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THE ROCK SHELTERS OF ALLAMAKEE COUNTY, IOWA, A PRELIMINARY SURVEY

ELLISON ORR

Among the rock formations of Allamakee county is one to which the geologists have given the name of Jordan Sandstone. This rock first begins to show above the Mississippi river at McGregor, Iowa. At Waukon Junction, nine miles above, there is a fine exposure from the station up to and above "The Painted Rock" showing its characteristic buttresses, caves, fissures and over-hanging ledges. At New Albin it has risen to more than two hundred feet above the river.

Plate I. The "Conway Cave," Rock Shelter, near top of Bluff, three miles north of Lansing, Iowa, in NW \frac{3}{4} NW \frac{3}{4}, Sec. 18, Twp. 99 N., Range 3 W. A typical Rock Shelter of the Jordan Sandstone.

Though easily worked with any kind of a pecking or gouging tool the Jordan weathers well into vertical faces showing in places a tendency to recede at the base, forming under the projecting strata above, shelters or recesses that sometimes might be called caves. Fissures and crevices running back into the bluffs are widest at the cliff face, narrowing quite rapidly until the opening in a few feet
pinches out. More resistant parts stand out as buttresses often showing a very characteristic hour-glass shape.

On the Oneota or Upper Iowa river the last outcrops of the Jordan up stream are to be seen about the “Lyons’ Plateau,” about three miles from the west line of the county, on the NE\textsubscript{4} NE\textsubscript{4} Sec. 9, Twp. 99 north, Range 6 west of the 5th P.M.

It is quite evident that the shallow caves, fissures and over-hangs in this formation were used by the Indian, but whether for shelter, for ceremonial, or for what other purpose, is not now clear. The name “rock shelter” has been given to such shallow caves and to the more or less sheltered space beneath overhanging ledges because of their world wide use by primitive peoples as a dwelling place. Here they found protection from inclement weather and from wild beasts.

On the walls of the rock shelters in the Jordan sandstone, we find that those prehistoric people that used them have left evidences of their occupancy in the shape of rude rock carvings or petroglyphs. These were made by outlining the figure intended to be represented by shallow half-round grooves, having a depth of from one-eighth to one-fourth inch and a width of from one-half to three-fourths of an inch.

These grooves were well defined and usually, for the same figure, quite uniform as to width and depth.

Sometimes the thing intended to be represented is easily recognized but more often this can not be done. Many of these petroglyphs, too, have been more or less obliterated by weathering. Besides the figures there is a great abundance of slashes and grooves that form no figure at all.

All these figures were probably more or less conventional symbols like the swastika or the phallic emblems of other peoples. They can not be regarded as picture writing—as a story of an event.

To find, in Allamakee county, rock shelters having petroglyphs on their walls requires long and careful search of the miles and miles of the exposures of the Jordan sandstone along the Mississippi and Upper Iowa rivers. Not many have been found so far. Without doubt there are many yet undiscovered.

Along the cliffs of the Mississippi we have found so far but three. These with three others had been previously discovered and copies of petroglyphs made by Mr. T. H. Lewis, who, while engaged in the ambitious undertaking of making a survey of the prehistoric earthworks of the upper Mississippi river valley, in
the late 80s and early 90s, did some work along this river in Allamakee county.

On the Upper Iowa river we have discovered three more, making a total of nine. Of the three on the Upper Iowa, one in the NW¼ NE¼ of Sec. 5, Twp. 99 N., Range 5 W., has one petroglyph—a face; a second in the SE¼ NW¼ Sec. 5, Twp. 99 N.,

Plate II. The "Indian Cave" near Waterville, Iowa, in the NE½ NW¼ of Sec. 23, Twp. 97 N., Range 4 W. A typical Rock Shelter of the Oneota Limestone cliffs.

Range 5 W., has two and numerous slashes; the third in the SW¼ SE¼ of Sec. 35, Twp. 100 N., Range 6 W., has four, one of which undoubtedly represents a turtle, and another, a buffalo. What the others were intended to represent can not be determined.

The six shelters discovered by Mr. Lewis in the bluffs along the Mississippi river, three of which we also found, are located as follows:

<table>
<thead>
<tr>
<th>Section</th>
<th>Township</th>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW¼ NE¼</td>
<td>Twp. 96</td>
<td>3</td>
<td>Paint Rock Shelter</td>
</tr>
<tr>
<td>SE¼ NE¼</td>
<td>Twp. 98</td>
<td>3</td>
<td>Indian Cave, 3 miles below Lansing</td>
</tr>
<tr>
<td>NW¼ NW¼</td>
<td>Twp. 99</td>
<td>3</td>
<td>Conway Cave, near top of bluff, 3 miles above Lansing</td>
</tr>
<tr>
<td>SW¼ NE¼</td>
<td>Twp. 99</td>
<td>4</td>
<td>Below School House, 4 miles above Lansing</td>
</tr>
<tr>
<td>NW¼ NW¼</td>
<td>Twp. 100</td>
<td>4</td>
<td>Abner Love Shelter</td>
</tr>
<tr>
<td>SE¼ NE¼</td>
<td>Twp. 100</td>
<td>4</td>
<td>Fish Farm Shelter</td>
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On the walls of these six discovered Mississippi river shelters there are altogether forty determinable figures, with the probable remnants of others that have been partly obliterated. Six of these unquestionably represent a hand or foot or the track or impression of one; four fairly represent flying birds with more or less complicated grotesque appendages; one is a very good outline of a wolf, another possibly represents a raccoon, while a third is an incomplete representation of an undeterminable animal; ten are “turkey tracks”; nine are grotesque faces or masks with or without appendages; two are very good complete conventional representations of the human form—one a male; the remaining six suggest no known object.

On the buttress at the south end of the great cliff, the “Painted Rock,” at the foot of which is the Paint Rock shelter, three-fourths of a mile north of Waukon Junction, are hundreds of vertical “slashes” that have the appearance of having been made by holding the edge of a celt or axe vertically against the face of the rock wall and then working it up and down till a V-shaped slash or groove is made having a depth of an inch or two.

The indications of use found in the shelters of the Jordan sandstone do not justify a belief that they were ever used as dwelling places. In the few inches of sand covering the hard rock floor no charcoal, no pottery fragments, no broken bones or other camp refuse has been found. They were more likely believed to be “wakon” or sacred places, resorted to by the medicine men for holding incantations or for other ceremonial purposes, the petroglyphs and slashes having some connection therewith.

The Oneota limestone, the uppermost formation of the Ordovician, and lying next above the Jordan sandstone, is exposed along the canyons of the Mississippi, the Upper Iowa, Paint Creek and Yellow river in many miles of massive dolomitic cliffs.

In this occasionally there appear to have been places where, due to some local cause, there was a small plano-convex portion which remained softer than the body of the rock. Where such spots existed along what is now the cliff face, this softer material has been eroded or weathered out, leaving a shallow cave with an opening along the front of ten to fifty feet, a height of four to ten or twelve feet, and a depth up to thirty feet. These caves which when viewed from the front remind one of a great gaping mouth, are often inaccessible. When they occur at the base of the cliff at the point of contact with the talus, as occasionally happens, we find indications that they were much resorted to by the Indian, and
evidences of long use, in the shape of broken bones, charcoal, pottery fragments and flints which are abundant in the floors of earth and rock fragments found in them up to a depth of four feet.

These caves were ideal shelters, usually dry, airy and well lighted, and afforded protection from storms and wild beasts, and probably from more dangerous wild men, from all directions except the front, where a barricade of rocks, logs, bark or skins could easily have been erected.

In three of these we have done some preliminary excavating.

Brookman’s Bluff, or Gabbett’s Point as it is sometimes called, is the high promontory at the point where the south bluff line of the Upper Iowa river joins the west bluff line of the Mississippi. At the place where the vertical precipice meets the sloping talus of rock and earth, at about two hundred and fifty feet above the flood plain of the rivers, is a cave or shelter.

This is locally called Blackhawk’s Cave because of a tradition that Chief Blackhawk, after his defeat at the battle of Bad Axe, was for a time in hiding in the rough country thereabouts and especially harbored about this lookout point with its sheltering cave below. This tradition is doubtless only a myth but the cave is a reality.

It is but a small shelter, having an opening of seventeen feet along the cliff face, a height of four feet from the earth floor to the roof, and a depth back into the rock of seven feet. Originally it had a height of seven feet from the rock floor to the ceiling but had
filled in to a depth of three feet with rock debris and soil in about equal proportions.

Traces of the use by man in the shape of charcoal, bones and crumbling clam shells were fairly common throughout the entire filled-in deposit but were most abundant at a depth of one to two feet from the top.

This horizon yielded, besides many other fragmentary pieces, six complete lower mandibles and five detached cusps or fangs of the black bear and two almost complete upper maxillae with molars, with portions of the skulls of this animal.

At a lower level there were found together two well preserved short and robust humerii, evidently from opposite sides of the same animal.

Fragments of long bones, probably the leg bones of deer, were found sparingly at all levels, one piece having a diameter of two and one-half inches. This latter was quite likely that of a buffalo. The smaller bones had all been cracked open to obtain the marrow. Some were charred.

Six "wish bones," three of them of large birds like geese or turkeys, two large fish vertebrae, and some fragments of turtle shell, together with the clam shells, indicated quite a variety of diet for the people who frequented this shelter.

Two unwrought antler tips, one arrowhead one and one-half inches long and a few flakes of chert, two of which showed secondary chipping, were the only weapons or implements found.

Of the pottery — found at all levels — we were able to save twenty-five pieces ranging from one-half up to two and one-half inches in diameter.

All were of the culture believed to be Siouan — light colored, tempered with pulverized clam shell, and decorated sparingly with shallow incised lines a "strong sixteenth" of an inch wide, apparently made with a piece of wood, or more likely of bone, having a chisel shaped end of that width, or with a point of a "flint."

Most of the field finds of the abundant pottery fragments, and all the pottery taken from the graves, (but not that found in the mounds when they contain pottery) in the valley of the Upper Iowa, is of the Siouan type or culture. Yet mixed sparingly with the predominant Siouan type of the field finds and in the mounds of the valley, if they contain pottery, is another type profusely ornamented with designs of the so-called "twisted string" type.

In passing it may be well to say here that we doubt very much if these "twisted string" impressions were really made by a twisted
We think it more likely that most if not all of them were made by a pointed instrument in skilled hands.

In a field adjoining the Fish Farm Mound Group, and in the earth thrown out of one of these latter that had been excavated, located on a terrace in the valley of the Mississippi one mile below Blackhawk Cave, pieces showing this latter culture are by far the most common finds. It is evidently an older culture than the Siouan.

Plate IV. Petroglyph—a “Face”—on wall of “Conway Cave,” Rock Shelter, three miles north of Lansing, Iowa.

The “Indian Cave” at Waterville, Iowa, is located as the crow flies, one mile due east of that town, in the NE$\frac{1}{4}$ NW$\frac{1}{4}$ of Sec. 23, Twp. 97 N., Range 4 W. To reach it follow the winding road east from the town down along the picturesque Paint Creek to the first ravine coming in from the north, up which the cave or shelter lies about one-fourth mile, at the top of a long slope and in a ledge of Oneota limestone fifteen to twenty-five feet high, facing the east.

Sixty feet is the width of this shelter along the face of the ledge. Its greatest extent back into the hill is eighteen feet, and its height above the earth floor is from a couple of feet at the back to five at its mouth. Near the center lies a half buried pile of limestone rock that long ago fell from the roof.

Since the days of the oldest white settler this cave has been noted for the number of bones lying about on its floor, beneath the surface of which is a veritable boneyard.

In 1928, with some local help, we dug a trench two feet wide,
beginning in the talus five feet outside the front of the shelter, through to the back which at this point was but ten feet in.

The upper eighteen inches was a black loam in which rock fragments of all sizes up to pieces that would weigh a hundred pounds, were fairly common. Downward the loam gradually changed to yellow clay (kessel) into which we dug at the front of the shelter, an additional eighteen inches without reaching the rock bottom and in which we found no charcoal, bones or other relics.

In the black loam were quantities of fragments of round bones that had been split for the marrow, probably mostly the leg bones of deer or dog. A number of pieces of the joint ends of larger bones, probably elk or buffalo, were also found, along with the lower mandibles of dogs in which the teeth still remained. If the people that resorted to the Blackhawk Cave were bear eaters then those of the Indian Cave surely feasted on venison and dog.

Badly decomposed clam shells of several species from the Mississippi river, half a dozen miles away, fish vertebrae and pieces of turtle shell were fairly common.

Much of this material was encrusted with lime carbonate from the water that had fallen from the roof drop by drop and percolated downwards through the loam.

Half a dozen small chert arrowheads of very ordinary workmanship and a small number of chips and flakes of the same material were found.

It was necessary to handle with care the pottery fragments found, but about one hundred pieces of one-half inch to two inches in diameter were saved. About seventy-five per cent of these were of thin black material tempered with sand; all but a few pieces were completely covered with "twisted string" impressions. The remaining twenty-five per cent were thicker, light colored and not so profusely ornamented. No pottery of the Siouan culture was found.

All the above described material was distributed quite uniformly through the black earth and there appeared to be no difference between the pieces found near the surface and those from the bottom.

Among the split long bones, of which there were many fine specimens, we found one that had been made into a typical well made awl.

In 1930, assisted by the same parties as before, we made a second trench near the center of the shelter front, beginning as before out on the talus, but extending into the shelter but four feet and being
as many feet wide. This trench we carried down into the yellow clay as in the first one and found conditions, and abundance of material found, the same as in the previous excavation. Besides the commoner material, some half dozen arrowheads and as many exceptionally fine pottery fragments were added to our previous collection from this place.

We might add that in both excavations we found considerable obscure and doubtful evidence of ash beds.

Because of the outward slope of the talus in front, and on each side at the front of this shelter, the bulk of the earth within was probably wind deposited or carried in on the feet of wild animals frequenting the place. This would indicate that this earth filling was a long time in forming. Another and better indication of age is the regular occurrence of a deposit of loess under the loam. Eighteen inches, the thickness of the deposit of black loam within the shelter is close to the average depth of the same regularly over the uplands of the surrounding country, under which everywhere is the loess as in this shelter. It is fair to conclude then that any remains of man found in soil immediately over the loess, as in the Indian Cave, must be old.

At the foot of a low cliff where it is met by the not very steep or long talus sloping up from the stream, on the north side of Yellow river and facing south, is a fine shelter in the Oneota dolomite, in the NE 1/4 SE 1/4 of Sec. 16, Twp. 96 N., Range 4 W., Linton Township. It may be reached from the highway bridge across Yellow River in Section 16, by following the left bank of that stream, down stream, for about one-third of a mile.

This is the largest and finest of the Oneota rock shelters, extending along the cliff face for forty feet and back into it for an average depth of fourteen feet, with a height somewhat less. Like the Indian Cave at Waterville, it has a floor of black earth sloping towards the front. In the center is a large block of stone that has fallen from above.

In 1928 we did a little desultory digging in this shelter, in two places excavating a square yard to a depth of eighteen inches. No loess was struck. Six small triangular arrowheads and a few small bits of sand-tempered pottery, decorated with “twisted-string” impressions, were found. There were some obscure evidences of ash beds and a few fragments of bone were thrown out.

In the NW 1/4 NE 1/4 of Sec. 8, Twp. 98 N., Range 4 W., Center township, at the top of a talus slope that extends about twenty-five feet above the level of the narrow bit of bottom land along a dry
run, and at the bottom of an outcrop of Oneota limestone ten to fifteen feet high, is another rock shelter, the opening being fifty feet wide with a height of seven to eight feet at the front, and extending back into the ledge for an average of forty-three feet.

This cave is peculiar because of its quite uniform height inside from front to back of about six feet.

Hollows in the almost level rock floor contain from one to four inches of black earth in which no relics could be found.

This shelter faces the east, has the largest floor space of any so far found, and a second small opening into the north side.

In the Oneota escarpment along the north side of the Upper Iowa, in the NW\(\frac{1}{4}\) SE\(\frac{1}{4}\) of Sec. 36, Twp. 100 N., Range 6 W., is a shelter, the floor of which is seven or eight feet above the top of the two hundred foot high talus slope. Access to it is by climbing a gnarled tree. The estimated dimensions of this shelter are twenty feet wide with an opening four feet high in front, and extending back into the cliff a distance of twelve feet. The floor is of solid rock and level except for a few very shallow depressions in which are a few handfuls of black earth in which we could find no relics. On the talus just below the mouth we once picked up the broken half of a grooved sandstone arrow-shaft smoother, and a nearby resident told me that once when a boy he found in a niche in the wall of this shelter, a handful of copper beads.

As for the other rock formations, there is at least one large shelter in the St. Peter sandstone in the NE\(\frac{1}{4}\) SE\(\frac{1}{4}\) of Sec. 10, Twp. 98 N., Range 5 W., but this we have never examined.

Also there are a great many overhanging ledges of the Galena-Trenton limestone along Yellow river in the southwest part of the county that would afford shelter of a sort, but their floors are beds of rubble stones in which nothing has been discovered.

Waukon, Iowa.