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## CONTENTS

The Expanded Center "Gorget": A Late Adena Bar Atlatl Weight .......................................................... 4
An Unusual Ohio Birdstone ......................................................................................................................... 9
A Preliminary Report Of A Mastodon Tooth Find And a Paleo-Indian Site In Hardin County, O. .. 10
Glacial Kame Presence In The Ottawa County Area ............................................................................... 14
Personal Finds—1983 ............................................................................................................................ 16
Results Of The ASO Questionnaire ......................................................................................................... 17
A Bird Effigy Pipe From The Philo II Site .............................................................................................. 20
An Unfinished Tubular Pipe .................................................................................................................... 21
Report On The Knight Hollow Rockshelter ............................................................................................. 22
Chips Off The Same Block ....................................................................................................................... 29
The Sycamore Run Chapter Field Survey ............................................................................................. 30
A Crawford County Engraved Trapezoidal Pendant ............................................................................ 32
A Quartzite Fluted Point .................................................................................................................. 33
Suggestions For Exhibiting Site Displays ............................................................................................... 34
The "Lost Huron" Or "Lost Jesuit" Map Found ....................................................................................... 36
New Archaeological Report Published .................................................................................................. 38
American Indian Basketry ...................................................................................................................... 38
Necrology .................................................................................................................................................. 38
Book Review ............................................................................................................................................ 38
Loot! The Heritage Of Plunder .............................................................................................................. 39
Thank You Note ....................................................................................................................................... 39
New Southeast Ohio Regional Coordinator Named .............................................................................. 39

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**Front Cover**

Red Slate
By Robert N. Converse

One of the scarcest materials used by prehistoric Indians to manufacture gorgets, pendants and other forms of so-called ceremonial or decorative items, is red slate. This class of artifact, themselves enigmas of both purpose and bewildering design, are usually made of black or gray banded slate or shale. The infrequent use of red slate points to a rarity of a raw material source since it seems that, in many cases, the more colorful material was most desirable.

The raw material source of slate of any color or variety is a puzzle, and other than the glacial drift, no positive origin for it is known to me. The old time collectors—very knowledgeable for their day and paucity of literature—called it Huronian shale in the belief that it came from the northeastern part of the United States or the southeastern part of Canada, presumably either quarried from there or transported to the midwest by the glacier. Wherever it comes from, red varieties of it are in an extreme minority and in my experience I have never seen a raw piece of it on any surface site—that in contrast to not uncommon finds of chunks of gray banded slate on habitation and camp sites.

Shown on the front cover are four examples of red slate gorgets. As may be seen in the color photograph, not all of it is the same texture or color and in fact may actually be different kinds of stone. At the top is an indented gorget collected by Dr. Meuser from Lorain County. Second is a two-hole gorget from Scioto County, salvaged from a larger gorget. Third is a bi-concave gorget from Preble County. Fourth is an indented gorget from Williams County.

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**Back Cover**

This outstanding tubular pipe was found April 30, 1983, by Rob Converse in a plowed field not far from Plain City in Madison County. It is made of sandstone, a material typical of such pipes, and although it was found in a field which, to the Editor's knowledge, has been under cultivation for several generations, it hasn't a single scratch on it. There were no associated artifacts or human bones despite the fact that the pipe must certainly have come from a burial situation. The only other evidence which may have been present were large irregular pieces of sandstone scattered in the vicinity. Other artifacts found on the site in previous years are of little help in diagnosis of the pipe's origin since they run the gamut from Archaic to Historic Contact times. It measures 5½ inches in length and the outside diameter at the bowl end is 1¼ inches.
The Expanded Center "Gorget": A Late Adena Bar Atlatl Weight

William C. Mills called it a "boat-shaped gorget" (1902:465), for with one side flat and the other round, with a center that was broad and ends that were narrow, it reminded him of a boat. And, with two holes in the one he had found, he thought it to be a gorget, according to the old rule of thumb that if a small stone object had but a single hole it was likely a pendant, but if it had two it probably was a gorget.

But what particularly intrigued Mills was the fact that this "boat-shaped gorget," 5/8 inches in length and made of limestone, was found on the right arm of the skeleton of a large adult female who had stood 5 feet 7½ inches in height, and that encircling the gorget were two bracelets of copper. (See Fig. 1). Through the two holes of the gorget, in the words of Mills, "were strings which had been preserved by the action of the copper; these strings showed, too, that the gorget had been attached either to the arm or to a woven fabric that was found associated with the bracelets" (465).

Mills' discovery of the "boat-shaped gorget" came during the course of his excavation in the summer of 1901 of a large conical burial mound northwest of Chillicothe in Ross County in the valley of the Scioto River on the estate of one of Ohio's first United States senators and later governor, Thomas Worthington. It was Worthington who had given the name "Adena" to his estate in 1807 when he had been in the Senate and his brother-in-law, Edward Tiffin, had been governor of Ohio and when Chillicothe was serving as our first state capital (see Fig. 2). Now it was Mills' turn to give the name "Adena" to the mound and to the prehistoric people who had built it. And archaeologists have been calling their culture "Adena" ever since.

When Mills began his investigation of the Adena Mound, the earthwork was 26 feet high and had a circumference of 445 feet. He quickly discerned that he was actually exploring a primary mound of 20 feet in height with a diameter of 90 feet upon which a secondary mound had been imposed (452). Within the primary mound he found 21 skeletons; in the secondary, 12 more. He noted that "the implements and ornaments found in both sections of the mound were similar in every respect." But he also found that most were associated with burials in the primary mound while few were in the secondary (454). In a log tomb on the north side of the primary mound, with the twenty-first and final burial he examined (474-478), he found near the left hand of the skeleton an effigy pipe 8 inches long of a achondroplastic dwarf (Potter 1968:30), the famous Adena Pipe, perhaps the best-known of all prehistoric artifacts found to date in Ohio (see Fig. 3).

In addition to the "boat-shaped gorget" found with burial six, Mills found two biconcave gorgets associated with burials one and twenty, all three burials in the primary mound. The first of the biconcave gorgets was fashioned from banded slate and was found "on the right wrist" (461), while the second was made from limestone and was found "near the right wrist" (473). Both were associated with adult male skeletons, one 5 feet 11 inches in length, the other 5 feet 11 ½ inches. These were the largest male skeletons found in the entire mound. (Interestingly, the "boat-shaped gorget" was found on the right arm of the largest female skeleton, 5 feet 7½ inches, as noted earlier). It may have been pure coincidence that the three gorgets were found with the three largest skeletons, but was it coincidence that all were beside the right wrist or arm?

In his extremely useful Ohio Slate Types, Robert N. Converse has called attention to the biconcave gorget of banded slate as a typical Adena form, citing the discovery of the one by Mills in the original and thus proto-typical Adena Mound (Converse 1978:46-47). And, in the same publication he has also used the long familiar and commonly accepted term "expanded center gorget," in reference to the artifact that Mills chose to call a "boat-shaped gorget," appropriately affirming it as "among the diagnostic gorget forms of the Adena culture" and underscoring as a "significant clue" to its use the Mills' discovery in the original Adena Mound of an expanded center gorget on the right wrist of a female burial...apparently...attached to the sleeve of a garment which had been preserved by the chemical action of two copper bracelets encircling both the wrist and the gorget" (50). Converse goes on to note that, "These well-known gorgets are usually symmetrical and finely finished. The bottom is invariably flat and the upper surface is rounded or semi-circular. They expand in the center—some examples decidedly so—and taper to square ends. A significant number are undrilled (italics mine), but when perforations are present the conical holes are drilled from the bottom and barely pierce the upper surface" (50).

There seems to me no reason to question the descriptive qualifier "expanded center" in labeling this diagnostic Adena form, though one well-known archaeologist was still using it interchangeably with the Mills' label, "boat-shaped," as late as 1931 (Seltzer 1931:36). "Expanded center" is certainly much less subject to confusion than "boat-shaped," particularly in light of the subsequent discovery by Mills of other much different "boat-shaped gorgets" in excavations he conducted at the Edwin Harness Mound and the Tremper Mound, both classic Hopewellian (Converse, 42-43). Also, there would have been additional confusion with the term "boatstone" as generally applied by archaeologists to a boat-like form of atlatl weight found in various late Archaic and Early, Middle, and Late Woodland sites (Converse, 62).

But if there is no problem with the use of the current label "expanded center" in describing this Adena form, what about the term "gorget"? Mills used the words "gorget" and "ornament" interchangeably in describing the artifact he had found (465). That he had found it on the arm of a female encircled by bracelets of copper and apparently attached to the sleeve of a garment must have established in his mind its probable use as an ornamental piece.

There is no question but that the word "gorget" has come to be used as a catch-all term, often employed when there is a considerable element of doubt about the use of a particular small flat object of slate or stone, usually but not always two-holed. Like other archaeological catch-all terms ("problematical," "ceremonial," "bannerstone," etc.), the word "gorget" can be stretched to cover a multitude of inoperable forms.

The late Arthur George Smith of Norwalk, still a legend in Ohio archeology, wrote a short but penetrating article for the Ohio Archaeologist in October 1961 (116) which he entitled "Why Gorget?" In it he observed, "Originally the word 'gorget' designated a piece of late Medieval armor that protected the throat (gorge). In the 19th century the name was applied to a metal ornament, usually crescent-shaped, worn at the throat as a badge of Army rank. These were often engraved with the Royal arms or the regimental arms. Our officers wore gorgets in the Revolutionary War, just as their British opponents did...Back in the dark ages of archaeology, someone decided that the two-holed flat pieces were the Indian equivalent of the officer's gorget and had been worn by the Indian as a badge of rank in the tribe. The name 'gorget' stuck and we still use it..."
In the instance of the expanded center gorget, Mills’ decision to call the stone object he had found encircled in copper bracelets in the Adena Mound a “gorget” has conditioned our thinking ever since. Certainly Gerard Fowke (1902:567) and Henry C. Shetrone (1920:160) were willing to use the same term in describing similar objects found in the course of their subsequent investigations of Adena mounds. Though Warren K. Moorehead had preferred initially to call the expanded center artifacts he had discovered in the Story Mound near Chillicothe “coffin-shaped ceremonials” (1899:133-135), he too came around to Mills’ term “gorget” by 1917 (Moorehead 1917:66-69).

Accepting too of the term “gorget,” in describing the expanded center objects was Emerson F. Greenman in his penetrating analysis of Adena cultural traits in 1932, an analysis which centered on 70 known Adena mounds beginning with Mills’ Adena Mound as #1. Of the 70, 47 were in Ohio, 5 in Indiana, 1 in Illinois, 15 in West Virginia, 1 in Tennessee, and 1 in Pennsylvania. From these 70 Adena mounds had come a total of 19 expanded center gorgets, of which 11 were two-holed and 8 were undrilled (429-431). (Italics are mine.) Of the 11 that were two-holed, 7 were used as “arm guard,” 3 limestone, and 1 other stone. Of the 8 undrilled, 3 were slate, 1 sandstone, and 4 other stone. One of the two-holed limestone gorgets was, of course, the one found by Mills in the Adena Mound in 1901 (see Fig. 1). Of the 8 undrilled expanded center gorgets, 3 came from the Story Mound near Chillicothe examined by Moorehead (1899:132-135); 1 came from a mound in New Town-ship, Pike County, Ohio, excavated by Fowke (1902:355-367, 376); 1 came from the Fudge Mound in Randolph County, Indiana, described by Frank M. Seltzer (1931:36; Plate 20, 46); and 3 came from a mound in Columbus, Franklin County, Ohio, excavated by a person or persons not identified by Greenman (1932:515).

An examination of our own Ohio Archaeologist and the articles, pictures, and captions which have appeared in it over the past quarter century reveals the persistence of the use of the term expanded center “gorget” to this day. (See for example Vol. 9, No. 2, 1959, inside front and back covers; Vol. 14, No. 4, 1961, 144; Vol. 25, No. 2, 1975, 13; 29; Vol. 26, No. 4, 1976, 38; Vol. 27, No. 1, 1977, 9; Vol. 28, No. 1, 1978, 34; Vol. 28, No. 3, 1978, back cover; Vol. 30, No. 3, 1980, 30; Vol. 31, No. 2, 1981, 24; Vol. 32, No. 1, 1982, 27; Vol. 32, No. 2, 1982, 22; Vol. 32, No. 4, 1982, 34.) Interestingly, of the 25 expanded center gorgets described and/or pictured in these particular articles, 20 appear to be two-holed and 5 undrilled. Most of the 25 are banded slate. At least one is sandstone.

It was not until 1935 that an entirely new perspective was placed on the likely use of the expanded center gorget when William S. Webb and William D. Funkhouser published in the University of Kentucky Reports in Anthropology and Archaeology their discovery in an Adena site (the Ricketts Site) in Montgomery County in Kentucky. Specifically, they had found a “well worked antler handle... in the same grave, practically in alignment with the stone weight (an expanded center gorget) and by estimation at the proper distance from it to indicate that they may have been part of the same atlatl” (1935:Fig. 18, 89). Subsequently, according to Webb and a later co-author, Charles E. Snow, it was observed recurrently that expanded center gorgets in Adena mounds “are usually found in the region of the hips or lower extremities, are most frequently found lying parallel to the body and flat side up. (Underlining mine.) This seems to suggest that they could have been atlatl weights attached to the back of the flat atlatl bar, flat side against it. When an atlatl was included as a burial offering, it was usually laid in the grave, handle near the hand of the individual, bringing the ‘gorget’ into the position found” (1945:84-85). Concluded Webb and Snow, “There seems to have been little or nothing observed in their actual occurrence in burial associations to justify the term ‘gorget’” (1945:84-85).

Subsequent research suggests that Webb, Funkhouser, and Snow have finally gotten our understanding of the expanded center gorget and its uses on the right track. One is prone to conjecture what the course of that understanding might have been if only Mills had investigated the Ricketts Site in Montgomery County, Kentucky, before undertaking the excavation of the Adena Mound. But, that is hindsight.

What is significant is that Dragoo, Raymond S. Baby and others have joined Webb, Funkhouser, and Snow in agreeing that the expanded center gorget probably was not a “gorget” or “ornament” or “arm guard” or “twine twister” or “shuttle” or “bowstring reducer” after all, but rather a bar atlatl weight all the time. It was Martha Potter who wrote in 1968 that, “The Adena men were hunters and fishermen. Like the Archaic, they used spears or javelins, sometimes with the added assistance of the atlatl. However, the atlatl evidently suffered a decline in popularity in Adena times; fewer weights and handles have been found in sites of this culture than in Archaic manifestations, and those that have recovered are relatively simple in design” (28-29). Webb and Baby noted in 1957, with reprints continuing two decades later, that, “The evidences of the use of the atlatl by Adena people, as manifested by the occurrence of antler handles, expanded bar gorgets, and keel-shaped bar gorgets, increase
as excavations are extended (28). As summarized by Dragoo, ‘... this object (the expanded center gorget) was probably not truly a gorget but actually an atlatl weight. When found in grave association, it generally was near the lower extremities along the side of the body rather than near or on the chest. The expanded center bar seems to have been made only in Late Adena...’ (1963: 215-216).

As a bar atlatl weight, the expanded center gorget would seem to make sense at long last in both of its essential forms, the two-holed and the undrilled. Either form could be readily secured by cord or thong to the flat shaft of the atlatl, whether laced through the perforations in the instance of the two-holed bar, or cord-wrapped in figure-8 fashion in the instance of the undrilled. No longer need there be the lame explanation that the frequently encountered undrilled bar was in fact "unfinished.”

In the accompanying photographs are three undrilled expanded center gorgets or bar atlatl weights which seem well-suited to support this hypothesis. The first was part of the George B. Towner Collection of Brady Lake when photographed by the author in 1964 and was found by Towner on a hill-top overlooking the valley of the Cuyahoga River in Shalersville Township of Portage County approximately five miles northeast and up-river from the Adena site at Lake Rockwell described by the author on page 32 of the Spring 1982 issue (Vol. 32, No. 2) of the Ohio Archaeologist. Of dark green, almost black, slate, it is 4 ½ inches long and 1 ½ inches wide. It is approximately 1 ½ inches thick in mid-section (see Fig. 4).

The second was acquired by the author from the Edward W. Payne Collection in February 1955 with provenience indicated only as "Ohio." On its flat underside Payne had marked "2069." Made of dark green banded slate, it is an unblemished beauty. It measures 4 inches long by 1 ½ inches wide at the center, and it is ½ inches thick at mid-section (see Fig. 5).

The third is part of the permanent archaeological collection of the Ottawa County Historical Society Museum in Port Clinton and was given to the museum by the one who had found it in the area, John Kettleson, also of Port Clinton, on November 24, 1931. Fashioned from gray banded slate, it is 4 ½ inches long, 1 ¾ inches wide at the center, and 7/16 inches thick at the mid-section (see Fig. 6).

CONCLUSIONS:
1. Of 47 expanded center gorgets considered in this article (the 19 in the Greenmah survey of 70 Adena mounds, the 25 pictured in earlier issues of the Ohio Archaeologist cited above, and the 3 discussed and pictured here), 31 are two-holed and 16 are undrilled. Whether drilled or undrilled, all have the same basic characteristics: a flat under surface, a rounded upper surface, an expanded center with semicircular protuberances, and squared ends. Nearly all are unusually symmetrical and display a fine degree of workmanship. With as many as a third of them undrilled, it is simply untenable to refer to these as "unfinished" or "pre-formed." And, with some mounds revealing both drilled and undrilled in burial association, it becomes evident that both types had a similar function to perform and that function in all likelihood was neither ornamental nor decorative but rather utilitarian. (Indeed, how could an undrilled object of this size and weight have been worn about the neck, on the chest, or on the wrist?)

2. The primary weapon or tool of the Adena in their quest for food and in their struggle to survive was still the spear. The atlatl, or spear throwing stick, required weights to enhance the kinetic energy of the throw. Such weights, to be tightly secured to the flat surface of the throwing stick, had to have a flat underside. With its flat bottom, symmetrical shape, and center width of less than 2 inches, the expanded center gorget, whether drilled or undrilled, could be readily wrapped and/or tied to the flat underside of the throwing stick that was invariably 2 inches or less in width though 2 feet or more in length.

3. The research of the past half-century of Webb, Snow, Baby, Dragoo and others has repeatedly demonstrated that expanded center gorgets, whether drilled or undrilled, have invariably appeared in grave association near the lower extremities of Adena burials alongside and parallel to the body, flat side up, rather than near or on the chest or at the throat or "gorget." This would strongly suggest, as Webb and Snow have pointed out (1945:84-85) and as was indicated earlier, that, "When an atlatl was included as a burial offering, it was usually laid in the grave, handle near the hand of the individual, bringing the ‘gorget’ into the position found’.

4. Thus Mills’ ‘boat-shaped gorget’ of the original and proto-typical Adena Mound was in fact neither ‘boat-shaped’ nor a ‘gorget.’ Most archaeologists have long since accepted ‘expanded center’ as a better description than ‘boat-shaped.’ The time has come as well to accept ‘bar atlatl weight’ as a more accurate term than ‘gorget.’ Let’s do it.

ACKNOWLEDGEMENTS:
My appreciation goes to Mrs. Elizabeth Denney, curator of the Ottawa County Historical Society Museum in Port Clinton, for her kind assistance in enabling me to examine and photograph artifacts contained in the museum’s collections. I am also indebted to the late Arthur George ("Sarge") Smith for his spirit of archaeological inquiry and the late George B. Towner for enthusiastically sharing with me the results of a lifetime of interest in Ohio’s prehistory.

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Fig. I (Shriver) Mills' discovery in 1901 of an expanded center gorget encircled by copper bracelets on the arm of an adult female burial in the famous Adena Mound conditioned our understanding of the use of this stone type until very recent years. Photo reproduced by courtesy of the Ohio Historical Society.

Fig. 2 (Shriver) "Adena," the 1807 estate of Ohio's first senator and sixth governor. It was on these grounds near Chillicothe that Mills excavated the mound in 1901 which established the name "Adena" for the culture which had created it. Found in the mound were the celebrated Adena Pipe and the expanded center gorget encircled by copper bracelets. Photo reproduced by courtesy of the Ohio Historical Society.

Fig. 3 (Shriver) The famed Adena Pipe, perhaps the best known prehistoric artifact ever found in Ohio, discovered by Mills in the Adena Mound near Chillicothe in 1901. Photo reproduced by courtesy of the Ohio Historical Society.
Fig. 4 (Shriver) Undrilled expanded center gorget or bar atlatl weight found by George B. Towner in the valley of the Cuyahoga River in Shalersville Township, Portage County. Photographed by the author in 1964 with permission of Mr. Towner.

Fig. 5 (Shriver) Undrilled expanded center gorget or bar atlatl weight of dark green banded slate from the author’s personal collection, originally part of the Edward W. Payne Collection.

Fig. 6 (Shriver) Part of the collection of the Ottawa County Historical Society Museum is this gray banded slate undrilled expanded center gorget or bar atlatl weight.
An Unusual Ohio Birdstone

By
Jim Hovan
16979 S. Meadows Circle, Strongsville, Ohio

The slate birdstone pictured actual size was manufactured of highly dramatic banded slate. Unfortunately, the provenience of the piece was lost years ago. However, it’s my opinion that the bird originated in one of Ohio’s northwestern counties.

The two side views of the bird are pictured actual size and clearly show the side drilling. Why this bird was drilled through the side rather than through the anterior and posterior bridges is a mystery. There is ample room for the bird to be drilled in "normal" birdstone fashion.

The second interesting feature is the slightly scooped, highly polished base. Perhaps this unusual base is the reason the bird was not drilled in regular fashion. At any rate, this birdstone has never been pictured before and I’m pleased to be able to present it to you.

Fig. 1 (Hovan) Slate birdstone with lateral perforation. Shown in obverse and reverse.

Fig. 2 (Hovan) Close view of bottom of birdstone showing scooped out bottom.
In Hardin County the Wabash moraine is a 50-60 ft. high ridge running from the northwest to the southeast across the county (Figure 1). This deposit of glacial drift marks a period of relative stability in the glacial margin of over 14,000 years ago which dammed the Scioto River at a point just west of Kenton (Goldthwait 1979; Goldthwait et al. 1979). This dam formed a large glacial lake which was eventually drained by the Scioto River. Swampy remnants of this lake were still evident in the nineteenth century when this area was referred to as the Scioto Marsh (Howland 1879: 51).

On the northeastern edge of this extinct lake basin and at the base of the Wabash moraine, local residents Tom Van Buskirk, Curt Shaw and Steve Ray have made some important discoveries. From the surface of an isolated area of dark clayey sediments (see Figure 2 and 3) they recovered a mastodon tooth. There has been extensive disturbance of the deposits parallel to the Scioto River through various dredging and flood control operations from 1859 through the twentieth century (Gordon 1969: 26), but the immediate area of the site seems to have remained fortuitously intact.

The mastodon tooth (Figure 4) is a fragment of a left upper third molar in a relatively poor state of preservation (Osborn 1936). The anterior lophs which remain show extensive wear (see Figure 5) indicating that the individual was quite old (Dr. Paul Sciulli, personal communication). This find is only the third mastodon reported from Hardin County. Interestingly, the previous two finds were also from the general vicinity of the Scioto Marsh (Forsyth 1963: 19). Falquet and Hanebert (1978) and others have suggested that such environments, i.e., glacial lakes/bogs/marshes, were especially attractive to mastodonts. However, Guilday and Berman (1969) caution that the high frequencies of mastodon finds in these situations may simply reflect the greater chances of the bones being preserved there.

This fossil locality takes on a special importance in the light of other discoveries made here. A large fluted point fragment was found on the surface of the same field less than 25 ft. from the area where the mastodon tooth was found (Figure 6). The point was apparently broken in the fluting process and is therefore unfinished. The edges show no signs of rounding or polish and no attempt was made to rework or otherwise slavage the point. Two other, possibly related, artifacts have been collected from this site. A small, concave-based lanceolate point fragment (Figure 7) and a large, unifacially retouched flake-knife (not illustrated) were both recovered from the general area of the fluted point find. No other prehistoric artifacts have been collected from this area. I visited this site in the company of James Morton and Nigel Brush of Columbus (and the three previously named discoverers). Under excellent survey conditions (see Figure 3) we were unable to locate even a single debitage fragment. The site is, therefore, either mostly buried or of extremely low density.

There is an extensive historic component at the site consisting of numerous scattered bricks, crockery fragments and recent animal bone. This undoubtedly relates to a structure which appears on a map of this locality dating to 1879 (Howland 1879).

The importance of further work at this site should be obvious. It is tempting to speculate on the meaning of this association of a mastodon with Paleo-Indian artifacts, but without further data such speculation would be premature at best.

**ACKNOWLEDGEMENTS**

I would like to express my thanks to James Morton for bringing this material to my attention and for his continued assistance in the investigation of this site. The collectors who discovered this site have already been named, but their unselfish cooperation warrants further acknowledgement. My thanks and congratulations to Tom Van Buskirk, Curt Shaw and Steve Ray of Kenton, Ohio. I would also like to thank Dr. William Dancey of the Department of Anthropology, Ohio State University, for his helpful comments on an earlier draft of this paper and Alan Hirtle for his fine renderings of Figures 1 and 2.
Fig. 1 Glacial geology of central Hardin County, Ohio. (after Goldthwait, White and Forsyth 1979)

Fig. 2 Sketch map of the site.
Fig. 3 View of the site looking to the southwest. The area of black clayey soil is clearly visible in the center of the photograph. The individuals in the photograph are, from left to right, Tom Van Buskirk, Curt Shaw and Steve Ray.

Fig. 4 Mastodon tooth from Hardin County, Ohio.

Fig. 5 The mastodon tooth showing the flattened crowns indicative of extensive wear. Photograph courtesy of James Morton.
Fig. 6 Fluted point from Hardin County. a) obverse face; b) reverse face.

Fig. 7 Lanceolate point base from Hardin County. a) obverse face; b) reverse face.
Ohio's Ottawa County has been the scene of extensive archaeological investigations in recent years, centering primarily on the Libben Site on the north bank of the Portage River some 4 miles west of Port Clinton and 2½ miles south of Lake Erie. Yielding skeletal remains of possibly as many as 2,000 individuals, this Late Woodland site has been described as likely "the largest prehistoric Indian cemetery yet discovered in North America" (Romain 1979: I, 40). Another writer has referred to the people of Libben as "probably ancestral Huron" and has reported dates of occupancy as falling between 700 and 1300 A.D. (Balz 1978: 26).

In contrast, though it is well within the cultural area of the older Glacial Kame burial cult of the Late Archaic period, Ottawa County thus far has revealed but few evidences of possible Glacial Kame occupation (Shriver 1982: 30). In his comprehensive study entitled *The Glacial Kame Indians*, Robert N. Converse has provided several maps which together highlight the absence of such evidence. One which shows sites known to be or suspected of being Glacial Kame indicates none for Ottawa County (9). Another, a distribution map of counties with five or more birdstones, shows a blank for Ottawa County (61). Still another, a distribution map of Ohio counties in which Glacial Kame gorgets have been found, though showing such finds for every county contiguous to Ottawa, again indicates none for Ottawa County (65). Nor have relevant articles in such diverse journals as *American Antiquity* and *Ohio Archaeologist* disclosed evidence of Glacial Kame presence in the Ottawa County area.

Because of past residence in Ottawa County, this writer's curiosity was challenged to visit the Ottawa County Historical Society Museum in Port Clinton to examine its archaeological collections in order to determine if there was anything there which might shed light on this matter. Interestingly, with the helpful cooperation of curator Elizabeth Denney, the two artifacts pictured in this article were disclosed which together suggest that, though not extensive, there was indeed a Glacial Kame presence in the Ottawa area.

The first is an unfinished birdstone of reddish-brown banded slate which was found by James W. Yensen and turned over to the museum on November 17, 1931 (see Fig. 1). Mr. Yensen lived on Route 163 just east of Port Clinton and south of Catawba Island near where the present by-pass entrance to Port Clinton is located. Measuring 4¾ inches in length and 2¾ inches in height, it is 1¼ inches in thickness in mid-section. Undrilled, the piece was evidently fractured in the process of finishing and then discarded. Converse (1978 *Glacial Kame Indians*: 64) has noted three recurring styles of birdstones in the Glacial Kame culture: "those with heads large in proportion to the short body and with a short tail; those which are long and slender with narrow heads, and often with eyes denoted by protuberances or banding in the slate; and those with a long slender neck and hook-like head. . . ." Clearly, the unfinished birdstone pictured here is of the first style.

The second Glacial Kame-type artifact is a variant of a coffin-shaped gorget of dark greenish-brown banded slate (see Fig. 2). Found by Earl Wendling, whose property was on the north side of the Portage River near its mouth on the west side of Port Clinton, the two-holed gorget is 8 inches long, 2¾ inches wide, and ½ inches thick at the mid-section. Four long cream-colored seams accent the obverse side of the piece (see Fig. 2), while 2 incised lines curve outward from the central perforation on the reverse side (see Fig. 3). Eight well-notched tally marks have been cut into the squared end while 36 lightly incised notched tally marks have been cut into the right edge of the obverse side and 22 into the left edge (see Fig. 2). Curiously, though the upper perforation evidences comparable drilling from both sides, the central perforation was drilled primarily from the reverse side with secondary drilling at an obtuse angle from the obverse side (see Fig. 2).

In his *Ohio Slate Types*, Converse has noted (1978: 52) that the coffin-shaped Glacial Kame gorget typically is "pointed at one end and squared at the other and has the general outline of a coffin or gothic window. There are the usual three holes although some are found with only two or even one hole. . . . Some unusually large examples are as long as 9 inches. Most are around 6 inches." While the upper end of the Ottawa County gorget does not come to a sharp point, it is pointed in contrast to the squared lower end. There is no mistake its coffin or gothic window outline. And, with its 8 inch length it is clearly within the customary range for very large gorgets of this type. Though tally marks evidently are not usually characteristic of Glacial Kame slate pieces, they are not unknown. Indeed, Converse in his *Glacial Kame Indians* has pictured an 8 inch banded slate Glacial Kame gorget with tally marked sides which was found on a surface near Roundhead in Hardin County (1978: Fig. 33, 72).

**CONCLUSION**

Though Glacial Kame burial sites are still unmarked and unknown in Ottawa County, typological artifacts such as the two shown here confirm Glacial Kame presence in Ottawa's Portage River area in Late Archaic times.

**ACKNOWLEDGMENTS**

To the curator of the Ottawa County Historical Society Museum, Mrs. Elizabeth Denney, goes appreciation for her many courtesies in permitting the study and photographing of items of interest in the museum's archaeological collections.

References

Baby, Raymond S.

Balz, Douglas

Converse, Robert N.


Martin, Paul S. and George I. Quimby, Donald Collier

Romain, William F.


Shriver, Phillip R.
Fig. 1 (Shriver) The unfinished bar-type Glacial Kame birdstone from the James W. Yensen Collection of the Ottawa County Historical Society Museum.

Fig. 2 (Shriver) Obverse side of the 8 inch long coffin-shaped Glacial Kame gorget of banded slate from the Earl Wendling Collection of the Ottawa County Historical Society Museum.

Fig. 3 (Shriver) Reverse side of the same gorget. The number “2” refers to the Earl Wendling Collection.
The rolling terrain of Northwestern Fairfield County usually does not offer much for the Amerind artifact hunter. The great centers of Woodland times are not present, and the Paleo fluted-point people, for the most part, seem to have hunted elsewhere. But, Archaic Indians found the region suitable, and their chipped art is everywhere. All pieces shown are from Greenfield Township, Ohio.

Artifacts in the frame are all field-finds for the spring of 1983; longest specimen (second row, far right) is 2 3/4 inches. These were collected from knolls along very small streams, on what can be termed minor Archaic sites. The lithic scatter was thin, but only three other collectors competed for the sites.

No especially rare points or outstanding specimens are shown. Flintridge material—due to the location about 30 miles from the quarry site—makes up 13 of the 49 pieces, Upper Mercer at least 18. Unidentifiable cherts are also present in number. Woodland artifacts are represented, plus the Mississippian triangles. One much-farmed Ft. Ancient site produced a personal record of sorts, 23 broken points, no perfect specimens.

The overall thrust of prehistoric occupation for this Township seems to be Archaic, in many forms. The area (or at least the dozen sites I hunt) is mainly Early Archaic, since very few slate pieces or ground-stone tools have been found. A lack of good rains for the period hunted contributed to the low number of finds. The total was 61 points or blades and over 200 broken items, including five drill sections.

One Late-Paleo or Piano site was hunted, which produced a number of lanceolate bases, some very beautifully chipped of high-quality flints. The location of the small Archaic sites suggests seasonal occupation for nut-gathering and hunting, but not fishing.
Results of the ASO Questionnaire

By
Scott Haskins
Columbus, Ohio

Late last year 2250 questionnaires were mailed to ASO members as an insert to the final issue of this magazine for 1982. Some 265 were returned that had been at least partially completed by the respondent. This is a return percentage of 11.77, more than double the rate considered successful for political or advertising queries. In addition, 21 notes or letters were forwarded to the editorial office; There were a number of people who elaborated on some aspect of the questionnaire or who wished to discuss ancillary topics.

The purpose of this survey was to ascertain the opinions of ASO members regarding the content and style of "Ohio Archaeologist" (20 questions) and the structure and conduct of the Society and its meetings (15 questions). Two hundred sixty two people answered at least some of the questions pertaining to the magazine. This was 98.86% of the number returned. One hundred seventy six people answered at least some of the questions pertaining to the Society and its meetings, or 66.41% of the total number who responded. This lesser figure is most likely due to the fact many ASO members reside out of state and are unable to attend meetings.

Devising an opinion/survey instrument that is high in validity (does it really measure what it purports to measure) and reliability (if it were administered several times would results be similar) can be surprisingly difficult, even for those with much experience in the art. Our form provided a 3-point graduated scale, yes-no sequences, and several open-ended questions. Not every respondent answered every question. Given the need to provide the membership with feedback in a reasonable amount of time and in recognition of the basic purpose of this survey, not every question was tabulated. An effort was made to scrutinize those questions that seem to address the concerns that have arisen within the Society most frequently over the years. In part one, the "Ohio Archaeologist" subjects/questions examined were:

1. Site reports by amateurs.
2. Site reports by professionals
4. Pictures of individual fine artifacts.
5. Pictures of general collections.
7. Reviews of archaeological reports and books.
8. Professional articles other than site reports.
11. Article on fake artifacts.
13. Would you favor inclusion of a condensed summary of Board meeting minutes?
14. Do you think the "Ohio Archaeologist" is too technical?
18. Is there a particular phase of archaeology or culture you would like to see emphasized and what is it?
19. Would you favor expansion of our reporting area to include adjacent states?

For part two, The Society and its Meetings, questions examined were:

1. Does the Society have too many meetings?
2b. Should picnic meetings be more centrally located?
4. Meeting display awards. Do you think there are too many not enough about right?
5. Do you think too many meeting awards detract from their value?
6. Do you think displays at meetings are well judged?
8. Is there a particular type program you would like to have at general meetings?
9. Would you prefer more programs by Society members and amateurs rather than professional archaeologists?
11. Is there any area in which you feel the Society meetings are weak?
11b. What would you do to change them?
14. Do you think the business portion of the meetings should be shortened?
14b. Or dispensed with?
15. What would you do to make our meetings more interesting?

Although not listed as response options on the questionnaire 12 people wrote that the magazine was too technical "sometimes." Fourteen people indicated that they would like to see larger and/or more frequent issues.

Procedure

For part one questions 1-14 and 19 were tabulated for total responses of any kind, this number as a percentage of the number of returned questionnaires, the total number in each response category, and these figures as a percentage of the number who answered the particular question. Many people listed more than one subject in reply to question 18. The most common preferences were listed and a count made of the times each was mentioned. Although not one person—one answer in nature clearly the most popular interests—among those completing and returning the questionnaire—would ultimately be mentioned the greatest number of times.

Similar procedures were used for part two. Questions 8, 11b, and 15 were handled like question 18, part one, described above.

Results

Following:
The Ohio Archaeologist

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Paleo-Plano</td>
<td>33</td>
</tr>
<tr>
<td>b. Archaic</td>
<td>20</td>
</tr>
<tr>
<td>c. Adena</td>
<td>17</td>
</tr>
<tr>
<td>d. Hopewell</td>
<td>15</td>
</tr>
<tr>
<td>e. Ft. Ancient</td>
<td>10</td>
</tr>
<tr>
<td>f. Historic Indians</td>
<td>9</td>
</tr>
<tr>
<td>g. Day-to-day life</td>
<td>8</td>
</tr>
<tr>
<td>h. Glacial Kame</td>
<td>8</td>
</tr>
<tr>
<td>i. Pottery</td>
<td>5</td>
</tr>
<tr>
<td>j. Woodland</td>
<td>4</td>
</tr>
<tr>
<td>k. Detailed site reports</td>
<td>4</td>
</tr>
<tr>
<td>l. excavation and documenting</td>
<td>4</td>
</tr>
<tr>
<td>m. Flint identification</td>
<td>4</td>
</tr>
<tr>
<td>n. Point type identification</td>
<td>3</td>
</tr>
<tr>
<td>o. Experimental archaeology</td>
<td>2</td>
</tr>
</tbody>
</table>

**Although not given as a response to one particular question 14 people wrote, in various parts of the questionnaire, that they would like to see either larger or more frequent issues of the magazine. Several added that they would not object to a price increase to help accomplish this. Two people suggested having a question and answer column.**

***Articles by Robert N. Converse were most often cited as especially interesting or as having made an impression on the reader.***

The Society and its Meetings

<table>
<thead>
<tr>
<th>Subject</th>
<th>Total Answered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does Society have too many meetings?</td>
<td></td>
</tr>
<tr>
<td>More</td>
<td>41/23.29%</td>
</tr>
<tr>
<td>Fewer</td>
<td>2/ 1.13%</td>
</tr>
<tr>
<td>Same Number</td>
<td>133/75.56%</td>
</tr>
<tr>
<td>Total Answered</td>
<td>176/66.41%</td>
</tr>
<tr>
<td>2b. Should picnic meetings be more centrally located?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>88/57.14%</td>
</tr>
<tr>
<td>No</td>
<td>66/42.85%</td>
</tr>
<tr>
<td>5. Do too many awards detract from their value?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60/36.80%</td>
</tr>
<tr>
<td>No</td>
<td>103/63.19%</td>
</tr>
<tr>
<td>6. Do you think displays are well judged?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>119/85.61%</td>
</tr>
<tr>
<td>No</td>
<td>20/14.38%</td>
</tr>
<tr>
<td>9. Would you prefer more programs by Society members and amateurs rather than professional archaeologists?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>74/47.13%</td>
</tr>
<tr>
<td>No</td>
<td>83/52.86%</td>
</tr>
<tr>
<td>11. Is there any area in which you feel Society meetings are weak?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32/31.68%</td>
</tr>
<tr>
<td>No</td>
<td>69/68.31%</td>
</tr>
<tr>
<td>14a. Do you think the business portion of the meeting(s) should be shortened?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>55/43.30%</td>
</tr>
<tr>
<td>No</td>
<td>72/56.69%</td>
</tr>
<tr>
<td>b. Or dispensed with?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>10/ 8.54%</td>
</tr>
<tr>
<td>No</td>
<td>107/91.45%</td>
</tr>
</tbody>
</table>

2b. Sometimes

12/4.65%
8. Is there a particular type program you would like to have at general meetings?
   a. Identification of fakes—8
   b. Excavation techniques and site interpretation—5
   c. A series of speakers on one main theme—3
   d. Pipes—3
   e. Pottery—2
   f. Color slides of flint types (deposits)—2
   g. How to surface hunt—2
   h. Flint flaking techniques (knapping?)—2
   i. Introduction to common terminology—2

11b. What would you do to change the Society’s meetings?
   1) Have professionals available to answer beginners’ questions—5
   2) Remove fake artifacts being offered for sale—4
   3) Reduce the number of dealers at ASO meetings—4
   4) Hold more mini-sessions—3
   5) Eliminate artifact sales—2
   6) Eliminate noise during business meeting and speaker’s talk—2
   7) Provide more guidance for exhibitors—2
   8) More structure to meetings—2
   9) More technical data—2
   10) More emphasis on personal finds—2

15. What would you do to make our meetings more interesting?
   a. Knowledgable people more willing to answer questions—4
   b. Professional teaching and advice more available—3
   c. More detail and explanation of surface finds—3
   d. Point out fakes and remove them—3
   e. Show films more often—3
   f. More mini-sessions—2
   g. Hold a mini-auction—2
   h. Bring back the raffle—2
   i. A short talk by award winners—2
   j. A shorter time allotted to the main speaker—2
   k. More educational displays—2

*Presentations by Martha P. Otto were most often cited as especially interesting or as having made an impression on the listener.

The complete list of suggestions for program topics and of ideas to enhance the diversity of overall meetings agendas has been forwarded to ASO President Mike Kish and program committee chairman Martha Otto.

Finally, it should be mentioned that participation was as impressive in terms of geographic range as it was in number of actual respondents. We heard from members residing in the Carolinas, New York City, and as far west as Arizona, to name just several locales. Clearly, the “Ohio Archaeologist” is, effectively, the entire society to people so far from our general meetings and summer picnic meetings. We are proud that they support the ASO with their subscriptions. We thank everyone, out-of-state residents and Ohioans, who helped in this project.
A Bird Effigy Pipe From the Philo II Site

By
Larry Edmister
St. Louisville, Ohio

Continuing excavations at the Philo II Site in Muskingum County have produced the fine bird effigy pipe shown in the accompanying photographs. The pipe was an isolated find in one of over 200 refuse pits excavated at this site. This is the first effigy pipe from the Philo II Site, although four effigy pipes have been found on the closely related and nearby Richards Site. Radio carbon dates indicate that the Philo II was occupied around A.D. 1230-A.D. 1260 and the neighboring Richards Site possibly one generation, 15 to 20 years later. (Carskadden and Morton—1977).

Although most Fort Ancient pipe specimens are simplistic in design and apparently were crafted with an eye on practicality and extended use, this pipe while highly stilized is well crafted with equally balanced and proportioned features. With the exception of the beak, all other features are either incised or drilled.

The pipe is made from a yellowish limestone. The upper portion from the stem aperture to the top is reddened, possibly caused by heat in the bowl from usage. The height from the lip of the bowl to the bottom of the tail is 7.1 cm. The maximum exterior diameter is 3.5 cm.; with the exterior bowl diameter at the lip being 2.8 cm. The interior bowl diameter is 1.7 cm. The interior diameter of the stem aperture is 1.3 cm.

References
Carskadden, Jeff and James Morton
1977 The Richards Site and Philo Phase of Fort Ancient Tradition.
Nearly everyone is familiar with the Feurt Hill pipestone deposits. This stone was used for a great many smoking pipes by prehistoric Indians from the Archaic through the Fort Ancient periods. In the spring of 1983, I found this nearly finished tubular pipe less than one mile from the Feurt quarries. It is made of the classic red-orange stone typical of this Scioto County deposit.

The pipe is eight inches long and the bowl is one inch in diameter. The stem hole is approximately one quarter inch in diameter. The outer surface is not smoothly finished and only partial polishing is present although in all other respects the pipe is complete.

This type pipe has been associated with late Archaic, Glacial Kame and Adena.
Report on the Knight Hollow Rockshelter

By
Gary Felumlee
Zanesville, Ohio

Introduction
Throughout the hinterlands of southeastern Ohio occur numerous rockshelters in local sandstones. Many of them show evidence of human occupation. The Knight Hollow Rockshelter is such a shelter, located on the east side of Kent Run, section one, in the northwest corner of Newton Township, Muskingum County, Ohio. I first visited the site in 1973, finding it in a disturbed state. Flint chips, bone fragments, and an occasional sherd of pottery were found scattered over the embankment at the mouth of the shelter. A sifting screen was discovered within the confines of the shelter itself. Test excavations within the shelter, because of this previous disturbance, proved void of cultural material. Testing at the base of the embankment, however, proved of interest.

After this initial testing at the site I was informed that the shelter had been dug nine years before (in 1964) by three local amateurs. I learned that the collection from the shelter was still intact and it was examined and photographed. This study represents an analysis of all material recovered from the Knight Hollow shelter.

Description and Excavation
The Knight Hollow Rockshelter is a spacious room-like structure with a ceiling averaging six feet two inches above the present floor. It is 38 feet in length and 14 feet deep at its greatest depth. The ceiling is six feet in height to within three feet six inches of the back wall.

In 1973, three four-by-four-foot squares were excavated by this author within the shelter. Because of the previous disturbances they were found to contain no cultural debris. The base of the embankment below the shelter was also investigated. Twelve five-by-five-foot squares were used in conjunction with six-inch depth intervals. As in the shelter, no stratigraphy was found. However, this area did produce an assortment of material, to a depth of 36 inches, where bedrock was encountered. More than 100 flint chips, 77 bone fragments and 24 pot sherds were found in the first square alone. Two foil gum wrappers recovered confirmed that the base of the embankment was a spoil pile from the previous dig.

Salvage operations continued through the remainder of 1973 and into 1974. Numerous point types, bone fragments and pot sherds were uncovered. In 1975, I excavated a final four-by-four-foot square within the shelter. It was adjacent to a large Pin Oak tree at the southern extreme of the shelter, and protected by the tree's root system from the earlier excavators. At a depth of one foot six inches below the floor of the shelter, the only feature was discovered. This feature consisted of a three-fourths complete fire hearth, loosely lined with rock, with a diameter of two feet. Directly west, adjacent to, and at the same level, was a base of a large Hopewell point. A quantity of charcoal was recovered, but the absence of any diagnostic artifacts within the feature itself, and the fact that a portion of the hearth had been disturbed by the previous excavation, has discouraged any attempt to radiocarbon date the feature.

Chipped Stone Tools
The Knight Hollow Rockshelter produced forty-seven complete or fragmentary projectile points. These are classified as to type (according to Converse, 1973) and raw material in Table 1 below. Figures 3 through 8 illustrate these points. Occupation of the shelter ranging from Archaic through Fort Ancient is indicated by these artifacts.

Other than projectile points, chipped stone tools are not in great abundance in the Knight Hollow shelter collection. Diagnostic artifacts include one intrusive Mound Phase drill, six Hopewell parallel-sided bladelets, one Hopewell blade core, three Chesser square-based bifacial knives (Prufer, 1967), and two intrusive Mound Phase preforms. In addition, three retouched flint flakes, possibly used as perforators, one 4½" by 6" hide scraper, five small scrapers, four uniface blades, and six crude cores complete the chipped stone tally.

Flint Sources
Two distinct materials were utilized by the inhabitants at the shelter for their flint tools and projectile points. These are Upper Mercer flint and Flint Ridge (Vanport) flint. The chippage sample collected during my excavations contained 2227 specimens of which 51.8% is Upper Mercer and 46.4% is Vanport. The presence of large pieces of raw material at the shelter would suggest the proximity of the site to the flint sources. Figure 1 (adapted from Morton and Caraskaden, 1972) shows the location of these flint deposits in relation to the shelter: Flint Ridge lies seven to eight miles upstream from the shelter while Perry County Upper Mercer deposits lie about an equal distance to the south.

Ground Stone Tools
With the exception of hammerstones of local sandstone, ground stone tools are not common. The list of specimens includes: three quartzite and two granitic hammerstones from glacial gravels, two concretion cups, one broken concretion dish-shaped object, one broken hide plate plummet, one concretion bead, one chunk of limonite (yellow ochre), one piece of faceted hematite, and one small broken fragment of a granitic ax or cel t. Samples of this assemblage are illustrated in Figure 9-10. A hexagonal undrilled sandstone disc with smooth edges, measuring 1½ inches in diameter is also included in this assemblage.

Bone and Shell
Though bone and shell refuse was not saved by the first excavators, over 1000 bone fragments and numerous deteriorating shell fragments were collected during my excavations at the shelter. Vertebrate species identified among the cracked and fragmentary bones include white-tailed deer, beaver, opossum, short-faced Indian dog, gray fox, skunk, grey squirrel, woodchuck, muskrat, rabbit, wild turkey, box turtle, and snapping turtle. In excess of 90% of this bone refuse appeared to be deer.

Shell material, excluding indigenous snails, consisted of fresh-water, small stream, mussel shells. Ambraea castanea and Eilipto dilatatus were the only specimens identified. None of the shell material showed any modification by man for use as tools.

The bone tool industry is meager but several specimens of interest are noted. Three bone beads and one beadstock fragment were recovered. Three splinter bone awls, two bone chisels, two antler projectile points, one bone "spoon-like" tool (gouge) and three use-modified or "expedient tools" fashioned from split long bone fragments (Prufer, 1981), complete the bone industry from the site (see Figure 11).

Ceramics
The ceramics present at the Knight Hollow Rockshelter are a very important part of the artifact assemblage. Table 1 lists the number of vessels assigned to each pottery type. They represent a progression from Adena to Fort Ancient. Figures 12-15 illustrate the pottery types present at the site.

Adena Plain—Adena Plain is the earliest type of pottery present at the shelter. Six grit tempered rims, one base, and fifty body sherds were recovered. A minimum of four vessels are
represented in the sample. This Late Adena pottery type has been radiocarbon dated between 400-200 B.C. at several nearby Adena sites, including the Buckmeyer site three miles to the southwest in northern Perry County (Bush, 1975), and at an Adena house site along the Muskingum River near Philo (Carskadden, 1982).

Hopewell Simple Stamped—One vessel is present to represent the Hopewell culture at Knight Hollow. This vessel is grit tempered with an outward flaring rim and with stamped, overlapping impressions on its body. One rim and three body sherds were collected in 1964. No additional sherds were found in the later excavation. The vessel represented at Knight Hollow may have been carried in by Hopewell people from the Scioto Valley, possibly on a flint collecting excursion since this pottery type has not been noted by Carskadden (pers. comm.) or the author at Hopewell sites along the Muskingum or Licking rivers. At these sites McGraw Cordmarked is the only pottery type recovered.

Untyped Limestone Tempered Ware—Three cordmarked limestone tempered body sherds and two plain rims were recovered from the shelter. Two vessels are represented and likely represent a Hopewell or Late Woodland occupation at the site.

Peters Cordmarked—Two non-collared, grit tempered, cordmarked rims representing two vessels were present at the site. One exhibited cordmarking to the lip (but not on the lip itself) while the other sherds showed some smoothing just below the lip. These closely resemble the early Late Woodland Peters Cordmarked ceramic type (Prufer, various dates). This type probably dates between A.D. 600 to A.D. 850 in the Muskingum Valley. The six Chesser points from the shelter are probably associated with this pottery.

Coles/Baldwin Related Pottery—The majority of the pottery occurring at the Knight Hollow Rockshelter appears to fall in this category. Thirty-four rim sherds and numerous body sherds were collected. All are grit tempered with cordmarking or smoothed-over-cordmarking. The cord used to make the impressions exhibits an “S” twist and is two ply. A minimum of seven vessels is noted. Five of these vessels (32 rim sherds) have cordmarked collared rims, some with castellations (apparently four per vessel). One cordmarked collared vessel exhibits punctates decorating the castellation, as does a specimen from the recently excavated Locust Site along the Muskingum River, radiocarbon dated to A.D. 1240 (Brown, 1982). The final vessel falling within this time period—of about A.D. 1100 to A.D. 1250—exhibits deep notching of the lip and is cordmarked and grit tempered with no collaring. Surface treatment of the 608 body sherds can be broken down into three categories: 35.5% are cordmarked, 38.3% show some smoothing, and 26.1% appear mostly smoothed.

The cordmarked, collared, castellated vessels from Knight Hollow are quite similar to the ceramics recovered from the Locust Site, just mentioned, as well as from early 13th century Baldwin Phase Fort Ancient sites along the Hocking River (Murphy and Graham, 1982), and especially 12th and early 13th century Cole pottery from central Ohio (Potter, 1966).

Untyped Carinated Vessel—One vessel of this type is represented at the site by two smoothed-over-cordmarked, grit tempered body sherds from the carinated portion of the bowl. Each shows a row of reed punctates on the carination. A similar vessel was noted from the Philo II site (Gartley, et al., 1976) and more recently at the Richards site (Carskadden, pers. comm.). These Fort Ancient sites have been radiocarbon dated between A.D. 1230 and A.D. 1290.

Fort Ancient Philo Punctate—Philo Punctate pottery from the shelter was originally discussed by Foraker (1974), though a larger sample is now available for study. Fifty-eight smooth-surfaced shell tempered body sherds were found at the shelter, two of which were decorated with punctates. Two smooth-surfaced shell tempered rims, both decorated with punctates, were also found. This pottery is probably associated with most of the triangular projectile points from the shelter, and indicates that Fort Ancient peoples were coming up the Jonathan Creek drainage from their villages along the Muskingum during the mid-13th century.

Summary

The significance of the Knight Hollow Rockshelter lies in its location. Kent Run drains much of the region south and east of Flint Ridge, and not only is the shelter located mid-way between the Ridge and the equally important Perry County Upper Mercer deposits, but also the site is strategically situated mid-way between these two flint deposits and the Muskingum River. Major village sites of all the cultures represented at the shelter have been noted along the Muskingum. The shelter would have been a convenient and likely stop over point for prehistoric travelers from Archaic through Fort Ancient times on their way to the flint quarries.

The relative abundance of Coles/Baldwin collared ware at the site, corresponding with the numbers of triangular points and Late Woodland raccoon points would suggest that the most intense occupation occurred in very late Late Woodland and early Fort Ancient times. The fact that ceramics were so abundant suggests that the shelter served for more than just a stop-over for male hunting parties. It may have been seasonally occupied by small family groups.

The Knight Hollow Rockshelter served as a shelter from the elements for the early inhabitants of Muskingum County and serves as a reminder to us that even disturbed sites can produce materials of importance in our quest for knowledge of the prehistoric inhabitants of Ohio. It is the author’s hope that this report will add to the archaeological record of the Muskingum Valley and southeastern Ohio and encourage others to reconsider sites that in the past have been ignored, due to previous disruption.

References


Prufer, Olaf H. 1967 Chesser Cave, a Late Woodland Phase in Southeastern Ohio. Studia in Ohio Archaeolagy, edited by Olaf H. Prufer and Douglas McKenzie. The Press of Western Reserve University, Cleveland.

1981 Raven Rocks, a Specialized Late Woodland Rockshelter Occupation in Belmont County, Ohio. Kent State Research Papers in Archaeology, Kent State University Press, Kent, Ohio.
Table 1 (Felumlee) Tabulation of projectile points from the Knight Hollow shelter by type and raw material.

<table>
<thead>
<tr>
<th>Type</th>
<th>Upper Mercer</th>
<th>Flint Ridge</th>
<th>Brush Creek</th>
<th>Total No. of Specimens</th>
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<tr>
<td>Fort Ancient Triangles</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Intrusive Mound Phase</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Chesser Points</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Hopewell Points</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Adena Points</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Ashtabula Points</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Late Archaic Stemmed</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Shriver/Gilbert</td>
<td>-</td>
<td>7</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Brewerton Fishspear</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Archaic Corner Notched</td>
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<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>St. Albans Point</td>
<td>-</td>
<td>-</td>
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<td>1</td>
</tr>
</tbody>
</table>

Table 2 (Felumlee) Pottery types from the Knight Hollow shelter.

<table>
<thead>
<tr>
<th>Type</th>
<th>No. of Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philo Punctate</td>
<td>2</td>
</tr>
<tr>
<td>Untyped Carinated</td>
<td>1</td>
</tr>
<tr>
<td>Cole/Baldwin Collared</td>
<td>7</td>
</tr>
<tr>
<td>Peters Cordmarked</td>
<td>2</td>
</tr>
<tr>
<td>Untyped Limestone Tempered</td>
<td>2</td>
</tr>
<tr>
<td>Hopewell Simple Stamped</td>
<td>1</td>
</tr>
<tr>
<td>Adena Plain</td>
<td>4</td>
</tr>
</tbody>
</table>

Fig. 1 (Felumlee) Sketch map of portions of southwestern Muskingum, eastern Licking, northeastern Perry, and northwestern Morgan counties showing the location of the Knight Hollow Rockshelter (X) in relation to the Muskingum River and flint outcrops.

Fig. 2 (Felumlee) Floor plan and profile of Knight Hollow Rockshelter.

Fig. 3 (Felumlee) Triangular points from the Knight Hollow Rockshelter.
Fig. 4 (Felumlee) Intrusive Mound Phase artifacts from the Knight Hollow Rockshelter: top row, progressing from left to right, Jack's Reef Corner Notched points to Raccoon Notched points; bottom row, blanks for the above point types and a drill.

Fig. 5 (Felumlee) Chesser points from the Knight Hollow Rockshelter.

Fig. 6 (Felumlee) Hopewell artifacts from the Knight Hollow Rockshelter, including parallel-sided bladelets, blade core, and projectile points.
Fig. 7 (Felumlee) Adena point, Late Archaic stemmed points, and Ashtabula points from the Knight Hollow Rockshelter.

Fig. 8 (Felumlee) Archaic points from the Knight Hollow Rockshelter, including top row, six Shriver/Gilbert points, and bottom row, St. Albans point, Archaic corner notched point, and Brewerton Fishspear point.

Fig. 9 (Felumlee) Large hide scraper and two large crude core chunks from the Knight Hollow Rockshelter.
Fig. 10 (Felumlee) Ground stone artifacts from the Knight Hollow Rockshelter: top row, concretion cup, cylindrical-shaped lump of yellow ochre, and granitic hammerstone; bottom row, concretion "paint cup", concretion bead, and hematite plummet.

Fig. 11 (Felumlee) Bone and antler artifacts from the Knight Hollow Rockshelter, including top row, antler tine points, bone beads and beadstock; bottom row, splinter bone awls, bone "chisels", and three "use modified" bone tools.

Fig. 12 (Felumlee) Adena Plain rims and an incised flat base from an Adena Plain pot from the Knight Hollow Rockshelter.
Fig. 13 (Felumlee) Hopewell Simple Stamped rim sherd from the Knight Hollow Rockshelter.

Fig. 14 (Felumlee) Rim sherds from a colored, castellated Cole/Baldwin related vessel from the Knight Hollow Rockshelter.

Fig. 15 (Felumlee) Additional Cole/Baldwin related rim sherds and (bottom row, far right) two Philo Punctate rims, from the Knight Hollow Rockshelter.
Chips Off The Same Block

By
John R. Heath
Box #82, Sullivan, Ohio 44880

The two knives pictured (Fig. 1) were surface finds by the author. They were found in Sullivan Twp., Ashland Co., Ohio. The large piece (N-10) was found on a small campsite close to Black River, and the smaller piece (R-25) was found about two miles north east of the river on a high ridge. The larger knife clearly shows where the smaller knife was fractured from it. Both pieces were percussion and pressure flaked after separation. Quite often in a cache of blades matching pieces will be found, but rarely in surface finds.

The material goes from grey to purple to a cherty brown on the extreme top end. It probably is of glacial origin.

Knife (N-10) is 4 in. long—1 1/2 in. wide—3/4 in. thick. Knife (R-25) is 3 1/4 in. long—1 1/8 in. wide—3/4 in. thick.

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Fig. 1 (Heath) Two knives made from the same block of flint.
The Sycamore Run Chapter was formed in the fall of 1982 through the leadership of our president, Paul Ford. The group became an official part of the Archaeological Society of Ohio at the March, 1983, meeting, with the awarding of our charter, to Paul Ford. After becoming part of the state organization we were approached by Mike Kish, President of the A.S.O., and asked if we would be interested in presenting a mini-seminar at the annual meeting to be held in May of this year. Realizing that a chapter project would help pull our group together and give our members an opportunity to learn first hand about archaeology, the group accepted Mike's offer. We decided that surface survey would be the topic of our seminar.

Once our topic was selected, we needed a site to survey. Several meetings were held at the local coffee shop and there it was decided that a site discovered by one of our members, Howard West, would be the site used. The site would be named the Sycamore Run Chapter Site.

The Sycamore Run Chapter Site is located in Fairfield County a few miles from Buckeye Lake (along Walnut Creek). It was chosen because the artifacts that were previously found by Howard, pointed to a strong Middle Woodland occupation.

The group arrived at the site on April 9, 1983, and prepared to use three basic surface survey methods: the walk through survey, the flag survey, and the grid survey. Unfortunately that day greeted us with extremely cold, and very wet weather. But that did not hamper the group's enthusiasm, as we started the survey by using the simplest technique called a walk through survey.

A walk through survey is very similar to surface hunting in an open field; you walk through the field (hence the name) looking for artifacts. The difference between this survey and ordinary surface hunting is: one member of the group carries a piece of graph paper with a basic sketch of the area drawn on it and each time an artifact is found, the estimated area is located and marked on the graph paper. This way you have a written record of where artifacts have come from in relation to each other in that particular field. As our group went through this technique we found we had much more information than could be handled easily on this type of map. We decided this would be a good place to do a more detailed survey. The next survey we did was the flag survey.

A flag survey consists of walking through the field and when an artifact is found, placing a flag in the ground to mark the exact location. After the entire area has been covered and flagged, a very accurate map can be drawn on graph paper by pacing the distances the flags are from each other, and pacing the distances from the flags to the edge of the field. By using the methods of pacing for estimating distances, you have a good beginning to be able to draw the map to scale. Also the map is fairly accurate in showing the location of the artifacts in relation to each other.

Because of the intense, concentration of artifacts that were found, we decided to do just a portion of the site in a grid survey. The grid survey consists of setting up a base line with sections marked set distances apart. (We used two meters but other distances could be used as well.) The chains or ropes are then laid perpendicular to the base line to form the grid. Once the squares are formed a map is drawn of the grid and everything in each square is collected and placed in a plastic bag. Each bag is given a slip of paper which locates the square, where the bag came from, tells the date, and who collected the artifacts. Once all the squares are collected, the material is then taken from the field to be washed and catalogued, by giving them a number that corresponds to its location on the grid map. Using this numbering system an extremely accurate map can be drawn showing relationships of the artifacts, concentrations of flint debris and many other interesting things.

Over a period of several weeks all the artifacts that were found in the survey were washed, numbered and catalogued. The artifacts that were collected were made mostly of Vanport (Flint Ridge) Flint. While most of the artifacts were predominately Middle Woodland, a few were Archaic and Adena.


<table>
<thead>
<tr>
<th>points</th>
<th>Corner Notched</th>
<th>Middle Woodland</th>
<th>Side Notched</th>
<th>Archaic</th>
<th>Adena Stem</th>
<th>Middle Woodland</th>
<th>Middle Woodland broken</th>
<th>Arch.-Lake Erie</th>
<th>Hafted Scraper</th>
<th>Fa-185</th>
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<th>Fa-187</th>
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<tbody>
<tr>
<td>drills</td>
<td>Classic Woodland</td>
<td>Cores</td>
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<td>Bladelets</td>
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<td>bifaces</td>
<td>bifaces broken</td>
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<td>Fa-186</td>
<td>Fa-187</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pottery</td>
<td>Rim Sherd</td>
<td>Body Sherd</td>
<td>Cord Marked</td>
<td>Grid Temp.</td>
<td>Gorget broken</td>
<td>Gorget unfinished</td>
<td>Hemitite</td>
<td>14*</td>
<td>32*</td>
<td>46</td>
<td>2</td>
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</tr>
<tr>
<td>Fa-185</td>
<td>1</td>
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<td>Fa-186</td>
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<td>32*</td>
<td>46</td>
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<td></td>
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</tr>
</tbody>
</table>

*denotes some of the same artifacts

The total tools collected were 500, also about 1,000 flakes and raw material artifacts were found. From the material found in our surface survey we established this site as being basically Middle Woodland and extremely interesting.
MAP OF THE STRAIT SITE—Scale 1" = 50'.
Contour Interval Equals 10 Feet.

Fig. 1 (Sycamore Run Chapter) Artifacts gathered from the surface of the Strait site.

Fig. 2 (Sycamore Run Chapter) Classic Hopewell bladelets.

Fig. 3 (Sycamore Run Chapter) Discoverer of the site, Howard West making field notes.

Fig. 4 (Sycamore Run Chapter) Chapter members doing field survey.

Fig. 5 (Sycamore Run Chapter) Each member was assigned a 2 meter square.
Trapezoidal pendants have been described by Robert N. Converse as "the most numerous of any of the pendant forms." (1978: 82) He has also observed that "engraving is found on some types of slate artifacts more frequently than on others; most of it seems to be on trapezoidal or square pendants and on rectangular two-hole gorgets..." (1978: 104) Pictured here is a heavily engraved trapezoidal pendant found in Crawford County, Ohio. Originally part of the Charles Cherry Collection, it was acquired by the author in January 1955. Shaped from dark greenish-black banded slate, it measures 3¾ inches long by 1½ inches wide at its greatest extremities. Its narrow top is 1½ inches wide while its base is 1½ inches in width. At mid-section it is ¾ inches thick; it tapers to ¼ inches in thickness at either end. Its single perforation has been drilled nearly evenly from both sides and is less than an inch from the top of the piece. Thin and well made, it is unusually symmetrical in outline. Evidencing some wear from long use, it has minor damage in the form of nicks at the center top and lower right-hand corner on the obverse face (see Fig. 1) and in the upper right-hand corner on the reverse face (see Fig. 2).

What makes this piece particularly interesting is the extensive engraving on both faces. Indeed, it is one of the most extensively prehistoric objects this writer has seen. From the perforation on the obverse face (Fig. 1) radiate 34 short lines of nearly equal length. Four short and six long vertical lines and one short horizontal line across the top on that same face intersect rows of parallel incisions, one side only, appearing almost as feathering on a quill. On the reverse face (Fig. 2), curiously, appear no markings about the perforation, though two long vertical lines intersect comparable rows of parallel incisions, again suggesting feathering on a quill, as on the other face. Most interesting of all, on the reverse face are three long zig-zag lines in parallel from one side of the pendant to the other, the three together possibly suggesting a bird in flight.

Engraved trapezoidal pendants found in northern Ohio are probably of Adena or Hopewell cultural origin. There is no reason to believe otherwise of this one.

References

Converse, Robert N.
A Quartzite Fluted Point

By
Jim Hovan
16979 S. Meadows Circle, Strongsville, Ohio

The fluted point shown in obverse and reverse in Fig. 1 was found at Leetonia, Salem Township, Columbiana County, Ohio, around eighty years ago. It is made of yellow quartzite, a material found in very few Ohio points of any type. The use of this difficult stone shows the complete mastery of chipping by the Paleo Indian flint knapper.

Fig. 1 (Hovan) Obverse and reverse of a quartzite fluted point from Columbiana County, Ohio. Actual size.
Suggestions For Exhibiting Site Displays

By Thomas C. Grubb
Mt. Vernon, Ohio

Winning the “Best of Show,” “Best Type Display,” or “Best Field Collection” award is a goal sought by many ASO members at each meeting. In reality, it may only represent a reward for good luck in the field or spending enough money to buy rare or beautiful Indian artifacts. Contrariwise, the award for “Best Site Display” usually represents considerable effort in the field, some knowledge of Ohio archaeology, a little intellectual effort in organizing the display plus some artistic ability to prepare an award-winning exhibit. Unfortunately most of the site exhibits that I have seen during the past eight years were unsatisfactory by failing to be logically organized, poorly presented to the extent of being sloppy and lacking important information about the site. Recently I exhibited two site displays which received a first and second place award as well as many complimentary comments from the members. Assuming that this success gives me some authority for offering ideas to members seeking award-winning site displays, I am submitting the following suggestions.

A satisfactory site display should follow the classical recommendations for writing a good newspaper report: tell who, what, where and when about the event. The “what” and “where” are clearly established by stating the name and location of the site in the title of the display. (A specific site number should be given if it is known, e.g. 33B1116). If possible, a portion of a county or township map should be shown with an arrow pointing to the exact location of the site. In my displays this was feasible because the sites were located on private property adjacent to the owner’s house where trespassers could be easily seen. However, where the site is readily accessible to vandals or pothunters it may be advisable to show only the general location.

Some general suggestions for a good display are the following: Mount all photographs, artifacts, maps etc. on a large (3 x 4 feet) white cardboard backed by a piece of half-inch plywood or pegboard. Starting with the site location, arrange the maps, photos and artifacts in a logical manner reading from left to right. An appropriate caption typed in capital letters should be fastened just above or below each object or picture. Be certain that all lettering is neatly done so use press-on letters obtainable at stationary stores, as I did. Try to place the photos, artifacts etc. in a generally symmetrical arrangement since most collectors seem to feel that symmetry is the sine qua non in displaying artifacts!

Photographs of the site are essential and should clearly show where it was excavated and/or surface collected. Black and white photographs must be sharp, properly exposed and printed with a full scale of contrast. While color photographs are often striking, black and white prints may show greater detail. Pictures should not be smaller than 5 x 7 inches and neatly mounted with an explanatory data typed immediately above or below. When some special or unusual method of locating or surveying the site is used, an adequate amount of space should be devoted to this feature. For example, in the Grubb site shown in Fig. 2e, a grid plot of the exact location where the artifacts were found was given a major portion of the space.

Probably the most interesting section of a site display for most ASO members is the artifacts for which I would make several suggestions. Don’t try to include all of the artifacts found but show only one or two of the most perfect or unusual of each type. If it is necessary to include a broken point, indicate what the complete point looked like by adding dotted lines (Fig. 1e). Organize the arrangement of the artifacts in some logical manner, usually a chronological order is the most informative, as shown in Fig. 1e and Fig. 2f. Attachment of the artifacts to the display board may be done in several ways. I attached the projectile points with Duco cement; however, heavy celts, axes etc. may require a more substantial support. Enclosing each artifact, photograph etc. in a line frame vastly improves the impact of the display on the viewer.

One of the ASO requirements for site displays is an accompanying write-up of the display for the judges to examine while viewing the exhibit. This should be typewritten, preferably with photographs, and include a detailed explanation of how the artifacts were found, the number and identification of each type of projectile point or sherd and any other information which will contribute to knowledge of the prehistoric use of the site. The following is a brief summary of the conclusions I was able to draw from the location and artifacts found at the two sites.

THE GRUBB SITE

The Grubb site is located near a small branch of the Big Walnut creek and what appears to have been a very large walnut grove. The area has been cultivated for over 100 years with artifact collectors scouring the fields for the last 75. It is therefore surprising that so many artifacts have been found by the present owners during the past eight years. Since most of the artifacts shown in the site display were surface finds there is no way of knowing whether the fishspears point makers lived here in large numbers or smaller groups visited more often than Indians making other point types. There is, of course, another possibility that the same Indians who made the fishspears also made the fishspears and other Archaic points for different purposes. (The origins and chronological sequence of the Archaic Indians in Ohio are poorly documented). An appreciable number of large uniface blades were picked up which could mean that the inhabitants were engaged in skinning animals such as the white tailed deer, fox, racoon etc. Not only did the Indians find the McDonald site an ideal place to live but so did an early Ohio pioneer because he built his cabin here leaving behind an 1827 copper U.S. penny, the stem of an English clay pipe (ca. 1850) and many fragments of English china.

THE Mc Donald SITE

The McDonald site is located on a high terrace above a small branch of the Kokosing river which was considerably larger several thousand years ago. Obviously fish and shellfish were readily available as well as an unlimited supply of black Upper Mercer flint several hundred yards away. Since only Plano-Complex and Archaic points were found, the site was apparently not occupied by Indians in subsequent years. Approximately 25% of the debitage consisted of very small, thin flakes 1-3 mm. long. Very few large flakes or hammerstones were found suggesting that most of the work here consisted of pressure flaking with bone tools. "Fire cracked" rocks were abundant but almost never showed any evidence of being in direct contact with fire which might indicate that they were used as "boiling stones" in some way. The so-called fishspears point was 4-5 times more abundant than the other point types but since most of the points were surface finds there is no way of knowing whether the fishspears point makers lived here in large numbers or smaller groups visited more often than Indians making other point types. There is, of course, another possibility that the same Indians who made the fishspears also made the fishspears and other Archaic points for different purposes. (The origins and chronological sequence of the Archaic Indians in Ohio are poorly documented). An appreciable number of large uniface blades were picked up which could mean that the inhabitants were engaged in skinning animals such as the white tailed deer, fox, racoon etc. Not only did the Indians find the McDonald site an ideal place to live but so did an early Ohio pioneer because he built his cabin here leaving behind an 1827 copper U.S. penny, the stem of an English clay pipe (ca. 1850) and many fragments of English china.
in specific areas. Also since it is known that artifacts have been picked up here for so many years it is impossible to estimate the relative number of people in the different cultures, based upon the number of different artifacts found by the present owners. The firepit shown in Fig. 2b was the only "feature" found which must have been made by one of the earliest cultures since it was approximately eight inches below the plow zone. A sample of charcoal was carefully taken to avoid contamination, placed in a clean glass jar with a screw-on lid and tightly bound with plastic tape around the edge of the lid. However, when the jar was examined several years later, water droplets could be seen deposited on the inside of the glass indicating that moisture had condensed after the jar was closed. Since it is known that under such conditions molds and bacteria will grow producing unreliable C\textsubscript{14} dates, no attempt was made to submit a sample for an assay. The charcoal should have been thoroughly dried before it was sealed in the jar.

Many professional archaeologists are justifiably antagonistic toward collectors because they remove artifacts from the site which forever destroys any hope of learning as much as possible about its prehistoric occupants. However, a good site display at least enables us to learn something about the people who lived there thousands of years ago.

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Fig. 1 (Grubb) A. Section of Knox county map showing site location. B. Stakes indicating location of site by use of the phosphate test. C. Location of site on terrace above the stream. D. Test excavation showing soil layers above and below plow zone. E. Artifacts arranged in chronological order. F. Stakes marking 5 ft. squares for excavation. G. High school class excavating and screening soil. H. Pile of firecracked rocks indicating only feature located.

Fig. 2 (Grubb) A. Section of Morrow county map showing site location. B. Fire pit below plow zone. C. Collecting charcoal for C\textsubscript{14} assay. D. Sample of charcoal for C\textsubscript{14} assay. E. Grid-plot with color-coded dots indicating location of culturally identified artifacts. F. Artifacts arranged in chronological order.
The "Lost Huron" or "Lost Jesuit" Map Found?

David M. Stothers
Director, Laboratories of Ethnoarchaeology
The University of Toledo

Until recent times, a map which was drafted by Father Paul Ragueneau, S.J., a Jesuit priest who was stationed among the Huron Indians in Canada during the 1630's, was believed to have been lost to the ravages of time. As such, the map (which is described in the Jesuit Relation of 1640) has become known as the "Lost Huron" or "Lost Jesuit" map.

Late in the year of 1981, the author was conducting research into the late prehistoric and early historic interaction of various ethnic groups in the circum Lake Erie region. In the course of correspondence with other scholars and colleagues, I was informed of a rare archival map which might be of help in my research endeavors.

Charles Garrad (a Petun authority living in Toronto, Canada) informed me that Dr. Conrad Heidenreich (Department of Geography, York University, Toronto) had located an undated map (drawn on an animal skin) in the archives of the Hydrographic Department of the (British) Ministry of Defense, located in Taunton, Somerset, England. Accompanying his letter was enclosed a xerox section of the map depicting the region surrounding the western end of Lake Erie; relevant reference and catalogue information (vis a vis the British Ministry of Defense archival section of the Hydrographic Department); information that Dr. Heidenreich attributed the authorship of this map to Jean Bourdon; and that Dr. Heidenreich tentatively dated the map to ca. 1646(?) on the basis of internal information built into the map.

Upon scrutinizing the xerox section forwarded to me by Charles Garrad, a striking similarity and near equivalence of ethnic group ('tribal') names and geographic locations relative to the Nicholas Sanson maps of 1650 and 1656 was noted. Furthermore, recent review of a series of research articles pertaining to the location of early historic aboriginal groups in the lower Great Lakes region (cf. Goddard 1972: 129, fn. 2; Thwaites 1896-1901: XVIII: 230-234; Crouse 1924) prompted me to become suspicious that the Taunton Map may be the "Lost Huron/Jesuit Map" described by Father LeJeune in the Jesuit Relation of 1640, and originally drawn by Father Paul Ragueneau a short time earlier. As such, I was prompted to contact the Hydrographic Department of the British Ministry of Defense. Subsequent to my enquiry to the Ministry of Defense, I was sent a reduced copy of the original map drafted on an animal skin. The original measures 54.8" x 73.5" and the photo-reduced copy measures 29" x 21".

The Taunton Map depicts (with considerable accuracy) early New France from the St. Lawrence estuary east of Quebec city (Tadoussac), to the eastern end of Lake Superior in the west. Territory from north-central Ontario, Quebec and Labrador extending south to Virginia and New Holland is included. The central focus of this map is the Great Lakes—St. Lawrence drainage (except most of Lake Superior and Lake Michigan, which were not yet known).

Nellis Crouse (1924) has outlined in his treatise how the training, dedication and thoroughness of the Jesuit missionaries, in collaboration with native informants, made possible very early and very accurate descriptions and cartography of New France.

After studying the Taunton Map, I became further convinced that this map may be the famous "Lost Huron Map" authored by Father Ragueneau in the late 1630's, and described by Father LeJeune in 1640 in the Jesuit Relations. Internal data built into this map entitled "Nouvelle France" suggests that the map was drawn prior to 1642, since Montreal was founded in 1642, but is not depicted on this map, as in Quebec. Information pertaining to the country of the Huron and Neutral is in accord with information in the Jesuit Relations pertaining to the late 1630's, and this map is considerably more comprehensive and accurate than Champlain's map of 1632. Furthermore, the close similarities and/or virtual equivalence for the geographic locations and spelling of various ethnic group names as depicted on the Taunton Map and the 1650 and 1656 maps of Nicholas Sanson further suggested that the Taunton Map was, indeed, the "Lost Huron/Jesuit Map," and that possibly (probably?) it was used by Sanson as a basis for his later 1650, 1656 and 1657 maps, as suggested by Ives Goddard (1972:123-124, 129).

In June, 1983 I wrote to Dr. Conrad Heidenreich to suggest that the Taunton Map may be the "Lost Huron/Jesuit Map," and to inquire as to why he attributed its authorship to Jean Bourdon. Dr. Heidenreich replied that his original conclusions about the authorship of the map had changed. Based upon another map, definitely in the hand of Jean Bourdon, Dr. Heidenreich began to doubt that the Taunton Map was authored by Jean Bourdon, since the lettering and style of the Taunton Map differed so much from the map which was definitely drafted by Bourdon.

In the meantime, lengthy correspondence and research into the Taunton Map, in conjunction with Father Lucien Campeau, S.J. (the great Jesuit historian of New France) had led Father Campeau and Dr. Heidenreich to the conclusion that the Taunton Map is a sequel of the Huron map of Ragueneau which was remade in Quebec while Ragueneau was there in 1640-1641 (Pers. Comm. Heidenreich to Stothers 28/7/83). Once again, in September, 1983, I wrote to Dr. Heidenreich suggesting that the Taunton Map may be the original, not a sequel version. Although, the Jesuit Relations indicate that Father Ragueneau was in Quebec during 1640-1641, why would he redraft a sequel map on an animal hide, rather than on paper or parchment? Since research on the map is not complete it is difficult, at this point in time, to ascertain whether the map is the original map of Father Ragueneau (described by Father LeJeune in 1640) or a sequel map drafted by Father Ragueneau in 1640-1641.

However, regardless of which interpretation of this map may be correct, this map dates prior to 1642, as determined by internal data built into the map which is historically well founded and understood. As such, the map is of extreme importance to historians, cartographers, ethnohistorians and archaeologists because it indicates the locations of numerous aboriginal tribal groups which were displaced, or who moved, prior to 1650 as a result of the competition and hostilities which ensued as a result of economic avarice brought on by the early historic fur trade in the New World (cf. Trigger 1976, Stothers and Graves 1983).

This map indicates the original locations of these ethnic tribal Indian groups, and as such archaeologists and historians can now begin to assign real ethnic and tribal labels to some excavated archaeological assemblages, which previously had been assigned only archaeological labels. Furthermore, now that a connection can be made between the original prehistoric cultural assemblages (representing some of these groups), and later assemblages that were left behind in areas of relocated by their historic descendants, archaeologists and historians will have a much better basis for understanding changes in lifeways and material culture inventories. These changes were brought about very abruptly when
European culture first collided with the aboriginal tribal groups of the New World. These changes and disruptions were to forever change the home locations and lifeways of many tribal groups at the dawn of history.

Future archaeological work will also have the advantage of being guided (especially in areas which have been totally unexplored or very minimally investigated), because some of these areas indicate earlier tribal locations for groups who are later documented as residing in very distant and different locations.

This rare and unique map is truly a "missing link" in the connection of historic tribal groups to their original prehistoric homelands and the prehistoric remains of their tribal ancestors. Internal data on this map may also lead to the correction of several significant facts which are presently documented in the historical records which pertain to the Great Lakes region and its initial exploration.

How Did This Map Get to England?
An interesting piece of information pertaining to the Taunton Map is the fact that the name John Montresor is stamped on its reverse side. Although Father LeJeune stated in the Jesuit Relation of 1640 that he was forwarding the map compiled by Father Paul Ragueneau to their Father Superior in France, this map apparently (for whatever reason?) never was sent from Quebec to France. Over a century later, in the year 1759 British forces under the command of General James Wolfe defeated the forces of General Montcalm on the Plains of Abraham near Quebec. With the fall of Quebec, New France was surrendered to the British. John Montresor, one of General Wolfe's engineers, apparently located the Ragueneau map and realizing that it was an antique cartographic document, he probably usurped it as a spoil of war. Subsequently, John Montresor or one of his successors must have transmitted this document back to England, where it became housed in the archival collections of the Ministry of Defense, where it resides today.

Fig. 1 (Stothers) Photocopy of what may be the "Lost Huron" or "Lost Jesuit" map.

References


New Archaeological Report Published

The final report on the archaeology of the Grand Village of the Natchez Indians, Natchez, has just been published, according to an announcement by Elbert R. Hilliard, director of the Mississippi Department of Archives and History. This report, entitled *The Grand Village of the Natchez Revisited*, was compiled and written by the late Robert S. Neitzel, one-time director of the State Historical Museum, and an archaeologist with the Department. Reporting on the 1972 excavations at the Grand Village, this publication represents a thorough pottery study, which is augmented by an appendix of pottery types by two archaeologists who participated in the 1972 excavation.

The first report, published in 1965, described the finds of 1930 and 1962 excavation projects at the site, the latter directed by Neitzel.

The Grand Village of the Natchez Indians was the center of Natchez Indian activities between 1682 and 1729 when disputes with the French settlers led to the eventual demise of the Indian tribe.

Robert S. Neitzel was chiefly responsible for transforming the site from overgrown fields where sheet erosion had diminished the ceremonial Indian mounds, to the beautiful, dignified, and educational property it is today. He removed deposited soil, reaching the original plaza surfaces, and was the first to provide satisfactory analyses of the mounds' relations to each other.

Today, the property is state owned and preserved, and is administered by the Mississippi Department of Archives and History. The report is available for $15.00 (plus $.75 sales tax for Mississippi residents and $.75 postage) from the Old Capitol Sales Shop, P.O. Box 571, Jackson, MS 39205; telephone (601) 354-6222.

American Indian Basketry

P.O. Box 66124, Portland, Oregon 97266

This series of publications is devoted entirely to basketry made by native American women and research in that field. It is expensive—$26.00 per volume (4 issues) but it is probably one of the finest publications available in the field of basketry. It is printed on high quality paper with outstanding black and white photographs. To those collectors of American Indian baskets, these publications will be of great value.

Robert N. Converse
Editor.

Necrology

John Allman

It was with a great deal of regret that we recently heard of the passing of John Allman on June 13, 1983. He was 85 years old and would have been 86 in September.

John Allman was a Past President of the Archaeological Society of Ohio and had served in a number of capacities for our Society, both official and unofficial. He was an amateur archaeologist of high reputation and his excavation of the Lichliter site in Montgomery County was a significant contribution to the understanding of Ohio's prehistory. It was my pleasure to work with John Allman in the early years of our Society and I will always remember him as a soft spoken man of the highest integrity—he was a gentleman in every respect.

Robert N. Converse

Book Review

Muskingum River Narratives Before 1800
Edited by Richard Walker and Clyde K. Swift
Occasional Paper in Muskingum Valley Archaeology #17
Zanesville, Ohio 100 Pages Softbound Cost $10.00

For those interested in Ohio's first settlers, explorers, traders, missionaries, soldiers and historic Indians and Indian settlements, this book will provide fascinating reading. The book concerns itself primarily with the early accounts of Thomas Hutchins (1762), John Heckwelder (1773), Jonathan Baldwin (1794-95) and Felix Renick (1798). In 1964 an original set of notes in the handwriting of Jonathan Baldwin were found in the attic of a house near the hamlet of Luke Chute in Muskingum County, and it is upon these notes that the book focuses. These narratives add a new dimension to the history of an area in which Ohio's very first contact between the native Indians and the first white men to enter the region took place. The reader, as well as this reviewer, if he is at all familiar with the eastern portion of Ohio, will find himself associating today's landmarks with those mentioned in the book.

Robert N. Converse, Editor
LOOT! The Heritage of Plunder

By
Russell Chamberlin
Publication date: October 14, 1983
Price: $19.95 hardbound
ISBN: 0-87196-259-4

CONTACTS: Janis Kern, Publicist
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Facts On File, Inc., 460 Park Avenue South, New York, N.Y. 10016 (212) 683-2244

A VAST NUMBER OF THE MUSEUM TREASURES WE ADMIRE TODAY HAVE BEEN ACQUIRED WITHOUT CONSENT

The plunder of art treasures through the ages explored in new book published by Facts on File

Loot is one of the more fascinating books I have read in several years. While not strictly dealing with archaeology, it nevertheless will find wide interests among archaeologists since it tells the intriguing stories of how a great deal of the worlds archaeological and art objects came to be in the museums and private collections where they now reside. In particular, it conveys to the reader the attitudes prevalent in the eighteenth, nineteenth, and twentieth centuries of those who plundered historic and archaeological sites to satisfy their own or their country's acquisitiveness for things of the past. Squarely at the center of all of these narratives is the question of whether any country or individual has the right to hold treasures of art, archaeological artifacts or religious objects taken from another country. Typical of the responses given, regarding the return of such objects, is that of the British Museum who were asked to return marble statuary to Greece—they said "It would set a bad precedent."

The reader of this interesting book will, in the future, observe the displays of some of the world's great museums with a new outlook. The book is highly recommended to acquaint the reader with the background of some of the famous museum collections—it is also recommended as just plain good reading.

Robert N. Converse

THANK YOU NOTE

The Department of Contract Archaeology at O.H.S. would like to extend a special thanks to those members of the Archaeological Society of Ohio who participated in the excavations at the Connett Mounds #3 and #4 at the Wolf Plains National Register District. Specifically, we appreciated the group trip by the Sycamore Run Chapter and repeated return trips by individual chapter members. The project would not have been successful without these volunteer efforts.

As many of you know, we did uncover a partial extended burial and cremation at the base of a large circular pit in the smaller Connett Mound #3. Four strands of rolled copper beads covered the extended burial. Two strands were placed across the ilium, and two were located on the public bone. Similar patterning appeared beneath the burial indicating that the interment was wrapped in cloth or a garment. In fact, the copper served as a preservative and adhered to pieces of woven material and leather. The cremation was positioned immediately west of the extended burial and was deposited on two thin copper breastplates, each of which measured approximately 8 inches by 5 inches, and a section of tubular pipe with a flattened mouthpiece.

Our tentative conclusion is that these burials at the Connett Mound #3 are associated with the Late Adena culture. The projectile points from the Connett Mound #4 are all small notched points and very "Archaic looking." On this basis, we think this mound may be attributed to the Early Adena period. Radiocarbon dates will be submitted from both mounds shortly. I will provide an update when additional information is available.

Thank you all again!

Shaune M. Skinner
Archaeologist
Department of Contract Archaeology
Ohio Historical Society

New Southeast Ohio Regional Coordinator Named

Carrie J. Conklin, formerly of Columbus, Ohio, has been named Southeast Ohio Regional Coordinator for the Ohio Historic Preservation Office of the Ohio Historical Society. The regional office, at Ohio University's History Department in Athens, serves Athens, Belmont, Gallia, Guernsey, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Vinton, and Washington counties.

Ms. Conklin will be available to help local historical societies, preservation organizations, neighborhood groups, and others who are involved in preserving historic landmarks and archaeological sites in southeastern Ohio. She will work with volunteers to identify places which should be preserved, offer educational programs, teach area residents how to prepare nominations to the National Register of Historic Places, and promote use of a twenty-five percent investment tax credit now available for rehabilitating qualifying older buildings.

Ms. Conklin formerly served as statewide history and architecture coordinator for the Ohio Historic Preservation Office of the Ohio Historical Society in Columbus. She is a graduate of Wellesley College, and has attended Cornell University's graduate program in historic preservation planning.

Ms. Conklin replaces Christopher S. Witmer, who became manager of the Main Street renovation program in Williamsport, Pennsylvania, in August.

The Southeast Ohio Historic Preservation Office can be reached at (614) 594-6578.
OBJECT OF THE SOCIETY

The Archaeological Society of Ohio is organized to discover and conserve archaeological sites and material within the State of Ohio, to seek and promote a better understanding among students and collectors of archaeological material, professional and non-professional, including individuals, museums, and institutions of learning, and to disseminate knowledge on the subject of archaeology. Membership in this society shall be open to any person of good character interested in archaeology or the collecting of American Indian artifacts, upon acceptance of written application and payment of dues.