TABLE OF CONTENTS

EDITOR'S PAGE .......................................................... 3

UPCOMING MEETINGS AND EVENTS .................................. 4

1996 EAST TEXAS ARCHEOLOGICAL CONFERENCE .................. 5

1996 CADDIO CONFERENCE (38th) .................................... 7
CALL FOR PAPERS ................................................... 7
MAPS ................................................................. 8
REGISTRATION FORM ............................................... 9

OF HEARTHS AND HOUSES ............................................. 11
Tom Middlebrook and Ryan Middlebrook

THE CADDIOAN OAK HILL VILLAGE SITE ........................... 23
J. Brett Cruse and Timothy K. Perttula

ABSTRACT FROM RECENT PUBLICATION ............................ 26

CADDIO CONFERENCE PAPER ABSTRACTS ......................... 27
36th CADDIO CONFERENCE ABSTRACTS (1994) ................... 27
37th CADDIO CONFERENCE ABSTRACTS (1995) ................... 31

INDEX TO THE FIRST SIX VOLUMES OF THE
CADDIOAN ARCHEOLOGY NEWSLETTER .............................. 37
ARTICLES .......................................................... 37
BOOK REVIEWS .................................................... 42
CADDIO CONFERENCE ABSTRACTS ................................ 43

BOOK REVIEW
reviewed by Robert L. Brooks

IT'S RENEWAL TIME!! ................................................. 47
Once again, after what seems a very short time, we are completing another year of publication for the Caddoan Archeology Newsletter. I hope that you regard this volume as a success, and give CAN your vote of confidence by renewing your subscription. Some renewals have already come in; I appreciate your prompt response. By sending in your checks early, the expense of sending renewal notices is avoided. Thanks to those of you who have already sent me your money.

Talking about money, we are on a sound financial footing at the moment, thanks to our increase to $15 last year. Unless there is another big jump in paper costs or postage again, we should be able to hold the line on price for a while.

We always can use manuscripts. If you have a preliminary report on an interesting site; if you have a report that you consider too small for one of the larger, more formal, journals; if you have a student who wants to break into print; or if you are willing to let us publish your latest discoveries, send in those papers. We are able to print a moderate number of photos; the quality of these when printed will be related to the quality of the material you send in. The same is true for line drawings; the material sent to me is all I have for producing the final copy. Sometimes it has been necessary to redo drawings, but this takes quite a bit of time.

Several interesting meetings are coming up this spring. The first is that of the East Texas Archeological Society in February. The Caddo Conference this year is in Natchitoches. In addition to looking forward to Pete Gregory's hospitality, we can treat our mouths with a taste of those delicious meat pies. These are now internationally known; Gourmet magazine had a short article about the restaurant in its January issue. Those who attended the last meeting in Natchitoches know what I'm talking about. In April, only a couple of weeks after we finish the meeting in Natchitoches, it's time to head south again to the SAA meetings in New Orleans, another city where the pounds go on quickly. With all of the excursions and workshops planned for the meetings, will there be time to hear any of the paper sessions?

Here's to another year. Remember -- we need articles! I hope to see many of you at the upcoming meetings.
UPCOMING MEETINGS AND EVENTS

Continuing into 1996 State Museum of History, Oklahoma City: Saturday Film Series continues at Wiley Post Historical Building (Lincoln Boulevard near the Oklahoma Capitol; Free). For scheduling information, call (405) 522-5241.

1996

February
24-25 7th International Archaeometry Conference. University of Buffalo, Buffalo NY. There will also be workshops in archaeometry in association with the conference. For more information contact Patrick S. Miller, psmiller@buffalo.edu, or Ezra Zubrow, telephone: 716-645-2511.

March
1-2 Fur Trade Rendezvous Living History, Fort Towson Historic Site, Fort Towson OK. 9AM to 5PM; fee $1 per car. For additional information, call 405-873-2634.

2 TransMississippi Battalion Muster, Civil War Living History, Fort Washita Historic Site, Durant-Madill OK. 9AM to 5PM, free. For more information, call 405-924-6502.

9 Primitive Bow and Arrow Seminar, Pawnee Bill Ranch, Pawnee OK. 1 - 3 PM, fee $6. Seminar conducted by Randy Ledford. For more information, call 918-726-2513.

16 Civil War Living History, Fort Washita Historic Site, Durant-Madill OK. 9 AM to 5 PM, free. For more information, call 405-924-6502.

25-29 Log Structure Repair Workshop, Fort Gibson Historic Site, Fort Gibson OK. 8 AM to 5 PM each day. Workshop supervised by Dr. Bill Lees, Oklahoma Historical Society. Pre-registration required, work exchanged for fee. For more information, call 918-478-3355.

28-31 38th Annual Caddo Conference. Northwestern Louisiana State University, Natchitoches LA. March 28, 6 PM, early registration, Student Union Ballroom; March 29-30, papers; March 31, schedule not firm. For more information, contact Dr. Pete Gregory, Department of Social Science, Northwestern State University, Natchitoches LA 71497; telephone: 318-357-4364.

April
1-30 Texas Archeology Awareness Month. For information on events and available resources contact: Office of the State Archeologist, Texas Historical Commission, P.O. Box 12276, Austin TX 78711-2276; telephone 512-463-6090.

10-14 61st Annual Meeting of the Society for American Archaeology. Marriott Hotel, New Orleans LA. Abstracts and other submissions are due September 15! More information will be given later.

May
20-22 1996 AMQUA Meeting. Flagstaff AZ. Meeting theme: Global Warming: Interglacials, Interstadials, Climatic Optima, and Other Events. Fourteen pre- and post-symposium field trips planned. For further information, contact Jim Mead, Department of Geology, Northern Arizona University, Flagstaff AZ. Telephone: 520-523-9220; e-mail: jim@vishnu.glg.nau.edu or AMQUA's home page at: http://cc.usu.edu/~DKaufman/AMQUA.html

20-24 International Symposium on Archaeometry. University of Illinois. For additional information, contact: S. Wiseman, ATAM Program, University of Illinois, 116 Observatory, 901 S. Mathews, Urbana IL 61801. Telephone: (217)-333-6629; fax: (217) 244-0466; e-mail: wisarc@ux1.cso.uiuc.edu

20-24 The Seventh International Conference on Accelerator Mass Spectrometry (AMS-7). Tucson AZ. The conference will focus on all aspects of
the techniques, methods, and applications of AMS. There will be several theme sessions on special topics, and there will be four pre- and post-conference workshops. One pre-conference workshop will be in La Jolla CA. A post-conference workshop will be held in Tucson on May 25 on geological applications of AMS. Some of the sessions at the main conference will highlight specialized topics in AMS including: Reports on new AMS facilities, negative ion physics and ion sources, trace element studies using AMS, and new radionuclide studies with AMS. For more information contact: Timothy Jull or Warren Beck, NSF Arizona AMS Facility, University of Arizona, Physics Building, Tucson AZ 85721. Telephone: 520-621-6810; fax: 520-621-9619; e-mail: AMS@ccit.arizona.edu. The conference third circular is available on the WWW at http://www.physics.arizona.edu/ams/

24-26 **The 3rd Eastern States Rock Art Conference.** University of Maine at Machias. The conference will include participants from eastern and central United States and from Canada. Guided tours of prehistoric Algonkian petroglyph sites on Machias Bay are planned for Friday afternoon, May 24, and for Sunday morning, May 26. Saturday, May 25, will be given to presentations on rock art research with informal meetings and discussions Friday and Saturday evenings. For further information contact Mark Hedden, Maine Historic Preservation Commission, 55 Capitol St, Augusta ME 04333.

**June**

22-29 **Ninth International Palynologic Congress.** Houston TX. Symposia topics may include: ecology and paleoenvironmental reconstruction; entomopalyology & archeological palynology; melissopalyology and forensic palynology; new frontiers and applications in palynology; palynomorph preparation techniques; palynomorph sampling; palynostratigraphy & sequence stratigraphy; pre-Quaternary and Quaternary studies; TEM and SEM applications in palynology. There will be a maximum of 700 oral presentations and space for 250-300 posters. For more information contact: D.J. Nichols, U.S. Geological Survey; fax 303-236-5690; e-mail: dnickuls@greenwood.cr.usgs.gov.

**October**

26-29 **Eastern States Archeological Federation, 62nd Annual Meeting.** Wilmington DE. For more information contact: Faye L. Slocum, DE SHPO, #15 The Green, Dover DE 19901; telephone 302-739-5685.

**November**

14-17 **29th Annual Chacmool Conference.** University of Calgary, Calgary, Alberta, Canada. The theme for the meeting is "The Archaeology of Innovation and Science". The organizers hope to present a conference which reveals how archaeologists identify techniques, technologies, and sciences used by past cultures. Participation in the conference is open to all and is not restricted to professional archaeologists. Papers are solicited from avocational archaeologists as well as students. Some suggested categories and topics are: Communication Systems (writing systems, signalling devices, roads); Numerical Systems and Calendrics (mathematics, calendars, computers); Public Works (buildings, earthworks, terracing [landscapes], design techniques); Health/Healing (nutrition, medicine, surgery, pharmacology, shamanism); Domestication (plants and animals); Hydrology (water management, irrigation systems, transportation); Transportation (roads, transportation means [vehicles etc.], navigation); Pyrotechnology (metallurgy, ceramics, casting, glassmaking); Warfare (weapons, fortifications); Archaeology of the Industrial Revolution, Food-gathering, Processing, and Storage. If you are interested in presenting a paper or organizing a session, contact the Organizing Committee at 403-282-9567. For more information, contact Catherine Christensen, 1996 Conference Committee, Department of Archaeology, University of Calgary, Calgary, Alberta, Canada T2N 1N4; telephone 403-220-5227 (leave message); fax: 403-282-9567; e-mail: 13042@udasvm1.admin.ucalgary.ca.
1996 East Texas Archeological Conference

Sponsored by: Region 4 - Texas Archeological Society, School of Liberal Arts, UT at Tyler, East Texas Archeological Society, Northeast Texas Archeological Society, Dallas Archeological Society, Friends of Northeast Texas Archeology, Deep East Texas Archeological Society National Forest and Grasslands of Texas, SFASU Anthropology Club

Date: Saturday, February 10, 1996 9 AM - 5 PM

Location: Robert R. Muntz Library Room 481
University of Texas at Tyler Campus
3900 University Blvd.
Tyler, Texas

The purpose of this conference is to exchange information about activities in East Texas archeology between avocationalis, professionals, and general public. Other goals: the encouragement of avocational reports in an informal setting, workshop education to TRS members and the general public, and fostering an enthusiasm for preservation of the local archeology. Come join us!

Who can attend: All TRS members, general public; (in short, anyone!) 

Charge: Free

Agenda: 9 AM - 11:30 AM General Session
1 PM - 3 PM Two Worlds Meet: The Caddoan People and Missions
Talks - Jim Corbin & George Avery
Panel Discussion - Tim Perta, Pete Gregory,
Kathleen Gilmore, Shawn Carlson, Cecile Carter
3 PM - 5 PM Workshops
Flintknapping - David Hartig
Spanish Contact Artifact Identification - Jay Blaine

This year we wish to encourage anyone with individual artifacts or small collections that relate to the period of Spanish and French colonial contact with the Caddoan people in East Texas to bring the objects to the conference for discussion or identification with Jay Blaine and our panel of other experts.

Contact: Tom Middlebrook 4218 Mystic Ln. Nacogdoches, TX 75961
w: 409-568-8818 h: 409-568-6733

This announcement is a Call for Papers to the above address for anyone wishing to participate in the General Session; you may ask for 5, 10, 15, or 20 minutes to present a formal paper, practice a small paper, discuss what you are doing in your area, describe an interesting new site or artifact, or ask for help with a problem. Also please let us know if you plan to bring a display. WE NEED YOUR PARTICIPATION.
The University of Texas at Tyler is on the southeast side of town. If you are coming from Dallas, exit at US 69 to the right (at the McDonalds). At Loop 323, turn right and go around the west and south sides of Tyler until you come to Spur 248 (University Blvd) to your right which will take you to the campus. Turn left on Patriot Avenue and then take the first right entrance into the campus. Parking is available in front of the library. The conference will be on the 4th floor.

Best Western Inn
2828 NWW Loop 323
903-535-2681

La Quinta Motor Inn
1681 WSW Loop 323
903-561-2223

American Inn
2781 WNW Loop 323
903-593-7591

Sheraton Inn
5701 S. Broadway
903-561-5800

Days Inn
3308 Hwy 69 N
903-593-8361

Travelodge
2616 WNW Loop 323
903-593-8361

Stratford House
2608 WNW Loop 323
903-597-2756

Econo Lodge
12752 Hwy 155 N
903-577-9227

Holiday Inn
3310 Troup Hwy 110
903-593-3600

Residence Inn by Marriott
3383 Troup Hwy 110
903-595-5188

Quality Hotel
2843 WNW Loop 323
903-597-1301

Rosepine Inn (B&B)
415 S. Vine Ave.
903-592-2221
1996 CADDO CONFERENCE (38th)

CALL FOR PAPERS

The 1996 Caddo Conference will be held in the Student Union Building on the campus of Northwestern State University of Louisiana in Natchitoches on Friday and Saturday, March 29-30. Early registration is on Thursday evening in the Williamson Museum (second floor, Keyser Hall -- see map) from 7 to 9 PM. The conference will begin at 8 am on Friday morning and continue through Saturday afternoon. Plans are being finalized for activities on Friday and Saturday evening as well.

At the beginning of the conference, there will be a short Current Project Review session to keep everybody up to date on current research. We hope that all individuals and groups who currently are conducting (or recently have conducted) projects in the region will send a representative to provide a quick (1 - 2 minute) summary. We also plan to have an open discussion session regarding historic Caddoan archaeology. All who have an interest in the historic period are especially encouraged to attend the conference and participate.

Please send in paper or session abstracts as soon as possible.

>>For those who will be coming through the Shreveport area, please note that Interstate 49 now connects directly with Interstate 20!

Lodging for 1996 Caddo Conference

MOTELS (Please make reservations for motels by March 14)

Holiday Inn -- (318) 357-8281; 1 mile from the NSU campus, located at 7624 Hwy. 1 Bypass. Rate: $47 for all rooms, single or double.

Days Inn -- 1-800-325-2525 or (318) 352-4426; motel nearest NSU campus, 1000 College Ave. Rates: $32.00 + tax, single; $39.00 + tax, double.

Best Western - 1-800-528-1234 or (318) 352-6655; about 3 miles from NSU campus, at Natchitoches exit on I-49 (5135 Hwy. 3278). Rates: $47.00, single; $52.00, double.

Comfort Inn -- 1-800-228-5150 or (318) 352-7500; about 3 miles from NSU campus, at 5362 Hwy. 6, at the Natchitoches exit on I-49. Rates: $55.00 (with tax, $60.78), one person; $60.00 (with tax, $66.30), two people; price includes free continental breakfast each day from 6:30 to 9:30 AM. Each room is large, with microwave, fridge, HBO and CNN. Children under 18 free.

BED AND BREAKFAST

There are several Bed and Breakfast establishments in Natchitoches; below are phone numbers for most of them if you should prefer a B&B.

Breazeale House - 926 Washington St; (318) 352-5630
Cane River House - 910 Washington St; (318) 352-5912
Closetter Townhouse - Front St; (318) 352-5242
Dogwood Inn - 225 Williams Ave; (318) 352-9812
Fleur de Lis - 336 Second St; (318) 352-6621

Jefferson House - 459 Jefferson St; (318) 352-5756, after 5 PM (318) 352-3957
Levy-East House - 358 Jefferson St; 352-0662
Tanis Huppe Inn - 424 Jefferson St; (318) 352-5342
OF HEARTHS AND HOUSES

Tom Middlebrook and Ryan Middlebrook

INTRODUCTION

During the 1993 East Texas Archeological Field School conducted at the Tyson site (41SY92) in western Shelby County, the junior author had an opportunity to participate in the excavation of a Caddoan hearth. The work was directed by Linda Lindsay, a graduate student in Anthropology at Southern Methodist University. This paper describes our findings and a few features of hearths and houses.

One goal of the 1993 Field School was to explore the area around Feature 3 looking for evidence of a house. This was accomplished by opening a 6 meter by 6 meter unit referred to as Block 1. Feature 3 had been excavated in 1992 and found to be a 1.2 meter in diameter, round, basin shaped pit containing a large amount of daub, bone, and Caddoan pottery sherds. Near the bottom of the pit was a zone of ash. Charcoal and mussel shell from Feature 3 yielded three calibrated radiocarbon dates of about 1425 AD (Middlebrook 1993).

When Block 1 was completely exposed, a number of other pits and postholes were seen in plan view (Figure 1). Our activity focused on Feature 9 on the western edge of Block 1. This 1.15 meter by 0.9 meter oval hearth was first revealed at 20 cm depth when ash was encountered (Figure 2). The feature contained large amounts of ash from in situ burning, nuggets of fired clay, a small amount of bone, and several burned sherds with ash adhering to their surfaces. The hearth was slightly basin-shaped and approximately 15 cm thick. A discontinuous thin layer of bright orange clay near its bottom was observed. The hearth had been prepared for use by digging a very shallow pit but no intentional "clay lining" was seen. Two large postholes were found in the area of Feature 9. Feature 17 was discovered beneath the eastern end of the hearth. It was 30 cm in diameter and had a smoothly rounded bottom at 75 cm below ground surface. Feature 12 was a very distinct posthole of similar proportions just west of the hearth. The diameter of F12 was 27 cm and the depth was 65 cm below surface.

How do we understand this feature? Specifically, does Feature 9 represent the central hearth of a Caddoan house? This question is currently difficult to answer because the outside wall of a putative house has not been identified. Possibly, Block 1 lies entirely inside a large house. The question may be easier to answer after reviewing accounts written by early Europeans visiting the area and reviewing the archeological findings at other East Texas Caddoan sites.

ETHNOHISTORIC RECORD

Early Spanish writers described for us the amazingly rapid construction of Caddoan houses; these buildings were often completed in less than a day by many members of the community supervised and directed by their governing elites (Bolton 1987; Swanton 1942; Wyckoff & Baugh 1980). The initial stage of construction involved the placement of tall poles in a circle around a
removable central post or tree and then pulling the poles together at the top. Espinoza (Hatcher 1927; quoted in Jackson 1936) discusses this:

The laths are placed in a circle and in the middle they put up a very tall pole with knots on it for climbing. Two Indians are placed on top. . . They continue to tie them until they have formed a figure like a half-orange. . . They work so dexterously that a little after midday they are finishing the hut. . . The building finished, they cut the middle post at the bottom and the building is thus left standing . . .

There are additional indications in early accounts that the location of the removed central post was subsequently used for a fireplace. While references are made to fires inside ordinary Caddoan houses, the most detailed descriptions involve the fireplaces inside the residences of important religious figures and in special temples. Fire had possibly both functional and sacred significance to the Caddos of East Texas. The homage paid to fire is reflected in these quotations from Morfi (Chabot 1932 in Jackson 1936) and Hidalgo (Hatcher 1927 in Jackson 1936):

Both the former and the latter fear that the fire will get angry with them; and to
satisfy it, they make offerings to it of their first corn, tobacco, meat from the chase; and, in a word, all of their crops... When in need they always appeal to the fire... The fire the Tejas Indians have in their houses was brought from the house of their high priest... If the fire goes out they start immediately for the house...
of the priest to get new fire. It never goes out in the house of sacrifice...

In summary, then, the ethnohistoric record suggests that at least some Caddoan houses had a central hearth overlying a central posthole, and that fire had special significance binding each house to a perpetual fire at some religious center.

Parenthetically, the practice of placing offerings in a central hearth may be illustrated at the Henry M Site (41NA60) along Bayou Loco in western Nacogdoches County (Middlebrook 1988). Henry M is a small Allen phase farmstead probably dating to the early part of the 1700s and contemporaneous with the nearby and better known Deshazo site (41NA27). Excavations to date have indicated the presence of at least one Caddoan house with a large, central posthole covered with the ash of a possible hearth. Interestingly, a well preserved Busycon sp. scoop, shaped by a groove and snap technology, was buried within the ash directly over the posthole (Figure 3). A valuable implement obtained through trade would not have likely been randomly tossed aside.

**ARCHEOLOGICAL FINDINGS**

In the sandy soils of East Texas, hearths are often evidenced by the presence of ash (perhaps mixed with charcoal) and, frequently, burned clay. Ash is produced by the nearly complete burning of plant material and is composed of extremely alkaline potassium carbonates. Ash can reflect burning in place or the deposition of ashes from another location. Archeologically, ash may be found in several different contexts; a few examples include: (1) prepared clay hearths; (2) the scatter of embers along a living surface; (3) large ash filled pits that may have functioned for cooking, pottery making, or refuse disposal; (4) smaller ash and smudge pits possibly used in smoking animal products, "repelling insects", food preparation, or warming houses; (5) ash on floor of extended entranceway to ceremonial building; (6) central or peripheral fireplaces within ceremonial building; (7) fallen structural elements of a burned building; (8) an ash mound...
formed from the cumulative disposal of sacred ashes of a "fire temple"; and (9) the site of cremation burials.

Table 1 presents a summary of hearth, ash, and architectural structure data from an extensive sample of excavated Caddoan sites in Deep East Texas (DET; that portion of the Caddoan area south and east of the Sabine River). Table 2 displays for comparison a limited sample of sites in the nearby regions of Northeast Texas and Northwest Louisiana.

The DET data in Table 1 demonstrates the restricted nature of archaeological information available concerning Caddoan house construction and site organization in the area. Initially, 121 structures excavated in the region appears to be an impressive number. However, 104 (86%) of these structures were located within only 3 (6%) of the 52 sites reviewed. Our perception of DET Caddoan architecture is dominated by, and therefore easily distorted by, findings at a single Early Caddo site (George C. Davis with 51 structures), a single recently excavated possible Middle Caddo site (Oak Hill Village with 42 structures), and a single Historic Caddo site (Deshazo with 9 structures). Only 11 (or 21%) of the DET sites revealed hearths during excavation although other features containing ash or signs of burning were relatively common. While 24 (48%) of the 50 hearths were shown to be "central" hearths within houses, all the central hearths were reported from just four DET sites: George C. Davis, Oak Hill Village, Bryan Hardy, and Henry M.

The central hearths found at the George C. Davis site in Cherokee County were under Mounds A and B and in the village areas. Newell and Krieger (1949:24) noted:

Fireplaces were found in 14 of the 34 (house) outlines, always approximately in the center. . . A large central posthole was present in more than half the outlines, usually at about the center of the fireplace when the latter was present. Some extended through the fireplace, but others had definitely been cut off before the fireplace was made . . .

Spock (1977) carefully reanalyzed Davis site architectural features. She divided the 51 structures in her study into categories of "domiciles" and "special function structures." Interestingly, only 2 of the 30 domiciles had central hearths while 14 of the 21 special function structures had them. Twelve of the 16 central hearths at George C. Davis had associated center post (Spock 1977:30, Table 1).

The findings of Spock (1977) might suggest that at least in some Caddo mound sites the use of a central hearth was less likely in "habitations of the populace" than in more complex structures used in the religious or ceremonial life of the community. The observations at George C. Davis are not inconsistent with those of Webb (1959) who excavated eight houses in two Belcher site mounds. Seven of the eight houses had a central hearth or ash bed. Three were clay lined and one was found to have a central posthole beneath it. Large ash beds, possible the residue of ceremonial fires, were found around the interior periphery of Houses 6 and 7.

The construction of a large "ash mound" at the A.C. Saunders site is almost certainly related to the five "hearths" associated with a large building thought by A.T. Jackson to be a "fire temple" (Kleinschmidt 1982). The close relationship between central hearths and special use structures was also supported by Whiteside's (1958) excavation at the Bryan Hardy site, where he found a house with an extended entranceway and a central hearth under a low mound. The recent excavations at the Oak Hill Village site in Rusk County (Cruse 1995; Pertula, personal communication) are somewhat more problematic because the function of the site has not been fully established. Forty-two structures surround an apparent plaza. Four circular buildings (Structures 1, 7, 9, and 17) contain central hearths over
<table>
<thead>
<tr>
<th>References</th>
<th>Project or Site</th>
<th># of Sites in Study</th>
<th># of Site with Hearths</th>
<th># of Hearths in Study</th>
<th># of Central Hearths</th>
<th># of Structures</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spook 1977 (includes Newell &amp; Krieger 1949; Story 1972)</td>
<td>George C. Davis</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>10</td>
<td>51</td>
<td>Only 2 of 30 &quot;domestic&quot; structures had central hearths, 14 of 21 &quot;special structures&quot; had them; 12 structures had center posts</td>
</tr>
<tr>
<td>Fields 1978</td>
<td>George C. Davis</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1 hearth highly disturbed, 2 ambiguous features with charcoal &amp; burned clay noted</td>
</tr>
<tr>
<td>Thurmond &amp; Klemschmidt 1979</td>
<td>George C. Davis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>F193-1, large basin shaped pit filled with much ash &amp; refuse</td>
</tr>
<tr>
<td>Creeel 1979</td>
<td>George C. Davis</td>
<td>1</td>
<td>1</td>
<td>1 (?)</td>
<td>0</td>
<td>1</td>
<td>concentration of burned clay</td>
</tr>
<tr>
<td>Story 1981</td>
<td>George C. Davis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 (?)</td>
<td>many charcoal filled pits, F196-11 with in situ burning</td>
</tr>
<tr>
<td>Story 1982</td>
<td>Dashazo</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>9</td>
<td>1 hearth unlikely to be central, possibly remains of all night bonfire in &quot;annual renewal&quot; ceremonies</td>
</tr>
<tr>
<td>Pertilla 1995 (personal communication)</td>
<td>Oak Hill Village (4IRK-214)</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>42</td>
<td>4 circular houses (Str. 1, 2, 9, 17) had central hearths &amp; center posts beneath; 2 rectangular ones (Str. 38, 39), hearths not over central posts</td>
</tr>
<tr>
<td>Jeiks 1965</td>
<td>McGee Bend</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>17 pits recorded from 6 sites; 9 pits contained some ash or burned clay</td>
</tr>
<tr>
<td>McClurkan et al 1966</td>
<td>Toledo Bend</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>hearth descriptions sound more like trash filled pits</td>
</tr>
<tr>
<td>Jansen 1968</td>
<td>Toledo Bend</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>James Pace site had &quot;clay lipped fire basin&quot;</td>
</tr>
<tr>
<td>Woodall 1969</td>
<td>Toledo Bend</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>Bacon B, 5 circular charred areas said to be outdoor hearths</td>
</tr>
<tr>
<td>Benham et al 1973</td>
<td>Toledo Bend</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>16SA17, small oval &quot;pit house, X41SY100, 4 hearths, no clearly associated houses, only limited area excavated</td>
</tr>
<tr>
<td>Anderson et al 1974</td>
<td>Lake Palestine</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Debro site had ash filled pit</td>
</tr>
<tr>
<td>Corbin et al 1984</td>
<td>Washington Square</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>Unusual collapsed structure under mound; pit encircled with postholes, no hearths</td>
</tr>
<tr>
<td>Corbin et al 1980</td>
<td>Mission Dolores</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4?</td>
<td>Feature 6 (hearth) eroding from ditch, all structural features appear related to mission</td>
</tr>
</tbody>
</table>
Table 1 (continued). Hearth Reported in a Sample of Deep East Texas Caddoan Studies.

<table>
<thead>
<tr>
<th>References</th>
<th>Project or Site</th>
<th># of Sites in Study</th>
<th># of Sites with Hearths</th>
<th># of Hearths in Study</th>
<th># of Central Hearths</th>
<th># of Structures</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corbin et al. 1978</td>
<td>Chaya</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Natural depression apparently enlarged for use as &quot;midden&quot;</td>
</tr>
<tr>
<td>Kenmotsu 1992</td>
<td>Mayhew</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Very shallow cultural horizon with high numbers of small sherds</td>
</tr>
<tr>
<td>Middlebrook 1988</td>
<td>Henry M (41NA60)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Conch shell &quot;offering&quot; in ash of central hearth over center post; posthole filled with ash</td>
</tr>
<tr>
<td>Jones 1968</td>
<td>&quot;Kinaloe Focus&quot;</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Excavation focus on burials and a few trash pits</td>
</tr>
<tr>
<td>Kleinschmidt 1982</td>
<td>A C Saunders</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>Large house thought to be &quot;fire temple&quot; &amp; associated &quot;ash mound&quot;</td>
</tr>
<tr>
<td>Whiteside 1958 (letter in TARL files)</td>
<td>Bryan Hardy</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Avocational excavation; one of houses has extended entrance-way &amp; is located under a low mound</td>
</tr>
</tbody>
</table>

23 STUDIES TOTALS 52 11 50 24 121

central postholes. Two rectangular buildings (Structures 38 and 39), probably related to an earlier occupation of the site, had hearths not located centrally to the structures and not over posts. The only central hearth in the reviewed DET studies that seems to be completely unrelated to a possible ceremonial or special function site is the one excavated at the Henry M site (Middlebrook 1988).

Most of the remaining reports in this review failed to associate hearths with houses due to the small areal extent of excavation or other factors negatively influencing posthole detection. This is certainly not the case, however, at the extensive-ly studied Deshaoo site in Nacogdoches County, where three hearths were uncovered in the vicinity of overlapping structures in Unit 1 (Story 1982). Hearth 2 was likely a small utilitarian fireplace about midway between the center post and the exterior wall. Hearth 3 is a feature with a posthole underneath, but not clearly associated with any structure. Its use is uncertain. Hearth 1, near several center posts, may not have been associated with any of the three houses. Carolyn Good (1982) speculated that this feature may well have represented the locale of an all-night bonfire in the "annual renewal" ceremonies described by early Spanish writers. Belcher site mounds. Seven of the eight houses had a central hearth or ash bed. Three were clay lined and one was found to have a central posthole beneath it. Large ash beds, possibly the residual of ceremonial fires, where found around the interior periphery of Houses 6 and 7.

The construction of a large "ash mound" at the A. C. Saunders site is almost certainly related to the five "hearth" associated with a large building thought by A. T. Jackson to be a "fire temple" (Kleinschmidt 1982). The close relationship between central hearths and special use structures also be supported by Whiteside's (1958) excavati-
<table>
<thead>
<tr>
<th>Reference</th>
<th>Project or Site</th>
<th># of Sites in Study</th>
<th># of Sites with Hearths</th>
<th># of Hearths in Study</th>
<th># of Central Hearths</th>
<th># of Structures</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruseth &amp; Pertula 1981</td>
<td>Lake Fork</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>?</td>
<td>4</td>
<td>Most house patterns near hearths not discernible</td>
</tr>
<tr>
<td>Jebs &amp; Tunnell 1959</td>
<td>Harroun</td>
<td>1</td>
<td>1</td>
<td>3 (or 4)</td>
<td>3 (or 4)</td>
<td>4</td>
<td>Houses 1 &amp; 2 superimposed, looters' pit disrupted area of central hearth(s)</td>
</tr>
<tr>
<td>Skinner et al 1969</td>
<td>Sam Kaufman (Roitsh)</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2 hearths in House 3 may have been &quot;burned superstructure&quot; (p. 21)</td>
</tr>
<tr>
<td>Bruseth et al 1991; Marin in Bruseth 1992</td>
<td>Roitsh</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>?</td>
<td>Block 1 in East Mound had large pit with ashes near base, Block III had hearth, Block IV had 2 hearths, &quot;Special Forces&quot; had large ash pit</td>
</tr>
<tr>
<td>Perino 1983</td>
<td>Bob Williams</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1?</td>
<td>Description limited, focus on cemetery</td>
</tr>
<tr>
<td>Webb 1959</td>
<td>Belcher</td>
<td>1</td>
<td>1</td>
<td>33</td>
<td>7</td>
<td>8</td>
<td>7 central hearths (3 clay lined, 3 central posts beneath), ash beds appeared associated with cooking (3-5 hearths), entranceways (3 beds), and ceremonial fires in Houses 6 &amp; 7 (18 ash beds)</td>
</tr>
<tr>
<td>Webb 1983</td>
<td>Bossier Focus</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>Montgomery had probable hearth, Werner site had 2 ash beds near each of double circular walls</td>
</tr>
<tr>
<td>Brewington et al 1995</td>
<td>41MX5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>Structure 2 found to have central hearth; 3 &quot;cooking pits&quot; with ash or fired clay found in 3 structures, smudge pits</td>
</tr>
<tr>
<td>Thomas et al 1980</td>
<td>Hanna</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>1 of 2 houses at McEland had central hearth and post; 1 house at Joe Clark had same</td>
</tr>
<tr>
<td>Kelly 1994</td>
<td>McEland, Joe Clark</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1 of 2 houses at McEland had central hearth and post; 1 house at Joe Clark had same</td>
</tr>
<tr>
<td>Trubowitz 1984</td>
<td>Cedar Grove</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>Feature 18 in Structure 1 possible hearth, baking pit, or pit for hot coals to warm house, F20 had ash from &quot;burning on the spot&quot;</td>
</tr>
<tr>
<td><strong>STUDIES</strong></td>
<td></td>
<td><strong>23</strong></td>
<td><strong>17</strong></td>
<td><strong>59</strong></td>
<td><strong>15</strong></td>
<td><strong>36</strong></td>
<td></td>
</tr>
</tbody>
</table>
tion at the Bryan Hardy site where he found a house with an extended entranceway and a central hearth under a low mound. The recent excavations at the Oak Hill Village site in Rusk County (Cruse 1995; Perttula, personal communication; ed. note: see pp. 23-25) are somewhat more problematic because the function of the site has not been fully established. Forty two structures surround an apparent plaza. Four circular buildings (Structures 1, 7, 9, and 17) contain central hearths over central postholes. Two rectangular buildings (Structures 38 & 39) probably related to an earlier occupation of the site had hearths not located central to the structures and not over posts. The only central hearth in the reviewed DET studies that seems to be completely unrelated to a possible ceremonial or special function site is the one excavated at the Henry M site (Middlebrook, 1988).

Most of the remaining reports in this review failed to associate hearths with houses due to the small areal extent of excavation or other factors negatively influencing posthole detection. This is certainly not the case, however, at the extensivey studied Deshazo site in Nacogdoches County where three hearths were uncovered in the vicinity of overlapping structures in Unit 1 (Story 1982). Hearth 2 was likely a small utilitarian fireplace about midway between the center post and the exterior wall. Hearth 3 is a feature with a posthole underneath, but not clearly associated with any structure. Its use is uncertain. Hearth 1, near several center posts, may not have been associated with any of the three houses. Carolyn Good (1982) speculated that this feature may well have represented the locale of an all-night bonfire in the "annual renewal" ceremonies described by early Spanish writers.

CONCLUSIONS

In summary, the reviewed archaeological findings in Deep East Texas Caddoan sites, modestly but inconsistently, support the predictions regarding hearths based on the ethnohistoric record. Major gaps still exist in our understanding of fireplaces. Hearths are certainly not created equal; specifically, they vary in size, shape, location, preparation, function, duration of use, and contents. There may be limitations to applying information about other Caddoan hearths to the Tyson site. Nevertheless, our working hypothesis that Feature 9 represents a central hearth is appealing because of its large size, associations with large postholes, and proximity to other likely interior house features. The structure here may have been the residence of an important local Caddoan political or religious figure given the very elaborate grave offerings associated with two juvenile burials adjacent to Feature 9 (Middlebrook 1994). Careful analysis of the faunal, paleobotanical, and ceramic contents of the hearth is scheduled and may reveal more clues to Feature 9's function.

ACKNOWLEDGMENTS

The authors wish to thank Tim Perttula for his ongoing support and sharing of information and Alan Skinner for his kind expression of encouragement after this paper was initially read at the 1994 East Texas Archeological Conference.
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THE CADDJOAN OAK HILL VILLAGE SITE

J. Brett Cruse and Timothy K. Pertula

Rarely do prehistoric archeologists in North America have the opportunity to completely excavate and study an entire Native American community or village. To be able to expose a Native American village in its entirety provides a unique, and unprecedented, view of the past community and social arrangements that existed among Native American societies before contact with Europeans.

Recently, in northeast Texas, the Oak Hill Village site (41RK214), a large village occupied by prehistoric horticultural-agricultural Caddo peoples between about A.D. 1050 and 1450, was fully uncovered under the direction of J. Brett Cruse (then of Espey, Huston & Associates, Inc., Austin, Texas) for Texas Utilities Services (TU Services; Cruse 1995). The company plans to strip mine the site area in the near future for lignite coal. With the cooperation of TU Services, the investigations at the Oak Hill Village were the most extensive ever completed at a Caddo Indian site.

The Oak Hill Village lies on a long, narrow ridge overlooking the floodplain of Mill Creek, a secondary tributary of the Sabine River. The main channel of the creek, which flows north some 20 km to the Sabine River, is ca. 400 meters to the west of the site.

The January 1994 through May 1995 excavations documented the remains of 42 structures, probably grass-thatched, and 165 features (Figure 1), along with abundant artifacts and preserved plant remains (mostly maize). Over 25,000 ceramic sherds were recovered at the Oak Hill Village. These abundant artifacts and features indicated the domestic use of the village. The features included smudge pits filled with charred corn cobs, storage pits, hearths, and three Caddo burials. The structures and features are arranged in a roughly circular fashion around the edges of the ridge top, leaving a large open area, or plaza, in the center. There was no palisade or fortification around the village.

The entrances to most of the structures were oriented so that they open into the plaza. This large plaza area was free of artifacts and features, and it is likely that it was primarily used for communal activities and ceremonies. This would have included dancing, as suggested to us by Cecile Elkins Carter, Cultural Representative of the Caddo Tribe of Oklahoma.

Among the structures were 33 large (six to 10 meters in diameter) circular structures that represent Caddo houses for single and/or extended families. Two of these had extended entrance-ways marked with posts (Figure 2). Most of the structures had central posts, but lacked evidence of central clay-lined hearths. Three large rectangular-shaped structures (ca. 11 meters long and seven to eight meters wide), also residences, were discovered in the northwestern part of the community. Many of the structures and structure posthole patterns overlap each other, indicating that houses were rebuilt in favored locales (Figure 1). The two largest rectangular structures underlay a number of the circular structures. Six small circular structures, two to three meters in diameter) are clustered along the eastern edge of the site, away from most of the household compounds (Figure 1). We think it probable that these small structures were aboveground storage facilities, perhaps granaries, as were common among the Caddo in historic times. Thus, the area containing these structures may represent a communal storage area.
Figure 1. Oak Hill Village Site (41RK214), Plan Topographic Map.
The spatial arrangement of the structures and open space show that the prehistoric Caddo who lived at the Oak Hill Village apparently maintained a stable organization of their domestic, public, and communal activities over a period perhaps lasting as long as 400 years. Hence, over a considerable span of time, the village retained its basic layout as a functioning Caddo community.

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Cruse, J. Brett

Figure 2. Photograph of Structure 2 Posthole Pattern.
Cliff, Maynard B., Melissa Green, Steven M. Hunt, David Shanabrook, and Duane E. Peter, with appendices by David Shanabrook and John S. Jacob, Anna Lee Presley and Brian S. Shaffer, Ksenija Borojvic, and Kathryn Puseman and Linda Scott Cummings. Excavations at 41CS151, Area C. White Oak Creek Mitigation Area (WOCMA), Cass County, Texas. White Oak Creek Mitigation Area Archeological Technical Series Report of Investigation No. 4. Prepared for Fort Worth District, U.S. Army Corps of Engineers, by Geo-Marine, Inc., 550 Fifteenth Street, Plano TX. Archeological data recovery was conducted in Area C of 41CS151, a prehistoric site located along Caney Creek in the northwestern portion of Cass County, Texas, south of the Sulphur River. These excavations were conducted in order to mitigate the loss of data resulting from the effect of road construction undertaken for the U.S. Army Corps of Engineers.

Site 41CS151 as a whole covers an area of approximately 52,300 m², with three smaller subareas of the site identified. Data recovery was concentrated in Area C in the western portion of the site, where an apparent prehistoric occupation zone was identified during previous test excavations. This occupation was associated with an anthrosol or buried paleosurface (Feature 2).

On the basis of typology, horizontal separation, and cross-dating with other archeological sites, it is hypothesized that Area C of 41CS151 contained remains of utilization corresponding to the Late Paleo-Indian/Early Archaic, Early/Middle Archaic, Late Archaic, Terminal Archaic, and Early Caddoan periods. However, the primary occupation in this area was during a period when Gary and Kent dart points were in use prior to the introduction of ceramics and arrow points, a period designated as Terminal Archaic to distinguish it from the previous Late Archaic. Feature 2 in this area is a remnant land surface dating to the Terminal Archaic. A portion of this surface was darkened by cultural activity and was subsequently buried by colluvium during the Early Ceramic period.

The Terminal Archaic remains at Area C of 41CS151 probably represent a relatively short period of occupation, characterized by one, possibly two, hearths, and a lithic-working area in which most of the primary and secondary decontextualization took place. A small amount of faunal and macrobotanical remains, along with blood residue analysis, suggests a hunting and gathering subsistence pattern involving the exploitation of at least deer, rabbit, turkey, hickory nuts, walnuts, acorns, possibly some type of seed of the Asteraceae family, and some type of tuber. The possible presence of bison blood residue on several utilized flake tools also raises the possibility that the group occupying Area C of 41CS151 engaged in some bison-hunting activities to the west, or that they were involved in an exchange network with other groups that were.
CADDO CONFERENCE PAPER ABSTRACTS

The abstracts for the Caddo Conference papers have not been printed in CAN for the last couple of years. In an attempt to put us back on schedule, I'm including them in this issue. lea

36th CADDO CONFERENCE ABSTRACTS (1994)

Albert, Lois E., and Heidi Vaughn (Oklahoma Archeological Survey). Another Survey on the Northwestern Frontier of the Caddoan Area. A pedestrian survey was undertaken in Rogers and Osage counties of northeastern Oklahoma. The main emphasis of the survey was to locate historical Osage sites. During the fieldwork both prehistoric and historic sites were found. Few diagnostic artifacts were recovered from prehistoric sites. On the historical sites noted on GLO maps, standing structures or foundations were present on some sites, whereas at others either no trace or only a few artifacts such as crockery sherds remained.

Brown, Linda Harris (R. King Harris Collection). Personal Insights of My Father - R. King Harris. Recollections of R. King Harris accompanied by slides of materials at the Smithsonian Institution. A photo album and other materials will also be on display.

Bruseth, James E., and Timothy K. Perttula (Texas Historical Commission). A Spiroan Entrepot in Texas? Until recently most Texas archaeologists have been content to sit on the sidelines and watch with amusement the debate over Frank Schambach's concept of proto-Tumuc traders stealthily amassing a fortune through trade in the infection-ridden Arkansas Valley. Now that Schambach has extended the debate into the Red River Valley -- and even into Texas! -- the time has come for action. Our paper discusses the merits of Schambach's ideas using the archeological record of southeastern Oklahoma and northeastern Texas.

Cande, Robert F. (Mid-Continental Research Associates). The Poe Site: A Fourche Maline Midden Mound in Scott County, Arkansas. The Poe site (3SC28), a Fourche Maline midden mound in Scott County, Arkansas, was excavated by the University of Arkansas Field School and the Arkansas Archeological Society in 1978. The excavation is described and summarized along with preliminary results of lithic and ceramic analysis.

Cargill, D. Elizabeth (Stephen F. Austin State University). Cultural Resource Survey of Mission Tejas State Park. In 1991, Texas Parks & Wildlife acquired 200 acres of land adjacent to Mission Tejas State Park, in Houston County, Texas. In accordance with the current TP&W mandate, the Stephen F. Austin State University Anthropology laboratory and Archaeological Field School entered into a joint contract to survey both the original 118 acres of the park and the newly acquired acreage in order to write a cultural resource management plan. During the July 1993 survey by the SFASU Field School, four new sites were located; two Archaic and two Late Ceramic/Caddoan in nature. The relation of these sites and the historical aboriginal populations of the San Pedro Creek area is discussed.

Dickson, Don R. (Historic Preservation Associates) Prehistoric Lithic Procurement Sites: A Vanishing Cultural Resource. Quarries and extractive sites used during prehistoric times are rapidly being destroyed without adequate documentation of location, extractive strategies, etc. Such sites in the Ozark-Ouachita area are often located at a distance from habitation sites and even water sources and thus are not recorded
before they are eliminated. Agricultural activities, novaculite mining, and knapping clubs are factors in the eradication of these lithic procurement sites.

Early, Ann M. (Arkansas Archeological Survey). *Late Prehistoric Gardeners in the Ouachitas: The Winding Stair Site*. The southern Ouachita Mountains are a scenic but rugged landscape which includes only limited amounts of alluvial bottomland suitable for simple gardening settlement. Nevertheless, the 1993 Survey-Society test at the Winding Stair Site in the Little Missouri River valley confirmed the existence of a late prehistoric farmstead with evidence of local maize gardening. The feature has implications for models of late prehistoric human ecology in this region, and for the effectiveness of current archaeological survey methodologies typically used in this heavily forested environment.

Galan, Rachel B. (Stephen F. Austin State University). *Caddoan Mythology: Ethnohistorical and Archaeological Considerations*. This research examines the ways Caddoan mythology is integrated into their actual political and domestic systems. Ethnohistorical and archaeological information is used to support the data extracted from the mythology. Caddoan practices involving political structures, medicine-men, sex roles, and ceramics are described. It can be concluded that many of these practices, recorded for the Caddo in the ethnohistorical and archaeological information, have foundations in their mythology.

Galan, Victor J. (Stephen F. Austin State University). *GIS analysis of the Mast Site (41NA1557)*. The Mast site is located on a sandy ridge overlooking Banita Creek, inside the Nacogdoches city limits. Tools, features, lithic, and ceramic debitage were analyzed separately and collectively for the presence of spatial patterns. A manual GIS and two statistical computer programs were used for analysis. Each excavation level was divided into separate data layers, then subdivided by tools, features, and lithic debitage. Data layer analysis indicates a number of activity areas along the ridge.

Girard, Jeffrey S. (Northwestern State University). *1993-1994 Investigations at the James Pace Site (16DS268)*. Charcoal recovered in October 1993 from deposits beneath Mound B at the James Pace site in DeSoto Parish, Louisiana yielded an uncorrected age of 1080 ± 80 B.P. Ten test pits excavated during February 1994 east of Mound A failed to encounter cultural features, but greatly increased the sample of artifacts from the site. Soil cores excavated in two untested low rises confirmed the presence of a third mound (Mound C) at the site. These investigations and their implications for regional cultural developments are described.

Harcourt, James P. (Arkansas Archeological Survey). *The Terre Rouge Site: A Multicomponent Site in Southwest Arkansas*. The Terre Rouge site in Nevada County is a multicomponent site with occupations ranging from Dalton times through the Caddo. A dense midden is associated with an extensive Fouche Maline occupation, but no cultigens were identified. The site appears to have been seasonally occupied. A sparse Caddoan collection suggests the site was not intensively used by the Caddoan groups, and this may be because the area is at risk for flooding and thus not used for agriculture.

Hilliard, Jerry, and James P. Harcourt (Arkansas Archeological Survey). *Bluffshelter Beads and Pendants from the University of Arkansas Museum Dellingar Excavations*. Collections from 1930s bluffshelter excavations by crews under the direction of Samuel Dellingar were analyzed for the presence of beads as noted in the original crew field notes and museum accession records. One hundred beads from 21 bluffshelters are represented from these excavations. Local raw material for the production of beads include cane, crynoid, turkey bone, seeds, mussel, and gastropod shell. The presence of some columella beads and pendants are evidence of exotic ornamentation, suggesting Late prehistoric Spiro connections.

Hoffman, Michael P. (University of Arkansas). *Cultural Affiliations of Woodland and Mississippi
Period Cultures in the Central Arkansas Valley.
The central Arkansas River valley between near Conway, Arkansas on the east and the Fort Smith locality on the west is poorly know archeologically but enough has been learned about cultures of the Woodland and Mississippian periods to make some generalizations and correct some misconceptions. Fourche Maline culture identified by classic features is distributed from the Fort Smith locality to at least as far east as Ozark. Woodland sites east of Ozark like the components at the Point Remove and Caddron Creek sites may be linked to the Plum Bayou culture around Little Rock. Early and Middle Mississippi period occupations are not of Caddoan culture. A heavy late Mississippi-Protohistoric period occupation (the Carden Bottoms complex) can be linked to the Menard Complex of the lower Arkansas River. The central Arkansas River valley may have been inhabited by Tuscan peoples in the 16th and 17th centuries. Only the Fort Smith area has indications of "Northern Caddoan" presence.

Hogan, William C. (Northwestern State University). Test Excavations at the Onion Island Site (16CD218), Caddo Parish, Louisiana. In January of 1994, anthropology students from Northwestern State University (NSU) and members of the Louisiana Archaeological Society excavated three test pits on the Onion Island site on Caddo Lake near the Texas-Louisiana border. The site, on land belonging to the State, was being destroyed by treasure hunters. Although sediments were saturated at approximately 40 cm below the surface, a significant late pre-Caddoan occupation was identified by the excavations.

Jeter, Marvin (Arkansas Archeological Survey), David H. Jurney, Jr. (Mercyhurst College), Jami J. Lockhart (Arkansas Archeological Survey), and Frank F. Schambach (Arkansas Archeological Survey). OOP! The Osage Orange Project: A Preliminary Report. Schambach has recently suggested that late prehistoric Caddoans of the Red River floodplain had a virtual monopoly on high-quality "Osage Orange" (Maclura pomifera or bois d'arc) bow wood. Standard vegetation maps show a much wider distribution, but they were based on transplantation and on outmoded mapping associations. A remarkable early ethnohistoric account and GLO data support Schambach's contention. Ultimately, this reinforces his reinterpretation of Sanders as a Mississippian-Spiroan entrepot or outpost which traded with the late prehistoric Caddo.

Jurney, David H. (Mercyhurst College) and Timothy K. Perttula (Texas Historical Commission). Nineteenth Century Alabama-Koasati Pottery Assemblages and Culinary Traditions. Many aspects of southeastern Native American cultures were maintained through centuries of acculturation and assimilation of European material culture and lifeways. The maintenance of native ceramic traditions appears to have been related to traditional methods of preserving and consuming maize and rendering of oils from plants and animals. Unlike many Indian tribes, the Alibams and Kasatis did continue to produce traditional wares during their migration from the Tennessee/Alabama region through Mississippi and Louisiana, into Texas and Oklahoma. Native ceramics continued to be used by them and related tribes into the twentieth century.

Kay, Marvin (University of Arkansas). Radiocarbon Chronologies of Harlan, Goforth-Saidon and Huntsville Mound Sites. Using Stuiver and Reimer's RADIOCARBON CALIBRATION PROGRAM REV 3.0.3 (Radiocarbon 35, pp. 215-230 [1993]), the assays for Goforth-Saidon, Huntsville, and Harlan Mound 4 were calibrated, averaged, and tested for significant differences. Charmel houses at the two former sites are closer in time than previously estimated, and most likely date to within 2-sigma cal AD intervals of 1152-1279 and 1256-1304, respectively, at Goforth-Saidon (Feature 355) and Huntsville (Feature 1340). The nearly identical Harlan Mound 4 charmel house (House 2) or the other assays for this mound are not directly comparable, although generally they relate to the same time frames.
Kelley, David B. (Coastal Environments, Inc.). The McLelland and Joe Clark Sites: Prototic to Early Historic Caddo Farmsteads. Archaeological excavations were conducted by Coastal Environments, Inc., at two protohistoric to early historic Caddo farmsteads located in the Red River floodplains in southern Bossier Parish, Louisiana. The McLelland site (16BO236) yielded one circular structure, one burial, and 12 small pits. Large numbers of plant and animal remains were recovered from features and sheet midden. Radiocarbon dates and ceramic analysis suggest that the sites were occupied between A.D. 1650 and 1710.

Kilpatrick, Ellen (Stephen F. Austin State University). A Sorry Lot of Sherds: Analysis of Ceramic Artifacts from Mission San Jose. Site 41RK200, in Rusk County, Texas is the site of Mission San Jose de los Nasonis, established July 10, 1716 by Isidro Felix de Espinosa for New Spain and abandoned in 1727. In May 1990 Dr. James E. Corbin and his students received a grant to excavate a series of trenches and 1m x 1m test units. The aboriginal ceramics from the excavation have been the main focus of the analysis. The excavation data are summarized and the ceramic assemblage from 41RK200 is compared with that of Mission Delores, Mission Los Adais and one historic Hasinai site in Nacogdoches County.

Lee, Aubra L., and Berkley B. Bailey (University of Oklahoma). Ethnic Labels and Material Culture Assemblages. Recent excavations at site 34BR225 recovered material remains associated with a series of late nineteenth and twentieth century occupations. The initial occupation is believed to be related to the mixed lineage Choctaw family of Bryant and McLinda Pate (c. 1870-1906). Ethnicity is not reflected in the assemblage when compared to contemporaneous Anglo and African American assemblages.

Martin, William A. (Texas Historical Commission). 1991-1992 TAS Field School Excavations at Arnold E. A. Roitsch Site (41RR16). In June of 1991 and 1992, Texas Historical Commission's Department of Antiquities Protection archeologists directed the Texas Archeological Society's Field School. The most extensive effort was conducted at 41RR16, the Arnold E. A. Roitsch site (formerly Sam Kaufman site), where as many as 300 people worked each day. The impetus for conducting a field school there was the loss of the West Mound in the 1990 flood, which left the East Mound in danger of eroding into the Red River. Besides block excavations in the East Mound, part of the village area and a cemetery were also investigated. Mound construction was dated to A.D. 1245 ± 45, the village layout was better delineated, and spatially discrete Early Caddoan and Historic Caddoan occupations were identified and sampled.


Saunders, Joe (Northeast Louisiana University), Thurmon Allen, and Roger Saucier. Evidence for Archaic Mounds in Northeastcentral Louisiana. Research over the past three years has identified a number of mound complexes which appear to predate Poverty Point (before 1500 B.C.). Three of these complexes have been tested archeologically and each site has produced calibrated radiocarbon dates in excess of 3000 B.C.

Skiles, Bob D. (U.S. Forest Service). The Texas General Land Office Archives. The Archives of the Texas General Land Office record the specific locations of numerous contact era Indian villages and trails. Yet archeologists have made little use of this valuable archive. Examples of GLO data that allow specific on-the-ground locations of such sites are presented. The Texas GLO and others have begun a systematic survey of the archive to compile a database.

Stewart, Jack H. (Arkansas Archeological Survey). Johnny Ford (3LA5): An Early Fourche Maline Site in Southwest Arkansas. Archeological investigations were conducted in September,
1970, at the Johnny Ford site (3LA5) in Lafayette County, Arkansas. Previously surface collected by the landowner, the collections and excavations were never fully reported. The site consisted of a thin prehistoric midden with underlying pit features, postmolds, and 13 cremation burials. The site was occupied intermittently from at least the Middle Archaic to the Fourche Maline 2 Period and is the type site for the Field Bayou phase of the Fourche Maline culture. The site is one of the earliest excavated Fourche Maline sites in Arkansas.

Stewart, Jack H. (Arkansas Archeological Survey). Ozark Cherts in the Ouachitas: Investigations at 3SC164. One of seven newly recorded sites in the Ouachita National Forest investigated in 1993 was 3SC164, found in the upper Fourche LaFave valley and identified as a linithic extraction and modification site. Chert found “in situ” at the site, lithologically matches known chert types from the Ozark Mountains. Hypotheses on trade and source locations of certain types of chert may need to be modified.

Winchell, Frank (U.S. Army Corps of Engineers, Tulsa District). How Far Down on the Arkansas River Were the Wichita? The culture and regional settlement pattern of the protohistoric and historic Wichita-speakers is reviewed in relation to the late prehistoric remains of the Great Bend aspect and Fort Coffee phase along the Arkansas River Basin. Other prehistoric, protohistoric, and historic groups associated with the Quapaw and Tunica of the lower Arkansas Valley will also be examined in light of the Wichita-speakers and their predecessors.

Wyckoff, Don G., and Larry Neal (Oklahoma Archeological Survey). More on the Calf Creek Horizon in Eastern Oklahoma. Continued surveying and site testing in the Osage Savannah of eastern Oklahoma have resulted in the discovery of several more Calf Creek components, represented by chipped stone assemblages predominantly made from heat-treated Ozark cherts. Thank to the U.S. Army Corps of Engineers (Tulsa District), brief testing was made possible at the site 34HS-29 where we tried to discern the relationship of Calf Creek materials to an unusual soil anomaly which turned out to be an erosional feature into which artifacts had washed. As yet, we don’t fully understand the ties between Calf Creek materials in eastern Oklahoma and the widespread occurrences of such material in north-central and south-central Oklahoma.

37th CADDO CONFERENCE ABSTRACTS (1995)

Brooks, Robert L. (Oklahoma Archeological Survey). The Arkansas River Valley: A New Paradigm, Revisionist Perspectives, and the Archaeological Record. Recently, a new paradigm has been presented for the late prehistoric record in the Oklahoma portion of the Arkansas River Valley. This perspective challenges long-held views regarding subsistence practices, biological populations, assemblage composition, politics and trade, and cultural/historical foundations. These arguments are reexamined using the archaeological record that serves as a basis for these revisions. While acknowledging that distinctions exist between Caddoan populations, it is argued that much of the new paradigm only serves to further cloud our ability to decode the archaeological record and initiate studies of ethnicity.

Brown, James A. (Northwestern University). Temporal Trends in Ceramics of the Northern Caddoan Area. Customarily, Caddoan archaeology has been represented as regional sequences of ceramic types and varieties. Although this perspective has proven highly productive, there is room for alternative ceramic perspectives. One that will be explored here has to do with metric trends in average thickness through time and certain changes that have taken place over extended ranges of time in silhouette and vessel
proportions. This approach not only has practical application but helps organize an existing, highly atomized typology into regional (and even multi-regional) patterns connected with widespread secular changes.

**Colby, Gail R.** (Texas A&M University). *Analysis of Dental Abscess Formation in a Texas Hunter-Gatherer and a Texas Agricultural Population*. Differences have been noted between hunter-gatherers and horticulturists/agriculturists in dental wear and the occurrence of caries, these being correlated with their respective subsistence patterns. Two precontact to protohistoric samples from Texas, Blue Bayou (41VT94) and the Roitsch site (41RR16) were analyzed for wear, caries, and abscess frequency and etiology. Wear analysis showed only the molars had significant differences. Caries and abscess frequencies were high in the Caddo and low in the Blue Bayou sample. This suggests that individuals at Blue Bayou had a diet requiring relatively little anterior and more molar processing. Abscesses appear correlated with caries frequency.

**Cliff, Maynard B.** (GeoMarine, Inc.). *New Data Regarding Early and Middle Caddoan Occupation and Subsistence in the Lower Sulphur River Basin, Northeast Texas*. Archeological excavations supported by the U.S. Army Corps of Engineers, Ft. Worth District, at three prehistoric sites (41CS150, 41CS151, and 41CS155/156) in Cass County, Texas, have yielded new information on Caddoan subsistence and dating. Caddoan remains from all three sites include small areas of primary midden of equivalent size and degree of preservation. AMS radiocarbon dates place the midden at 41CS151 in the Early Caddoan (A.D. 1000-1200) period; that at 41CS155/156 in the early part of the Middle Caddoan period (A.D. 1200-1300) and that at 41CS150 in the latter part of the Middle Caddoan period (ca. A.D. 1300-1400). Artifactual data indicate a shift in the ceramic assemblage at around A.D. 1300, while flotation samples suggest a possible lack of maize prior to A.D. 1200, and a low frequency of maize between A.D. 1200 and 1400.

**Crosetto, Stacie L.** (Stephen F. Austin State University). *Archaeological Analysis of Ceramics from the Mast Site, Nacogdoches County, Texas*. The Mast site (41NA157) is a Late Archaic-Early Ceramic site which has been the focus of three field seasons for the Stephen F. Austin State University Archaeological Field School. Much of the analysis of the lithic debitage has been completed. Although the ceramics have been considered in previous discussions, an in-depth study of the sherds and their distribution at the site has yet to be accomplished. This paper will examine the ceramic artifacts, their distribution within the site, and possible relationships to other sites in eastern Texas.

**Cruse, J. Brett** (Espy, Huston & Associates). *Archaeological Investigations at the Oak Hill Village Site (41RK214): A Middle Caddoan Settlement in Rusk County, Texas*. Archaeological investigations at the Oak Hill Village site have yielded the remains of a Middle Caddoan village dating from ca. A.D. 1350-1450. To date, the remains of more than 30 circular structures have been identified. The structures occur as overlapping groups that are arranged in a circular fashion around a central plaza area. Most appear to have functioned as habitation, though five small structures clustered together may have been communal storage facilities. Two others have extended entrances and may have been special-purpose structures. Other features at the site include two middens, three burials, and several pits containing charred corn cobs. Subsistence activities included the cultivation of corn supplemented by hunting, gathering, and fishing.

**Derrick, Sharon** (Texas A&M University), **Diane Wilson** (University of Texas at Austin), **and Christine Lee** (University of Texas at Austin). *Cranial Modeling as an Ethnic Marker Among the Prehistoric Caddo*. Ethnic markers that distinguish insiders from outsiders would have been especially important to the prehistoric Caddoan peoples who needed to foster reciprocal relations between culturally affiliated settlements while maintaining control of territorial resources. Cranial modeling, obtained by intentionally shap-
ing the infant head, is commonly observed in Caddoan skeletal samples and may represent a type of ethnic marker. Modeling styles that result in different head shapes appear to vary by site rather than by status, sex, or time. This intersite variation indicates that the distribution of modeling styles can be useful in separating discreet ethnic units within the Caddoan culture area.

Early, Ann M. (Arkansas Archeological Survey). *Regional Change, Cultural Boundaries, and World of Thought: New Approaches Toward Caddoan Ceramics*. The sophisticated and diverse material culture embodied in Caddoan ceramics offers many opportunities to deepen our interpretations of prehistoric Caddoan lifeways. By moving away from strict issues of typology and focusing more directly on details of vessel shape and decoration, we can draw on new sources of information to investigate intra- and inter-regional patterns of settlement configurations, social relationships, and cultural change throughout the Caddoan area. An example from the Ouachita River basin portion of the Caddo area illustrates the value of this approach.

Gadus, Eloise F. (Prewitt and Associates, Inc.). *An Overview of the Vessel Ceramics from the Early to Late Caddo Period Components at Cooper Lake, Delta and Hopkins Counties, Texas*. The results of analysis and reanalysis of the vessel ceramics from the Early to Middle Caddo components at five sites from Cooper Lake indicate that ceramics are not abundant in these components, the kinds of vessel forms represented are limited, and identifiable types are few in number and generally consistent between sites. These results suggest that ceramic vessels played a limited functional role at sites that otherwise can be considered residential in nature and central to a wide range of activities. These results are contrasted with the ceramics recovered from a Late Caddo component at Cooper Lake, also considered a residential site, which has abundant ceramics as well as a variety of vessel forms and ceramic types. The differences in ceramic assemblages from the Early to Late Caddo components may be attributable to a stronger connection to the Caddo heartland during the latter period.

Girard, Jeffrey S. (Northwestern State University). *Pre-Caddoan Ceramic Variation in Northwestern Louisiana*. Recent archaeological investigations conducted along Willow Chute Bayou in Bossier Parish have resulted in new information regarding pre-Caddoan ceramic variation in the Red River drainage of Northwestern Louisiana. Three paste categories have been recognized: (1) clay-tempered sherdz with soft, poorly wedged, crumbly pastes recovered from a pit at the Swam Lake site (16BO11); (2) relatively thin-walled, soft-paste, grog-tempered sherdz recovered from several sites located on Pleistocene terrace surfaces surrounding the Red River floodplain; and (3) relatively thick sherdz with grog and bone temper recovered from a buried midden at the Festervan site (16BO327). I review the attributes and contexts of the pottery from these sites.

Hickerson, Daniel A. (University of Georgia). *Historical Processes and the Political Organization of the Hasinai Confederacy*. Recent archaeological studies stress the influence of demographic factors related to introduced diseases on social change among the Hasinai and other Caddo groups during the protohistoric and early historic periods. While the recognition of the impact of epidemic disease is a major contribution to our understanding of this period, it threatens to overshadow other historical processes that played important roles in native social and political organization. Ethnohistoric research focusing on the early period of interaction between the Hasinai and Europeans provides a more balanced view of the impact of varied and far-reaching historical and environmental processes on Hasinai political organization.

Hoffman, Michael P. (University of Arkansas). *The Dates of Late Caddoan Ceramic Types: A View from the Arkansas River*. The extensive Protohistoric period Native American occupations called Menard and Carden Bottoms complexes of the central and lower Arkansas River valley in Arkansas had ended by the latter part of the
seventeenth century. While the cultures of these peoples were not Caddoan, many Caddoan pots have been recovered from sites of the two complexes. Knowledge that these pottery styles do not date past the end of the seventeenth century may help date them better in the Caddoan heartland.

**Journey, David J.** (Archeology Research Program). *Southwestern Pottery and Turquoise, Northeastern Texas*. Rare and often questionable occurrences of southwestern pottery and turquoise have been reported in northeastern Texas. A close examination of reported Southwestern-Plains-Caddoan interaction suggests that these artifacts may mark major interaction networks. Both southwestern pottery and turquoise artifacts have been found at the Sanders site, which is located in the core distribution of these "erratics".

**Kelley, David B.** (Coastal Environments, Inc.). *Analysis of Ceramics from Two Protohistoric-Early Historic Caddoan Farmsteads in Northwest Louisiana*. The analysis of ceramics from two Protohistoric-Early Historic Caddoan farmsteads in Northwest Louisiana is discussed. The sites, known as McLelland and Joe Clark, are located along the Red River in southern Bossier Parish. Excavations uncovered two large circular houses, seven burials, and numerous pit features at the McLelland site, and a single house and burial at the Joe Clark site. The excavations also yielded 11 complete or nearly complete vessels and over 19,000 sherds, of which about 7,500 are of sufficient size for analysis. The goals and methods of the analysis are discussed and the results are presented. Directions for future research are suggested.

**Lee, Christine** (University of Texas at Austin). *Health of Hatchel-Mitchell-Moore Population*. The goal of this study is to provide a general survey on the health of a late prehistoric/early historic Caddoan population. The Hatchel-Mitchell-Moore site complex is located on the Red River in Bowie County, Texas. All were originally excavated in the 1930s. Cultural practices such as cranial modification and weakening age may have contributed to scalp infections, anemia, and infant mortality. Repeated stress activities associated with agriculture and manufacturing techniques may account for patterns of trauma, arthritis, and periosteal infections. Contact with other villages, Europeans, and settlement patterns can result in the spread of infectious disease. Developmental defects are also present at the Hatchel-Mitchell-Moore sites despite their small sample size. Some effort has also been made to correlate the results to other Caddo sites located in Texas.

**Lockart, Jami J., T. Green, and J. Hilliard** (Arkansas Archeological Survey). *Development of an Integrated Archeological Survey/Projects Data Management System: Applications in Caddo Research*. The Arkansas Archeological Survey (AAS) has developed a geographic information system (GIS) map layer and an associated digital database containing extensive information on all archeological surveys and excavations within the State of Arkansas. The integrated system will allow agencies to remotely access and query the AAS computer via telecommunications networks and Internet for information on more than 29,000 archeological sites and more than 3,100 archeological survey projects, as well as a variety of GIS map data. This paper will illustrate applications of the system in resource management, planning, and research activities within the Arkansas portion of the Caddo area.

**Love, Berna J.** (Stone Mountain Productions and Arkansas Museum of Science and History). *Videos: Caddo Thoughts on Reappraisal and Keepers of the Indian Way*. In "Caddo Thoughts", two members of the Caddo tribe voice their opinions, and understanding of repatriation and what this act will mean to their tribe. In "Keepers" two segments focus on the "Caddo Cultural Club" and "Indian Schools". The first looks at the Caddo tribe's efforts to introduce Caddo cultural ways to tribal members in the hope of curtailing the "loss" of Caddo ways for the young ones coming up. "Indian Schools" looks at the impact of schools on the cultures of the Arkansas Indians, but in a role reversal we
see the Caddo using "School" as a tool to introduce cultural ways to the very young students. Both of these programs are part of the museum's and producer's anthropological fieldwork taken place over the last ten years. To the producer, the Caddo people are not subjects to be examined but friends who have allowed an outsider to share and document their ways.

Pettitula, Timothy K. (Texas Historical Commission), and Kathryn Reese-Taylor (University of Texas). Current and Future Directions in the Study of Caddo Ceramics: Introduction to the Symposium. The study of Caddo ceramics is integral to the study of any Caddo site in the four-state Caddoan archeological area. In the last 50 years or so, a number of ground-breaking studies of Caddo ceramics have been completed, and these have served useful chronological and classificatory purposes. Nevertheless, we have the sense that with the increasing recognition of the tremendous regional diversity of the prehistoric and historic Caddoan archeological record and the difficulties in keeping current with research projects, findings, and approaches of Caddo archeologists working in different states, better communication is needed on current and future directions in the study of Caddo ceramics. It is time to take stock of current issues, methods, and theoretical perspectives guiding our ceramic research efforts and forge better communications. This symposium is a first step in that direction.

Reese-Taylor, Kathryn (University of Texas at Austin). Integrating Attribute and Compositional Analyses: A Holistic Approach to the Study of Caddoan Ceramic Assemblages. This paper presented methods for the analysis of Caddoan ceramic assemblages currently being applied as part of cultural resources investigations by Espey, Huston and Associates at Texas Utilities Mining Company mines in Northeast Texas. The approach emphasizes typological classification in favor of a detailed attribute analysis that incorporates specific characteristics of decoration and design motif, surface treatment, paste composition, vessel form, and volumetrics. Additionally, samples are selected for petrographic identification of paste constituents and chemical characterization of paste elements. This holistic strategy is productive in providing data that can address a wide variety of issues, including cultural chronology, regional patterning, intra-site variability, production, and trade.

Robey, Daniel H. (Texas A&M University). A Paleopathological Study of the Human Remains from the Roitsch Site (41RR16, Old Sam Kaufman). The Roitsch site is located on the south bank of the Red River in Red River County, Texas. In 1968, the site was excavated and a total of thirty individuals from the Late Prehistoric and early Historic periods were recovered. The paleopathological data from this site are crucial to understanding the health status of this precontact and contact Caddoan population. Pathological lesions characteristic of treponemal disorders are present at the site making the sample even more important regarding the contact between Old and New World populations. In this study the author argues for the presence of endemic treponematoses in the area by at least the Early Caddo period (Caddo II, dating from A.D. 1000-1200). Degenerative join disorders, porotic hyperostosis, and trauma were also evident in the individuals from the site.

Sabo, George M., III (Arkansas Archeological Survey). Ceramic Vessels from the Spradley Cemetery: A Woodland Site in the Ozarks. The Spradley cemetery site (3NW101) is a Woodland period site located in the Ozark Highland region of North Central Arkansas. Salvage excavations in 1970-1971 produced 24 ceramic vessels along with a few other artifacts that were associated with 22 burials. This paper describes the ceramic assemblage, which consists of bowls, flowerpot jars, and globular jars in various size categories with minimal decorations.

Schambach, Frank F. (Arkansas Archeological Survey). Fallacious Ceramic Classifications, Fallacious Assumptions, and the Fallacious Sanders Focus. The Sanders Focus is an interesting hypothesis that has not been verified.
Strickland, Stephanie S. (Texas Dept. of Transportation). *The Provenience and Iconography of the Bell Gorget*. The Bell Gorget has often been cited as an outstanding example of Southeastern Cult shellwork, yet its circuitous route from the hamlet of Oenaville -- less than 50 miles from Austin -- to the Heye Museum has hitherto been undocumented. This paper attempts to shed some light on the proveniences of the Bell Gorget and provides a reappraisal of the iconography of the exotic -- by Central Texas standards at least -- artifact.

Wells, Kelly R. (Stephen F. Austin State University). *Implications for Ethnoarchaeological Identification of the Ghost Dance Religion in the Caddo Culture Area*. Ethnographic and ethnohistoric data suggests that the Ghost Dance Religion was introduced into the Caddo Culture in the late nineteenth century. The material culture associated with the Ghost Dance Religion provide archaeological implications for the possible identification of Ghost Dance sites in the Caddo Culture area. The possible association of peyote ritual with the Ghost Dance may facilitate this identification.

Williams, Jeffrey M. (Stephen F. Austin State University). *The Development and Implementation of Geospatial Tool for Cultural Resource Managers*. The Stephen F. Austin State University Anthropology Laboratory is providing Texas Parks and Wildlife cultural resource managers with spatially referenced cultural resource datasets for several state parks in East Texas. The development of a cultural resource geospatial dataset includes the creation of coverages for current and historical natural and cultural resources. The integration of Geographical Information Systems (GIS), Remote Sensing (RS), and Global Positioning Systems (GPS) increases the accessibility of cultural resource data in the planning phases of land-altering development. This powerful geospatial tool helps to manage the landscape resources and aids in the protection of sensitive cultural sites.

Wilson, Diane (University of Texas at Austin). *Dental Remains from Two Prehistoric Caddoan Sites along the Red River: Sanders and Mitchell*. The analysis of dental remains provides a wealth of information about diet. Food items consumed and food preparation techniques impact teeth throughout the life of individuals and leave evidence in the form of dental caries, attrition, abscess, and antemortem loss. Thirty-three individuals from the Mitchell site in Bowie County and 51 individuals from the Sanders site in Lamar County, Texas were examined. Although the two sites are located in different vegetational zones, there is no significant difference in dental wear or caries rates, but antemortem tooth loss is considerably higher in the Mitchell population than in the Sanders population.

Winchell, Frank (U.S. Army Corps of Engineers). *The Merits of the Type-Variety Method in Caddoan Ceramics*. This paper will discuss the general/universal merits of using the Type-Variety Method in ceramic analysis especially when dealing with questions concerning origin, history, and ethnic affiliation of archeological groups during prehistory. Specific examples relevant to the Southern Caddo and Arkansas Valley Caddoan Tradition will be presented.

Wright, Jodi F. (Baylor University). *Site Report for TAS 1973 Field School*. This paper represents a preliminary report on progress in writing the 1973 TAS field school report of excavations at the Asa Warner site near Waco, Texas. Information will be requested about the site and about the location of materials from the excavations.
INDEX TO THE FIRST SIX VOLUMES OF

THE CADDJOAN ARCHEOLOGY NEWSLETTER

Timothy K. Perttula

The Caddoan Archeology Newsletter (CAN) has had a very successful six-year run, first under my editorship (1990-1992), and then under that of Lois E. Albert of the Oklahoma Archeological Survey since 1993. I hope it continues for some years to come to provide thoughtful articles and book reviews, as well as timely and important archeological information on Caddoan Area archeology.

This index presents a listing of articles and book reviews published in the first six years of the newsletter (1989-1995). Because of their importance as a focus for current Caddoan archeological research, I have also included here a listing of the abstracts from past Caddo Conferences. Other newsworthy items to be found in various CANs, but not included in this index for lack of space, are: editor’s corner; recent publications (including journals, books and periodicals, and cultural resource management technical reports); recent and ongoing projects; upcoming meetings, conferences, and events; as well as reburial/repatriation and vandalism issues.

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Journey, David H. and William Young

Keller, John E.

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McKee, Bonnie C.


Middlebrook, Tom A.
Caddoan Archaeology Newsletter

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41
Caddoan Archeology Newsletter

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BOOK REVIEWS

Cameron, Catherine M., and Steve A. Tomka (editors)

Fiedel, Stuart J.

Kenmotsu, Nancy A., and Timothy K. Perttula (editors)

Massey, Ellen Gray (editor)

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Rogers, J. Daniel, and Samuel M. Wilson (editors)

Stein, Howard F., and Robert F. Hill (editors)

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CADDO CONFERENCE ABSTRACTS


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With the passage of the National Historic Preservation Act in 1966 and ensuing regulatory guidelines (36CFR Part 60.7), a mandate for the development of "The State Historic Preservation Plan" was clearly established. During the late 1960s and the 1970s, because of limited funding and the absence of information on the structure of these plans, few states had formulated plans or if they had state plans, they were of an extremely general nature. In the 1980s, principally through funding initiatives on the part of the National Park Service and through the efforts of NPS preservation planners such as John Knoerl, many states began their first attempts at comprehensive preservation planning. One of the more highly acclaimed of these early planning documents was the Resource Protection Planning Process for Texas (Brown, Killen, Simmons, and Wolkhule 1982). The current eastern planning region document represents the culmination of over 10 years of preservation planning in the state of Texas.

While Nancy Kenmotsu and Tim Perttula deserve much of the credit for the structure and content of this planning document, Texas is in the enviable position of having a large corpus of archaeological expertise upon which to draw. Other contributors to this study include Britt Bousman, Mike Collins, Jim Corbin, Ross Fields, Dan Priky, and Steve Tomka. The experience of these individuals in their particular areas of study is clearly evidenced in the content and tone of this publication. Archeology in the Eastern Planning Region, Texas also benefits from a well structured format. The Resource Protection Planning Process (RP3 for short) structure was used through much of the 1980s. In the National Park Service overview of this format, the focus was on key elements pertaining to cultural/archaeological resources: the nature of the existing knowledge, key gaps in our understanding, factors affecting these resources, and goals for better preservation and planning. Current preservation guidelines are more focused on general issues and identifying mechanisms for working on preservation issues. From the perspective of comprehensive treatment of archaeological resources, the RP3 presents a much more detailed scenario of the resource base than state plans currently being generated. By using the earlier RP3 format, readers of the Archeology in the Eastern Planning Region, Texas receive a more detailed description of the archaeological resources and their context than might otherwise be portrayed.

The Eastern Planning Region document is divided into four sections: 1) an overview of eastern Texas, threats to archaeological resources, and goals for treating resources; 2) the regional preservation plan for northeast Texas; 3) the regional preservation plan for the Prairie-Savanna region; and 4) the regional preservation plan for southeast Texas. Of these, the preservation plan for northeast Texas with a large database to draw upon is, understandably, the most extensively developed. The Northeast Texas Preservation Plan is comprised of a number of "Historic Contexts" or in less bureaucratic terms, cultural/temporal research themes. These include Quaternary Environments, Hunter-Gatherer Mobility, the Emergence of Sedentism, the Development of Agriculture, and the Effects of Europeans on Native Americans in the Post-Contact Era. The Quaternary Environments chapter by Mike Collins and Britt Bousman contains valuable information on historical ecology of the region. Substantive
discussion is devoted to understanding the impact that geomorphological events had on the archaeological record and how these can be decoded. From my perspective, one of the more significant elements of this chapter was a discussion of the type of sites retaining environmental integrity and thus holding greater research potential. Collins and Bousman also addressed research methodologies and how these might articulate and enhance understanding of the late Pleistocene and Holocene settings found in northeast Texas. I emphasize this chapter because paleoenvironments have not been extensively addressed in most statewide preservation plans and it is a critical context for preservation planning. The chapter on Hunter-Gatherer Mobility by Ross Fields and Steve Tomka contained considerable detail on our current knowledge of hunters and gatherers in northeast Texas. However, they also did an excellent job of blending the many provocative theoretical questions about hunters and gatherers with the existing data as well as the limitations in our current baseline knowledge. One portion of this chapter where I would have liked to have seen greater emphasis was Middle Holocene adaptations. In Oklahoma, this is a critical period in prehistory due to the adverse conditions developed during the Hypsithermal and because of the expansive nature of Calf Creek complex sites across the state at this time. However, it may well be that such a temporal/cultural unit cannot be expanded upon in the northeast Texas region. I thought that the chapter dealing with the Emergence of Sedentism was one of the best in this planning document. Written by Tim Perrtulla, Ross Fields, Jim Corbin, and Nancy Kenmotsu, the issue of the rise of sedentism and its relationship to agriculture, reduced mobility, and the setting of the stage for complex agriculturally-based societies was done extremely well. Clearly, there is a lot of data for this period in northeast Texas that we have not found in southeastern Oklahoma. This may be because the “black midden mounds” of the Fourche Maline phase are extremely difficult to decode due to cultural noise and mechanical turbulence within the formation processes at the site level. As may be true for many researchers studying this particular transitional period, it is impossible to understand Village Farming Societies without first comprehending the rise of sedentism and the horticultural transition. Considering the level of attention that has been directed to Caddoan prehistory, I thought that the chapter on the Development of Agriculture by Tim Perrtulla might be somewhat stronger. However, when dealing with the extensive, prior treatment of a particular cultural unit, it sometimes appears to be reinventing the wheel. “How much information generated by previous researchers can we present before we become redundant?” This is not to say that this chapter lacks merit. I thought it was well written and summarized our existing state of knowledge extremely well. However, I anticipated more provocative questions pertaining to the economic and religious behavior of Caddoan groups in northeast Texas. The chapter on the effect of Europeans on Native Americans in a post-contact setting has a great deal of merit. Authored by Tim Perrtulla, this chapter summarizes our state of knowledge for a much neglected temporal span between the 1600s and the 1800s. This discussion also deals with groups which have not received a great deal of treatment in the archaeological literature (e.g., the Alabama/Coushatta). Clearly, this chapter covers a lot of ground sometimes ignored by both prehistoric and historic archaeologists. Each of the context chapters contains a section on Study Units or specific research themes focused around settlement, subsistence, technology, the environmental context that are crucial to a better understanding of the context. The utility of the study units lies in its connection to site significance. If a site has the potential to provide data to answer these study unit questions, then that site has an enhanced value in respect to significance and National Register eligibility (our yardstick of site importance).

The planning region studies for the Prairie-Savanna and southeast Texas are not as extensively developed as those for the northeast region. This is probably a consequence of the greater intensity of research conducted in the
northeast area. These chapters by Dan Prikyl and Tim Pertula respectively, do a credible job of addressing the state of knowledge, critical data gaps, and directions for future research in their regions. I am confident that these regions will be fleshed out as more information becomes available to characterize the nature of the historical context.

In summary, the Texas Historical Commission has generated a document that should have a strong appeal within the archaeological community. It is quite similar to parts of the Regional Overview conducted by the Corps of Engineers while holding the more structured perspective of the RP3 as fostered by the National Park Service. One concern that I had with earlier planning documents -- the relevance of the plan for the laymen has been addressed by the concept of "Users Guides" for planners, managers, and other concerned non-archaeological professionals. I also really like the use of sidebars as a means of emphasizing key elements. However, I thought this concept should be expanded to the chapters on historical contexts as well. Archaeologists as well as laymen can profit from these sidebars! From my perspective, the Eastern Planning Region document has clearly followed up on the previous RP3 overview. I would recommend this publication to professional archaeologists as well as resource managers, regional planners, and other members of the archaeological community.

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Reviewed by: Robert L. Brooks
Oklahoma Archeological Survey