

Iowa Archeology News



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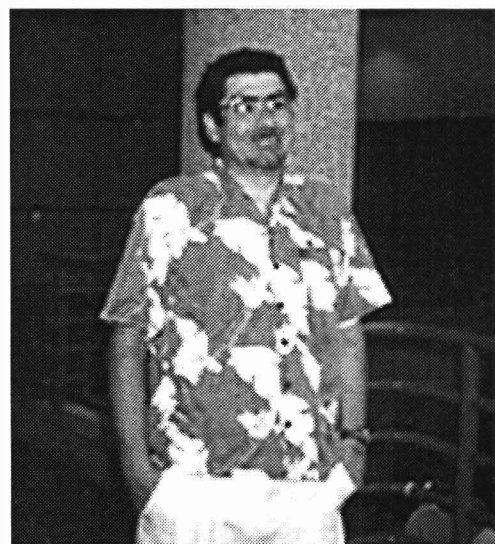
Archaeology Items of Interest *Events, News and Welcome*

IAS Profiles Don Raker

Don Raker might fit the description of a "man for all seasons." His varied interests, experiences and educational background would certainly support that analogy. Born in Boone, Iowa, he credits his mother for his initial interest in archaeology. When he was in 1st grade, she took him to get his library card. Every few weeks he would get an armload of books. The subjects might vary – Babe Ruth, Ty Cobb, dinosaurs and the Mayans. The study of the Mayan civilization particularly fascinated him, and led him to other cultures such as the Roman, Egyptian and much later the great civilization at Cahokia. Thus started his long and rich quest for knowledge of cultures. Over the course of years this quest would lead him to tour Stonehenge, Chichenitza, Cahokia, Watson Brake, Poverty Point, Mesa Verde, Etowah, Teotihuacan, and the Great Serpent and Emerald Mounds.

His desire to learn more of cultures continued with his college education. He received a BA from Drake in English, linguistics, foreign languages and Greco-Roman classics. For 20 years he has taken classes in art (mostly ceramics) at the Des Moines Art Center. He has also participated in flintknapping and ceramics classes at the Archeological Institute in Kampsville, Illinois. He enjoys the study of languages and has taught himself Spanish. Fossils, earth science, gardening, flintknapping, ceramics and throwing the Atlatl are hobbies he enjoys. Don works for the US Postal Service as a rural letter carrier in Johnston, IA.

Don has been active in the Iowa Archeological Society and Central Iowa Chapter of IAS for over 10 years. He has worked on digs at the Lange, Double Ditch and Wickiup sites and is certified as a field technician. He and his wife Mary enjoy getting together with their friends while attending the IAS and CIC meetings and field trips. Don is a very active member of the CIC. The Chapter can always rely on his active participation. He has made presentations on prehistoric pottery and assisted with many flintknapping and Atlatl demonstrations for the general public and the Boy Scouts of America. In May of 2002 he began a term on the IAS Board of Directors.



IAS Member Don Raker

IAS Announcements

Events-Education-News

Mark Your Calendars for Fall 2002 Meeting

of the Iowa Archaeological Society

When: Saturday November 2, 2002

Where: Wickiup Hills Nature Center, Palo, Iowa
(west of Cedar Rapids)

Featuring:

- Morning presentations and displays on regional archaeology – registration begins at 9:00 AM, papers at 10:00 AM (hear about the latest IAS volunteer effort at Bonaparte Pottery). Contact Tom Chadderdon at (319) 247-0864 if you have poster papers or wish to do demonstrations.
- An early afternoon performance by Jack Gladstone, a nationally recognized performer and enrolled member of the Blackfoot Nation of Montana
- A late afternoon walking tour of sites in the Cedar River Greenbelt

All of this in the splendid new facility of the Linn County Conservation Department located in the midst of restored wetlands, woodlands, prairie, and savannah alongside the Cedar River. **Look for announcement and registration information in the mail soon!**

IAS NEEDS HELP NAMING 10 MOST ENDANGERED IOWA SITES

At the IAS Board Meeting in August board members took initial action on a concern for endangered Iowa archaeological sites raised by Board member Mike Heimbaugh. After some discussion the IAS Board's National Register, Landmarks and State Preserve Committee was given the charge of determining the 10 most endangered Iowa sites.

The committee is asking member's help in determining those sites. Thus far three sites have been suggested: Blood Run, Glenwood Locality and Ft. Des Moines #2. Please send your suggestions to: Michael Heimbaugh, IAS Preservation Committee, 3923 29th, Des Moines, IA 50310 or paleomike@msn.com.

IAS EXECUTIVE BOARD

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Ph: (319) 456-3911

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Secretary: Mike Perry

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jthompson@salamander.com

Journal

Editor: Joe B. Thompson

Ph: (319) 547-4545

Newsletter

Editor: Mike Heimbaugh

Ph: (515) 255-4909

paleomike@msn.com

State

Archaeologist: Beth Pauls

Ph: (319) 384-0732

beth-pauls@uiowa.edu

IAS Profiles Don Raker

Cont. from Page 1.

When asked what his most memorable archaeological experience might be, he had a difficult time making a choice, but the list of choices he considered was very descriptive: walking through Stonehenge; standing on the Pyramid of the Sun at Teotihuacan; staring up at the huge mound at Poverty Point; standing atop the Templo Mayor at Chichenitza; finding a marine shell at the Lange site; sitting on a bucket looking west at the Double Ditch site

while watching the mist in the river valley below. And the last - and perhaps most intriguing – the time a horseman pulled a gun on Steve Lensink.

Don would like to see the IAS sponsor an archaeological site somewhere in Iowa. It should be a site where IAS members and the public could get involved and work for maybe 5 years.

Prehistoric Habitations on the Honey Creek Bottoms, Louisa County, Iowa

Part Two

By Joe B. Thompson, Bear Creek Archeology

Editor's Note: In Part One of this article, three figures were inadvertently omitted. Please find them on page 6 - 7.

This second report on archeological investigations in the Honey Creek bottoms in southern Louisa County focuses on 13LA508, a multicomponent prehistoric site east of the channel across from 13LA499 (see Figure on page 6 for general site location). The reader is directed to the first article, published in the summer 2002 issue of the *Iowa Archeology News*, for information on the site's geomorphic and natural setting (Thompson 2002). Additional technical data on 13LA508 and other properties examined during the original archeological survey and testing projects along County Road H16 are presented in Hoppin and Stanley (2000) and Thompson (2000).

Site 13LA508

The investigation of 13LA508 involved the excavation of 10 1 x 1 m test units across the narrow strip of the site (about 850 m²) in the road right-of-way (ROW). An additional part of the site, not investigated, lies outside the ROW on the expansive Gunder Member terrace paralleling the modern Honey Creek channel. These investigations revealed 13LA508 as a multicomponent Oneota, Late Woodland, and Middle Woodland site.

Artifact Assemblages

The testing investigation produced a sizable cultural inventory of several hundred artifacts, almost 75% of which were flaking debris. Summary information on the major artifact classes is presented below.

Pottery. Of the seven sites tested along County Road H16, 13LA508 produced the largest collection of prehistoric pottery, although with 16 sherds and sherdlets (unidentifiable smaller pieces of pottery) the inventory is still rather small. Summary information on each sherd is presented below and the Oneota sherd found in Test Unit 1 is illustrated in Figure 1.

Table 1. Site 13LA508 pottery.

<u>Unit/Level</u>	<u>Description</u>	<u>Cultural Affiliation</u>
1/5	shell-tempered shoulder sherd with narrow trailing (oblique)	Oneota
2/4	4 sherdlets	unknown
2/6	cord roughened body sherd	Late Woodland
2/8	sherdlet	unknown
2/8	cord roughened body sherd	Woodland
2/10	cord roughened body sherd with oblique broad trailing; crushed rock temper	Havana ware(?)
2/12	cord roughened body sherd (shoulder)	Late Woodland
3/10 Fea. 1	cord roughened vessel base (conoidal form)	pre-Late Woodland
3/10 Fea. 1	rim (weathered)	pre-Late Woodland
4/7	sherdlet	unknown
7/8	2 cord roughened body sherds; chert temper	Woodland
9/6	cord roughened body sherd	Late Woodland

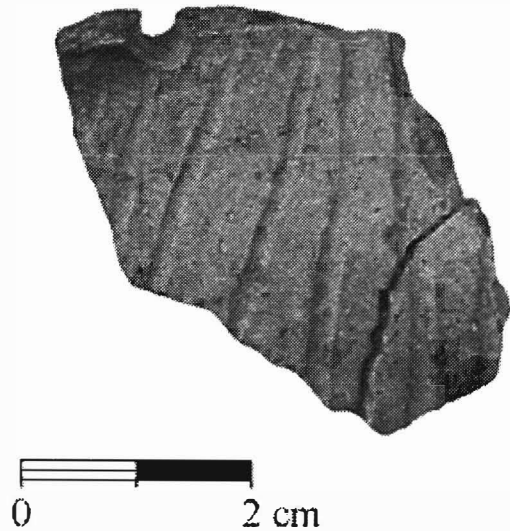


Figure 1. Oneota sherd

Chipped Stone Tools and Cores. Three cores, two unfinished bifaces, one projectile point fragment, and a large assemblage of flake-tools were found during the 13LA508 testing. Summary information on the tools is presented in Tables 2 and 3, and data on the cores in Table 4. The single diagnostic tool, a Snyders-like point in Test Unit 3, is illustrated in Figure 2 (See page 5).

Table 2. Site 13LA508 bifaces.

<u>Unit/Level</u>	<u>Type</u>	<u>Material</u>	<u>Wt. (g)</u>	<u>Use-Phase</u>
5/8	oval-shaped biface (Stage 3)	Burlington (heat-treated)	84.9	rejected during manufacturing
3/13	corner-notched biface (Stage 5); Snyders-like	Burlington (heat-treated)	6.9	impact fractured
3/10	lateral edge fragment (Stage 3)	Burlington	16.0	broke during manufacturing

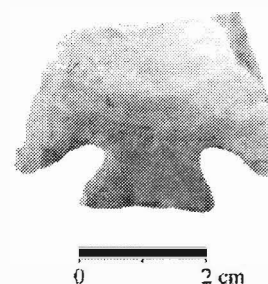
Table 3. Site 13LA508 flake-tools.

<u>Unit/Level</u>	<u>Type</u>	<u>Material</u>	<u>Wt. (g)</u>	<u>Inferred Activity</u>	<u>Use-Phase</u>
1/7	scraper	Burlington (heat-treated)	1.9	hideworkingcomplete	complete
1/8	knife	Burlington (heat-treated)	1.3	butchering	complete
2/8	spokeshave	Burlington (heat-treated)	2.6	wood- or boneworking	complete
2/10	knife	Burlington	2.1	butchering	complete
2/11	unknown, hafted	Burlington (heat-treated)	5.6	unknown	broke in use
2/11	knife	Burlington	1.2	butchering	complete
2/12	hafted scraper	Burlington	7.9	hideworking	complete
3/1	hafted scraper	Burlington	13.3	wood- or boneworking	complete
3/7	knife	Burlington (heat-treated)	3.3	butchering	broke in use
3/8	scraper	Burlington	2.5	wood- or boneworking	broke in use
3/8	scraper	Burlington (heat-treated)	3.3	wood- or boneworking	broke in use
3/8	scraper	Burlington	4.6	wood- or boneworking	broke in use
3/8	scraper	Burlington	2.3	wood- or boneworking	broke in use
3/10 Fea. 1	knife	Burlington	16.4	plant tissue or soft wood	broke in use
3/10 Fea. 1	knife	Burlington	4.5	plant tissue or soft wood	broke in use
4/10 Fea. 2	knife	Burlington	15.7	plant tissue or soft wood	broke in use
4/10 Fea. 2	knife	Burlington	6.1	butchering	broke in use
5/1-2 plowzone	knife	Burlington (heat-treated)	4.6	plant tissue or soft wood	broke in use
5/4	hafted scraper	Burlington	3.2	hideworking	broke in use
5/4	knife	Burlington (heat-treated)	2.0	butchering	broke in use
5/4	knife	Burlington (heat-treated)	7.4	butchering	complete
5/5	spokeshave	Burlington	3.6	wood- or boneworking	complete
5/6	knife	Burlington	14.0	plant tissue or soft wood	broke in use
5/6	knife	Burlington (heat-treated)	2.9	plant tissue or soft wood	broke in use
5/6	scraper	Burlington (heat-treated)	9.8	hideworking	broke in use
5/7	scraper	Burlington	5.4	wood- or boneworking	complete
5/7	knife	Burlington	11.4	plant tissue or soft wood	complete
5/8	knife	Burlington	3.6	wood- or boneworking	complete
5/9	knife/scraper	Burlington	9.6	butchering	complete
5/9	scraper	Burlington (heat-treated)	5.8	boneworking	complete
5/12	knife	Burlington	19.2	plant tissue or soft wood	complete
6/7	knife	Burlington	3.8	butchering	complete
6/8	unknown, hafted	Burlington (heat-treated)	1.7	unknown	broke in use
6/9	awl	Burlington	16.3	wood- or boneworking	complete
6/9	knife	Burlington	7.0	butchering	complete
6/11	knife	Burlington	5.2	butchering	broke in use
9/5	knife	Burlington	1.5	butchering	complete
10/5	scraper	Burlington	8.5	wood- or boneworking	complete
10/7	scraper	Burlington	25.7	wood- or boneworking	complete
10/7	knife	Burlington	7.0	butchering	complete
10/7	awl	Burlington	1.7	wood- or boneworking	complete

Table 4. Site 13LA508 cores.

<u>Unit/Level</u>	<u>Type/Morphology</u>	<u>Material*</u>	<u>Wt. (g)</u>
2/10	tested cobble/ tabular	cherty Burlington limestone	96.6
2/12	polymorphic/ polyhedron	Burlington (heat-treated)	64.9
3/10 Fea. 1	polymorphic/ polyhedron	Burlington	102.8

*all from secondary sources

**Figure 2. Snyder's-like point**

Flaking Debris. The large inventory of flaking debris was scattered across the site, with each unit producing at least a few flakes. A few units, however, produced large numbers of flakes likely associated with knapping loci or debris dumps (a 10 liter water-screened soil sample from one such area produced over 100 mostly small flakes).

Burlington chert was the predominant material type, accounting for 98.9% by weight and 98.3% by count. Other material types include red-, gray-, and tan-colored till cherts, tan/brown-colored chert, and possibly Moline chert. Summaries of flake types and heat-treating rates are presented in Table 5.

Table 5. Site 13LA508 flaking debris.

<u>Type</u>	<u>total</u>	<u>heat-treatment %</u>
core rejuvenation	4	50.0
core trimming	4	0.0
decortication	16	18.8
fragment	212	11.3
interior	49	12.3
pressure	2	50.0
shatter	51	15.7
tertiary thinning	23	8.7
thinning	61	19.7
assemblage total:	422	13.7

Table 6. Site 13LA508 introduced rock.

<u>Class</u>	<u>Material*</u>	<u>Count</u>	<u>Wt. (g)</u>
<i>FCR</i>	basalt	1	77
	FG igneous	22	482
	F/MG igneous	8	132
	MG igneous	5	358
	M/CG igneous	5	246
	granite	7	1,183
	FG sedimentary	1	6
	sandstone	1	4
	dolomite	1	9
	limestone	6	77
	unknown	1	17
	sub-total:	58	2,591
<i>Shattered Rock</i>	basalt	1	93
	white quartzite	1	9
	heat-shattered chert	3	37
	dolomite	10	158
	limestone	5	88
	sub-total:	20	385
	site total:	78	2,976

*FG-fine-grained; F/MG-fine/medium-grained; MG-medium-grained; M/CG-medium/coarse-grained igneous

Introduced Rock. The introduced rock inventory consisted of 58 FCR and 20 pieces of shattered rock (Table 6). Most rock was obtained from local stream and till sources, with minor occurrences of bedrock-source limestone and dolomite.

Cultural Features

Two cultural features, a basin hearth and pit, were found during testing. The hearth (Feature 1), identified in Test Unit 3 approximately 100 cm below the modern surface, produced two sherds (including a vessel base) of unidentifiable pre-Late Woodland pottery, a few flake-tools, several pieces of FCR, and about a half-dozen pieces of flaking debris. Several pieces of carbonized wood (probably elm) produced an uncorrected radiometric date of 1640±110 B.P. (cal. A.D. 417; Beta-1444983). The pit (Feature 2) was found in Test Unit 4 at approximately the same stratigraphic position (Bw1 horizon) as the hearth. Fragments of a few tools and several pieces of FCR, flaking debris, carbonized materials, burned bone, and burned earth were recovered. The pit appeared filled with refuse from hearth-cleaning and other activities.

Discussion

The archeological testing of 13LA508 provides a snapshot of prehistoric life along Honey Creek. The site's geomorphic setting on a late Gunder terrace was relatively stable (at least for relatively brief habitations) but near enough to the stream to make water and riverine resources easily available. Repeated flood events during prehistory slowly built up the terrace, burying the remains of past habitations. This gradual upbuilding explains why no buried soils were found in the terrace while prehistoric components from the last few thousand years were dispersed between the modern surface to a depth of about 1.5 m (little or no recent alluvium covers this landform).

Based on a radiometric date and diagnostic artifacts, prehistoric habitations on 13LA508 date to the Middle Woodland, Late Woodland, and late prehistoric (Oneota) periods. While a few features were found in a probable Middle Woodland context, no evidence for long-term habitations was found. All prehistoric occupations appear to be bivouacs or similar short-term habitations.

While not part of sedentary or semi-sedentary lifeways, the repeated occupations of 13LA508 did produce and leave behind a fairly large cultural inventory providing clues to past activities and land use patterns. For example, the chipped stone inventory is almost totally Burlington chert obtained from the local bedrock and streambeds. This focus on local resources is also seen in the fire-cracked rock assemblage, which consisted primarily of igneous stones obtained from nearby glacial deposits and streams. The Burlington chert was used on-site to produce bifaces and (more commonly) flakes for tools. The appearance of heat-shattered chert/limestone suggests that heat-treating of chert to enhance its flaking qualities also took place during the prehistoric habitations.

The chipped stone tools provide further evidence of prehistoric activities on 13LA508, which minimally included butchering, working hide, wood, and bone, and processing plant remains to extract fibrous materials. Several of these artifacts were hafted fragments, suggesting that as tools broke they were replaced by on-site produced specimens. The only diagnostic chipped stone tool, a fragment of a Snyders-like point (Figure 2), was broken by impact and may have been removed from a carcass. The few 13LA508 pottery vessels were used for cooking and other domestic activities. Significantly, the single Oneota potsherd (Figure 1) is not from a village occupation but part of a much smaller habitation like a bivouac or seasonal camp. It would appear that Oneota settlement patterns in southeastern Iowa were similar to those suggested for central Iowa (see Benn 1984), where small, seasonal camps were inhabited in addition to larger, more permanently occupied villages (Tiffany 1998).

Acknowledgements

The archeological investigations along County Road H16 were funded by the Office of the Louisa County Engineer, Wapello, Iowa, and the Iowa Department of Transportation, Ames. Analysts contributing their expertise to the project include David W. Benn and Lowell Blikre, both of Bear Creek Archeology (BCA). Derek Lee, also of BCA, produced the figures in both articles.

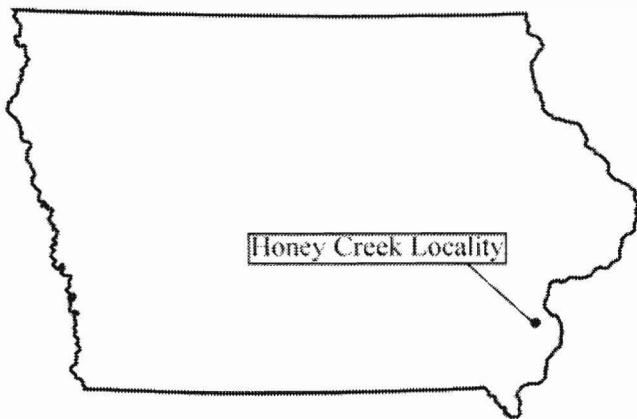
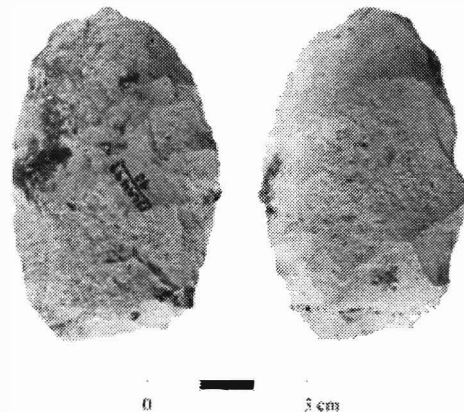


Figure 1. Location of Honey Creek Within Iowa



**Figure 3. Unfinished biface
Referenced in Part One**

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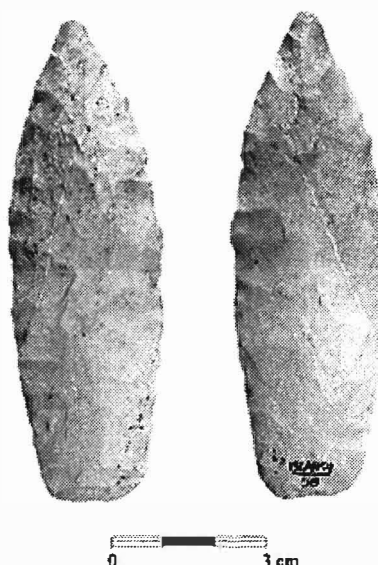


Figure 2 Sedalia-like point.
Referenced in Part One.

Membership Information

Contact Membership Secretary, Iowa Archeological Society, University of Iowa, 700 Clinton Street Building, Iowa City, IA 52242-1030.

Membership Dues

Voting:

Active	\$15
Household	\$18
Sustaining	\$25

Non-Voting:

Student (under 18)	\$7
Institution	\$20

Newsletter Information

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 Midwest. *Iowa Archeology News* is published four times a year.

All materials for publication should be sent to the Editor: Michael Heimbaugh, 3923 29th St., Des Moines, IA 50310. Phone (515) 255-4909. E-mail: paleomike@msn.com

Prehistoric Pottery Technology (Part Two)

Decoration Techniques

by Timothy S. Weitzel

The most frequent decorative technique is to use a tool to create linear and geometric designs. Tooled decoration could be made with a sharpened stick, bone, or copper pin. Parallel incisions, diagonal slashes, and triangular key patterns were frequent design motifs. When the tool is dragged along the vessel surface leaving a hemispherical trough it is called *trailed* while a steep-walled cut is called *incised*. The difference between the two is the result of when in the drying process the pot was decorated. When the end of the tool is pushed straight into a pot it is called a punctate, boss, or node. A *punctate* is where the sharp end of the tool is pushed into the outside surface of a vessel leaving a conical or circular design motif on the outside of the vessel. The inside surface may be slightly distorted from the pressure of the tool. An interior punctate leaves raised bumps on the outside of the vessels, and these are called *bosses* or *nodes*. When the edge of the tool is pressed into the lip of a vessel, the decoration is called *impressed*. Diagonal and vertical impressions were used to create a rippled or ridged appearance along the top of the vessel. Decorations are often *zoned* wherein areas are left smooth while others are incised. The Middle Woodland Havana and Hopewell wares exhibited elaborate zoning outlined with trailed or incised lines and filled with punctates. Middle woodland pots also featured two special types of tool impression created by *rocker-stamp*, and *dentate-stamp*. A rocker stamp is used to apply a series of marks by rocking the surface of the stamp across the vessel surface. The dentate stamp is toothed, and can be used to make even rows of punctates. Both stamps were used to make a variety of lined, curved, and oval impressions.

Other types of decoration were applied to the vessel. Clay effigy head of birds were attached to certain Mill Creek vessels. In a few limited examples, generally related to Mississippian wares, some very thin-walled vessels are found with the exterior walls painted with red pigment. One red pigmented, buff-pasted potsherd, potentially with grog temper was noted from a surface collection in Southeast Iowa. It is possible this pigment was an applied *slip*—a suspension of clay in water, but because slip is often quite thick, it is more likely this pigment was a grease-based pigment similar to that used for covering items with red ochre. Smoothing of the exterior can be accomplished with a smooth paddle in the forming process or performed as the pot is drying with a gourd fragment, a piece of shell, or a vessel fragment. When smoothing is taken to its logical extreme, it can result in a shiny vessel surface. This is called *burnishing*. Several Late Prehistoric pottery forms, especially from societies affiliated with the Mississippian culture, were either smoothed or burnished. Many Middle

Woodland and Late Woodland vessels exhibit a rhythmically roughened surface with cord marks retained from paddling with a cord-wrapped paddle. The effect should be considered decorative as well as functional as it was intentionally left after construction and the lines are always vertically oriented along the rim. Based on the common occurrence of random cord marks on the base of vessels, a vertical orientation was intentional on the rims.

Firing Sequence

Prehistoric ceramics in the Midwest were fired to the point that the mineral composition of the clay breaks down, providing a permanently hard vessel. Unless the vessel is completely dry, chemically unbound water will be driven out of the clay mixture as the paste is heated. As the temperature of the vessel approaches 100° C (212° F) the water will vaporize. If it happens too rapidly, the pressure of the water turning to steam will result in exploding pots. Beginning at about 350° C (662° F), chemically bonded water within feldspar disassociates and is driven off as a gas again posing the potential for steam explosions. The chemical bonds within the feldspar are rearranged so that the resulting compound will no longer be able to hydrate. This process is *sintering*. It is generally complete by 500° C (932° F) and the paste will no longer dissolve or *slake* in water. Paste that has sintered is called *mature*. Oxidation of carbon and sulfur occurs in the temperature range of about 400 to 900° C (752 to 1652° F). At about 573° C (1063° F) the silicon dioxide in clay undergoes a change in its molecular structure causing a change in the size of the vessel of about two percent. Although a small change, it can cause an unevenly heated pot to fracture. An additional danger for clays of high natural lime content or tempered with limestone or shell occurs at about 850° C (1562° F) where calcium oxide bonds with water vapor in the firing atmosphere and forms calcium hydroxide, a molecule with larger volume. The effect is called *lime spalling* and results in flaking of the surface of the pot, generally in a cone-shape with a white powder left at the bottom of the hole. The naturally occurring clay used for prehistoric pastes will become a viscous liquid if the temperature approaches 1200° C (2192° F). The pot will likely bloat, pit, and collapse as the paste melts into glass. If soluble salts are present in the paste, vitrification can occur at a lower and mostly unpredictable temperature. Ethnographic studies have found pit fired ceramics with wood fuel fired to a maximum of about 730 to 918° C (1346 to 1684° F) with a maximum range of temperature within a single firing of about 170° C (338° F). Firing times ranged from one-half to just over one hour. It is unknown how long the firing process took to make prehistoric

ceramics in Iowa. It is evident that the firing temperatures for ceramic fragments that have been recovered must have peaked somewhere between 500 to 900° C (932 to 1652° F) for grit and sand-tempered pottery, 500 to 850° C (932 to 1562° F) for pottery tempered with calcium oxide.

Open-air firing is difficult to master and it is incorrect to assume a lack of investment in a formal structure to fire pots indicates a lack of skill. To fire a pot properly it would need to be heated until the critical temperature is reached and held for a time. This is a very different concept than most western and time-oriented people would consider. Rather than setting a timer, the pots need to be watched to see when they reach a color. The target color, then would be a bright red-orange but not orange. Pots can be broken in any of the stages above if heated too rapidly, cooled too rapidly, or even if a sudden wind causes uneven drafts in the fire. Pit firing was adopted in many locations because of the extra control it provided over the firing process. It seems probable, though unknown at this point, that the later, more refined ceramic wares were fired in pits. It seems highly likely that at least some of the very consistently black wares, such as Raimey incised, were fired and smothered or fired under grass. Buff and orange wares clearly were fired in the open, or were fired in a pit with plenty of oxygen and not smothered at the end of the firing, being allowed to cool slowly. The use of limestone slabs has been documented in both open air and pit firing to increase the flow oxygen into the bottom of the fire.

Although the occurrence of specialized communal pottery firing sites is known elsewhere in North America, none are known from Iowa. Structures for firing pots within features at recorded sites have not been identified. It is very likely that prehistoric pottery in Iowa was fired on the ground or in a simple pit. Given the number of vessel fragment found in what have been interpreted as cooking features, it may be difficult to distinguish between kiln features, cooking features where accidents occurred, or any hearth structure into which pot fragments were later deposited with refuse.

It has been a curiosity among modern artisan potters that most pre-Columbian or prehistoric North American vessels were not watertight. Even in the very well made Late Prehistoric pots, the paste will absorb water, even while it will not slake. This is because of the open pore structure of the clay. The openings are caused at a molecular level because the temperature at which most natural clays mature is well below that at which the particles of the feldspar begin to vitrify or melt. Feldspar is resistant to heat (*refractory*) up to at least 700° C (1292° F) and does not fully melt below about 950° C (1742° F) where the melting feldspar begins to seal the pores in the paste. However, having noted the thick residues seen in cooking jars, it seems quite likely that the frequently greasy food prepared

in these jars helped to seal them much like the use of oil or lard to season a new cast iron skillet

Other Indicators

Baskets and woven materials are not preserved in the soil types prevalent in the Midwest; the impressions of these materials that are fossilized in pottery fragments are important additional sources of knowledge about prehistoric Midwestern textiles. Similarly, it is rare to find wattle preserved in Midwestern sites, however, the impression of the wattle material has been preserved on pieces of daub recovered at Late Prehistoric sites in western Iowa. The presence of true or copied Mississippian vessel shapes and decoration in Late Prehistoric sites indicates these societies were interacting with the Mississippian center of Cahokia. The type, elaborateness, and placement of vessels in burial contexts is frequently used to interpret trade interactions and political status.

Cultural Identifiers

Although there are many possible shapes, cultural ideals determine which subset of all possible shapes will be used by any one culture. The treatment of the surface, especially those involving impressed and tooled decorations, is a strong cultural indicator. Vessel shape and form are culturally diagnostic, but less so than the decoration, implying decoration was meaningful to the makers and users of the pots that were decorated. It has been suggested that because individuals re-interpret culturally dictated motifs, there may be distinct ranges of variation that can be used to identify individuals within the wider range of variation that represents the culture.

Functional Identifiers

The intended function of a vessel is sometimes discernable based on visual inspection, especially when a form can be compared to an example from a known context. Wide, low, vessels with very narrow openings are thought to be seed jars. High-necked vessels are interpreted as water bottles. Any vessel with burnt residue inside can be assumed a vessel to heat food or other things. Small rounded vessels may be cups. Some objects, such as perforated disks of fired clay, as well as disks apparently cut from a vessel may have served as a form of personal adornment.

IAS Journal Editor Joe Thompson is always looking for articles to publish in future issues of the *Journal of the Iowa Archeological Society*. Please address correspondence to:

Joe B. Thompson

PO Box 353

Cresco, IA 52136 or

email: jiaseditor@hotmail.com

IAS Chapter News

Black Hawk Regional Chapter

June 5th the Black Hawk Regional Chapter held a potluck dinner at Island Park in Cedar Falls. They were also invited to the Gem and Mineral Society potluck and a program on flint at the Hearst Center June 11th.

Contact Lisa Beltz

1804 W. Ridgewood Drive, Cedar Falls, IA 50613

(319) 268-0865

Lisa.Beltz@uni.edu

Central Iowa Chapter

June 2nd the CIC held its annual picnic at Yellow Banks Park. The CIC Flinnappers were joined by SE Chapter knapper Angela Hopkins for the Knapping demonstration at the *Buffalo Days* event at the Prairie Learning Center on June 8th. The CIC, the Paul Rowe Chapter and members of the Central States Hawkeye Chapter were invited to see Harold Carr's extensive artifact collection at Harold & his wife Sylvia's home near Greenfield July 21st. There were lots of folks sharing their latest finds and visiting. The day was warm, but there were cold drinks, cookies and lots of shade, so a great time was had by all. In August members of the CIC joined the SE Iowa Chapter for flintknapping and sharing their latest finds.

Contact Michael Heimbaugh

3923 29th St., Des Moines, IA 50310

(515) 255-4909

paleomike@msn.com

Southeast Iowa Archaeology Chapter

The SE Chapter met with the CIC at Red Rock August 24th. The group shared finds, visited and flintknapped for an enjoyable time.

Contact Angela Hopkins

1149 145th Street, Pella, IA 50219

(641) 626-4170

ash@kdsi.net

Quad City Archaeological Society

Contact Ferrel Anderson

1923 East 13th St., Davenport, IA 52803

(319)324-0257

andersonfe@msn.com

Northwest Chapter

A field trip to and surface collection at Webb Acres was well attended June 8th. A large quantity of pottery, shells and bones were collected. NW Chapter President, Mark Mertes, has asked some members to go through old chapter newsletters and write some articles about the chapter's history. In July members of the NW Chapter took a site near Vermillion, South Dakota being excavated by Dr. Bradley and USD Anthropology students. July 21st NW Chapter members helped host Ragbrai riders and showed them an archaeology display. August 13th the chapter visited the Gillett Grove site where John Doershuk, OSA, was conducting a field school.

Contact Linda Burkhart

Sanford Museum

117 E. Willow, Cherokee, IA 51012

(712) 225-3922

sanford@cherokee.k12.ia.us

Paul Rowe Chapter

Contact Dennis Miller

31126 Applewood Rd., Silver City, IA 51571

(712) 525-1007

Farming99@aol.com

Ellison Orr Chapter

Lori Stanley of Luther College presented *The Sacred Rock Petroglyph Boulder & Seven Sacred Stones of the Siouan People* at the July 28th meeting held at the Postville Citizen's Community Center.

Contact Lori Stanley, (319) 387-1283

or Joe B. Thompson, (319) 387-0092

Orr Chapter, PO Box 511, Decorah, IA 52101

jiaseditor@hotmail.com

Keyes Chapter

Contact Keith Young

11236 Co. Rd. E17, Scotch Grove, IA 52310

(319) 465-6393 or e-mail:

pekoyoung@n-connect.net.



NEW STATE ARCHAEOLOGIST

Beth Pauls Assumes Leadership

The Office of the State Archaeologist welcomed **Beth Pauls** as the fifth State Archaeologist on August 1. Beth comes to OSA from the University of Wisconsin-Oshkosh where she was an assistant professor and Director of Geographic Information Systems and Spatial Analysis for the Menoken Archaeology Project.

While Beth grew up in the Chicago area, attending school in the suburb of Palatine, she has family connections with Iowa. Her father's family was from Oskaloosa and her husband Erik is a native of the Iowa City-West Branch area. She, Erik, and their 5 year old son Nick are excited about the move to Iowa.

She received her BA in anthropology from the University of Iowa in 1990, working on an honors project with Dr. Mary Whelan on family life in the past with a special interest in the study of the influences of gender. Graduate work in anthropology at the University of California-Berkeley immediately followed, with Beth receiving her M.A. and Ph.D. in 1991 and 1997.

Her research interests in the spatial arrangement of archaeological data have led to her into research on both intrasite relationships in housing patterns, as well as intersite relationships between villages, which can allow for interpretations on such topics as prehistoric travel and trade. For her dissertation topic she showed how differences between villages played out along kinship lines, among the Middle Missouri peoples in North Dakota.

It was this thesis work and a project managing GIS for a study of the 1200 A.D. Late Woodland Menoken Village, in which she researched the interior arrangement of houses that she considers her most significant and interesting archaeological work so far in her career.

When asked what made her interested in becoming Iowa's State Archaeologist, she said she saw it as an opportunity to expand her interest in archaeological education and out-

reach. She feels strongly that with her organizational skills and her interest in working together with others as a part of a team that she can contribute to the OSA's broader mission. Plus, she hopes to put her GIS experience to work, believing it to be a tool integral for resource planning.

Although she has only been on the job for just over a month, she said emphatically that the one aspect of OSA that has impressed and excited her the most is "the people!" She characterizes them as professional in both attitude and behavior with terrific skills. She hopes to work with Public Education Coordinator Lynn Alex to expand the OSA's commitment to outreach. Also, she wants to coordinate more with UI academic departments and hopes to inaugurate a program where OSA can offer experience to students through internships or practicums. She hopes to bring in more grant funding to the office, tentatively planning to try for some large grants, possibly from the National Science Foundation.

Not too surprisingly, she views the biggest challenge facing OSA in the future is funding. Stating that only 10% of the office's money comes directly from state revenues, she intends to pay particular attention to the challenges and problems of contracts and grants. Personally, her own first month has been spent learning to navigate through the complexities of the University bureaucracy.

Musing about the broader issues the field of archaeology faces in the 21st century, Beth stated that justifying the importance of archaeology to society as a whole will be a crucial issue. Again, she stressed the importance of outreach and education to accomplish that goal. Also, she warned that archaeologists must begin to resolve the field's internal divisions—academic vs. applied, prehistoric vs. historic, etc.—to present more of a united front to the public.

Finally, Beth said that she is really looking forward to meeting and working with Iowa's avocational archaeologists, particularly the members of the Iowa Archeological Society. She believes them to be the "front line" in the struggle for archaeological site protection. They are the people who know the land, who may be the first to see the bulldozer that may endanger an important site. She hopes the OSA will continue to rely on them, and to acknowledge their talents and wants to find new ways to support them. She hopes to have the time to get to some IAS chapter meetings or field trips to learn more about Iowa's archaeology.

OTHER STAFF CHANGES

Farewell to David...

David Moyer, Highway Archaeology Program project archaeologist for two years, has resigned to do independent archaeological work in Upstate New York. David brought to OSA a strong interest in rock art and researched and presented *Petroglyph Investigations at the Pilot Rock Site (13CK101), Cherokee County, Iowa* at the recent IAS meeting in Ottumwa. He, along with HAP's **Lane Shields**, also studied Meskwaki artist Wacochachi whose ledger art was used for the 2001 Iowa Archaeology Month poster. A publication on the art work is still being planned.

Shawne and Cindy join GCP staff...

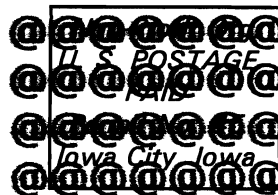
The General Contracts Program has added two new Assistant Project Archaeologists to its staff. Crew chiefs from the Bowen's Prairie project, **Shawne Osborne** and **Cindy Nagel**, been working on numerous small projects since moving to the GCP this summer.

Shawne is a native of St. Paul Minnesota and received her BA at the University of Minnesota in 1997. She began working at OSA in the fall of 1999. She worked with **Rich Fishel** on the DOT Hardin County project. Recently, she has been aiding in the write-up of the 13JN190 farmstead, related to the Bowens Prairie excavations.

Cindy, University of Iowa graduate from Sioux City, began at the OSA in 1998. She worked as a crew member at the Cowan Site in Woodbury County as well as the Phase I and II projects on Highway 1. She did the Total Station Mapping for the Bowen's Prairie project. She has research interest in ceramics and intends to pursue further graduate study in the future. She admits to being an avid softball player.

Check out the OSA
website at
www.uiowa.edu/~osa

Iowa Archeological Society
The University of Iowa
700 Clinton Street Building
Iowa City, IA 52242-1030



John Doershuk
Office of the State Archaeol
700 Clinton St. Bldg

Archaeology Items of Interest

Events

2002 Midwest Archaeological Conference-Oct. 3-6, 2002

The theme of this conference, hosted by Ohio State University Dept. of Anthropology and the Ohio Historical Society, is recent Hopewellian research. Events include: Plenary session titled "Hopewell Anthropology;" a workshop on remote sensing and other electronic tools; conference banquet featuring Dr. Brian Fagan; and bus tours to Newark and the Hopewell Culture National Historical Park.

Registration is \$65.00 for non-students and \$35.00 for students. Call to register at 614-292-8571.

Fifth World Archaeological Congress-June 21-26, 2003

This worldwide organization holds a Congress every fourth year to promote the exchange of ideas and provide a forum for dialogue and debate. The Fifth will be held in Washington, DC. For information, contact Joan Germon
www.american.edu.

News

11,000-Year-old Human Remains Found in Brazoria County, Texas

A Houston, Texas archaeologist, Robert P. d'Aigle, has discovered what may be the oldest human remains ever revealed on the North American continent. CRC, International Archaeology & Ecology, LLC of Spring, Texas, was retained as cultural resource management consultants by the U.S. Fish & Wildlife Service to investigate the discovery of bone fragments found on property in Brazoria County, belonging to the Service.

A skull, fragments of a mandible and associated teeth, and the first two vertebrae of the neck were radiocarbon dated to a minimum of 11,000 years BP and will be further evaluated by CRC's forensic anthropologist.

Welcome

Elizabeth Prine Pauls, New State Archaeologist

The IAS Board had the opportunity to welcome Beth Pauls, the new state archaeologist, at the IAS Board Meeting August 17th. She volunteered to be on several of the IAS Board committees formed during the meeting and expressed her desire to be of assistance as she starts her work with the Office of the State Archaeologist.

Matthew G. Hill, Dept. of Anthropology, ISU

Dr. Matthew Hill has joined ISU's Anthropology department this fall. His research interests include: Terminal Pleistocene-early Holocene prehistory of North America, especially the Great Plains and Upper Mississippi River Valley; New World colonization; and hunter-gatherer subsistence-settlement organization.