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NEW DATA ON GLENWOOD LIFE

By William Green Office of the State Archaeologist

Many Iowa Archeological Society members participated in the 1984 field school at an earthlodge site in Mills County, between Glenwood and Council Bluffs (Figure 1). Under Shirley Schermer's direction, IAS volunteers helped to salvage the Wall Ridge earthlodge (13ML176) before it was destroyed by a borrow (see IAS Newsletter No. 112). The field work was organized by the Office of the State Archaeologist and partially supported by the office of the Mills County Engineer. Since 1984, students, volunteers, and OSA staff members have been analyzing the enormous amount of material excavated from the earthlodge. From 1988 through 1990 we focused on some of the recovered plant and animal remains. This short article summarizes these analyses, which are more fully reported in Glenwood Culture Paleoenvironment and Diet: Analysis of Plant and Animal Remains from the Wall Ridge Earthlodge (13ML176), Mills County, Iowa, volume 15, number 6 in the OSA Research Papers series.

The study of plant and animal remains was partially supported by an Iowa Science Foundation grant, administered by the Iowa Academy of Science. The purpose of our analysis was to learn more about two aspects of the Glenwood people: (1) their subsistence economy their ways of procuring and processing plant and animal material for consumption; and (2) the local environmental conditions of their surroundings, including the types of flora and fauna that would be available for human use.

Because the Wall Ridge earthlodge was so carefully excavated, we worked with two types of information unavailable from other Glenwood sites: (1) tiny remains such as seeds, fish bones, and snails which were recovered through flotation and fine-mesh screening, and (2) detailed stratigraphic information, such as exact depths, from all portions of the earthlodge including the fill zones of both the house basin and the large storage pits. No other Glenwood earthlodge excavation had recovered such data, so we were sure that this study would lead to major advances in understanding how Glenwood people interacted with their natural environment around A.D. 1000-1200.

Fall 1991

The study began with reconstructing the local vegetation as recorded by the 1851-1852 General Land Office survey of Mills and Pottawattamie counties. Craig Chumbley, who recently received a Ph.D. in Botany from the University of Iowa, conducted this part of the study. The area covered included six full townships plus portions of three more, for a total of about 240 square miles surrounding the Wall Ridge earthlodge.

Craig entered all information on tree species, location, and spacing into a computer for statistical analysis and plotting. He found that about 1/3 of all section corners had trees nearby and the remaining 2/3 were in prairie. The wooded areas consisted of two zones, a narrow band of mostly elm and cottonwood along the Missouri River and an upland zone along the blufftops and nearby portions of Loess Hills uplands in which bur oak, hickory, elm, walnut, and other oaks occurred. Trees were widely spaced within the woodlands, averaging 23 to 35 meters apart and commonly more than 50 meters apart.

Overall, the locality was characterized by open woodlands in dissected portions of the Loess Hills, extensive bottomland and upland prairies, dominance by bur oak in the upland forests, dominance by cottonwood along the Missouri River, and fairly common occurrences of elm in both upland and lowland settings. This mid-1800s pattern probably can be extended back into certain periods of Issue 138

prehistory, but more work is needed to test this assumption.

Environmental conditions at the earthlodge itself were studied by James L. Theler, an assistant professor at the University of Wisconsin-La Crosse. Jim focused on land snails because these creatures often have very specific microenvironmental requirements and therefore can provide details on local vegetation and climate.

Jim identified over 1500 snails from deposits above, within, and below the earthlodge. Based on the distribution of different snail species, Jim suggests that the earthlodge site was a relatively droughty setting before and during the period of human occupation. A change in species distributions in the upper deposits led Jim to believe that the site's abandonment led to "its basin acting to concentrate moisture in an already organically rich depression. This would produce a circumscribed pocket of rich vegetation growth" at the abandoned earthlodge site.

Although the land snails were not deliberately collected and apparently were not eaten, some aquatic snails were collected in the nearby Missouri River floodplain, brought to the site, and used for food. Other mollusks collected by the earthlodge inhabitants were studied by Kris Hirst of the Office of the State Archaeologist, Kris examined bivalves (clams) and found at least 95 animals representing 11 species, and she noted that all nearby aquatic zones were exploited: small streams, backwater sloughs, and the Missouri River main channel. At least half of all of the clam shells were used as tools.

While snails and clams provided a small amount of food, fish comprised a major portion of the diet. As suggested by Shirley Schermer (IAS *Newsletter* no. 112), fishing was one of the main subsistence activities conducted by the residents of the Wall Ridge earthlodge. Jim Theler's study of nearly 13,000 fish

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bones representing at least 21 species is one of the most comprehensive analyses of fish remains ever conducted for an Iowa site. Various fishing methods were used, in deep pools within the Missouri River as well as in shallow, weedy backwaters. For bullheads, a common backwaterhabitat type, Jim suggest the Glenwood people seined or trapped with a mesh-size spacing of perhaps 12-18 mm (0.5-0.7 inch).

The importance of aquatic resources also is reflected in the types of birds found at the site. John Cordell of the OSA identified over 700 bird bones from at least 73 individual birds. At least 27 species have been identified, with various types of ducks most numerous. John also identified woodland and prairie birds, indicating birds were taken in various environmental settings. John notes that ritual use or plumage rather than food may have been the attraction for certain types of birds.

Mammal bones were not studied as part of the Iowa Science Foundation project but are being analyzed now by Holmes A. Semken, Jr., geology professor at the University of Iowa. Holmes and his students are finding that deer and various smaller mammals are numerous and bison bone is rare. Comparisons to mammal assemblages from other Glenwood earthlodges and from contemporary noncultural deposits nearby will be useful in paleoecological studies.

Plant remains were abundant and well preserved in the earthlodge deposits. In fact, the bottoms of deep pit features contained fragments of unburnt wood as well as unburnt elderberry and bulrush seeds. Usually, plant remains at upland sites such as Wall Ridge will decay unless they are carbonized. In this case, their deep burial within the calcareous loess evidently protected them from the microorganisms which normally cause plant remains to deteriorate.

Melissa Maddox, a University of Iowa anthropology student, identified 97 separate wood fragments from four of the deep pits within the earthlodge. Unfortunately, the unburnt pieces were too small to identify, but of the burnt fragments, over half were elm and nearly a quarter were ash. One of the lodge's central support posts was identified by Craig Chumbley as red elm. Relatively small numbers of hickory, walnut, and oak wood were identified. Clearly, the preferred firewood and building timber at this site was elm, as it was at other Glenwood earthlodges. The dominance of upland forests by bur oak and of lowland forests by cottonwood around 1850 means Glenwood people deliberately selected the less common elm or forest composition changed dramatically between A.D. 1000-1200 and 1850. Further paleoecological work is needed to address this question, which is of importance to studies of Loess Hills natural history as well as archaeology.

Charred corn kernels or cob fragments were found in every soil sample examined from the earthlodge, indicating corn was a staple crop. The corn grown was an eightor ten-row variety. Small amounts of beans and squash also were found, rounding out the evidence for the commonly recognized Plains=Midwest Indian garden system of corn-beans-squash agriculture.

Glenwood plant use was more complex than this, however. Wall Ridge contains evidence for use of domesticated sunflower, and nearby Glenwood sites have produced many seeds of domesticated sumpweed, a relative of sunflower.

Significantly, Wall Ridge is the first Glenwood site - and the first site of the Central Plains Tradition - at which little barley has been found. Little barley is a wild grass which apparently was brought under cultivation in parts of the southwestern U.S., the eastern woodlands, and (we know now) the great plains. Little barley seeds were in fact the most abundant of the small seed types found at the Wall Ridge earthlodge. Seeds of barnyard grass, another possibly cultivated native grass, also were found.

Fruit seeds indicate collection of elderberries, hackberries, and nightshade. As stated earlier, bulrush seeds also were found, and these must have been brought some distance to the site from the plant's natural marshy habitat. The seeds themselves might not have been used, but bundles of bulrushes may have been used for making mats or baskets, which do not preserve unless they are carbonized. Perhaps the Glenwood people made impromptu bulrush baskets in the floodplain to carry the dozens of fish that had been caught in the shallow, weedy backwaters which are home to both bulrushes and bullheads.

Much work still needs to be done before we can write the final report on the Wall Ridge earthlodge. We have made good progress in analyzing many of the materials not described in this article. such as the stone and bone tools and the pottery. Once these studies are completed and integrated, we will prepare a comprehensive report on the excavation, analysis, and interpretation of the site. We will be able to portray in detail the lives of this lodge's inhabitants - their social organization as well as their technology and economy. With this firm basis, we will have a better overall understanding of the Glenwood culture. We will be in a good position to refine our research questions and develop new avenues of inquiry for future work on this fascinating cultural complex.

Acknowledgments

Thanks are offered to: the IAS volunteer participants and the office of the Mills County Engineer for their help in the 1984 field work; Shirley Schermer for her continued advice and guidance; the Iowa Science Foundation for funding this analysis; the participants named in the text for their contributions; Joseph Tiffany and Duane Anderson for their instrumental efforts in arranging the field work, and to Joe Tiffany for continued interest in the site and assistance with sorting of flotation material: Dan Zwiener for his flotation of soil samples in 1984 which made much of the current study possible; and colleagues David Asch, Dick Baker, Bill Billeck, Diana Horton, and Mike Perry and students Julie McCarty, Christie Sawyer, and Clare Tolmie.



Fig. 1 Location Map, Wall Ridge Earthlodge (13ML176), Mills County, Iowa.

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The perplexed skunk hunters return to find their village deserted.

LUTHER STUDENTS ANALYZE POTTERY

by Michael Dietz, Laurel Davis, Michelle Davenport, Douglas Zars and Dale R. Henning

In the spring of 1991, the Luther College Archeological Research Center borrowed pottery from a collection belonging to Mr. Larry Glenn of Ottumwa, which was recovered near Eddyville. The pottery is from 13WP311, a site located on the Des Moines River floodplain.

We worked with 1744 pieces; 230 rim and necksherds, 1489 bodysherds and 25 fragments. The collection is a very good example of pottery from the early Middle Woodland period on the lower Des Moines River valley. We are grateful that Mr. Glenn was willing to loan the pottery from this site for our study.

PROCESSING AND ANALYSIS

Four students worked on the project under the supervision of Dr. Dale R. Henning: Laurel Davis, Michael Dietz, Michelle Davenport, and Douglas Zars. The first task was to wash the pottery, using a soft paint brush. A soft brush is required because of the surface softness of this pottery; brushing with stiff bristles can create "brush marks" which might be identified later as culturally significant. After the pieces had dried they were numbered; 13WP311. The pieces were then sorted into rimsherds, necksherds and bodysherds. Once the pieces were separated, analysis began. Two students, Davenport and Zars, classified the bodysherds, while Davis and Dietz were assigned the rim and necksherds.

BODYSHERD ANALYSIS

The Plain Bodysherds numbered 805 and a random sample measured 2-11.5 mm thick with an average of 6.9 mm. Color ranged from off-white tan to darker brown tones, as well as dark to light gray. Some were found to be orange, which is possibly a result of being colored by ochre. Many of the sherd surfaces have been smoothed over, while others have a visible surface texture. Surface texture ranges from sandy or gritty-smooth to a rough, bumpy surface. The variance found in surface texture may be due to the large amount of tempering material added to the clay or to impurities found naturally in the clay. Our working hypothesis is that the plain surfaced sherds were carefully smoothed to obliterate the cordmarks left by the manufacturing process. A number of sherds classified as plain surfaced bear remnant cordmarks which were only partly obliterated by smoothing.

The Cordmarked Bodysherds consisted of 667 pieces and ranged in thickness from 3.5-12.5 mm, with an average of 6.7 mm. Color is comparable to the plain bodysherds. Most of the cordmarked bodysherds appear to reflect a manufacturing process which employed a cordwrapped paddle to maleate the vessel exterior, probably to drive out air bubbles and moisture and to compact the clay. Use of the cordwrapped paddle was apparently an integral part of the Woodland pottery manufacturing process and not a decorative technique.

The cord markings are usually clearly defined. Cord patterns range from parallel, vertical line patterns to combinations of these patterns. These varying patterns are probably derived from the different paddle orientations and techniques employed by the potters. The cords used vary in thickness from very fine to rather large; all appear to be single ply.

The Netmarked Bodysherds from this collection include 15 pieces. Thickness ranged from 3.75-9 mm, with an average of 6.69 mm. Color range is comparable to the plain bodysherds; a few sherds are very dark grey to black.

The net patterns varied slightly. Some were clearly vertical and horizontal crossings, resembling many square little boxes, while others were more erratic and less structured. These did not form boxes. but instead had diagonal cord crossovers. Some of the larger pieces displayed a more intricate pattern in which the vertical lines extended down and split into a diamond shapes net pattern. Some of the pattern variation may have resulted from the relative tautness of the netting which we assume was wrapped around a paddle. Some of the pieces displayed very prominent markings; some were smoothed over and/or worn.

Identification of the net marked bodysherds was determined through a process of imprint examination. This process consisted of using modeling clay to make a surface pattern imprint that was then carefully examined with a magnifying glass. With the clay impressions, the overlaying cords and knots of the net were more clearly seen than the actual surface cord imprints of the sherds. Very fine cordage was employed for the nets.

Only one **Brushed Bodysherd** was found in the collection. The 7 mm thick sherd is earthtone tan and dark brown with smooth, very shallow and nearly parallel brush lines. The surface texture is almost very smooth to the touch.

Only one **Basketmarked Bodysherd** was identified. It is 8.7 mm thick and is dark earthtone brown and orange in color. Its distinctions are parallel rows of alternating indentations and extrusions, with small, smooth furrows occurring between the parallel rows. A modeling clay impression and low power magnifying glass more clearly revealed a basket impression.

All of the coloration found on these bodysherds may have been caused by smoke from firing in a semi-reduction atmosphere. The clay body used in tempering was also heavily grogged and the wall thicknesses were consistent enough to allow for a higher success rate in pit firing. The aforementioned qualities allow the clay to withstand more stress in fluctuating firing temperatures and will enhance vessel durability.

RIMSHERD ANALYSIS

Havana vessels are open-mouthed jars which are quite deep in proportion to orifice diameter. Havana vessel side walls are

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almost vertical and the thickened base is either conical or flattened. The walls increase in diameter from the base to the shoulder, the flattened base being between one-third and one-half that of the shoulder (Griffin 1952:101). Diameter decreases slightly to the rim, which is often straight and almost vertical. The lip is usually flattened to slightly rounded or is distinctly bevelled. Rim bosses are common; these are always produced by punching from the vessel interior with a dowel with straight, smooth sides and convex end, leaving a node on the exterior surface. The nodes always appear in a single horizontal line around the upper rim, often placed about 2 cm below the lip. The lip is often notched on the inner, or more rarely, the outer, surface. Another form of decoration is short vertical or oblique impressions created by pressing The side of a cord-wrapped paddle, stick or a dentate stamp on the moist surface (Griffin 1952:101). Havana Ware includes a number of decorative types; the principal type is Naples Stamped.

Naples Stamped is characterized by the application of single (a plain dowel or cord-wrapped stick) or dentate (a tool made for the purpose) stamping, the stamp generally applied on the outer part of the rim at either a vertical or oblique angle, usually on a smoothed surface. This decorative type was very popular on the lower Illinois River valley and was dominant until late Hopewell (Griffin 1952:107-110). The Naples Stamped theme has many variations, some of which are found in this collection. We offer nine mutually-exclusive subclasses based on lip form, surface treatment (smoothed, often over cordmarked, leaving some cord impressions still visible; cordmarked; or plain). and the presence of decorative elements. Note that our subclasses A-C and H-I have a rounded or flattened lip; subclasses D-G have bevelled lips.

Subclass A, Naples Stamped (Fig. 1,A) lips are rounded or flattened. Both interior and exterior upper rim surfaces are decorated with cord-wrapped stick stamp impressions applied from the lip extending downward onto the upper rim. Also, both interior and exterior surfaces of the neck are cord-marked below punch and boss impressions. The bosses form a line parallel to the lip ranging in distance from 1.5-3 cm.

Subclass B, Naples Stamped (Fig. 1,C) lips are rounded or flattened. Both interior and exterior upper rim surfaces are decorated with cord-wrapped stick stamp impressions applied from the lip extending downward onto the upper rim. Contrary to subclass A, the interior neck surface is smoothed, while the exterior neck surface is cordmarked or smoothed-over cordmarked. Placement of punch and boss is the same as subclass A.

Subclass C, Naples Dentate Stamped (Fig. 1,D)hve rounded or flattened lips. The exterior is smoothed, while the interior is plain. The stamped decoration on the upper lip is quite short, only two or three stamps long. The size of the individual stamp ranges from .2-.7 cm in length. The lengths of the stamp employed differ with the size of the individual stamp. A smoothed horizontal zone runs between the punch and boss line and the stamping, unlike the previous two subclasses. Distance from the lip to the bosses ranges from 1.5-2 cm.

Subclass D, Naples Dentate Stamped (Fig. 1,B) is characterized by bevelled lips. Other than this distinction the subclass is very much the same as subclass C. The interior surface is smoothed and plain. The exterior is smoothed or smoothed-over cordmarked, with stamped impressions extending only a short distance down the upper rim. Individual stamp sizes range from .1-.6 cm wide and from .5- 1.2 cm in length. Again, there is a smoothed horizontal zone between the lip and the bosses is 1.5-3 cm.

Subclass E, Naples Dentate Stamped (Fig. 2,A) is our largest subclass, with 89 rim and neck pieces. The lips are bevelled, the exterior surface smoothed or smoothed-over cordmarked, and the interior is plain. A punch and boss line is 1.5-3 cm below the lip. The sherds are stamped above and below the bosses, with the bosses separating the rows of stamping. The size of the stamp ranges from .1-.5 cm in width; stamp length is variable. The orientation (vertical to oblique angle) of the stamp under the punch and boss is also variable. A few pieces in this subclass bear horizontal stamp impressions; one fragment has both horizontal and vertical stamp impressions. We have included necksherds in this subclass because we are certain of their comparability to the rimsherds.

Subclass F, Naples Stamped (Fig. 2,B) has very small cord-wrapped stick impressions on the exterior surface of a bevelled lip. Each impression is approximately 1 mm wide and less than a centimeter in length. The interior and exterior surfaces are smoothed; the interior is plain. The rims are punched and bossed 1 cm below the lip. Above the bosses the impressions are vertical, while the impressions below the bosses are placed horizontally. Length of the stamp impression is hard to determine because of the small size of the pieces in this subclass.

Subclass G, Naples Dentate Stamped (Fig. 2,C) lips are bevelled, interior smoothed and the exterior surface is cordwrapped paddle-marked. The exterior surface has stamped impressions about 1.5 cm in length extending vertically from the lip. A horizontal line of punch and boss is located about 3 cm below the lip.

Subclass H, Naples Dentate Stamped (Fig. 2,D) has only one piece in this, but it is distinctive from all other subclasses. The lip is flattened to rounded, with a smoothed interior and cord-marked exterior. The piece is punched and bossed 1.25 cm below the lip. Stamping occurs above the boss, with the stamp .3 cm long. Below the bosses there is more stamping, oriented horizontally, but the piece is too small to be certain.

Subclass I, Naples Dentate Stamped (Fig. 2,E) lips are rounded, with a smoothed exterior and plain interior. The stamping on the exterior surface is quite small, with the individual stamps .1-.2 cm in length. The stamping is vertical on the upper rim above the punch and boss. Below the boss, the stamping is horizontal, parallel to both the lip and the bosses. The length of the stamp impression is difficult to determine due to the small size of the pieces in this subclass. The distance of the boss from the lip is 2 cm.

Naples Stamped Necks are grouped because, in spite of the absent upper rim/lip portions, are obviously part of the Naples Stamped type. These necks are characterized by a smoothed interior and exterior surface. There are cordwrapped stick impressions on the exterior surface, placed in all directions and with some overlapping impressions.

Havana Plain Subclass A, (Fig. 2,F) consists of rims with bevelled lips, with smoothed exterior and interior sur-

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Havana Plain Subclass A, (Fig. 2,F) consists of rims with bevelled lips, with smoothed exterior and interior surfaces. The rims are quite fragmented and eroded, so it is hard to place them in any ware grouping besides Havana Ware. Most of the rims are punched and bossed ranging in distance from 1.3-1.8 cm from the lip.

Havana Plain Necks consists only of necksherds of this type. This ware is characterized by a smoothed interior and exterior. The pieces are not decorated. Although they are placed in the Havana Plain ware grouping, they are not necessarily all Havana Plain. Naples Stamped is usually placed on a smoothed exterior, but the stamping ends somewhere on the upper rim. However, since the surface is plain, they are placed in the Havana Plain ware grouping.

Havana Cord-marked Subclass A, consists of rims with rounded, flattened lips. The exterior is cordmarked and the interior is smoothed. The only other decoration on these pieces is punch and boss impression, although only half of the pieces have punch and boss impressions. The bosses are 1 cm below the lip.

A few rimsherds suggest the integration of decorative concepts characteristic of both the Early and Middle Woodland periods such as a transitional Early-Middle Woodland.

The Glenn collection offers a rimsherd (Fig. 2,G) similar to Griffin's illustration of Fettie Encised rims (Griffin 1952:Plate XXIX), including the horizontal herringbone pattern at the rim base on a very high rim, the horizontal wide trailed bands encircling the rim and the flatted lip. Our example, on the other hand, has dentate stamping extending vertically from the exterior lip surface to about 2 cm. It also has a herringbone motif produced by placing a single circular rod with convex end on the surface.

Nine rimsherds offer a range of characteristics which suggest the integration of both Early and Middle Woodland concepts. These include curvilinear (fingernail?) impressions on one rim exterior (Sister Creek Punctated?); two pieces with a row of closely-spaced punch and boss immediately beneath a very flat lip (Sister Creek Punctated?); one with vertical rows of short-line punctations on the upper rim (Neteler Stamped?); and five with trailed line motifs over a cordmarked surface, most suggesting a herringbone motif.

One rimsherd defies placement. It is a slightly outcurving rim with rounded lip and a row of punch and boss (punch from the interior surface) about 2 cm below the lip. The lip-rim interior surface is decorated with fine cordwrapped stick impressions and the very fine cordage (fabric?) impressed on the exterior surface is distinctive. The thread impressions are comparable to fine canvas elements.

A number of fragments, obvious necks and rimsherds, were too small or too eroded to classify. The paste and surface feel is comparable to the other materials in the collection; thus, they are included.

We have identified four Early Woodland subclasses. Two of these are identified with the Black Sand Complex. This pottery complex contains Black Sand Incised and Liverpool Cordmarked (Griffin 1952:98). The pottery is from .8-1 cm thick. Decorative features include straight oblique and horizontal lines which were placed on the upper rim just below the lip, extending 1/5 to 1/4 of the way down the side wall of the vessel. The exterior surface is cordmarked, so the bodysherds are usually classified as Liverpool Cordmarked. Few of the upper rims were decorated. This complex also features a horizontal row of punch and boss, ranging from 2-4 cm from the lip.

Subclass A, Liverpool Cordmarked (Fig. 2,H) rimsherds in this subclass have smoothed interior and cordmarked exterior surfaces. All feature a row of punch and boss about 1 cm below the lip. The pottery is .8-1 cm thick. The lips are rounded; most have a strongly everted upper rim.

Subclass B, Black Sand Incised contains two very different rimsherds that nonetheless seem closely related to this type as defined (Griffin 1952: 98, Wray 1952:153, Fig 69). One has a lightly incised herringbone design on the upper rim area with smoothed interior and exterior surfaces. The rim is punched and bossed about 1.5 cm from the rounded lip. The other rimsherd has the characteristic horizontal lines extending down the rim. It is punched and bossed 1.8 cm from the flattened lip.

Subclass C is characterized by fingernail impressions on the upper rim leaving crescent shapes about .5 cm apart horizontally around the upper rim. This form of decoration is distinctive to the Early Woodland time period (Griffin 1952:100-101). The only other decoration on the rims is punch and boss impressions .5-1 cm from the lip. No fingernail impressions are below these. Interior and exterior surfaces are smooth and lips are rounded to flattened.

Subclass D consists of bodysherds. The decoration on the lower rim is crescent shaped and extends vertically down the rim. This distinctive decoration in the Early Woodland period was made by pressing a hollow tube onto the pot with an uneven amount of pressure, so that one side leaves no impression while the opposite side leaves a deep impression. The interior and exterior surfaces are plain.

The collection we have analyzed is important as it seems to represent a



Fig. 1. Rimsherds, Glenn Collection. All Naples Stamped.

brief, early Middle Woodland occupation on the lower Des Moines River. Relationships to the Illinois River valley appear to be close; the time of occupation is estimated at about 200 BC. This date is based not only on the pottery types found, but also on the complete absence of Hopewell Ware. Hopewell Ware is Classic Hopewell, often limestone tempered and finely executed (Wray 1952:155) examples with crosshatched upper rim, zoned and zoned stamped and even red filmed. Often, Hopewell ware vessels are found in mounds and certain locations in the Illinois valley. In con-



Fig. 2. Rimsherds, Glenn Collection. A-E, Naples Stamped; F, Havana Plain; G, Fettie Incised-like; H, Liverpool Cordmarked.

FROM THE PRESIDENT:

The chart, right, prepared by Deb Z. Baker, graphically depicts the rise and fall of IAS membership since the initial organization of the Society in 1951. With the exception of 1979 and 1980, when we switched our dues payments from a fiscal year to a calendar basis, we managed to sustain a general growth pattern through 1984. It is the following years, 1985-1990, which are the most concern. In these years we have been experiencing a steady decline at a time when expenses to the Society have been rapidly increasing. This year we were forced to raise dues \$5.00 in most membership categories in order to meet rising costs. This is no longer considered an option, at least for the foreseeable future.

IAS members share an interest in archaeology, be it amateur or professional. We need this Society to keep informed on items of interest happening in and around our state and elsewhere. These articles and news are available nowhere else. We need our Society for field opportunities and learning experiences. We enjoy the fellowship of meeting with those having archaeology as a common interest. The IAS needs you to make all this happen. It is therefore incumbent on all of us to renew our memberships when due and to

trast, fine examples of Hopewell ware are often recovered from village locations along or near the Missouri River (Chapman 1980:21-77). between the mouth of the Lamine River in central Missouri and from sites immediately south of St. Joseph. The use of Hopewell ware only for ritual purposes along the Illinois and portions of the Mississippi River valleys is not mirrored on the Missouri River valley. Judging from the pottery and the chipped stone tools recovered, 13WP311 was an intensively occupied village site, not a ceremonial location and is most closely related to sites of similar age in southeastern Iowa, northeastern Missouri and the Illinois River valley.

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recruit new members at every opportunity.

Dick Slattery President, IAS

IAS Total membership, 1951-1990



Prepared by Deb Z. Baker



OSA NEWS

A SPECIAL SECTION OF THE IOWA

ON THE ROAD: ONE WEEK IN JUNE

Although we conduct field work whenever the ground is not frozen, this spring and summer OSA archaeologists are making especially heavy use of Iowa's road network and ethanol products. Here is the field itinerary for the week of June 1-8, 1991:

> Mark Anderson conducted two archaeology sessions at the annual Loess Hills Prairie Seminar in Monona County.

> Bill Billeck continued his four-month Mills County archaeological survey project, based in Glenwood, along with D. D. Davis; John Cordell and Sandra Crismon also assisted for the week.

> Jim Collins conducted test excavations at a stratified, multi-component Archaic chert workshop and habitation site in Marshall County; crew members Art Hoppin, Doug Jones, Kara Kineer, Matt Logan, Susan Snow, and Ed Vega assisted; Art Bettis and Tim Kemmis of the Iowa Geological Survey Bureau also participated.

> Fred Finney surveyed in Cerro Gordo County.

> Bill Green visited the University of Iowa Field School project in Louisa County twice, surveyed a mound group near Des Moines with Shirley Schermer, and served as a panelist at the annual Congress of Historical Organizations in Des Moines.

> Kris Hirst and crew member Jim Ambrosino conducted survey work in Grundy, Poweshiek, and Story counties; Kris also conducted volunteer survey work for the Hoover Nature Trail Association near Columbus Junction, Louisa County.

> Marlin Ingalls gave a presentation on early historic artifact identification at the annual Congress of Historical Organizations in Des Moines.

> Steve Lensink directed a week-long teachers workshop at Richland, Keokuk County, and visited sites with Lynn Alex in Des Moines County and Louisa County. > Mike Perry and crew member CalLong surveyed in Cass County, finding several historic sites.

> Leah Rogers directed two training workshops for Soil Conservation Service employees in Cherokee, assisted by Clark Rogers.

> Shirley Schermer investigated newly discovered burial sites in Ames and, assisted by Robin Lillie, in Des Moines.

Meanwhile, back at the office, Joe Artz, Hugh Davidson, and Carl Merry had returned from late May field work and were preparing reports; David Asch prepared the final report on "Crops of Ancient Iowa." part of the Iowa Statewide Archaeobotanical Survey; Eleanor Steele mapped and recorded newly reported sit and began a mapping project for Lake Red Rock; Julie Hoyer and Marcia Graybill readied for binding a complete set of IAS journals, newsletters, and OSA reports; Mary Hansman and Cathy Schrader put the finishing editorial touches on IAS Journal articles; Lucy Hansen drafted maps and profiles for a number of reports in progress; Dave Jensen repaired screens; Ray Tinnian and Chris Richards conducted background archival research for historic architectural projects; and Linda Langenberg, Pam Leeper, and Patti Streicher kept everything together.

All in all, a full week!



Lynn Alex (left) describes a newly-found stone tool to three southeast Iowa teachers during the June 1991 introductory teachers workshop. Photo by Bill Addemon

STAFF NEWS

Jim Collins chaired a session on Midwest archaeology at the 56th annual meeting of the Society for American Archaeology held in New Orleans in late April. Jim presented a paper he co-authored with Dale Henning titled "The Bonaker Phase: Something Completely Different Forty Miles from Cahokia." With Kris Hirst and Carl Merry, he also attended a meeting of the National Association of Transportation Archaeologists while at the conference. Closer to home, Jim was elected Vice-Chair of the Iowa Academy of Science's Anthropology Section.

Fred Finney was recently hired as a Survey Archaeologist for the Highway Archaeology Program and as Project Director of the OSA General Contracts Program. Fred arrives from Wisconsin, where he will soon defend his Ph.D. dissertation at the University of Wisconsin-Madison. His experience includes excavation of large Mississippian sites in Illinois and Archaic and Woodland sites in Wisconsin.

Bill Green presented a paper titled "Ohades Reuben Keyes and the History of Iowa Archaeology" at the Iowa Academy of Science's annual meeting at Loras College in Dubuque.

Kris Hirst was elected to the Board of Directors of the Hoover Nature Trail. She will assist in identifying and protecting cultural resources along this converted railroad route between Burlington and Cedar Rapids. Kris also presented a paper at the SAA annual meeting in New Orleans, entitled "Shell Games: Freshwater Naiad Shell As Raw Material for Tools."

Julie Hoyer and Shirley Schermer presented programs at a teachers workshop on Iowa's American Indian Heritage held in July at the Iowa 4-H Education and Natural Resources Center, Madrid, Iowa.

Marlin Ingalls gavea program on identification of early Historic Indian artifacts in eastern Iowa at the annual Congress of Historical Organizations held at the State Historical Museum in Des Moines.

Steve Lensink presented a paper titled "Explanations of Dietary Shifts in Mill Creek Culture Based on Age Structure of Data on White-Tailed Deer" at the SAA meeting in New Orleans. Steve also is teaching a summer course entitled "The American Indian" at the University of Iowa.

Carl Merry was appointed to the Certification Committee of the Society of Professional Archaeologists.

Shirley Schermer has been elected to a two-year term as Chair of the Association of Iowa Archaeologists.

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NEW IAS MEMBERS

Lawrence Anderson, Grand Rapids, MN. Ken Barr, Davenport Kathy Beck, Clear Lake James B. Bush, Marshalltown Neal Crum, Elkland, MO. Therese Cummiskey, Fairfield

Tony DeRegnaucourt, Ansonia, OH. Don Ellison, Canton, MN. Fred & Nancy Finney, Iowa City Dan Gadd, Coralville

Carol A. Haack, Iowa City Frank Hoelscher, Wichita, KS Julie Madison, Des Moines Jan Merchant, Jesup Timothy D. Morton, Polk City Carol Mouchka, Keystone

Tom Murphy, Tama Stacey Snyder Newbrough, Pocahontas Kathleen O'Hara, Davenport Ron Peterson, Ames

William Pettit, North Liberty Vicki Pratt, Omaha Marguerite Rains, Pisgah Robert L. Riche, Council Bluffs Christy Rickers, Ames Greg Roesch, Iowa City

John Schafer, Moline, IL. Katy Selim, Des Moines Ellen Sweet, Iowa City Scott Thompson, Ames Mr. & Mrs. Walter Trester-Hall, Hamburg Casey Walker, Clinton Craig Williams, Glenwood

IAS MEMBERS ON THE ROAD

Tracy Cunning, an IAS member formerly from Des Moines, is working this summer for the University of New Mexico on their ENRON Pipeline Project. She is on the historical archaeology crew and is excavating a mining town between Kingman, Arizona, and Needles, California. Next spring she will begin the masters' program in public history at Arizona State University. Keep the sand out of your eyes, Tracy!

Ron Wilson, director of the UNI Museum and stalwart member of the Black Hawk Chapter, has accepted a new job as director of the North Museum on the Franklin and Marshall College campus in Lancaster, Pennsylvania.

CALENDAR

October 18-20, 1991 - Midwest Archaeological Conference at La Crosse, WI. Contact Jim Gallagher, Mississippi Valley Archaeology Center, University of WI - La Crosse, 1725 State St. La Crosse, WI 54601. Telephone (608) 785-8463.

November 13-16, 1991 - Plains Anthropological Conference, Holiday Inn, Lawrence, KA. Contact William B. Lees, Kansas State Historical Society, 120 West 10th, Topeka, KA 66612; (913)296-2625.

Spring 1992 - Iowa Archeological Society Annual Meeting at the Grout Museum, Waterloo, IA.

HAVE YOU PAID YOUR 1991 DUES YET?

ANNUAL MEMBERSHIP DUES VOTING:

1.Active	\$15
2.Household	\$18
3. Sustaining	\$25

NON-VOTING:

1.Student(under 18) \$72.Institution\$20

SEND DUES TO: Deb Zieglowsky-Baker 616 7th Avenue Coralville, IA 52241

The Iowa Archeological Society is a non-profit, scientific society legally organized under the corporate laws of Iowa. Members of the Society share a serious interest in the archaeology of Iowa and the Mid-west.

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Sheila Hainlin, 1434 44 St., Des Moines, IA 50311.

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