

1941

## An Outline of Iowa Archaeology - Paper Presented at the Fifty-Fifth Annual Meeting

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### Recommended Citation

Keyes, Charles R. (1941) "An Outline of Iowa Archaeology - Paper Presented at the Fifty-Fifth Annual Meeting," *Proceedings of the Iowa Academy of Science*: Vol. 48: No. 1 , Article 11.  
Available at: <https://scholarworks.uni.edu/pias/vol48/iss1/11>

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## AN OUTLINE OF IOWA ARCHAEOLOGY

CHARLES R. KEYES

This opportunity of addressing you on the subject of the archaeology of Iowa is appreciated for very special reasons. The Iowa Academy of Science gave me my first public hearing on this subject in 1920, just twenty-one years ago, at the meeting of the Academy in Iowa City. It was a member of this Academy also, Professor Robert Wylie, of the University of Iowa, who encouraged me with the first spoken word. Furthermore, unknown to me at the time, Professor Benjamin F. Shambaugh, Superintendent of The State Historical Society of Iowa at Iowa City, had sent one of his editors to see whether anything usable might be offered.

There is no occasion here to recite in great detail the genesis of the Iowa archaeological survey. As the work to date has been done without much publicity, however, either in the press or in the way of extensive publication of results, a few further statements may not be out of place. My 1920 paper was published in the July number of *The Iowa Journal of History and Politics*, the quarterly magazine of The State Historical Society of Iowa. In the summer of 1921, on the invitation of Professor Wylie, Director of the University of Iowa Lakeside Laboratory on West Okoboji Lake, it was my privilege to study for several weeks the archaeology of the Lakes region. In the fall of this same year the opportunity came, through Dr. Shambaugh, to devote my summer vacations to a preliminary State archaeological survey. At the present time, therefore, I am responsible for twenty seasons thus spent, so that, in a sense, I am now rendering an account.

The first two seasons were spent largely in libraries in Iowa and elsewhere in an attempt to find the earliest references of the French traders, explorers, and missionaries to the people found in what is now Iowa in the period of first white contact. Some important observations were made during the seventeenth and eighteenth centuries, always to the people contacted, never to the antiquities that of course already existed. The first records of antiquities were made much later, now found buried in the exploitation literature of the pioneers of the 1830's, 40's, and 50's, a literature intended to awaken in the minds of people "back East" a realization of what they were missing by not moving out to the Iowa country. Lucius H. Langworthy in a pamphlet published by the Dubuque Literary Institute in 1855 tells of the

great group of mounds that stood on the site of Dubuque when the whites came there in some numbers in 1830. John B. Newhall, in his *Sketches of Iowa, or The Emigrants' Guide*, published in 1841, gives the general locations of a mound group in Lee and another in Louisa County, and describes and illustrates an enclosure with earthen ramparts near the pioneer settlement of Toolesboro, not far from the mouth of the Iowa river. The enclosure disappeared long since after decades of cultivation, but the abundant evidences of a very interesting old village site can still be seen after every fresh plowing.

Altogether the two seasons devoted to the early literature, although a necessary beginning and although productive of a few very valuable records, did not yield a large body of information. Almost entirely barren of lasting results further was the large amount of digging in the Iowa mounds during the 70's, 80's, and 90's, most of this having been done by relic hunters, who found little and who rarely left any records. The important exception to all this was the excavation of about a dozen mounds along the Mississippi river, at Davenport and at Toolesboro, by members of the Davenport Academy of Natural Sciences. These mounds happened to belong to a culture but sparsely represented in Iowa, and the burials, in contrast with most of the Iowa mound burials, were rather richly provided with grave goods. The excavations were incomplete and many facts were either not observed or were left unrecorded. However, the work was the equal of that done elsewhere in the 70's and 80's, in a period when museum specimens were the first consideration, not the story of the thinking and the doing of the prehistoric people who made their burials and built the mounds, a story that must be read and recorded as the excavation proceeds, if it is to be read at all. The men of the Davenport Academy did take good care of their specimens, and they did tell about them with zeal and enthusiasm in the early volumes of their *Proceedings*.

After the first two years followed eleven seasons of field work during which time every county in Iowa was visited, some of them several times. The principal purpose was to locate the archaeological sites and to make at least a surface inspection and to record the essential facts. Happily the experiences of the weeks spent in the Lakes region had indicated plainly the fruitful angles of approach; that is to say, time was not to be lost in searching out the implements of war and the chase, such as are found in large numbers scattered broadcast over the face of the

state, but rather search should be concentrated on the habitation sites, the old camp and village sites where the tools and utensils of domestic life could also be found, especially the all-important fragments of pottery, those surest and best indicators of the numerous prehistoric stocks and cultures.

The collectors of Indian relics, including the farmers who were observing enough to see and interested enough to preserve the curious stone implements turned out of their cultivated acres, were the best guides to the habitation sites. It is surprising how many people in Iowa have little or big collections of Indian relics, these generally gathered from their own local areas. The hundreds whose names and collections are recorded in my files must be a minority only of those whose lives are enriched to a degree by the practice of this little special interest. If their accumulations contained flint knives, scrapers, or drills, as well as projectile points and stone ax heads, it was clear that an ancient home place was not far distant. Usually the farmer or collector could remember clearly that area where the soil contained much broken flint, shell, and burned rock fragments; if he couldn't remember, experience would usually help one to start off in the right direction. Then it was just a matter of collecting a small bag full of the village refuse, and especially of hunting long enough to find at least a few potsherds. These last had generally been overlooked by the owner, or they had not interested him.

In an area of over 56,000 square miles, all this means a good deal of travel, travel by every possible means, moreover, for—believe it or not—there is still some back country in the state of Iowa, and it is precisely in the roughest areas that many of the most interesting homes of ancient men were located, those shelters in caverns and under cliff overhangs, for example, where the debris of prehistoric life processes is especially concentrated. When the car can get no farther, or the saddle horse is no longer sure of his footing, then the walking or climbing are generally good—or at least good enough.

Up to this time some 500, in round numbers, of these habitation sites have been located, named after their owners usually, or after some nearby geographic feature, and little collections made wherever possible in order to preserve the proof of their rightful place in the archaeological scheme. These little collections, even when made entirely from the surface of the site, have proven their scientific value and dependability, even though they do not ex-

hibit as many traits or features, nor exhibit these as satisfactorily, as the larger and finer specimens from excavations do, where one works deep below the plow line and finds materials but little changed from the days when their makers used them and then laid them from their hands. And having found and appraised the archaeological sites, one knows where excavations are likely to prove most profitable.

By 1934 the gross outlines of the state's archaeology had emerged and the focal points of the different prehistoric cultures had become fairly clear. In this year also, by a coincidence very fortunate for those concerned with our archaeological survey, work crews became for the first time available for such public work as the survey was attempting to do. Here, of course, F. E. R. A. and later W. P. A. come into the picture.

I realize that this assemblage of capital letters does not, at all times and in all places, compose a pleasing and harmonious chord. This is no place to argue the matter; but, if anyone thinks that an efficient work crew cannot be made out of a group of relief laborers, taken as they come, he can have an argument with Mr. Orr, or me, any time he wants it.

A word concerning Mr. Orr. Mr. Ellison Orr, a long-time member of this Academy, a native of Iowa and one of the State's most stalwart sons, is a lifetime resident of Allamakee county with his home in Waukon. Trained as a civil engineer, he was long manager for the Bell Telephone Company of a district in northeastern Iowa and southeastern Minnesota until his retirement about 1932. A born scientist, he soon became proficient in the natural history of his part of Iowa. For weeks he acted as guide to Professor Samuel Calvin when, as state geologist, this distinguished past-President of this Academy was making a geological survey of Allamakee county. For more than half a century, Mr. Orr paid especial attention to the archaeology of northeastern Iowa, collecting and recording the materials and making maps, plats, photographs, and drawings of the mound groups, pictographs, and other archaeological features, a mass of material that some years ago was turned over to The State Historical Society of Iowa.

Accustomed all his life to handling groups of men, and with his scientific background, Mr. Orr was the ideal man for Field Supervisor of crews engaged in archaeological excavations, and as such he has functioned with conspicuous success since 1934. Mr. Orr was free to take the field for six, or even eight months out

of the year; at the best a field season of my own could not have exceeded three months. Under the circumstances it was a pleasure to act as Technical Advisor without Federal stipend and spend part time only on the excavations with Mr. Orr and his men. Also someone had to care for the excavated materials, make the laboratory analyses, catalog entries, photographs, etc., and at least supervise those processes that can be assigned to others. Mr. Orr, I might say, made most of the field photographs; those from the laboratory are mostly my own.

A few words of explanation may be given concerning the general features of the archaeology of the Mississippi Valley. First of all, it should not be forgotten that the American Indians were found by white men as members of a large number of linguistic and cultural groups, and that, therefore, the student will very soon find himself confronted, even within the boundaries of a single state, not by one uniform archaeology, but by a number of different archaeologies.

According to general agreement, most of the archaeologies of the Mississippi Valley belong to two great patterns, the Woodland and the Mississippi. The Woodland presents a still undetermined number of phases; the Mississippi appears rather satisfactorily in three phases, the Upper, Middle, and Lower Mississippi. The phases resolve themselves into smaller groupings known as aspects, and these into still smaller called foci. With the focus one reaches, it appears, the archaeological remains of the various tribal units.

So far as known historically, the Woodland archaeology is largely traceable to peoples of Algonkian stock. However, most of the Woodland manifestations are not historically documented and so are assigned to the Woodland on archaeological evidence only. In Iowa all of the sites, elsewhere the great majority of them, are beyond the reach of history. They give the impression of a very early, perhaps the first, occupation of Canada and the northern United States east of the Rockies. The Mississippi pattern includes the archaeologies of various Indian stocks, often with historical connections--Siouan, Caddoan, Muskogean, Iroquoian and others. Just as the Woodland manifestations thin out as the Gulf of Mexico is approached, but few of the Mississippi extend as far north as the Canadian boundary. The two archaeologies have little in common. This fact and the facts of their geographic distribution suggest strongly that the Woodland and the Mississippi were remote from each other in origin. A work-

ing hypothesis, supported by a considerable amount of evidence, contemplates a northern origin for the Woodland and a southern origin, in Central America or Mexico, for the Mississippi peoples, who entered the Mississippi Valley on a comparatively late migration by way of the Texas coastal plain. A brief comparison of the two patterns may be stated.

The differences begin with the nature of the sites chosen. The Woodland, as the name indicates, hid their villages away in the forest. The sites are small, often covering less than an acre in the valley of a creek or larger stream, on a lake margin, along some sandy ridge, or in the shelter of a cavern or cliff overhang. The Mississippi sites are comparatively large, often covering from 10-100 acres, or more, and placed in the open on river terraces or broad bluffs of a prairie type. The Woodland houses were generally round and of temporary construction; the Mississippi generally square or rectangular and of semipermanent construction.

The Woodland peoples were horticulturists on rather a small scale; the Mississippi peoples practiced agriculture on rather a large scale.

The Woodland shows a very large number of burial mounds, these not very large and containing burials of the flexed-primary or the secondary type, in Iowa generally the latter, and these much more often than not without grave goods; the Mississippi built comparatively few mounds, these large in size and often in the shape of truncated pyramids intended as substructures of buildings, their burials being usually in cemeteries, primary, extended on the back, and rather well supplied with grave goods.

In their industries, the Woodland developed stone work of almost endless variety, in the way of notched, shouldered, and barbed projectile points, grooved axes, art objects of problematical uses; the Mississippi stone work is comparatively simple: small triangular projectile points, great numbers of flint scrapers, ungrooved axes or celts, few art forms. The Woodland used bone implements sparingly either for implements or ornaments; the Mississippi used bone and antler for a great variety of tools and art forms: fish hooks, knives, digging tools, fleshers, pendants, arm bands, game counters, and the like.

The Woodland pottery is crushed rock or sand tempered, the body generally elongated and the base rather pointed, the decorations most elaborate on the outside rim, the vessel walls rather thick, colors dull red or brown, and the vessels are without

handles; the Mississippi pottery is most often shell tempered, flattened globular in shape, thin walled, with decorations generally on lip, collar, or shoulder, colors light gray or tan, and the vessels are frequently supplied with handles.

Of the five distinct archaeological manifestations that have been established for Iowa, one belongs certainly, and a second tentatively, to the Woodland pattern; three belong to the Mississippi pattern. The following is a brief statement of the five archaeologies.

1. The Woodland. This archaeology found throughout the entire State, occurring in seven or more different aspects. Habitation sites hidden away in what was originally forest. The houses being of temporary construction usually left no trace. A few garden beds remain to indicate horticulture. Most of the Iowa mounds—conical, linear, and effigy—attributable to the Woodland, about one hundred mounds, most of which were in process of destruction by cultivation, excavated in 1934, 1935, 1936, and 1938. The stone and pottery complexes.

2. The Hopewellian. A few mounds only along the Mississippi river bluffs and terraces. Most of the materials thus far excavated to be seen in the collections of the Davenport Public Museum, successor of the Davenport Academy of Natural Sciences: necklaces of fresh-water pearls and tubular copper heads; copper axes and skewers; curved-base, plain-bowl and effigy-bowl pipes.

3. The Oneota. The only Iowa archaeology connected definitely with history. The archaeology of the Chiwere group of the Siouan stock, which includes the Ioway and Oto tribes, known to have lived in various places in what is now Iowa prior to the coming of the whites in 1673. The large village sites on open terraces of the Upper Iowa, the Big Sioux, the Little Sioux, the middle Des Moines, and the Mississippi near Burlington. The cemetery burials with the accompanying flint and antler projectile points, catlinite pipes, small pottery vessels, and occasionally a few objects obtained from the early French traders. The village sites as producers of flint scrapers, celts, milling stones, large storage pottery vessels. The general pottery complex. Several sites excavated in 1934 and 1936.

4. The Mill Creek. A puzzling archaeology found on fifteen or more very productive village sites on the Little Sioux, the Big Sioux, and their tributaries, showing an unusually large number of traits in a mixture of Middle and Upper Mississippi forms. Large use of marine shells, pottery bowls with effigy handles,

and the building of rectangular houses of rather light construction indicate a southern origin. A very rich and possibly unique pottery complex. The Broken Kettle and Kimball sites north of Sioux City excavated in 1939.

5. The Glenwood. Large earth-covered lodges resting on a framework of logs, set in a square pit from two to five feet in depth and 25x25 feet to 36x36 feet in diameter. Found along the loess hills north and south of Glenwood in southwestern Iowa. Not grouped in villages. The builders of an Upper Mississippi culture, which is more widely distributed in Nebraska and Kansas. Twelve houses excavated in 1938 to show the house plans and to collect the various traits from the storage and refuse pits. Charred corn, bone tools, flint and diorite implements, antler flakers, pottery vessels.

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