms running back into the cliff from it. The north room is walled in now and was used as a bin. Part of the wall that inclosed the south room also shows. Parts of walls also show in the main cave room. In addition, it is inclosed (shut in) by an outer wall. Along the wall between the two caves are the remains of an open village that was probably twenty-five feet wide. Many of the rooms are still intact with roofs still on them. Some are flat roofed. Some are built in half-beehive style against the wall. All are small and all have very small doors. Above the west end of the outer village is a large drawing of a huge snake forty feet in length in zig-zag, with twenty-one joints. Its head is two-thirds as big as a plate and in that shape. The whole drawing is white. Several other snake drawings also show on the walls. The snake clan of a tribe, probably the snake clan of the Hopis, evidently lived here. The ruin receives its name from the snake drawings on its walls.

### Batatakin and Keetseel

These are sister ruins in Segi Canyon. They are similarly constructed, also containing about the same number of rooms, originally.

As we proceed up the canyon there suddenly looms up before us the ghost city of Keetseel, as Batatakin had previously flung itself upon our view. It is placed on a shelf against the canyon walls above the tree tops, under a marvelous, overtowering arch of stone. There are one hundred fifty-four rooms in it, but no one is walking its streets and alleys. A huge log, thirty-five feet in length, spans a gap. The village walls are of rock; the mortar, adobe clay. The roofs are flat and made of adobe cement. There are no chimneys, but a porthole in the roof acted as a smoke escape. If windows, they are all very small and

never had any glass in them. None of them are large enough for one to stick his head through. The doors are all so small one would have to get on his knees to crawl through them. Many house rooms have no doors at all except a square hole in the flat roof. Several of the buildings are two or more stories high. Ladders have to be used to get to this village from the valley. Also, only by ladders can the doors on the roofs be reached.

Untroubled through the ages this village has sat there serene, watching the coming and going of suns and the ever changing years. It is a dead city. Who lived there can not be conjectured. What happened to them or where they went we know less. Their laughter, their crying, and their wailings are no more. They left no records but rock pictures and the peculiar paintings on their pottery. These we can not read. Mute, the village, its pottery, and its rock pictures welcome us in dead silence. In awe we gaze upon this city. Untroubled it sits before us waiting the slow disintegration of time.



# The Wisconsin Archeologist

VOLUME 10

NEW SERIES

1930



PUBLISHED BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE



# The Wisconsin Archeologist

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Vol. 10

September, 1930  
NEW SERIES

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No. 1

## PINE, BEAVER AND NORTH LAKES (THE CHENEQUA LAKES)



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

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## **Milwaukee, Wis.**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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WAUBAUNSEE  
Potawatomi Chief  
Lewis Portfolio, 1835

# The Wisconsin Archeologist

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No. 1

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## PINE, BEAVER AND NORTH LAKES

Charles E. Brown

### THE CHENEQUA LAKES

Three Wisconsin lakes unsurpassed for scenic beauty, in the midst of a woodland and prairie region as attractive as the lakes themselves, lie either wholly or partly within the boundaries of the recently incorporated Village of Chenequa, in Waukesha County. These are Chenequa or Pine Lake, the largest of the three, Beaver Lake, and North Lake. The Chenequa group of lakes are in the midst of the famous Kettle Moraine region of Wisconsin, so called because of the "deep hollows or kettles which pit much of its surface, these kettles or pot-holes being due to the melting during the glacial period of buried ice blocks, or to the building of morainic ridges which enclose undrained depressions."\*

The Chenequa Lakes are among the larger of the thirty-six large and small old Indian lakes which are the aquatic jewels of the Waukesha County country-side, in southeastern Wisconsin. Waukesha County has been for many years famous in America for its beautiful lakes and health-giving springs. The Chenequa Lakes are in the fore-front of these lakes. Near them are other lakes of great charm and interest. Immediately to the west of them is the Oconomowoc Group of lakes,—Okauchee, Oconomowoc and LaBelle. To the south are the shimmering lakes of the Nashota Group—Nagawicka, the Nashotas and the Nemahbins, and beyond these are the smaller Genesee lakes. Silver and Golden lakes lie a short distance northwest and southwest of the latter. Pewaukee, the largest of the Waukesha lakes,

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\* The Physical Geography of Wisconsin, Lawrence Martin.

## **PINE, BEAVER AND NORTH LAKES**

**(Chenequa Lakes)**

### **Map Index**

The names and numbers correspond with those shown on the map.

#### **PINE LAKE**

##### **East Shore**

- |                         |                                |
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| 2. Chenequa Springs     | 6. Anchor Point Site           |
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##### **West Shore**

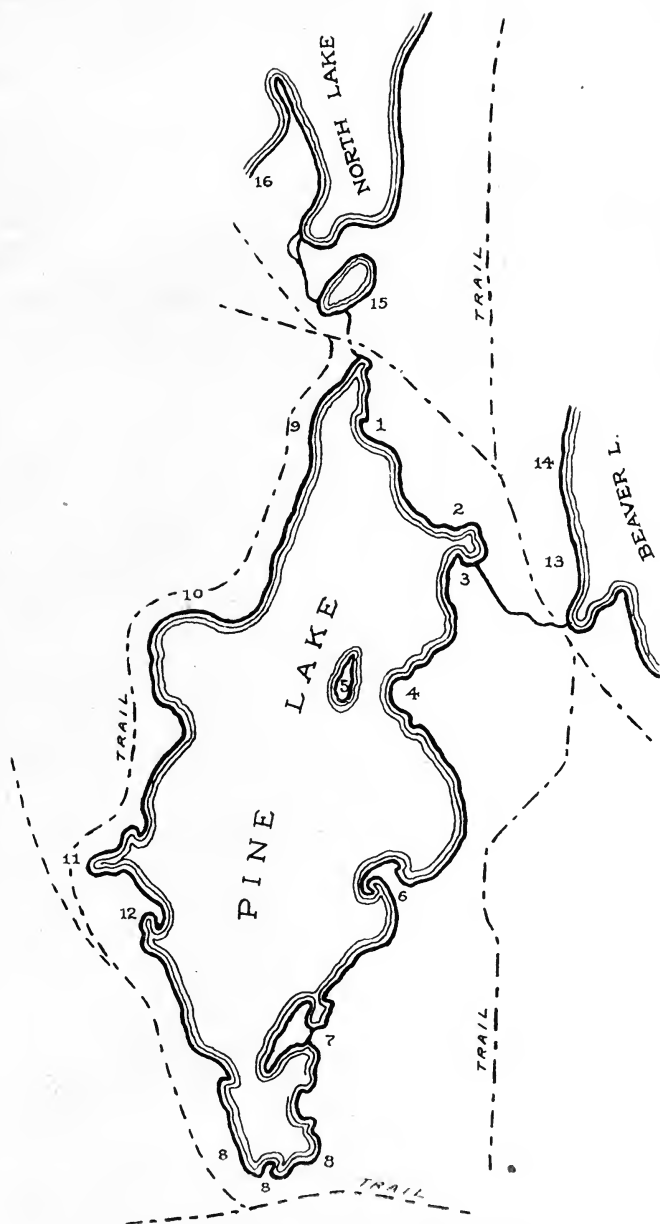
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#### **BEAVER LAKE**

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|----------------------|--------------------------------|

#### **NORTH AND MUD LAKES**

- |                   |                     |
|-------------------|---------------------|
| 15. Mud Lake Site | 16. North Lake Site |
|-------------------|---------------------|



PINE, BEAVER AND NORTH LAKES

lies a few miles to the southeast, and Keesus a short distance to the northeast. The Muskego lakes are in the southeastern corner of the county, and the Mukwonago lakes at its southern boundary.

The Government survey of Pine Lake was made by Mullet and Brink, during the months of July and August, 1835. The general description of Merton township given by them is as follows: "This township is rolling, poor second rate land, timber white oak, black oak, ironwood, lynn (basswood) hazel, thorn, prickly ash, grape-vine. Soil-sand and gravel. In the east part of the township there can be some good selections made. In the west part the land is rather broken and poor therefore of little consequence." Garrett Vliet ran the subdivision lines later in the same year. William R. Williams, Deputy U. S. surveyor, made a survey of the island in the lake on May 18, 1852, giving its area as 1 1/100 acres.

The following description of Pine, Beaver and North lakes is quoted from that given by Messrs. E. A. Birge and Chauncey Juday in "The Inland Lakes of Wisconsin".\*

"This lake district lies in and adjacent to a sag or break in the large kettle moraine that has already been mentioned. The existence of the gap or sag is emphasized by the fact that two parallel streams flow through or across the course of the moraine ridge. North of Beaver and North lakes the line of the moraine is marked by a distinct ridge several kilometers wide, whose trend is east of north. It rises more than 30 m. above the adjacent country and fully 60 m. above the level of the Oconomowoc-Waukesha lake district. "Pine Lake. The basin of Pine Lake consists of a large pit with an elongated north-south axis. Some of the pits, which are so characteristic of the surrounding land, are connected with the main one, thus forming bays which contribute to the irregularity of the coast line. The regularity of the basin is broken by an island situated toward the east side and a little north of the center of the lake. Its area is about 0.8 ha. (2 a.).

"The water level seems to be falling gradually which is due apparently to a general sinking of the level of the

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\* Bull. XXVII, Wis. Geol. & Nat. Hist. Surv., 1914.



ground water in the vicinity. The level of the water is generally below the point of overflowing and it is only in exceptionally wet seasons that there is any overflow. The lowering of the lake level protects the bases of the cliffs from the action of the waves. In seasons with an average amount of precipitation the water level is half a meter or more below the bases of the present cliffs and the water's edge so that a band of beach covered with gravel and cobblestones is found between the bases of the cliffs and the water's edge. When the lake stood at a higher level, the waves actively cut the cliffs; some of the headlands on the west side, for example, have been worn back several meters.

"Another evidence of the activity of waves and currents is shown in some shoals which lie about 200 m. (655 ft.) off shore at Pine Lake. They are covered with boulders and appear to be remnants of higher elevations which were cut down by the removal of all of the finer morainal material.

"The amount of material used for beach structures is small in comparison with the quantity removed from the cliffs. This is due to the shape of the basin occupied by the water. The sides are so steep that a large amount of material has been used in constructing the marginal shelf. In spite of the large amount used for this purpose, enough has been worn from the cliffs to build bars entirely across some small bays, and others are now in the process of being spanned by bars or spits.

"Also, the point of land on the east side toward the southern end of the lake has a long, submerged spit extending southward from it, and the island about the middle of the east side, has a similar structure at its north end.

"Where the shores have a comparatively gentle slope the beach is subject to modification by the action of ice and long stretches of ice-ramparts are found in such localities.

The water of the lake is derived chiefly from springs and from seepage from Beaver Lake. When the water rises high enough it overflows into North Lake; but sometimes there is no overflow for a considerable period of time. The lake also loses some of its water by seepage toward the north and west."

The length of Pine lake is slightly over 2 1/4 miles, its greatest width slightly over one mile. Its maximum depth

is about 90 feet. Its area is nearly 700 acres. Its elevation above sea level is given as 315 feet.

Beaver Lake. "The lake is fed chiefly by springs and during dry seasons there is no stream overflow. But during seasons of abundant rainfall the overflowing waters make a stream of considerable size. Apparently the outlet stream has cut down its channel about a meter so that the level of the lake is now lower than it was originally.

"The basin of this lake consists of two large pits which are nearly equal in area. A little above the present water level, there are several arms extending out from the main depression which give the basin a scalloped appearance. If the water were one or two meters higher, these arms would form bays and thus make the coast line very irregular. At present the immediate shores are about equally divided between steep, kame slopes and the low flat or gently sloping arms. At the heads of the latter, however, there are steep cliffs. Considerable cliff cutting has been done in the past, but at present, the cliffs are protected by ice ridges at their bases. The waves in summer are unable to remove all the terraces formed by the ice in winter so that wave action is limited to the shore drift. This working over of the shore drift keeps a belt of clean cobble stones just under the edge of the water.

"Fronting nearly all the low shores are fairly high ridges which have the graceful curves of bars. The irregular arrangement of material in some of the ridges indicates that they were built largely or wholly by the ice."

The greatest length of this lake is slightly over one mile, its greatest width not quite three-fourths of a mile.

North Lake. "The basins occupied by North lake represent two pits formed, apparently, by two separate blocks of ice. The two basins are unequal in size, the west one being much smaller than the east one, and they are separated by a narrow ridge whose average height above the water is about half a meter, at ordinary levels. This ridge is pierced at only one point and that is where the stream flows from the east into the west basin.

"More than half the shore of North lake has a steep slope, rising abruptly to a height of 10 m. or 12 m. (33 ft. to 40 ft.). This applies particularly to the eastern basin where the

shores are high along the east, south and southwest portions. The north end is bordered by an extensive swamp. Most of the immediate shore of the west basin is low, but a short distance back from the lake except at the north end, it rises to nearly or quite the height found along the east basin.

"Practically all of the steep shores of the lake are being eroded, but this action is not progressing vigorously owing to the small size of the basins and to the fact that the water now stands at a slightly lower level than formerly. Ice-push terraces are a prominent feature of the beaches and they also aid in protecting the cliffs from cutting. Through the action of vegetation in summer and ice in the winter, the swamp at the north end of the east basin is gradually encroaching upon the lake. At one point the old shore line lies many meters behind the present one, with swamp between them. Marl is a conspicuous constituent of the beaches of the west basin. It is white in color and appears in the form of gravel passing into sand. On the southwest side of this basin there is a terrace several scores of meters in width which is composed of successive ridges of this material.

"The two most prominent ice ridges at present are situated respectively at the northeast corner of the east basin and at the outlet, i.e. at the northwest corner of the west basin.

"North lake receives the waters of two branches of the Oconomowoc river and of Mason creek. These streams drain extensive tamarack swamps situated north of the lake and their waters have the usual brownish color which is characteristic of peat stained water. The waters of the lake possess this same color. There are some strong springs toward the south end of the east basin which doubtless represent chiefly the seepage from Beaver and Pine lakes. The west basin possesses no springs and the only water received by it is the overflow from the east basin. The Oconomowoc river leaves the west side near the north end."

The length of North lake (east basin) is one and one-third miles, its greatest width three-fourths of a mile. Its elevation above sea level is given as 309 feet.

A small body of water, Mud lake, lies midway between the south end of North and the north end of Pine lake, a creek connecting it with the two lakes.

## THE PRAIRIE POTAWATOMI

The Mascouten or Prairie Potawatomi, who formerly inhabited Waukesha County and other southeastern Wisconsin counties, are a division of the Potawatomi tribe, the other division being the Forest Potawatomi, whose place of residence is the forests of northern Wisconsin, Michigan and southern Ontario. The Prairie Potawatomi are the Indians referred to in the writings of the Jesuit fathers as "The Fire Nation" and "Maskoutench." These Indians are reported to possess some traditions which place their original home with other Algonkian tribes on the Atlantic seaboard, probably in New England. In some of their legends they mention the Delaware Indians as their neighbors and relatives.\*

Later they were located in Central New York. In 1641 they were on the shores of Lake Huron. From this station they moved into Michigan, the Mascouten occupying southern Michigan. At the close of the seventeenth century they were in Indiana and northern Illinois and had gone around the lower end of Lake Michigan as far as the Milwaukee river, or beyond. They appear in Wisconsin historical records as early as 1670, when one of their villages located near the portage between the Fox and Wisconsin rivers was visited by Father Allouez and in 1673 by Father Marquette.

"In the middle of the eighteenth century they entered into a confederacy with the Kickapoos and Sacs and Foxes, with the avowed purpose of exterminating the surviving remnants of the old Illinois tribes. This done, they divided the conquered domain. This domain up to the year 1790 was grazed by great herds of the American bison or buffalo. Their squaws cultivated some corn but the savage bands lived mostly on the spoils of the chase. Their hunting trails extended from grove to grove and from lake to river.

"The Potawatomi hastened their downfall by accepting the leadership and guidance of the British agents at Malden, Canada, who only espoused their cause in order to reap the profits of the fur trade. These agents supplied their savage

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\* Skinner, Bull. Milw. Pub. Mus. 6-1.

minions with rum and rifles, encouraged the Indian raids on the white settlements for the purpose of plunder and rapine and were instrumental in inducing the Potawatomi to join the hopeless confederacy of Tecumseh and the Prophet, who vainly sought to unite the scattered bands and stem the tide of white immigration. With the death of Tecumseh at the battle of the Thames and the termination of the British influence in the west, the Potawatomi soon surrendered what little domain was left to them, ceded all their lands away by treaty, and in 1838, were removed beyond the Mississippi river." \*

The Wisconsin Potawatomi at a treaty held at Chicago on September 26 and 27, 1833, ceded all their lands to the United States. They were permitted to remain for three years before removing to a reservation provided for them on the Missouri river in Iowa. In 1846 they ceded these lands for a reservation in Kansas. Some of the Wisconsin Potawatomi did not go to Iowa and roving bands of these camped in Waukesha County for quite a number of years afterwards. Some other Potawatomi returned to the state.

At the present time several hundred Potawatomi are living on small homesteads provided for them in Forest County, and a small group near Arpin in Wood County. Some of these are descendants of southern Wisconsin Prairie Potawatomi.

Further information concerning the history of this very interesting Wisconsin tribe may be obtained from "The Potawatomi" and "Lake Geneva and Lake Como", two publications issued by the Wisconsin Archeological Society; the Wisconsin Historical Collections, three bulletins published by the Milwaukee Public Museum, and The Handbook of American Indians.

#### THEIR MANNER OF LIFE

The lodges of the Waukesha County Potawatomi were round in form, about ten feet in height and from 12 to 20 feet in diameter, the wooden framework being covered with matting, bark or skins. Mats made of reeds sometimes lay on the floors. In the center of the lodge was the fireplace,

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\* Elmore Barce, The Land of the Potawatomi.

a cavity scooped in the ground and lined with stones. In an early day they probably covered their lodges with buffalo hides. The occupation of a new lodge was a matter of considerable ceremony, including a feast given by the owner.

The men were all good hunters and fishermen and generally kept their families well supplied with meat and fish. They had interesting customs connected with the hunting of the deer and bear, and with the trapping of the muskrat and beaver. Fish were speared, shot with the bow and arrow, caught with fishlines and seines, and trapped with fishtraps built with boulders across streams. Pewaukee lake was a particularly noted fishing ground. Fish were split, smoked and sun-dried for later or winter use. They were stored for use during the winter season in shallow pits or caches dug in the ground and lined with leaves or bark.

There were corn fields near all of their more permanent villages, those at Waukesha and Mukwonago being particularly extensive. According to Solomon Juneau the Indians at the latter village produced as much as 5,000 bushels in a single year. Corn was planted in large hills, the same hills being used year after year. The Indians also grew at their planting grounds beans, pumpkins, gourds and tobacco. A favorite dish of the natives was *tâssîmanomîn*, made by boiling together corn, wild rice and fish, and seasoning it with herbs and berries. Maple sugar took the place of salt in their cooking.

Before their contact with white men the Potawatomi made pottery vessels of several shapes and sizes, mixing the clay with crushed stone and baking them in a hot fire. Fragments of some of these and a few unbroken vessels have been obtained from their former village sites. They also made and used wooden bowls, mortars, spoons and ladles.

They used dugout canoes which they hewed out of basswood and other logs. Some of these have been recovered from the bottoms of southern Wisconsin lakes and streams. They made woven bags of wild hemp, nettle, basswood, cedar and other fibres. These the Wisconsin and Kansas Potawatomi still continue to make. The weapons of the Indians were the wooden war club, the spear and the bow and arrow. They were fond of sports. At Mukwonago and Mil-

waukee a favorite sport was pony racing, these races being often of a wild and exciting character.

The Waukesha County Potawatomi "buried" some of their dead above ground, the corpse being wrapped in a blanket and seated on the ground. With it were placed a pipe, tobacco and food. The burial was then surrounded with an enclosure of branches to protect it from wild animals and birds. Sometimes the corpse was tied to a tree trunk, or placed in the limbs of a tree. Other burials were made in shallow graves and covered with logs or stones. These several types of burial may have been those of different tribal clans. Well-known burial places were at Waukesha, Mukwonago, Pewaukee and Big Muskego, and smaller cemeteries elsewhere in the county.

Alanson Skinner has recovered in recent years much information concerning the social life, material culture, mythology and folklore of the Prairie Potawatomi of Wisconsin and Kansas.\*

In "The Potawatomi" the late Publius V. Larson has recorded the history of both divisions of this once numerous tribe.\*

## PINE LAKE REDMEN

Old settlers of the Town of Merton and of adjoining Waukesha townships, some of whom were interviewed on this subject years ago, all stated that Indians were still quite numerous in the region of the Chenequa lakes in the late thirties and early forties and continued to camp or pass through the lake country for many years afterwards.

John H. Hall, one of these stalwart pioneers, who settled in Merton township in 1842, stated that at this time: "This land was accessible by Indian trails. Indians of the Potawatomi and Menomonie tribes were numerous, and all kinds of game was plentiful."

"Mrs. Abner Dayton, daughter of James and Barbara Gibson Rea, came to Merton township with her parents in 1843. Mrs. Dayton well-remembered the Indians having a camp

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\* Bulls., Milw. Pub. Mus. 1924-27.

\* Wis. Archeologist, -19-2, 1920.

near her home." Other old settlers, now dead, had similar stories to relate about the Indians who were always friendly and to whom they occasionally gave food, clothing and shelter.

Mr. Christ. Schwartz (N. C. Schwartz), a resident of Chenequa, states that in his boyhood, in about the year 1869 and later, groups of Potawatomi from Pewaukee lake came to Pine lake to spear and trap muskrats. There were sometimes as many as fifty Indians, men, women and children, in these groups. They erected their lodges in the sheltered hollow on the south shore of Beaver lake, south of the high knoll upon which the Interlaken hotel buildings now stand. This hollow is situated between the highway, which follows the old Indian trail, and the lake shore. These lodges were built of poles leaning together in the form of a cone and the wooden framework was covered with skins, cloth and blankets. Such lodges were quickly erected and as quickly taken down again when necessary. There were at times ten or a dozen such dwellings in the hollow. They but seldom remained here for more than a week or two, then moving on to North lake or Okauchee lake.

The nearby muskrat hunting ground of the Indians was in Tuley's (Wilson's) bay of Pine lake in a reedy marsh extending from opposite the Chenequa hotel property southward across the bay to the wooded Niedecken point. Their muskrat spears were long pointed and barbed iron rods inserted in or bound to a stout wooden handle. They speared the rats through their houses, seeming to know just where they were. Muskrats were prepared for eating by skinning and roasting them in the fire, or by cooking the meat in kettles. Some of the meat was cut into strips and dried. These Indians had no ponies. They had a number of dogs. The last Indians to camp at this end of Pine lake on the Beaver lake shore came in the year 1881.

Mr. Charles Rudberg, whose father, John O. Rudberg, settled on the northeast shore of Pine lake in 1842, says that the Indians came from Pewaukee lake over the trail now followed in a general way by the highway on the east side of Pine lake and running between Pine and Beaver lakes. In his father's time they passed over this trail, going and coming, in numbers in both the spring and the autumn. He



does not remember that they had any guns. They used the bow and arrow in hunting.

The Indians at some time or other camped on nearly every sheltered point and bay on the shores of Pine and also upon the shores of Beaver and North lakes of the Chenequa lake group. Mud lake was a muskrat hunting and trapping ground. They were chiefly Prairie Potawatomi (Mashkó-tens) with occasionally a few Menomini or Chippewa among them. These Potawatomi appear to have chiefly come from the Indian villages at Pewaukee and Waukesha, 6 1/2 and 10 miles distant by trail, or from the nearby smaller village site at the head of Nagawicka lake. Some were from Pike lake at Hartford. Others came from even greater distances. Family or larger groups of Menomini came to or through the region from their villages at Menomonee Falls fourteen or more miles to the northeast or from the "Wild Marsh" camp south of it. Some Indians were always moving over the trail toward Milwaukee or westward to the Four Lakes. Groups of Winnebago Indians also occasionally passed over the Chenequa trails on their way to the Rock river and Lake Koshkonong.

Among the Potawatomi chiefs who visited the Chenequa region was Kewaskum (Kiwāskûm, "goes-back-on-his-tracks") who had a village at Pike lake, Monches of the Oconomowoc river village, and Leatherstrap of the Waukesha village.

So far as the early settlers noted there was but little difference in the dress of the families or groups of Potawatomi. Some of the men were attired in buckskin shirts, long leggings and moccasins. Some wore shirts, trousers and other cloth garments obtained from the settlers or from stores or trading posts. Their headgear was often a piece of colored cloth or a handkerchief bound around the head. Some wore a strip of fur in place of a hat, a piece of otter-skin ornamented with a single feather or bits of ribbon. Some had trade blankets. In summer some of the men wore only a breech cloth. The women wore cloth waists and skirts and buckskin moccasins. Some wore buckskin garments, often with fringes. Silver brooches and bead necklaces were their common ornaments. Some of the women carried on their backs babies strapped to cradleboards.

Most bore bundles of spare clothing or camp equipment. Some carried kettles. Some had a few ponies and these were often heavily laden. Some of the hunters carried guns, these being flint-locks, and of a poor quality.

John Shawano, Nāwquākeshik (Noon Day), great-grandson of Waika or Wākushä, at present living in Forest County, states that the Chenequa lakes were a part of the hunting grounds of the Potawatomi of his Waukesha village. They were very particular about their hunting territories and would never permit any other tribe to trespass on them. This may have been true before the white settlers came to this region. The Menomini certainly also hunted about the lakes in the early forties.

No one remembers seeing any Indian log canoes on Pine lake, yet the Potawatomi must have had them as they did on Pewaukee, Nagawicka and North lakes.

Wild animals were numerous in the regions about the Chenequa lakes when the first white settlers came. Deer were everywhere to be seen. Bear were occasionally killed. Among the smaller animals were the wolf, wild cat, muskrat, otter, mink, raccoon, skunk, woodchuck, weasel and squirrel. Wild fowl were abundant both in the woods and on the waters of the lakes. The lakes were filled with fish.

## THE NAMES OF THE CHENEQUA LAKES

The early Wisconsin maps, up to the year 1839, give no names for the lakes of the Chenequa group. A "map of Wisconsin Territory, 1839", prepared by Capt. Thomas J. Cram, government topographical engineer, gives the name of Gay lake to Pine lake, Peekor to Beaver lake, and Ahko to North lake. Lake Keesus is here named Meeshel lake. Where he obtained these names is unknown. Farmer's map, 1848, doubtless copying Cram, gives the name of Gay lake to Pine, and Peekor to Beaver.

The name Gay is probably derived from the Prairie Potawatomi word que (quay), woman, or the Chippewa word ikwé or akwé. Peekor, the name given to Beaver lake, may be a slight distortion of the Winnebago word pee ka, signifying "good", or "beautiful". The Potawatomi word for bea-

ver is mäk or mûk, and the Chippewa word amik. Ahko, the name given to North lake, is the Potawatomi word for doe (akó).

On a "Map of the Milwaukee Land District, 1840", the name of Pine lake appears as the name for that lake. This name also appears on the Milwaukee Land District Map of 1846, Nagawicka, Pewaukee and Oconomowoc lakes being the only other northern Waukesha County lakes which bear any names.

Dr. Increase A. Lapham may be credited with having first given the attractive name of Chenequa to Pine lake. In his book, "Wisconsin", published by P. C. Hall at Milwaukee in 1844, he says: "Pine Lake, lies immediately north of Nagowicka, two miles long, three-fourths of a mile wide, five and a quarter around, and has an area of six hundred and ninety acres; being exactly the same as Nagowicka. The Indian name is Chenequa or Pine, given in consequence of a few pine trees having been found on a small neck of land or island in this lake."

North Lake (or Shunakee) lies north of Pine Lake in the town of Warren, is one mile and a quarter long, three fourths of a mile wide, and has an area of five hundred and eighty-one acres. The Oconomowoc Creek passes through this lake.

Labraugh (Beaver) Lake lies half a mile east from Pine Lake into which it discharges its waters. It is eighty-three chains long, sixty-nine wide, and occupying an area of four hundred and twenty acres."

Indians of both the Prairie Potawatomi and Menomini tribes had camps and villages at Milwaukee in 1836, and Winnebago villages were not far away. He may have had his lake names from any of these. Although in Prairie Potawatomi territory, Pine lake was visited by Menomini Indians who had a village at Menomonee Falls and camps elsewhere in Menomonee township only a dozen miles away to the east, also by groups of Winnebago, who were on friendly terms with the Potawatomi and occasionally wandered through the region. The Potawatomi word for pine is shquäk and the Chippewa word jingwak. The pronunciation and spelling of both words is sufficiently like Chenequa (the name given by him to Pine lake) so that Dr. Lap-

ham may readily have derived his spelling of the name from hearing either of them spoken. The Menomini word for pine is äskä.

A distinctive feature of Pine lake are the group of pine trees on the Island and several other groups of the same formerly and still existing on its eastern shore. These the Potawatomi always remembered, and it is but natural that they should have named this lake for them.

Rev. E. P. Wheeler, an authority on Wisconsin Indian names, thinks that the name Chenequa may have been derived from the Potawatomi word gih chih in nah quak", or "big tree grove". John Blackhawk, an authority on the language and customs of his tribe, thinks that the name might have been derived from the Winnebago word chenukrä, or "the village".

Huron H. Smith, the ethno-botanist, states that the word Chenequa means "Indian woman" or "Indian maiden", and the word is a Chippewa rather than a Potawatomi one. "Chene" is an abbreviation of "inishinabe", meaning Indian and pronounced "shini" or "shunay". Ikwé or akwé is the word for woman.

The Potawatomi of the present day give to the lake the name Shquäk mbes, or Pine lake.

Lapham gives the Indian name of North lake as Shunakee. This name Simon Kahquados, chief of the Potawatomi group near Blackwell and Laona in Forest County, believes to be a shortening of the name Shanäkoonebis, meaning "south cloud water". Shanäkoó was a Potawatomi chief whose village was at this lake. John Blackhawk says that the name may have been derived from the Winnebago word chunáka, or "the blue one".

The name Labraugh given by Lapham to Beaver lake John Blackhawk suggests may be a slight distortion of the Winnebago word "lúbra" or "rúbra", meaning beaver.

There is no doubt but that the Prairie Potawatomi, Menomini and Winnebago all had names for the Chenequa lakes.

## CHENEQUA OR PINE LAKE

## EAST SHORE

*Trail Village Site.*

An Indian camp site is plainly indicated on the James A. Friend property on the northeast shore of Pine lake. Evidence of this former occupation by the aborigines, consisting of burned and broken stones from wigwam fireplaces and chips and fragments of grey and white flint, the refuse of former implement manufacture, occur in the gardens of the late Jacob E. Friend; on a piece of level land which stretches from the James Friend residence on a prominent knoll in its rear down to the lake shore. A portion of this field had been fall-plowed during our first visit to this site and no doubt camp refuse had been thus turned under, but a considerable number of hearthstones of fist-size and smaller were found scattered over limited areas in several parts of this field. The former sites of at least three wigwams appeared to be thus recognized. Near these places the flint refuse and a small piece of red pipestone were also found. Doubtless many other hearthstones have been removed from this site during the years of its cultivation. If other parts of this tract, now under sod, are again plowed other lodge sites and refuse should be disturbed.

This site has long been known to collectors of Indian implements. Mr. Christ. Schwartz is among those who have collected here. From these and other sources we learn that there have been recovered here a considerable number of flint arrow and spearpoints of various forms, several flint knives, a number of flint scrapers, a flint perforator, several pebble hammerstones, a stone celt or hatchet, and two grooved stone axes, one of these with a blade much worn and shortened through long use and re-grinding. No potsherds have been found by ourselves or reported found here by others. These remain to be collected. They certainly should occur, especially if this camp site is a fairly old one, as it appears to be. Its early Indian inhabitants may, however, have employed bark or wooden vessels in their domestic arts.

Years ago scattered deer and other animal bones were

seen here, also scattered mussel shells. Some of the bones had been split to obtain the marrow. If there were any refuse pits in connection with this site they have not been discovered.

This land, from the east and west road at its northern limits southward to the creek joining Pine and Beaver lakes, formed the estate of the late Judge M. F. Tuley. The portion of it occupied by this camp site was in former years a flat covered with forest trees. The Potawatomi claim this as a former camp site. They certainly camped here in small numbers in early days of settlement, spearing and trapping fish in the stream connecting Pine and Mud lakes, and hunting deer and other game in the surrounding country. This locality was a sheltered one and otherwise favorable for the location of an Indian camp. South of it extending along the lakeshore is a high wooded ridge upon which is the J. V. Quarles home, in its rear is the elevated ground of the James A. Friend property, and west of it another prominent ridge upon which stands the residence of Robert E. Friend. A fork of the old Indian trail between Pine and Beaver lakes, on its way to the creek crossing between the head of Pine and Mud lake, touched or crossed this village site.

On the shore of Indian or Outlet bay, at the base of the ridge upon which the Robert E. Friend residence is located, is a path reported to be a remnant of an old lake-bank trail. This can be traced from this point along the bay shore northward for a distance of several hundred feet to where the Friend garage is located. This continued northward to the shore of Mud lake.

### *Chenequa Springs.*

On the Pine lake shore at the base of the high wooded lake bank a short distance north of the Chenequa Springs hotel are several fine springs. These springs the Potawatomi knew and used when encamped in the vicinity. Their name for these is reported to have been Tkêpmbes, or "springs at the lake." A spring on the Rudberg place a short distance west of the house was also known to the Indians. It appears in the Waukesha County atlas of 1873 as a mineral spring.

Game was very plentiful in former days on the north-east shore of Pine lake. The early settlers killed many deer and now and then a bear. Mr. Christ. Schwartz and Mr. Charles Rudberg both speak of the great numbers of passenger pigeons. Their flights in the spring of the year continued all day long, flight after flight. In returning in the autumn they roosted in the woods, feeding on the abundant acorns. Forty years ago Mr. Schwartz shot numbers of them from the top of the hill upon which the Chenequa Hotel stands. Flocks of the beautiful wood duck as well as of other ducks were numerous. Muskrats were numerous in the marshes. Raccoon were frequently shot. On the George Vits place beyond the Tuley log cabin was a small marshy area. Here Mr. Schwartz shot many partridges in a poplar thicket. Fish were very abundant, the Indians occasionally spearing them. In Tuley bay and extending across to Niedecken point was a marsh in which the Indians speared and trapped muskrats. This has been elsewhere described.

#### *Niedecken Point Camp Site.*

In the forties and fifties a few Potawatomi occasionally camped on this wooded point on the south shore of Tuley's bay. Here the creek outlet of Beaver lake, flowing through farm and pasture lands of the John O. Rudberg estate, enters Pine lake. This end of the once marshy bay was an excellent muskrat hunting ground. The Indians erected their lodges on the lands near the mouth of the creek.

This site must also have been occupied by redmen long before the pioneer whites came to this region. The farm field adjoining and near the creek has yielded many flint arrow points in past years. Evidence of flint working (broken nodules, spalls, flakes and chips of white and grey and other flint) were also to be seen here. Mr. Christ. Schwartz found a Siouan-type red catlinite pipe in the field on the south side of the creek. Mr. Louis W. Jacobson has a blue hornstone knife found on this site. Other artifacts collected here are a stone celt, flint blanks, a stemmed flint scraper, a copper spearpoint with a socket, a bone awl, a fragmentary mussel shell pendant, a glass bead and an iron harpoon point. Several small fragments of a pottery ves-

sel are made of reddish clay, tempered with crushed rock and unornamented.

In a small garden near the Niedecken home we found scattered fireplace stones, a pebble hand-hammer, a broken flint blank, and numbers of flint chips and spalls.

Niedecken point is a picturesque gravel knoll, at its highest part fifty or more feet above the waters of the lake. On its top are a stand of cedar and other trees. The Niedecken home stands on another attractive knoll.

#### *Swallow Point.*

Adjoining the Niedecken property on the south and extending along the Pine lake shore is a fine oak woodland. The land rises gradually from the lakeshore, sloping to the east, and is rolling in character. It is a part of the John O. Rudberg estate. It is an extension of the old Indian camp site at the mouth of the creek at Niedecken point. Here the Indian women in early days of settlement gathered acorns, the supply being generally abundant. At the southern extremity of this woodland tract is Swallow point, a high rounded point occupied by several summer residences. This point was years ago known as Leuthstroms point being the place of residence of Dr. C. A. Leuthstrom, a widely known specialist in chronic diseases. Mr. Christ. Schwartz reports that an Indian burial was disturbed when a ditch was dug at that time on the Leuthstrom, now a part of the Anna M. Cudahy property. These bones a son of Dr. Leuthstrom re-buried. No particulars concerning this burial appear to be available. Other Indian burials are said to have been made here but these have not been found.

#### *The Island.*

In Pine Lake, at a distance of over six hundred feet west of Swallow point, is a pear-shaped island owned by the Pine Lake Yacht Club. This picturesque island is a hog-back rising out of the lake with a group of pine and other trees growing on its top and sides. Its northern end is produced in a long narrow point, its southern extremity rounded. Its general direction is northeast and southwest. Its length is given as about seven hundred feet and its greatest width as about two hundred feet. Some of the deepest water of Pine lake (79 to 84 feet) lies off the west shore of this



island. Between its eastern shore and the mainland its depth is 50 feet in places.

This island, once known as Sands island, belonged in the seventies to Josiah J. Sands, who had an estate on the mainland at Anchor point the next point south of Swallow (Leuthstrom) point. The Indian name for this island is given as Shquäk minêshê, taking its name from the pine trees. Some flint points have been collected on this island and picked up along its shore, the latter being probably washed up from the lake. Years ago an Indian burial was also unearthed on this island. Particulars concerning its character are not obtainable.

#### *Anchor Point Camp Site.*

Another former Indian camp site was on the old Sands estate on the shore of Sands bay lying north of Anchor point. The Josiah Jones Sands estate in 1873 extended from the present north boundary of the Mayer estate northward to the north boundary of the present Wahl estate. It included in its extent the present Finkler, Hanson, Briggs and Wahl (Weld) properties. North of it was the former J. A. Kirk estate (Kirkwood), which extended from the present Wahl place northward to the Cudahy property, and included the present Elser, Ott and Helmer places. Along the front of the former Kirk estate the shore bank is high.

Along the Sands bay shore the land along the lake shore is rather level and sheltered by the higher land to the north of it. It was in the early days occupied by a fine oak forest through which deer and bear roamed. To-day velvet lawns slope from the lake shore eastward to the fine homes on the higher land a short distance beyond. If these lawns are ever disturbed evidence of the former early Indian camp site must be found. A few Indian flint points have been found here in recent years in preparing flower beds and in making other improvements of these estates. Mr. Edward Krause, the well-known Hartland collector, reports the finding of two native copper spearpoints on the former Kirk property, on the present Helmer and Ott places. Several stone celts and a number of flint arrow points were obtained from fields on this estate when Mr. Kirk was its owner.

Burned stones and ashy soil in one of these fields indicated the site of the early location of a wigwam home.

Anchor point takes its name from its shape which has a curved projection on either side of its rounded extremity. It is a part of the beautiful Ida Finkler estate. The point is a high, narrow gravel ridge covered with a grove of oak, cedar and some pine trees. There is an especially fine stand of tall pine trees at its base. On the southern side of these is a small strip of cattail marsh in early days more extensive than today. It was a muskrat hunting ground.

From the point southward the Finkler land along the lake shore has high banks and is covered with a fine woodland of oak and other trees. There are a number of picturesque kettle holes, some circular and others ravine-like. At its southern limits a small marshy tract now partly in use as a hay meadow extends eastward to the Pine lake highway. This was another muskrat hunting ground of the early Indians. In the gardens of the Finkler estate flint arrow points have been found. A grooved stone axe was found in removing a stump on this property.

Because of the many kettle-hole depressions this land has the Potawatomi designation Mttësh wan kquetwen. The lake a short distance east of Anchor point attains a depth of 55 feet.

#### *Randall-Koehring Point Camp Site.*

South of the Anchor point property, on the southeast shore of the lake, and separated from it by the Mayer estate property is a curious T-shaped point, now an island and connected with the mainland by a small bridge. This forms a part of the Philip A. Koehring and Marjorie G. Randall (Rock Terrace) estates on the lakeshore opposite it. The T-shaped end of this point is over 1300 feet in length and about 300 feet in width at its widest part, near its middle. In former years there was a small bay with a cattail marsh both on the north and on the south side of the point. This has been partly filled in and this area converted into lawns and flower gardens.

In early days of settlement a few Potawatomi Indians occasionally camped on this point. The former marshland

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"Mttësh is pronounced like chë.

(Shêshko wăbshkokê, muskrat marsh) at the southern end of the lake, a narrow strip of which still fringes the lake-shore from the Koehring property southward along the Gibson shore, furnished good muskrat hunting for the Indians. A few flint arrowpoints have been found on the Point in planting shrubbery and making other improvements. Some have been found in the lake itself.

• The Koehring and Randall properties were formerly the Best estate. On the Koehring place the lake banks are high, with pot-holes in their rear.

#### *Gibson Site.*

The Gibson lands at the southern end of Pine lake are rolling in character and largely in use as pasture. Growing on top of the high lake banks are oak and cedar trees, some of the latter being of quite good size. At their base is a narrow strip of cattail marsh. The east and west Indian trail from Pewaukee lake to the Oconomowoc lakes passed by the southern end of Pine lake. The Gibson lands were a convenient camp ground for Indians passing on that trail, or those residing at the village on the northeast shore of Nagawicka lake, a half-mile south of Pine lake.

Some flint arrow and spearpoints have been found in the Gibson fields back from the lake bank on the east and west sides of the lake. If the present pasture lands are ever plowed the finding of additional stone and other implements and other evidence of early aboriginal occupation is to be expected.

### WEST SHORE

#### *Brumder Shore Village Site.*

The site of an early Indian village was on the northwest shore of Pine lake extending over the present residence properties of the several members of the Brumder family. This site appears to have extended from near the head of Indian bay at the north end of the lake southward along the shore of the lake to Oakland point, a distance of half a mile more or less. Along this shore the land along the lake bank is rather level with wooded hills rising in the rear. Much of the land along the lake bank was in former years under cultivation as a part of the J. Jacobson farm and in these

fields, now occupied by the lawns of the Brumder homes, the scattered hearth stones, flint workshop refuse, broken animal bones and clam shell fragments, scattered by the plow and harrow, were in former years to be seen. Here many stone and other implements have been collected. Others have since been found by workmen in gardening and engaged in other work on these properties.

In a very good archeological collection owned by Louis W. Jacobson are many flint implements and other specimens collected from the former cultivated fields at this place. Especially notable among these are a grooved stone axe, several rude stone celts, stone balls, a flint flaking implement, a quartzite scraper, a flattened piece of native copper, a rhyolite celt or blank, and several large flint blanks. Of flint arrow and spearpoints he has a large number of various forms (leaf shaped, triangular, stemmed, notched and barbed): of perforators, scrapers and knives there are a number of specimens. Among many other specimens gathered here in past years by other collectors are several grooved stone axes and two socketted copper spearpoints. Flint arrowpoints are still now and then picked up in the garden plots near the residences. Several sherds of cord-marked earthenware vessels have been found on this site. The late Mr. George Brumder is reported to have also possessed some specimens from this site. Indications are that this is the former site of an early Algonkian village, of just what date we may never know. There may have been some connection between this site and that on the opposite shore of the bay.

In pioneer days small numbers of Potawatomi occasionally erected their wigwams on this site. Both the fishing and the hunting were good at this place. Some fish were speared and others caught with seines. Turtles were also caught in shallow places and thrown on the banks to be killed and the meat removed. At this place the trail running between Mud and Pine lakes was intersected by the trail along the west shore of Pine lake.

There probably was a planting ground connected with this site but no one appears to now possess any certain information concerning it. Some red willow, the bark of

which was used by the Indians for smoking, still grows here. Their name for this kinnikinnik is pokkeêgân.

### *West Bay Site.*

Another Indian camp site was located on the shores of the fine large bay located on the west shore of Pine lake, a short distance south of the site on the Brumder estates. This bay cuts into the lands in a well-rounded curve, at its opening on the north shore being Oakland point (now occupied by Dr. Henry Hitz and Wm. K. Winkler) and on its south shore Pritzlaff point. Fronting on this fine bay are the Fagg, Vilter, Upmeyer, Messer, Schultz, Geeser, Weigel, Lynch, Spiegel, Pritzlaff and other attractive homes. High, wooded hills are in the rear of some of these estates.

This is an Indian site of whose prehistory and history we possess only meager information. As the shores of West bay are completely occupied by residences, lawns and gardens there is now no opportunity of recovering much of it from the soil. A few flint points are occasionally found in garden plots. In past years more implements were found. Louis W. Jacobson has in his collection a small well-made stone celt or hatchet found on the Winkler place; also a notched stone sinker found on the Dorestan place. This latter specimen is oval in form and made of a black gritty stone. The notches are pecked into the top and bottom edges rather than into the sides of the implement as is most frequently the case. Flint arrowpoints are from some of the neighboring properties. From the Jacobson farm in the rear of the estates on the north side of the bay he has a number of flint arrow and spearpoints, stone balls, a pebble hand-hammer and a grooved stone axe. A small rectangular piece of grey steatite (soapstone) from this place is about 1 1/8 inches in length, and one-half inch wide with flattened edges. It has been perforated in two places and has been broken at a third perforation. It is probably an ornament.

In former years a few flint arrows and spearpoints were also found on the then J. C. Iverson place on the north shore of the bay. Other persons have found in past years on the west shore of the bay flint points, a grooved axe and a few shell heads.

The few Potawatomi who camped here from time to time in pioneer days were chiefly engaged in spearing and catching fish, some of which they dried for future use. The old west shore Indian trail passed this site.

#### *Vogel Bay Site.*

About half a mile south of West bay a smaller bay indents the west shore of Pine lake. On its north shore is the summer residence of Mr. August H. Vogel and in its rear the Vogel farm and Paulines Wood Co. property, likewise the summer residences of Mrs. Emilie Nunnemacher, Mrs. Hedwig Barth and Mr. and Mrs. August C. Helmholz. This property was the former homestead of William Schuchardt, who settled here in 1852, and was sold after his death to the late Rudolph Nunnemacher, and purchased by Frederick Vogel, Senior, in 1885, whose descendants have resided here since that date. The south shore of this bay is high and steep with a number of pretty summer homes on its top. At the head of this bay hearthstones and a few flint chips were found in the rear of a small cottage in a spot from which the sod had recently been removed. Others were found on the adjoining cultivated field of the Vogel farm. At least one Indian wigwam was at some time located here. A few flint points and a chert pecking hammer have been picked up in this field. The west shore trail crossed these lands.

#### *Dorner Point Camp Site.*

Scattered stones from an Indian wigwam fireplace were found in a vegetable garden and small vineyard on the Fred H. Dorner summer residence property. Scattered near these were flint chips and fragments and it is evident that the manufacture of at least a small number of flint implements must have been carried on here at some time by the occupants of this primitive dwelling site. Inquiry of the employes on neighboring properties brought no information of other sites on this pretty point. Mr. Edward Krause years ago collected twelve flint arrowpoints from the fields of the E. Krause farm of which this site formerly formed a part.

The garden on the Dorner place is on the top of a high lake bank. From this place a gravel road leads down to a hook-shaped point on the lake bank below. Mr. Louis R. Bunde, Jr. states that years ago there was located on this

point, a short distance southeast of the house, a boulder heap which he and others undertook to examine. They removed the stones until they came to a stone-lined excavation, possibly an Indian burial place, but went no further in their exploration. No further information concerning it appears to be now available.

A wooded ravine or kettle hole is in the rear of the Dornier, Ott and other summer homes on this point. A wild cat is reported to have been killed in this locality in pioneer days. On the Waukesha atlas map of 1914 the region on the west shore of Pine lake from the north line of the Nunemacher property northward to Dorniers point is designated as Pine Lake Park.

## BEAVER LAKE

(*Lúbra*)

### *Interlachen Camp.*

Mr. Christ. (N. C.) Schwartz, a resident of Chenequa, states that in his boyhood, in about the year 1874 and later, groups of Potawatomi Indians from Pewaukee lake and elsewhere came to Pine lake. There were sometimes as many as fifty Indians, men women and children, in this company of prairie folk. They erected their lodges in the sheltered hollow on the shore of Beaver lake south of the high knoll upon which the Interlachen hotel now stands. This depression is between the highway (the old Indian trail) and the lake bank. These lodges they built of poles which they leaned together in the form of a cone, the wooden framework being covered with skins or cloth. Sometimes there were nearly a dozen habitations of this nature in the hollow.

The Indians seldom remained in camp here for more than a week or two, moving on from this spot to Mud, North and Okauchee lakes. Some came to hunt muskrats, these animals then abounding in the marshes. Their muskrat spears were long pointed and barbed iron rods fastened to a wooden shaft. They speared the animals through the roofs of their rush and mud house. Muskrats were prepared for eating by removing the skins and roasting the carcass in the fire or by cooking the meat in a kettle. These kettles were of sheet metal and light enough to be transported.

The nearest muskrat hunting ground was in Tuleys or Wilson's bay, only a few rods away, in a grassy and reedy marsh extending from the bank below the Chenequa hotel across this Pine lake bay to Niedecken point. These Indians had no ponies. They always had a number of dogs of the Indian breed. The last Indians whom Mr. Schwartz remembers camping in this locality came in 1881.

Mr. Charles Rudberg, whose father, John O. Rudberg, settled on the northeast shore of Pine lake in 1842, states that the Indians came from Pewaukee lake (some four and a half miles distant to the southeast) over the trail, now the road between Pine and Beaver lakes. In his father's day they passed over the trail in both the spring and autumn, sometimes in considerable numbers. They had no guns, using the bow and arrow in their hunting.

There were still many Indians camping about the Chenequa lakes in the late thirties and early forties. Other old settlers and their descendants remember that some of these natives came from other camps at Keesus and Nagawicka lakes.

#### *Chenequa Country Club Camp Site.*

All traces of a former Indian camp site located on the Beaver lake shore of the Chenequa Country Club have been obliterated in recent years by the construction of the golf fairways, clubhouse and road. The only traces of this site which remained exposed to view in November, 1928, were a few scattered hearthstones, flint fragments and chips, a broken flint blank and a small hammerstone which were found in a small vegetable garden on a small property (caretaker's house) belonging to the George Vits summer home on the opposite (west) side of the Chenequa highway. This small tract adjoins the southwest corner of the Country Club property. Mr. Frank Opithka, the caretaker, has a three inch notched spearpoint, made of light brown flint, which was recently found in this garden. In preparing the golf course a few flint points were found.

Below this garden and between it and the gravel ridge upon which the Interlachen hotel buildings now stand is a small hollow where in former years a few Potawatomi Indians are reported to have occasionally camped. It was a



sheltered spot and opens on to the Beaver lake shore. A former hotel keeper at Interlachen was Dr. John A. Rice whose interest in Indian history and ethnology was well known.

Two conical mounds are located on the west shore of Beaver lake. These are beyond the limits of Chenequa Village, on sloping ground near the road to the Country Club. They are within about one hundred feet of the lake shore. Near them indications of an Indian camp site (flint refuse and a few arrowpoints) have been found.\*

### MUD LAKE

(*Askewee*)

#### *Mud Lake Camp.*

Mud Lake is a small body of water, between Pine and North lakes. It is almost completely surrounded by high, wooded hills. The body of open water in its middle is surrounded by a cattail marsh of considerable extent. This pond was in former days, because of the good muskrat hunting and for other reasons, a favorite camp ground of the Potawatomi who erected their lodges on the lower land at the southeastern end of the ridge and a short distance north of the end of Indian bay of Pine lake. Here the Indian trail on its way to Mouse (Moose) and Okauchee lakes passed between Pine and Mud lakes, the present highway marking the former course of the earlier Indian pathway.

In Mud lake the Indian women dug the roots of the arrowhead (white potato) for cooking or roasting. Here they also cut and dried the leaves of the cattail for the making of matting. Old settlers remember seeing some of the Indian women carrying bundles of rushes on their backs.

### NORTH LAKE

(*Shänakoó*)

#### *North Lake Village Site.*

At the foot of this very attractive lake, about one-half mile north of the head of Pine lake, there is an area of marsh above which there towers a semi-circle of high oak-clad hills.

---

\* Wis. Archeologist, 2—1, n. s.

This cattail marsh was, like that surrounding Mud lake, a favorite muskrat hunting ground of the early Indians, who came over the trails from their villages at Pewaukee, Nagawicka and elsewhere to supply themselves with muskrat flesh and skins. Some of the meat, cut in strips, was smoked or dried in the sun. A creek connects the southern end of North lake with Mud lake lying south of it.

The site of an early Indian village appears to have been on the south shore of North lake extending from the very picturesque high point, once known as Riedeburg's point, westward along the south shore of the west lobe of the lake, on property now owned by Mr. Geo. W. Adams.

On the point the greater part of the land is turf-covered so that no evidence of this village was obtainable at the time of its examination. On the Adams subdivision west of its base this was also largely the case. Both here and on the point numbers of flint implements and some stone axes and other Indian tools and weapons have been collected in past years when parts of this land were being farmed.

In a small garden spot in the rear of a solitary cottage on the west bay shore hearthstones, a pebble hammerstone, a small triangular flint arrowpoint and a few flint chips were found. A short distance west of this wigwam site another small site was located in a cultivated field overlooking a marsh now partly drained. This level field is elevated about thirty feet above the marsh. At two different places near the edge of this field two separate groups of fireplace stones were found, doubtless marking two former wigwam locations. In this field, which lies to the west of the entrance driveway into the Adams subdivision some flint points have also been found.

This locality at the south end of North lake may have been the site of the village of the Potawatomi chief Shāna-koó. The only information available concerning him or his village is that North lake once bore his name Shānakooñebīn or "south cloud water", and that his son, Shāwananuquot, was born here, or near this place. Shunakeé is a slight distortion of these names.

From the foot of North lake northward as far as the northern boundary of Chenequa Village the east shore of the lake is high and with a woodland of oak and some cedar

trees. In its rear are numerous kettle holes. Some attractive summer homes are perched on this bank of the lake. Over these properties ran the Indian trail to the Oconomowoc river at the head of the lake. Other Indian camp sites, generally of small extent, are on the other shores of North lake. From these, in recent years, many flint points, several stone axes and celts, stone balls, a slate gorget and several socketted copper points have been collected. Several crushed stone tempered unornamented and cord-marked potsherds have been found.

### INDIAN IMPLEMENTS

The Indian camp and village sites on the shores of the Chenequa lakes have produced a quite large number of stone and other implements, weapons and ornaments since the cultivation of the first lands in the region by the pioneer settlers. Only a comparatively small number of these are, however, to be seen in private or public collections at the present time. One wonders what has become of the many Indian artifacts found on these sites during the past eighty or more years. They have been given away to friends, some have been sold to collectors and to dealers in Indian relics, others have been lost or destroyed. But very few have found way into Wisconsin museums.

In the extensive archeological collections of the Milwaukee Public museum there is a single socketted copper spearpoint and two flint arrow points from Pine lake and a copper spearpoint with a single-notched tang from Beaver lake. From Hartland, near Pine lake, there is a socketted copper spearpoint and another with a rattail tang. Two pieces of worked catlinite (pipestone) come from the same locality. There are no specimens from North lake.

In the Logan museum at Beloit College there is a knife made of dark brown quartzite, five inches in length, and a chisel made of greenstone from North lake, a flint knife 4 3/4 inches in length, and a fluted stone axe with faint grooves from Hartland, a spud made of black diorite, a catlinite gorget of an oval form with one perforation from Lake Keesus, a brown quartzite spearpoint and a spatula-shaped

copper spearpoint from Merton. In the State Historical museum there are several flint arrowpoints from Pine lake, a curved-blade scraper made of brown chalcedony from Hartland, and three socketted and one spatula-shaped copper spearpoint from Merton.

The best collection from the vicinity of Pine lake is that of Mr. Louis W. Jacobson. His specimens are largely from village and camp sites on its northwest shore. This collection contains about five hundred flint implements (arrow and spearpoints, knives, perforators and scrapers), flint blanks, grooved axes, celts, stone balls, hammerstones, a stone sinker, a steatite ornament, a piece of worked copper and a single socketted copper spearpoint.

In private collections at Waukesha, Pewaukee, Oconomowoc and Milwaukee are a few other specimens from sites and other places on the shores of the Chenequa lakes.

### THE CHENEQUA TRAILS

Of the trails or Indian pathways which passed through the Chenequa lakes region the principal one was the trail which ran from the Potawatomi and Menomini villages at Milwaukee to the Oconomowoc lakes, and westward to the Four Lakes at Madison. This important trail, traveled in succession by Indians, fur traders and early white settlers, became the early road from the Lake Michigan shore to western Wisconsin. It passed through the present villages of Pewaukee and Hartland and very close to the southern extremity of Chenequa (Pine) lake in its westward course. It appears on the Milwaukee Land District map of 1840 and on other early state maps. Its course is still largely followed by state highway 19.

A well-traveled trail ran from the Potawatomi village on the Fox river at Waukesha to Chenequa. From Waukesha (Prairieville) this Indian path pursued a northwesterly direction to opposite the western end of Pewaukee lake (Pee-waunawkee), continuing then in the same direction to the site of a Potawatomi village at the northeast side of Nagawicka lake. From this place it turned northward, a distance of about one-half mile to the southern end of Chenequa

(Pine) lake, where it intersected the Milwaukee trail. This trail appears on the "Map of Wisconsin Territory, 1839."

Trails were also located on both shores of Chenequa lake. The trail on its east shore followed a northward course through the woodlands from the foot of the lake to the creek joining Chenequa and Beaver lakes. Beyond this point it continued northward near the east shore of North lake and on toward Monches, two and a half miles northeast of the lake. In the early forties Potawatomi, and occasionally groups of Menomini and Winnebago Indians, were constantly passing over this trail on foot or sometimes with a few ponies, going both north and south on their way to their camps and hunting grounds, or to trade with the whites at Waukesha.

Mrs. Charles E. Christenson, the wife of an early Danish settler residing on the east shore of Chenequa lake, once had an interesting experience with one of the redmen on this trail. She was walking through the forest when she unexpectedly encountered an Indian going in the same direction. Greeting her he immediately afterward asked her "to be his squaw". This very unexpected proposal so frightened the young woman that she took the first opportunity to climb over a rail fence near at hand and flee to her log cabin home.

A trail from the direction of the present village of Merton on the Bark river passed along the north shore of Beaver lake and united with the Chenequa trail beyond. A similar trail from the same locality ran along the south shore of Beaver lake and united with the same trail near the creek.

When Mr. John O. Rudberg, the early Pine lake surveyor and settler, was laying out the roads of this region he preserved as nearly as possible the course of these early Indian trails.

On the west shore of Chenequa lake a trail also ran northward from the southern end of the lake. It passed the heads of the several fine bays in its course through the woods, and at the head of the lake and Mud lake intersected the trail running toward present Stone Bank, and passed northward to the Indian village site on the south shore of North lake.

From the foot, on the west side of Chenequa lake, a trail also ran in a northwesterly direction to the Indian camp

sites on the northeast shore of Okauchee lake. Its course was between this lake and Moose (Mouse on the early maps) lake and on to Stone Bank. A shore trail also ran along the lake shore on the west side of Chenequa lake. This trail some of the early settlers knew well.

Some of the Waukesha County trails are described as from 20 inches to 2 feet deep, and more like troughs than paths. They were in use in both summer and winter. Indians on snowshoes were occasionally met following them.

### INDIAN NAMES OF OTHER WAUKESHA COUNTY LAKES

Both the Prairie Potawatomi and the Menomini had names for the Waukesha County lakes, the Potawatomi for all of them, the Menomini for some. Of the Potawatomi names some have survived. A larger number of lakes in this county bear Indian names than in any other county in southern or central Wisconsin. The significance of the names of several of these lakes has only recently been recovered.

|                   |  |
|-------------------|--|
| Okauchee          | Okatei, "something small"; Okidji, a "pipe-stem"                 |
| Keesus            | Kisóbis, "sun lake"  |
|                   | Tuckkipping (Lapham), "spring" or "well"                         |
| Peewaukee         | Peewaunawkee, "flinty place"                                     |
|                   | Pewaukeeneening or Pewaukeenee, "lake of shells" or "snail lake" |
|                   | Nibeewühkih, "watery or soggy ground"                            |
| Nagawicka         | Nagäwike, "sandy"  |
|                   | Nagämowike, "songstress"   |
| Nashota           | Nishóta, "twins"   |
|                   | Nijode, "twins"  |
| Nemahbin          | Nahmábin, "shiner"   |
|                   | Miskonábin, "sucker"   |
|                   | Nämebin, "sucker"  |
| Ashhippun         | Äshpûn, "raccoon"  |
|                   | Äsepan, Essiban, "raccoon"                                       |
| Oconomowoc        | Kooñomowok, "name of a waterfall"                                |
| Crooked           | Pouack (Lapham)  |
| Mouse (now Moose) | Wäbkëñshquës, "mouse"  |
| Mud               | Askéwee, "mud"   |
| Silver            | Joniia or Shoneeä, "silver"                                      |
| Golden            | Wissäuwä, "yellow"   |
|                   | Mishwäwä, "elk"  |
| Muskego           | Müskikwä, "a sunfish"  |
|                   | Mashkig, "swamp"   |
|                   | Muskeguack, "fishing place"                                      |
| Little Muskego    | Monish (Lapham)  |

## Other Names

|           |       |                                   |
|-----------|-------|-----------------------------------|
| Mukwanago | ----- | Mūkwa, "bear" (place of the bear) |
|           |       | Mequanigoick, "ladle"             |
| Waukesha  | ----- | Wákushä, "fox"                    |
|           |       | Wawgoosha, "little fox"           |
|           |       | Walka, "fox"                      |

## INDIAN VILLAGES OF THE SURROUNDING REGION

In the years 1820 to 1846 there were a considerable number of Prairie Potawatomi villages on the banks of the streams and lakes in the vicinity of the Chenequa group of lakes. Some of these were permanent villages and others seasonal or occasional camps. Well-trodden trails across the prairies and through the forests connected all of them.

*Tcheegascoutak*

Of these early Potawatomi villages the largest and the most important was the one located on the present site of the city of Waukesha. Its Indian name was Tcheegascoutak, meaning "burnt, or fire-land", a name given to it because the broad prairie lands in its vicinity were frequently ravaged by prairie fires. The village, which was a permanent one until the year 1837, was located in the very heart of the present city centering in the vicinity of present Cutler Park. It is reported to have been about a mile in extent. Some wigwams were also located at the base and also on the crest of the wooded ridge on the opposite bank of the Fox river. It was surrounded by quite extensive corn fields and gardens. The wigwams of the Indians were built of bent saplings fastened with strips of bark and covered with bark or skins.

The number of Indian inhabitants of the Waukesha village in 1836 was probably one thousand or more. In 1827 Ebenezer Childs found four hundred warriors in Tcheegascoutak.

The chief of this village was Wakushä, the Potawatomi name for "a fox". He is described as "tall and athletic, proud in his bearing, dignified and friendly". His clothing and ornaments were richly decorated skins, strings of beads and shells and tufts of feathers.

In 1837 the Waukesha Indians began to remove from Wisconsin to the reservation provided for them by the Government in Kansas. In the forties small parties of Potawatomi, who apparently never left the state, camped on the ridge on the north side of the river.

### *Okatci*

Several Potawatomi Indian camps were located on the shores of Okauchee (Okatci) lake. One of these was in the forties on its northern shore. In 1845 there were twenty-five or more Indians in camp here. Some continued to camp in this locality until the year 1876.

Another group of these Indians had a camp on Railroad bay on the south shore of the lake. A third camp was situated on the west shore of Garvin lake and the nearby northeast shore of Okauchee lake. They also had camps in the forties, and perhaps earlier, on the north shore of Moose (Mouse) lake, and on the west side of the Oconomowoc river at Stone Bank.

### *Koónomowauk*

In Oconomowoc there was an Indian camp on the east bank of the Oconomowoc river. There was a pond here on the Worthington place which furnished good muskrat trapping. This is reported to have been a Menomini, but it probably was a Potawatomi Indian camp. Another camp was on Hewitts point on the north side of Oconomowoc lake. At Silver lake, one and a half miles southwest of Oconomowoc, a Potawatomi village was, up to the year 1837, located on its south shore. Here the priests of the Nashota mission preached to the Indians.

### *Nagäwicke*

On the shore of Nagawicka lake a Potawatomi camp was located on the northeast shore of the Bark river entrance to the lake. Fifty or more Indians were sometimes in this camp. It was a more or less permanent camp the natives sometimes remaining through the winter, fishing through the ice and hunting small game.

At the outlet of the lake in present Delafield there was a



village of at times from fifty to one hundred Indians. These Indians speared fish in both the lake and in the Bark river. A favorite camp ground was about a spring on the Warren farm, on the east bank of the Bark river, about one-half mile south of Hartland.

### *Pewäünuäwkee*

At Pewaukee lake the Potawatomi village was on the east shore in the present village of Pewaukee. This village was in existence as early as the year 1827 and the Indians continued to camp here up to as late as 1846. In the former year its number of inhabitants was four hundred. This number very probably included the inhabitants of several other smaller camps on the south shore of the lake. These contained from thirty to forty Indians. In these years the east end of the lake was marsh thru which a small stream flowed.

### *Monches*

At Monches on the Oconomowoc river there was a Potawatomi (?) village of which Monches was the chief. He is buried in the Indian cemetery located there.

### *Menomini Villages*

At Menomonee Falls, about thirteen miles northeast of the Chenequa lakes, there was a village of Menomini Indians. A large Menomini village was located in 1842 on the edge of the so-called "Wild Marsh" south of Menomonee Falls.

### *Other Villages*

Other important Prairie Potawatomi villages in Waukesha County were located at Mukwonago and at Muskego lake. An estimate of the total number of these Indians in the county at the time of the coming of the earliest white settlers places their number at nearly 2000.

At this time they also had villages at Milwaukee, Racine, Kenosha, Burlington, Delavan lake, Geneva lake and Lake Koshkonong. North of Milwaukee there were Potawatomi

villages at Waubeka, Cedar Grove, Sheboygan, Manitowoc Rapids, Two Rivers and other places.

### *Vieau Trading Post*

"In early times, Waukesha County was a rich field for trappers, owing to the large number of lakes within her borders. This was known to the early traders who sent agents, usually Indians or half-breeds, from Green Bay, or across from Prairie du Chien for furs".\* Jacques Vieau, the Milwaukee trader, visited large Potawatomi villages at Waukesha and Mukwonago in 1804-05, in the interests of his business. Andrew J. Vieau, his son, acting as his agent, established a trading post at Waukesha in 1827. His log-cabin store was located where St. Josephs Catholic church now stands.

To his post came nearly all the Waukesha County Indians. In exchange for the muskrat, mink, otter and other skins, which they brought to him, he provided them with cloth, beads, jewelry, axes, hoes, firesteels, knives, awls, guns, powder and shot, and other articles which they required. In 1837 he sold his stock of goods to Solomon Juneau. He also visited during the ten years nearly all of the Indian villages and camps in Waukesha County.

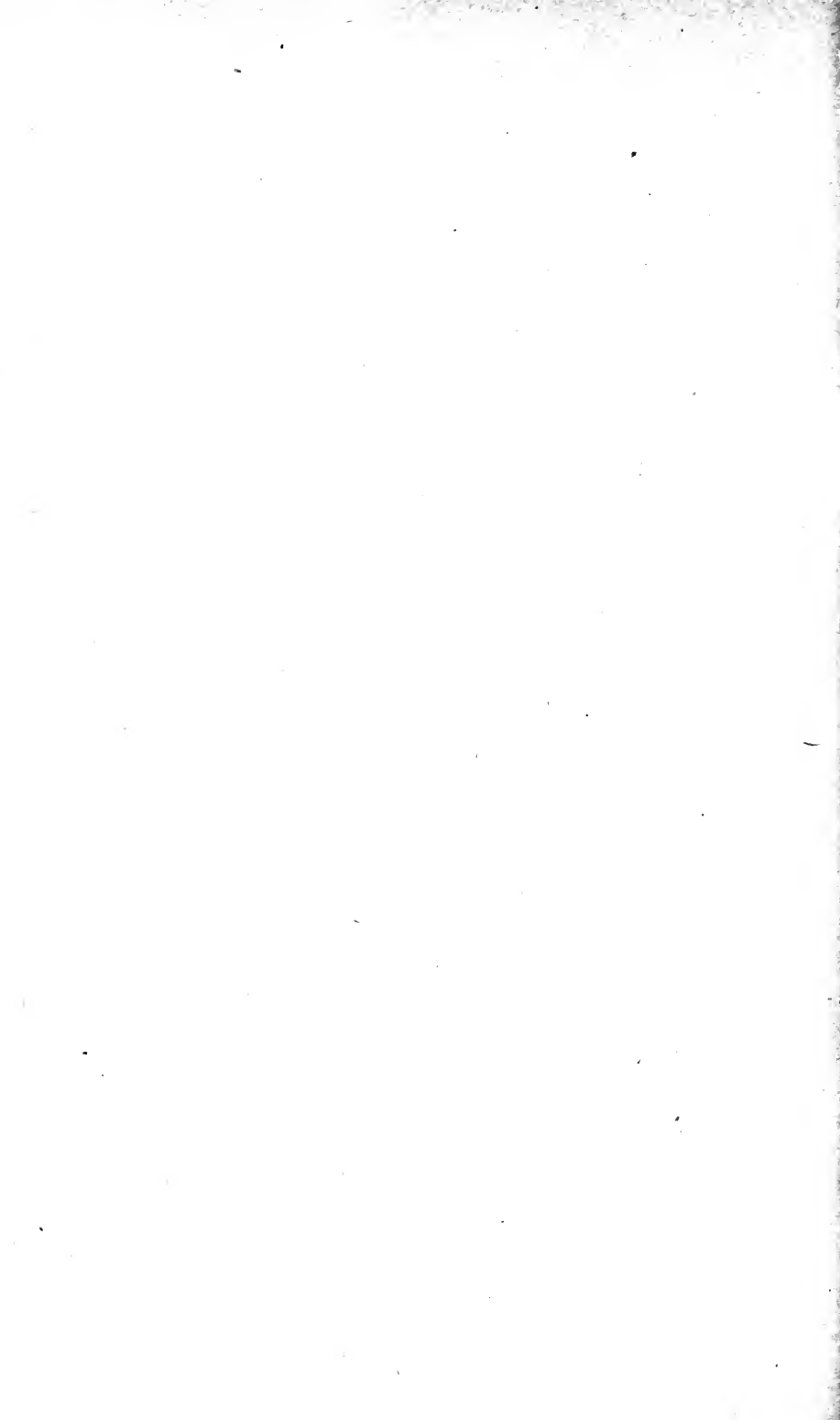
After the removal of the Prairie Potawatomi to the Missouri river in Iowa some Indians are reported to have returned over the trails, all the way to Waukesha County, to trade with favorite traders.

### CLOSING REMARKS

The information presented in this report on the Indian history of the Chenequa Lakes region was obtained from an investigation of the portions of the shores of the three lakes which lie within the boundaries of the Village of Chenequa, made at the request of prominent residents of the Village; also from the records of the Wisconsin Archeological Society, through interviews and correspondence with old settlers and the descendants of pioneers and with Wisconsin Indians, through the examination of local and other private archeological collections and those in the museums at Madi-

son, Milwaukee and Beloit, through a study of the maps, manuscripts and literature in the State Historical Library at Madison, and from other sources. A more detailed and attractively printed and illustrated report is being printed by the Village officers for its residents.

Acknowledgment is made elsewhere in this monograph to some of the many persons, including Wisconsin Indians of the Potawatomi and Winnebago tribes, who have contributed valuable assistance in its preparation. All others who have helped are also requested to accept our grateful thanks.



# The Wisconsin Archeologist

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Vol. 10

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NEW SERIES

No. 2

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PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE



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## **FIRE-STEELS TECHNIQUE IN ARCHAEOLOGY OLD BEACH CAMP SITES**



**PUBLISHED QUARTERLY BY THE  
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## **Milwaukee, Wis.**

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CHARLES G. SCHOEWE  
President, Wisconsin Archeological Society

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## SUGGESTIONS ON TECHNIQUE IN ARCHAEOLOGY

Alonzo W. Pond

The 1930 Logan-African Expedition of Beloit College depended on college students, most of them undergraduates, all but one of them without previous experience, to collect data from the shell mounds of Algeria. These untrained students, excavated, sorted, treated with preservatives and packed in three months over 36,000 artifacts and thirty human skeletons besides several packing cases of animal bones. They made the necessary notes concerning the work so we are able to report ten times the scientific results we could have accomplished in the same period without the help of students.

The experience with students, conversations with a number of enthusiastic amateurs and the recollection of my own early problems are my excuse for attempting this paper on technique in prehistoric archeology.

First let me say that the amateur archaeologist is an essential help to the science. He can and does gather data which materially adds to our knowledge. There are many problems which he can solve more efficiently than the professional. There are often problems located in his own locality on which he can spend his spare time for several years if necessary. Finally, with an intimate knowledge of his region he can explain those peculiarities of cultures which are influenced by the special conditions of his locality.

Many amateurs begin their work in Archaeology as collectors only; by that I mean their interest is centered in securing beautiful specimens or specimens different from those in some other collection. All of us admit a thrill of

pleasure in the exceptional specimen and such pieces have an important place in science, but they are not all important.

The real archaeologist whether amateur or professional recognizes that broken and unfinished specimens often throw more valuable light on scientific problems than the most beautiful or perfect specimens ever found.

Probably Mr. Skavlem's experimental work on the primitive methods of working stone is the best example of the value of broken and unfinished pieces. It was through a study of such specimens that he learned his technique of making stone tools and has been able to answer some of the most puzzling questions asked by amateurs and professionals from Alaska to Australia.

Many consider that archaeology is a cultural science; that it is studied merely for the pleasure it gives; that knowledge of its facts only satisfies man's cultural curiosity. I like to think of it as the foundation of the larger study, Anthropology, which may be described as the science of understanding human beings. That gives the anthropologist a big place in the world but there is constant evidence of his need wherever modern civilization comes into contact with primitive people. The anthropologist learns to understand the uncivilized people who work under him. Through that understanding he is able to get them to cooperate to a greater extent than those who try to force their own way of doing things without a knowledge or consideration of the primitive customs with which they conflict.

As a background or foundation for understanding human beings and their doings archaeology has an excuse for being, even in a practical world of affairs. It helps to answer those age-old questions, "where do we come from?" and "where are we going?" It answers them by tracing the steps over which we have climbed to our present state. It reveals the many false starts and abandoned lines of effort which mark the road from yesterday to tomorrow. The scientist with the knowledge of those efforts can help progress to profit by the experiences of the past.

The archaeologist who is only a collector, who is inter-

ested only in the most perfect specimen is accordingly missing half the fun. He is contributing little to the science and often destroys more than he contributes. There are hundreds and thousands of problems to be solved. All of them are of some importance, for the whole story of the past will never be complete until all those problems are solved. Each solution adds something, no matter how little, to the chain and when all the archaeologists, amateurs and professionals realize the real importance of the science they will be less likely to be satisfied with only the collector's pleasure.

While working with fourteen college students in the shell mounds of Algeria, there was one rule repeated almost every day. It is the first rule of all sciences and must be adhered to. GET ALL THE FACTS! If one is working a village site in Wisconsin or in the Sahara Desert, if he is excavating a Mound Builder tumulus or a Snail Eater shell mound every fragment of flint, bone, stone, charcoal or other material has some significance and the scientist working it must know that significance before he discards any fragment.

My students handled 360,000 fragments of flint last spring. All of them were examined at least three times before ninety percent were thrown away. Thousands of bone fragments were examined to be sure that no fragment was discarded which had any possibility of being identified by the paleontologists or which gave any evidence of being worked or used by man. Hundreds of hearthstones were handled to be certain they had no story other than that they had been in the fire. Tiny fragments of charcoal were collected so that the paleobotanist will be able to tell what sort of plants or trees were used as fuel by the Snail Eaters thousands of years ago. Great collections of snail shells were made to determine the different species eaten by those ancient people. As far as we were able we tried to get all the facts. To do that we sifted every shovel full of dirt and ashes that was excavated from the mound. Our methods enabled us to collect hundreds of tiny flints not over half an inch long and we sifted about ten cubic yards of ma-

terial each day to get them. Hunting for the needle in a hay stack really isn't an impossible job—provided, of course, that the needle is going to throw some tiny ray of light on the problems of archaeology.

Another rule of our African camp was at first hard to enforce. It was LABEL EVERYTHING. Some students would bring in their material intending to label it in camp. By the time they got around to it again they had forgotten whether it came from the vicinity of Skeleton #10 or level three. Occasionally bags of material got mislaid for several days without a label. Such material was thrown away unless there were characteristic specimens in it which could be given to camp visitors as souvenirs but it was never included in the collections for study. After the first few days, however, the students saw the importance of labeling.

Light canvas bags 11 inches long by 7½ inches wide were provided in quantities. For the fragile specimens the usual accumulation of match boxes and small tin cans found at any camp were used. Everyone in camp had indelible pencils and by wetting the canvas bags with water or saliva they could mark the location of the material beyond any danger of confusion. Paper labels were also placed inside the bag so that often only a number appeared on the outside. Large stones etc., which were too big for the bags were given a number with indelible pencil on the specimen. Often a small piece of white adhesive tape was stuck to the specimen and the number of other label written indelibly on its white surface.

When it came to sorting the material the rule was still in force. A paper label was made out bearing the site number as well as the classification of the material in each sorting can. Trays were provided for grouping and handling the cans. Excellent sorting boxes can be made by cutting condensed milk cans in two with a knife and hammer or a pair of heavy shears. The sharp edges can be bent over with pliers and battered down with axe and hammer, so that there is little danger of cutting one's self. But above all else material must be kept labeled at all times.

One of the questions I am most often asked even by ama-



teurs who have good sized collections is, "How do you know where to look for material?" Most prehistoric peoples whose only records are archaeological, were to a large extent nomad hunters dependent on food supplies which they did not control. To find these records the archaeologists must search for the localities most likely to have been favorable to their camp sites. Naturally such places can not be too far from water. In North Africa we hunt along ancient stream beds. Any place which looks like a good camping place, which was at the time of habitation near water and fuel is a good locality to examine carefully.

In the Gobi Desert, Mongolia, we found the most likely places were solidified sand dunes in valleys. Probably these dunes were active at the time they were inhabited by prehistoric people. They furnished shelter from the hard winds and supplied fuel as there was more vegetation on the dunes than on the plain.

In Wisconsin we know that the junction of two streams was usually a favorable habitation site for prehistoric man. Strategic points on lake shores and stream banks were suitable localities.

Once the general type of spot most favored for a camp in any given region is known there is only one way to find evidence of prehistoric habitation. That is to go back and forth with eyes on the ground. Quarter the region like a dog hunting for a scent. If the land is under cultivation and can be examined without damage to the crop, the most favorable time is after a rain. Then flints etc., will be washed free of dirt and are more easily recognized. If vegetation covers the region, about the only likely method of search is to follow the banks of streams examining them carefully for flints, pottery, bones, etc., which are always plentiful on village sites. Mounds are generally visible even on vegetation covered land. Like village sites, they are found only by careful search, aided by questioning the inhabitants of the locality.

When the habitation site or mound has been located the next step for the scientist is to record it. If possible this should be done as accurately as may be on the largest scale

map obtainable. If no map is available one can make a sketch including the important geographical features by which the place can be found again.

Notes should be taken even if the sketch is drawn to scale. At least one and preferably two or more fixed points should be included. Trees die, creeks and rivers change their banks so that if possible it is well to include section corners or other surveyors points in the notes and sketch. Give the accurate distance and directions from such fixed points and tell how they were arrived at, pacing, measuring or estimating.

If excavations are to be undertaken photographs should be made of the site first, and an accurate drawing made before dirt is removed. For the drawing, cross sectioned paper is most desirable. A base line should be run through the nearest point (section corner, etc., corner of large foundation to building, center of spring, bridge buttress, anything likely to be permanent or of sufficient importance that even if removed its location can be found in later years), and a second base line run at right angles to the first. Example—first line is north and south; second east and west. These base lines can be marked at stated intervals with stakes. Five foot intervals, 1 yard or 1 meter intervals are handy. If both base lines are outside the area mapped references are more easily made as all are in the same quadrant. For instance A. is 4.5 N, 3 E and is located as quickly as a point on a map where latitude and longitude are given. When it is desired to mark the exact location of an object in an excavation the point can be given as above and its distance from the bottom of the excavations or from the surface recorded in the notes unless the worker cares to make cross section drawings to show each find of importance.

If the whole of a given area is to be excavated and that is the desirable thing to do whenever possible, a trench should be started outside the site along or parallel to one of the base lines. The surface of the site should always be cleared ahead of the trench which should be extended or widened in the direction of the second base line. As soon as an

archaeological stratum (pay dirt) is reached extreme care must be exercised.

All of the non archaeological deposit above the pay dirt should be removed and the interesting stratum attacked from *above*. In this way all skeletons, pottery, flints, axes or other furniture can be exposed so that photographs and drawings can be made to show the relation of each article to all others. In working from above there is no risk of specimens falling out of place before one is ready for them to be removed.

Skeletons or parts of skeletons should not be removed until the whole has been exposed and photographed. Care should be taken not to move any bones before a photograph showing the whole skeleton in place is made.

For ordinary trenching and for removing the dirt above an archaeological deposit pick and shovel may be used, but as soon as pay dirt is reached small hand trowels, small hand picks, whisk brooms and two-inch wide paint brushes are better tools. Pocket and case knives are also handy. With such tools carefully handled the most fragile skeleton may be exposed for photographing. Expose all objects *from above* so that they may finally be lifted out of the deposit.

Bones, both human and animal are often extremely fragile. To remove them at all requires care. Once they are brushed free of dirt with a fine paint brush they can be treated with a dilute solution of shellac. This is sprinkled on with a paint brush. Ordinary commercial shellac is about "four pound cut." This may be diluted with three or four parts of denatured alcohol. That is, one part shellac and three or four times as much alcohol. This makes it very thin so that it will easily penetrate the exposed bone. When the alcohol has evaporated the shellac will hold the particles of bone in place. If the shellac is well diluted there will be no glossy or unnatural appearance to the specimen. It must be *thoroughly dry* before being moved or the specimen will surely fall apart.

Either ordinary or white shellac may be used but the white is less likely to color specimens. If a piece is especially fragile it may be desirable to treat it with a less dilute

solution. However, the thin solution should be applied first to strengthen the central portions and the thicker solution applied later. If too concentrated, the shellac leaves a glassy surface which can be removed with a soft cloth or brush soaked in alcohol.

After a specimen has been photographed and is ready to be taken from the deposit every care to keep it from being broken is necessary. Pieces well hardened with shellac may be wrapped in excelsior or other packing material and then boxed if they are to be shipped. All packages should be labeled inside as well as outside.

There is much more to the technique of the science of archaeology but if the foregoing will answer some of the questions of the amateur it has served its purpose.

As a summary may I include the rules each student on the Logan-African Expedition knew.

#### FRAGILE! DON'T BREAK! LABEL!

These are the laws of the archeologist.

1. "UNE FOUILLE BIEN FAIT VAUT UNE CENTAINE GRATTE," Pitard. One job well done is worth a hundred started.
2. A FLINT OR BONE WITHOUT A LABEL IS JUST A PIECE OF JUNK BUT A FLINT OR BONE WITH LABEL CORRECT IS A SCIENTIFIC FACT.
3. WE HAVE BUT ONE JOB: *GET ALL THE FACTS.*
4. NOTHING IS TOO TRIVIAL TO NOTICE, BUT DON'T GET LOST IN THE FOREST OF TRIFLES. (Don't let trifles blind you to the importance of the general problem.)
5. GET ALL THE DATA ON THE SITE YOU ARE WORKING.
6. LABEL THE DATA AS ACCURATELY AS POSSIBLE WITH THE TIME AT YOUR DISPOSAL, *BUT LABEL IT.*
7. CLASSIFY YOUR DATA. MAKE YOUR NOTES SO UNDERSTANDABLE THAT IF THEY ARE FOUND A HUNDRED YEARS FROM NOW YOUR WORK WILL NOT HAVE BEEN LOST AND CAN BE PUBLISHED BY SOMEONE ELSE.
8. ACCOUNT FOR YOUR DAY. WRITE IT UP EACH NIGHT IF ONLY A WORD.
9. REPORT UNCERTAINTIES IMMEDIATELY. Any condition in the deposit you are working which you do not understand is

an uncertainty. Report it to headquarters camp and see that it is so protected that headquarters can study the problem on arrival.

10. IF YOU FIND A SKELETON STOP YOUR WORKMEN, keep everyone away from your diggings. Expose the complete skeleton yourself, carefully and meticulously. Use a camel's hair brush. It's fragile. Don't break it. Send for your nearest colleague as soon as you are sure that you have a skeleton. Notify headquarters camp immediately. Don't dare to leave the skeleton until precautions for its preservation have been taken. Keep everyone away from the trench even if you must use force.
11. RELATIONS ARE IMPORTANT.

Your problem will be solved only when you know the relationship of every item in a deposit to everything else in the deposit. The primary object of the expedition is to know the relationship of each one of hundreds of sites to all of the others.

Mohammedanism holds millions of followers because seven times each day they repeat. "Allah is great, Allah is all powerful, there is no God but Allah and Mohammed is His Prophet." Archaeology is less exacting. Read its laws once a day.

## OLD BEACH CAMP SITES IN WINNEBAGO COUNTY

George Overton

The student of archæology who has followed the action of the natural elements, as well as the manipulation of natural resources by aggressive man, can bear true witness to the changes wrought in a lifetime. For students who seek old camp sites I shall relate my observations having played and worked much on the adjoining waters.

Our Lake Region consists of a group of three lakes above and to the westward of Lake Winnebago—Lake Butte des Morts, three miles west of Lake Winnebago, is about five miles long. Lake Winneconne, six miles above, is about two and a half miles across. Lake Poygan is about three quarters of a mile west of Lake Winneconne, but the connecting river was about two miles long. A long narrow point along the south side of the lake separates lake and river.

In 1847 the outlet of Lake Winnebago was first harnessed for power. The charter for the first dam provided that there should be no raise in the level of the lake. Gradually, however, the dams were built up several feet which raised the levels of all the lakes. The lakes overflowed their natural banks and the low lands adjacent were converted into marshes while the old marshes were washed away.

The crowding and heaving of expanding ice in early winter, the pounding and grinding of the spring breakups, followed by the monstrous waves of the spring gales tore the natural barriers away. The undertow of the wave action on the soft bottom lands carried all the lighter particles out into deep water. Roots, stems and partly decomposed vegetable matter were washed ashore and deposited in ridges along a new margin. All the heavier material such as stones, pebbles and other debris together with the coarser sand was left practically undisturbed. The old beaches became mere sandbars covered by from two to four feet of water according to the season. Back of these bars were mud flats which during summer were generally covered by aquatic plants. The fringe of bulrushes which in the old

era bordered the lake persisted under the changed conditions. To this day they may be seen growing out in deep water, from a quarter to half a mile from the present shore, indisputably marking the former outline of the lakes.

Beginning in 1889 and continuing during the next four years the mills drew the water down to practically its original stage. The old beaches appeared as smooth hard packed sand with here and there a trace of the old shingle on their outer margin.

My first archeological find happened on the north shore of Lake Winneconne in the fall of 1889. I was hauling a rowboat across a stretch of shingle. Between my feet I noticed a stone with a groove across it. I picked up the first stone ax I had ever found. Crude and badly battered, but none the less a prehistoric artifact which I proudly cherish to this day. Immediate search was soon rewarded by finding another, and then the hunt was on. We were working on the lake at the time and had some leisure every day to search the beach. We found two or three more axes and several celts all within a distance of ten rods from the place of the original find.

Farther down the beach we found a number of arrow points and an occasional perforator. Broken deer bones and fragments of antler were very much in evidence. Potsherds were quite abundant but in our youthful ignorance few were preserved. When the fall winds came on and drifted the sand pickings were better. My first copper was a very perfect awl pointed at both ends.

The next fall (1890) I was again living in the same vicinity. Our first trip to the beach after the water went down netted a pocket full of arrow points, a socketed copper spear five and a half inches long, a copper arrow point, and a seven inch slender square-butt flint spear point.

Several trips during the next few weeks resulted in recovering about a dozen coppers, three more axes, four celts, numerous arrow points, a very thick brown quartzite pike head, several perforators and two large chalcedony arrow points one of which is practically perfect.

The beaches by this time had been exposed for two seas-

ons and the wind had blown away much of the lighter sandy deposit. We now learned where to look for relics. When we found a place where finely crumbled rotted stone and pebbles were mixed with the sand we knew the old beach was exposed, and careful search seldom went unrewarded.

The beach I have described is located on the south half of section 32, Town 20, Range 15 east. It is on the farm of the late Jas. Clark estate.

A very fruitful beach was on the east side of Lake Winneconne. This beach extended from the mouth of Mud Creek south the whole length of the Olen farm. Here C. T. Olen, as a boy, started the Olen Collection which is the largest and most representative collection of Winnebago County prehistoric implements.

South of Lake Winneconne, on the extremity of the narrow ridge which separates it from the Wolf River, now called Goose Island but then a part of the main ridge, C. T. Olen came upon a camp site near a small spring. He found several coppers and also twenty flint arrow points grouped in a small space, evidently a cache that had been washed out.

Scattered around a spring on a small island in Kenneley's Bay, an enlargement of the Wolf River between Lakes Winneconne and Poygan, Fred Clark found four copper points, several flint arrow points and other debris indicating an old camp site.

#### LAKE POYGAN.

The south shore of L. Poygan did not yield a great amount of material in any particular locality such as would indicate a large or long used camp site. A birdstone came from near the Pay Grounds. Coppers, flints, celts, axes, hoes, ceremonials and a scattering number of trade implements were found by various residents and relic hunters. It is impossible to detail a list of finds or give an accurate description of the individual pieces at this late date. I am convinced from what evidence, first hand and hearsay, that I have been able to gather that a considerable amount of



material was collected at different times and places during the years of low water.

The one outstanding find on the south shore was the Sacred Spring near the Bohn farm where Loren Leaman and three companions raked out an immense quantity of prehistoric material that had evidently been thrown in as a sacrificial offering to the spirit who made this pool his habitation. (Vol. 7, No. 4, Wisconsin Archeologist.)

The west shore of Norwegian Bay yielded a very large number of pieces. This site differed from the others in this respect, a large and evidently a populus village occupied the high land just back of the beach, at the upper or northern end. The late Chas. Freer who lived in that vicinity worked this field very thoroughly. He discovered and explored two sacred springs in that locality. The Freer Spring yielding the largest amount of well preserved material of any spring so far recorded in Wisconsin. A large part of his finds are on display in the Mitchell Collection at the Oshkosh Public Museum. (Vol. 7, No. 4, Wisconsin Archeologist.)

The east shore of Haulover Bay showed a camp site of considerable magnitude. This bay gets its name from the fact that the head of the bay was only a short distance from the channel of the Wolf River. By making a portage here more than three miles could be saved nearly all of it against a strong current in the river. This cutoff was especially important in windy weather when the lake was rough at the mouth of the Old River. The camp site was very probably used by voyageurs when the lake below was unsafe for their canoes. Haulover Bay and vicinity was a splendid rice bed which also made it an excellent hunting ground.

Haulover Bay was a favorite camping place for later white travelers and hunters. The late Henry Heuer and his sons had a trapping lodge at this point for many years. C. T. Olen informed me that while camping here he collected several hundred arrow and spear points of flint, several coppers including a fine knife and a number of axes and celts. A large number of the arrows found were apparently a cache that had been washed out during previous high water.

The east end of Lake Poygan was one continuous camp site for nearly three quarters of a mile. The eastern end of the lake was subjected to more severe pounding by the waves and ice than the shores on the shorter diameter. The old shores were pushed back farther and the silting in of the old beaches was deeper. It took longer for wind action to dig down to the original strata. It was not until the early '90s that the beach proved prolific.

Mr. C. T. Olen reported the finding of a cache of 600 flints largely arrow points, also a number of coppers and other artifacts, a perfect three-barbed bone harpoon perforated for a line, and several other fragmentary bone harpoons and awls. He also picked up a very large grooved ax.

Fred Clark told of finding a copper knife and several awls and points as well as numerous flints.

Two commercial fishermen, who had a shanty on the NW. quarter of Sec. 6, T. 19, R. 15 E., picked up a great many flints near their landing. The late Chas. Richter told me of their having, as he described it, "a peck of artifacts". He spoke of the perfection and beauty of shape of many of the points but could not identify the stone they were made of other than to say they were of "all kinds."

In my early searches I did not get to this site very many times and finds were meager.

I still have in my collection about seventy-five good arrow points all from the Clark Beach. The patina on many of the points is of a peculiar reddish tint. Iron occurs between the strata of an outcrop of Lower Magnesian limestone nearby. This iron in the sand may have given the red coloring. Some broken pieces, repointed by flaking, showed the flint to be a grayish cream color.

The lateral edges of the barbed arrow and spear points were convex. This made them appear broad and blunt. Even the square-butt type had this characteristic. The quartz, quartzite and chalcedony points did not have this reddish cast and were straight edged.

The following are some of the characteristic pieces:—

- 1 Black flint scraper, 2½" long by 1½" wide.

- 1 Butt end of knife,  $3\frac{1}{2}$ " long by 2" wide, "turkey-tail" very thin.
- 1 Red quartzite celt, 4" long by 2" wide.
- 1 Red quartzite pike head,  $3\frac{5}{8}$ " long,  $1\frac{1}{2}$ " w., 1" thick.
- 1 White quartzite spear, 5" long,  $1\frac{5}{8}$ " wide.
- 1 Red patinated spear,  $4\frac{3}{8}$ " long, 2" wide.
- 3 Winged hand drills from 1" to 3" long.  
Several broken drills, beautiful chipping.
- 1 Chalcedony turtleback scraper.
- 1 Grooved stone hammer.
- 1 Grooved net weight.
- 8 Grooved axes.
- 1 Grooved ax, fluted.
- 6 Celts.
- 1 Copper socketed spear,  $5\frac{1}{2}$ " long,  $1\frac{1}{8}$ " wide.
- 3 Copper awls, double pointed,  $5\frac{1}{2}$ " long, to  $6\frac{1}{2}$ " long, square section  $5/32$ " to  $3/16$ " wide. Very sharp.
- 6 Copper socketed arrow heads,  $1\frac{5}{8}$ " to  $2\frac{5}{8}$ " long.
- 1 Copper arrow, long flat tang,  $3\frac{1}{4}$ " by  $\frac{7}{8}$ ".
- 1 Copper arrow, flat tang,  $1\frac{3}{4}$ " by  $\frac{3}{4}$ ".
- 1 Copper arrow, notched, beveled edges,  $2\frac{1}{2}$ " by  $\frac{3}{4}$ ".
- 1 Copper knife,  $3\frac{1}{2}$ " long.
- 1 Copper knife, broken, 2" long, curved, ornamented by six punch marks  $\frac{1}{4}$ " apart.
- 5 Copper awls, square, pointed one end. 2" to  $3\frac{1}{8}$ " long.  
Several badly corroded fragments of knives, awls and arrows.

The few large potsherds are practically all shell tempered. The heavier ones are burned red and the thin pieces of a clay that came out black. The black sherds are from one-eighth to three-sixteenths of an inch in thickness. One large piece, nearly flat, is three-eighths of an inch thick. One piece is ornamented with broad incised lines making squares one and a quarter inches across. All others are plain except that the rims are scalloped by the fingers.

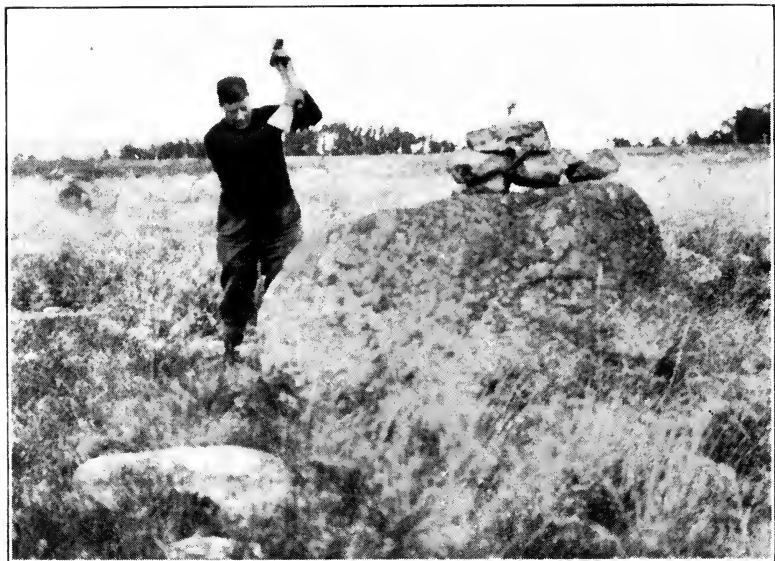
A study of the geographical location of these camp sites reveals the fact that they were never located on a direct line of travel. There might be a small camp site, perhaps used in time of peace, on a line of travel as that at Goose Island or the smaller island above. The large sites were off to one side of the main route often a mile or more. Their location on low alluvial ridges with low land or marsh back of them forebade their use as permanent village sites. They were submerged a few weeks every spring by the floods of the Wolf River. The Camp sites were always near large

rice beds. The name Poygan, a Menominee word, was originally Pwa-a-con-nee abbreviated to Poygan, and meant threshing place (for wild rice).

The camp sites were always near the best fishing grounds. Broad sandy shallows just off the beaches made ideal conditions for 'jack light' spearing. I know that Indians made a practice of spearing fish at night. I think we may safely assume that the custom was handed down from remote times. Adjacent marshes provided waterfowl and muskrats.

The fascination of searching these Old Beach camp sites remains with a few of us "old timers", though nearly forty years has passed. They were exposed with all their wealth of archeological lore for a few years for a brief time in the autumn. We young fellows roamed over their sandy stretches marveling at the abundance and perfection of our finds. We were interested in hunting relics giving little heed to gathering material which would piece out the story of the old aboriginal struggle for existence. They were swallowed again by the water which is now stringently regulated by the Federal Government in the interests of navigation, perhaps for all time.





RINGING ROCK, LA CLOCHE ISLAND

Plate 1

## A MACGREGOR BAY CEMETERY

George R. Fox

Commander Eugene F. McDonald had for some years known of an Indian site in the Georgian Bay region in Canada. This burying ground was reported as of the fur-trade period with chances of its having also been used by the pre-historic inhabitants of the region.

On August 8, 1930 an expedition organized to investigate this aboriginal burying ground and consisting of the writer, Commander McDonald, Dr. Alvin W. La Forge, Mr. Hal Strotz, and five others left Chicago for this locality.

On its arrival at Little Current, the principal town on Manitoulin Island, the helpful services of Father Papineau, the resident priest, were secured. He lead the party to the site and pointed out the location of the graves. Through him permission from the Canadian government and from the Jesuits, who exercise control in the region, was obtained to undertake investigations. Evidence of the looting of graves was to be seen on every hand. It was believed, however, that some of the graves had not been disturbed.

The cemetery was located at the eastern end of La Cloche Island. Its name (meaning "The Bell") comes from a large boulder found near the burial place and the village site which it served. This rock when struck, rang like a bell. Tradition said that the sound could be heard for three miles. Dr. La Forge, who conducted extensive experiments with the rock and others, found that half a mile was the limit at which the sound of a blow struck on this boulder could be heard. His work proved that not one but many ringing stones were scattered over the plain within a mile of this village site. All were glacial boulders. Only a few possessed the peculiar vibratory quality of The Bell rock.

La Cloche was the name of the Indian trading post once located here. From this the name was given to the entire island, and later to a water passage, to a river, and finally, to the chief mountain range of the region.

La Cloche Island lies neither in Georgian Bay, nor in Back Bay, the water lying between the mainland and Man-

itoulin Island, but in a bay named Macgregor lying between the two. This region is one of the most interesting geologically in America. On La Cloche Island the bedrock, fossiliferous limestone, is bare in nearly every direction. Primitive man could not have buried there, unless in a cave, for he had no tools with which to penetrate the rock strata had he not been aided by a glacier. As the ice melted away a lake many feet higher than the present level of Lake Michigan was formed. This nearly, but not quite covered the island. Along the northern edge is an old beach some thirty feet wide and from twelve inches to three feet in depth.

This beach afforded an ideal place for burials; it was easily excavated and clean. At its eastern end the inhabitants of the fur-trade village deposited the bodies of their dead. There were more than fifty such interments. Stones were used in covering the remains.

The graves were dug down to the bed-rock. In the bottom were placed strips of cedar bark and on top of these birch-bark. The body dressed in all of its finery and accompanied by its cherished possessions, wrapped in a woollen blanket and then in a felt blanket, was placed in this grave. Limestone slabs were then placed over the body and the hole filled with sand. By the use of a steel probe the members of the expedition located the grave, then dug down and removed the stones. Many artifacts made by the Indians were found but more commonly the materials accompanying the burials were articles supplied by the fur traders.

One grave yielded a mirror, a decayed pouch once containing red paint, a silver bracelet, copper bells, brass buttons, head ornaments, thimbles, remains of an iron kettle, painted wooden objects, beads, and various iron objects so badly rusted as to make their original nature undeterminable. One was probably a sword. The skull was crushed. On one side was a hole made by a bullet. On the burial plot by far the most common objects were trade beads. Two hundred and ninety-nine of these were obtained from a single shovelful of sand.

On this site there have been found pieces of uniforms, coins and medals connected with the English military ac-







PREHISTORIC BURIAL, LA CLOCHE ISLAND

Plate 2

tivities in Canada at about the time of the war of 1812. Epaulettes were found on the shoulders of one body. With this burial were also two King George III silver Indian medals. These are of two different issues, one bearing the date 1814. Thimbles were common, usually perforated for attachment to robes as ornaments. Many small cone-shaped sheet copper "tinklers" were also found.

On a small peninsula having a magnificent outlook over the bay and the mountains was found a section of the beach ridge with a depth of over three feet. Because of the beauty of the view and knowing the predilection of primitive man for burying his dead in such attractive places, it was felt that there should be a grave or graves here.

After hours of patient probing, during which over fifty stonebeds were unearthed, a cairn was discovered. When the last stone of this heap was removed, the skeleton of a man, somewhat crushed but otherwise intact, was revealed. He was buried on his left side with limbs drawn up. This was no Indian of the fur trade period. Dr. La Forge determined that this native had died when about twenty-five years of age. The burial was probably made not less than three hundred years ago and probably nearer five hundred years. One thousand years would be the extreme limit.

Under the right hand of the skeleton were three fine chert spearpoints, at his feet a huge blade. About his neck was a string of three shell gorgets supposedly cut from Gulf of Mexico conch shells, and a necklace of more than 35 shells from which the tips had been cut to permit of their being strung. The small shells appear to have been painted. A single stone bead, an inch in length hung at the throat. It had been reduced to a form roughly cylindrical by hours of patient rubbing. Perforated by a hole formed of two funnels meeting at the center, it bespoke not only hours and days of labor, but skill in the manipulation of the reed drill, twirled by hand while immersed in sand and water.

On the breast hung his breast-plate made of a bear's jaws and teeth. Each tooth and each fragment of jaw had been ground away and pierced with a hole for inserting it on a pin, probably of wood, thrust through the hide breast or-

nement. Traces of what may have been red paint were found in this grave.

Many minor discoveries were made by the expedition. Numbers of former wigwam hearths were located. Two huge stone beds, made of flags laid edge to edge were uncovered. Roughly circular and twelve feet in diameter the purpose of the first was undetermined. The sand burned black for a depth of a foot or more beneath the stone indicated that the second may have been the site of some clan or tribal feast.

Indians still live in numbers in the region about Macgregor Bay. After many days of extensive work and investigations in this region the "Mizpah" sailed away, leaving much exploratory work to be done. On the last days of our stay at Macgregor Bay reports of the location of two mound groups were received and another cemetery was found. We sailed north into Lake Superior for a brief visit at Isle Royal and returned to Chicago on September 1.

## FIRE-STEELS

The use of the fire-steel as a means of producing fire was early introduced to the Indians of the Old Northwest by the French traders. All or most of these early fur merchants regularly carried at least small numbers of fire-steels in their trading stocks both for trading with the natives and for the convenience of the employees of the trading posts established in the Wisconsin forests.

At this time the Wisconsin Indians were producing fire by means of at least two fire-making devices of their own, the most effective of which was probably the fire-drill. This consisted of a short wooden bow strung with a strip of rawhide, buckskin or bark cord, a short dull-pointed wooden drill or shaft and a block or piece of wood called a hearth, hearth-board or fire-board. The bow revolved the drill in a shallow depression at the edge of the hearth. Powdered wood was ground off and ignited by the friction and conducted by means of a small cut to the edge of the hearth. Here the coal fell on the tinder of pounded cedar bark or other easily ignitable material. The fire was then encouraged by blowing or fanning until a flame was produced. The drill may also have been used without the bow, the shaft being revolved on the hearth with the hands.

The Wisconsin Winnebago, Menomini, Potawatomi, Sioux and Sauk and Fox all used the fire-drill in fire-making. Fire sets of this nature have been collected from the modern descendants of all of these tribes. Among the Winnebago and Potawatomi this apparatus is still in use on some ceremonial occasions. Fire-making sets occur in Winnebago war bundles unless lost or removed. The number of blackened depressions along both long edges of some of these hearths show how often they have been used.

The hearth in one of these bundles is a piece of flat ash wood 11 inches long, 2 inches wide and  $\frac{5}{8}$  of an inch thick. The ash drill is 9 inches long and  $\frac{5}{8}$  of an inch in diameter. Both extremities are roundly pointed. Another drill is 6 inches in length.

Among the Winnebago fire was considered a sacred pos-

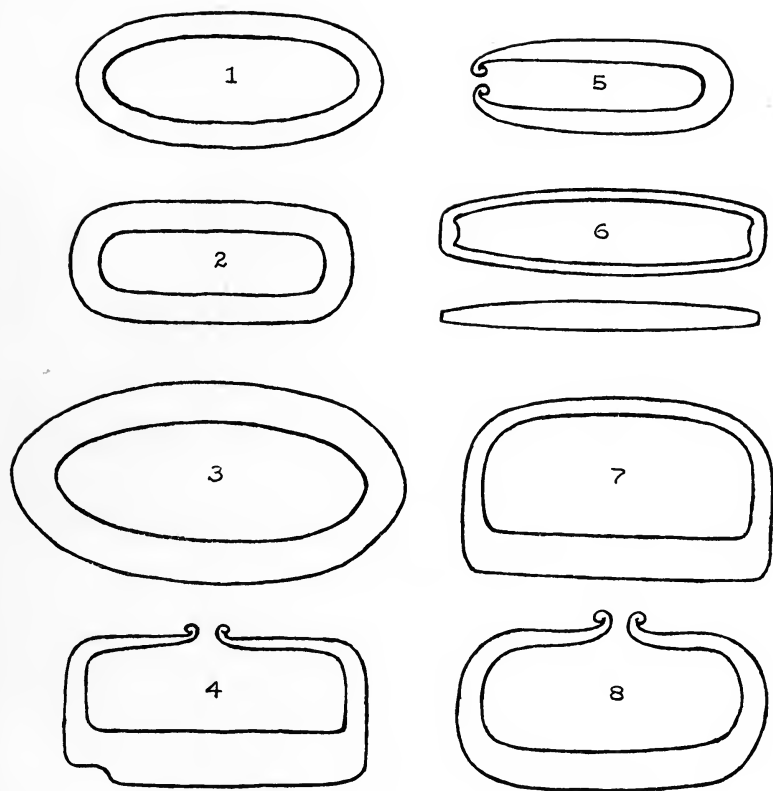
session of the Thunderbird clan. A myth tells how the Thunderers made the first fire with their fire-sticks.

The Chippewa used the fire-plow in their fire making. This rather simple device consisted of a piece of wood with a shallow groove traversing its length. In this groove the fire-stick was pushed rapidly back and forth. "The fire they started by friction, always carrying with them a thoroughly dried black-ash stick with a groove worked in one side of it and a dry piece of white cedar to match the groove. When they wanted to start a fire they would lay a piece of dry rotten wood or punk on top of the black-ash stick, holding it there with one hand, and with the other would rub the cedar stick in the groove of the ash block with all the rapidity they were capable of until it created sparks, which would ignite the punk and from this a fire was soon kindled."\* They also used the fire-drill.

"Three methods of obtaining a spark of fire were used among the Chippewa: The simplest method was the striking together of two stones, the "punk" being held in the same hand as one of the stones. Next in probable development may be placed the striking together of stone and metal, and in later times the obtaining of a spark by friction between two pieces of wood, the apparatus comprising a bow, a stick of ash, and a cedar hearth with shredded bark" to catch the spark". Birch and cedar bark were used but the latter was considered the more inflammable of the two.

The obtaining of fire by use of flint and steel was the more common of the three customs above noted. The form of the steel varied from a broken file to a well-shaped piece of iron, suggesting the work of a blacksmith."

"A Chippewa said: 'The greatest wonder that ever came to the Indians was fire. Like everything else it came to them through the Mide.' Some one asked, 'What do you want us to do with this?' A man replied, 'This is for warmth and for cooking.' The Indians were afraid of it at first, but soon learned that it was useful.† They found that the fire burned them, causing pain, but the Mide provided a 'medicine' which they could put on their hands and on the soles



FIRE-STEELS

Plate 3





of their feet, after which they could thrust their hands into the fire or walk in the flames without being hurt. A song was sung when this 'fire-charm' was used."

In Wisconsin French accounts of 1721 fire-steels are priced at 108 livres a gross. A livre was equal to about 20 cents. In 1804 at the Lac du Flambeau trading post six fire-steels were priced as equal to a "plus", or one good beaver skin. At this post, as well as at others, fire-steels were given to the Indians among other things such as cloth, cheap jewelry, etc. as presents to gain their good will and trade.\* Some American traders later priced fire-steels at two shillings, or twenty-five cents, in trade.

No mention is made of the furnishing of any flint to the Indians with the fire-steels. No doubt the large gunflints carried by all of the traders were much employed for this purpose. "Steel boxes" are mentioned in some trading invoices. These were boxes designed as receptacles for the carrying of the fire-steel, flint and "punk".

The fire-steels furnished by the traders to the natives were cheaply made. A blacksmith would take a piece of iron, heat and flatten it and bend it in an oval or other form. One of the largest of these oval steels has a central opening large enough to permit of the insertion of the three middle fingers of the hand.

Many rusted, and broken, fire steels have been found on Indian village sites in Wisconsin and on old trading post sites. Some have been obtained from Indian graves.

In the accompanying illustration the forms of some Wisconsin Indian and other fire-steels are shown.

- No. 1 Carcajou village site, Lake Koshkonong. Length  $2\frac{3}{4}$  inches.
- No. 2 Carcajou village site, Lake Koshkonong. Length  $2\frac{5}{8}$  inches.
- No. 3 Grignon-Porlier fur-trading post, Butte des Morts. Length  $3\frac{3}{4}$  inches.
- No. 4 From a Colonial tinder box, Lexington, Massachusetts. Length  $2\frac{3}{4}$  inches. Name "Harris" stamped on one face of the blade.
- No. 5 Carcajou village site, Lake Koshkonong. Length  $2\frac{3}{8}$  inches.
- No. 6 Brought to Wisconsin in 1848 by a settler from the Rhine Valley, Germany.
- No. 7 Chippewa Indian fire-steel.
- No. 8 Chippewa Indian fire-steel.

The writer will be pleased to hear from members of the Wisconsin Archeological Society or from other friends who possess specimens of these or other forms of Indian, or other fire-steels. Thus it may be possible to some time contribute another article on this subject.

CHARLES E. BROWN

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\* Benjamin Armstrong, *Life Among the Indians*, Ashland, 1892.

† Frances Densmore, *Chippewa Customs*, Bull. 86, Bu. Am. Ethno.

## RED METAL

The following account of the discovery of copper in the Ontonagon country in northern Michigan is obtained from a pamphlet, "Red Metal" printed by James K. Jamison, the historian of this region, in 1930.

"In 1847 Mr. Samuel Knapp paused now and then to scratch his head in a quandary. He was slowing working across the south slope of a hill, tracing out a long line of slight depressions. He wondered about those depressions; he didn't understand just why they were there.

"Mr. Samuel Knapp was up looking for copper. He put up with Jim Paul at the Mouth for a spell and then went up-river to look around a bit. Thus he had prospected here and there until at last he was on the south slope of that hill, tracing out that singular line of depressions and scratching his head.

"One of the depressions aroused his curiosity to the point where he turned speculation into action. He put a shovel into it. He cleaned out the brush and the leaves and he dug out a considerable quantity of loose earth. He didn't find what he was looking for, not immediately. He made a discovery but he was a very surprised man. What he discovered, what he began throwing out of that hole was a quantity of stone hammers. Not just a few, but dozens, scores of them. I imagine Mr. Knapp's curiosity mounted. I imagine he dug with considerable ardor. Pretty soon he realized that he was at the bottom of that particular hole, that he had struck solid rock. What he found when he cleaned that hole up a bit was a vein of pure copper. There it was and anybody could see for himself that chunks of copper had been knocked off that vein with these stone hammers.

"Samuel Knapp realized now what that regular line of depressions meant: they marked the vein for several hundred feet. To prove it he went to the bottom of every one of those pits. One of them impressed Knapp especially. It was twenty-five feet deep, filled with accumulated drift. At eighteen feet, he hit a mass of copper ten feet long, three feet wide and two feet thick. This mass resting on timbers

of oak, crudely hewed, and this bridging built up cob-wise, was holding it several feet off the floor of the excavation.

"Somebody, Mr. Samuel Knapp realized, had preceded him. That was a busy winter for Samuel Knapp. I suppose in a sense he had discovered the Minnesota Mine: but as a matter of fact he had only opened up a mine already discovered by someone else. Nobody was quicker to admit that than Samuel Knapp himself. Indeed he gathered all of the evidence he could find to prove it: more than ten wagon-loads of those stone hammers, hardheads of greenstone, and porphyry, weighing from one to ten pounds each.

"He gave some time to the question of the age of these ancient diggings. In one of the depressions he found the stump of a pine tree thirty inches in diameter. The tree itself was fallen and gone and the stump was so decayed he could break it up with his hands. Well, the hole had to fill by natural causes before the pine seed could have germinated there. And, of course, some time must have elapsed before the seed was cast on a possible growing place. Perhaps the tree would disintegrate and the stump decay in a century, thought Samuel Knapp. Since this is 1847, that would put the breaking off of the pine at about 1747. How long had it taken the tree to grow to a diameter of thirty inches? Two centuries, perhaps. That would mean that the seed germinated there about 1547. Why there was not an English colony in America then, Samuel Knapp reflects, and it was only a few years before that Columbus discovered America. But wait, says Mr. Knapp to himself. How long a time might have elapsed after the hole was filled with drift before the seed was dropped there? That, Mr. Knapp considered, was a matter of pure guessing. It might have been one year or five centuries. And how long had it taken the excavation to fill by natural causes, a twenty-five foot hole up on a hill? Do the Indians know anything about mining, asks Samuel Knapp. No. No we have no stories, no legends handed down by generations about that business, these Indians tell him. Mr. Knapp gives it up, as well he might. He was not ungrateful; he was willing to acknowledge the activities of these stone hammer gentlemen. He

could afford it: they showed him a property that paid several million dollars in dividends.

"Knapp went ahead. In 1848 he started six tons of copper down the river. In 1852 he paid thirty thousand dollars in dividends and by 1860 his mine had struck its stride. One of the chief problems was the cutting up of masses into pieces small enough to hoist to the surface. There was one in particular. It weighed four hundred and twenty tons. These stout Cornish and Irish miners were at it for months with chisels and sledges. Here was the Federal government clamoring for copper to fight the War of Rebellion, glad to pay sixty cents a pound for it. That single mass at that rate was worth a half million dollars.

"The Minnesota Mine became a lordly concern, the pride and pattern of all the Lake Superior mines. It built for itself a glorious tradition and in its hey-day its operative organization was almost feudal. In 1852 it paid a ten dollar dividend, in 1853 a twenty dollar dividend, in 1854 a thirty dollar dividend. Between 1852 and 1856, it doubled its investor's money."

JAMES K. JAMISON

## LARGE COPPER IMPLEMENTS

Among the recently found native copper implements which nearly every year find a resting place in some Wisconsin collection there are always a few pieces which are of exceptional size and craftsmanship.

One of these specimens was added during the past summer to the rich and extensive collection of Mr. Joseph Ringeisen, Jr., the widely-known Milwaukee collector, and a member of the Wisconsin Archeological Society.

This fine specimen of aboriginal copper-smithing is a long, slender harpoon point with a single sharply-pointed barb projecting from one side. It is the kind of an implement which was very probably employed by the pre-historic redmen of Wisconsin in harpooning sturgeon and other large fish. It is a long rod of copper, circular in section and tapering to a point at each extremity. Its length is  $12\frac{3}{8}$  inches. Its width near its middle is about  $\frac{5}{16}$  of an inch. The barb is about  $3\frac{1}{4}$  inches from one extremity. This harpoon point is in perfect condition as found, not having been mutilated or "cleaned" by its finder. It was found near Ogdensburg, Waupaca County. Weight 4 ounces.

Twenty-seven years ago, when we first described harpoon points of this nature, the largest known example was in the collection of Mr. William H. Ellsworth at Milwaukee. Its length was  $10\frac{3}{4}$  inches.\* Quite a number of additional specimens have since then been found. These both Mr. Geo. A. West and the writer have described.\*\*

A large copper pike recently found near Aztalan, Jefferson County, is  $11\frac{3}{4}$  inches long. One extremity tapers to a point and the other is bent in the form of a small curved hook. The latter is a rather uncommon feature in pikes. This pike is likewise curious in that the heavier and thicker portion of it, from its point to near its middle, is square in section, and the remainder of the implement, from its middle to the hook-shaped extremity, circular in section.

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\* 3 Wis. Archeologist, No. 2.

\*\* Bull. Milw. Pub. Museum, V. 10, No. 2; 7 Wis. Archeo., No. 1.

At its middle this pike is  $\frac{3}{4}$  of an inch wide. Its weight is  $1\frac{1}{4}$  pounds. This fine implement is in the collection of Dr. L. V. Sprague, a Madison member of the Wisconsin Archeological Society.

The largest known copper pike is in the collections of the Field Museum of Natural History at Chicago. Its length is nearly 40 inches. Its weight is given at  $5\frac{1}{4}$  pounds. The second largest specimen, in the Henry P. Hamilton collection in the State Historical Museum, is 29 inches long. It weighs  $2\frac{3}{4}$  pounds.

Some knives, spearpoints and chisels are among the copper implements of exceptional size which have recently been found.

## NEW YORK STONE PESTLES

In visiting museums and some private collections in the State of New York archaeological investigators from Wisconsin cannot help being impressed with the large size, graceful form and state of perfection of some of the stone pestles obtained from Indian sites in that state. A few of these may be mentioned.

In the fine archaeological collections of the museum of the Buffalo Historical Society there is to be seen in the Dr. A. L. Benedict collection a fine 15 inch pestle of the long tapering form. This is labeled as from an Iroquois site. Stone pestles and mortars of ruder form are in the same collection. The collection of stone pestles in the New York State Museum at Albany is especially fine. Some of these are very large and heavy. Some have carved animal heads at the handle ends. Four exceptionally long cylindrical pestles come from Green Island. The largest of these is about 26 inches long and  $3\frac{1}{2}$  inches in diameter at its middle. It tapers from the middle toward both ends. Another stone pestle from "Albany and Rensselaer" is about 28 inches in length. Another long, tapering cylindrical pestle was obtained in the Hoosick Valley. Other large stone pestles are from a site or sites at the Big Bend of the Hudson River in Warren County. One has an animal head. The mortars are of a ruder character, some being merely stone slabs with shallow depressions. In the Alvin H. Dewey collection in this museum there may be seen two large, highly polished stone pestles of the graceful bell shaped form. One is about 8 inches high and 6 inches in diameter at its base.

The American Museum of Natural History in New York City exhibits large stone pestles from Pennsylvania and from Maine. Other New York museums also possess large and fine pestles from 15 to 25 or more inches long. Private collectors in several cities have others quite as large and as well fashioned. Some of these ancient pestle-makers were certainly masters of their craft. Of the stone pestles from the Eastern United States shown in the United States National Museum some are over three feet in length. They also



are Indian tools worthy of the admiration of the archeologist.

Dr. William M. Beauchamp, writing in 1897,\* had this to say of the pestles of the New York Indians: "Pestles are everywhere found, as might be expected, but were very sparingly used by the Iroquois, who preferred their wooden pestles and mortars, as they do still. The Jesuit missionaries among the Hurons expressed the same preference, although they had a hand mill which the Indians delighted to turn. Mr. Fowke thinks the cylindrical pestle was used as a rolling pin, but has taken no notice of the long, flattened pebbles, so frequent in parts of New York. It may be they were sparingly used elsewhere. Stone mortars are more common towards the coast and the ordinary pestle or pounder must often have been used with them. Prof. G. H. Perkins described a pestle with a carved head in Vermont, and there is one of these in the State Museum at Albany. Mr. Wagman had a fine one of this kind from Lake George, with an animal head at one end. It was 24 inches long and two thick. Several have been seen in the central part of the state. Mr. Wagman had 23 long pestles, varying from seven to 21 inches long. They are quite as large elsewhere, but vary in form."

He describes, among others, a number of large pestles, these being from 14 to 26 inches long.

Arthur C. Parker, when state archeologist of New York, had this to say about New York stone pestles.\*\* "Cylindrical pestles were worked out by a chipping, pecking and abrading process. Some are more than 2 feet in length, others not more than 8 inches. Some are well rounded and polished and others only roughly chipped to form. Diameters vary from 1½ inches to 3 or even 4 inches. One class of cylindrical pestle has the upper end carved in the shape of some conventionalized animal head. These have been found in the Seneca River region, the Hudson valley near Albany and near Glens Falls.

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\* Bull. N. Y. State Mus., V. 4, No. 18.

\*\* Bull. N. Y. State Mus., Nos. 235, 236.

"Cylindrical pestles are found almost entirely on Algonkian sites of all periods. A few very early Iroquoian sites in the State have cylindrical pestles but they do not appear in later sites. To the contrary, pestles are found on the most recent of Algonkian sites and frequently old colonial families still have in their possession pestles that are found in the cabins of Algonkian Indians on their estates, or given them with the stone or wooden mortar.

"Bell pestles are comparatively rare and most specimens have come from the Genesee valley above Mount Morris. A considerable number were found by Mr. F. C. Crofoot at Sonyea. Bell pestles are generally found on old sites that may or may not be Algonkian. They seem to belong in some cases to the mound-builder culture."

P. L. WORTH

## PRESERVATION OF THE OLD INDIAN AGENCY HOUSE

The idea of the preservation of the old U. S. Indian Agency House as a State historical monument originated with Mrs. E. H. Van Ostrand and Dr. Louise P. Kellog. Both had visited the locality and had become impressed with the desirability and possibility of saving this historic building to posterity. They secured the interest of Mrs. Charles E. Buell, chairman of the History and Landmarks Committee of the Wisconsin Federation of Women's Clubs. Mrs. Buell labored diligently and enthusiastically for the fruition of the cherished project. Several meetings were held on the grounds. The assistance of Mr. Burt Williams, Col. Howard Greene, Col. Fred C. Best, Mr. Theodore T. Brown, Mr. and Mrs. Andrews, Mrs. H. J. Puffer, Mr. C. E. Brown, Mrs. Jessie R. Skinner, Col. Marshall Cousins, Miss Amelia Stevens, Mrs. Hobart Johnson, Mr. L. S. Hanks and other friends in Madison, Portage and Milwaukee was secured. A committee was appointed and the Old Indian Agency House Association, a non-profit sharing company, incorporated under the laws of the state. Mrs. Buell herself secured many subscriptions from members of the Women's Clubs. Citizens of Portage also raised a considerable sum of money through stock subscriptions. Through the activity and generosity of Mrs. Hobart Johnson and Mrs. Arthur N. Holbrook the Wisconsin Colonial Dames undertook the duty of raising the balance of the money required to complete the purchase of the property.

This historic building, constructed of hand-hewn timbers, stands on the bank of the Fox River across that stream from the former location of the famous old frontier Fort Winnebago, at Portage. It was erected in 1831 for U. S. Indian Agent John Harris Kinzie and his charming wife, Juliette Magill Kinzie. They were its occupants for three interesting years.

In the front yard of the old building are tall elm trees, in its rear a collection of barns, sheds and other buildings, and about it cultivated fields and pasture lands.

In the day of its erection Major David E. Twiggs, a soldier, who afterwards fought in the Mexican War, was in command of Fort Winnebago. Jefferson Davis was stationed there as a lieutenant. At the Agency House there gathered in those days the noted Wisconsin Winnebago chiefs, Four Legs, Yellow Thunder and other chiefs with their tribesmen. From the fields all about the old building hundreds of Indian stone and other implements and ornaments have been collected in the years from 1831 to the present date. The character of these indicates that the site has been occupied by redmen as a dwelling place since prehistoric time.

In its long life of a hundred years the old building has had many vicissitudes of fortune. It was for a time a tavern where many travelers were entertained. During recent years it served as a farm house.

While in residence in this historic building Mrs. Kinzie obtained the material for her delightful book, WAU-BUN, or the "Early Day" in the Northwest. "What happened to her, what she experienced, enjoyed, and endured she has embodied in her book. Wau-Bun is thus in part an autobiography, the account of the years 1830 to 1833 spent at Fort Winnebago and the journeys thither and thence. It was not written at the time the events occurred; it is founded on memories, the memories of an unusually intelligent actor and observer." Her book was completed in 1855 and published the following year simultaneously in New York and Cincinnati. The six illustrations were from the author's own drawings. A second edition appeared in Chicago in 1857. In 1873, a third edition was printed in Philadelphia. This without illustrations. Two editions were printed in Chicago in 1901. One was printed by the Caxton Club of Chicago, Dr. Reuben G. Thwaites being the editor. The other was prepared by Mrs. Kinzie's eldest daughter, Eleanor, wife of General William W. Gordon of Savannah.

In order to further assist in the purchase, repair and re-furnishing of the Old Indian Agency House Dr. Louise P. Kellogg very generously undertook in 1930 the preparation of a sixth edition of this classic volume. This has now been

printed in most attractive style by the George Banta Publishing Company of Menasha, Wisconsin. Mr. Banta, who is himself greatly interested in the preservation of the Old Indian Agency House, is very generously contributing all of the profits of the publication to the Indian Agency House fund.

The cost of the book is \$2.50. Every member of the Wisconsin Archeological Society will wish to obtain a copy of *Wau-Bun* for his home library. Orders for copies should be sent to Mr. George Banta, Jr. at Menasha.

The site of the Old Indian Agency House has already become a place of pilgrimage for all persons interested in Wisconsin history. It is expected that thousands of visitors will gather there during the present year. Plans for the repair and re-furnishing of the building are now receiving consideration. No doubt a caretaker for the building and grounds will be appointed.

Persons who wish to contribute to the cost of the improvements may communicate with Mrs. C. E. Buell or Mrs. Hobart Johnson at Madison.

## THE MOUND-BUILDERS

In his book, *The Mound-Builders*, but recently off the presses, Henry Clyde Shetrone, has made a notable, welcome and very useful contribution to American archeological literature. It is introduced to those interested in archeological history as "a reconstruction of the life of a prehistoric American race, through exploration and interpretation of their earth mounds, their burials and their cultural remains." After reading it none will perhaps deny that its author has not made the most of his experience and knowledge in its preparation for the use of the student and other interested readers.

Mr. Shetrone was for years the active and experienced chief assistant of the late lamented Dr. William C. Mills, until his death in 1928, director of the Ohio State Archaeological and Historical Society and for many years the acknowledged "leading exponent of scientific mound exploration" in America. After his death Mr. Shetrone succeeded his former chief as director and archeologist of the Society and of its museum at Columbus. He has also been for some years a member of the Committee on State Archaeological Surveys of the National Research Council.

In the preface of his book, Mr. Shetrone states that *The Mound-Builders* "is dedicated to the average man and woman who, although fully awake to the human interest in their story, lack time and opportunity for digesting the rather extensive but often unavailable literature on the subject. This volume is intended to afford a belated answer to the oft-heard query 'Where can I find a book that will give me the important facts regarding the Mound-builders?' If the professional prehistorian also finds the book a handy compendium of the archaeology of the general mound area, its publication will be more than justified.

"In a sense, the preparation of *The Mound-Builders* has been a pioneer undertaking, in that it attempts to combine scientific accuracy and popular presentation. Difficulties admittedly have been numerous; but the recent gratifying

tendency to popularize science and the encouragement and assistance tendered by the author's co-workers in the field have removed all cause for hesitation.

"Planning the book with the idea of obtaining something of order and sequence and of sustaining human interest was not the least of the problems involved. Considerable license admittedly has been taken in attempting to effect the desired result. Outside of a few restricted areas the mound-building complex has been only partly analyzed, and therefore is difficult to compass as a whole. Technical archaeological method, with its emphasis on culture groups and areas, with their present lack of definition, proved to be impractical for popular use. "Cultures," so-called, and "culture areas" are adaptable as working bases, but they defy specific application in a presentation of this character.

"The scheme of mound areas herein employed is the author's method of meeting the difficulties which impose themselves. While these assumed areas have considerable basis of justification, they are not ultimately satisfactory—an admission which emphasizes the need of concerted and exhaustive exploration of the mound area as a whole and coordination of resultant findings."

There are twenty chapters in Mr. Shetrone's 508 page volume. The titles of these may be mentioned:—"Early Theories as to Origin And Identity", "Distribution and Classification of the Mounds", "Architecture and Engineering", "Agriculture, Commerce and Industry," "The Mound-Builder Burial Complex", "The Mound-Builder as an Artist", "Tobacco Pipes and Smoking Customs", "The Ohio Area: I, Adena and Fort Ancient Cultures", "The Ohio Area: II, The Hopewell Culture", "The Ohio Area: III, Fortifications and Effigy Mounds", "The Ohio Area: IV, Marginal Subareas", "A Tour of the Ohio Mound Area", "The Great Lakes Area", "The Upper Mississippi Area: I, Wisconsin, Minnesota, and the Dakotas", "The Upper Mississippi Area:II, Northern Illinois, Iowa and Marginal Districts," "The Lower Mississippi Area:I, Southern Illinois, Western Kentucky and Tennessee, Southern Missouri and Arkansas," "The Lower Mississippi Area: II,

Louisiana, Mississippi and Alabama," "The Tennessee-Cumberland Area", "The Pennsylvania Area", and "Summary and Conclusions".

"*The Mound-Builders*" is not only well written, it is very well printed and profusely and finely illustrated. There are 299 figures. Opposite the title page there appears a fine colored plate, a reproduction of the life-size figure by the sculptor, Edwin F. Frey, representing "The Prehistoric Sculptor", now on exhibition in the Ohio State Museum at Columbus.

Opposite page 28 there is a very useful map showing the "Distribution of Mounds and Earthworks in the Eastern United States."

The value of Mr. Shetrone's book is added to by the printing at its close of a bibliography of works on general anthropology, the American Indian, and the archaeology of the mound area.

As we were among those who encouraged Mr. Shetrone in his purpose of preparing this very interesting and useful book we wish to now congratulate him on the very successful manner in which he has carried out this arduous undertaking.

The Mound-Builders is printed by D. Appleton and Company, New York City. Its cost is \$7.50, carriage prepaid \$7.75. We heartily recommend its purchase by members of the Wisconsin Archeological Society and its friends. It is the kind of a book that is not likely to slumber on one's library shelves.



## ARCHEOLOGICAL NOTES

### Meetings

Meeting of the Wisconsin Archeological Society held at the Milwaukee Public Museum on Monday evening, October 20, 1930. There were thirty members in attendance. President Charles G. Schoewe presided. Mr. Huron H. Smith acted as secretary.

Dr. E. J. W. Notz exhibited a Potawatomi Dream Dance pipe obtained by him during the past summer and gave an account of its history and use. Mr. Paul Joers exhibited a beaded buckskin pouch, and Mr. Joseph Ringeisen a fine copper harpoon obtained in Waupaca County. Mr. Louis Pierron showed a collection of lantern slides made between 40 and 50 years ago and illustrating old cycling days in Milwaukee.

Mr. A. P. Kannenberg exhibited three volumes of photographs of Wisconsin aboriginal earthenware vessels representing the Algonkian, Siouan and Cahokia cultures. He gave an account of the manner in which these were obtained. Dr. Kastner, Dr. Notz, Dr. Kuhm and other members took part in the discussion of his report. Mr. Kannenberg stated that one copy was to become the property of the Society.

Mr. Geo. A. West gave an account of an expedition made by a Milwaukee Public Museum expedition to Nevada and Utah. Mr. West joined the party after they had completed their work at the Yosemite. They visited Zion Canyon, Brice Canyon, Red Canyon and Cedar Breaks. These localities he described as beautiful beyond description. They visited Gypsum Cave, where an expedition of the Southwest Museum was conducting explorations. They crawled into the 300 rooms and saw seven different layers of deposits some consisting of bones of the giant sloth, camel, sabre-tooth tiger and mountain sheep.

In their trip to the Lost City they viewed the ruins of 2000 buildings and collected many pottery fragments. Cemeteries were also visited. Rock salt had been mined there by the aborigines to a depth of several hundred feet. Deposits of mammoth and other ancient animal bones were seen. Death Valley and the Boulder Dam were also visited. Of these he gave interesting descriptions. The Cliff Palace and other ancient ruins in southern Colorado were visited at the close of the expedition.

President Schoewe announced the deaths of Most Rev. Sebastian G. Messmer, a charter member of the Society, and of Chief Oliver Lemere, an Indian member. Obituaries of both were being prepared by Secretary Brown.

Mr. G. M. Thorne, treasurer, stated that a report on the fund raised for the entertainment of the Central Section, A. A. A., was being prepared.

Mr. Kannenberg invited the attendance of the members of the Society at the unveiling of a marker at the Indian mounds preserved in Elisha D. Smith Park at Menasha. This was to be provided by the Winnebago County Archeological and Historical Society.

Because of the very large attendance of 200 or more members and visitors the November 17, 1930 meeting of the Wisconsin Archeological Society was held in the auditorium of the Milwaukee Public Museum. President Schoewe conducted the proceedings.

Secretary Charles E. Brown presented a report of the business transacted at the meeting of the Executive Board, held earlier in the evening. At this meeting there had been elected to annual membership E. Ralph Guentzel, Boscobel; P. M. Platten, Green Bay; Perry J. Stearns, Milwaukee, and Ellison Orr, Waukon, Iowa. Mr. Alonzo W. Pond of the Logan Museum, Beloit, had been elected a member of the Executive Board to take the place of Mr. Vetal Winn, resigned. Mr. Louis Pierron, chairman of the Membership Committee had been requested to conduct a membership campaign. Mr. West, chairman of the special Committee on the Marking of Local Sites, had been requested to urge upon the village of Shorewood the preservation and marking of the small mound group located on the Milwaukee River bank at the old White City location. The Darien Woman's Club had placed a marker on the old Chicago to Madison trail, Mr. Pond delivering the dedication address. Articles and papers were requested for the January issue of *The Wisconsin Archeologist*. Mr. Kuhm had offered to undertake a study of the works of American artists who have been prominent in painting or drawing Indian subjects.

Mr. Alonzo W. Pond of the Logan Museum, Beloit College, delivered a lecture on "Archaeological Explorations in Algiers," giving a very interesting account of the several Logan Expeditions conducted by himself in that very interesting and fruitful North African country in the search for remains of Dawn Man. These expeditions had been very successful, thousands of stone Palaeolithic and other stone implements and other significant and valuable remains having been brought back to this country for study. A group of young investigators from the University of Wisconsin, Beloit College and other cities had been among the active workers of the 1930 expedition. Mr. Pond illustrated his very interesting and instructive lecture with three rolls of movie films. After the lecture many members asked questions which the lecturer answered.

Mr. Brown reported on the publication by D. Appleton and Company, New York, of the book, "The Mound-Builders," by Henry Clyde Shetrone, director of the Ohio State Archaeological and Historical Society. He also told of the printing of the Geo. Banta Publishing Company, Menasha, of Mrs. John H. Klinzie's classic book, "Wau-Bun, or the Early Day in the Northwest." Members were urged to secure copies of both. Mr. Harry E. Cole's book, "Stagecoach and Tavern Tales of the Old Northwest" (The Arthur H. Clark Company, Cleveland), was also now on sale. Mr. Cole had been for many years a very active officer of the Society.

Members were urged to see the movie film, "The Big Trail," now being shown at a Milwaukee theatre.

At the close of the meeting Mr. Ringeisen exhibited a very fine pipe made of rose quartz, from Pennsylvania, and Mr. Arthur Gerth some fine Sioux and Chippewa quill and beadwork ornamented articles. These were greatly admired.

The December 17, 1930 meeting of the Wisconsin Archeological Society was held in the trustee hall of the Milwaukee Public Museum. President Charles G. Schoewe in the chair. There were 80 members and visitors in attendance.

Secretary Brown reported the election by the Directors of the Society of the following new annual members:—Arthur J. Ivens, Otto Halvorson, Herbert Currie and H. R. Dineen, Milwaukee; Geo. Foehringer, Cassville; H. S. Sherwin, Black Falls, and E. A. Bright, Prairie du Chien. The Eli Lilly Co., Indianapolis, had been elected

an industrial (library) member. Messrs James W. Wampum (Potawatomi), Blackwell, and Francis Lemere (Winnebago), had been elected Indian members. Governor-elect Philip LaFollette had been elected an honorary member. The death of Chief Simon Kahquados, a Potawatomi Indian member of the Society, had been announced. Kahquados was to be buried in Peninsula State Park in Door County.

President Schoewe discussed briefly a fine native copper spud exhibited by Mr. Joseph Ringeisen, Jr., and a hawk feather from a Winnebago war bundle brought to the meeting by himself. Mr. McKern stated that there was being offered for sale by Ulysses S. White, an Indian member, a Winnebago war bundle. He briefly discussed its contents.

Mr. John W. Gosling (White Feather), a Chippewa member of the Society, who was present, gave a short talk on the present poverty-stricken condition of many Wisconsin Indian families and the desirability of creating a greater interest among white residents of the state in their control by the Federal government, their health, education, etc. He told a Chippewa Indian folktale of the creation by Manabus of the white, red and black races.

Mr. Charles E. Brown gave an illustrated lecture on "Paul Bunyan and His Logging Crew," being a collection of the tall tales of the exploits of this mythical prince of the American lumberjacks formerly told in the Wisconsin logging camps. Next to those of the American Indian these exaggerated stories of the old-time lumberman were now considered an important contribution to American folklore. He traced the westward spread of these folktales from Maine and New Brunswick to Ontario, Michigan and Wisconsin, and from this region to the forests of Oregon, Washington and California. Closely related to them were the Tony Beaver tales of the South, and the Pecos Bill yarns of the western cowboys. Wisconsin men and women who had collected and published collections of Paul Bunyan stories in book or pamphlet form were Eugene S. Shepard, Bernice Stewart, Luke S. Kearney, Prof. E. R. Jones and Wm. W. Bartlett. Mr. Brown introduced to the members Mr. Matt. Stapleton, Mr. Luke S. Kearney, and a number of other former Wisconsin and Ontario lumberjacks who were present at the meeting.

Members of the Wisconsin Archeological Society have two spring meetings to look forward to—the annual Joint Meeting of the Society with the Wisconsin Academy of Sciences, to be held during the Easter recess of the University of Wisconsin, and the meeting of the Central Section, American Anthropological Association which will meet at the Chamberlain Memorial Museum, Three Oaks, Michigan, in May. Announcement of both meetings is made long in advance of their dates in order that members may have ample time to prepare papers to be included in the programs. Both promise to be very interesting gatherings and as largely attended as in previous years.

#### Reminders for Members

The Wisconsin Archeological Society is seeking new members in every part of Wisconsin. Present members are requested to enlist as annual, sustaining, or life members any persons of good reputation who are interested in the collection and study of Indian implements, in the preservation and marking of Indian mounds, sites and monuments; in Indian history; in Indian and other folklore; in local aboriginal surveys and explorations, in the improvement of conditions of our living Indians; in ethnological researches; in the advancement

of our city, county and state museums, and in all other departments of American anthropology. All will find in the ranks and in the meetings of the Society a fine and helpful fellowship. Not only active members but patrons of anthropological science are wanted in every city and village in Wisconsin. If you lack for application blanks address the Secretary or Mr. Louis Pierron, chairman of the State Membership Committee, 3133 Downer Avenue, Milwaukee.

Interested persons in adjoining and other states may also become members or patrons of the Wisconsin Society. Its privileges are also extended to them.

Members of the Society who are in doubt about the genuineness of any stone, metal or other Indian artifact which may be offered for sale to them by alleged finders or dealers in Indian relics, or be in their collections, may communicate for advice and service with Mr. Joseph Ringeisen, Jr., chairman of the Society's Committee on Fraudulent Indian Implements. His address is 1804 Third Street, Milwaukee. Mr. Ringeisen is one of the Society's active members and is himself a collector of long experience. A Wisconsin state law makes it possible to prosecute all makers of and dealers in fraudulent Indian implements. Offenders should be promptly reported to Mr. Ringeisen or the Secretary. Mr. E. F. Richter and Mr. Geo. A. West of Milwaukee are members of the Society's Committee. Both are experienced collectors and reliable judges of fraudulent Indian artifacts.

It is reported that there are just now ranging through Wisconsin, Illinois, Iowa, and other Middle West States, men who claim to be collecting Indian implements for the Chicago World's Exposition to be held in that city in 1933. These men are trying to purchase, loan, or obtain by other means Indian artifacts which they propose to exhibit at the Exposition. One of their modes of procedure will probably be the same as that pursued in Wisconsin and other states previous to the World's Columbian Exposition, held at Chicago in 1893, when many owners and collectors of Indian implements were given a silver dollar and a printed receipt for specimens delivered to an alleged Exposition agent and told that they could redeem their relics after the close of the Exposition by presenting the receipt. The Exposition management has not authorized anyone to act as its agent in the collecting of Indian artifacts, and will not do so. Experienced collectors will not be taken in by such frauds, but other people may be. Members of the Society are requested to be on the alert for the detection and apprehension of such "agents," and to warn others of their presence and methods. These same men may ask the permission of farmers to "dig up" an Indian mound, or "open" an Indian grave under the pretense that the "relics" will be shown at the Exposition, with the generous owner's name appearing on the label. We ask our members to aid in preventing such destructiveness.

During the coming season every member of the Wisconsin Archeological Society who has any spare time on his hands is urged to assist in the work of the State Archeological Survey by conducting some survey and exploration work in his home locality or elsewhere in the State. There is no region, no matter how carefully it may have been worked by some previous investigator, that cannot be re-examined with interesting results. An unrecorded camp or village

site, workshop site, spring shrine, graves, remnant of a trail, or even an Indian mound or mounds may be located. Take a small region and work it thoroughly, the banks of a stream or a lake will furnish a good laboratory for the investigator.

The Society furnishes a guide book for amateur investigators. Copies of this pamphlet and of printed blanks to be used in reporting results of investigations and in preparing field maps can be obtained from the Secretary's office at Madison. Reports should be filed with him.

Members are requested to lend their assistance to the municipal, county and state museums in their home neighborhoods. There are nearly a hundred museums in the state at present. It is desirable that these be given every encouragement, and that others be established in cities where there are none at present. Thus we may be able to save to future citizens of Wisconsin representative collections illustrating local archeology, ethnology and history. Collectors should be encouraged to place their accumulations in these institutions and to see to it that these are properly recorded, exhibited and labelled. Past and present members of the Wisconsin Archeological Society have been directly responsible for the establishment of many of the present Wisconsin museums.

The preservation to the public of additional groups or examples of Wisconsin Indian mounds, of plots of Indian corn hills and garden beds, of Indian cemeteries, and of spirit stones, and of other features of the State's Indian prehistory and history is greatly to be desired. With the help of city and county officials and local organizations these should be secured, and, if possible, preserved in city and county parks. The importance of their preservation must be apparent to all intelligent citizens. Trails and river fords should be marked with proper tablets. All members of the Society are requested to promote and to assist in such undertakings in their home neighborhoods. Much has been accomplished by the Society in this direction but very much remains to be done. The attention of those who feel that they need inspiration and encouragement can be directed to what the State of Ohio has accomplished, and is doing, to preserve its Indian monuments.

#### Other Notes

Mr. Mark G. Troxel, a Madison member of the Wisconsin Archeological Society, died in his office on December 20, 1930. He was managing editor of *The American Thresherman*, a periodical published in his home city. Mr. Troxel was a fine type of a man, widely known and liked for his helpful friendship. He was interested in everything that pertained to the American Indian. He served at different times as a member of the Society's standing committees.

Two other recent deaths of old and valued members of the Society were those of Mr. George W. Ogden and Mr. Henry R. King of Milwaukee. Both were old settlers of the city.

Mr. Louis Pierron, chairman of the Membership Committee, has undertaken a campaign for increasing the Society's membership in Milwaukee and the State. All members who have prospective members in view are requested to secure their applications at this time.

Opposite the opening page of this issue of The Wisconsin Archeologist there appears a picture of Mr. Charles G. Schoewe, president of the Society. Mr. Schoewe is in winter garb prepared for a snowshoe hike over one of the trails in the Moose Lake region in Waukesha County. Mr. Schoewe has been for years active in the Society's interests.

The Geneva Lake Historical Society is preparing to celebrate during the present year the Centennial of the discovery of Lake Geneva by the whites in 1831. Dr. Paul B. Jenkins has been appointed chairman of the committee on organization.

# The Wisconsin Archeologist

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Vol. 10

April, 1931

No. 3

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NEW SERIES

COPPER IMPLEMENTS  
SILVER ORNAMENTS  
INDIANS IN PAINTING AND SCULPTURE  
PREHISTORIC VERTEBRAL PATHOLOGY



PUBLISHED QUARTERLY BY THE  
WISCONSIN ARCHEOLOGICAL SOCIETY  
MILWAUKEE

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# **Wisconsin Archeological Society**

## **Milwaukee, Wisconsin**

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Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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All communications in regard to the Wisconsin Archeological Society should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. Contributions to the Wisconsin Archeologist should be addressed to W. C. McKern, Editor, Public Museum, Milwaukee, Wisconsin, or to the Secretary. Dues should be sent to G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee, Wisconsin.



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MARKING MILWAUKEE ARCHEOLOGICAL SITES—W. W. Gilman, Dr. Paul B. Jenkins, L. R. Whitney.

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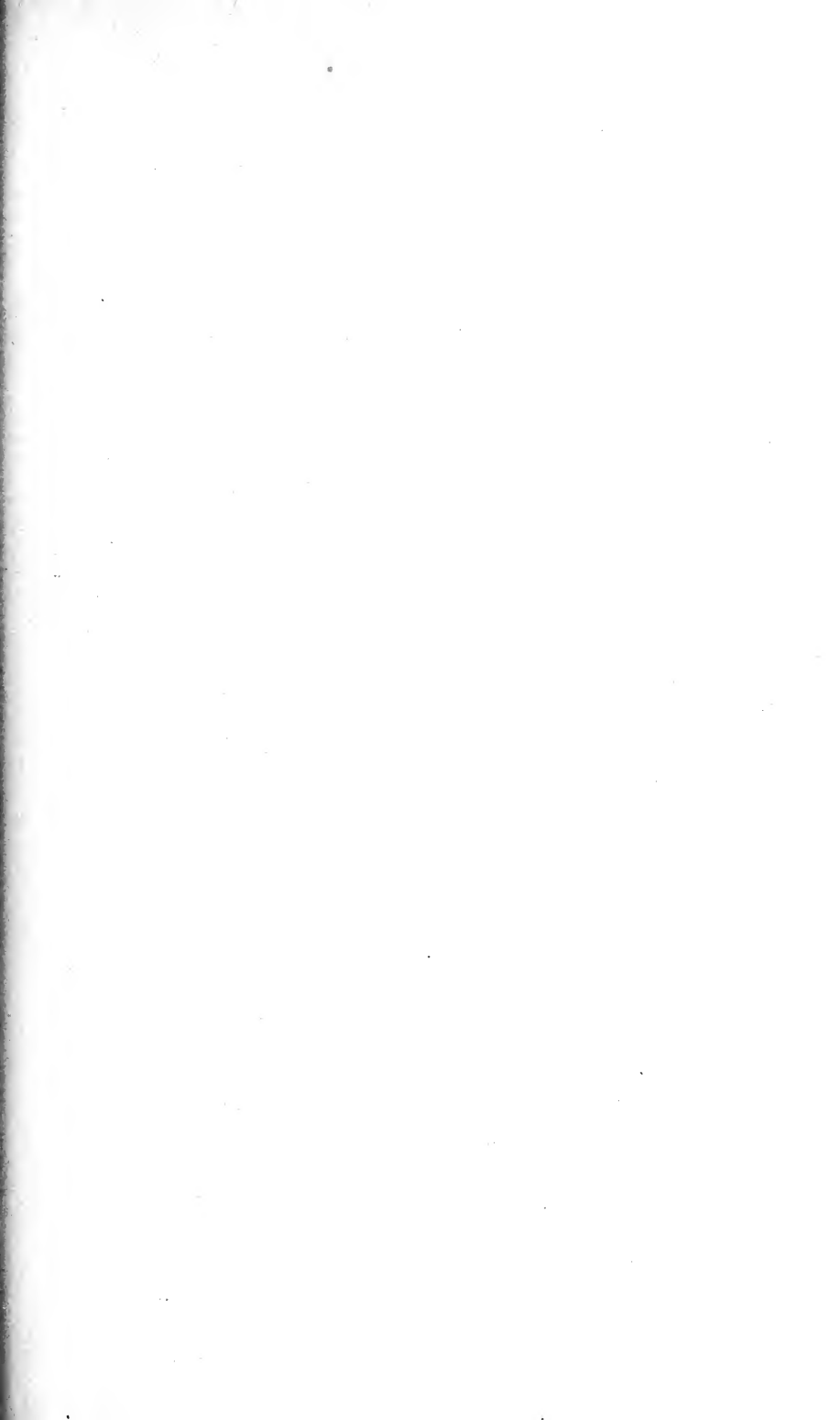
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A RE-WORKED COPPER GOUGE OR CHISEL  
(Milwaukee Public Museum Print)

# The Wisconsin Archeologist

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Published Quarterly by the Wisconsin Archeological Society

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No. 3

New Series

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## SUPERIMPOSED ABORIGINAL IMPLEMENT

Geo. A. West

Stone artifacts are frequently found indicating re-working or repair. Arrow points occasionally show evidence of having been re-chipped or re-pointed. Stone axes with broken cutting edges have been pecked into shape for further use. But there is no way of determining if the repairs were made by the original owners or by subsequent ones who found them perhaps centuries later, repaired them and put them into service.

The village sites of the aborigines of Wisconsin were usually located convenient to some lake, waterway or spring. These sites were successively occupied for centuries before white men came, and now many of them are occupied by our cities and villages.

The ancient village sites have produced a large percentage of the aboriginal products of the past which we have recovered, and it is reasonable to suppose that the successive occupants of these sites in centuries past have found, used and lost again many of the specimens that fill our cabinets of today.

Evidences of superimposed work on an aboriginal copper implement is undisputably shown upon the object herein figured and described (Frontispiece).

This interesting object was found in November, 1928, about twelve inches below the surface, on the Tripoli Golf Grounds, township of Granville, near the city limits of Milwaukee, by Mr. W. C. Neilson. It is of beaten copper and would usually be classified as a chisel or gouge. Its length is seven inches with an inch or more of the narrowest end missing. Its cutting edge is one and one-half inches in width and is bevelled entirely from one side, which is slightly concave from end to end. Its maximum thickness is

about three-eighths of an inch. It is very heavily coated with verdigris and deeply pitted in places. It has all indications of great age and of having been in contact with the soil for a long period of time.

This specimen might not be considered exceptional were it not for the fact that it shows unmistakable evidence of having been fabricated, lost and, probably, after the lapse of centuries, recovered by some Indian, reworked and again lost. It then remained undisturbed for possibly hundreds of years, until recently found and now installed in my cabinet.

The alteration of this implement, before it was lost the second time, consisted in the hammering of a groove around its mid-section, evidently by the use of a stone hammer, and the breaking off of its smaller end which was then smoothed by grinding. The object of the groove was evidently for the attachment of a handle, thus converting it into an adze, or possibly a very serviceable tomahawk. The breaking off of the smaller end was likely accidental as it was broken at an angle that left one side of the object one-fourth of an inch longer than the other.

Both the groove and the broken end are of a dark mahogany color, with traces of verdigris, in contrast to the remainder of the instrument which is heavily coated with the carbonate of copper, and contains numerous pits and ridges in relief, the result of erosion.

The story of this specimen, as one reads from it, is that its metal was obtained in the usual way from the prehistoric mines of the Lake Superior District, transported with all the accompanying hardships and dangers to some village in Eastern Wisconsin, where it was fabricated and used, perhaps for generations. It was finally lost and, after hundreds of years, as its eroded surface would indicate, recovered by some later Indian who re-worked it and put it to a use for which it was not originally intended. After an indefinite period of use, it was again lost and remained undisturbed long enough for the accumulation of a foot of soil above it and the first step in erosion to be made. White men unearthed it in an age when its usefulness as an implement had ceased, but its value as a record of the past is inestimable.

## SILVER ORNAMENTS FROM GRAND BUTTE

Geo. Overton

The Grand Butte des Morts has long been clothed in a glamour of romance. Legends are related of painted and highly decorated warriors drifting about in their high-prowed canoes or lolling at ease among their wigwams of rushes; of rollicking voyageurs pushing the heavy boats of the trader up a smiling river. Black robed missionaries are pictured preaching to attentive groups of painted savages or being instructed in the directions for reaching the great Father of Waters. There are tales of levying tribute and retaliation; siege and surrender; councils and smoking the calumet of peace. There are stories of terrible battles between whites and savages in which hundreds were slain and their bodies gathered and buried in a great mound, the hill upon which the village now stands.

Patient research among documents, records and old letters fails to reveal the slightest evidence to substantiate any of these highly colored legends. The only battle anywhere in this vicinity between the French and the Indians was the second engagement of the Morand expedition against the Foxes. This action was fought on the Robert Grignon place nearly four miles up the Fox River.

Legends giving many different locations as the place where the "great battle" was fought between two Indian tribes are related by descendents of early settlers as having been told to them by Indians. Most of these stories are probably true. Not one but scores of battles have been fought in this territory between various tribes. The abundance of easily procurable food, clothing and shelter supplied by the forests, marshes and waters made this region highly attractive to the aborigines. The numerous village sites, the extensive garden beds and corn hills are mute evidence of a numerous population. Situated as it is on a thru route of travel and being known far and near as a land of plenty, it is inevitable that there would be controversy and battle between rival tribes.

The builders of the mounds apparently did not occupy this site as the nearest mounds, the Overton Group, are a mile and a half down the river. The south shore of Lake Butte des Morts, four miles distant, originally had more than fifty mounds, some of which are very fine effigies.

The Winnebago are supposed to have been the earliest inhabitants of this part of Wisconsin. For a time the Outagamis were in control. Following the downfall of the Outagamis the Menomini took possession and lived on the banks of the Fox River, its tributary streams and their expansive lakes.

Butte des Morts—Hill of the Dead—has always been revered as sacred ground by the Indians. Here they erected the long wikiup and made medicine with elaborate and long drawn-out ceremonies. Here were held the dances and feasts to their various dietties. The stately, mournful booming of the Dream Dance drum or the jolly rhythmic beat of the tom-tom and water drum led the chant of their songs, ritualistic or convivial.

Each nation in turn buried its dead on or near the low hill that rises abruptly from the north bank of the river opposite the great marsh. The bodies of those who perished on hunting or other expeditions were placed on scaffolds, or otherwise secured from harm, till the party returned when they were brought back to the Grand Butte and interred with fitting ceremony.

Bundle burials show that the dead were not always brought back the same season. The fact that they were eventually brought back and buried indicates conclusively the veneration in which this ground was held by these people. Menepoos was there! Menepoos would watch over his children.

The Indian code appears to have recognized absolute ownership of personal property. Long drawn out probate proceedings were not necessary nor required to dispose of the deceased's implements, weapons or ornaments. No covetous heirs squabbled over his earthly possessions. They were buried with him that he might have them to use in his future abode. The hereafter is to the Indian an absolute reality. He was provided with everything needful for his



journey to, and for his life in The Happy Hunting Ground.

Since the settlement of Butte des Morts in the '40's of the last century, and the consequent cultivation of gardens, many graves have been uncovered. Practically every plot near the river has yielded its quota of remains. I excavated a bundle burial under the northeast corner of the Butte des Morts garage. E. L. Benedict found a burial which contained many specimens of Indian culture. The outstanding piece was a string of crude prehistoric copper beads. The beads were about half an inch in diameter and perforated thru the solid copper. Thos. Petford relates having observed as a boy the exhuming of a large number of bodies by the Indians when a road was relocated across one of their burying grounds. These bones were later taken up the river and reinterred (Wis. Arch. Vol. 8, No. 3). Early settlers told of the abundance and variety of the finds that followed the annual plowing of gardens. The finders usually were loath to part with their relics but in the end some persistent beggar carried them off piecemeal. Any attempt at this late date to enumerate this material or to even estimate the amount and kind, further than to say that there was a great deal of it, would be so wholly devoid of accuracy as to be valueless.

In the spring of 1930, Mr. Albert Berg erected a residence on lot 11, block 13 of the original plat of Butte des Morts. On April 17 Robert Kitz, while excavating for a porch post, dug up a large silver ornament. Further work revealed a burial very rich in silver trade goods. With the assistance of Walter Buyeski they uncovered the largest find ever made in this vicinity. Museum workers were notified and came, but the grave had been stripped of everything. The metal ornaments and weapons were piled in one box and the broken bones had been thrown in another. Careful work with a sieve on the excavated material resulted in the recovery of about two dozen small silver ring brooches, largely damaged by shovels. Next morning the material that went thru the sieve yielded 95 semitransparent porcelain beads and a few of wampum.

Workmen digging a sewer to the river found grave No. 2 about four feet south of grave No. 1. In spite of requests,

pleadings and even supplications, that in case of another find, things be left intact till expert hands could do the uncovering, the former misguided, ruthless destruction was repeated. Each tried to see who could pick out the most pieces in the shortest time. As a spectator put it; "The whole thing was a grab fest."

A few feet nearer the river a skull was found in the sewer trench. This grave, No. 3, was carefully excavated by workers from the Oshkosh Public Museum. Measurements and photographs were taken. The only thing of interest in this grave, other than the position and condition of the bones, was a small broken pot. This pot has been restored and is now in the collection of the Oshkosh Public Museum.

Graves Nos. 1 and 2 were prone burials, heads to the west. The bodies did not lie exactly east and west, the feet being a few degrees to the north of due east. They were an adult male and a female, respectively. No. 3, a young adult male, lay with the head to the east, the body extended toward the southwest with the legs partly flexed. Grave No. 1 was placed 19 inches below the original surface at its deepest point. However, this lot had been used as a garden for many years and had probably washed considerably. No. 3 was right on the brow of the escarpment and was deeper than the others. In my opinion this burial had no connection with the others being merely a chance juxtaposition.

Grave No. 1, inventories as follows:

Silver Arm band (\$5.33 per pair).

2 in. wide by 9 in. long. Raised line of beading along each side. The outside edge is folded under  $\frac{1}{16}$  in. to form a small bead. The corners and the ends are not perfectly square. Two holes are in each end.

A conventional Dragon is engraved on the face of band. This figure is 2 in. long by  $\frac{3}{4}$  in. high. Mouth open, tongue protruding. Upper jaw has five fangs and low has three. Horns similar to a cow. Front legs have paws and hind legs talons, and the tail is like that of a panther.

Marked on one end "MONTREAL," and on the other "RC."

Silver arm band.

2 in. wide by 9 in. long. Beading  $\frac{1}{4}$  in. wide along each side. A broad bead outside and two narrower beads inside. Corners are rounded. Three holes  $\frac{1}{16}$  in. in diameter in each end. Has an engraved bird, with a hooked beak, probably an eagle,  $1\frac{1}{4}$  in. long. No hall mark.

## Silver Brooch

4  $\frac{3}{8}$  in. in diameter, concavity  $\frac{1}{2}$  in. deep. Line of engraving  $\frac{1}{16}$  in. wide,  $\frac{5}{16}$  in. from the edge. Between this line and the outer edge is a serpentine line of similar engraving the undulations of which are  $\frac{3}{8}$  in. apart. The central figure is a crude swan 1  $\frac{1}{2}$  in. high by 1  $\frac{3}{8}$  in. long. Above the swan are two buttons or bosses  $\frac{5}{16}$  in. diameter; the shanks extend thru the plate and terminate in  $\frac{1}{4}$  in. loops at the back. Hall mark very indistinct, resembles CA.

## Boat-shaped brooch.

2  $\frac{3}{4}$  in. long by  $\frac{1}{2}$  in. wide at middle, tapering in a curved line to  $\frac{3}{16}$  in. at the ends. The face is convex and the back flat.  $\frac{3}{16}$  in. thick at the middle and  $\frac{1}{16}$  in. at the ends. The brooch has an outward curve of  $\frac{1}{8}$  in. Made of thin silver, hollow, the ends originally ornamented by the ball of an ear-bob held in place by a thong drawn thru the inside of the brooch. Hall marked II.

## Diamond-shaped brooch (Cut out).

1  $\frac{1}{16}$  in. long by 1  $\frac{1}{8}$  in. wide. The diamond is  $\frac{7}{8}$  in. long by  $\frac{3}{4}$  in. wide. Each point surrounded by a cut-out crescent showing the points of the diamond. Has a tongue across middle. Hall mark RC.

## Double heart.

1  $\frac{5}{16}$  in. long by 1 in. wide. Made, of about 20 gauge silver, by cutting out two overlapping hearts from one piece. The inner part of the hearts is cut out leaving a strip  $\frac{3}{32}$  in. wide. The left heart has the edges indented and the right has an engraved line on its face. The whole is surmounted by a Royal Crown having the outer edge indented. Hall mark RC.

## Small Crosses.

Silver ear bob with three "Small Crosses" attached to the wire ring. Crosses are 1  $\frac{1}{16}$  in. by  $\frac{3}{4}$  in. Hall mark RC.

## "Small" silver ear bob.

## 2 "Large" silver ear bobs.

## 2 Silver finger rings.

Silver hair band. 1  $\frac{7}{8}$  in. long by  $\frac{7}{16}$  in. wide. One edge beaded.

Silver hair band. 3 in. long by 1 in. wide. One edge beaded, corners clipped. Hole in one end.

Circular brooch.  $\frac{3}{4}$  in. in diameter. Circle  $\frac{3}{16}$  in. wide. Marked RC.

Small circular brooch. Same as above but  $\frac{5}{8}$  in. in diameter. No mark.

Silver ring brooches. There were more than 150 in all. 90 of these, in four sizes,  $\frac{1}{2}$  in.,  $\frac{9}{16}$  in.,  $\frac{3}{4}$  in. and  $\frac{7}{8}$  in., are preserved intact. Many are still fastened together by the original ribbon. The others are damaged or were lost.

## 15 Hammered copper cones.

These cones varied from  $\frac{5}{8}$  in. to  $\frac{3}{4}$  in. long and were about  $\frac{1}{4}$  in. in diameter at the large end and  $\frac{1}{16}$  in. at the small end. The cones were crudely hammered out of native copper. These coppers are generally listed as 'tinklers' for the adornment of medicine bags and other like uses. Those found in this burial had tufts of hair in the large end, some quite well preserved. From their position in the grave they were probably a necklace.

## Copper fish hook.

2  $\frac{1}{4}$  in. long. Shank flattened  $\frac{7}{32}$  in. wide and  $\frac{3}{32}$  in. thick, tapering to a point at the upper end.

Large bone beads.

Six perfect and two fragmentary bone beads,  $1\frac{1}{2}$  in. long by  $\frac{1}{2}$  in. in diameter. Found near skull. Part of feather head dress.

Part of bone awl.

$1\frac{3}{4}$  in. long,  $\frac{1}{4}$  in. square, pointed, butt broken off.

Four large metal buttons. 1 in. in diameter. Badly corroded.

Two hundred porcelain beads and a few of wampum.

Fragments of a pouch of some sort of fine-grained skin.

Trace of red paint. Near pouch.

Two gun flints and a painted flint scraper.

One painted flint arrow point.

Steel scalping knife. 9 in. long over all, blade 5 in. long. Badly corroded.

Iron spear head.

8 in. long, blade  $6\frac{1}{4}$  in. long and  $2\frac{3}{8}$  in. wide at base. Sides of blade taper straight to the point. Tang  $\frac{3}{4}$  in. wide with a deep notch on each side  $\frac{5}{8}$  in. from the end.

Fire steel.  $3\frac{1}{8}$  in. long. Oval in shape.

Squaw hatchet.  $5\frac{3}{4}$  in. long,  $2\frac{1}{4}$  in. wide at the bit. Eye,  $1\frac{1}{8}$  in. in diameter, still has traces of wood.

## Grave No. 2. Adult Female

Two silver double crosses (\$10.33 per C).

These are the "small double crosses". They are  $2\frac{1}{8}$  in. long, with lower bar  $1\frac{1}{8}$  in. and the upper bar 1 in. long. The bars and the upper part are  $\frac{3}{32}$  in. wide; the lower part is  $\frac{3}{16}$  in. wide. Cut out of sheet silver of about 20 gauge. One cross is ornamented with punch marks and the other by engraved short curved lines and X marks. Hall mark RC.

Silver bracelet.

$6\frac{3}{8}$  in. long by  $\frac{3}{4}$  in. wide. Edges ornamented by lines of beading. Ends cut round. Hole in each end. No mark.

Silver bracelet.

$5\frac{7}{8}$  in. long by  $1\frac{1}{16}$  in. wide. Ends cut in segment. Hole in each end. Hall mark RC.

2 Hair bands.

$3\frac{1}{8}$  in. and  $3\frac{1}{16}$  in. long and  $\frac{1}{2}$  in. wide. A bead  $\frac{1}{16}$  in. wide,  $\frac{1}{8}$  in. from each edge. One end is square and the other is rounded, with a hole in the rounded end. Made flat by hammering. Hall mark very indistinct, SI or SJ.

Cover of a 'Patch Box'.

Oval,  $1\frac{3}{4}$  in. long by  $1\frac{3}{8}$  in. wide. Convexity  $\frac{1}{4}$  in. deep. The hinge had been broken off. Other part of box missing.

Diamond-shaped brooch.

Similar to that in grave No. 1.

3 Small silver cones,  $\frac{3}{8}$  in. long by  $\frac{1}{4}$  in. Very thin sheet. Crude. Evidently Indian made.

Ear bobs.

$\frac{7}{8}$  in. silver wire ring with six large ear-bobs strung on it. One had a square tinkler. Four small ear-bobs. Some damaged.

Silver ring brooches.

$26\frac{1}{2}$  in.,  $22\frac{1}{8}$  in.,  $6\frac{3}{4}$  in.,  $44\frac{7}{8}$  in. and 21, broken, of different sizes, making 119 in all.

Fire steel. Oval. 3 in. long. Badly corroded. Two Indian made gun flints.

One hand made buckshot.

Parts of a round metal box.

Small metal-backed mirror. Diameter 2 in.

78 Porcelain beads and 9 feet of wampum.

The above enumerated articles have now become the property of the Oshkosh Public Museum and are on display.

Mr. Berg recovered a catlinite pipe from grave No. 1. After looking at it awhile he tossed it aside. It never appeared again.

There were at least four of the diamond-shaped brooches in grave No. 2, but only one stayed in the basket.

Two large, elaborately chased, silver double crosses, the rarest and most highly prized of all relics of early Wisconsin, were taken from grave No. 2, but they went the way of the will-o-the-wisp.

An old flintlock pistol was found in one of the graves. Extreme length  $14\frac{1}{2}$  in., barrel 8 in., bore about 9-16 in. Lock plate is missing. Brass ball butt, mask face butt plate. Two tapering brass straps extend from the butt along the sides of the stock. The front part of the trigger guard plate is made in the form of an acorn. The plate opposite the lock is highly ornamented by being cut in fanciful design and engraved, that part toward the stock terminating in a conventional leaf form. The bottom of the trigger guard was engraved with some sort of conventionalized sun-burst. Metal name plate on top of stock had no mark.

This type of pistol may date anywhere from 1760 to 1775, and very probably was of English make. Has been restored as far as possible.

The approximate date of the pistol and the hall marks on the silver fix the date of the burial some time in the later years of the eighteenth century. Mr. L. B. Porlier is my authority for the assertion that the Menomini did not use the Grand Butte as a general cemetery very long after the beginning of the nineteenth century. Most certainly the French who settled here in the second decade of the nineteenth century would have made some mention of the death and burial of persons of such importance as these appear to have been.

The Oshkosh Museum is indeed fortunate to get this collection, and to preserve it as an example of the extreme height of the culture of this locality as it was influenced by the early traders. In the clumsy rifling of these burials a crime has been committed. Again history and archeology lose valuable data thru the sheer ignorance and unholy greed of mere relic hunters.

## THE AMERICAN INDIAN IN PAINTING AND SCULPTURE

Herbert W. Kuhm

The very unrest, the questioning spirit in our day, is leading us to a more wholesome respect for the simple reactions of primitive races. We are even discovering that there is some subtlety there. No longer cocksure of ourselves and of the ultimate value of our civilization, we have become interested in many aspects of primitive life.

A fascinating record is that of the American Indian before white civilization touched him. Something of the joy, the beauty and the pathos of his life has been reflected in many of our works of art.

We are deeply indebted to the scientific research worker for his painstaking record of Indian history; yet how eloquently speaks the canvas of the artist-historian. What the former must describe in hundreds of words, the latter depicts with vivid words taken from his palette; and all in a simple language that young and old, educated or illiterate, scientists or layman, can appreciate and understand.

The treatment of the American Indian as a subject for art has been characterized as the youthful sin of every American artist. Yet no artist aiming at a sympathetic and sincere expression of the American spirit should neglect entirely this truly American motif in his work, for it is basic and as solidly American as the Indian himself.

Much that is encouraging has come to pass. The painting of the colony of artists who have settled at Taos and Santa Fe in New Mexico has sought to reveal Indian life in the primitive beauty of our own Southwest. In Santa Fe a new Museum has been dedicated to the preservation of the native culture of that region. Indian designs have found their way into our textiles. Anthologies of Indian verse have been compiled. Poets have begun to experiment with the idiom of the Indian song-poem form and musical compositions based on Indian themes are heard in our concert

halls and over the radio. Truly, at last we have awakened to the artistic riches which, as Dr. Lyman Abbott said, lie hidden like the gold in the rocks of our native land.

Nearly a century ago, the War Department attempted to gather a collection of Indian paintings so that authentic portraits of this fast vanishing race might be laid up in the archives of the Government for safekeeping.

James Lewis and Charles Bird King were commissioned to paint a number of Indian portraits, and these became the nucleus of the War Department's gallery.

This initial move to preserve the Indian through art received a serious blow when the gallery in the Smithsonian Institution at Washington, where the pictures were housed, was destroyed by fire in 1865.

Fortunately for posterity, the Government recommenced the project, beginning this time with the paintings of George Catlin, who from 1832 to 1839 traveled and lived among many native tribes, making hundreds of paintings portraying their life and customs. These paintings now form the famous Catlin Gallery of the United States National Museum at Washington.

Of interest to us in Wisconsin is the fact that Catlin's itinerary brought him to Mackinaw and Sault Ste. Marie. He went up the Fox River and down the Wisconsin in a bark canoe, and his illustrations show the Ojibwa catching whitefish with scoop nets; also an Ojibwa canoe race. While at the "Soo", Catlin made a number of portraits of Ojibwa Indians.

Before Olin Warner made his remarkable series of Indian portraits in relief, the American artist who used the red man as a model at all was, with few exceptions, disposed to make him a romantic figure after the literary fashion of James Fenimore Cooper of Leatherstocking fame, or to invest him with somewhat theatrical significance. Pieces of the simplicity and sincerity of J. Q. A. Ward's "Indian Hunter" were rare. Warner's reliefs signalized a newer and saner conception of the one intensely picturesque type that had been left to us, and that we had foolishly sought to conventionalize.



When Frederic Remington's opportunity came to portray the Indian after his own manner of thinking, he faced the task from Warner's honest point of view. When he went West and found picturesqueness, he did not make it an affair solely of Indians in war paint and feathers. Rather, he became interested in the Indians' everyday life and thought, not merely in the most spectacular manifestations of it. The Indian appealed to him not in any histrionic way, not as a figure materialized from the pages of "Hiawatha," but just as a human creature, sometimes resplendant in the character of a militant chief defending his people against the encroaching white pioneers, sometimes merely an unkempt, illsmelling weakling loathesomely drunk on white-man's liquor. It would be stupid to be ungrateful for the Indian pictures which have happened to idealize and make the Indian seem an exotic, if not legendary, personage. Occasionally they may have been very good pictures. But the tendency, latterly, has been in the direction which Ward and Remington indicated.

Truly, we owe a debt of gratitude to those individuals who, by their intellectual penetration, artistic intuition and sympathetic understanding of the ways of the Indian, have recorded for all time the beauty of the Indian's culture. Their art will serve as a ministry of service in human advancement through its broad appeal for a humane treatment of a deeply misunderstood and richly gifted race, and for some method of adjusting the Indian to the alien civilization around him, not by stamping out all that was native to him in the futile belief that he might thus be transformed into a white man, but by developing his character through the preservation and fostering of all that was valuable in his own distinctive culture.

The painters and sculptors who have portrayed and depicted the American Indian have lent a hand to a dying nation, and have snatched from a hasty oblivion what could be saved for posterity, and perpetuated it as a fair and just monument to the memory of a truly lofty and noble race.

## LAKE POYGAN INDIANS

Arthur Gerth

Back in the year 1888 and during a few years following, I accompanied my father every spring up into the Lake Poygan country. I was but a small lad at the time and my father, Stephen Gerth, a painter, made these annual visits to engage in work for the farmers residing at Tustin, Brushville, Weyauwega, Poysippi, Fremont and Omro. It was during these trips, which occurred at about the same time each year, that I had the opportunity of observing the roving habits of the Menomini Indians, who each spring came to this locality to tap the maple trees for sap and remained long enough to convert the sweet fluid into tasty bars of maple sugar, before continuing their trek to the next sap-gathering site.

My interest was aroused in this little wandering band of nomads as they appeared year after year, not unlike migratory birds that return in the wake of winter to their favorite feeding haunts. The little band, comprising four or five bucks with their squaws and children, apparently was made up of two or three families traveling thus always together. Shabbily dressed in what might have been the cast-off clothing of their white brethren, about the only identifying mark of the aborigine which they bore was the moccasins worn by all. The men were always hatless, like our present-day collegians; the women, gypsy-like, wore shawls and dresses of gaudily colored, cheap printed cloth. Chubby papooses peeked out at the world from leather cradles suspended from bands about their mothers' heads. The picture was completed by a dozen or so of frisky little Indian ponies, some hitched between the shafts of the tra-vois heaped up with camp luggage, others ridden bareback by bucks whose poise and grace astride their mounts denoted the born equestrian.

That this group had a fixed itinerary which they traversed each year, I am quite sure, for they always came from the west and departed toward the north, in the direction of

Fremont. I learned that Weyauwega and Poysippi were also visited during their round of sugar making.

Arriving in Tustin, their camp was pitched in the woods adjoining the town. Sometimes their camp site would be in Bergner's woods. The owner of this tract, Christ. Bergner, was a pioneer in this section and an old settler who had hewn his home and farm out of the virgin forests flanking the waters of beautiful Lake Poygan. The rude log house that was the first Bergner home was still standing on their farm at that time, more than forty years ago. The present owner of these lands is Charles, a son. In the shadowy woods ringing the lake the Menomini would erect crude lean-tos and pitch their tepees and go about the business of collecting the maple sap. The white farmers had no objections to this for the demand on their time was so great, what with farming their cleared lands and clearing off the rocks and trees to extend their arable acres, that the rather profitless making of maple sugar offered little inducement.

The Indians, during their three or four days sojourn, were somewhat of a nuisance because of their borrowing and foraging activities, but the farmers were good-naturedly tolerant of the wanderers and relations were always most friendly. Although anything to replenish their table fare was acceptable to the Indians, they were particularly fond of fresh white bread which the farmers' wives baked. As a gesture of payment for the many favors they received during their visit, the Indians usually presented their benefactors with cakes of maple sugar before taking leave.

All hands, men, women and children, took active part in the sugar harvest. Placing in the tapped trees tubes of wood fifteen to eighteen inches long, serving as spouts, they collected the sap in earthen jars. Huge iron kettles were borrowed from the Julius Bartel farm which adjoined the Bergner lands. "Reke" Bartel, a son of old Julius, is the present owner. The work would continue for three or four days, then the little caravan would break camp and bid goodbye to Lake Poygan for another year.

On the Bartel farm, in a field about 300 yards north of the kitchen, stood a giant oak. Under its gnarled limbs

was heaped a weed-grown Indian burial mound. There a Menomini warrior slept. And to this isolated, lonely grave, our little group of wandering sugar makers came yearly to pay their respects to a departed sire. Each year the request was made to old Julius Bartel by the Indians that the resting place of their ancestor be spared from the plow-share, and every year the kindly Bartel renewed to them his promise that "As long as I own this farm that grave will never be disturbed." The situation impressed me as being pathetically ironical: once masters of these broad fields and woods and lakes, the remnants of that proud race begging of the conqueror for enough ground to house the remains of a fallen tribesman. I do not know whether or not the years and the ruthless advance of civilization have erased the old burial mound on the Bartel farm.

That the region surrounding Lake Poygan was one especially favored by the tribes in this section is attested by the abundance of Indian implements found on all of the farms. Finding them in the plowed fields was of such common occurrence that little or no value was attached to the relics. I remember seeing some beautiful flints eight to ten inches long lying about in a farmer's granary. At Bergners Point (where the Bergner lands farmed a tiny peninsula in Lake Poygan) there were three large boulders, and a carpeting of flint flakes, chips and broken arrowpoints covered the ground nearby, mute evidence that here, before the sturdy vanguard of pioneers came to wrest homes and farms from this primeval wilderness, this wooded point served as a workshop where the red man fashioned flint implements in this primitive armory. I have in my collection several of these stone implements which my father gathered, including a stone axe and celts from the Tustin locality.

## THE VERTEBRAL PATHOLOGY OF PREHISTORIC WISCONSIN INDIANS

Alton K. Fisher

In recent years an interest has been awakened with regard to the diseases of prehistoric peoples. To some the problems connected with this subject already have their solutions, while to others the question remains an open one. The data obtained through researches in this field are sufficient to cause one to be suspicious of the most current theory on the subject, namely, that primitive man was not affected by the pathological processes which afflict modern, civilized man. One often has heard from the layman, that primitive men were models of physical perfection and health, and even medical men have been guilty of the statement that most disease is a result of civilization. This theory is by no means a new one, and it is obviously a rationalization, for it came into being long before any researches had been conducted in the field of prehistoric pathology. It is a theory which is easy to believe without further investigation and it was a pleasant subject for discussion for there were no concrete facts available through which one's arguments could be refuted. However, a critical consideration of the causes of disease ought to convince one of the absurdity of this theory. From the available information on the subject it seems that the basic biological laws are constant and universal in operation. When a living organism is so functioning that it may continue in its normal life processes, it is said to be in a healthy condition. On the other hand, where there is an abnormality of structure or function in a living organism, it is in a condition of disease. Inasmuch as all grades of living organisms are subjected to countless influences which alter their normal structures and functions, it is unreasonable to suppose that life can exist without the presence of pathological processes. It is true that abnormal environments, such as those produced by civilization do cause certain pathological processes to manifest themselves in certain peculiar forms,

but our present state of knowledge compels us to believe that the basic pathological processes are the same.

In dealing with primitive man in Wisconsin we are considering the American Indian, and of these prehistoric Indians we have only the skeletal remains. These bones as a rule are poorly preserved. Most of the burials are so badly decomposed that an accurate examination of the bone structure is impossible. When one recovers bones showing pathological lesions, and sufficiently intact to permit a thorough examination of these lesions, he is indeed fortunate. It is very probable that the prehistoric Wisconsin Indians suffered from a variety of pathological afflictions, but we can be certain of only those abnormal conditions which involve the bone.

In studying the bone pathology, as well as the pathology of the other systems of the body, one finds that many causes of disease produce very similar conditions of the organs under consideration. Forgetting for the moment the predisposing factors which may be conducive to disease, such as age, sex, heredity, environment and idiosyncrasies, it is possible to observe at least the grosser immediate or determining causes of the abnormalities of structure and function. Traumatic or mechanical injuries of various sorts, extreme physical conditions of heat and light, certain poisons and many bacteria produce in living tissue, in addition to other changes, certain circulatory disturbances. In the skeletal and associated tissues disturbances of circulation may occur in the bone and associated membranes and medullary contents, in the cartilage, or rather in the perichondrium, and in the adjacent tendons. One of the most frequently encountered disturbances of circulation is that of hyperemia, and it is now believed that there can be no resorption without the existence of this condition.

It is well to bear in mind that bone, cartilage and tendon are all derivatives of connective tissue, and therefore it is not strange that under abnormal circumstances these tissues should change their forms, bone becoming cartilaginous, and cartilage and tendon becoming either ossified or calcified. In the case of calcification the involved tissues become impregnated with calcium salts without a change

to true osseous tissue. In a transformation to real bone the involved connective tissue derivatives have a tendency to revert to an embryonic or less highly differentiated state in which condition they are ossifiable mediums. Hyperemic conditions of the structures in question are apt to produce the changes just described.

In hyperemic conditions in which bony tissue is resorbed or altered, the calcareous substances may be and frequently are redeposited in adjacent tissues of the same type. When this process occurs in bones close to the joints in the body, the calcium salts from the bones may be placed in the cartilages of the joints due to the fact that the cartilage may have been involved in the disease process. When the cartilage is ossified or calcified a bony fusion or ankylosis of the joint is apt to occur, in which condition the joint is no longer active.

Among the skeletal remains of the prehistoric Wisconsin Indians I have observed four cases in which the vertebral columns have been involved in very pronounced pathological processes, every case resulting in a bony ankylosis of the vertebrae. Case Number 1 was that of an adult individual recovered from a burial in a mound in Marquette County. Parts of sixteen vertebrae are present, including thoracic and lumbar elements from the column of an adult male. Most of the intervertebral discs of fibro-cartilage have been ossified, tending to make the column a fairly inflexible structure. In the upper thoracic region lips of bone have formed at the margins of the superior and inferior surfaces of the bodies of some other vertebrae. This so-called lipping is quite characteristic of spondylitis deformans or arthritis deformans of the vertebral column. When one is dealing only with bony structures it is quite impossible, as a rule, to definitely state the cause of arthritis deformans. As a matter of fact, unless the agent producing the abnormality is still present in the bone, it is almost impossible to name the exact cause of any diseased condition of the bone, for as I have said before, many agents may produce the same effect. In the parts of the specimen which have been preserved there are no evidences of traumatic injuries to the vertebrae. In comparative safety we may exclude the possi-

bility of extreme physical conditions and external poisons as causative agents. Although the following statement is by no means conclusive, it is quite probable that bacteria were the cause of this case of arthritis deformans. The seat of the original infection may have been in some other part of the body, such as in diseased tonsils, nasal sinuses, infections resulting from lacerations of the skin, or from periapical infections of the teeth. My researches in the dental pathology of the prehistoric Wisconsin Indians have shown that about twenty-five per cent of the individuals examined were afflicted with alveolar abscesses. Quite probably the bacteria from one of the possible infected areas escaped into the blood stream and were distributed throughout the body. As a result some of them apparently were lodged in the tissues of the vertebral column where the pathological process just described took place.

Case Number 2 is much less spectacular, for the specimen consists of only the arches of three thoracic vertebrae, but it is fully as interesting. This specimen was obtained from a bundle burial in a mound in Dodge County. The laminae are quite firmly united by masses of bone produced as a result of an inflammatory process which may have been caused by an infection of the tissues of the vertebral column. The left articular facet of the upper vertebra has been partially destroyed by resorption, and on its margins are small exostoses. The roots of the vertebral arches appear to have been largely resorbed, and extending back into the laminae are to be observed several fairly large canals, suggesting that the pathological process may have been a suppurative one. As in Case Number 1, it is impossible to locate the origin of the affliction, but it may have been caused by an infection in some other part of the body, or it may have been coincident with a traumatic injury in the region of these vertebrae.

From a burial in La Crosse County was obtained the specimen which is the subject for Case Number 3. It consists of six ankylosed thoracic vertebrae from a youth about fifteen years of age. In this case there is a very pronounced lateral curvature, with the convex side of the curve toward the right. At present it has not been de-



terminated definitely whether the ankylosis is a result of the curvature, or the curvature a result of the ankylosis. However, a careful examination of the specimen seems to indicate that the ankylosis was caused by the abnormal curvature, and may have resulted from impaired or abnormal muscular function. If the muscles on the left side of the vertebral column were stronger than those on the right side, the upper portion of the column would be pulled over to the left, as has happened in this case. If this posture was permanent, the tissues on the left side of the column would have been subjected to an abnormal pressure which would first cause a disturbance of circulation in these tissues. This might have paved the way for other pathological processes which eventually resulted in the observed ankylosis. This view is substantiated by the fact that the ankylosis is more pronounced on the left side of the vertebral column, where the pressure was greater, than on the right.

Two ankylosed vertebrae taken from a burial on the southwest shore of Lake Koshkonong supply the material evidence for Case Number 4. This specimen is apparently from the upper lumbar region of an adult male. In this unique case the cause of the abnormality was quite apparent, for a fragment of a stone arrowpoint still remained imbedded in the bodies of the vertebrae. After making a careful study of the specimen, including a radiographic examination, it was determined that the arrow had pierced the victim's abdomen and penetrated the vertebral column so as to cause the point to protrude sufficiently into the vertebral canal to impinge upon the nerves in that region. The course of the arrow within the body was such that the bodies of the two vertebrae were pinned together by the large fragment of the stone point which remained in the bone when the shaft of the arrow was withdrawn. The protruding point must have pressed upon the spinal nerves with sufficient severity to produce a pronounced disturbance of the individual locomotive and lower visceral functions. This man did not die immediately after this extremely unpleasant incident but survived for at least from six months to a year. A marked suppurative process followed the infection of the tissues by the unsterile arrow,

after which the bone repair was accomplished. All this is shown by the fact that the abnormally produced bone is perforated by canals which probably served as drains for the pus resulting from the infection. Furthermore, a considerable amount of time is required to produce the solid abnormal bone which this specimen exhibited, and to completely ossify the intervertebral cartilage disc.

## AN UNUSUAL TYPE OF COPPER KNIFE

W. C. McKern

One of the outstanding archeological problems of Wisconsin regards the culture status of the great majority of copper implements found at sites scattered over a major part of the state. Copper celts of a certain type and awl-like artifacts are known to have been used by prehistoric possessors of the Basic Hopewell culture, anciently inhabiting parts of Wisconsin, and awls and chisel-like objects have been found, though rarely, in effigy mounds. This leaves out of the account the many projectile points, cutting and chopping knives, axes, adzes, spuds, gouges, harpoons, fish hooks, pikes, needles, spatulas and other forms, less easily named, that are present among the thousands of copper implements in Wisconsin collections. Who fashioned and used these tools, and at what prehistoric period was their use most prevalent?

A comprehensive classification of Wisconsin copper implements and a growing knowledge of their distribution should eventually insure the solution of those problems. It follows that any detailed information regarding such implements is of importance and should be placed on record to facilitate the research of interested students, and that any rational speculation as to their manufacture and use, if founded on fact, promises to be profitable.

A recent accession to the collections of the Milwaukee Public Museum is a copper knife, found near Elroy, Juneau County, by Mr. Millard Haase (Plate 1). The knife has a maximum length of eleven inches. It may be briefly described as straight backed in type with a spatulate tang tapering from a width of one inch at its juncture with the blade to a width of one-quarter inch at its outer extremity. The implement has a maximum thickness of one-eighth inch near the base of the blade. The blade is somewhat triangular in lateral shape, one and one-half inches in width at the base and tapering gradually to a rounded point. One broad surface of the artifact is absolutely flat, and as it lies on

this flat surface with the point away from the observer, the single sharpened edge is on the lefthand side. The green patina, where not eradicated through recent handling, is the heavy crust which only follows extremely prolonged exposure, and the entire surface is deeply pitted and scarred as a further indication of age.

The unusual size of the specimen is not its most interesting feature. To one familiar with the type of knife here represented, two peculiarities immediately demand the attention. First, the basal extremity of the tang is bent sharply up and back toward the point to form a hook- or U-shaped culmination one and one-quarter inches in length. The bent end of the tang is one-half inch distant from the main shaft of the tang which it parallels. Thus, if the tang were straightened the implement would have a total length of twelve and three-quarters inches.

It is quite apparent that the existing shape of the tang is not accidental but a planned part of the object. The abrupt upward and forward turns are sharply angular, as though shaped over a hard form, and the heavy coating of patina is as thick in the angles of these bends as elsewhere. The artifact was intentionally shaped as it is and, no doubt, for some good purpose.

The tang of such a knife is patently intended to serve as the foundation for an applied handle, possibly of some such material as wood or bone. It is conceivable that after considerable use the applied handle might tend to slip off a straight tang, and an experience of this sort might induce the owner of the knife, in manufacturing a new implement, to attempt a correction of this tendency by creating a hook at the end of the tang to clinch the applied handle, thus preventing a recurrent accident of this nature. A similar explanation may apply to the bent tangs which have been reported for a number of other copper implements deposited in Wisconsin collections. Apropos to this interpretation, the term, clinch-tang, is suggested for this peculiarity.

The second peculiarity of the specimen in question is that the upper side of the knife edge is sharply beveled to a breadth of from one-quarter inch near the point to seven-sixteenths of an inch at the base of the blade. I have seen



COPPER KNIFE FROM JUNEAU COUNTY  
(Milwaukee Public Museum Print)  
Plate 1



projectile points with opposite edges beveled, but this is the first knife with but a single edge beveled that has come under my observation. Mr. Geo. A. West, Dr. S. A. Barrett, Mr. Joseph Ringeisen and others who have examined this peculiarity report that it is unique in their experience.

The suggestion that this feature indicates European influence is controverted by the heavy layer of copper carbonate which is as thick on the beveled surface as elsewhere on the specimen. This fact obviates the possibility of secondary shaping of an old specimen at a more recent time. The surface of the implement, including the beveled area, shows uniform ageing.

The beveled surface is noticeably concave. The use of a rounded stone as a hammer would naturally result in such a concavity, but this fact hardly warrants the conclusion that this detail of shape is not intentional rather than the accidental result of a rounded tool.

As regards probable use, the rounded point and single cutting edge suggest that it was employed as a cutting rather than piercing implement, and the flat under surface and beveled upper surface would render it very serviceable, among other uses, for such processes as the removal of fleshy elements from a hide.

The writer would like to know if other knives of this type, exhibiting either of the peculiar features described for this specimen, are known to the readers.

## A WISCONSIN BIRD-STONE

Charles G. Schoewe

The Oconomowoc River, after leaving North Lake in Waukesha County, lazily meanders westward to finally empty into Okauchee Lake. About one-half mile west of North Lake, the river passes one of those interesting pre-historic Indian camp sites so frequently encountered in Waukesha County. Here a grassy slope gently rises from the bank of the lazy river until a fair height is attained, sufficient to give the camp site protection from cold north winds. Directly west of and adjacent to the site, the land rises very abruptly to form a high ridge which extends for some distance in a westerly direction parallel to the river. Here, most likely, the aborigines built their signal fires and stationed sentinels for the safety of the camp. From this point of vantage they could gaze southward for long distances over low lands extending toward Moose Lake, originally Mouse Lake (*wabikenoshques*). To the east they could see the departure of canoes from North Lake or, turning westward, the approach of friends or enemies paddling up stream from Okauchee Lake.

The advantages of the geographic location and the presence of a well fed spring, the overflow of which filtered through a mass of water cress to empty into the river, made the site ideal. Moreover, the soil was loose and quite gravelly, thereby facilitating good drainage and so keeping the camp site dry. In selecting such a site, the aborigines could not be influenced too greatly by the natural beauty of the spot alone. Other important factors had to be borne in mind; namely, protection against enemies and elements, proper drainage and good water supply. In a large measure their problems were like our own, but involved additional difficulties.

One rainy morning, July 27, 1923, I visited this site, not for the first time, however, since on different occasions I had found here numerous arrowheads, flint flakes and hearth stones. On this particular occasion I had not come



with great expectations of finding many arrowheads, since the site was in stubble. It was just the love of being there, of dreaming of the people who formerly toiled, fought and played there that had attracted me to the spot. I was in a romantic frame of mind this morning as I slowly walked about the field, scanning the ground from force of habit, I suppose. Suddenly I spied a stone, lying flat on its side, the outline of which I recognized at a glance. I experienced a thrill of pleasure, for it was one of the rarest of artifacts that an archeologist could wish to find—a bird-stone. It was made of banded Huronian slate with a grain resembling that of wood. According to some of our foremost archeologists these artifacts, which resemble birds in shape, were used for adorning primitive Indian flutes. This specimen was fashioned, perhaps some three hundred or four hundred years ago, by Wisconsin Indians presumably belonging to the Algonkian stock, since bird-stones have never been found outside the territory over which the Algonkian tribes wandered. The fact that only about sixty of these stone objects have been reported as found in Wisconsin renders any new find, such as that recorded here for the first time, particularly interesting.

I washed the stone in the clear, cool spring, made a tobacco offering to the Indian spirits, and thanked the red gods for this fortunate find.

## THE JOINT MEETING AT RIPON

Charles E. Brown

The annual Joint Meeting of the Wisconsin Archeological Society, the Wisconsin Academy of Sciences, Arts and Letters and the Midwest Museums Conference was held at Ripon College, Ripon, Wisconsin, on Friday and Saturday, April 10 and 11, 1931.

Dr. Silas M. Evans, president of Ripon College, delivered the address of welcome to the members of the three societies at the opening meeting held in The Little Theatre on the College campus, on Friday morning, President Charles E. Allen of the Academy responding in behalf of the organizations represented.

The meeting of Section A., the Wisconsin Archeological Society, was held in the Theatre, directly following the opening ceremony. There were about forty members and visitors in attendance. Secretary Charles E. Brown presided over this meeting. Seven members of the Society presented papers at this session, in the following order:

Silver Ornaments from Grand Butte. George Overton, Butte des Morts.

An Effigy Pipe from Pepin, Wisconsin. Charles E. Brown, Madison.

Indian Mound Photography. Illustrated. John B. McHarg, Appleton.

Central Pennsylvania Archeology. Illustrated. Robert R. Jones, Wild Rose.

Pleasant Lake Mound Groups (By title). Kermit Freckman, Milwaukee.

A Lower Palaeolithic Site in the Sahara Desert. Illustrated. Alonzo W. Pond, Beloit.

Vertebral Pathology of Prehistoric Wisconsin Indians. Illustrated. Alton K. Fisher, Milwaukee.

Section B., the Academy, met at the same time in the Biology lecture room.

The afternoon session of Section A., was also held in the Theatre. Members of the Society who appeared in the program of this meeting were:

Observations on the Pleistocene of the Black River Falls Quadrangle, Wisconsin. Ira Edwards, Milwaukee.

The Brush Creek Region in Northeastern Utah. Albert B. Reagan, Ouray, Utah.

The Albert H. Mill Collection (By title). Theodore T. Brown, Green Bay.

Where the West Begins. Will F. Bauchle, Beloit.

Lincoln Literature, Collectors and Collections. Albert H. Griffith, Fisk.

Early Homes of the Lincolns. Illustrated. John B. McHarg, Appleton.

After the Joint Meeting dinner, held in the dining room of the Grand View Hotel, on Friday evening, Mr. Alonzo W. Pond gave an interesting illustrated lecture to a large audience of members and Ripon College students in the College Chapel, on the subject of "Reliving the Past." In this lecture the speaker presented an account of his recent archeological and ethnological investigations in North Africa, Central Asia and Western Europe.

On Saturday morning the members of the Wisconsin Archeological Society and the Midwest Museums Conference held a joint session in the Theatre. At this meeting Rev. Francis S. Dayton presented a paper on "A Winnebago Camp Site." At noon, at a general session of the three societies, Huran H. Smith gave an illustrated lecture on "The Ethnobotany of the Oneida Indians."

At the business meeting of the Midwest Museums Conference, held in advance of the morning session and presided over by Charles E. Brown, vice-president, the reports of Conference officers were received and the following officers elected:

President Nile C. Behncke, Oshkosh

Vice-president Alton K. Fisher, Milwaukee

Secretary May L. Bauchle, Beloit

Treasurer, Ralph N. Buckstaff, Oshkosh

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Although Ripon is rather difficult of ready access by rail or motor bus some twenty-five members of the Wisconsin Archeological Society were in attendance at the Joint meeting.

## ARCHEOLOGICAL NOTES

### Pottery Survey

The Oshkosh Public Museum, represented by Mr. A. P. Kannenberg, President of the Board of Trustees, co-operatively assisted by the Milwaukee Public Museum, has recently compiled, at no little expense of money, time and effort, a series of albums containing photographs of know whole or restored Wisconsin Indian pottery vessels, with all available information. Data were secured from many distant as well as local sources, including the Peabody Museum at Harvard, the Museum of the American Indian, New York, and the United States National Museum. In all, ninety-six vessels are accounted for. These are classified according to culture status and grouped under the separate headings: Lake Michigan ware, Upper Mississippi ware, Cahokia-Aztalan ware, Wisconsin Hopewell ware, Miscellaneous ware.

Copies of these albums, available to any interested student, are in the Oshkosh and Milwaukee public museums. Additional information regarding newly discovered vessels, vessels missed by this survey or vessels included therein is earnestly solicited. Write to Mr. Kannenberg or to Mr. T. L. Miller, Public Museum, Milwaukee

### Research

Mr. E. R. Weed of Pelican Lake, Oneida County, who for many years has been actively interested in the archeology of his district, has recently been engaged in excavating a mound near his home. Associated with a burial, he found some very interesting materials, including two most unusual specimens. Quoting from his letter:

"I found two articles very much out of the ordinary; viz., two small pieces of copper incased in strips of wood and bound with what appears to be rawhide on one, and a cord around the other. One of these pieces of copper is about two inches in length and about the width of a coarse awl. It comes to a sharp end which projects beyond the binding of wood and rawhide. The other is quite similar except that it has a blunt end."

Regarding the cluster of materials which included these unique finds, Mr. Weed continues:

"I am enclosing a picture taken of this group of material before it was removed from the mound. You will note the pottery pipe, the bone harpoon, the carved antler with the tooth socketed through it, and a small portion of the birch bark upon which these articles were placed. . . . Close to the pipe is a tooth similar to that in the deer antler."

Quantities of red ochre were present with this cache of artifacts. The bone harpoon is an exceptional specimen over eight inches in length with four unilateral barbs and a perforated base. The pottery pipe is of the short-stemmed elbow type.

It is hoped that Mr. Weed will favor us in the near future with a complete report of his work.

During the early spring of 1931, W. C. McKern, on behalf of the Milwaukee Public Museum, spent approximately one month assisting archeologists from the universities of Chicago and Illinois in excavating the Powell Mound, one of the Cahokia Group near Collinsville, Illinois. The work was under the personal direction of Mr. Thorne Deuel.

The Powell Mound was a great elliptical tumulus thirty-five feet in height and over two hundred feet in length. The owners were removing the structure with a steam shovel to obtain soil for land-filling purposes when scientific attention was directed to the operation. The Powell brothers kindly co-operated to permit scientific study of the contents as the work proceeded.

The base of the mound yielded no specific interior features, but the story of construction told by soil profiles was most interesting and informative. A primary mound, presumably Cahokian in culture, as judged from its truncated pyramidal shape, had been used as a burial platform by an ethnic group not specifically Cahokian, as the culture is known, and the burial had been covered by a secondary, elliptical mound which completely capped the primary platform structure. The burial of fragmentary disarticulated bones, disposed between layers of bark, was accompanied by a number of remarkable specimens. These included: two necklaces of large spherical and cylindrical beads fashioned from the columella of tropical conch shells; two double cones of wood covered with thin sheet copper; literally hundreds of thousands of small tropical sea shells perforated for attachment as beads and sowed in regular rows to some material entirely disintegrated when found. The apparent traits are new for the Cahokia district.

The material of the secondary mound, to which the burial belonged, was homogeneous, but the primary mound was divided from bottom to top into four sections by lines of structural unconformity. These lines seemed to mark the end of one season's building operations—at the arrival of winter, and the start of a new season's work—with the arrival of spring. There was also evidence that marsh land had been filled to complete a level base for the primary mound, and there had been a period of water erosion about the margins of the primary mound, and a subsequent depositing of stratified sand over the eroded area, preceding the erection of the secondary mound.

Of particular interest to Wisconsin students is the fact that a detailed study of potsherds found in the primary mound, which are typically Cahokian in type, showed that the peculiar traits of this ware are the characteristic traits of the dominant pottery at the Aztalan site, Jefferson County, Wisconsin.

### Field Work

All members and friends of the Wisconsin Archeological Society are invited to assist in its field work during the season of 1931. It is desired that as many as possible will do so. The Chairman of the Survey Committee, Mr. Towne L. Miller of the Public Museum of Milwaukee, will be glad to assign certain territories or help you with suggestions or advice if you will write him. Other members of the committee will be pleased to do the same.

On your trips through the State any information, no matter how trivial or how elaborate, will be appreciated by your Society. Send this information to the Secretary, Mr. Charles E. Brown, State Historical Museum, at Madison, or to the Chairman of the Survey Committee. In either case all records will be filed in the archives of the Wisconsin Archeological Society.

Descriptions of collections and specimens, or photographs and drawings of the same, maps and sketches of mounds, campsites and other interesting aboriginal features are wanted.

# The Wisconsin Archeologist

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Vol. 10

August 1931  
NEW SERIES

No. 4

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## BONE IMPLEMENTS FLORIDA BURIAL MOUND KEOKUK AXES UTAH ARCHEOLOGICAL NOTES



PUBLISHED QUARTERLY BY THE  
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MILWAUKEE

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Charles E. Brown, Charles G. Schoewe

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## **Milwaukee, Wisconsin**

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Incorporated March 23, 1903, for the purpose of advancing the study  
and preservation of Wisconsin antiquities

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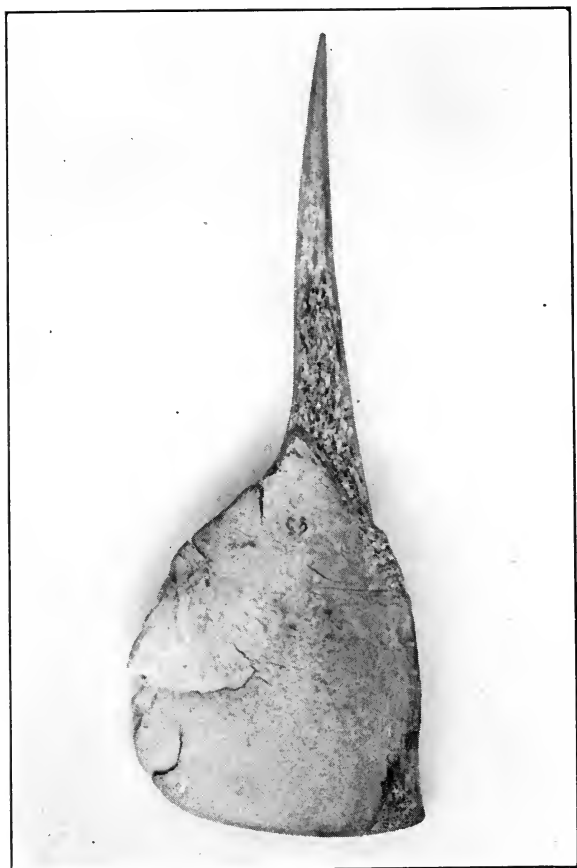
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BONE AWL

Black River Sites, Sheboygan County  
M. S. Thomson Collection

# The Wisconsin Archeologist

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## TWO BONE IMPLEMENTS FROM SHEBOYGAN

M. S. Thomson

While bone implements as surface finds are rather uncommon these days, I have been fortunate enough to pick up two at the sand dunes south of Sheboygan. The first of these, found in October, 1929, is an awl or dagger, made from the leg bone of a deer. The total length is nine and one-quarter inches and the handle is one and one-quarter inches wide. This piece is identical to many found in the Bluff culture of Illinois and is typical of the Hopewell culture. The Dickson mound at Lewistown, Illinois, has yielded quite a number identical to this piece. Apparently it had lain exposed for many years without any one recognizing it, for the point has been somewhat weathered away by the shifting sands. The position in which it was found indicated that it had been picked up and thrown down in a spot other than its original resting place, as it was lying on top of the wind-deposited sand on which the sparse grass of that locality had obtained a good foothold. The deposit of sand at this point was several feet in height above the original camp site surfaces.

Had I not been familiar with this type of implement, I certainly would have passed it up as some, discarded piece of bone, as others apparently had done, but the moment I saw it, before picking it up, I recognized the type of implement.

The second find was an awl made of the shoulder blade of a deer. (frontispiece). It is in a fine state of preservation, with a point that is nicely polished and very sharp. The handle end is ground off to conform to the hand and the abrading marks of a sharp stone show where a splinter of bone was sawed off the handle. The total length of this awl is five and three-quarters inches and the widest part of the handle is two and one-quarter inches.

I doubt if I would have noticed this piece had it not been for a pair of deer antlers lying on the sand bank which was being gradually worn down by the wind. One antler was entirely exposed, the other sticking half way out of the bank, protruding from the black humus line which marks one of the later camp site surfaces. After picking these up I looked around more carefully, as the hollow in which they were found had never before appeared to be an especially good location for implements. I then noticed a small bit of bone sticking out of the sand, but it did not differ in appearance from the many scraps of bone often seen there, accumulating from years of use as a dumping ground and from refuse of old fishing and logging camps. However, the deer antlers had made me curious and I pulled the bone out and was very much surprised and pleased when I saw the fine polished point come out of the sand.

A partial examination of this bank later disclosed only a few flint chips and a few fragments of bone and clam shell. Two rude triangular arrows also came from this spot, and there are a number of the rude net-weights or fish-line sinkers, common to this locality, lying around the bottom of the small wind-excavated hollow. This site is situated nearer to the lake than any other on which I have found implements; about fifteen feet away, directly through the bank, is the high-water line reached by the waters of the lake during storms.

## A FLORIDA BURIAL MOUND

T. M. N. Lewis

They say it's always fair weather when Floridians get together. Far be it from me to dispute their claims, as I have found the summers of northern Ontario warmer and more enervating than those of the Florida coast.

Of course, the conventional time of the year for a Northerner to go to Florida is in the winter and that seems to apply to the few archeological expeditions as well which have been sent there by the Smithsonian Institution. But we had to be different—Kennith Hawkins and I—not because we believed that the locality would be overrun with expeditions during the winter, but because we believed that the dry season which generally prevails in June would lend itself toward the comfort of our little expedition.

Accordingly, we set out from Watertown during the early part of June 1930, arriving at Pensacola, Florida, after two and one-half days of driving. We skidded around the curves of the Kentucky highways so swiftly that it must have seemed to the occasional "hill-billy" who regarded us that we wanted to have our accident quickly and get it over with.

By noon of the day following our arrival we had chartered a motor boat and loaded all of our supplies aboard. Inasmuch as the modern conception of roughing it is to have no radio in camp, we purposely omitted this item of equipment.

Eighteen miles up the Sound brought us to our final destination on the south shore of Santa Rosa Peninsula. We unloaded our supplies on a broad, sandy beach at the point where we had been informed a burial mound had been brought to light by the terrific waves caused by the hurricane of 1926.

We had not brought sufficient food to satisfy our needs for the proposed ten-day sojourn and so we were greatly delighted to discover that the shallow waters of the beach abounded in crabs. Several pounds of fresh crab meat daily proved to be a great boon to a couple of empty stomachs, occasionally augmented by a catch of salt water trout. I had never seen any of these fish before and concluded that,

perhaps, they were an offshoot of the original fresh water fish which had gradually accustomed itself to the mixed fresh and salt waters of the bay. Generally, fish seem to go on a vacation the same time that I do, but, fortunately, on this occasion it required but a short time before breakfast to secure a fair catch.

Having despatched our pilot back to Pensacola, we began a search for the burial mound. Had it not been quite apparent that the spot was ideally located for the spending of a quiet vacation, mound or no mound, we would have asked the pilot to await the result of our search before leaving us stranded in such an inaccessible place. As known to most of us who have engaged in field work, wild goose chases are part of the game. A short walk down the beach brought us to a large quantity of potsherds and, upon glancing shorewards, we noticed what was, unquestionably, the goal of our 1200-mile journey.

A hasty survey indicated that about one-quarter of the mound had been undermined and carried away by the receding waves. The top of the mound, likewise, had been swept away, leaving the roots of a two-hundred year old live oak tree exposed. The contour of the mound had, in fact, been so greatly reduced that it would never have been detected had it not been partially excavated by the lashing of the waves. The mound was round in shape and, as nearly as I could estimate, as the result of the devastation, it was originally about seventy feet in diameter.

Excavation was begun on the side where the waves had already indicated their curiosity to find what the mound contained. After a few moments inspection I found that the waves had not reached the floor of the mound, so we began to remove about two feet of sand. This brought us to the floor and the first burial. This, as well as ten more burials encountered later, was a fully extended, natural flesh burial. This position offers quite a contrast to the flexed position which one finds here in Wisconsin where the legs of the individual all but appear to have been wrapped around the neck, disputing the common idea that the rumble seat is of modern origin!

Every corpse had been laid upon its back, face up, with arms extended along the sides. The skulls of the males were



abnormally large and heavy. Those of the females were normal in size, but were characterized by artificially depressed frontal bones, as practised by the Choctaw. This was accomplished by binding a flat piece of wood against the frontal region of the female infant's head, which not only flattened it in this region but also caused the skull to bulge out laterally. It is interesting to note that this same custom was practised by prehistoric man in other parts of the world.

These female skulls were further characterized by unusually fine teeth in every instance, although this may be accounted for from the fact that none of them lived beyond twenty-five or thirty years of age, whereas the males seemed to have attained a much riper age. In one instance, as determined by an X-ray photograph, the third molar in both jaws was lacking.

The artificial stratification of the mound as we found it consisted, first, of about eighteen inches of sand through which a network of tough oak roots had penetrated in all directions, making excavation very difficult. At the bottom of this superficial layer of sand many clay vessels had been placed. These seemed to rest upon a layer of rather large sea shells and black earth about ten inches in depth; below this were about two feet of sand similar to the superficial layer, although somewhat darker.

It was plainly evident that hundreds of clay vessels had been placed on that layer of shells at the time the burials were made. In the hundred square feet which we excavated, sherds from over sixty pots were found. In spite of the fact that all sherds were carefully gathered up, it has been possible to restore only twenty-five of the vessels, as in many cases insufficient sherds were found to effect a true restoration through the use of plaster. The destructive action of the spreading roots, of course, explains the missing pieces, as it was quite a simple matter for the growing roots to carry parts of a vessel through the loose sand. Had we had time to excavate the entire mound, we might, perhaps, have had sufficient material to restore completely a record-breaking quantity of pots.

Because of the fact that the roots had shattered the pots and carried the sherds along through the sand many feet

from the original position of the pots, it was rather difficult to determine just what the location had been with respect to the burials underneath. Nevertheless, we assumed that they had been originally placed directly over the burials, as nine unbroken pots were encountered in this position, three or four with every burial. This assumption was further established by the fact that the larger sherds were always found in this position and these would not have remained large had they been forced out of position by the roots.

Through the generous and patient instructions afforded by Mr. Eldon Wolff, of the Milwaukee Public Museum, I have been able to restore about twenty, in addition to the nine which were found intact. An interesting feature in the structure of the pots is the small ragged hole present in the bottom of each one. This was done for the purpose of "killing" these vessels before they were placed with the dead, a condition encountered nowhere else except in the Pueblo area. Because of their daily use, these vessels became closely associated with their owners and must, therefore, suffer the same fate so that the spirit of the pot might accompany its owner into the world beyond. No reference to this practice is found in the early literature of the Southeast, but the inference ensues from the same custom having been practised in the Pueblo area.

A somewhat similar analogy is the act of destroying the home in which an individual has died, as practised by the Apache; although in this instance the motive behind it is, probably, to destroy the evil spirits which have caused the death. Then again, we have another analogy in the design of the Navajo blanket, where the symmetry of design is always purposely interrupted in one portion in order that the evil spirit may be released.

Another explanation which has been advanced in connection with the "killing" of vessels is that they were thus spoiled for use in order that they might be of no benefit to grave robbers. This explanation is hardly feasible, however, since one of the vessels contained a neatly formed hole, apparently made by the mold at the time the vessel was fashioned, the maker having deliberately intended it for a mortuary vessel. Then, too, this sort of sacrilege would

have been farthest from the thoughts of the aborigines, due to the complexity of their religious beliefs concerning the dead.

All the pots, which range from three inches to fourteen inches in diameter, bear the characteristic designs of southern pottery. Several of the inscribed designs—one of a human hand and another of a skull, are probably local. Some of the pots are tempered with finely ground quartz and the color of the clay varies from black and red to a near white. There are indications that some were slipped with a red dye and others with green.

A necklace of large beads made from the conch shell was associated with two of the females and, in one instance, two mushroom-shaped ear pendants, also made from the conch shell, were encountered. No other artifacts of any description were found.

Further investigations of the surrounding territory revealed a great abundance of pot sherds, but no killing weapons of any kind. The natural conclusion is that these aborigines found the crabs and trout just as sustaining as we did.

Early Spanish maps of the territory indicate many native settlements, but none on Santa Rosa peninsula. We might assume from this that the construction of the mound antedated the arrival of the Spanish in the Sixteenth Century. The excellent drainage, the nature of the soil and the shelter provided by the layer of sea shells left the skeletal material in an excellent state of preservation, making it impossible to estimate the age of the burials.

When more work has been performed in that section, as well as elsewhere throughout the country, perhaps the large quantities of pottery brought to light will, through the inscriptions, enable archeologists to throw some light upon the mystery of the American Indian.

What was last year one of Florida's most desolate spots is about to be transformed into one of the South's gayest resorts. A two-million-dollar project will soon be nearing completion. A two-mile bridge has been built across Pensacola Bay to Santa Rosa Peninsula and a tremendous pavilion is now under construction within view of the mound site.

We thought that there was but one way to turn Florida real estate, especially in that section, and that we did with a shovel, but, had we purchased some of that real estate, which had reverted to the state of Florida because of tax delinquencies, at last year's market of \$10.00 to \$15.00 per acre, the proceeds of a sale at this time might easily have financed another and longer trip to Florida.

## GROOVED AXES OF THE KEOKUK TYPE

Charles R. Keyes

Most grooved axes, wherever found, are either grooved "all-round", the groove entirely encircling the implement, or "three-fourths", that is, across both faces and across the front. The Keokuk-type axes are grooved across the two broad faces only, the front being flattened quite like the back and having no trace of a groove. A few specimens, however, show a highly polished band where the front groove of a three-fourths grooved ax would be.

The type was first described by Fowke in 1896 on the basis of five specimens from near Keokuk, Iowa, in the collections of the Smithsonian Institution. The original reference is brief and is here quoted in full from an article entitled *Stone Art*, by Gerard Fowke, Thirteenth Annual Report of the Bureau of American Ethnology for 1891-92 (published in 1896), page 68, under a classification of grooved stone axes in the Smithsonian collection: "[Type] G. grooved on faces only, with both sides flat (figure 38, of granite, from Keokuk, Iowa). There are from the same place one of porphyry, one of argillite, and three of syenite. This and the preceding form [F] seem peculiar to that locality".

Apparently these Keokuk-type axes have remained rare in collections and Mr. Fowkes' name for the type, though a good one, has received no general recognition. Indeed, I am not aware that the type has figured in any way in archaeological literature since Fowkes' paper, except for a short article in *Annals of Iowa*, July, 1921, in which, at the suggestion of the curator of the Historical, Memorial and Art Department of Iowa, I described an unusually fine specimen of the type which had recently been presented to the Department. Nevertheless, an ax grooved on the faces only is a very distinct type, possibly even farther removed from the two common types, the all-round and three fourths grooved, than these two are from each other. The Keokuk ax even suggests a different method of hafting from that supposed to have been ordinarily employed with the commoner types, a tough withe doubled around the groove and

secured with rawhide wrappings. An ax grooved on the faces only, and with a flat or even slightly hollowed front, presents two sharp angles at the junction of grooves with front over which a withe thus bent would tend constantly to cut and break. The Keokuk ax suggests a hafting by means of two straight withes of equal length fitted into the grooves so as to project a little beyond the front, and fastened together at front and back. It is to be hoped that an ax of this type may be discovered sometime in the original handle, that the method of hafting may be definitely settled. Meanwhile it remains a distinct type, and its neglect in the literature is probably due to its comparative scarcity and to its restriction geographically to a rather limited area.

The Keokuk ax, like the other types, is a utility tool. It is found in about the same average state of preservation and of about the same quality of workmanship as other types. This is equivalent to saying that these axes run all the way from crude and battered specimens to perfect and finely-finished masterpieces. The materials used in the making of Keokuk axes do not differ, either, from the usual diorites and the occasional porphyrys. I have never seen a specimen made of granite or of argillite, such as Fowke mentions in his *Stone Art*.

At present there are known to me a total of one hundred and seven examples of the Keokuk-type ax, most of these from Southeastern Iowa, the region of greatest concentration being in the five counties farthest southeast, namely, Jefferson, Van Buren, Henry, Des Moines, and Lee. One collector in Van Buren county with a total of thirty local axes has thirteen of the Keokuk type. They thin out toward the northwest, a single specimen from southern Webster county, some fifty miles above Des Moines, being thus far the limit of distribution in this direction. They probably occur rather frequently in Illinois to the east of Keokuk, and perhaps more widely. A collector in Macomb once wrote in that he had examples of the type. Data are lacking for Missouri. I do not remember having seen specimens during a hurried inspection of the collections of the Missouri Historical Society at St. Louis. Scattered records,

however, show that the type found its way for considerable distances east of the Mississippi river. The Logan Museum at Beloit has two specimens, one (P 203) from Two Rivers, Manitowoc county, Wisconsin, and another (R 613 on specimen, though the entry seems to be under 612 in the original catalog) from Fulton county, Illinois. A specimen in a McGregor, Iowa, collection was found in the vicinity on a bank of the Mississippi, but it does not appear whether it was on the Iowa or the Wisconsin side. Finally, five examples were noted some years ago in the collections of the Ohio State Museum, Columbus, but time was lacking for the securing of data.

The largest number of specimens, twenty-three, to be seen in any one place are owned by the Historical, Memorial and Art Department of Iowa in Des Moines. These are from Van Buren county. Inasmuch as thirty-one other examples, or fifty-four in all, are from this same county, it becomes clear that, on present data, Van Buren county, in the region of the lower Des Moines river, must be regarded as the center of distribution for the type. The collection of The State Historical Society of Iowa, Iowa City, in charge of the writer, has five specimens.

It will be seen that the total amount of information concerning this unusual type of grooved stone ax is meager and that further data is therefore, very desirable. It is the writer's hope that all who possess either specimens or information may be kind enough to furnish the data, on the basis of which a definitive account of the Keokuk-type ax may sometime be written.

## ARCHEOLOGICAL NOTES ON THE BRUSH CREEK REGION, NORTHEASTERN UTAH

Albert B. Reagan <sup>1</sup>

While the writer was doing archeological work in north-eastern Utah for the Laboratory of Anthropology at Santa Fe this last summer, he made an examination of the Brush Creek region at the very eastern tip of the Uintah Mountains, to the westward of Green River, with findings as follows:

Brush Creek valley, in its lower and middle courses is a wide-floored, partly brush-covered region inclosed between hills and ridges. In its center there is a perennial stream which is usually much increased in volume by the inrushing of water from the side valleys in the rainy periods each year. On the other hand, its head tributaries are cut through a rugged though very beautiful region and at times they themselves have their channels through boxed canyons. So picturesque is this region that it furnishes most excellent views for many artists each year.

The middle and lower areas of this valley have been the home of many peoples in the years that have come and gone, and now have 1,200 acres under cultivation.

The oldest people were undoubtedly Basket-makers, as the pictographs they left are mostly of the crude, square-shouldered type, though none so far seen show the characteristic Basket-maker style of wearing the hair in side locks or side bobs, as so many glyphs in other places in Northeastern Utah depict these people. They both lived in the open and utilized the caves of the district, especially the caves on Mr. Henry Boan's ranch at the foot of the lower, middle-Brush-Creek region where they left many pictographs to attest their presence.

The next people to occupy this region built earth lodges, much like a Navajo hogan in shape and size, but in struc-

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<sup>1</sup> The illustrations herewith are used by permission of the Laboratory of Anthropology, Santa Fe, New Mexico, which furnished the funds for the field work.

In doing this work the writer was assisted by Mr. Henry M. Kurtz of Brush Creek, Dr. J. Marion Francke and his companions, and Mr. L. C. Thorne of Vernal, Utah, who also acted as camera man.



ture they were made of a lattice, wattled-work frame, with flattened roof, and over this frame mud was daubed to a thickness of about four or five inches. These dwellings were



Figure 1. Basket Maker pictographs from Brush Creek, Utah. The lefthand glyphs are from Cave 1, on Mr. Boan's farm.

gathered in villages of from ten to twenty lodges each. Beginning in the middle course of this valley, these villages extend down the creek to its mouth, starting at the north, as follows: one on Mr. Henry M. Kurtz's farm (in the S. E.  $\frac{1}{4}$  and the S.  $\frac{1}{2}$  of the N. E.  $\frac{1}{4}$  of Sec. 25, T. 3 S., R. 22 E. of the Salt Lake Meridian); three about six miles below Mr. Kurtz's place; one on Mr. Curley Evans' farm, about a mile and a half below the last groups; and quite a large village on Mr. W. R. "Riley" C. Murray's farm near the junction of Brush Creek and Green River, near Jensen, Utah.

In and about these ancient lodges are scattered hammers, milling and rubbing stones, arrow heads, arrow-shaft smoothers, beads, and considerable undecorated, gray pottery fragments.

Each and every one of the villages had been destroyed by fire, presumably by being overwhelmed by an enemy, as the lodge walls have all been burned to the consistency of brick, leaving imprints of twigs, brush, and poles on the brick-like clay. The mound that now marks the site of each lodge is due to the fallen, burned earthen walls.

The next people who occupied the region were house builders. The houses were all built of river cobbles which were undressed and crudely laid up in thick walls, with a

chinking of mud mortar. All the houses examined were practically square and were laid out somewhat according to the cardinal directions, some of them having "vestibules" on the east side. In all, four house groups were examined by the writer, as follows:

1. This house is on the bench northwest of the Diamond Mountain Road, placed at a point immediately preceding the descent of the road into Brush Creek valley from the west. It is now shown in foundation to have been twenty-

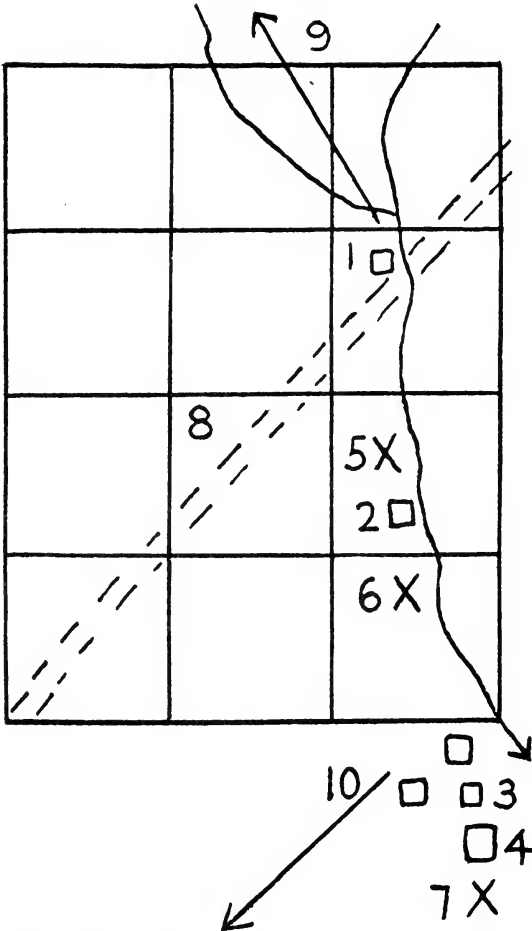


Figure 2. Map of the Brush Creek region. The squares on the map represent sections of land. 1, 2, 3 and 4 are house groups; 5x, site of an earth-lodge village; 6x, pictographic ridge where the large pictographs were obtained; 7x, Cave 1 on Mr. Boan's farm; 8, Diamond Mountain Auto Road; 9, to Greendale 24 miles northwest; 10, to Vernal, Utah, distance 8 miles.

seven feet long on its east and west sides and twenty-one feet on each end. The rock mound of wall materials is still high, though many wagon loads of rock have been hauled from this site for the making of roads and irrigating ditches. Considerable charcoal was found in the debris, and about it were milling stones, beads, arrowheads, and fragments of coarse, undecorated, plain, smoothed, gray pottery.

Across the road, directly south of this house, are the remains of another house of about the same size, about which are circular depressions and circular stone piles of from seven to ten feet in diameter, near which are several other stone mounds of a lesser size. Several milling stones, hand hammers, and quantities of chipped stuff were found strewn about this site.

2. About a mile and a quarter south of the house-group above, there is a mound of another house, now three feet in height. The building was laid out to correspond to the trend of the valley, not according to the cardinal points. However, it is almost square, twenty-seven feet to a side.

Here, as about House No. 1, there are several large, circular spaces inclosed with rocks, and also several small areas of various shapes similarly fenced by rocks set on end. Each inclosed area had burned clay in its bottom. At least some were shrines, while others, at least the smaller ones, might have been fire boxes in the center of out-earth-lodges of perishable material. The artifacts found here and at the houses yet to be described are similar to those described above.

3. Southeast of an abandoned log schoolhouse, about two miles below House No. 2, there is a square house, twenty-four feet to a side, with a "vestibule" on its east side. Close to this building there are three circular structures. One hundred and twenty yards north of it there is another edifice of the circular type, nine feet in diameter, which had also been built of cobbles. About this building there are several circles of rocks, each about eighteen inches in diameter. Fifty feet to the southeast there is a rock-bound "cist", about one foot in diameter.

4. This is a square building, fifteen feet to a side. It is situated about seventy-eight yards southeast of House

Group 3. Its outside is defined by the remains of a wall of cobble stones. About this building are several rock mounds and several small areas inclosed in rock circles.

A similar set of house ruins was found at Greendale, forty-five miles over the Uintah Mountains northwest of middle Brush Creek. Here four anciently built, square stone houses were seen, each from fifteen to twenty feet

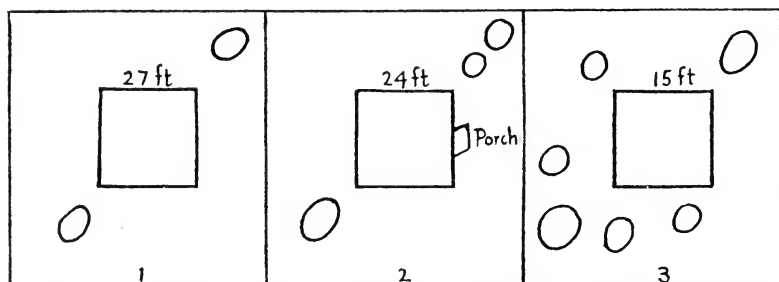


Figure 3. Drawings of house plans, showing the immediate out-fire places and shrines.

square, one with an alcove or a vestibule on its east side. A circular house about sixteen feet in diameter was also seen here. Two earthen jars and two large, chipped agricultural implements were obtained from this section.

The people who built these houses seem to have also used the caves, as did the Basket Makers before them. This is especially true of the large cave on Mr. Boan's place, where about half of the skeleton of a child, several bone awls, some arrowheads, and some beads were recently dug up just below the cave entrance. This cave, in the vicinity of which there are several smaller ones, goes back fifteen feet into the cliff. It is unique in that it has a loop hole which was laboriously cut through its outer side-wall, serving as an opening through which and also in that it has pecked holes in the floor and corresponding ones in the roof for the purpose of constructing a protection-front barricade, both against the weather and against enemies. Additional pecked holes served as hand and foot holds to be used in climbing to this cave, and in reaching another, smaller cave to the south and a little higher up on the cliff's face.

These house builders were also agriculturists, and their irrigating ditches of those far off days can still be traced.

The Utes of our day in this region designate these ancient peoples as Mukwi or Mokwites; that is, "corn-eaters." On the west side of Brush Creek, in the vicinity of houses Nos. 1 to 3, an ancient ditch can still be traced for a distance of nearly three miles, to where it finally ascends onto the mesa bench. Here it is four steps wide and still shows a depression a foot or so in depth. It then crosses the flats till

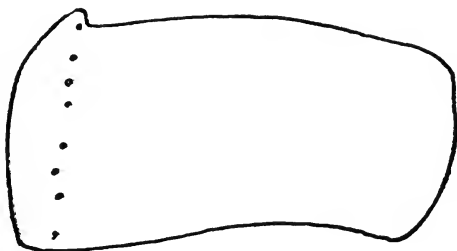


Figure 4. Plan of Cave 1, on Mr. Henry Boan's farm, showing the chiseled holes for the placing of poles. The cave is fifteen feet in length in floor plan.

it is lost, due to the wear of time. However, farther down the valley are the remains of a reservoir where the foundation for the owner to contribute such articles to a public institution of the double rock wall of a dam, fifty feet in length, with walls four feet apart, still shows. The water of the reservoir finally cut an outlet farther down the valley. A similar irrigation system can be traced on the opposite side of the valley, and another in the vicinity of the mouth of the creek, near Jensen. Remains of ancient irrigation ditches can also still be traced in the vicinity of Ferndale. Three of these, as with the ditch near Jensen, have been cleared out by the white settlers and are being used at the present time.

The earth lodges of this region are similar to those examined by Dr. Neil M. Judd<sup>2</sup> in the vicinity of Willard, Beaver and Paragonah, farther to the west in Utah. They also somewhat correspond to the jacal walled houses of the Class A type of dwellings of Pueblo 1 horizon of the Piedra

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<sup>2</sup> Judd, Neil M. *Archeological Observations North of the Rio Colorado*. Bull. 82, Bur. Amer. Ethn., Washington, 1926, p. 8.

District in southwestern Colorado, as described by Roberts and the writer.<sup>3</sup>

The houses, which are often almost square and which occasionally have an addition on the east side, are a puzzle. The fact, too, that the people who occupied the structures had an extensive irrigation system shows further that they were fairly well advanced in agricultural pursuits. That they were a small house people, though they used caves when available, is very evident. The small, circular structures and stone-edged circles, squares and rectangles, and the rock-pile mounds would, however, seem to correspond to the shrines of the Small House People of Northern Arizona, described by William Boone Douglas.<sup>4</sup> This would seem to indicate that the people of this region were a somewhat similar people, except that they were possibly a little further advanced in civilization, though less advanced in the art of pottery making. On the other hand, the rock houses apparently are structures that were erected in the latter part of Pueblo I or at about the beginning of Pueblo II horizon in this section, though the crude pottery and its scantiness might place them still earlier in the time scale.

According to the latest estimate of the age of Pueblo and Basket-maker cultures, the beginning of Pueblo II horizon was about 500 years A. D.; of Pueblo I horizon, about the beginning of the Christian era; and of the Basket-maker culture, about 1,500 years earlier. In other words, the Basket-makers were in their heyday when Pharaoh's army was drowned in the Red Sea.

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<sup>3</sup> Roberts, Frank H. H., Jr. Early Pueblo Ruins in the Piedra District, Southwestern Colorado. Bull. 96, Bur. Amer. Ethn., Washington, 1930, pp. 66-73.

Reagan, Albert B. The Ancient Ruins in Lower and Middle Pine River Valley, Colorado. El Palacio, vol. vii, nos. 9-12, Santa Fe, 1919, pp. 171-176.

<sup>4</sup> Douglas, William Boone. Shrines of the Small House People of Northern Arizona. El Palacio, July issue, 1917, pp 19-29.

## THE NON-PROFESSIONAL ARCHEOLOGIST

A. H. Sanford

It is a mistaken idea, if any reader of the Wisconsin Archeologist holds it, that only the archeological specialist or expert can assist in the work of preserving and studying the remains that fall within the scope of this subject. Any citizen can collect, or assist in collecting, a body of materials that may contain rich deposits for the study of the expert. The teacher, especially, is in a strategic position to do his bit in this work. However, we should not call it "work" for it may become either the interesting by-play of an active teacher's life or his permanent hobby. As such it furnishes relief from the routine of his daily work and if studied with any care it enriches his life and brings its substantial rewards in enjoyment for the individual and value for his community.

My experience in the collection of materials for a small historical museum in each of two teachers colleges with which I have been connected may serve to illustrate what has been said above about the teacher's "strategic position". But before speaking of this let me illustrate what was said about "any citizen" by referring to the very interesting and in some respects remarkable collections that have been made by two of my fellow citizens, one a butcher, Mr. D. C. Streeter, and the other a priest, Rev. F. Cech. One of the largest collections that I ever saw in private hands was made by a country town hotel keeper.

The peculiar position of the teacher is found in two facts: first, that possible contributions of both information and relics come unsolicited to him in an endless succession—viz., his students; second, that his collection becomes part of his stock in trade as he makes use of it in his classes. He has therefore not only an exceptional opportunity to acquire specimens, but he has also the opportunity that few others have, to realize one of the greatest pleasures connected with this activity, that of constantly sharing with others the view and study of his collection.

Archeological specimens are a comparatively small part of the historical museum in the State Teachers College at La Crosse, but what is now said about it refers to them as well. The gathering of the collection has been a gradual process, but it has involved relatively little search or labor. Very few of the relics were solicited and very few purchased. Whenever a gift or a loan was made, a careful record was made and an item was inserted in the local paper, and in the college paper, acknowledging the favor and expressing thanks to the individual from whom it came. Sometimes a general statement was added intended to stimulate other similar favors. The number of instances in which the publication of such an item was followed immediately by the offer of another gift was remarkable.

Our experience furnishes clear evidence that historical and archeological relics of value are to be found in all communities; that sometimes they are a burden to the housekeeper; and that it is frequently a source of genuine pride for the owner to contribute such articles to a public institution. If any persuasion is needed to bring the relic to the museum, arguments showing the greater safety from careless handling and from fire and other means of destruction that the building and the museum cases furnish are usually sufficient.

Our Indian materials are used regularly when classes are studying Indian life. They are not kept permanently on exhibit, because display space is insufficient. It will be a pleasure for the writer to show this collection to members of the Wisconsin Archeological Society who may be passing through or visiting in La Crosse at any time.



## ARCHEOLOGICAL NOTES

### Meetings

President Charles G. Schoewe conducted the January 19 meeting. There were seventy members and visitors present. The program of the meeting was devoted to talks and discussions of the life of Solomon Juneau, the noted fur trader and founder of Milwaukee. Secretary Charles E. Brown read several biographical sketches of Juneau which were published in early issues of the Wisconsin Historical Collections, and contributed other information concerning his trading relations with the Indians of eastern Wisconsin. He exhibited a tortoise-shell watch case and a pair of silver-bowed spectacles formerly belonging to him. Mr. John G. Gregory also gave a talk on Juneau. He exhibited a number of pictures of him. Mr. Huron H. Smith read two Juneau letters from a collection of letters belonging to the Milwaukee Public Museum. Mr. Paul Joers told of his father's employment by Juneau. He exhibited a firesteel, a letter, silk vest and a diary kept by his father. Dr. E. J. W. Notz told of the gift of Juneau letters and receipts to the Wisconsin Historical Society. Miss Olive McGee, Mrs. Mary C. Hosp, Mrs. Curtis Juneau, Mrs. Edna J. Eviston, and other descendants of Milwaukee's first mayor, who were present, participated in the discussion which followed.

Miss Rachel Mary Campbell of the Milwaukee Women's Club, and Miss Winslow of Theresa, discussed the present state of Wisconsin Indian affairs and the several Indian bills at present before Congress. On the motion of Mr. Joers these bills were approved by the Society.

Secretary Brown announced the recent deaths of three members of the Wisconsin Archeological Society, these being the Messrs. Henry R. King and Mr. Geo. W. Ogden, Milwaukee, and Mr. Mark G. Troxell, Madison. The following new annual members had been elected by the Executive Board:—David A. Blencoe, Alma Center; Erwin C. Weichert and William E. Erdman, Milwaukee; Dr. Lindley V. Sprague, Madison; Walter Holsten, Lake Mills, and Miss Anna Wentz, La Crosse. E. A. Gilman, Portage, was elected an honorary member.

At the close of the meeting Mr. E. F. Richter exhibited an Indian ceremonial stone.

The meeting of February 16 was attended by one hundred members and visitors, President Schoewe presiding. Mr. Paul R. Franke, curator of the Mesa Verde Park Museum, gave a very interesting lecture on "The Castles of the Dawn". This he illustrated with numerous stereopticon slides and a movie film of the ancient ruins and scenery of Mesa Verde National Park, situated near the corners of the four states of Arizona, New Mexico, Colorado and Utah. This fine park has only recently been made available to tourists through splendid automobile roads. The ancient cliff-dwellings within this gigantic "green table land" have been perfectly preserved in that dry climate. Mr. Geo. A. West, who introduced the speaker, and other members discussed the region described.

Secretary Brown announced the election as annual members of Mr. Robert R. Jones, Wild Rose, and Mr. John J. Knudsen, Madison. He announced the annual Joint Meeting of the Society, the Wisconsin Academy of Sciences, Arts and Letters, and the Midwest Museums Conference, to be held at Ripon College, Ripon, on April

10 and 11. Members were requested to offer papers for the program. He reported that he and Director Alonzo W. Pond had appeared before the Joint Finance Committee of the State Legislature in behalf of the Society's state appropriation.

Mr. Joseph Ringeisen, Jr. exhibited an exceptionally fine native copper harpoon.

The annual meeting of the Wisconsin Archeological Society was held in the auditorium of the Milwaukee Public Museum on Monday evening, March 16. President Schoewe occupied the chair. There were about one hundred members and visitors present. Secretary Brown presented his annual report of the 1930 activities of the Society. He announced the election as annual members of Geo. C. Morris, Madison, W. J. Rahn, Milwaukee, and V. D. Nevins, Oshkosh. Treasurer G. M. Thorne presented his annual report of the condition of the treasury of the Society.

A nominating committee appointed by the president, consisting of the Messrs. G. A. West, Huron H. Smith and Dr. E. J. W. Notz, nominated officers for the ensuing year. President Schoewe, Treasurer Thorne and Secretary Brown were re-elected. Vice-presidents elected were W. C. McKern, Dr. A. L. Kastner, R. J. Kieckhefer, Dr. H. W. Kuhm, E. F. Richter and Paul Joers. Joseph Ringeisen, Jr., Dr. S. A. Barrett, Geo. A. West, Dr. E. J. W. Notz, Huron H. Smith, Mrs. Theodore Koerner, A. P. Kannenberg, T. L. Miller, L. R. Whitney and A. W. Pond were elected directors of the Society.

The program of the meeting consisted of a very interesting lecture by Dr. H. W. Kuhm on the subject of "The American Indian in Painting and Sculpture". This was illustrated by a fine collection of lantern slides, quite a number of which were reproductions of paintings by the noted artists Richard Lorenz, Deming, George Catlin, Frederick Remington and others. An abstract of this lecture has since been published by the Society.

At the close of the meeting exhibits of specimens of Indian implements were made by Mr. E. F. Richter and other members.

Thirty-two members and visitors were present at the meeting of the Society held at Milwaukee on the evening of April 20. President Schoewe presided.

Mr. Joseph Ringeisen, Jr. gave a talk on "Birdstones" which proved to be exceptionally interesting. This he illustrated with an exhibit of nearly sixty specimens of these rare problematical animal and saddle-shaped objects from his own valuable collection, and with a map showing the distribution of birdstones in the United States and Canada. The total number of such specimens in collections he estimated at about six hundred. This talk was afterwards discussed by the Messrs. West, Gregory, Brown, Barrett, Kastner and others present. Mr. Ringeisen also replied to many questions asked by other members.

Mr. Robert R. Jones gave a lecture on "The Work of the Illinois State Archeological Survey", in which he was recently engaged. This he illustrated with several films showing the camps of the survey parties, and the results of the exploration of Indian mounds, burial places and village sites in central Illinois. This interesting presentation of his subject was discussed by several members of the Society more or less well acquainted with the survey and exploration work in Illinois. Both Mr. Ringeisen and Mr. Jones received the thanks of the President for their lectures.

Secretary Brown announced the election of Mr. Daniel C. Mintfield, Madison, as an annual member of the Society. He read a resolution adopted by the Executive Board strongly approving a bill introduced in the State Legislature by Assemblyman Evan D. Davies proposing the preservation of the Dewey Mound Group in Waukesha

County by making a state park of the Bornfleth farm upon which this fine group of prehistoric Indian earthworks is located. Mr. Brown announced his retirement as editor of the *Wisconsin Archeologist*, a work which he had conducted for the Society for the past thirty years. The editing of this quarterly publication would be conducted by a publication committee to be appointed by the President. Attention was called to the meeting of the Central Section, A. A. A. which was to be held at the Chamberlin Memorial Museum, Three Oaks, Michigan, on May 15 and 16. Members were requested to attend the meeting and to prepare papers for the program. A report of the archeological researches conducted by the Society with the assistance of various members during the year 1930 was read. Secretary Brown urged all members to assist in state archeological survey work as much as possible during the summer months.

The May 18 meeting of the Wisconsin Archeological Society was held at the Milwaukee Public Museum. In the absence of Secretary Brown in Michigan, Dr. H. W. Kuhm acted as secretary. Fifty-three members and guests were present. Mr. George A. West gave an illustrated lecture on "Gypsum Cave and Lost City, Nevada" which was presented in his usual informative manner and was appreciated by the members and visitors in attendance. Mr. T. M. N. Lewis of Watertown gave a talk on "The Thrills of an Amateur Archeologist" telling of his collecting in the South. This he illustrated with specimens collected in Florida, Arkansas and Virginia. Mr. Kermit Freckman, who is engaged in archeological investigations in the Pleasant Lake region, near Coloma, Wauhsara County, exhibited bone fragments of four burials found in a mound located there.

At the meeting of the Directors, held earlier in the evening, Mr. M. S. Thomson of Sheboygan was elected an annual member of the Society. The President submitted the standing and special committee appointments made by him for the year 1931-32. These are printed elsewhere in *The Wisconsin Archeologist*. Mr. McKern reported on the Central Section, A.A.A. meeting held at Three Oaks, Michigan, the members C. E. Brown, Dr. Ralph Linton, H. H. Smith, C. R. Keyes and himself had presented papers. Mr. T. L. Miller had urged members of the Society to turn in lists of names of archeologically interested persons in their home regions, this with a view to increasing its present membership and public usefulness. It was decided to hold an outdoor meeting of the Society at the Robert J. Kieckhefer farm at Brookfield, in June.

The Central Section, American Anthropological Association held its ninth annual meeting at the Chamberlin Memorial Museum, Three Oaks, Michigan, on Friday and Saturday, May 15-16, 1931.

President Henry C. Shetrone conducted the meetings which were held in the lecture hall of the Museum. Mayor Frank Holdred of Three Oaks delivered an address welcoming the anthropologists to Three Oaks. To this greeting President Shetrone responded.

At the morning meeting three interesting papers were presented by Prof. Warren K. Moorehead, Dr. Charles R. Keyes and Mr. Peter A. Brannon, and at the afternoon meeting by Dr. Paul Martin, Mr. W. C. McKern, Dr. E. L. Miloslavich and Mr. Huron H. Smith. In the evening Dr. Ralph Linton gave an illustrated lecture on "The Natives of Madagascar". On Saturday morning papers were presented by Mr. H. C. Sheltrone, Dr. W. B. Hinsdale, Dr. W. D. Hamby, Mr. C. E. Brown and Dr. Linton. In the afternoon a pilgrimage was made to the Warren Woods and the Warren Dunes. At the latter place an old Indian camp and workshop site was examined.

sand persons are reported to have viewed, was the Door County Historical Society, of which Mr. H. R. Holand is the president.

Mr. C. E. Broughton of Sheboygan, representing the Wisconsin Conservation Commission and Wisconsin Historical Society, acted as master of ceremonies. Dr. Joseph Schafer, superintendent of the Wisconsin Historical Society, and Mr. Holand delivered the principal addresses. Chief James W. Wampum of the Forest County Potawatomi unveiled the monument. A delegation of his tribesmen were present in Indian costume.

Chief Kahquados was born near Mishicott, Manitowoc County, on May 18, 1851. He died on November 27, 1930, near Wabeno. He was the last lineal descendant of a long line of hereditary chiefs. He was an Indian of unusual intelligence with courteous and dignified manners. He was an able and interesting speaker and was frequently called upon to speak at meetings in Wisconsin, and, on several occasions, in Illinois and Iowa. He possessed valuable historical and traditional knowledge of his tribe. In recognition of his services to Wisconsin history and ethnology he was some years ago elected an honorary Indian member of the Wisconsin Archeological Society. He was well known to a considerable number of its members.

On Wednesday, April 15, Secretary Charles E. Brown, delivered the unveiling address at Beloit, of a boulder monument erected by the Beloit Historical Society to the memory of Joseph Thiebeau (Tebo), early French fur trader and first permanent settler on the site of Turtle Village, now Beloit. On Saturday, June 20, Secretary Brown was the speaker at a picnic held by the Sheboygan Historical Society at the historic David Taylor farm mansion. On Saturday, June 27, Mr. Brown delivered the dedicatory address at the unveiling of a boulder monument at the "Seven Sacred Springs" on the Big Foot Country Club grounds at Fontana, during the Lake Geneva Centennial celebration. Two of the features of the Centennial were the attendance of a group of Forest County Prairie and Forest Potawatomi with their three chiefs, John Shawano, James W. Wampum and Tecumseh, and the installation of a neighborhood pioneer museum in the public library building at Williams Bay. At a meeting held at the museum Dr. Louise P. Kellogg and Mr. Alonzo W. Pond were the speakers.

Dr. George L. Collie has retired from the faculty of Beloit College after nearly forty years of educational service at that Wisconsin College. During that period he has been its professor of geology and anthropology, its dean, and curator of the Logan Museum. Mr. Alonzo W. Pond, noted for his archeological investigations in France and Algiers, and with Mr. Andrews in central Asia, has also left the service of Beloit College. Mr. Paul Nesbitt has been appointed curator of the Logan Museum.

Mr. George R. Fox, for years the director of the Chamberlin Memorial Museum at Three Oaks, Michigan, has resigned his position to take charge as director of a large permanent boys camp on Manitoulin Island. Mr. Fox will be long remembered for his great work in making the Three Oaks museum one of the two or three leading collections of pioneer historical materials in the United States. He was at that time also the director of the Warren Woods, the Warren Dunes and the Warren Beach, with the museum incorporated as the Warren Foundation. Mr. Harold Barton, his former assistant, is the acting director of the Foundation.

At Green Bay there was recently unveiled on the courthouse square a huge marble statuary group, "The Spirit of the Northwest". This group consists of three figures one of which is carved to represent Father Claude Allouez, early Jesuit missionary; another Nich-

olas Perrot, fur trader and explorer, and the third an Outagamie Indian. The group was carved by Sidney Bedore, a former Green Bay boy who has won distinction as a sculptor.

A visit made by several members of the Wisconsin Archeological Society to the Carcajou farm, Lake Koshkonong retreat of the veteran archeological investigator, found Mr. Halvor L. Skavlem in good health though well advanced in years. His lakeland home continues to be a Mecca for visiting archeologists from Wisconsin and other states. Of interest to archeologists will be the information that his son, Mr. Louis Skavlem, although deprived of the use of one arm since childhood, has acquired the art of chipping flint implements with the same facility as his father. Holding the flint flake on the floor with the sole of his shoe, Mr. Louis Skavlem applies the bone or antler flaker to the edge of the flake with his hand. The results in arrow and spear-points, knives, etc. are remarkable. Members of the Society are urged to visit Mr. Skavlem, Sr., and to thus pay tribute to a Wisconsin archeologist who in the past thirty years has made many important contributions to archeological science.

If some members fail to receive copies of the present and of future issues of *The Wisconsin Archeologist* it will be because they have failed to heed the repeated requests of Treasurer G. M. Thorne for the payment of their membership dues. Quite a number of members are in arrears.

### COMMENTS

The editorial staff is still praying that you will send us for publication letters of comment on any subject of interest to fellow members of the Society. You start it.



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