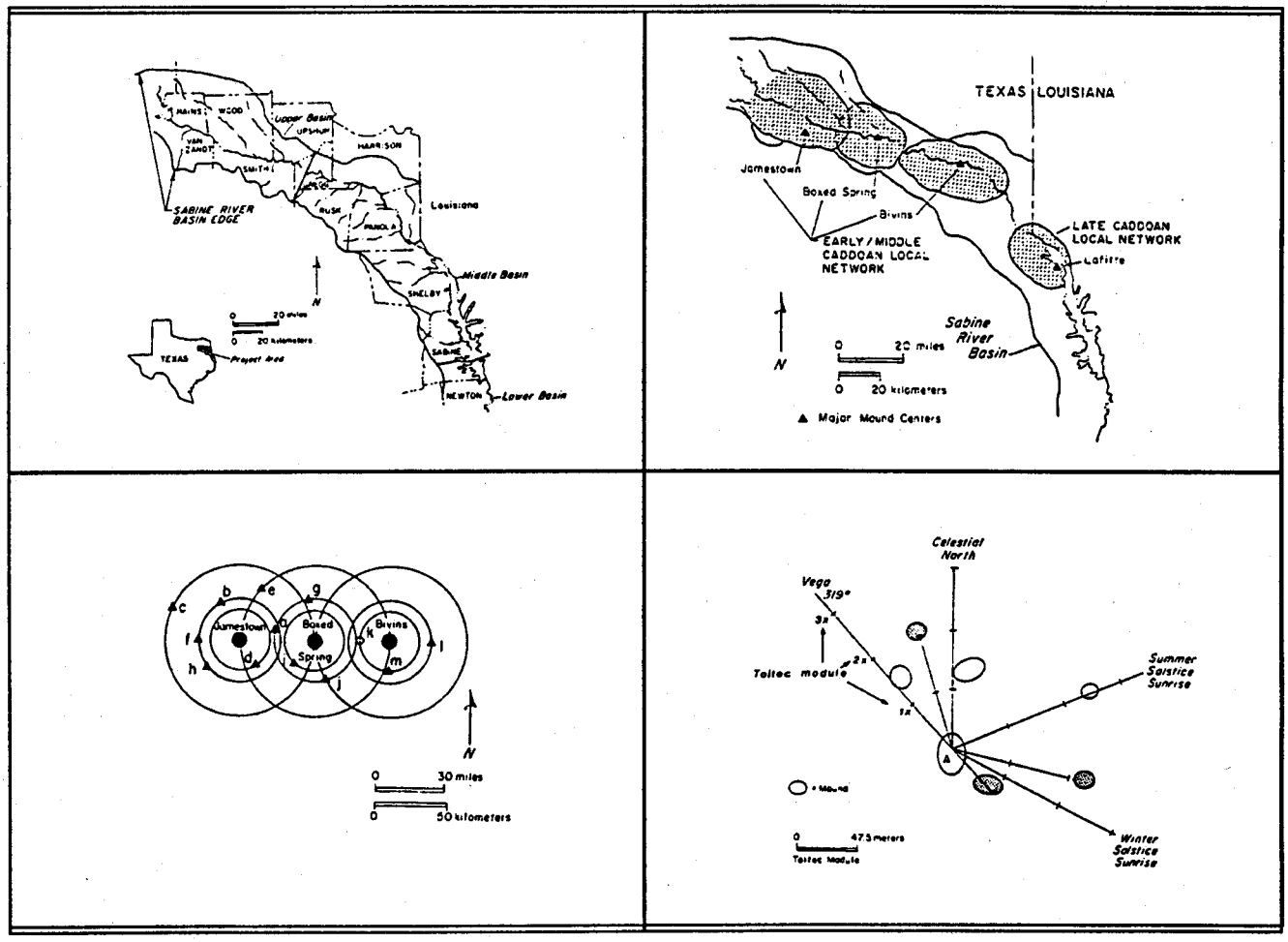
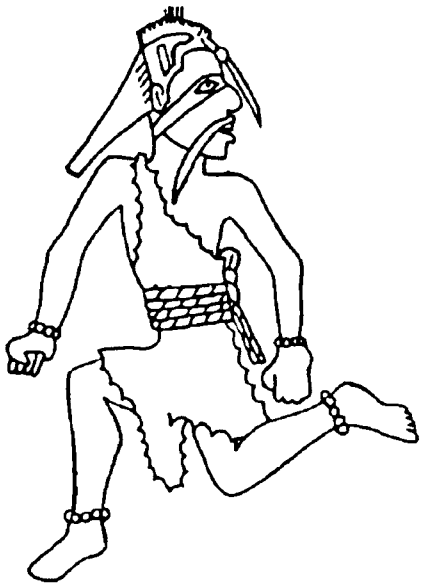
CADDOAN ARCHEOLOGY NEWSLETTER



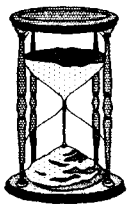
Volume IV, Number 4 **January, 1994**



NOTE: The line drawings used in this issue were adapted from Phillip Phillips and James A. Brown (1978). *Pre-Columbian Shell Engravings from Spiro.* Peabody Museum Press

THE EDITOR'S CORNER

I'm sorry that this issue of the newsletter is somewhat late. Between field work, the flu, and a hard disk crash on my computer, I'm running somewhat behind. The next issue should come out in April or early May, after the Caddo Conference.



No one has yet submitted a logo design for the contest which was announced in the last issue of the newsletter. Therefore, because the Caddo Conference is late in March this year, the contest deadline has been extended until February 25. Please send in those designs! There will still be time to review the submissions before the Caddo Conference. Other newsletters that I receive, such as the ones from the Southeastern Archeological Conference and the American Association of Stratigraphic palynologists, have logos.

Thanks to the people who have submitted articles and book reviews for this issue and to those in the past. I have received a short article by Jeff Girard for the next issue; however, we need more for that and for future issues. Keep sending in your reports on work in the Caddoan Area. We can also use items on pre and post-Caddoan times.

36TH CADDO CONFERENCE TO BE HELD MARCH 24-27, 1994

The 1994 Caddo Conference will be held at the University of Arkansas Continuing Education Center in Fayetteville on March 24-27. On the 24th, Thursday evening, a reception will held at the Center. Papers will follow on Friday and Saturday. Also during this time, there will be a round-table discussion on the relationship between the Spiro site and the southern Caddoan area. A dance and a meal with the Caddos is being planned for Saturday evening. Tours and other events will be held at Spiro Mounds Archeological State Park northeast of Spiro, Oklahoma, on Sunday, March 27. Additional information on this activity is included with the conference announcements. These announcements have been mailed. If you have not yet received your copy, contact Dr. George Sabo III, Arkansas Archeological Survey, PO Box 1249, Fayetteville, AR 72702-1249; telephone: (501) 575-3556.

UPCOMING EVENTS

MEETINGS

February

18-23 ***American Association for the Advancement of Science, Annual Meeting.*** San Francisco CA. Contact: AAAS, 1333 H Street NW, Washington DC 20005. Telephone: (202) 326-6400.

March

24-27 ***36th Caddo Conference.*** Continuing Education Center, Fayetteville, AR. This center is connected to the Hilton Hotel, which will be the official conference hotel; there will be a block of rooms reserved for the conference. A number of restaurants are located within walking distance of the center. On Thursday evening, March 24, there will be a welcoming reception. Papers will be scheduled on Friday and Saturday, with Caddo dances and a meal on Saturday evening. If you are interested in attending and are not sure that your name is on the mailing list, contact Dr. George Sabo, Arkansas Archeological Survey, PO Box 1249, Fayetteville AR 72701. Telephone: (501) 575-3556.

25-27 ***Friends of the Pleistocene, Southcentral Cell.*** Rio Grande Valley, Texas. This trip, led by Tom Gustavson and Steve Hall, will look at Late Tertiary and Quaternary stratigraphy, paleosols, regional tectonics, and archeology of the Red Light Draw, Huaco Bolson. For more information, contact Tom Gustavson, Bureau of Economic Geology, University of Texas, Austin TX 78713. Telephone: (512) 471-7721.

April

7-9 ***The Second International Conference on Pedo-Archaeology.*** Ramada-Townhouse Hotel, Columbia, SC. The event is being hosted by the South Carolina Institute of Archaeology and Anthropology, University of South Carolina. Papers are being sought on a wide variety of subjects dealing with soils, including soils-stratigraphy, role of perturbation, soils and agriculture, anthrosols, landscape reconstruction, Pleistocene-Holocene boundary, trace element analysis, and others. The three-day conference includes a field trip to varied geoarchaeological sites. The paper's title, abstract, and a $75 registration fee must be received before March 1. Contact: A.C. Goodyear, SCIAA-USC, 1321 Pendleton Stree, Columbia, SC 29208. Telephone: (803) 777-8172; fax: (803) 254-1338.

14-16 ***Oklahoma Historical Society Annual Meeting.*** Fountainhead Resort Hotel and Conference Center. Lake Eufaula/Checotah. For more information contact the Oklahoma Historical Society at (405) 521-2491.

18-24 ***59th Annual Meeting, Society for American Archeology.*** Anaheim CA. Contact: SAA, 1511 K Street NW, Washington D.C. 20006. Telephone: (202) 223-9774.

May

9-14 ***29th International Symposium on Archaeometry.*** This year's meeting will be held in Ankara, Turkey, at the National Library. In addition to the scientific sessions (oral and posters), there will be a program of receptions, dinner, and sightseeing to various archeological sites. Hotel reservations and a travel service for the sightseeing have been arranged. For more information, contact Ay Melek Ozer, Archaeometry 94, METU, Department of Physics 06531, Anakra, Turkey. Telephone: 90-4-02101000/3273; fax 90-4-210-12-81.

12-14 ***Sixth Annual Statewide Preservation Conference.*** Fort Sill, Oklahoma. For more information, contact the State Historic Preservation Office, (405) 521-6249.

17-21 ***International Tree-Ring Conference: Tree Rings, Environment, and Humanity -- Relationships and Processes.*** Hotel Park Tucson, Tucson AZ. The theme of the conference is Relationships and Processes, in order to stress the contributions of tree-ring research to understanding environmental and cultural processes. Paper and poster sessions will be on Tuesday, Wednesday, Friday, and Saturday. Thursday will be for activities, including day-long field trips and workshops, or options decided by the individual. Longer field trips will be offered pre- and post-conference: 14-16 May, Southwestern environmental variability, Grand Canyon; 13-16 May, Southwestern archeological sites, Colorado Plateau; 22-25 May, bristlecone pine, White Mountains of California. Registration fees are $150 (regular) and $50 (students). The regular fee includes a reception, coffee breaks and lunches during the meetings, a conference program, and abstracts of the papers and posters. Registration at the Hotel Park Tucson includes breakfast. Con-

tact: International Tree-Ring Conference, Laboratory of Tree-Ring Research, Building 58, University of Arizona, Tucson AZ 85721. Telephone: (602) 621-2191; Fax: (602) 621-8229.

May 30-

June 4 ***International Rock Art Congress.*** Dubois Conference Center, Northern Arizona University, Flagstaff. The Congress will bring together people interested in rock art research, education, preservation,a nd conservation. Symposia, papers, and posters on a wide range of topics will cover five days, field trips also planned. Contact: 1994 IRAC-ARARA, PO Box 65, San Miguel CA 93451-0065. Telephone: (805) 467-3704. Fax: (800) 467-2532.

September

16-18 ***Science and Archaeology: A Multi-Disciplinary Approach to Studying the Past,*** sponsored by the Society for Archaeological Sciences. Cambridge MA. Contact: Robert H. Tykot, Archaeometry Laboratories, Harvard University, Cambridge MA 02138. Telephone: (617) 496-8991. Fax: (617) 495-8925.

22-24 The Textile Society of America will hold its fourth biennial symposium at the Fowler Museum of Cultural History, at the University of California of California - Los Angeles. The theme will be "Contact, Crossover, Continuity". Papers will address textiles which have been subjected to outside influence, and which continue in an altered form. For more information, contact Louise W. Mackie, Textile Department, Royal Ontario Museum, 100 Queen's Park, Toronto Ontario, M5S2C6, Canada. Telephone: (416) 586-8055.

November

2-4 ***American Association of Stratigraphic Palynologists, Annual Meeting.*** College Station, Texas. Technical session will be held on the 2nd and 4th, with a one-day symposium on the 3rd, entitled "Good and Bad Procedures for Collecting, Processing and Analyzing Palynomorphs". This symposium will focus on both pre-Quaternary and Recent age materials. A one-day workshop, "Palynology in the 1990s and Beyond", will be held Saturday, November 5. For further information, contact Dr. Vaughn M. Bryant, Jr., Department of Anthropology, Texas A&M University, College Station TX 77843-4352. Telephone: (409) 845-9334/5242; Fax: (409) 845-4070.

Nov. 30-

Dec. 2 ***American Anthropological Association, Annual Meeting.*** Atlanta GA. Contact: AAA, 1703 NW New Hampshire Avenue, Washington DC 20009. Telephone: (202) 232-8800.

1995

May

4-28 ***7th North American Fur Trade Conference.*** Halifax, Nova Scotia, Canada. Although previous conferences have focused on the fur trade before 1850, this conference plans to offer sessions which will bring the study of the fur trade into the 20th century. Papers are invited from researchers interested in areas such as Native Studies, Women's Studies, Ecology and the Sciences, Comparative Studies, History, Anthropology, Literature, etc., that explore European and Asian connections, mink and fox farming, conservation, animal population, women's roles, literary perspectives, etc. There will be a special session of papers related to the eastern Atlantic region. Contact: Barry Moody or Bill Wicken, Gorsebrook Research Institute for Atlantic Canada, Saint Mary's University, Halifax, Nova Scotia Canada B3H 3C3. Telephone: (902) 420-5668; Fax: (902) 420-5530; E-Mail: BWicken@Husky1.StMarys.CA

EXHIBITS

Current

Oklahoma State Museum of History. Exhibit on hunting and fishing in Oklahoma from prehistoric time to the present. The Deer Creek site in north central Oklahoma is the focus of the exhibit. In the Native American Gallery is the long term exhibit which gives an overview of Oklahoma prehistory, focusing on the Spiro site. Contact: State Museum of History, 2100 Lincoln Blvd, Oklahoma City, OK 73105. Telephone: (405) 521-2491.

February 11 - April 4.

Gilcrease Museum, Tulsa, Oklahoma. Exhibit "Beyond the Prison Gates: The Fort Marion Experience and its Artistic Legacy". This exhibit includes photographs, documents, and the most extensive collection of Fort Marion art ever exhibited. Also included is a landmark three-dimensional photographic exhibit, featuring near-lifesize murals made from portraits of Fort Marion prisoners. Stereoscopic viewing boxes loaded with standard size stereo cards further enhance the experience. An innovative

audience-participation program encourages visitors to personally identify with one of thirty Native American prisoners of war, who becomes the visitor's "guide" on the journey through the Fort Marion experience.

February 13 - April 17.
The Museum of Fine Arts, Houston, Texas. Exhibit "Royal Tombs of Sipan". This exhibit is currently at the Fowler Museum of Cultural History at UCLA. It will later travel to the American Museum of Natural History, the Detroit Institute of the Arts, and the Smithsonian Institution.

March 1 - 30.
Spiro Mounds Park. Exhibit "Spiro Mounds: Prehistoric Gateway; Present Day Enigma". For more information, contact Dennis Peterson, (405) 962-2062.

May 1 - 30.
Chisolm Trail Museum, Kingfisher, Oklahoma. Indian Art Exhibit. For more information, contact (405) 375-5176.

OTHER EVENTS

A series of cooking and crafts workshops will be held at Oklahoma Historical Society facilities in the next few months. At the Pawnee Bill Ranch near Pawnee will be an Indian Recipes Workshop (January 8), Buckskin Making Workshop (February 5), Homemade Bread/Frybread (March 5), Flint Knapping Workshop (March 12), Cowboy Chuckwagon Recipes Workshop (April 16), and Blacksmith Workshop (May 7); for more information, contact (405) 762-3614. At the Cherokee Strip Museum in Perry will be a Heritage Needlework Workshop - Tatting (February 12); for more information, contact (405) 336-2405. At the Chisholm Trail Museum in Kingfisher will be a Flint Knapping Workshop (February 26); for more information, contact (405) 375-5176.

June 4 ***Pawnee Bill Ranch,*** near Pawnee, Oklahoma. Pawnee Bill Wild West Show. For more information, contact (405) 762-3614.

June 18 ***G. Murrell Home,*** near Tahlequah, Oklahoma. 1858 Lawn Social. For more information, contact (918) 456-2751.

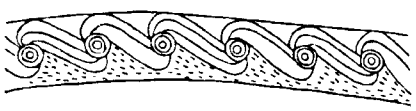
June 25-26 ***Fort Reno,*** west of El Reno, Oklahoma. Fort Reno and Indian Territory Days. Historical reenactments from the late 1800s. For more information, contact (405) 262-1188.

AVOCATIONAL TRAINING PROGRAMS, SEMINARS, AND DIGS

Missouri Archeological Society
Contact: Melody Galen, Missouri Archeological Society, PO Box 958, Columbia MO 65202. Telephone: (314) 882-3544.

Arkansas Archeological Society
Contact: Russell G. Scheibel or Hester A. Davis. Arkansas Archeological Society, PO Box 1222, Fayetteville AR 72702-1222, telephone (501) 575-3556.

Oklahoma Anthropological Society
OAS Certification Program. Cost: $10 plus OAS membership. Seminars are scheduled throughout the year as well as at digs. For information contact: Lois E. Albert, Chair, Certification Council, Oklahoma Archeological Survey, 111 E. Chesapeake, The University of Oklahoma, Norman OK 73019. Seminars scheduled during the next several months include: **Archeological Dating Techniques** (January 29), **Lithic Technology and Analysis** (February; filled), **General Laboratory Techniques** (March 5-6), **Organic Remains Analysis** (Plant materials; April or May), and **Maps and Mapping** (April or May). In order to enroll in these seminars you must be a member of the Oklahoma Anthropological Society. Preference for enrollment in classes with limited enrollment will be given to those enrolled in the Certification Program.



CADDOAN MOUND SITES IN THE SABINE RIVER BASIN OF NORTHEAST TEXAS

Timothy K. Perttula
Department of Antiquities Protection
Texas Historical Commission
Austin, Texas 78711

ABSTRACT

Caddoan tradition mound sites in the Sabine River Basin of northeast Texas and northwestern Louisiana likely represent some of the better archeological evidence for the existence of social and settlement hierarchical differentiation during the late prehistory (ca. A.D. 800-1600) of the area. Both structural and burial mounds are known in a ca. 300 k stretch of the Sabine River Basin between Lake Tawakoni and Toledo Bend Reservoir, being constructed and used particularly during the period between ca. A.D. 1000-1400. The larger mound sites, containing multiple mounds and associated settlements, are apparently regional civic-ceremonial centers. However, whether a hierarchy of contemporaneous civic-ceremonial centers existed at any time during the Caddoan settlement of the Sabine River Basin is still a matter of speculation because only two known mound centers, the Hudnall-Pirtle and James Pace sites, have been dated by absolute methods.

INTRODUCTION

Caddoan tradition mound sites in the Sabine River Basin of northeast Texas and northwestern Louisiana likely represent some of the better archeological evidence for the existence of social and settlement hierarchical differentiation during the late prehistory (ca. A.D. 800-1600) of the area. Both structural and burial mounds are known in a ca. 300 k stretch of the Sabine River Basin between Lake Tawakoni and Toledo Bend Reservoir, being constructed and used particularly during the period between ca. A.D. 1000-1400. The larger mound sites, containing multiple mounds and associated settlements, are apparently regional civic-ceremonial centers. However, whether a hierarchy of contemporaneous civic-ceremonial centers existed at any time during the Caddoan settlement of the Sabine River Basin is still a matter of speculation because only two known mound centers, the Hudnall-Pirtle and James Pace sites, have been dated by absolute methods.

Mound groups constructed and used by Caddoan peoples represent a unique, but poorly studied, cultural resource in northeast Texas. Important prehistoric Caddoan social, ceremonial, and political centers in the region may be represented by as many as 105 single and multiple mound sites (Perttula 1993a, 1993b). Structural and burial mounds occur as distinct mound types. Burial mounds were mortuaries for the elite members of Caddoan cultural groups, whereas structural mounds served as platforms for the construction (and deliberate destruction) of specialized structures or dwellings (Story 1990:340-341). The study of the civic and ceremonial nature of the Caddoan mound centers is important for understanding the development of Caddoan culture because they can provide us with data on how the emergence and elaboration of sociopolitical complexity is related to cultural change over time in the region.

Although Caddoan mound sites have been reported in the Sabine River Valley since the early 1900s (Pearce 1920), the only professional investigations of such sites have been primarily restricted to relatively unsophisticated trenching of the mound deposits carried out by A.T. Jackson in the 1930s for the University of Texas (Guy 1990). Since that time, new mound sites have been reported (Malone 1972; Webb et al. 1969; Perttula et al. 1986; Jensen 1968a, 1968b; Perttula and Skiles 1987; Bruseth 1991). However, with the exception of investigations at Coral Snake (16SA48; an Early Ceramic Period mound), James Pace (16DS268; Girard 1992, 1993), and Hudnall-Pirtle (41RK4; Jensen 1968a, 1968b; Bruseth 1991), these have been only cursorily examined.

The present research on Caddoan mound groups in the Sabine River Valley and tributaries is thus a first step towards developing a sound data base on the location, character, contextual integrity, and current preservation condition of known and potential mound sites, especially the important multiple mound groups. This data base will serve as an integral part of the Northeast Texas Preservation Plan for archeological resources (e.g., Kenmotsu and Perttula 1993), will help to document and support National Register nominations for mound complexes in the Sabine River Valley, and will be important for focusing study on the broader questions concerning the complex sociopolitical developments of prehistoric Caddoan societies in the Sabine River Valley (cf. Story 1990; Perttula 1989a, 1993a).

The records and collections at the Texas Archeological Research Laboratory and the University of North Texas were reviewed, and interviews were conducted with local avocational archaeologists and collectors, to develop an initial inventory of known and potential Caddoan mound groups in the Sabine River Valley. Based on leads gathered in these repositories, such as landowner names of farms provided in manuscripts and land survey field notes, a cursory examination of county records and archives (such as the land deed records of the 1920s-1930s), as well as local histories (e.g., Woldert 1932), the inventory process was considered to be relatively comprehensive for northeast Texas. Information on all known northwest Louisiana mound sites in the Sabine River Valley was supplied by the Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Division of Archaeology, and from published sources (e.g., Girard 1991, 1992, 1993).

This work was supplemented by relocating known and recorded mound sites in the Sabine River Valley to obtain more detailed locational information on the mounds, as well as to gather data on associated material culture assemblages. The multiple mound sites, or potential multiple mound sites, known in the Sabine River Valley were given precedence in guiding the survey effort because of their regional archaeological significance, but the single mound sites also received attention (Perttula 1989a:1,4).

Limited subsurface testing was conducted at four mound sites (41PN8, 41SM54, 41SY46, and 41UR30) to obtain, if possible, temporally and functionally diagnostic prehistoric artifacts from selected sites and/or specific areas within sites, and also to obtain suitable materials such as charcoal or thermoluminescence samples for dating (Perttula 1989a:35-40). Where feasible, surface collections were made at individual sites, and notes were maintained for each site specifying the location and extent of surface-exposed artifactual materials.

RESULTS AND DISCUSSION

A total of 38 possible mound sites have been identified in the Sabine River Basin of northeast Texas and northwest Louisiana, four in Louisiana and the remainder in Texas (Perttula 1989a:43-91, 1993b; Girard 1991, 1992:Table 3). They are distributed over a ca. 300 km stretch of the Sabine River Valley and its tributaries, from Lake Tawakoni in the west to below Toledo Bend Reservoir in the south (Figure 1). The potential and known mound sites represent a significant span of the regional prehistoric archaeological record, from ca. 200 B.C. to ca. A.D. 1600. However, approximately 90 percent of the mounds appear from the aboriginal ceramic evidence to date after ca. A.D. 800, and thus can be assigned to the Late Prehistoric Caddoan Period Tradition (Table 1).

Table 1. Tabulation of Known or Potential Mound Sites in the Sabine River Valley, Northeast Texas and Northwest Louisiana.

	16 DS268	16 SA3	16 SA40	16 SA48	41 HS4	41 HS15	41 HS233	41 NW16	41 PN1	41 PN8	41 RA31	41 RA38
Landform	Qt*	Qt	Qt	Qt	Fl	Up	Up	Fl	Nl	Nl	Qt	Up
Drainage	Sabine	Bayou San Miguel	Caney	Sabine	Wards Creek	Starkey Creek	Hatley Creek	Sabine	Sabine	Sabine	Big Creek	Sabine
Rank	1	2	2	1	3	3	2	1	1	1	⅔	1
Distance to Sabine River (km)	1.5	?	5.0	0.5	10	8	1.6	0.9	0.1	1.2	7.0	1.0
No. of Mounds	3 or 5	1?	1	1	4	2	4	1	1	1	2	1 or 2
Mound Area (m^2)	unknown	unknown	256	900	162	unknown	unknown	unknown	400	110	500	224**
Estimated Volume (m^3)	unknown	unknown	461	2700	unknown	unknown	unknown	unknown	1000	110	500	224**
Age of Component	A.D. 700-800	unknown	unknown	ca. 1200 B.C. - A.D. 400	A.D. 1400-1600+	A.D. 1400-1600+	A.D. 1400-1600+	unknown	unknown	A.D. 1000-1600	A.D. 1000-1400	A.D. 1000-1400
Mound Structures	?				X	?	?				?	?
Mound Burials				X								

Table 1 (continued). Tabulation of Known or Potential Mound Sites in the Sabine River Valley, Northeast Texas and Northwest Louisiana.

	41 RK3	41 RK4	41 SM54	41 SM55	41 SM62	41 SY15	41 SY27	41SY 42	41SY 46	41UR 30	41 VN2
Landform	Qt	Qt	Up	Up	Fl	Up	Up	Qt	Up/Qt	Qt	Fl
Drainage	Martin Creek	Sabine	Village Creek	Ray Creek	Simpson Creek	Sabine	Chicken Bayou	Bayou Siepe	Beauchamp Creek	Sabine	Mill Creek
Rank	2	1	2	3	3	1	4	2	3	1	2
Distance to Sabine River (km)	25	1.0	5.5	14.0	15.0	2.0	30	10	30	0.1	18
No. of Mounds	1	6	7	1	1	2	1	1	1 or 2	4	1
Mound Area (m^2)	3700	unknown	2474***	225	1500	306	82	75	225	144****	207
Estimated Volume (m^3)	17000	unknown	7886***	225	4500	302	100	112-150	337	432	207
Age of Component	unknown	A.D. 800-1200	A.D. 1000-1400	A.D. 1200-1400	unknown	A.D. 1400-1600	A.D. 1400-1600	ca. A.D. 1400	unknown	A.D. 800-1200	unknown
Mound Structures		?	X	X		?			X	X	
Mound Burials	?	?	?					X		X	X

One of the earliest episodes of mound exploration in the Sabine River Valley of northeast Texas took place ca. 1865, and was described in this transcription of a WPA slave narrative:

> ...we niggers (sic.) wuz helping dig in de big ole Indian mound down near the Sabine River ... De ole mound is down near de ole Alligator Hole in de Sabine River bottom. It is one of de ole Civil War plantations, but is all growed up wid trees now. Us niggers (sic.) wuz digging a hole in de top of de ole mound. It wuz easy digging, as it wuz white sand all de way down. We wuz digging a hole twelve feet square right on de top of dis mound. We wuz down in de mound 'bout 22 feet ... De last bucket dey brought up I'se noticed lots of little white balls in de sand. I'se picked up a few of dem and wuz looking at dem wen de sand come off, and I saw it wuz man's teeth. I tol' de white man who had us wo'kin' in de mound I was not goin' to work in dat place any mo' for it wuz a grave yard ... De teeth dat we got wuz all we found in dat ole place (Rawick 1979:2936-2937).

A.T. Jackson and his associate A.M. Wilson investigated several mounds in Van Zandt and Wood counties during the early 1930s (including 41VN2, 41VN7, I.M. Counts [no site trinomial was assigned to this mound], 41VN13, 41WD7, 41WD9, and 41WD11). Avocationalist Sam Whiteside, from Tyler, Texas, excavated at mound sites 41SM54, 41SM55, and 41UR30 in the late 1950s-early 1960s in Upshur and Smith counties (Figure 2). Significant pothunting has occurred at 41UR30 in the last five years, and a large Early Caddoan period cemetery has been destroyed through this work.

One of the mounds at the Hudnall-Pirtle site (41RK4), then known as the Bivins-Flanagan mound, was investigated about 1960 by Buddy C. Jones, now of the Florida Bureau of Historical Research (Davis et al. 1971). None of this work was ever published, and the materials recovered during his work are apparently now for sale along with the rest of his large collection accumulated in the 1950s-1960s. More recent investigations at the site have been conducted by the Texas Historical Commission with the sponsorship of The Archaeological Conservancy (Bruseth 1991).

In the 1960s the University of Texas and Southern Methodist University conducted testing and excavation projects at several mound sites at Toledo Bend Reservoir, most notably at the Lafitte (41SY15) and the Coral Snake Mound (16SA48) sites (Scurlock 1964). The latter is an Early Ceramic or Woodland period burial mound (McClurkan et al. 1966, 1980; Jensen 1968a; Story 1990).

Three mound sites, 41RA31, 41RA38, and 41VN35, were recorded during a 1970-1971 Texas Historical Commission survey of proposed Carl Estes Lake in the Upper Sabine River Basin (Malone 1972). Mound sites 41WD7 and 41WD9, initially recorded by A.T. Jackson in 1930, were relocated by Southern Methodist University during the Lake Fork Reservoir project (Wilson and Jackson 1930; Skiles and Perttula 1989). Limited test excavations were conducted in 1978 at one of the sites, J.O. McCreight (41WD9), on Little Caney Creek in the Upper Sabine River Basin (Figure 2). Southern Methodist University also conducted minimal excavations at the Jamestown (41SM54) and Cox (41WD349) mound sites in the late 1970s; however, the notes, artifacts, and photographs from that work have been lost or misplaced.

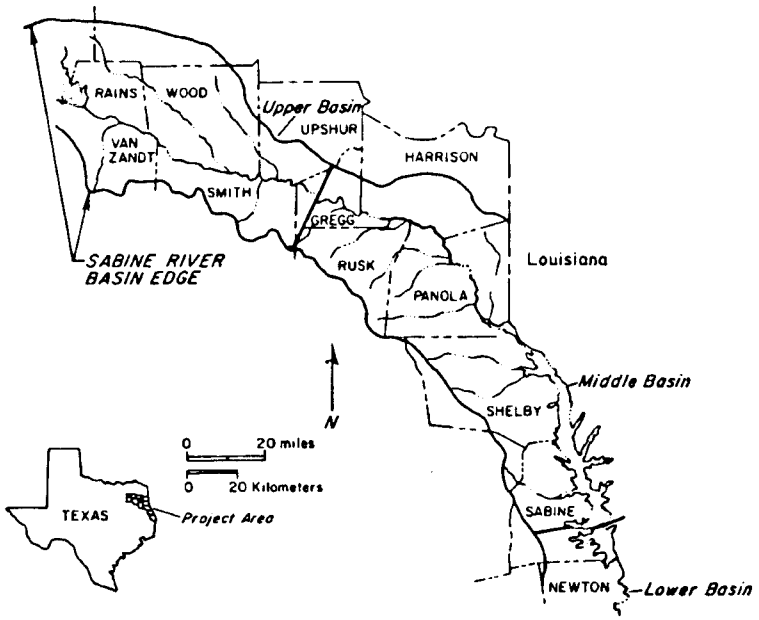


Figure 1. The Sabine River Basin, northeast Texas.

In the early 1980s, the Brittain (41SY42) and Beauchamp Creek (41SY46) mound sites were reported in or adjacent to the U.S. Forest Service's Sabine National Forest in Shelby County, Texas (Figure 2). A small test hole was excavated by John Ippolito (1988), Forest Archeologist, in one of the reported mounds at the Beauchamp Creek site, but nothing of significance was apparently recovered from this work other than to demonstrate that it was of artificial construction. Girard (1992:19-39) conducted limited test investigations at the Pace site (16DS268) in 1992. This work established that the site contains at least two mounds with an associated village area perhaps 15 acres in size (Girard 1992:Figure 6).

Almost all the Sabine River Basin mound sites have been potted or vandalized at one time or another from the late nineteenth through the twentieth century. However, few mounds have been as extensively disturbed by looters as have Caddoan cemetery sites throughout the region (Perttula 1989b), with the notable exception of the looting mentioned above at the Boxed Springs (41UR30) mound site where a cemetery containing more than 125 individuals was found adjacent to one of the mounds.

Consequently, many of the mounds themselves still possess some degree of overall contextual integrity, and in cases where off-mound habitation areas exist, they have not yet been seriously damaged by looting activities. Apparently, with the exception of the Boxed Springs cemetery, cemetery areas in off-mound habitation settings are relatively uncommon on Sabine River Valley mound sites.

Regional Spatial Patterns

The Sabine River Basin is divided into Upper, Middle, and Lower basins utilizing physiographic, geomorphological, and geological criteria (e.g., Kier et al. 1977). The Upper Basin, part of the East Texas Embayment, includes the area from the headwaters of the Sabine River to the western edge of the Sabine Uplift, whereas the Middle Basin is entirely within the area effected by the Sabine Uplift. The Lower Basin is that part of the Sabine River Valley below the Sabine Uplift and extending to the Gulf of Mexico (Figure 3; Gibson 1978).

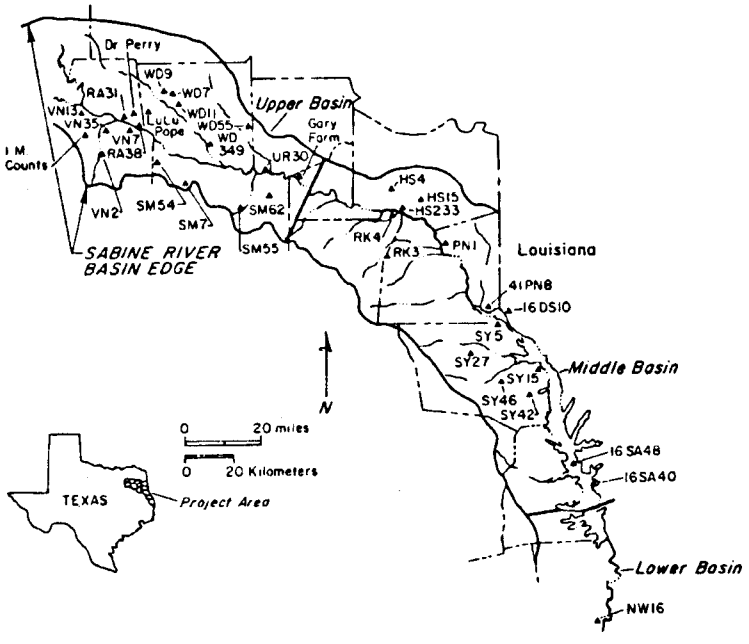


Figure 2. The distribution of known and potential mound sites in the Sabine River Valley.

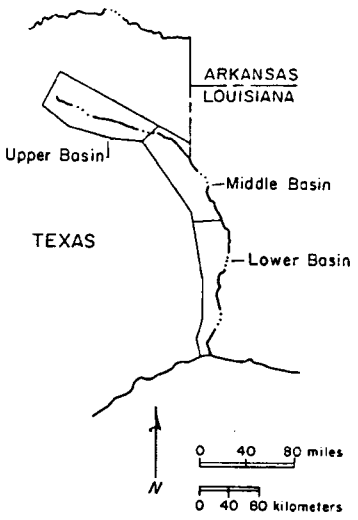


Figure 3. The intrabasin division of the Sabine River Basin, northeast Texas and northwest Louisiana.

With the exception of one possible mound site in Newton County, Texas, in the Lower Basin, the Goode Newton site (41NW16), all the other known or possible mounds recorded in the Sabine River Valley are located in the Upper and Middle basins (Table 2). In the Upper Sabine Basin, mound sites are concentrated on the Sabine River, Lake Fork Creek and tributaries, and on north-flowing tributaries of the Sabine River such as Mill Creek, Crooked Creek, and Village Creek (Figure 4). Mound sites are particularly common in the Post Oak Savannah ecotone, and one of the sites thought to have been a premier or key mound site in the Upper Basin, the Jamestown site (41SM54), is situated along the probable boundary between the Post Oak Savannah and the Pineywoods (Figure 4). No mound sites in the Upper Basin are situated in the Blackland Prairie, and with the exception of the Lee Joyner Farm site (41VN13), they are at least 10 to 20 km east of the tall grass prairie habitat (Figure 4).

Multiple mound sites in the Upper Sabine Basin include the Boxed Spring (41UR30), Cox (41WD349), Jamestown (41SM54), Colony Church (41RA31), M.J. Speers (41VN7), and Lee Joyner (41VN13) sites. With the exception of the latter two sites, where evidence of moundbuilding activities is still circumstantial and the number of deliberately constructed mounds has not been clearly established, the other multiple mound sites contain between two and seven mounds per site (Table 1). Both the Jamestown (41SM54) and Boxed Springs (41UR30) sites contain evidence for extensive settlements associated with the mounds, and thus were clearly not vacant Caddoan community centers (Story 1990:341).

The key multiple mound sites in the Upper Sabine Basin are the Jamestown (41SM54) and Boxed Springs (41UR30) sites. This is suggested based on the number, size, internal arrangment and spacing, and presumed character of the mounds at each of the sites, as well as the extent of the associated settlements (15 acres; Perttula 1989a:67-70,78-80). The regular spacing of the mound centers along the major streams and tributaries in the Uppper Sabine Basin also hints at the existence of locally integrated and culturally associated Early and Middle Caddoan period (ca. A.D. 800-1400) communities or networks which may have been part of a larger social and culturally related regional community or population group that extended into the Middle Sabine Basin.

Mound sites in the Middle Sabine Basin (Figure 5) are distributed in a spatial pattern quite similar to that noted in the Upper Basin. That is, mound sites are located on the Sabine River floodplain or alluvial terraces, but they are more common on permanent streams which are tributaries to the Sabine River, such as Hatley Creek, Potter's Creek, Martin Creek, and Flat Fork Creek (Table 2). All mound sites in the Middle Sabine Basin are situated in the Pineywoods.

Table 2. Upper, Middle, and Lower Sabine Basin Mound Sites and Selected Parameters.

Parameters	Upper Basin	Middle Basin	Lower Basin
No. of Mound Sites	20	15	1
Stream Rank ($\bar{x}$)*	2.3	1.9	1.0
Distance to Sabine River ($\bar{x}$), km	12.4	8.9	0.9
Pre A.D. 800		2	
A.D. 800-1400	10	1	
Post A.D. 1400		7	

*($\bar{x}$) = 1.0 = On the Sabine River

2.0 = On a permanent stream which drains directly into the Sabine River.

3.0 = On a tributary of a 2.0 stream.

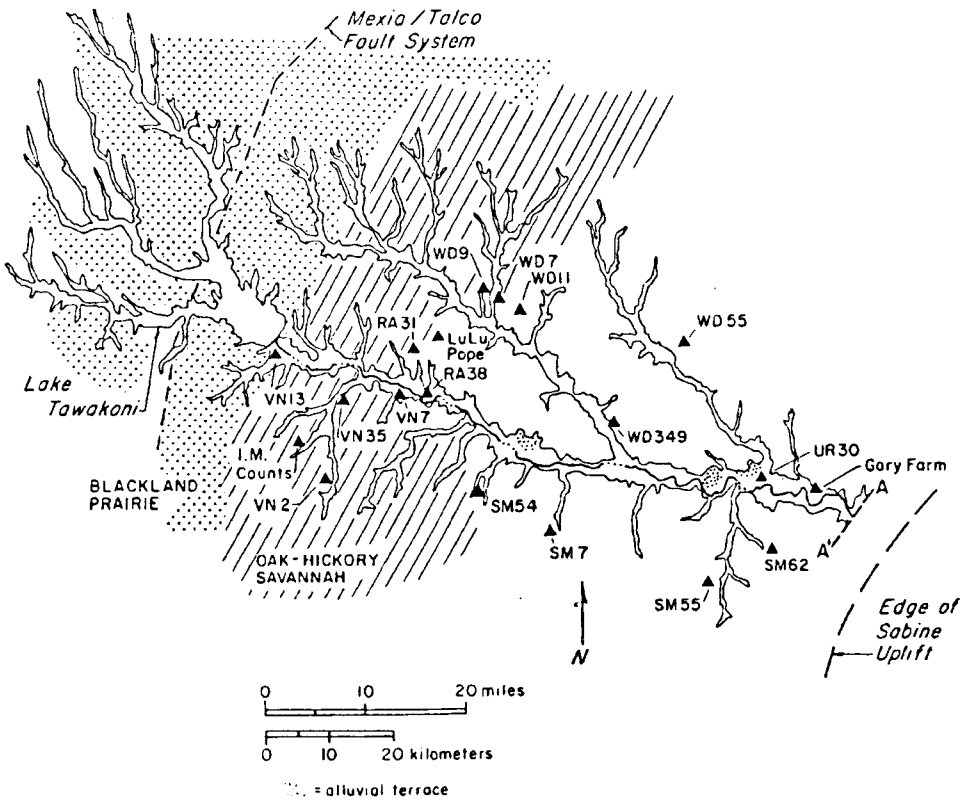


Figure 4. The location of mound sites in the Upper Sabine River Basin.

Multiple mound sites in the Middle Sabine Basin of northeast Texas include the Hudnall-Pirtle (41RK4), Lane Mitchell (41HS4), 41HS233, Lafitte (41SY15), and possibly the Gus Jones (41HS15) sites (Table 1). On the basis of the ceramic assemblage and calibrated radiocarbon dates of A.D. 1158 $\pm$ 70 (Beta-43539) and A.D. 1174 $\pm$ 70 (Beta-43540), the Hudnall-Pirtle mound site was apparently occupied during the Early Caddoan period (Bruseth 1991), but all the others were probably constructed and utilized during some portion of the Late Caddoan period (ca. A.D. 1400-1600; Table 1). The Pace site (16DS268) in northwest Louisiana is a multiple mound site, but it appears to have been occupied ca. A.D. 700-800, the latter portion of the Early Ceramic period (Story 1990; Girard 1992:39). Three uncorrected radiocarbon dates have been obtained from the site: A.D. 720 $\pm$ 100 from the soil underlying Mound A, and 130 $\pm$ 190 B.C. and A.D. 270 $\pm$ 80 from Mound A deposits (Girard 1993:Table 2).

Few other mound sites in the Middle Sabine Basin can be positively identified as having an Early or Middle Caddoan period occupation, and thus the Hudnall-Pirtle mound center is clearly an isolated premier or key mound group in this part of the basin. Indeed, the size of the site and its associated settlement (60 acres), the number of flat-topped platform mounds and conical mounds (three and five, respectively), and the likely presence of a plaza area, all indicate that the Hudnall-Pirtle site is the most prominent Caddoan mound center in the Sabine River Basin of northeast Texas and northwest Louisiana (Bruseth 1991). Story (1990:325) suggests that the George C. Davis mound site on the Neches River was colonized from the area of the Hudnall-Pirtle site. This site is situated in the Sabine River floodplain on a prominent alluvial terrace, located in the approximate center of the 300 km stretch of the Sabine River Valley that was occupied by moundbuilding Caddoan groups (Figure 2).

Only one possible Caddoan mound site is known in the Lower Sabine River basin (Figure 6). The Goode Newton site (41NW16) is located on an alluvial knoll in the Sabine River floodplain, more than 60 km south of the next nearest mound, the Anthony site (16SA7 or X16SA40). Neither site has been professionally investigated, and the available information about them is rather limited (Perttula 1989a:47, 56-57; Story 1990:279).

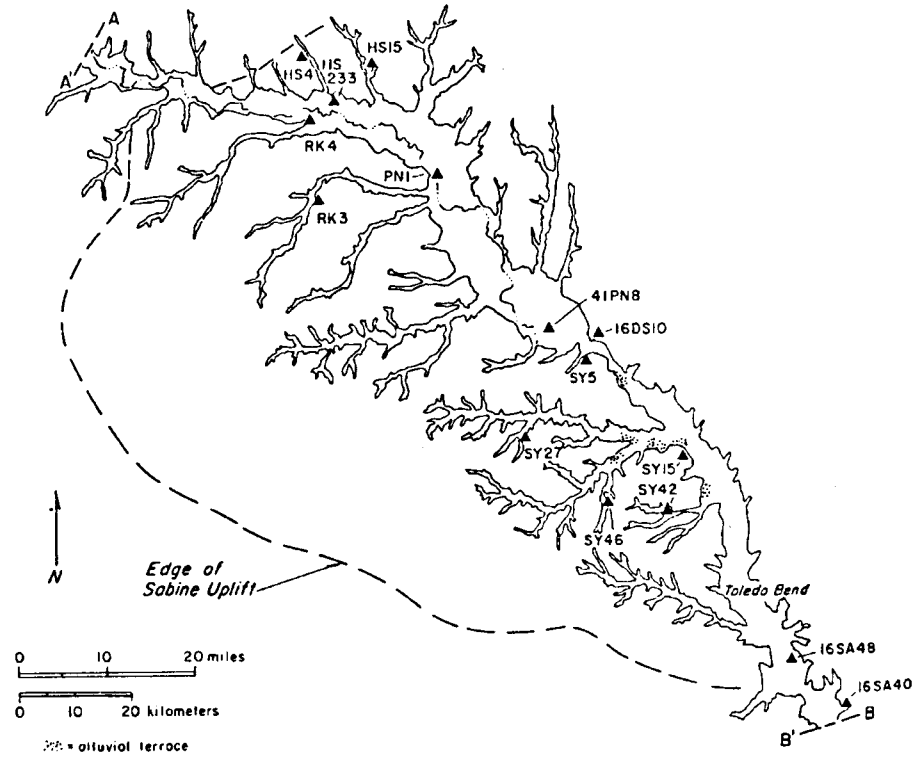


Figure 5. The location of mound sites in theMiddle Sabine River Basin.

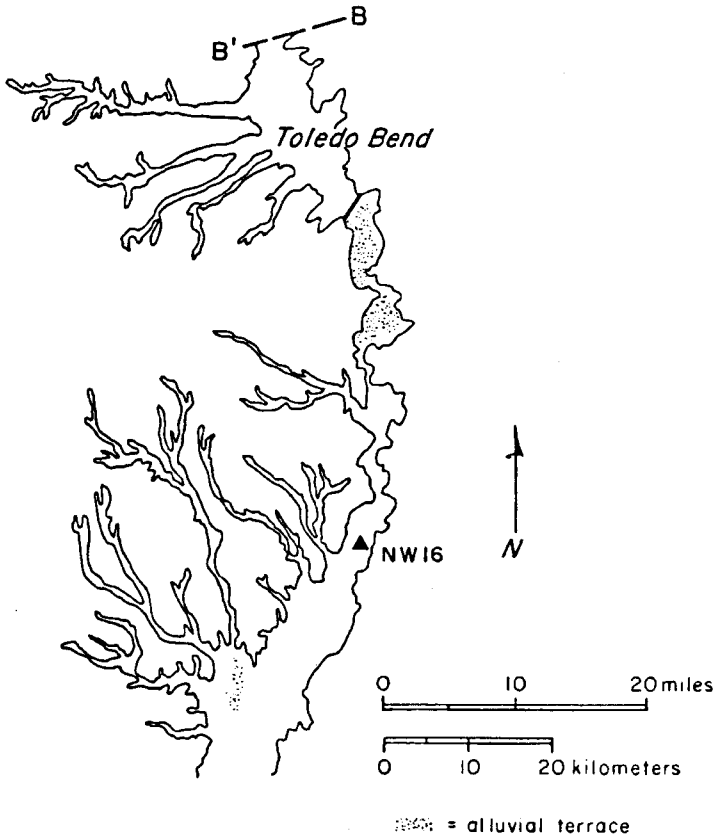


Figure 6. The location of mound sites in the Lower Sabine River Basin.

Social and Temporal Considerations

It is presumed that the use of mounds by Caddoan peoples represents deliberately patterned cultural behavior expressing social, religious, and symbolic principles shared by related groups and communities (Rogers 1989; Kay et al. 1989). For instance, Sabo and Early (1988:98) suggest that:

> social or ceremonial activity at these individual centers [Caddoan mound sites in the Arkansas River and tributary valleys] promoted the solidarity of the local communities responsible for the construction and maintenance of these centers, in addition to providing contexts for the expression of important aspects of social structure such as systems of ranking (e.g., Brown 1971; Rogers 1982, 1983). We may suggest also that the **network** of mound centers... promoted socially integrative activity on a larger level than the local corporate group; that is, solidifying geographically separated, small corporate groups into a single, regional community [brackets added; emphasis in the original].

Possible premier or key mound centers and subsidiary mound centers are identified in the Upper and Middle Sabine Basin that are suggestive of the existence of a hierarchical social, political, and religious structure behind the temporal and spatial patterning noted for mound groups in both Early/Middle and Late Caddoan period occupations (Figure 7). During the Early Ceramic period (ca. 200 B.C.-A.D. 800), only one or two mound sites are known in the Sabine River Basin, the Coral Snake burial mound site (16SA48; see Jensen 1968a, 1968b; Story 1990:282-289 for further details), and the Pace site (16DS268).

The identifications of premier or key mound centers is based on a number of variables, including: mound sizes, internal mound arrangement and spacing, the existence of plazas, and inferred mound functions (i.e., as mantles over burials, as bases for

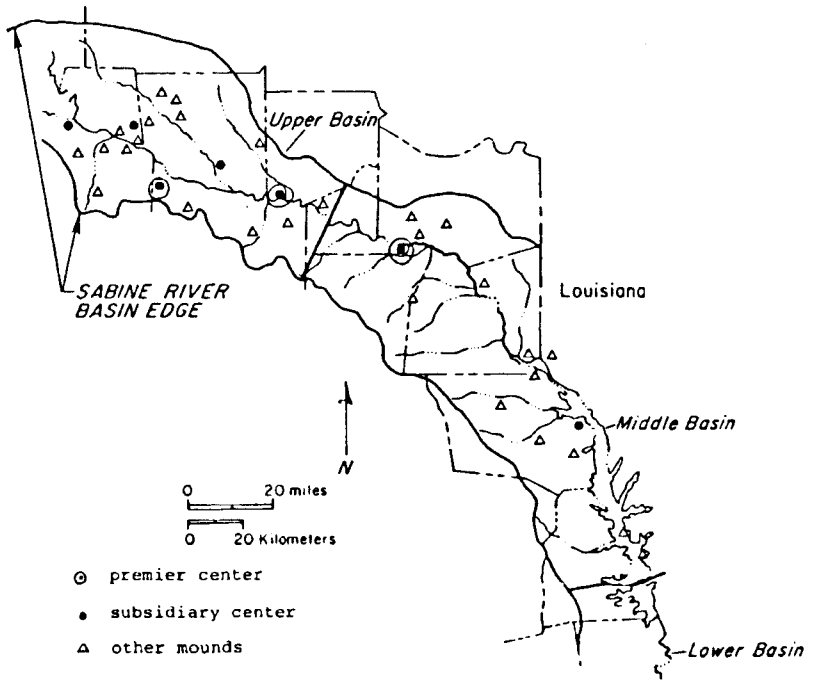


Figure 7. The distribution of possible premier and subsidiary mound sites.

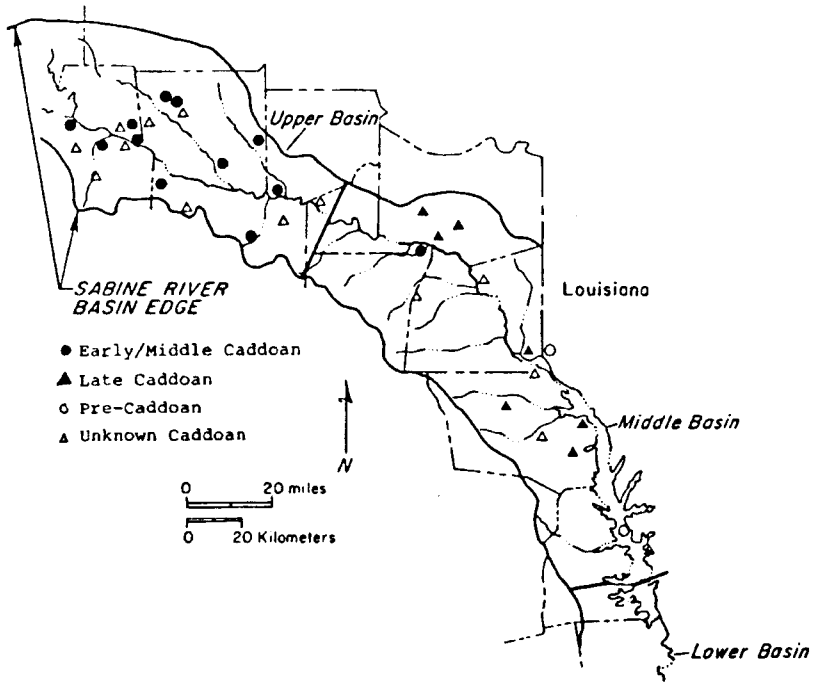


Figure 8. The distribution of Early/Middle and late Caddoan period mound sites.

specialized buildings such as charnel houses or temples, or to mantle subsurface features). The large and internally complex mound centers at the Jamestown, Boxed Springs, and Hudnall-Pirtle sites are considered the premier centers in the Sabine River Valley. They are Early to Middle Caddoan period mound centers with four to eight mounds each (Figure 8).

Possible contemporaneous Early to Middle Caddoan period mound centers that are considered subsidiary or secondary nodes in such a hypothetical hierarchical system are the Cox (41WD349) and Colony Church (41RA31) sites, and possibly the Lee Joyner (41VN) or Seaton Bros. (41RA38) sites (Figure 7). Subsidiary mound centers are identified as those sites containing multiple mounds which lack the complex internal arrangements and spacing of mounds and plaza noted for the premier or key mound centers. They also do not have the variety of mound types identified or postulated for the Jamestown, Boxed Springs, or Hudnall-Pirtle sites (Table 1).

Late Caddoan period mound sites are common in the Middle Sabine River Basin, particularly in southwest Harrison County and Shelby County, Texas (Figure 8). Mound types represented include possible substructural mounds, and a possible burial mound at the Brittain site (41SY42). Because they have multiple mounds, the Lafitte site (41SY15), and possibly Lane Mitchell (41HS4), may represent civic-ceremonial foci of the local Late Caddoan groups living in this area of the Sabine River Basin. The mounds are in the vicinity of numerous Late Caddoan period habitation sites along the Sabine River and eastward flowing tributaries. These Late Caddoan period settlements may be related to the Titus phase Cypress Cluster (cf. Thurmond 1985, 1990; Perttula 1992, 1993a), but the cultural-taxonomic systematics in this part of northeast Texas require considerable refinement and redefinition (Story 1990:167-168, Table 43).

No Late Caddoan period mound groups are known in the Upper Sabine River basin, although Perttula et al. (1986:57) suggest on the basis of limited ceramic evidence that the A.N. Vickery site (41WD11) may have been occupied during this period. The lack of mounds in this part of the basin does not mean that the area was unoccupied ca. A.D. 1400-1600. The regional density of Late Caddoan habitation sites was much more substantial in parts of the Lake Fork and Big Sandy Creek drainages within the basin than was that of the Early and Middle Caddoan period settlement (e.g., Bruseth and Perttula 1981; Perttula and Gilmore 1988; Perttula et al. 1986, 1993; Thurmond 1985, 1990).

Figure 9 presents a hypothetical picture of the extent and distribution of possible Early/Middle Caddoan and Late Caddoan period local networks of socially integrated groups in the Upper and Middle Sabine River basins. It is based on the identification of basin wide premier mound centers, which are assumed to be the nodes of local communities, and on the regular geographic spacing between the premier mound centers and other possible contemporaneous subsidiary mound sites (Figure 10 and 11). The pattern of mound spacing is consistent across at least the upper 120 km stretch of the Sabine River Valley, irrespective of the local geography, topography, or stream drainage patterns.

During the Early/Middle Caddoan periods, the premier centers within the valley are ca. 50 km apart, and the subsidiary centers are ca. 25 km from the premier centers. Based on these distances, and clusters of settlements, the local networks of contemporaneous Caddoan moundbuilding groups in the Sabine River Basin may be estimated to be on the order of between ca. 1000 to 2000 square km (Figure 9). The one likely Late Caddoan period local network of mounds and settlements which can be identified using available information covers ca. 1000 square km, with subsidiary mound sites within 15 to 30 km of the suspected key center, the Lafitte site (Figure 11).

Trends in mound construction and use in the Sabine River Basin are similar to those outlined by Thurmond (1990:234-235) for the Cypress Creek Basin (immediately to the north of the Sabine River Basin) of northeast Texas and northwest Louisiana. In the Cypress Creek Basin there is a general decrease through time in the size and complexity of mound centers, and only in the Red River floodplain area of northwest Louisiana could it be demonstrated that moundbuilding activities continued after ca. A.D. 1500-1600 (cf. Webb 1959).

In the period between ca. A.D. 800-1200 in the Cypress Creek Basin, mound groups were classified by Thurmond (1990:234) into large, multimound centers and small single mound components. Thurmond (1990:234) states that: "It seems quite possible that a hierarchical system of centers is represented, with each succeeding level serving a broader area, and the whole integrated into a regional network of interaction and redistribution."

Such a hierarchical system of mound centers is also postulated in the Sabine River Basin between ca. A.D. 800-1200 (or as late as A.D. 1400), with the Jamestown, Boxed Springs, and Hudnall-Pirtle sites representing the apex or top level of the hierarchical system. The regional network may have included groups in both the Upper and Middle Sabine River Basins, based on the spacing considerations discussed above (Figure 9), but was also integrated as well into a broader system of interaction and redistribution that probably extended throughout larger portions of northeast Texas and northwest Louisiana. It is interesting to note, therefore, that the spacing between the major Early Caddoan period mound centers of Crenshaw, Gahagan, and Mounds Plantation on the Red River in northwest Louisiana and southwest Arkansas is about 80 km (Webb and McKinney 1975:122), and that the Hudnall-Pirtle site, the premier Early Caddoan period mound center in the Sabine River Basin, is about the same distance from both Mounds Plantation and Gahagan.

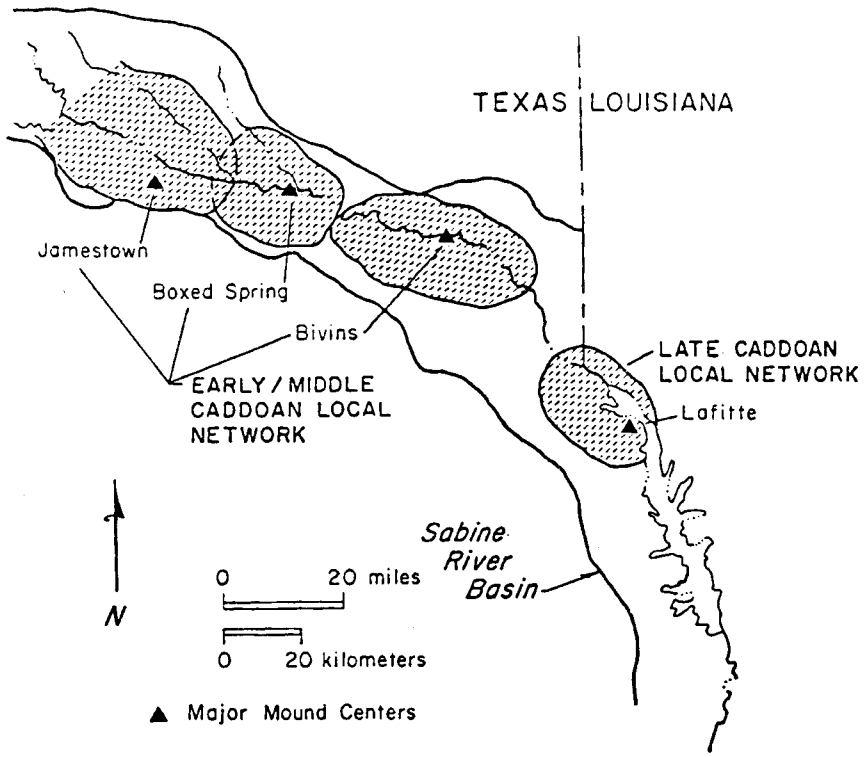


Figure 9. Possible Early/Middle and Late Caddoan period local networks in the Sabine River Basin based on the location of mound sites.

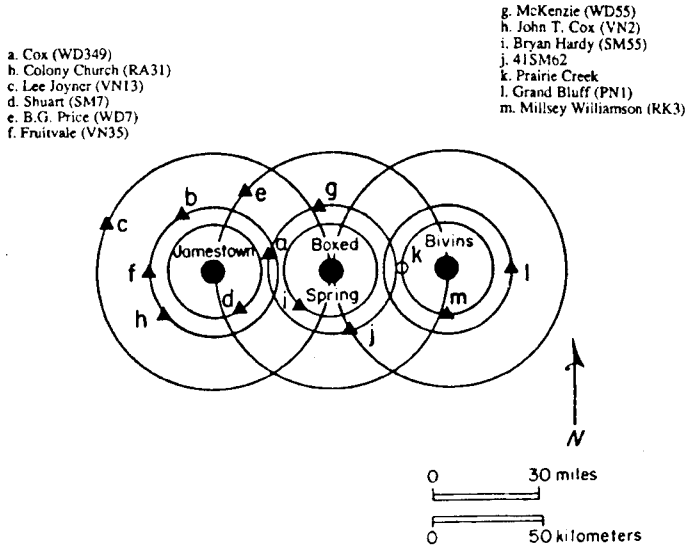


Figure 10. Caddoan mound site distributions in the Sabine River Basin compared to three potentially key central mound groups.

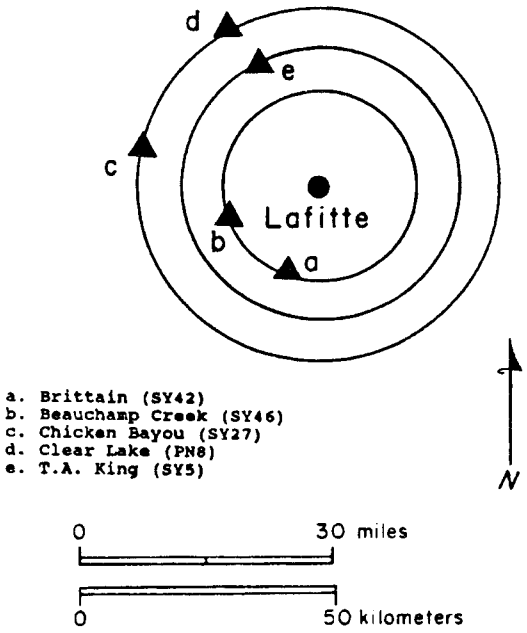


Figure 11. Possible Late Caddoan mound site distributions in the Middle Sabine River Basin compared to one poten tially key central mound group.

The term local network employed herein is analogous to the **affiliated group** defined by Story and Creel (1982:32, Figure 8) for the Neches River Late Caddoan period archaeological record. According to Story and Creel (1982), the affiliated group represents the archaeological concept of a number of **constituent groups** who shared a similar sociopolitical organization, had similar intergroup interaction and settlement patterns, and were integrated in a hierarchical structure by the temple-residence complex center. This center contained an earthen mound where the paramount leader of the affiliated group resided. The constituent group would consist of the lesser centers (without mounds), domiciles, cemeteries, farmsteads, hamlets, and villages that are sociopolitically unified into the affiliated group. With the exception that the subsidiary centers in the Sabine River Basin during the Early, Middle, and Late Caddoan periods have at least one earthen mound, they may be considered to be representative of a level of sociopolitical integration generally compatible with Story and Creel's (1982) model of a constituent group lesser center.

The patterned arrangement of mounds within a site, consistent means or methods of mound construction, the recurrent use of a restricted space for mound construction, and structure dismantling, as well as other ritualized activities in Caddoan mound centers, highlight the contextual importance of mound use in Caddoan culture (e.g., Sabo and Early 1988:99; Story 1990:339-342; Perttula 1992). One particularly intriguing aspect of the use and patterned arrangement of mounds in the Southeastern United States is the correlation of mounds with celestial orientations, and with a consistent unit of spacing referred to as the **Toltec module** (Sherrod and Rolingson 1987).

Some of the major Caddoan mound sites studied by Sherrod and Rolingson (1987:Table 16) exhibit celestial alignments, principally the winter and summer solstice sunrises. In the Sabine River Valley, the only multiple mound centers with fairly accurate maps of mound placement and spacing are the Jamestown and Hudnall-Pirtle sites. At the Jamestown site, both the summer solstice (the year's midpoint, and the time of the longest day) and winter solstice (beginning of the annual cycle or year, and the time of the longest night) alignments are apparent using the large Mound A as the primary point (Figure 12). There is also a stellar alignment with Vega, "one of the brightest stars seen from the northern hemisphere" (Sherrod and Rolingson 1987:29). The Toltec module standard of measure, 47.5 m, correlates well with the spacing of only three of the other six mounds at the Jamestown site (Figure 12). Using the flat-topped platform mound B as the primary point at the Hudnall-Pirtle site (Bruseth 1991:Figure 2), celestial, winter solstice and Vega alignments are also apparent amoung the eight mounds there. The spacing between several of the mounds (Mound F to G; Mound D to E; Mound C to E; Mound A to E; Mound A to B) is close to the Toltec module standard of measure.

Other evidence of a complex hierarchical structure beyond the number, size, plan, and complexity of mound centers is obtained by examining mortuary behavior in mound contexts (Thurmond 1990:235). The recovery of burials with elaborate funerary offerings and exotic goods as grave associations with paramount individuals, typically adult males, in mound contexts has been argued by Caddoan archaeologists to represent high-status burials and the existence of a ranked class structure (Brown 1971; Rogers 1982; Sabo and Early 1988). With the exception of the centrally located submound burial pit from one mound at the Boxed Springs site (Perttula 1989a:78-80; Story 1990), which because of its position and burial accompaniments has been interpreted to be a high status burial, it is not possible at present to conclusively demonstrate either that the premier centers in the Sabine River Basin all contain evidence of high status burials, or that the sociopolitical interpretations embedded in the hierarchical classification of mounds are realistic. Attempts to demonstrate that the temporal, spatial, and functional differences between mound centers within the Sabine River Basin are the result of sociopolitical distinctions will require a more comprehensive investigation of these mound sites before these proposed archaeological units can be fully related to regionally and locally meaningful cultural variability (e.g., Johnson 1987).

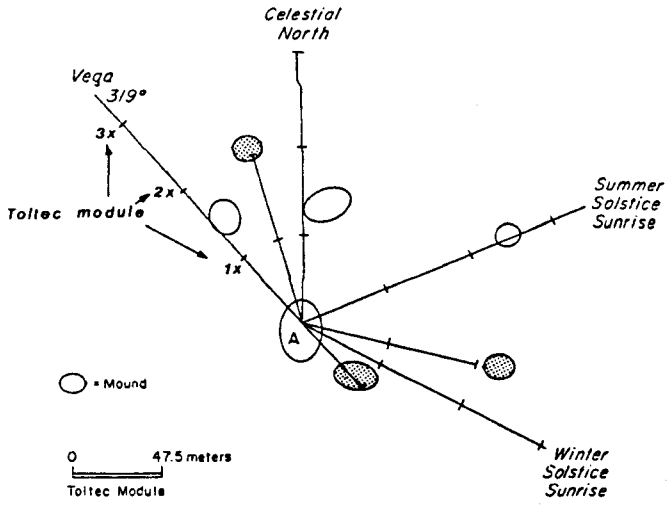


Figure 12. Celestial and stellar alignments and the Toltec Module standard of measure at the Jamestown site (41SM54).

CONCLUSIONS

A substantial body of information exists about prehistoric mound sites in the Sabine River Valley of northeast Texas and northwest Louisiana. Previous sections of this paper summarized the more significant aspects of patterning in the mound sites from the valley, including Caddoan period intraregional spatial distributions, social and temporal considerations, and celestial and stellar alignments. Three key multiple mound centers are identified for the Early/Middle Caddoan period occupation of the basin, namely Jamestown (41SM54), Boxed Springs (41UR30), and Hudnall-Pirtle (41RK4), while the Lafitte site (41SY15) is provisionally identified as the key local Late Caddoan period mound center.

It is important to reiterate that the majority of the mound sites known and/or investigated in the Sabine River Valley appear to be generally intact. Although it is the case that these Caddoan mound sites have been cleared and plowed over the last 100 years or so, and have been the scene of occasional vandalism and looting activities, they have not as a group been subjected to the intensive and systematic disturbances caused by looting on Caddoan cemetery sites that contain certain artifacts which garner a high price on the antiquities market in Texas, Arkansas, and other states (e.g., Early 1989; Perttula 1989b). The reasons why Caddoan mound sites are not extensively disturbed have not been thoroughly studied, but one primary reason may be the pothunter's perception that these mound sites generally do not contain the types of easily worked archaeological deposits common at aboriginal cemeteries, nor do they necessarily contain the number and variety of contexts from which high priced, lootable goods can be quickly obtained.

Because Caddoan mound sites as a group appear to retain a measure of integrity not typically held by other types of Caddoan sites in northeast Texas and northwest Louisiana, it is critical that measures be implemented by state and federal agencies, the professional archaeological community, avocational archaeologists, and interested landowners, to insure the preservation and protection of as many of these important sites as possible. A site protection and preservation plan for Caddoan mounds in the Sabine River Valley, and indeed for all of northeast Texas and northwest Louisiana, should develop goals and policies to help determine which are the mound sites most vulnerable to destruction, and which are the sites of most importance for immediate, short-term, and long-term protection.

The Jamestown (41SM54) and Boxed Springs (41UR30) sites, two of the three premier Caddoan mound centers in the Sabine River Valley of northeast Texas, need top priority actions to insure that they will be protected and preserved, if at all feasible. The other premier mound center, Hudnall Pirtle (41RK4), is owned by The Archaeological Conservancy.

Hand in hand with the development of a protection and preservation plan should be the development of an active research program at these Caddoan mound sites (cf. Story 1991; Perttula 1993a). The research program should consist of excavations at a sample of the different types of Caddoan mound sites in the Sabine River Valley as a means to assess their internal character and integrity, and also to examine the temporal, functional, and cultural context of the mounds, middens, borrow pits, and other types of features preserved in the archaeological record.

It is also important that these research efforts include the development of contemporary maps depicting the current condition of the properties, and these maps should be bolstered with the analysis of previous and recent aerial photographs of the sites. The research efforts need to be of sufficient scale that radiocarbon or thermoluminescence dates from interpretable mound or nonmound, fill zone, or sealed contexts be obtained from as many Caddoan mound sites as possible.

Known collections of cultural materials from Caddoan mound sites in the Sabine River Valley need to be thoroughly reanalyzed, photographed, and described so that this updated information becomes a useful aspect of the data base for the study of Caddoan archaeology in northeast Texas and northwest Louisiana. Along with the research efforts proposed for the Caddoan mound sites themselves, it is important to initiate intensive survey investigations in the areas immediately proximal to the mound sites to identify the contemporaneous Caddoan villages, hamlets, and farmsteads of those groups who constructed and used the mound sites for civic and ceremonial purposes. The intensity and scope of such a survey should be addressed as an aspect of the protection and preservation plan which may need to be developed for specific Caddoan mound sites in the region.

ACKNOWLEDGMENTS

The work reported herein was funded by the Texas Historical Commission pursuant to a Historic Preservation Fund grant made by the U.S. Department of the Interior, National Park Service, to the Institute of Applied Sciences, University of North Texas; the author was Principal Investigator for the project.

Randy Nathan, Steve Gaither, Robert Cast, and Bob Skiles assisted the project through records searches, artifact analyses, surveying, and report preparation. Bonnie Yates contributed to the report editing, and was a great help in many other ways, as were Wanda Cast, Pam Carmichael, and Gerald Blow of the Institute of Applied Science's support staff.

I thank Mr. Sam Whiteside (now deceased) and Mr. Forrest Murphey for their willingness to discuss their work in the Sabine River Valley. I also appreciate the help interested landowners, amateur archaeologists, and others provided in the study.

The Texas Archeological Research Laboratory, particularly Carolyn Spock, and the Louisiana Division of Archaeology, especially Dr. Katherine Byrd and Philip G. Rivet, were most gracious in supplying copies of site forms and other inaccessible records on Sabine River mound sites for the project. Jeff Girard provided me with copies of Louisiana Management Unit 1 annual reports. John Ippolito provided useful background information on mound sites in the Sabine National Forest. Finally, Dr. James E. Bruseth and Ms. Nancy Kenmotsu of the Texas Historical Commission administered the project, and provided direction from its inception to completion.

REFERENCES CITED

Brown, J.A.

1971 The Dimensions of Status in the Burials at Spiro. In ***Approaches to the Social Dimensions of Mortuary Practices***, edited by J.A. Brown, pp. 92-112. Memoirs No. 2. Society for American Archaeology, Washington, D.C.

Bruseth, J.E.

1991 Hudnall-Pirtle: An Early Caddoan Mound Complex in Northeast Texas. ***Caddoan Archeology Newsletter*** 2(3):9-15. Austin.

Bruseth, J.E. and T.K. Perttula

1981 ***Prehistoric Settlement Patterns at Lake Fork Reservoir.*** Texas Antiquities Permit Series Report No. 2. Southern Methodist University, Dallas, and Texas Antiquities Committee, Austin.

Davis, H.A., D.G. Wyckoff, and M.A. Holmes (editors)

1971 ***Proceedings of the Seventh Caddo Conference.*** Occasional Publications No. 1. Oklahoma Archeological Survey, University of Oklahoma, Norman.

Early, A.M.

1989 Profiteers and Public Archaeology: Antiquities Trafficking in Arkansas. In ***The Ethics of Collecting Cultural Property: Whose Culture? Whose Property?***, edited by P.M. Messenger, pp. 39-50. University of New Mexico Press, Albuquerque.

Gibson, J.L.

1978 ***An Archaeological Reconnaissance of the Lower Sabine River Valley, Toledo Bend Dam to Gulf Intracoastal Waterway, Louisiana and Texas.*** Report No. 4. University of Southwestern Louisiana, Center for Archaeological Studies. Lafayette.

Girard, J.

1991 Northwest Regional Archaeologist Studies Toledo Bend Area. ***Archaeology News*** 8(1):2-3. State of Louisiana, Division of Archaeology, Office of Cultural Development, Department of Culture, Recreation and Tourism. Baton Rouge.

1992 ***Regional Archaeology Program Management Unit 1: Third Annual Report.*** Northwestern Louisiana State University, Natchitoches.

1993 ***Regional Archaeology Program Management Unit 1: Fourth Annual Report.*** Northwestern Louisiana State University, Natchitoches.

Guy, J.A.

1990 Previous Archeological Investigations. In ***The Archeology and Bioarcheology of the Gulf Coastal Plain***, by D.A. Story et al., pp. 27-130. Research Series No. 38. Arkansas Archeological Survey, Fayetteville.

Ippolito, J.

1988 Personal communication with the author, October 25, 1988.

Jensen, H.P.

1968a Archeological Investigations in the Toledo Bend Reservoir 1966-1967. Southern Methodist University. Submitted to the National Park Service, Contract No. 14-10-3:930-1.

1968b Coral Snake Mound, X16SA48. ***Bulletin of the Texas Archeological Society*** 39:9-44.

Johnson, L., Jr.

1987 A Plague of Phases: Recent Sociocultural Taxonomy in Texas Archeology. ***Bulletin of the Texas Archeological Society*** 57:1-26.

Kay, M., G. Sabo III, and R. Merletti

1989 Late Prehistoric Settlement Patterning: A View from Three Caddoan Civic-Ceremonial Centers in Northwest Arkansas. In ***Contributions to Spiro Archeology: Mound Excavations and Regional Perspectives***, edited by J.D. Rogers, D.G. Wyckoff, and D.A. Peterson, pp. 129-157. Studies in Oklahoma's Past No. 16. Oklahoma Archeological Survey, Norman.

Kenmotsu, N. and T.K. Perttula (editors)

1993 ***Archeology in the Eastern Planning Region, Texas: A Planning Document.*** Cultural Resource Management Report 3. Texas Historical Commission, Department of Antiquities Protection, Austin.

Kier, R.S., L.E. Garner, and L.F. Brown

1977 ***Land Resources of Texas: A Map of Texas Lands Classified According to Natural Suitability and Use Considerations.*** Land Resources Laboratory Series. Bureau of Economic Geology, The University of Texas at Austin.

Malone, J.

1972 ***Archeological Reconnaissance at Proposed Mineola Reservoir.*** Archaeological Survey Report 10. Texas Historical Survey Committee and Texas Water Development Board, Austin.

McClurkan, B.B., W.T. Field, and J.N. Woodall

1966 ***Excavations in Toledo Bend Reservoir, 1964-1965.*** Papers of the Texas Archeological Salvage Project, No. 8. Texas Archeological Salvage Project, University of Texas at Austin.

McClurkan, B.B., E.B. Jelks, and H.P. Jensen

1980 Jonas Short and Coral Snake Mounds: A Comparison. ***Louisiana Archaeology*** 6:173-206.

Pearce, J.T.

1920 Early Work in East Texas. Ms. on file, Texas Archeological Research Laboratory, Austin.

Perttula, T.K.

1989a ***A Study of Mound Sites in the Sabine River Basin, Northeast Texas and Northwest Louisiana.*** Institute of Applied Sciences, University of North Texas, Denton. Submitted to the Texas Historical Commission, Denton.

1989b ***The Looting and Vandalism of Archaeological Sites in East Texas: A Status Report.*** Office of the State Archeologist and Department of Archeological Planning & Review, Texas Historical Commission, Austin.

1992 ***"The Caddo Nation": Archaeological and Ethnohistoric Perspectives.*** University of Texas Press, Austin.

1993a The Development of Agriculture in Northeast Texas before A.D. 1600. In ***Archeology in the Eastern Planning Region, Texas: A Planning Document,*** edited by N.A. Kenmotsu and T.K. Perttula, pp. 121-146. Cultural Resource Management Report 3. Texas Historical Commission, Department of Antiquities Protection, Austin.

1993b Mound Sites in Northeast Texas and Northwest Louisiana. In ***Archeology in the Eastern Planning Region, Texas: A Planning Document,*** edited by N.A. Kenmotsu and T.K. Perttula, pp. 251-252. Cultural Resource Management Report 3. Texas Historical Commission, Department of Antiquities Protection, Austin.

Perttula, T.K. and K.K. Gilmore

1988 ***Archaeological Survey along Mill Race Creek and Tributaries, Wood County, Texas: 1987-1988.*** Contributions in Archaeology No. 6. Institute of Applied Sciences, University of North Texas, Denton.

Perttula, T.K. and B.D. Skiles

1987 ***Cultural Resources Survey of the Darco Mine Permit Extension Area, Harrison County, Texas.*** Reports of Investigations, No. 58. Prewitt & Associates, Inc. Austin.

Perttula, T.K., B.D. Skiles, and B.C. Yates

1993 Excavations at the Goldsmith Site (41WD208): Investigations of the Titus Phase in the Upper Sabine River Basin, Wood County, Texas. ***Bulletin of the Texas Archeological Society*** 61:139-191.

Perttula, T.K., B.D. Skiles, M.B. Collins, M.C. Trachte, and F. Valdez, Jr.

1986 ***"This Everlasting Sand Bed": Cultural Resources Investigations at the Texas Big Sandy Project, Wood and Upshur Counties, Texas.*** Reports of Investigations, No. 52. Prewitt & Associates, Inc., Austin.

Rawick, G.P. (editor)

1979 ***The American Slave: A Composite Autobiography.*** Series 2 Supplement. Greenwood Press, Westport.

Rogers, J.D.

1982 ***Spiro Archeology: 1980 Research.*** Studies in Oklahoma's Past No. 9. Oklahoma Archeological Survey, Norman.

1983 Social Ranking and Change in the Harlan and Spiro Phases of Eastern Oklahoma. In ***Southeastern Natives and Their Pasts,*** edited by D.G. Wyckoff and J.L. Hofman, pp. 17-128. Studies in Oklahoma's Past No. 11. Oklahoma Archeological Survey, Norman.

1989 Settlement Context for Shifting Authority in the Arkansas Basin. In ***Contributions to Spiro Archeology: Mound Excavations and Regional Perspectives,*** edited by J.D. Rogers, D.G. Wyckoff, and D.A. Peterson, pp. 159-176. Studies in Oklahoma's Past No. 16. Oklahoma Archeological Survey, Norman.

Sabo III, G. and A.M. Early

1988 Prehistoric Culture History. In ***Human Adaptation in the Ozark-Ouachita Mountains,*** by G. Sabo III, A.M. Early, J.C. Rose, B.A. Burnett, L. Vogele, Jr., and J.P. Harcourt, pp. 34-120. Research Series No. 31. Arkansas Archeological Survey, Fayetteville.

Scurlock, J.D.

1964 Archeological Reconnaissance at Toledo Bend Reservoir, 1962-1963 Season. Texas Archeological Salvage Project, University of Texas at Austin. Submitted to the National Park Service, Contract 14-10-0333-956.

Sherrod, P.C. and M.A. Rolingson

1987 ***Surveyors of the Ancient Mississippi Valley: Modules and Alignments in Prehistoric Mound Sites.*** Research Series, No. 28. Arkansas Archeological Survey, Fayetteville.

Skiles, B.D. and T.K. Perttula

1989 1978 Archeological Investigations at the B.G. Price (41WD7) and J.O. McCreight (41WD9) Mounds, Wood County, Texas. In ***A Study of Mound Sites in the Sabine River Basin, Northeast Texas and Northwest Louisiana,*** by T.K. Perttula, pp. 93-98. Institute of Applied Sciences, University of North Texas, Denton. Submitted to the Texas Historical Commission, Austin.

Story, D.A.

1990 Cultural History of the Native Americans. In ***The Archeology and Bioarcheology of the Gulf Coastal Plain,*** by D.A. Story, J.A. Guy, B.A. Burnett, M.D. Freeman, J.C. Rose, D.G. Steele, B.W. Olive, and K.J. Reinhard, pp. 163-366. Research Series, No. 38. Arkansas Archeological Survey, Fayetteville.

1991 Some Comments on the Status of Caddoan Archeology. ***APR News & Views*** 3(2):17-18. Texas Historical Commission, Department of Archeological Planning and Review, Austin.

Story, D.A. and D.G. Creel

1982 The Cultural Setting. In ***The Deshazo Site, Nacogdoches County, Texas, Volume I: The Site, Its Setting, Investigation, Cultural Features, Artifacts of Non-Native Manufacture, and Subsistence Remains,*** edited by D.A. Story, pp. 20-34. Texas Antiquities Permit

Series, No. 7. Texas Antiquities Committee, Austin.

Thurmond, J.P.

1985 Late Caddoan Social Group Identifications and Sociopolitical Organization in the Upper Cypress Basin and its Vicinity, Northeastern Texas. ***Bulletin of the Texas Archeological Society*** 54:185-200.

1990 ***Archeology of the Cypress Basin, Northeast Texas and Northwest Louisiana.*** Studies in Archeology 5. Texas Archeological Research Laboratory, The University of Texas, Austin.

Webb, C.H.

1959 ***The Belcher Mound, a Stratified Caddoan Site in Caddo Parish, Louisiana.*** Memoirs No. 16. Society for American Archaeology, Washington, D.C.

Webb, C.H. and R.R. McKinney

1975 Mounds Plantation (16CD12), Caddo Parish, Louisiana. ***Louisiana Archaeology*** 2:39-127.

Webb, C.H., F. Murphey, W.G. Ellis, and H.R. Green

1969 The Resch Site, 41HS16, Harrison County, Texas. ***Bulletin of the Texas Archeological Society*** 40:3-106.

Wilson, A.M. and A.T. Jackson

1930 Reconnaissance in Wood County, Texas, August 10 to 24, 1930. Field notes on file, Texas Archeological Research Laboratory, Austin.

Woldert, W.A.

1932 East Texas (four volumes). Ms. on file. Tyler Public Library, Tyler, Texas.

BOOK REVIEWS

Bittersweet Earth, edited by Ellen Gray Massey. Norman: The University of Oklahoma Press. 405 pages, illustrated, indexed.

This is Massey's second edited book containing material published in "Bittersweet" magazine, a high school journalism project similar to the well-known "Foxfire" journal and books from the southern Appalachians. Produced in Lebanon, Missouri, "Bittersweet" shares the "Foxfire" theme of chronicaling rural life as recalled by the young writers' grandparents and their contemporaries.

Massey chose articles written between 1973 and 1980 that deal with Ozark material culture, customs, and stories. She organized the works to emphasize human interaction with the earth, using three sections: The Earth, The People, and The Living. About one-fifth of the book (The People) is quoted from informants; the rest was written by the students with short quotes from interviews. The book is indexed by topics (e.g., apple butter, ice houses), geographic location (such as Bat Cave, Powder Mill Ferry), and by names of people interviewed. Informants are also listed at the end of the book, with references to the dates of interviews. The student authors' names appear in a list, so it is assumed that each article was produced by several authors.

The dominant topic is water, with almost 40% of the pages devoted to this abundant and vital Ozark resource. Streams were both transportation tools (c.f. articles on float trips, steamboating, and rafting railroad ties) and obstacles to be overcome (articles on ferries, low water crossings, and footbridges). Human use of springs and underground water is documented in chapters on springhouse and well construction and "water witching". Cistern construction is also described.

Ozark caves are another prominent natural resource. Several chapters recount the students' own "cave crawling" experiences as well as their neighbors' reminiscences.

A large part of "The Living" section describes wild plant foods and herbal medicines (complete with recipes) as well as three specialized food production techniques: making sorghum molasses, apple cides, and apple butter. Although some excellent photographs are included, most plant descriptions and drawings aren't detailed enough for field identification. This makes the chapters interesting, but not useful unless the reader already knows the plants. In contrast, each food production article offers complete, concise instructions with good illustrations of tools and specialized equipment.

This contrast between very general and very specific information is common in the book; it is not a failing by the editor and authors, but a natural result of compiling a book from magazine articles meant to stand on their own. The amount of author participation in an activity (for example, three years of sorghum molasses making from planting seeds to pouring finished syrup into jugs)

is reflected in the comprehensiveness of some articles. Informant reviews on "life in the old days" are, by their nature, less organized, but nonetheless entertaining.

As an archeologist, I found descriptions of historic features (ferries, cisterns, wells, springhouses, etc.) to be the most useful aspect of the book, especially as most are illustrated with photos and line drawings. Prehistoric and historic Native Americans are mentioned in only a few places, with some general information on Bluff Dwellers and the Osage in the section on caves.

Bittersweet Earth is a good book for browsing. Anyone who lives in or around the Ozarks would probably enjoy it, as well as other readers who appreciate the "Foxfire" style: a blend of useful historical information and stories of our grandparents' times.

Reviewed by Francie Sisson, Anadarko, Oklahoma

The Caddo Nation: Archaeological and Ethnohistoric Perspectives. Timothy K. Perttula. University of Texas Press, Austin. Cloth ($37.50).

Timothy K. Perttula offers us in *The Caddo Nation* his summation of where we stand in the anthropological study of Caddoan native peoples as they were encountered by early Europeans. Perttula seeks to gain some understanding of "the character of the contact and acculturative process between" these Caddoans and their French and Spanish contemporaries (p. 225). To accomplish this, he draws on archaeological and ethnohistorical data presented in seven chapters, one appendix, endnotes, 53 pages of citations, and a 16-page index.

Following a brief introduction (Chapter 1), Perttula sets up the cultural contexts which structured the earliest 16th-century encounters and later relations between natives and the governments of European traders, the Republic of Texas, and the United States. His Chapter 2 discussion is an effective reminder of the significant historical placement of Caddoan societies on the borders of both native and non-native cultures. In Chapter 3, an overview of the methodological and taxonomic issues behind Caddoan archaeology is presented. This is a useful chapter albeit one which fits somewhat uncomfortably in the book. Certainly there are critical problems exposed in this chapter that assist the reader in evaluating later conclusions. The most important of these is the manner in which Caddoan culture change or stability has been characterized (pp. 68-71) and the possibility of "unparalleled" population decline before 1690. However, there are also distracting enumerated hypotheses, problem statements, and research tangents (pp. 73-84) which Perttula has no intention of addressing in this book.

Chapters 4 and 5 return to the theme of the book by examining specific Caddoan regional complexes dating from A.D. 1520 to 1800. These two chapters are the real meat of the book and include considerations of archaeological typology, chronology, population movements, ethnicity, polity, and society. Chapter 5 delves more into the relationship between European and Caddoan communities -- notably small farmsteads and *rancherias* that lasted into later time periods as Caddoan ethnicity and sociopolitical organization were transformed. Chapter 6 continues in the same vein, now using archaeological and ethnohistorical data to more closely monitor certain changes in Caddoan societies. Mortuary patterns are said to show the lack of hierarchical social relations. Assemblages of Euroamerican artifacts and documents on the trading of horses, guns, furs, and beads are said to indicate when and which Caddoan groups or short-term Caddoan confederacies had greater access to the changing tides of trade.

Chapter 7 offers conclusions, the broadest and most significant of which is that changes and continuities in Caddoan societies lack uniformity, emphasizing the importance of comprehending localized demographic, political, and social factors in a broader culture history of the Caddoan Area. There is discussion of future research possibilities in bioanthropology, the fur trade, and the need for more broad-based and fine-grained archaeological studies and concern for interests of the present-day Caddoan community. Otherwise, *The Caddo Nation*'s conclusions are rather empty and inductive, emphasizing the need for more information.

Overall, however, the book does accomplish its synthetic goals (similar to H. Gergory's 1973 dissertation) and will be an integral reference for both scholar and interested laypersona like, native and non-native. This is both good and bad -- good because it provides a hand and thorough reference for Caddoan archaeologists and ethnohistorians, bad because the synthesis lacks a central research question which might have given it utility outside of Caddoan archaeology or ethnohistory. Of course, *The Caddo Nation* was not intended to be such a focused work (p. 225) nor was this book intended to draw parallels between the living Caddoan community and that of the archaeological or ethnohistorical past, although limited discussion of the present-day Caddo could have been a useful addition to this synthesis. In any case, Perttula's historical emphasis is commendable as is his encyclopedic coverage. It synthesizes well the extant data base and, as Perttula hopes, it should serve as a useful starting point for future researchers with more focused research problems.

Reviewed by Timothy R. Pauketat, University of Oklahoma

Prehistory of the Americas. By Stuart J. Fiedel, 1992. Second edition, Cambridge University Press, Cambridge. xx+400 pp.

It is a daunting task to try to summarize the prehistory of the New World in a single volume. New and significant findings, the development of new laboratory and analytical techniques (such as accelerator mass spectrometry radiocarbon dating), and the continued accumulation of much of the reported findings in generally inaccessible publications and technical documents, all contribute to

the difficulty of staying abreast with current archeological knowledge in the Americas.

Fiedel does an admirable job of covering the highlights in chapters painted in broad strokes: the Paleoindian migrations to the New World, the Archaic foragers, the origins of agriculture and village life as seen mainly through Mexican, Ecuadoran, Peruvian, Amazonian, and Southwestern archeological evidence, and some of the pertinent North American archeological data in a chapter on "chiefdoms and states: the emergence of complex societies". To Fiedel, chiefdoms in eastern North America begin with Adena sites in the Ohio River valley and end with Mississippian groups who lived in the southeastern U.S. He ends the book with a rather overdrawn discussion of "parallel worlds"; that is, on the roles diffusion and cultural evolution played in the Americas in the development of the incredible variety (but similarity as well) of Native American societies throughout the prehistoric era.

To this reviewer, the discussion of transoceanic diffusion theories, and the diffusion of cultural traits within the Americas, detract from the rest of the text, although in searching for origins and introductions presumably this is what the book's introduction means by stating that this is "a balanced theoretical stance". Fiedel does acknowledge that cultural evolutionary processes were important in the Americas (as they were in the Old World), but this is apparently to try to answer why there are cultural similarities between the Old and New Worlds. Fiedel's concern with identifying "cultural trajectories" (i.e., the changes from hunter-gatherers to chiefdoms and states) is an attempt to order and chart changes in Native American cultures in time and space that in the end contributes few new conclusions or preceptions about American prehistory.

There is little in the book that pertains to Caddoan archeology, or to the broader archeological record of the Caddoan area. The Spiro site is mentioned in Fiedel's discussion of "The Southern Cult", along with illustrations of a stone effigy pipe and a polished stone mace from the site. These items are thought to illustrate the warlike and divine-like character of Mississippian chiefdoms, which based on current thinking may or may not be an accurate characterization for either Spiro or many of the Mississippian polities in the southeastern U.S. (e.g., Barker and Pauketat 1992; Schambach 1993).

Of course, this omission by Fiedel of any mention of Caddoan archeology is not entirely of his own making. There are painfully few current and accessible published books or articles in major journals on Caddoan archeology, and given trends in cultural resource managmeent investigations in the area it is unlikely that there will be many such publications in the foreseeable future. This is a critical deficiency that Caddoan archeologists should work hard to rectify. When such publications are referenced and used in books comparable to *Prehistory of the Americas* in its goals, then it will be fair to conclude that at least something of the significance of Caddoan archeology, and the many accomplishments of the Caddoan peoples, will have been communicated to the interested public.

REFERENCES CITED

Barker, Alex W., and Timothy R. Pauketat (editors)

1992 ***Lord of the Southeast: Social Inequality and the Native Elites of Southeastern North America.*** Archeological Papers of the American Anthropological Association Number 3. American Anthropological Association, Washington, D.C.

Schambach, Frank F.

1993 Some New Interpretations of Spiroan Culture History. In ***Archaeology of Eastern North America: Papers in Honor of Stephen Williams,*** edited by James B. Stoltman, pp. 187-230. Archaeological Report No. 25. Mississippi Department of Archives and History, Jackson.

Reviewed by Timothy K. Perttula, Texas Historical Commission