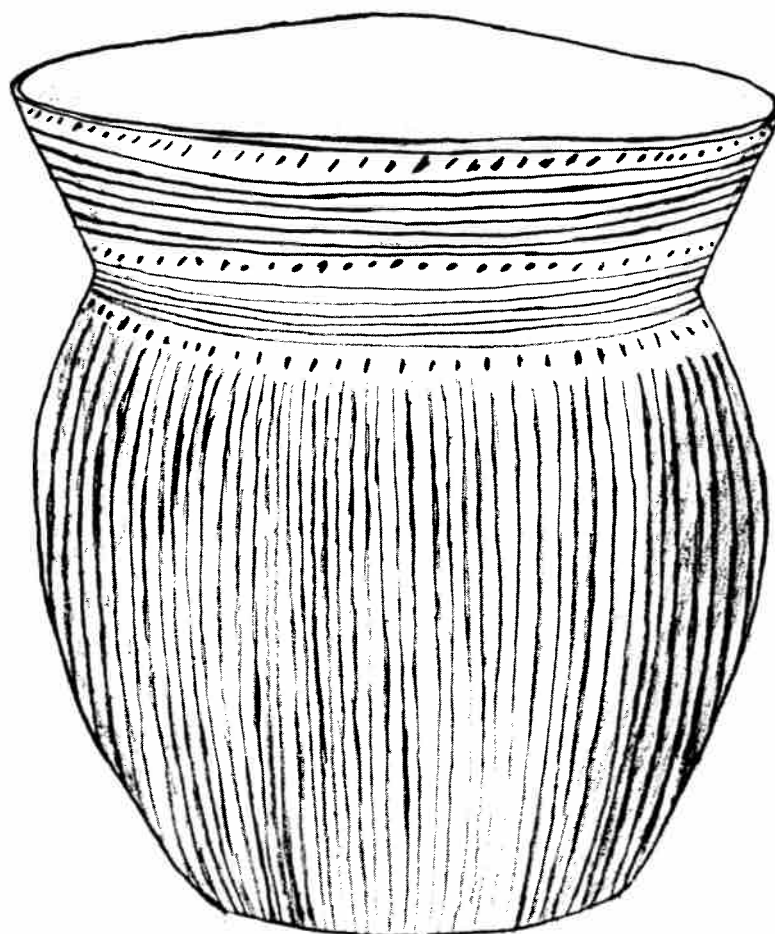


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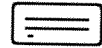
TABLE OF CONTENTS



Odds and Ends from the Editor	2
Upcoming Meetings and Events	3
Obsidian Artifacts from the Ozark Area	7
<i>by Don R. Dickson</i>	
Caddo Ceramics from the Middle Caddoan Period	
Knight's Bluff Site (41CS14), Cass County, Texas	11
<i>by Timothy K. Perttula</i>	
Abstracts of Papers from the 40 th Caddo Conference, Arkadelphia, Arkansas, March 13-14, 1998	21
Abstracts of Papers from the 31 st Caddo Conference, Norman, Oklahoma, March 3-5, 1989	30
Subscription Renewal Form	35



Odds and Ends from the Editor



As usual, I need manuscripts, so you may be hearing from me soon.

If you were at this year's Caddo Conference, you know that there is interest in getting together materials to put together a history of the conference. Hester Davis and E. Mott Davis have part of a draft manuscript put together, and between us, we have a list of all of the places where the conference has been held through the years. If you have photos that you would be willing to share, I would appreciate having them. We can make copies and return the originals to you; of course, if you have negatives, it would be easier if you could have prints made. I'll be including some historical materials in future issues.

There is a new online journal for anthropology based at the Department of Anthropology, University of Montana; it was listed in the last issue of the SAA Bulletin. I went to it, and it looks as if it would be worthwhile to check on occasionally. Right now, there isn't any archeology. The URL is <http://taylor.anthro.umt.edu/ijas/ijashome.htm>

The University of Oklahoma Press lists a book available in May, "Numbers from Nowhere: The American Indian Contact Population Debate", by David Henige [ISBN 0-8061-3044-X; cloth \$47.95]. There are two previous books in the same area,

"American Indian Holocaust and Survival: A Population History Since 1492", by Russell Thornton [ISBN 0-8061-2074-5; \$35.00 cloth, \$16.95 paper], and "New Directions in American Indian History", edited by Colin G. Calloway [ISBN 0-8061-2233-1; \$14.95 paper]. Available in April will be "Beyond the Frontier: Exploring the Indian Country", by Stan Hoig (ISBN 0-8061-3046-6 cloth, \$34.95; ISBN 0-8061-3052-0 paper, \$17.95); this focuses on journeys in Oklahoma during the first half of the 1800s. Available by the time you receive this publication is "The Atlas of North American Exploration: From the Norse Voyages to the Race to the Pole" by William H. Goetzmann and Glyndwr Williams [ISBN 0-8061-3058-X; paper \$24.95]; the publicity says that it includes DeSoto's journey. I haven't seen any of these books, but will try to obtain review copies. Let me know if you are especially interested in reviewing any of these.

SUBSCRIPTIONS: The following people/institutions have already renewed for Volume 9:

Eileen Goldborer
Tozzer Library (Harvard)
M.G. Turner
State Historical Society of Wisconsin
Joe Shurtleff
Charles L. Rohrbaugh
Davis Library,
University of North Carolina



UPCOMING MEETINGS AND EVENTS



April

18 *Old Fort Days Celebration.* Fort Gibson Historic Site, Fort Gibson, Oklahoma. Sponsored by Fort Gibson Chamber of Commerce. Free. 9 a.m. to 5 p.m. For more information, call (918) 478-4780.

23-25 *Oklahoma Historical Society Annual Meeting.* Simmons Center, Duncan, Oklahoma. Registration starts at noon on the 23rd; historical bus tours, 1 p.m.; Chisholm Trail Chuck Wagon 6:45 p.m.; "A Trace of the Trail" at Simmons Center, 8 p.m. Sessions begin at 8:30 a.m. on the 24th and continue on the 25th. Luncheon at 12:15 on the 24th, speaker, Roger G. Kennedy; business meeting follows at 2 p.m.; reorganization meeting at 2:30 p.m. Bus tour at 2:45 p.m. on the 24th; awards banquet at Chisholm Trail Hall, 7 p.m., speaker, Elda Martens. For information, call (405) 521-2491.

23-25 *Texas' Annual Historic Preservation Conference,* Camino Real Hotel, El Paso, Texas. The conference aims to reach both professional and avocational preservationists. Covered will be Texas history, archeology, architecture, and culture. For more information, call the Local History Programs office at (512) 463-5853.

25 *Oklahoma Anthropological Spring Meeting,* hosted by the Southwest

Oklahoma Chapter. Eisenhower High School, 5202 W Gore Blvd, Lawton OK. Registration (with coffee) begins at 8:00 a.m.; programs begin at 9:00 a.m. For more information, contact Devonna Minnich at (580) 536-1930 (h) or 355-9144, or Linda Mager at (580) 536-0105.

May

7-9 *State Historic Preservation Conference,* YWCA, Ardmore OK. Registration begins at 8 a.m. Sessions from 8:45 a.m to 3:30 p.m., with a Brown Bag Tour at noon on the 7th; reception 6:00 p.m. on the 7th; Preservation Oklahoma Luncheon at noon on the 8th; with keynote session at 1:45 p.m.; Awards Banquet at 6:30 p.m. on the 8th. Fees — registration \$25, luncheon \$10, banquet \$18. For information, call (405) 521-2491.

11-15 *Aerial Photo Applications to Cultural Resource Management.* National Park Service, Intermountain Region and USDA Forest Service; Fort Laramie National Historic Site, Wyoming. This workshop deals with vertically acquired aerial photographs and with terrestrial photographs. The basic course includes: photograph and camera characteristics, preparation of photos for use; stereoscopy; map to photo image matching; using reference points and stereoscopy; image attributes and interpretation; scaling; estimation of object length, area, volume, and height from photo measurements;

effective area boundary location; land use and land cover analysis; species identification; orienteering (determine bearings and distances, and use photos in the field to locate imaged features); transfer of data between photos and maps; color and black and white infrared emulsions; change detection using photos; sources of photos and support; photo preservation procedures; and follow on technologies. Due to space limitations, there is a limit of 30 per session. Tuition is \$295. A form which needs to be filled out can be obtained from the address below. There is a deadline of March 20. Additional information on the workshop and housing arrangements is available from Steven De Vore, Course Coordinator, National Park Service, Intermountain Support Office, 12795 W. Alameda Parkway, PO Box 25287, Denver CO 80225-0287; telephone: (303) 969-2882; email: steve_de_vore@nps.gov.

18-22 *Non-Destructive Investigative Techniques for Cultural Resource Management*. National Park Service, Intermountain Region and USDA Forest Service; Pecos National Historic Park, Pecos, New Mexico. The workshop is designed to provide a practical application of geophysical equipment and aerial photographic techniques available for the identification, evaluation, and ultimately, the conservation and protection of cultural resources. Instruction will be given in the use and interpretation of data from magnetometers, conductivity meters, resistivity meters, ground penetrating radar, metal detectors, and magnetic susceptibility, and their ap-

plications to nondestructive investigations. The major emphasis of the training will be on the field use of the equipment. The charge for tuition is \$475. Additional information on the workshop (including forms to be filled out) and lodging is available from Steven De Vore, Course Coordinator, National Park Service, Intermountain Support Office, 12795 W. Alameda Parkway, PO Box 25287, Denver CO 80225-0287; telephone: (303) 969-2882; email: steve_de_vore@nps.gov

23-31 *Oklahoma Anthropological Society Spring Dig*, Kubik site near Kaw Lake in Kay County, Oklahoma. The site is deeply stratified with multiple components, including a Calf Creek one. Registration is \$5 per person for four days or less, and \$10 per person for five days or more. You must be an OAS member to participate in the dig or to attend the seminars. (You can join at the dig.) Camping will be at the Osage Cove Group Camp near the dam at Kaw Lake. The charge for trailers and RVs is \$7 per night, and for tents \$3 per night. From I-35, go east on US 60 (25 miles) to the Kaw Lake exit. From the east, take US 60 to the same exit. Look for the OAS signs. Four Certification Program seminars will be given at the dig; these are *General Excavation Techniques* (5-23, 9:00 a.m.), *Public Education* (5-23, 7:00 p.m.), *Special Techniques: Flintknapping* (5-24, 2:00 p.m.; limited enrollment - please pre-enroll), and *General Laboratory Techniques* (5-25, 9:00 a.m.). A field laboratory will be in operation. There is a charge of \$2/person/seminar. Preference is given to Certification Pro-

gram members in limited enrollment classes. For more information, contact Lois Albert (Certification Council Chair; email lealbert@ou.edu) or Dave Morgan (Dig Committee Chair) at the Oklahoma Archeological Survey.

June

5-21 *Arkansas Archeological Society, Training Program in Archeology, Menard-Hodges and Lake Dumond sites* in southeastern Arkansas, location of the 1686 Quapaw village of Osotouy and the first Arkansas Post. Certification seminars will be given, and a field lab will be present in addition to the excavations. Registration will be \$35 for 1-4 days, \$40 for 5-8 days, or \$45 for the full dig; registration deadline May 1. For additional details, contact the Arkansas Archeological Survey, or the Arkansas Archeological Society, PO Box 1222, Fayetteville AR 72702-1222; telephone (501) 575-6545; fax (501) 575-5453; website <http://www.uark.edu/depts/4society/index.html>

6-13 *Kansas Anthropological Association annual Kansas Archeology Training Program Field School*. Crooked Creek valley in Meade County KS. The excavations will focus on Wilmore complex (Middle Ceramic period, A.D. 900-1500) sites. There will be four components to the field school: the excavations, a field laboratory, formal classes, and the certification program. Classes offered (for either university or certification credit) are *Artifact Description and Analysis*, *Basic Archeological Excavation*, and *Archeological*

Fieldwork. Participants must be members of the KAA; you can join at the dig. Registration for the field school is \$15. Participants are responsible for their own transportation, lodging, and food. For more information, contact Virginia A. Wulfkuhle, Kansas State Historical Society, 6425 S.W. 6th Ave, Topeka KS 66615-1099; telephone (785) 272-8681 ext. 268; email vwulf@hspo.wpo.state.ks.us

13-20 *Texas Archeological Society Field School*, Victoria TX. A variety of types of archeology will be covered — prehistoric, historic (including architectural, mission Indian occupations, lime kiln, etc.), site survey, field lab, Youth Program, and others. Dr. Thomas R. Hester will be the principal investigator. Camping will be near the site on the Guadalupe River. Workshops will be given, but they were not listed in the newsletter. You must be a member of TAS to participate. (Individual membership \$25, family \$50, student \$12.50, contributing \$50, supporting \$100, life \$600.) Meals will be available through the TAS if you preregister by the deadline of May 15; if you register after May 1, there is a late fee of \$20. The registration fee is \$60 for an adult for 1-3 days or \$85 for 4-8 days; youth (7-17) fee is \$22 for 1-3 days or \$35 for 4-8 days; nonparticipant fee is \$25 for 1-3 days and \$50 for 4-8 days (no charge for children 6 and under). Meals are \$3 for breakfast and \$6 for dinner for adults and \$2.50 and \$4.50 for youth under 12. For more information contact Patsy Goebel, 1213 McArthur, Cuero TX 77954; telephone (512) 275-5225.

June 30-August 8 1998 *Archeological Field School at Parkin*, University of Arkansas. At the Parkin site, a 17-acre fortified Mississippian and protohistoric village site in northeastern Arkansas. Archeological and ethnohistorical evidence suggests that it is the town of Casqui visited by the Hernando de Soto expedition in 1541. The site is within the Parkin Archeological State Park. Students can earn credits of six semester hours (either undergraduate or graduate level) in ANTH 4256: Archeological Field Session. Costs (tuition) are \$504 (undergraduate) and \$846 (graduate), plus an application fee (\$15 undergraduate, \$25 graduate), a housing fee (\$63.38), and food costs. Application deadline is May 31, 1998. Enrollment is limited to 24 students. For more information contact Dr. Jeffrey M. Mitchem, Arkansas Archeological Survey, PO Box 241, Parkin AR 72373-0241; telephone (870) 755-2119; email jeffmitchem@juno.com

September 5-7 15th *Biennial Meeting of the American Quaternary Association*. Hotel Krystal Vallarta, Puerto Vallarta, Mexico. The theme will be *Northern Hemisphere - Southern Hemisphere Interconnections*. Papers to be presented in the Archeology/Anthropology session are "Peopling of the Americas: Northern Hemisphere Perspective" (Dennis Stanford); "Peopling of the Americas: Southern Hemisphere Perspective" (Tom Dillehay); "Cultural Interactions Between the Northern and Southern Hemispheres" (Linda Manzanilla), and "Development of Agriculture" (Dolores Piperno). Other ses-

sions are: Ocean-Atmosphere, Geological Records, Biota, and Quaternary Environments of Mexico. Only a single session will run at a time. All meeting attendees are invited to participate in the poster session, which will have its own time slot. Posters do not have to be related to the meeting theme. Registration fees (before June 30, 1998): \$90, students \$50; after June 30, 1998: \$120, students \$50. A full slate of eight field trips is scheduled before and after the conference. Information on the field trips is posted on the AMQUA WWW site at <http://www.usu.edu/~amqua/>. For more information, contact the local organizing committee: email AMQUAMEX@servidor.unam.mx. Margarita Caballero Miranda is in charge of field trips; 10 are planned. Her email is maga@tonatiuh.igeofcu.unam.mx

October

1-4 10th *Mogollon Archaeology Conference*. Western New Mexico University Museum, Silver City NM. For additional information, contact Cynthia Ann Bettison, Western New Mexico University Museum, PO Box 680, Silver City NM 88061-0680; telephone (505) 538-6386; email bettisonc@iron.wnmu.edu

14-17 56th *Annual Meeting of the Plains Anthropological Conference*. Radisson Inn, Bismarck ND. For more information, contact Fern Swenson, State Historical Society of North Dakota, 612 E Blvd Ave, Bismarck NM 58505; telephone (701) 328-3675; email cemail.fswenson@ranch.state.nd.us

Obsidian Artifacts from the Ozark Area

Don R. Dickson

In a paper presented at the Ozark Prehistory II session at the Society for American Archaeology meeting in New Orleans in 1996, the author stated that available evidence suggested two possible movements of Plains oriented peoples into the Ozark area during prehistoric times. The first of these was during the Late Archaic, and is reflected in quantities of Hanna, Duncan, and McKean bifaces being found in western Ozark sites. All of these types were named by Wheeler (1954:7; 1952:45) for examples recovered from Late Archaic sites in Wyoming. Although Perino (1985:166) suggests that the northeastern Oklahoma examples are only similar and should be named something else, all three types are often found on the same site in a Late Archaic context. In addition, the specimens are morphologically the same as Plains examples.

The second apparent influx of Plains oriented peoples into the western Ozark area was during the Late Prehistoric when what is referred to as the Neosho phase suddenly appears in the area. Such Plains traits as Harahey knives, snub nosed scrapers, triangular arrow points, bison bone artifacts, and distinctive punctate decorated shell tempered pottery are found at both village sites and bluff shelters.

Archeologists have yet to relate the Neosho phase phenomena to a specific Plains antecedent population in a convincing way.

Having a deep interest in knappable raw materials and their sources, I was intrigued several years ago when a Siloam Springs collector whom I knew very well handed me an obsidian biface which he had found just west of the Lake Francis dam on the Illinois River. The site involved produced both Archaic and more recent Caddoan artifacts. The collector, now deceased, was totally reliable and gave me the specimen before he passed away. The artifact, illustrated in Figure 1, is a good example of the Duncan type. The stem is bifurcated and the prominent shoulders are sloping. In cross section, the blade is generally lenticular; however, the left margin and the slightly rounded tip are unifacially beveled to some degree. This, plus apparent use wear on these margins, suggest the biface last functioned as a scraper. Length of the biface is 3.9 cm, width is 2.0 cm, and thickness is 0.7 cm. The black obsidian is fairly opaque with translucency being limited to the thinnest edges. At this time, a source for the obsidian has not been determined, although macroscopically it compares favorably with some Idaho

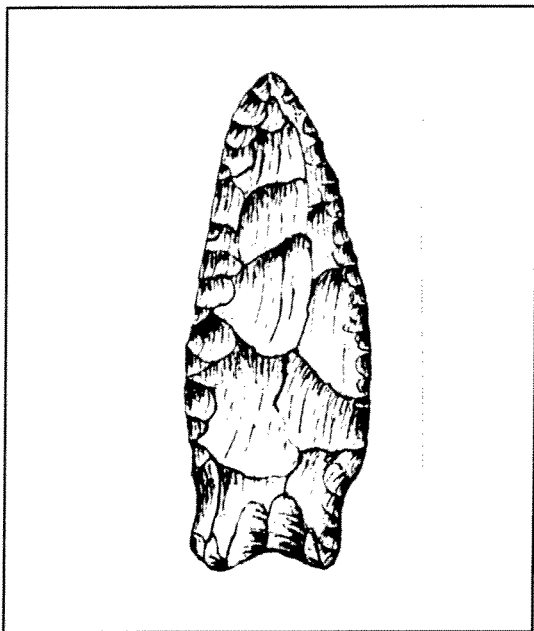


Figure 1. Obsidian Biface from Illinois River, Adair County, Oklahoma, Across from Camp Paddle Trails.

obsidian I have in collections of lithic raw materials.

Many people fail to realize that the Ozark region extends across the Mississippi into southern Illinois. Another Late Archaic obsidian artifact was reported from just south of the eastern Ozark area in Dunklin County, Missouri in 1954 (Davidson 1954). The biface, apparently resharpened by pressure flaking, features rounded shoulders and a bifurcated hafting area. Typologically, it most closely resembles the Hanna category. The length is 6.5 cm and width was 2.5 cm. Thickness was not stated in the *Missouri Archaeologist* article. Figure 2 depicts the biface at actual

scale. Source of the obsidian is unknown.

A third obsidian artifact, not illustrated in this brief article, is a pointed obsidian flake apparently used as a perforator. The specimen, found in the 10-20 cm level adjacent to a Neosho phase house floor at the Brown Bluff site (3WA10) in Washington County, Arkansas, came from beneath a large rock slab and was associated with a substantial root network. While the matrix was thus disturbed considerably, it seems probable that the provenience was Late Prehistoric period, probably Neosho phase (Harcourt 1994: 25). In a personal communication, Dr. Tom Green of the Arkansas Archeological Survey stated that Mr. Richard Hughes had concluded that the obsidian originated in the Malad igneous flow in southeastern Idaho (Green 1998). According to Hughes, this flow was used as a source of obsidian mostly by Late Prehistoric and early historic peoples. Mr. Alan Hawkins, now with Historic Preservation Associates, examined the artifact and stated that it was an example of opaque obsidian with translucence noticeable only on very thin edges. Dimensions of the specimen are not available at this time, but Hawkins (1998) estimated the length at about 2 cm.

Whenever one deals with extremely limited artifact samples, the analyst faces a serious problem in interpretation of these finds. One might explain these few artifacts as reflecting trade from the Plains area or from the southwestern United States. On the other hand, a tentative explanation might be that these few obsidian

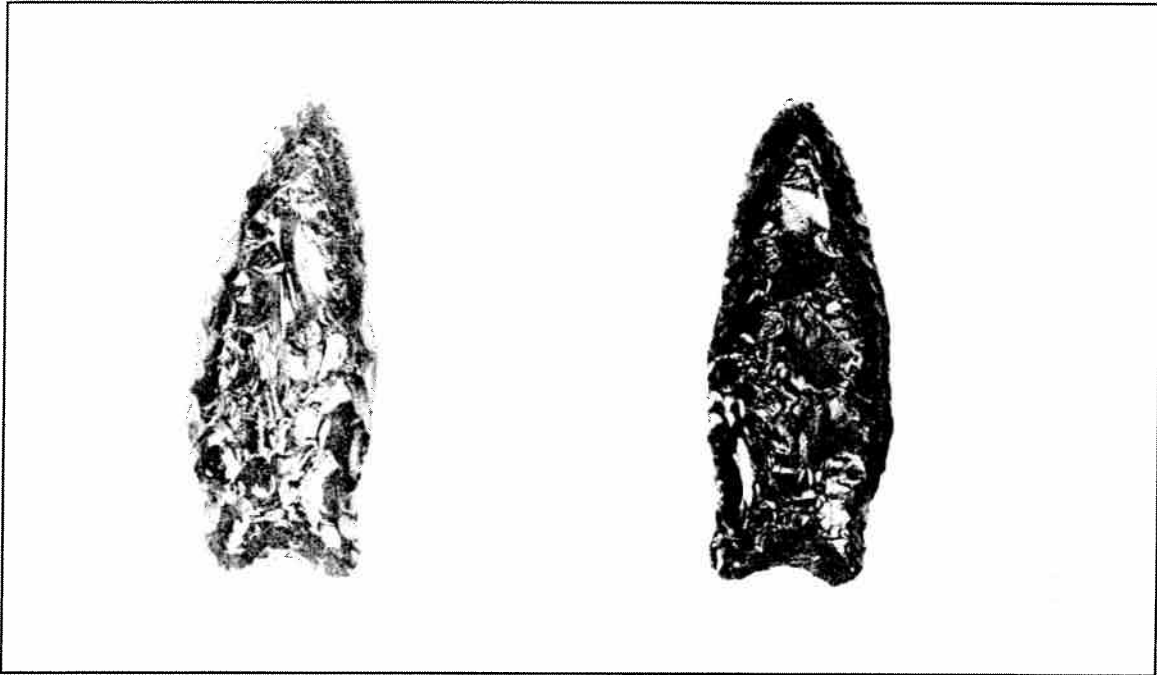


Figure 2. An Obsidian Projectile Point from Dunklin County, Missouri (both faces; adapted from Davidson 1954).

artifacts could have been brought into the Ozark and adjacent areas by late Archaic and Late Prehistoric peoples from the Plains area. Changes in biotic assemblages at Ozark sites suggest a possible reason why Late Archaic hunters may have visited the Ozark area. For example, pronghorn antelope (*Antilocapra americana*) have been reported from both the Ten Mile Rock site (3WA197) and the Albertson Shelter (3BE174). Medlock (1978) discussed both of these finds. While the situation at Ten Mile Rock was not totally clear, the stratigraphy at Albertson was, and antelope remains were recovered from both Late Middle Archaic and Late Archaic strata. Considering the fact that pronghorn antelope usually reside in prairie or

desert habitats, the western Ozark area may have experienced limited rainfall during Late Archaic times. Perhaps more severe drought on the plains caused movements of people from that area into the Ozarks.

While we do not have adequate data today to do more than suggest tentative causes for apparent movements of Plains hunters and agriculturists into the Ozark area, we can become alert to this interesting problem and attempt to ascertain why these interactions took place. It may not be totally coincidental that documented obsidian artifacts seem to relate to components which entered the Ozark area from the Plains.

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**CADDO CERAMICS FROM THE MIDDLE CADDOAN
PERIOD KNIGHT'S BLUFF SITE (41CS14),
CASS COUNTY, TEXAS**

Timothy K. Perttula

Introduction

During 1997 investigations by the Texas Archeological Research Laboratory associated with the placement of a utility sewer line trench at the Knight's Bluff site (41CS14), and the relocation of the prehistoric midden/cemetery at the site (Jelks 1961:Figure 4), a wide assortment of Caddo ceramics was found. The sample of ceramics includes 651 vessel sherds (in-

cluding 240 decorated sherds), three pipe sherds, and five pieces of burned clay. With the exception of nine sherds from the camp sewer line trench area (Perttula et al. 1997), the remainder of the ceramic assemblage is from in and immediately around the midden/cemetery area located near the bluff edge in the western part of the site.

Ceramic Sherds

For the purposes of more detailed analysis, only those sherds larger than 1 cm in size were examined for specific information on decorative elements, rim and lip form, surface treatment, temper, and thickness. Sherds surfaces and cross-sections were examined visually and with a 10X hand lens. The typological assignment of the decorated sherds was based on Jelks (1961) and Suhm and Jelks (1962), while rim and lip forms follow Brown (1996: Figure 2-12). The identification of burnished, polished, and slipped surface treatments follows the criteria specified by Rice (1987:138, 149-150).

Sewer Line Trench Area

The nine ceramic sherds from this part of the Knight's Bluff site include one plain rim sherd (standing with a flat lip), two body sherds (from the same vessel) with a single unidentified broad-line incised decoration, and six plain body sherds. None of the sherds have been burnished, polished, or slipped. Eight of the sherds have been tempered with grog (crushed fired clay), the other with grog and small pieces of grit (hematite). The one grog-grit tempered body sherd is 8.3 mm in thickness, while the grog-tempered sherds are slightly thinner, ranging from 5.3 mm

(rim) to 7.7 mm (body). The average vessel wall thickness for the grog-tempered sherds from the water line trench area is 6.6 ± 0.7 mm.

The limited number of sherds, and decorated sherds, from the sewer line trench area prohibits an accurate determination of the assemblage's temporal and cultural affiliations. The frequency of relatively thin grog-tempered ceramics from this part of the site does at least suggest, however, that they were made by Caddoan groups living at the Knight's Bluff site.

Midden/Cemetery Area

A total of 485 sherds larger than 1 cm in size were recovered in the shovel test excavations ($n=17$ shovel tests) in the midden/cemetery area. This includes 283 plain rim, body, and base sherds, and 202 decorated sherds of various sorts. Grog was the preferred temper inclusion in the assemblage, amounting to 61.6 percent of the assemblage, followed by grog-grit (finely crushed hematite; 27.2 %), grog-bone (6.2 %), and grit (1.9%; Table 1).

The frequencies of the two main temper classes (grog and grog-grit) is relatively consistent between the plain and decorated sherds, with two exceptions: (1) there is a higher frequency of both grog and grog-bone temper in the brushed pottery; and (2) grog-bone temper (the bone and grog inclusions are finely crushed) is more common among several of the engraved sherd types (Table 1).

Sherds with noticeable amounts of bone

temper comprise 8.0 percent of the Knight's Bluff site ceramic assemblage. The frequency of bone temper at the site initially seems high considering that Linder-Linsley and Lindsay (1996:39) have suggested that the use of bone temper in East Texas ceramics (and particularly at Wright Patman Lake) is extremely unlikely. It is their opinion that the white aplastic inclusions in Caddoan sherds are not pieces of bone, because any bone in the ceramic paste would have turned black upon firing if it was present at all, given the supposed amount of heat required to turn bone white. This view overlooks the likelihood that the bone was burned or calcined white, then crushed before it was added to the ceramic paste; firing would not destroy the calcined bone temper pieces. Considering that calcined bone is common in the midden deposits at Knight's Bluff, bone being routinely burned as trash in hearths and fires, it would have been a ready source of temper.

There were four plain rims in the assemblage, one each from shovel tests outside the midden (Perttula et al. 1997: Figure 4a, 4d). Each is standing and direct, with no burnishing or polishing, and averaging 4.9 mm in thickness.

Each of the 11 bases is from a flat disk, ranging from 9.2-13.0 mm in thickness (mean thickness of 10.6 ± 0.9 mm). The base sherds were recovered from six shovel tests in and outside the midden.

The plain body sherds were from the walls of vessels ranging in thickness from

Table 1. Plain and Decorated Ceramics by Temper Classes from the Midden/ Cemetery Area at the Knight's Bluff Site (41CS14)

Sherd Type	Grog	Grog-Grit	Grog-Grit-Bone	Grog-Bone	Grit	Grit-Bone	Bone	Total
Plain Sherds								
Rim	3	1	-	-	-	-	-	4
Body	159	83	3	13	5	3	2	268
Base	7	3	-	-	-	-	-	11
Decorated Sherds								
Parallel Brushed	43	7	1	9	2	-	-	62
Diagonal Brushed	4	1	-	-	-	-	-	5
Horizontal Brushed	1	1	-	-	-	-	-	2
Pease Brushed-Incised	10	5	-	-	1	1	-	17
Nash Neck Banded	4	4	-	1	-	-	-	9
McKinney Plain	8	3	-	-	-	-	-	13*
Cass Appliqued	-	1	-	-	-	-	-	1
Diagonal Incised	5	3	-	-	-	-	-	8
Parallel Incised	5	4	-	-	-	-	-	9
Horizontal Incised	2	-	-	-	-	-	-	2
Herringbone Incised	1	-	-	-	-	-	-	1
Single Line Incised	1	2	-	-	-	-	-	3
Punctated	3	-	-	-	-	-	-	3
Punctated-Incised	1	1	-	-	-	-	-	2
Red-Slipped	3	1	-	-	-	-	-	4
Barkman Engraved	9	3	-	1	-	-	-	13
Friendship Engraved	3	1	-	-	-	-	-	4
Haley Engraved	1	-	-	-	-	-	-	1
Hatchel Engraved	1	-	-	-	-	-	-	1
Engraved hatched ladder	-	-	-	1	-	-	-	1
Zoned Cross-hatched Engraved	1	-	-	1	-	-	-	2
Diagonal Engraved	1	-	-	-	-	-	-	1
Horizontal Engraved	3	1	-	2	-	-	-	8*
Horizontal Engraved with hatched triangle	1	-	-	-	-	-	-	1
Single-line Engraved	13	2	-	-	-	-	-	16*
Double-line Engraved	-	1	-	-	-	-	-	1
Three-line Engraved with pendant	1	-	-	-	-	-	-	1
Parallel Engraved	-	2	-	1	-	-	-	4*
Unidentified Engraved	4	3	-	-	-	-	-	7
SUMMARY	299	132	4	30	9	4	2	485

* Temper not determined for all sherds in this class

5.1-8.2 mm; most of the body sherds were about 6.5-7.0 mm thick, based on the average thickness of 6.97 mm for grog-tempered sherds; 6.46 mm for grog-grit-tempered sherds; and 6.24 mm for the grog-bone tempered sherds. Some 6.4 percent of the plain body sherds had a burnished exterior and/or interior surface. Several of the sherds also had charred organic remains preserved on their interior surface, indicating they were used in the cooking and heating of foods.

Pease Brushed-Incised and brushed sherds dominate the decorated sherd assemblage from the Knight's Bluff site (Figure 1f-i), between them comprising 42.7 percent of the decorated sherds (Table 1). Most of the brushed sherds are probably from the bodies of Pease Brushed-Incised jars, where the body was commonly decorated with parallel (either vertical or horizontally-oriented) brushed marks (Figure 1f), but also with diagonal brushing. Two rim sherds (one standing-direct and one everted-direct) from jars were also decorated with horizontal brushed marks.

The Pease Brushed-Incised sherds are represented by five rims and 12 body sherds. Four of the rims (mean thickness of 5.5 ± 0.5 mm) are standing, with direct or flat lips, and one is everted and direct. Body wall thickness ranges from 5.1-7.5 mm. Decorations range from: rows of rim punctations with horizontal brushing on the rim (Figure 1g) or vertical brushing on the body; to 3-4 rows of rim punctations; rows of punctations dividing horizontal

incised lines on the rim (Suhm and Jelks 1962:Plate 60c, e, g); and vertically-oriented incised lines divided by applied ridges. One Pease Brushed-Incised body sherd has partially smoothed over curvilinear incised and brushed marks (Figure 1d), similar to a whole vessel from burial 11 at Knight's Bluff (Jelks 1961: Plate 3a).

The three Nash Neck Banded jar rims are everted and direct (n=2) (Figure 1b) and standing and direct. They average 6.0 mm in thickness. Body wall thickness ranges from 4.6-9.0 mm. The pronounced neck bands on the larger Nash Neck Banded jars are 14 cm in width (Figure 1c).

McKinney Plain sherds are represented by vertically-oriented applied ridges and rim nodes (Figure 1a) on otherwise plain jars. The single rim is everted and direct, and 6.4 mm in thickness. Vessel walls are 5.7 ± 0.4 mm in thickness.

Only a single Cass Applied body sherd was recovered from the Knight's Bluff midden/cemetery area (Figure 1j). It had a series of closely spaced applied ridges about 4 mm in width that ran down the walls of a small jar.

Most of the incised sherds (five rims and 18 body sherds) were small and the overall character of the decorative elements is unclear, but parallel, horizontal, and diagonal decorations were discerned in the assemblage (Table 1). One diagonal incised body sherd (Figure 1e) is comparable to what Jelks (1961:Plate 8h-i)



Figure 1. Decorated Sherds and Pipe Sherds from the Midden/Cemetery Area at the Knight's Bluff Site:

top row, left to right, a) McKinney Plain (ST 22, 20-40 cm), b-c) Nash Neck Banded (ST 34, 40-60 cm and ST 22, 20-40 cm); second row, left to right, d) smoothed over curvilinear incised (ST 24, 20-40 cm), e) diagonal incised (ST 22, 20-40 cm); f) Pease Brushed-Incised (ST 22, 20-40 cm); third row, left to right, g-i) Pease Brushed-Incised (ST 33, 40-60 cm; ST 35, 20-40 cm, and ST 34, 0-20 cm); fourth row, left to right, j) Cass Applied (ST 36, 0-20 cm), k) Friendship Engraved (Incised) (ST 38, 20-40 cm), l) horizontal engraved (ST 33, 20-40 cm); bottom row, left to right, m) horizontal engraved with hatched triangle (ST 24, 40-60 cm), n) possible Haley Engraved bottle sherd (ST 22, 20-40 cm), o-p) Friendship Engraved (ST 33, 0-20 cm and ST 35, 20-40 cm), q) pipe stem (ST 36, 0-20 cm), r) pipe bowl (ST 33, 40-60 cm)

defined as the late variant of Dunkin Incised at the Knight's Bluff site. Another, with a herringbone incised decorative element, could represent either another late Dunkin Incised sherd or an example of Pease Brushed-Incised (Suhm and Jelks 1962:Plate 60I), although the small sherd lacks the characteristic body panel. The incised rim sherds are standing and direct, with a mean thickness of 5.5 ± 0.6 mm. Body wall thickness ranges from 5.3-9.4 mm, with a mean of 6.6 ± 1.1 mm.

The two incised-punctated sherds include one with large cane punctations within an incised zone. It may be from either a Crockett Curvilinear Incised or Pennington Punctated-Incised bowl. Both ceramic types occur in very small amounts at Knight's Bluff (Jelks 1961:35): 20 sherds out of a total sample of 3031 decorated sherds.

The three small punctated sherds (all grog-tempered) had circular, fingernail, and tool impressions. The sherd with

small circular punctations had a red-slip on interior and exterior surfaces.

Four of the decorated sherds simply have a thin burnished or polished red clay slip on interior and/or exterior surfaces; whether they are from plain red-slipped vessels is unknown because they are body sherds. They are from relatively thin (mean thickness of 5.6 ± 0.3 mm) bowls or carinated bowls tempered with grog or grog-grit.

Barkman Engraved is the most common engraved type in the Knight's Bluff midden and cemetery area (Table 1). The type is represented by 13 body sherds (mean thickness of 5.2 ± 0.6 mm) with the characteristic rectilinear engraved designs filled with hatched or cross-hatched marks, short dashes or dashed lines, or punctations (Suhm and Jelks 1962:Plate 4c', m for decorative elements on Barkman Engraved vessels represented by examples from the Knight's Bluff midden/cemetery assemblage). Two of the sherds

have white or red pigments within the engraved lines.

Other identified engraved types include four sherds of Friendship Engraved (Figure 1o-p) with cross-hatched bands, semi-circles, and negative scrolls, one Haley Engraved bottle sherd (Figure 6n; Suhm and Jelks 1962:Plate 31e), and one Hatchel Engraved bottle sherd. The latter had portions of a vertically-oriented hatched zone (Suhm and Jelks 1962:Plate 34b). On one sherd of a Friendship Engraved carinated bowl, the decorative element is executed with incised lines rather than engraved (Figure 1k). A similar vessel was recovered from Burial 7 at Knight's Bluff (1961:Plate 2b). The single Friendship Engraved rim is standing and rolled with a horizontal hatched zone below the lip, and a vertically-oriented hatched divider on the rim (Figure 1p; Suhm and Jelks 1962:Plate 23a).

Because of their small size, the decorative elements for 42 other engraved sherds -- all from bowls or carinated bowls -- could not be fully discerned. Instead, they were categorized by the apparent design, such as the number and orientation of the engraved lines, or other partial elements (Table 1). By far the most common decorations were one to three engraved lines, either clearly horizontally placed on the rim (n=9; Figure 1l), or labeled single, double, or parallel engraved if they occurred on body sherds where the orientation of the engraved lines could not be determined. The rims are standing and direct (n=5), standing and

rolled (n=2), and standing and flat (n=1). Two other body sherds with horizontal engraved lines have either associated hatched triangles (Figure 1m), or a small engraved element pendant from the lowermost horizontal line.

It is likely that most of these sherds are from Barkman Engraved vessels, which have several horizontal lines at the top of the bowl rim, with narrow rectilinear engraved bands or zones below (Suhm and Jelks 1962:Plate 4). Two of these engraved sherds have red pigment smeared in the engraved lines, also characteristic of the Barkman Engraved ceramics from the Knight's Bluff site.

The remainder of the engraved sherds have small portions of hatched bands, ladders, or zones (n=3), diagonal engraved lines (n=1), or unidentifiable elements (n=7). The sherd with an engraved hatched ladder also has an exterior red slip.

Pipe Sherds

The three long-stemmed Red River style (Hoffman 1967) pipe sherds (one stem and two bowl sherds) were found in two shovel tests in and immediately adjacent to the midden. The stem section (Figure 1q) had an exterior stem diameter of 9.2 mm and a 4.4 mm interior stem diameter, and may be from a Haley variety of the Red River style pipe. It is tempered with finely crushed grog. The bowl sherds were between 2 and 4.1 mm thick, and tempered with either finely crushed grog

or bone. The one rim is standing and direct (Figure 1r).

Burned Clay

Only five pieces of burned clay were recovered in the midden/cemetery area.

Each of the pieces has been highly oxidized, and they are bright red in color, with irregular shapes and sizes (ranging from 8 - 18 mm in length and 7 - 13 mm in length); none of the burned clay pieces have impressions. The burned clay pieces may be from the lining of clay hearths or the accidental firing of wads of clay.

Summary of Midden/Cemetery Area Ceramics

The ceramics recently recovered in the Midden/Cemetery area at the Knight's Bluff site are consistent with the assemblage previously documented by Jelks (1961) from the site. Our assemblage is dominated by brushed sherds (probably from Pease Brushed-Incised jars), Pease Brushed-Incised, McKinney Plain, Barkman Engraved, Nash Neck Banded, and a small assortment of incised (some the late variant of Dunkin Incised) and engraved sherds (Table 1). Brushed sherds comprise 43 percent of the decorated sherds, followed by engraved (30%), incised (11%), appliqued (7%), neck banded (4%), and punctated/punctated-incised (2%).

The sherd assemblage recovered by Jelks (1961:34-35) is also dominated by brushed sherds (n=594), Pease Brushed-Incised (n=392 sherds and five vessels), Barkman Engraved (n=336), McKinney Plain (n=219), and Nash Neck Banded (n=142 sherds and three vessels), along with the late variant of Dunkin Incised (n=86). Brushed sherds amount to 33 percent of the 3031 decorated sherds in Jelks' sample, somewhat lower than in our sample,

then followed by engraved sherds (32%), incised (14%), punctated/punctated-incised (6.8%), neck banded (4.7%), and appliqued (3.5%) sherds. Cliff (1997: Table 1) places the majority of the Caddoan ceramics from Jelks' work in a late phase (eastern facet) of the Middle Caddoan period, dating ca. A.D. 1300-1400.

The only differences between the two samples is in the relative frequencies of brushed (43 vs. 33 percent) and punctated/punctated-incised sherds (2 vs. 6.8 percent). These differences probably relate to the fact that the Knight's Bluff site also has a small Early Caddoan component on it (with no brushed pottery and higher frequencies of incised and punctated ceramics), which was sampled to some extent by Jelks' extensive excavations across much of the bluff in addition to his work in the midden/cemetery area, whereas our work focused intensively on the late Middle Caddoan period midden/cemetery area where the ceramic assemblage is dominated by brushed and engraved pottery of the types Pease Brushed-Incised and Barkman Engraved.

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***Abstracts of Papers from the 40th Caddo Conference,
Arkadelphia, Arkansas, March 13-14, 1998***

Albert, Lois E. (Oklahoma Archeological Survey) *The Oklahoma Anthropological Society's Certification Program*

A brief history of and explanation of the Oklahoma Anthropological Society's (OAS) Certification Program for avocational archeologists. Seminars and field-work opportunities are offered the participants.

Ballenger, Jesse A.M. (Oklahoma Museum of Natural History) *Isolates, Individuals, and Innovation: A Cody Example*

The role of the individual in prehistory is a current topic in archaeology. Researchers have explored the methods of identifying individuals in the archaeological record, but new emphasis has been placed on examining individuals apart from society. Viewed by many as being methodologically inaccessible, this paper argues that individuals can be studied as such through isolated finds. Particular attention is given to individuals and innovation. The notion that certain Scottsbluff traits were introduced, or borrowed, from the eastern Woodlands is examined in light of an isolated, beveled Scottsbluff point from the Southern High Plains.

Brooks, Robert L., and Robert Stokes

(Oklahoma Archeological Survey) *Data Recovery Excavations at Graystone Estates #1 (34TU129), Tulsa County, Oklahoma*

During June and July, 1997, the Oklahoma Archeological Survey, with assistance from the Oklahoma Anthropological Society, conducted a series of investigations at a proposed housing subdivision, Graystone Estates, in Tulsa. Investigations consisted of a field examination of select portions of the subdivision tract and excavation of two hearths, a shallow refuse pit, and a burial at Graystone Estates #1 (34TU129). This paper presents the outcome of this work and the placement of 34TU129 within the context of Tulsa County and the upper middle reach of the Arkansas River.

Cardwell, Gwyneth Bedoka (Kadahadacho Historical Society) *Caddo Oral History in Free Verse Poetry*

Presentation of Caddo oral history by using examples of poetry. Demonstrate how combining oral history and the concept of free verse form result in the creation of beautiful, expressive and culturally relevant poetry.

Coleman, Roger E. (U.S. Forest Service, Ouachita National Forest) *Archeological*

*Investigations at the Epperson Farmstead,
Site 3MN383, Historic Component*

Archeological investigations at site 3MN383 were undertaken in 1995, in conjunction with the Arkansas Archeological Society field school. Occupied from ca. 1855-1867 by a single family of the non-slave holding class, the site is an early Ouachita Mountain farmstead. Rural antebellum sites have received no attention in south Arkansas and comparatively little emphasis statewide. In concert with archival documentation, archeological data from 3MN383 reflect an economic profile that may be distinctive of yeoman farm occupation sites.

Cooper, Judy Hennessee (SPEARS, Inc.)
*The Highway 71 Relocation Between
Alma and DeQueen: Results and Dis-
cussion of a Phase I Survey of 147 Kilo-
meters (91 mi) Across Western Arkansas*

A cultural resources survey was conducted by Spears Professional Environmental & Archeological Research Service, Inc. (SPEARS) of the proposed relocation of U.S. Highway 71 from DeQueen, Arkansas to Interstate 40 near Alma, Arkansas. As a result of this survey, 193 sites were found and recorded in the 147.5 kilometer (91.5 mi) surveyed portions of the alignment. These sites are distributed across the four physiographic regions crossed by the preferred alignment: The Athens Plateau, the Central Ouachita Mountains, the Fourche Mountains, and the Arkansas River Valley. Dart points, arrowpoints, and undecorated prehistoric ceramic

sherds suggest a prehistoric date range possibly beginning with the Late Paleo-Indian or Early Archaic periods through the Late Mississippian period. Some preliminary comments on the distribution of sites by physiographic region and the distributions of prehistoric lithic raw material sources are suggested. Eighteen sites were identified during the cultural resources survey which could be important to the documentation and understanding of the Euroamerican settlement of western Arkansas. These include domestic, industrial, military, homestead, and farmstead sites.

Cross, Phil (Caddo Tribe) *Construction of
the Caddo Grass House*

A discussion on the construction of a Caddo style grass house by Caddo Indians in modern times.

Early, Ann M. (Arkansas Archeological Survey) *The Winding Stair Research
Project and Caddoan Settlement in
Southwest Arkansas*

The Winding Stair research project has advanced our understanding of prehistoric Caddoan settlement in the Ouachita Mountains of Arkansas, and indicates important directions for future research. The information from the Winding Stair and Buggy sites shows that established residential communities existed in the upper headwaters of the Little Missouri for an extended period, perhaps as long as 400 years. The traditional mixed agrarian lifeway was sufficiently flexible to be

adapted to this rugged landscape. The material culture and architectural tradition revealed here have links both downstream in the Little Missouri/Ouachita River basin, and north in the direction of the Arkansas River Valley. Implications for these results make investigations in the Fourche and Petit Jean valleys of the northern Ouachitas a very high priority for future research.

Etchieson, Meeks (U.S. Forest Service, Ouachita National Forest) *Novaculite Quarries in the Southern Ouachita Mountains*

The Ouachita National Forest Heritage Resource program has undertaken a project to gather data on the distribution of novaculite quarries located on federal lands within the southern Ouachita Mountains. Each year for the past several years, select mountain ridges have been selected and examined at a reconnaissance level for the location and extent of novaculite quarries. Several quarry feature types have been identified and are briefly discussed. Recent trips to Brush Heap, Sharptop, and Statehouse mountains are discussed. Brief comparisons are made with quarries outside the forest, particularly those on Basin Mountain at Magnet Cove.

Galan, Victor (Espey, Huston & Associates, Inc.) *Excavations at 41TT653: A Late Caddoan Site*

Site 41TT653 is a Late Caddoan Titus phase site located on a low narrow ridge overlooking two tributaries of East Piney

Creek in Texas Utilities Mine Company's Monticello B-2 Mine area. Site size has been determined to be 40 meters north to south by 50 m east to west. Recent excavations have revealed two structures with clay floors (one with an extended entrance), two circular structures, three burials, and numerous pit features. The site is expected to aid in future studies of Late Caddoan settlement patterns in the area and Titus Phase Cypress Cluster Geographical Area as well as provide data concerning Caddo special purpose structures.

Gannon, Tom (SPEARS Inc.) *A Report on Ten Archeological Sites Relating to the Coal Mining Industry in Sebastian County, Arkansas*

A recent archeological survey of the proposed realignment of Highway 71 was conducted by SPEARS, Inc. During a portion of this survey in Sebastian County, Arkansas, ten historic sites associated with coal mining activities in the early 20th century were located and recorded. These sites include a coal mine shaft opening, a mule farm, two house sites located near railroad grades, and a proposed historic district that includes six house sites near the Mine 18 shaft. Industrial sites such as these are unique and present research opportunities for studying the lifeways of the people who worked in the coal mining industry.

Gatliff, George (Arkansas Archeological Survey) *Little Quarries Too*

Compare size, output and access of the large well known quarries and the small little known. Note the equal importance of the two and the fact that the little ones are often overlooked while we are in the field.

Girard, Jeff (Northwestern State University) *Ceramic Seriation and the Spatial Development of a Prehistoric Caddoan Community in Northwest Louisiana*

Results are presented of a frequency seriation analysis employed to further understanding of the development of a dispersed prehistoric Caddoan community that existed from approximately AD 1000 to AD 1500 along Willow Chute Bayou, an abandoned channel of Red River in Bossier parish, Louisiana. The study utilizes a statistical/graphical technique called correspondence analysis. Theoretical and methodological issues regarding use of seriation methods on sherds from midden collections are discussed.

Green, Thomas J. (Arkansas Archeological Survey), **Ann M. Early** (Arkansas Archeological Survey), and **Meeks Etchieson** (Ouachita National Forest) *Novaculite: Quarries and Distribution Research Plan for the Caddo Area*

The Ouachita National Forest and the Arkansas Archeological Survey are preparing a research design for long-term novaculite quarry research in the Ouachita Mountains. Over 70 separate novaculite quarries have been located in the Ouachita Mountains. Novaculite from the quarries

is found in the Gulf Coastal Plain and Mississippi River Delta regions and appears to be most intensively used during Middle and Late Archaic times. Etchieson has identified seven different types of quarry features, including deep pits, bed-rock adits, and long trenches. There has been little research at the quarries and adjacent habitation sites to determine the extraction methods used to quarry novaculite nor has there been research on how the material was distributed and exchanged. The goal is to develop a research design that can be segmented into small work units that can be accomplished by Forest Archeologists, Survey personnel, graduate students, and interested amateurs. A novaculite quarry advisory team has been formed to guide the research. Everyone is welcome to participate.

Guendling, Randall L. (Arkansas Archeological Survey) *Farmsteads in the Hollow: Prehistoric and Historic Adaptations in the Winding Stair Locality*

Test excavations at the Buggy site, 2MN979, and the Old Phillips Place, 3MN1006, in 1995 revealed the remains of two structures at each site. The Buggy site produced evidence of one house and pit feature contemporary with the more completely excavated structure at Winding Stair site, 3MN496, dated to ca. A.D. 1450. A second structure, represented by a few post molds located 40 m to the east, may date earlier, possibly as early as the Fourche Maline period. The two historic structures at Phillips site appear to be built sequentially, one before A.D. 1900 and

one after 1900, and the site occupation spans roughly the 1870s to 1930s. Though both sites were occupied over four hundred years apart by people of radically different cultures, the material remains of both shows more similarity than differences in their occupants economic adaptations to the Winding Stair locality.

Halfmoon, Stacey (Caddo Tribe of Oklahoma, NAGPRA/Historic Preservation Director) *A Report on the Caddo Tribe's NAGPRA, Historic and Cultural Preservation Endeavors*

The Caddo People have persevered for thousand of years and continue to be a viable culture. The Tribe is working through various mediums to address its needs: the Native American Graves Protection and Repatriation Act, the National Historic Preservation Act, the Caddo Culture Club, the Caddo Archaeological Volunteer Corps, and the recent addition of the Caddo Traditions Classes. All of these efforts combined are helping to perpetuate the unique culture of the Caddo people as well as forge positive working relationships with outside agencies and individuals.

House, John H. (Arkansas Archeological Survey) *Time, People, Plants and Material Culture at the Kuykendall Brake Archeological Site, Pulaski County, AR*

Excavations at the Kuykendall Brake in 1990-1994 revealed the burned remains of a large Native American ceremonial structure buried beneath a small mound. Radio-

carbon assays of six samples of charred timbers calibrate to the AD 1469-1617 interval. In the structure interior, excavators encountered dentitions and other skeletal elements from 17 human individuals. The demographic profile of this series, resembling that of a living rather than a cemetery population, suggests a catastrophic mortality event. Cultigens recovered within the structure include maize, beans, sumpweed, and sunflower. Thirty-four ceramic vessels were found in the structure interior. The preponderance of stylistic attributes in this vessel series indicates affiliation with Caddoan traditions in the Ouachita Basin. Other attributes, however, may be precursors of Menard Complex (formerly "Quapaw phase") ceramic modes. This archeological context represents the yet little understood transition from prehistoric to protohistoric eras on the lower Arkansas River.

Hubbard, Velicia R. (U.S. Forest Service, Texas) *Rebuilding the Caddo House at Caddo Mounds*

On the last day of the Texas Archeological Society annual meeting held in Nacogdoches, Texas in 1995, the Caddo House replica was burned in the traditional manner. The house, built in the early 1980s, has since weathered severe storms, tornadoes, and high winds. The house became unsuitable for use in the state park system simply because it was a hazard for the tourists. This paper will present what was done prior to burning the house, and what has entailed since in building the new house. The project has been spear-

headed by Bob Skiles as project coordinator. Labor has been provided mostly by volunteers, although State inmates working with Caddo Mounds State Park have also played a crucial role in erecting this structure. Today, the superstructure is complete and about half of the house has been thatched. The thatching material is native switchgrass harvested mostly at Corps of Engineers lakes. The thatching process continues, but has been slowed due to weather constraints. The structure will be complete by the first weekend in May, in time for the Texas Park Service to celebrate its 75th birthday. Members of the Caddo tribe will be present to bless the house and what it stands for. The concept of this house is to provide a home for the new friendship between archeologists and the Caddo people.

Jones, Dennis (Surveys Unlimited Research Associates, Inc.) *Against the Grain: Petrified Wood as a Lithic Resource*

Petrified or silicified wood has long been reported as a prehistoric lithic resource, but little research has been done about the nature and distribution of this material. This presentation will discuss the natural placement of petrified wood in Louisiana and Mississippi and its geological origins. The properties of the material for lithic tool making will also be addressed, as well as a discussion of the variety of petrified wood artifacts that have been recovered from recent archaeological work in Louisiana.

Kelley, David (Coastal Environments,

Inc.) *Recent Geoarchaeological Research in the Red River Valley of Southwest Arkansas*

A recent large-scale archaeological survey and an associated geomorphic mapping project in the Red River Valley of southwest Arkansas have provided new information on landscape evolution and human settlements in this region. The findings of this research suggest that a series of Holocene meander belts dating back ca. 6000 years are exposed at the surface in this region, and that earlier distributary channels are present outside of the meander belts, near the valley margins. The implications of these findings for our understanding of human settlement patterns in the region are discussed.

Kraft, Kenneth C. (Oklahoma Museum of Natural History) *A Hempstead Engraved Bottle from the Confluence of the Cimarron and Arkansas Rivers, Pawnee County, Oklahoma*

The Oklahoma Museum of Natural History, Archeology Division, was recently loaned a Hempstead Engraved bottle for analysis. The bottle was found in Pawnee County, Oklahoma by an avocational archaeologist in a non-burial context. The Hempstead Engraved decorative style is usually associated with the Mid-Ouachita phase (ca. AD 1350 - 1500) situated along the Ouachita drainage in Arkansas. In the past, this decorative style has also been associated with the Texarkana phase (AD 1300 - 1500) centered around the Great Bend of the Red River in Oklahoma,

Texas, and Arkansas. According to Creel (1991), expansion took place during the Texarkana phase and, according to Early (1990), the Mid-Ouachita phase represents the florescence of the Caddoan lifeways in the region.

The increased regional influence that accompanies such cultural events may account for the presence of the Hempstead Engraved bottle under discussion. The occurrence of the bottle outside of the Central Caddoan subarea will be discussed under the guise of Harris (1974), Sahlins (1972), and Service (1966). Precedence for trade of such unique items from surrounding areas has been established at the nearby Zickafoose site (34Pw-54).

Mann, Diane K. (USACERL) and **Jim Grafton** (Fort Polk) *Designing a Procedure for Bone Identification*

One of the goals of the Native American Graves and Repatriation Act (NAGPRA) is correct identification and proper treatment of inadvertent discoveries of skeletal remains. A few examples can illustrate readily the sensitivity of issues related to this goal and some of the pitfalls encountered. Designing a step-by-step procedure for when bone is exposed by natural processes or uncovered by human activity can be considered an ounce of prevention to avoid a pound of negative results.

An initial step in procedure is determining if bone fragments, or skeletal remains, are human or non-human. A next step is to ascertain if human remains are recent, and

possibly evidence of a crime, or are of a historic nature. If human remains are determined to be historic, a next step is to try to determine if they are Native American. An ensuing step is to determine cultural affiliation, if possible.

Design of the procedure should clarify to all parties involved notification elements outlined in NAGPRA. However, its greatest strength should be agreement with policy establishing roles of civil authorities, religious leaders, and scientists in the step-by-step process. The challenge is to attain a balance that ensures appropriate treatment of skeletal remains, including economical identification of non-human remains, efficient involvement of criminal investigators when appropriate, and respectful treatment of human remains until repatriated.

Regulations to implement NAGPRA are not inclusive. Personnel at Fort Polk involved in cultural resources management would like to enhance the current system used to identify and handle inadvertent discoveries of skeletal remains. Consequently, they are seeking input for designing a judicious procedure tailored specifically to Native Americans with historical and cultural ties to the land encompassed by the installation.

Neal, Larry, and **Richard Drass** (Oklahoma Archeological Survey) *Middle Holocene Archeology in Northeastern Oklahoma*

The middle Holocene is defined by the

Altithermal, a period of warm, very dry conditions. Occupation of the Southern Plains is poorly documented during this time, but there is evidence in northeastern Oklahoma and surrounding areas for habitation by groups of hunters and gatherers. The limited excavation of sites of this period and the mixing of artifacts from different components at these camps has led to some confusion in identifying cultures. The Grove focus, Olfield Bend focus, Tom's Brook complex, Caudil complex, Calf Creek horizon, and Lawrence phase have been defined for the Archaic period in northeastern Oklahoma at different points in our understanding, but the chronological and spatial limits and assemblage composition of these complexes are often poorly delimited. Examination of dates and assemblages from Archaic complexes in surrounding areas provides more details on assemblages and changes in technology that may help refine the Archaic sequence in northeastern Oklahoma.

Parsons, Mark, James E. Bruseth, Henry Thomason and Brien Haumpo (Texas Historical Commission) *Excavations at the Rookery Ridge Site, Lake Gilmer, Northeast Texas*

This presentation gives an update on the results of three months of field excavations conducted at the Rookery Ridge site (41UR133) at the Lake Gilmer project, Upshur County, Texas. The field work was successful in locating several features and opening large hand-dug block excavations. Two structures -- one likely special purpose and the other apparently a more

typical residential house -- were uncovered, together with four burials and two trash middens. The site dates to the early part of the Lake Caddoan period.

Scholes, David, and Vickie DeVughuan (Kadohadacho Historical Society) *The Problems of Cultural Area as an Analytical Concept*

Although realized as passé, the concept of "Cultural Area" is still used. Looking at contemporary use of boundaries by the Caddo People, the historic record, and oral history we can see the fallacies and limit- edness of the concept. We can also see how it leads to false assumptions.

Scott, Fred (Kansas State Historical Society) *Investigations of Lower Walnut Focus Sites of the Great Bend Aspect Impacted by Levee and Road Building Activities near Arkansas City, Kansas*

May 1994 through 1995, archaeologists from the Kansas State Historical Society mitigated sites of the Lower Walnut Focus of the Great Bend Aspect impacted by levee and road building activities outside of Arkansas City, Kansas. Two of the sites were previously investigated by Waldo Wedel in 1940 and used as type sites to define the Lower Walnut Focus. Results of this extensive mitigation have yielded abundant new data on the Lower Walnut Focus settlements, subsistence, lithic procurement activities associated with the Maple City Quarries, and their contacts with neighboring groups to the north and south.

Transue, Russell (Choctaw Nation), **Terry Cole** (Choctaw Nation), and **Larry Haikey** (U.S. Forest Service, Ouachita National Forest) *Proposal for a Choctaw Conference*

The Choctaw Nation will host a conference for those that have conducted Choctaw archaeological, ethnographic, or ethnohistorical research. The conference will be an opportunity to be an overview of the broad spectrum of Choctaw history. The conference will be held in Broken Bow, Oklahoma, and will be attended by both academicians and Choctaw citizens. This will provide an opportunity for the academicians to bring their research findings to the Choctaw people.

Williams, Michele (Washington University) *Plant Remains from Winding Stair and Buggy Spot*

The plant remains (flotation-derived and

hand-collected) from the Caddoan sites of Winding Stair and Buggy Spot were analyzed between July and December of 1997 at Washington University in St. Louis. While the two sites probably were used quite differently by the prehistoric residents of the region, they both contained a similar array of plants, emphasizing the importance of these plants to Caddoan subsistence. The remains from these collections reveal a subsistence base of cultivated plants, especially corn, with a strong emphasis on wild plants such as fruits and nuts. The distribution of plant remains within the Winding Stair structure were not distributed uniformly; certain contexts such as the central post holes were richer than the general floor samples. The overall collection of plant remains at the Winding Stair and Buggy Spot sites are within the range of species expected at a late prehistoric Caddoan site as revealed from a summary of similar sites. There were, however, some interesting variations from these norms.

***Abstracts of Papers from the 31st Caddo Conference,
Norman, Oklahoma, March 3-5, 1989***

[This issue begins an effort to publish abstracts from previous Caddo Conferences. This will be done as there is space available. We will probably work backward. The abstracts since 1990 have been published in this periodical previously.]

Albert, Lois (Oklahoma Archeological Survey) *Continuing Research in the Lee Creek Valley: Fall 1988 Field Season*

Field work continued in the Lee Creek Valley during autumn, 1988. Four sites (Starr Pasture, Baker "A", Tall Cane, and Curt's Knoll) were tested for National Register eligibility. Five others were posthole tested only, because of eroded, disturbed, or sparse deposits. Curt's Knoll was potentially occupied during the Late Archaic period, whereas Starr Pasture was occupied from Woodland/early Caddoan times. A charcoal sample from Tall Cane yielded a Woodland period date (A.D. 370 ± 90). The date for Baker "A" was A.D. 1140 ± 80 . Baker "A" was therefore contemporaneous with the Lee Creek Ceremonial Center.

Brown, James (Northwestern University) *Reassessment of the Spiro Site Sequence*

The large number of grave lots from the mounds at the Spiro site were sequence-ordered by non-metric scaling (md-scale) to produce a seriation based on time-sensitive attributes that substantively changes the original chronology. A segmentation into a Coles Creek, Evans "Spiro I", Harlan "Spiro II", Graves Chapel, Late Harlan "Spiro III", and Spiro phase proper "Spiro IV" was achieved that produced satisfactory results when compared with stratigraphic information and artifact crossties to other sites.

Claeys-Shahmiri, Janet S. (University of Texas at Arlington) *Battle of Village Creek, May, 1841: Critical Appraisal of Historical Evidence*

The battle of Village Creek took place in the Arlington/Fort Worth area of the West Fork of the

Trinity River in Tarrant County, Texas in May, 1841. It was a retaliatory campaign made up of an unofficial contingent of Texas Rangers, Texas militia, and volunteers against a group of "hostile" Indians. These represent remnants of seven tribes, the Caddos, Cherokees, Creeks, Seminoles, Anadarcos, Kickapoos, and Wacos who were encamped in four villages on the creek. A critical review of historical literature bearing on the battle has shown contradictions in evidence and problems of unsubstantiated facts. Ethnohistorical and archaeological investigations will greatly contribute not only in the location of the villages, but to the much neglected study of acculturation and culture change of these seven remnant tribes during the mid-1800s.

Creel, Darrell (University of Texas at Austin) *An Overview of Investigations at the Hatchel-Mitchell Site Complex, Bowie County, Texas*

The Hatchel-Mitchell site complex in Bowie County, Texas was extensively excavated in 1938-1939 by the University of Texas - WPA archeological program. Limited excavations had been made before that time by various individuals, and some excavations have been done since then. Few archeologists are aware of the extent of these excavations or of the findings. This presentation reviews the major areas of the site complex that have been excavated; the large Hatchel mound, the small mound, six village area excavations, and the Mitchell cemetery area. The complex of Hatchel, Mitchell, and the nearby Eli Moore sites had a long history of prehistoric occupation and is generally considered to be the community depicted on the well-known map of the Kadohadacho village made by the 1691-1692 Teran expedition.

Gettys, Francie (Oklahoma Archeological Survey) *Salvage Excavations at 34CK-265*

A prehistoric structure was damaged by road maintenance in the Cherokee/Gruber Wildlife Management Area, eastern Oklahoma. Excavations in the summer of 1988 recovered artifacts and debris including large amounts of cane-impressed daub from remains of a structure in the road bed. Radiocarbon dates and artifact styles indicate a Harlan phase occupation around A.D. 1000 to 1100.

Gregory, Hiram F. (Northwestern State University) *Woodland Manifestations and Caddo Culture*

Recent fieldwork has suggested wider Woodland manifestations and earlier influences radiating in and out of the Caddoan archaeological area. The purpose of this discussion will be to seek common temporal and adaptive connections across the four state area.

Guccione, Margaret J. (University of Arkansas at Fayetteville) *Use of Overbank Sediment to Locate the Channel Position During Human Occupation of a Flood Plain*

Human occupation is characteristically concentrated in valleys, where fine-grained overbank sediment accumulates. Grain size (sand/sand + silt) of sediment from locations along a transect perpendicular to the channel was plotted against distance from channel. Results from the White and Buffalo rivers both show a logarithmic reduction of grain size with increasing distance from the source. A similar curve can be generated for any study area. The grain size of overbank sediment containing cultural material can be located on the local curve to determine the approximate distance of the site from the channel that existed at the time of human occupation.

Hoffman, Michael P. (University of Arkansas at Fayetteville) *New Old Data from the Spiro Site*

Echoes of the commercial pothunting at Spiro

still reverberate in the Arkansas Ozarks as recent acquisitions of the University of Arkansas Museum attest. Two gifts of pearl beads from old Fayetteville families reflect that a commercial antiquities middleman active in the sale of Spiro artifacts had strong friendship ties in the city. A large portion of an engraved conch shell vessel, previously unrecorded, was collected on the surface of the excavations by a Spiro schoolteacher in the 1930s and after a long teaching career in Arkansas, was donated to the museum in 1988. Finally, one of the original crew of Spiro pot-hunters was located in a western Arkansas nursing home in the 1980s by a local avocational archeologist and interviewed at length on tape. The transcription of the tape, given to the University of Arkansas Museums, adds to the history and folklore of the site's exploitation.

Jeane, David R. (Louisiana Archeological Society) *The Search for the Sulpher Fork Factory*

Established in the summer of 1818 and occupied officially until 1825, the Sulpher Fork Factory was built to deal with the Caddo, Alabama, Choctaw, Coushatta, Delaware, Pascagoula, and Shawnee Indians living in the Red River Valley. It was placed at the junction of the Sulpher Fork River and the Red River, approximately six miles above the present Louisiana state line, to act as a deterrent to the Spanish influence among the Indian tribes and to eliminate the trading with unlicensed traders who were taking advantage of no official government presence in the area. A military detachment would also provide security to the white settlers who were moving into the area.

Prior investigations by the University of Arkansas in 1968, and relic hunters over the years, have failed to locate the site of the complex. In the spring of 1988, members of the Northwest Chapter of the Louisiana Archeological Society and Kadohadacho Chapter of the Arkansas Archeological Society, under the direction of Dr. Frank Schambach of the Arkansas Archeological Survey, located two likely locations for the factory. Extensive excavations were undertaken at one site (3MI266), from April through June, to determine whether or

not this was the actual location. This report presents the results of those excavations.

Jelks, Edward B. (Illinois State University) *The Caddo*

Major elements of Caddo culture are briefly summarized. This paper is extracted from a manuscript on the Caddo tribes prepared for the Southeast volume of the Handbook of North American Indians.

Jeter, Marvin D. (Arkansas Archeological Survey) *Fish Lake (3HE287), a Buried Site on the Red River in Southwest Arkansas*

Red River bank erosion during Winter 1987-1988 exposed a buried thick midden on an old ridge-and-swale landform 5 km downstream from Fulton, Arkansas. Test excavations and other investigations in late 1988 revealed at least three components: middle Fourche Maline, late Fourche Maline, and early Caddoan. Features are present, and there is unusually good potential for geoarchaeological and ecological studies, plus the possibility of tree-ring correlations with nearby buried baldcypress, also exhumed by recent river action.

Jeter, Marvin D., and James P. Harcourt (Arkansas Archeological Survey) *Goldsmith Oliver 1 and 2 (3PU55 and 3PU306): Protohistoric "Quaqaw Phase" Sites Near Little Rock, Arkansas*

The Goldsmith Oliver site (3PU55) has long been known as a protohistoric to early historic "Quapaw phase" habitation site. Recent research discovered the adjacent and related Goldsmith Oliver 2 site (3PU306) which was partially excavated by the Arkansas Archeological Survey in 1987. It yielded 16 burials and a ceramic assemblage dominated by "helmet bowls"; glass and tubular metal beads were also found. This is the first major excavated site of this complex since Ford's (1961) work at Menard, and will contribute to the resolution of the "Quapaw paradox".

Jurney, David H., Melissa M. Green, and

Randall W. Moir (Southern Methodist University) *Caddo Ethnography: Archaeological Utility or Futility*

The use of direct historic accounts and ethnographic analogy was one of the formative steps in the development of cultural-historical and chronological frameworks for the Arkansas, Louisiana, Texas, and Oklahoma region. Recently there have been strong rejections of this approach in the study of Caddo and Caddoan-related archaeological sites due to several reasons, including the introduction of European material culture, the horse, diseases, and problems inherent in definition of culture areas. The recent success of the Indirect Historical Approach in reconstructing Southeastern Indian Chiefdoms visited by DeSoto and other Spanish explorers indicates that this method can greatly augment current archaeological investigations.

Kay, Marvin (University of Arkansas at Fayetteville) *Comparison of Goforth-Saindon and Huntsville Mounds*

Recent excavations at the Huntsville Mound have further illuminated both the complexity and chronology of Caddoan mounds in this area. The most recent radiocarbon assays point to the Huntsville site being affiliated with the Spiro phase rather than a Harlan phase occupation. Structural details are amenable to formal structural analysis similar to that conducted at other Mississippian ceremonial centers in the southeast.

Lebreton, Marietta (Northwestern State University) *U.S. Factory Systems: Government, Indian Tribes, and Trade*

This discussion will concentrate on the trade between government factions and local Indian tribes with an overview of the U.S. factory system and its purpose.

Lee, Aubra (Northwestern State University) *Fusils, Pelts, and Paint: An Analysis of French/Spanish/Indian Trade Relations in the Lower Red River Valley, 1770-1790*

This paper describes the relations and effects of inter-provincial trade relations centered in the lower Red River Valley. Trade competition between French Natchitoches and Spanish East Texas is the main focus of this research. Included within this framework are discussions of trader/tribe relations, trade goods, inter-familial competition, and trade policy.

Mintz, John (Arkansas Archeological Survey) *The Fish Lake Site (3HE287): An Archeological Investigation along the Red River*

This paper summarizes the preliminary results of a recent testing project conducted at the Fish Lake site (3HE287) south of Fulton, Arkansas, on the Red River. Diagnostic artifacts recovered at the site suggest a prehistoric occupation of the site ranging from the early Fourche Maline through late Fourche Maline time period (800 B.C. - A.D. 900). The site appears to have been abandoned during or after the Caddo I or ca. A.D. 900 time period.

Moir, Randall W., Melissa M. Green, Frank Winchell, and David H. Journey (Southern Methodist University) *Can Material Culture and Ethnicity be Reconciled for the Late Prehistoric in Northeast Texas?*

Understanding demographic relationships and, hence, cultural affiliations, between regional populations is one objective of archaeological research of Northeast Texas. Without knowing genetic relationships, reconstructing culture history from archaeology often becomes an exercise in matching trait lists. Mortuary practices, pottery styles, house construction, foodways, and settlement forms shared in common are good indicators of shared culture and group relatedness. We review some important maps and literature that attempt to correlate archeo-cultural affiliation in the general Ark-La-Texhoma region. We explore the problem of core versus hinterland Late Prehistoric adaptations and affiliations using some of our recent studies conducted in Northeast and North Central Texas.

Rogers, J. Daniel (Smithsonian Institution) *The Development of Ranked Societies in the Northern Caddoan Area*

During the period of approximately A.D. 600 - 900, social developments in eastern Oklahoma and western Arkansas signaled the transition to more complex forms of social organization. The goal of this paper is to develop a model of social change based on the interplay of cultural, economic, technological, and environmental factors. Although good site data is scarce for this time period, it is possible to hypothesize patterns for the reorganization of social relations that would account for the major observed shifts.

Rose, Jerome C., and Michael P. Hoffman (University of Arkansas at Fayetteville) *Maize Dependency in the Trans-Mississippi South*

Stable carbon isotope analyses (n=42) are used to reconstruct maize consumption in the Trans-Mississippi South. Wister and Fourche Maline phase samples produce a nonmaize value of -21.66 (n=5). The three Fourche Maline 7 sites indicate no maize with -21.43 (n=8). Three individuals from Ferguson assigned to FM4 ate maize (-15.91). We question the chronological placement of these burials. Three Caddo I sites have -20.26 (n=9). With two individuals having values indicating the possible consumption of some maize. Other values indicating maize dependency are as Caddo 2, -13.56 (n=2); Caddo 4, -15.88 (n=5); and Caddo 5, -14.11 (n=3).

Sabo, George III (Arkansas Archeological Survey) *Caddoans and Europeans: Encounters and Images*

How did southern Caddoans perceive the Europeans whom they encountered during the seventeenth and eighteenth centuries? To answer this question, French and Spanish accounts are examined, and descriptions of interactions between Caddoans and Europeans are compared with counterpart interactions between Caddoans and their Native American neighbors. The results of this comparison indicate that Europeans were held in

esteem, and the nature of Caddoan ritual performances indicates that formal alliances based on kinship and/or friendship institutions were sought. However, it does not appear to be the case that Europeans were symbolically categorized as supernaturals.

Spears, Carol S. (Spears Professional Environmental & Archaeological Research Service) *Extensive Woodland Midden and the First? Archaic Features Found in an Open Site in the Ozark Mountain Region, Arkansas*

A Mississippian utilization and extensive Woodland occupation were found during significance testing at the LuAllen site (3NW662) in the Boxley Valley of the Buffalo National River. The nature of the Mississippian components, Woodland midden, features and landforms are discussed in relation to research problems. Further downstream at the Sattler site (3NW663), two Middle Archaic pit features were discovered on top of an old Buffalo River terrace. Description of the activity area and radiocarbon dates are presented.

Tanner, Helen (The Newberry Library) *Crises for the Caddo People, 1803-1859*

Caddo people maintained their supremacy in east Texas and along the upper Red River frontier of Louisiana through the first third of the nineteenth century. Though affected by the international aspirations of France, Spain, Mexico, and the United States, the Caddo survivors in Texas faced their greatest challenge from American immigrants in the 1840s and 1850s. The remnants that fled to Oklahoma in 1850 included descendants of occu-

pants of both Louisiana and Texas towns, who still retained knowledge of their shared traditions and dances.

Vogele, Louis E., Jr. (University of Arkansas) *Stratigraphy and Chronology of Mound 1 at the Goforth-Saindon Mound Site*

Excavations by the University of Arkansas during the 1982 - 1985 field seasons were focused on Mound 1 at the Goforth-Saindon site. This multiple mound site, located on the Illinois River in extreme northwest Arkansas, is one of several Caddoan mound sites located in the western Ozark Highlands. As a result of these excavations, a complete stratigraphic profile has been documented for Mound 1. Details of stratigraphy present in the mound deposits are discussed, and comparisons made to other regional mound sites.

Wyckoff, Don G. (Oklahoma Archeological Survey) *Calf Creek: A Middle Archaic Complex in Eastern Oklahoma*

For many years, collectors in east-central and eastern Oklahoma have been aware of the presence of such deeply basal-notched spearpoints as Andice, Bell, or Calf Creek. By working with conscientious avocationalists, it has been possible to compile and synthesize information on such finds. Notable components are identifiable for several sites, and one has been tested, resulting in exposure of a rock-lined roasting pit that yielded a radiocarbon date of 5730 ± 160 B.P. These sites and assemblages are described and discussed in terms of a regional pattern of mid-Holocene land use.



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