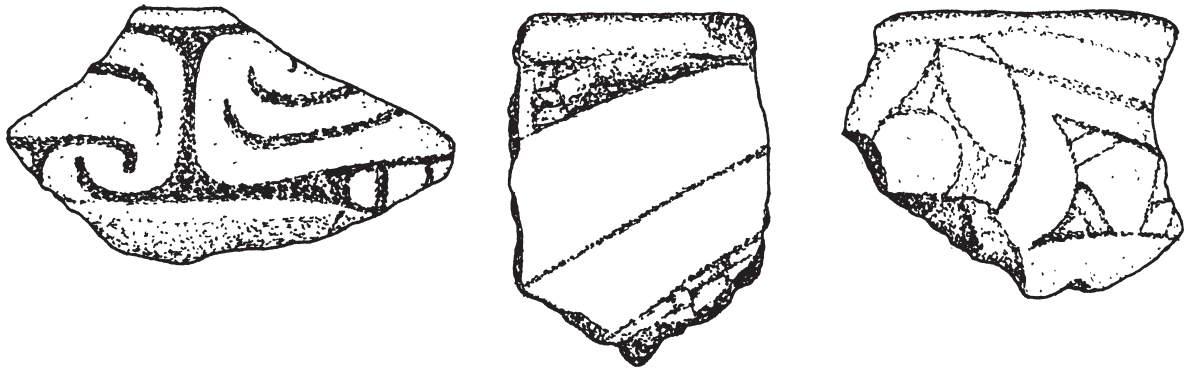
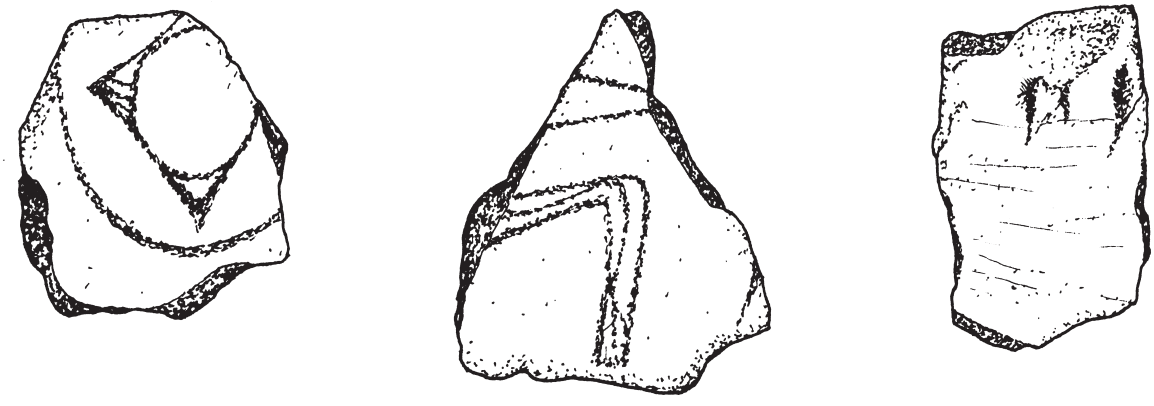
Caddoan Archeology Journal





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Foreword

We are actively looking for manuscripts, book reviews, current research items, etc. that concern Caddoan archeology, ethnohistory, and history, and we hope that the *Caddoan Archeology* subscribers and readers will be willing to contribute to future issues of the journal. The continued success of the journal depends directly on the active support and research contributions of all of those people interested in Caddoan archeology and native history, and we would like to have contributions from archeologists working in eastern Oklahoma, northwestern Louisiana, and southwestern Arkansas, as well as those conducting research in northeastern Texas.

We are concerned about the difficulty we have had in obtaining manuscripts for publication in future issues of *Caddoan Archeology*, and we know that this is not a reflection of the fact that there are no archeological research projects currently being done in the Caddoan Area. Rather, it is our impression that many Caddoan archeologists are not willing, or do not have the time, to prepare manuscripts for publication in the journal. Since *Caddoan Archeology* is the only journal exclusively devoted to the archeology and history of the Caddo peoples, and if future manuscripts and papers are not submitted to the journal, we doubt that the journal will remain a viable publication outlet past 2003 and Volume 13. We also are contemplating publishing the journal next year only in an electronic version on the *caddoarchaeology.com* website, and we would like to hear pros and cons from the subscribers and readers about this potential publishing decision.

Please feel free to contact the editor and associate editors at any time with possible materials for publication, or with any suggestions to make the journal more useful to our readership.

Timothy K. Perttula, Editor

Chet Walker, Associate Editor

T. Clay Schultz, Associate Editor

Call for Papers

45th Annual Caddo Conference

February 21-22, 2003
Henderson State University • Arkadelphia, Arkansas

The Caddo Conference returns to Arkansas in the spring of 2003. Papers and symposia are invited that relate to the archeology, history, and culture of the Caddo Indians and the area of the Caddo homelands in Arkansas, Louisiana, Texas, and Oklahoma. As 2003 marks the bicentennial of the Louisiana Purchase, research and discussion on the antecedents and consequences of this event is especially encouraged.

For additional information, please contact:

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Mark Walters Receives Historic Texas Lands Award for Donation of Prehistoric Caddo Site to the Archaeological Conservancy

Mark Walters resides in Smith County, Texas, with his wife Sandra. Having retired as a nurseryman, Mark now devotes his time to grandkids, timber management, and archeology. His main interest is Caddo archeology, which stemmed from his teenage experiences with his late uncle Sam Whiteside. Mr. Whiteside's efforts in the 1950s and 1960s resulted in the discovery of several important Caddo sites in the East Texas area, among them the Redwine site (41SM193). His late father, J. A. Walters, also amassed a large collection that Mark has been documenting.

He is currently Region 4 Director of the Texas Archeological Society, a long-time member of the Texas Archeological Stewards Network, and East Texas Archeological Society board member, past President, and liaison for the Lake Naconiche Project in Nacogdoches County, Texas. He works part-time for Archeological & Environmental Consultants, LLC, on projects in his area of East Texas. He also is a member of the Arkansas Archeological Society, the Louisiana Archeological Society, and the Society for American Archaeology.

His volunteer work has resulted in Certificates of Appreciation from the Texas Historical Commission, the Ouachita National Forest, and the Arkansas Archeological Society. Mark has also donated four summer's work to do archeology with the Centro Mallqui in Ilo, Peru.

On August 27, 2002, he received the Historic Texas Lands plaque from the Texas Historical Commission for the donation of the Redwine site (41SM193), a Texas State Archeological Landmark, to The Archaeological Conservancy. The purpose of the plaque was to recognize landowners who in this case "granted, through donation, a permanent conservation easement to a nonprofit land trust and/or completed the State Archeological Landmark designation process."

Check out *www.caddoarchaeology.com* for a photo of Mark and Sandra with the Historic Texas Lands Award plaque.

Titus Phase Archeology at the S. Stockade Site (41TT865) on Tankersley Creek, Titus County, Texas

Timothy K. Perttula, Bo Nelson, and LeeAnna Schniebs

The S. Stockade site was discovered on a small rise (330 feet amsl) in the Tankersley Creek floodplain (Figure 1) during a recent archeological survey for the Texas Department of Transportation (Perttula et al. 2002). Tankersley Creek is a southward-flowing tributary to Big Cypress Creek, and enters that creek's floodplain a few miles below the Lake Bob Sandlin dam. There is a dense concentration of prehistoric archeological sites throughout the Tankersley Creek valley, particularly post-A.D. 800 Caddo Indian sites. This paper discusses the archeology of the S. Stockade site, a Late Caddoan Titus phase settlement.

The rise at the S. Stockade site is grass-covered (with a surface visibility of less than 10%) (Figure 2a), except along the eroded slopes, where the clay B-horizon subsoil is exposed. The old creek channel immediately to the west of the rise has recently been channelized (Figure 2b), and between the rise and the channelized creek are several low-lying marshy areas with standing water.

Five backhoe trenches excavated on the floodplain rise (BHT 10, 12, 14, 15, and 17) contained prehistoric artifacts, principally Late Caddoan ceramic sherds. Two of these trenches were on the rise, and the three others were a short distance to the south and east of the rise (see Figure 1). Well-preserved black midden deposits were identified in both backhoe trenches on the rise (Figure 3), and in nearby BHT 17.

In BHT 10 and Unit 349, a 50 x 50 cm unit screened in 10 cm levels to recover prehistoric artifacts in a controlled context, the midden deposits (Zone 2) began at the surface or were only shallowly buried by a very dark gray sandy loam Zone 1 (Figure 4). The midden is approximately 50-54 cm

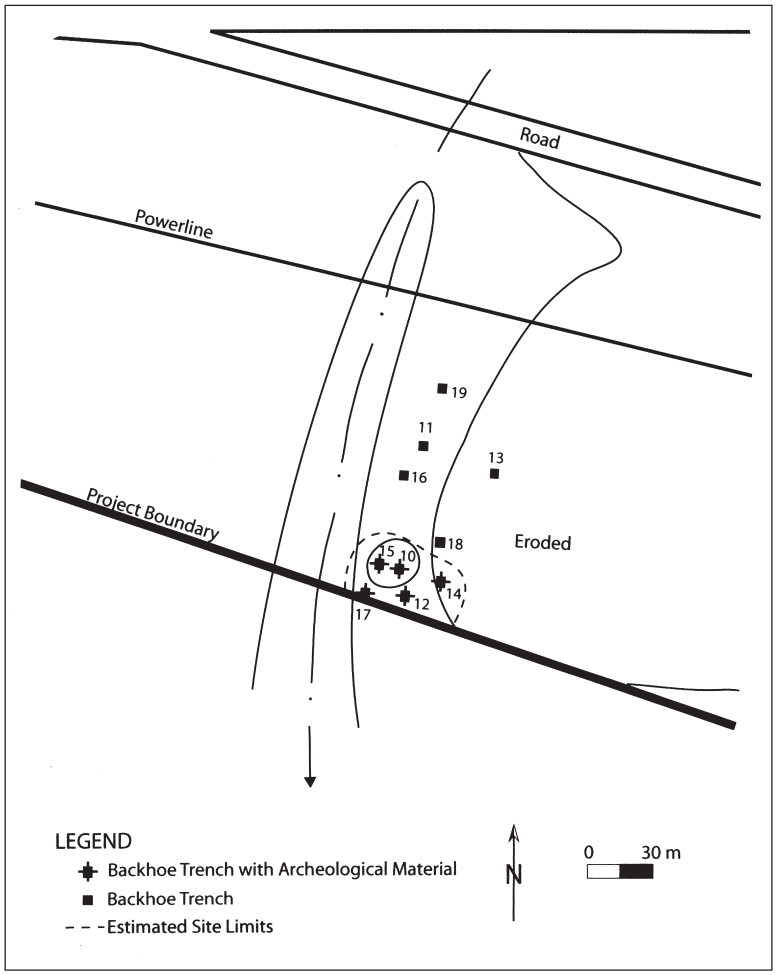

Figure 1. Map of the S. Stockade site (41TT865).

A

B

Figure 2a. Looking west at backhoe trenching at the S. Stockade site; b, stream channelization, looking south.

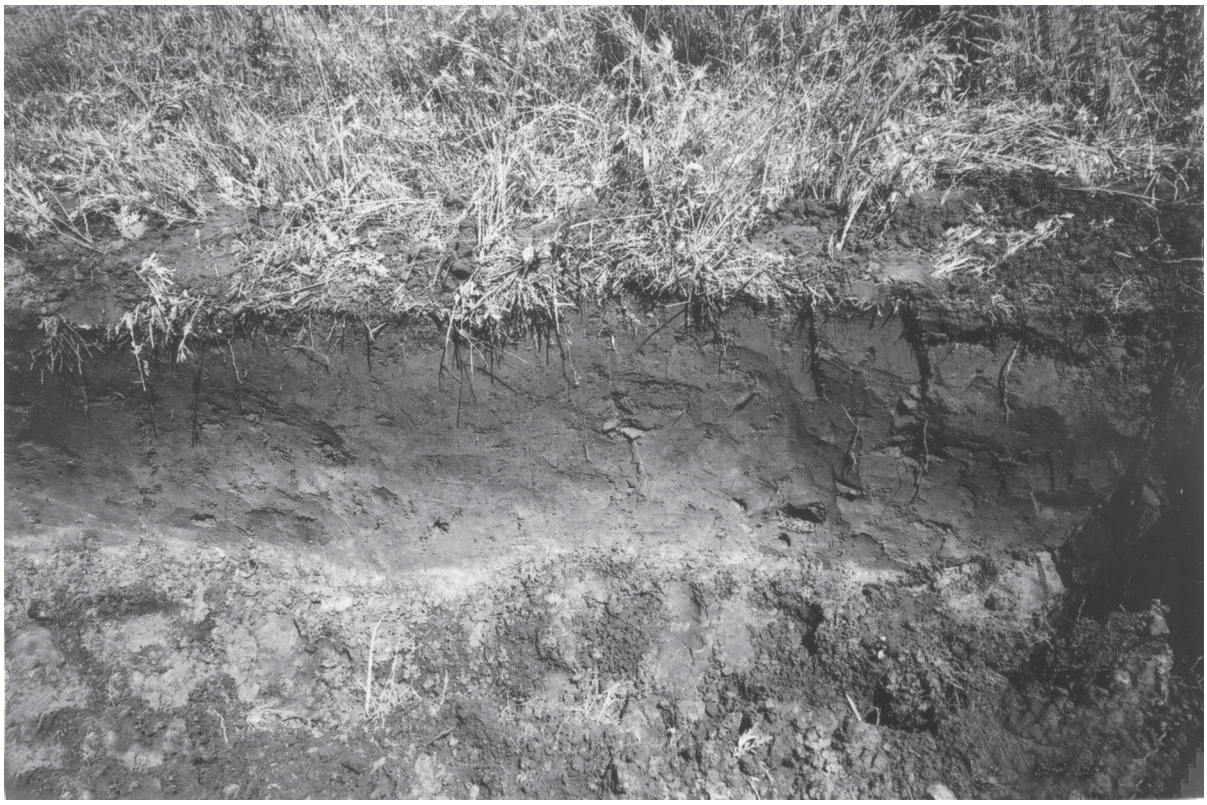

Figure 3. Backhoe trench 15 profile, east wall.

in thickness, and lies atop the B-horizon, a reddish-yellow clay (Zone 3); the midden had a high density of sherds (including several in the profile at 21 and 35 cm bs) and a small amount of lithic debris, as well as charred *Carya* sp. nutshell and wood charcoal.

The midden deposits in BHT 15, and Unit 354, are buried by 5-25 cm of very dark grayish-brown (Zone 1) to dark brown (Zone 2) sandy loam sediments (Figure 5; see also Figure 3). These zones are artifact-bearing, but the midden—a black sandy loam (Zone 3)—has abundant sherds, lithic artifacts, small pieces of bone, and wood charcoal and *Carya* sp. nutshells. The midden is about 15-30 cm in thickness. Large sherds are visible in the BHT 15 midden profile between 23-48 cm bs. A small animal bone was visible in the profile at ca. 24 cm bs (see E on Figure 5). Underlying the midden in BHT 15 is a yellowish-brown sandy loam (Zone 4), and this zone rests on the reddish-yellow clay B-horizon (see Zone 5 on Figure 5); the sandy loam sediments underlying the midden represent the low natural floodplain rise landform that had midden debris eventually deposited on it. Unit 355, a fine-screen column, was also excavated along BHT 15.

BHT 17 was not on the rise, but buried midden deposits were also present here between 33-54 cm bs (Figure 6). The midden sediments were a very dark gray (10YR 3/1) sandy loam (Zone 3) with charcoal flecks, and dark gray (Zone 1) and brown (Zone 2) sandy loam A-horizon deposits occur above the midden. A single parallel brushed body sherd was noted in the backhoe trench profile resting at the top of the midden deposit. Like the BHT 15 profile, a ca. 25 cm thick wedge of sandy loam sediments (dark yellowish-brown in BHT 17) was present below the midden (Zone 4) and above the B-horizon; in BHT 17, the B-horizon was a gray alluvial clay (Zone 5).

Off the midden, in BHT 12, the artifact-bearing sediments are a very dark gray to dark yellowish-brown sandy loam A horizon about 29-34 cm in thickness above the B-horizon clay. In BHT 14, the sandy loam sediments are only 19-25 cm in thickness overlying thick dark grayish-brown and gray clay deposits extending to more than 90 cm bs.

A large assemblage of Late Caddoan Titus phase ceramics was found at the S. Stockade site during backhoe trench investigations. The assemblage includes 34 decorated sherds, 74 plain sherds, and a single piece of burned clay (a few sherds were also found in the fine-screen column, see below). Ten more sherds were noted in the BHT 10 and BHT 15 backdirt, but they were not collected. They included nine plain body sherds and a single parallel brushed body sherd.

Most of the sherds were collected from units 349 (n=49) and 354 (n=34) in BHT 10 and BHT 15, respectively, and these units in the midden deposits have about 140-200 sherds per square meter. Outside the midden, 50 x 50 cm units along BHT 12 and BHT 14 have densities of only 4-16 sherds per square meter. By depth, the sherds are concentrated between 10-30 cm bs (60% of 90 sherds), with another 14% found from 0-10 cm bs; a few sherds occur as deep as 50-60 cm bs where the midden was thicker or had been more deeply buried by sediments.

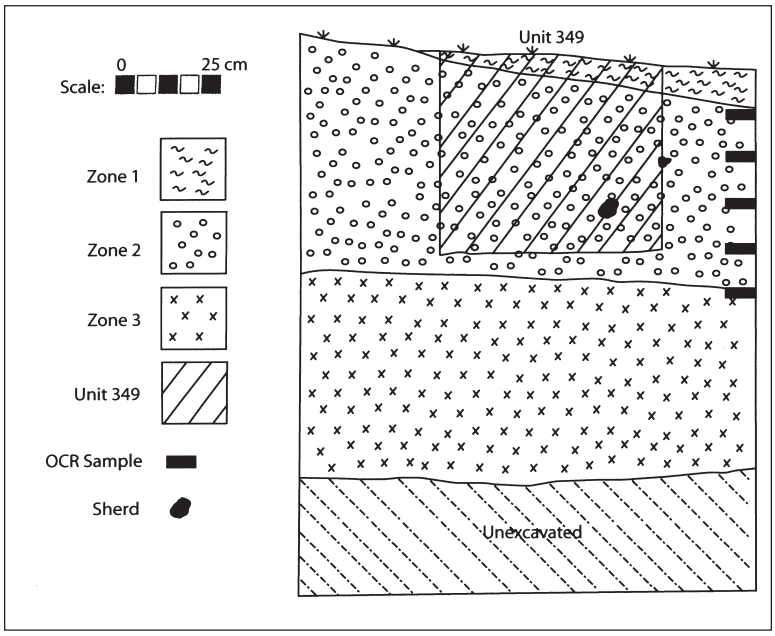

Figure 4. Profile of backhoe trench 10 and Unit 349, S. Stockade site.

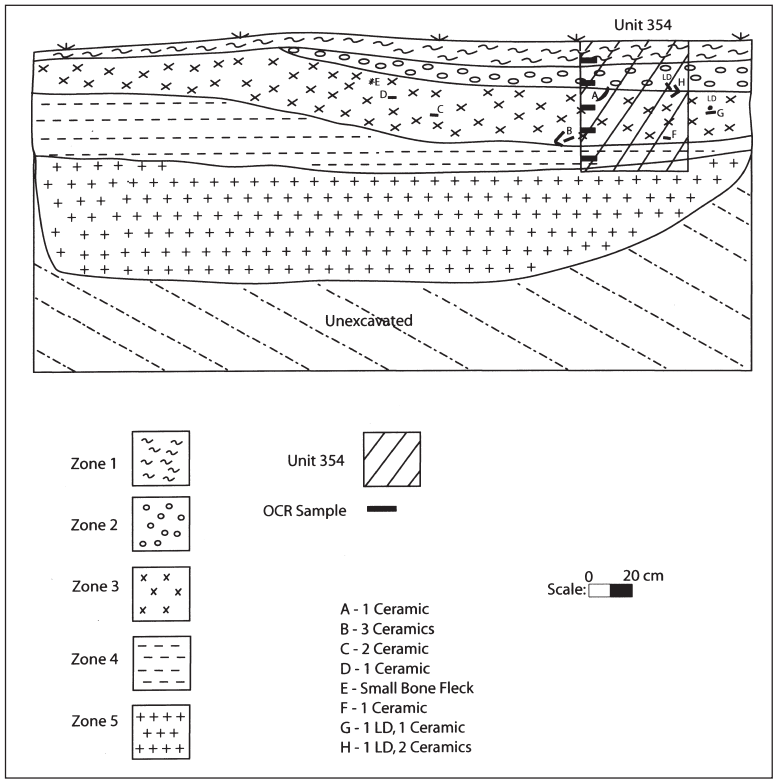

Figure 5. Profile of backhoe trench 15 and Unit 354.

This Titus phase ceramic assemblage is dominated by sherds tempered with grog (95%), and fully 63% of the sherds are tempered only with grog. The remainder are tempered with grog and bone (6.8%), and

grog and hematite (14.6%); almost 11% are tempered with grog and have abundant charred organic remains preserved in the paste. The non-grog-tempered sherds include crushed bone (2%), hematite (1%), and bone-hematite (1%); one other sherd has only abundant charred organics, and five other sherds have no apparent temper inclusions. The very high frequency of grog temper—and the concomitantly low amount of bone temper in vessel sherds—is completely consistent with Titus phase assemblages in the Big Cypress Creek basin (see Perttula et al. 1998).

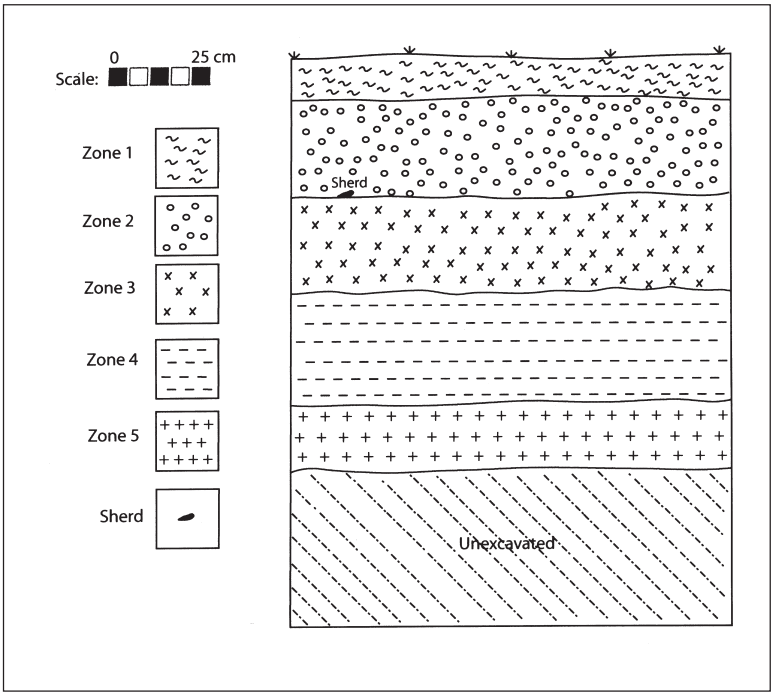

Figure 6. Profile of backhoe trench 17 at the S. Stockade site.

More than 60% of the sherds have a naturally sandy clay paste, and this appears to be the case for both the plain and decorated sherds and/or vessels from which they derived, including both finewares and utility ware cooking and storage jars. As with most Titus phase ceramic assemblages in the upper part of the Big Cypress Creek basin, most of the sherds are from vessels fired in a reducing environment (71.7%), and many of the vessels were subsequently cooled in the open air. The remainder of the sherds are equally split between those fired in an oxidizing environment or incompletely oxidized during firing. A few of the sherds (5.5%) have a distinctive core or cross-section with an almost completely oxidized core, other than a thin darker and reducing band along either the inner or outer surface of the vessel sherds. It is possible that this darkened band in otherwise completely oxidized vessels may be the product of use for cooking, with the near outer or inner surfaces "blackened by reducing gases from the cooking fire" (Rye 1980:116).

Rim and body sherds are relatively thick for Titus phase ceramics, 6.97 $\pm$ 0.32 mm for rims (n=7) and 6.85 $\pm$ 0.77 mm for body sherds (n=96). The four base sherds are 11.63 $\pm$ 0.73 mm in thickness, and they obviously supported large and well-constructed vessels.

The decorated sherds from the S. Stockade site include brushing (n=10), brushed-incised (n=2), incised (n=5), neck banded (n=1), punctated (n=5), and engraving (n=11). The latter sherds (32% of the decorated sherds) are from fine ware vessels, principally carinated bowls used for serving foods.

Among the utility ware sherds, the brushed sherds have either parallel (n=9) or overlapping brushing marks (Figure 7g) on the vessel body, and may be from Bullard Brushed, Pease Brushed-Incised, or Maydelle Incised jars (see Perttula et al. 1998). Two other body sherds have parallel brushed-incised decorative elements. The incised body sherds have either sets of parallel incised lines (n=4) or a single straight incised line from an indeterminate decorative element. The one La Rue Neck Banded rim (Figure 7h) has at least two horizontal bands of crimped and unsmoothed coils below the lip of a cooking jar with an everted rim. The punctated sherds are divided between tool (n=3) and fingernail (n=2) punctates (Figure

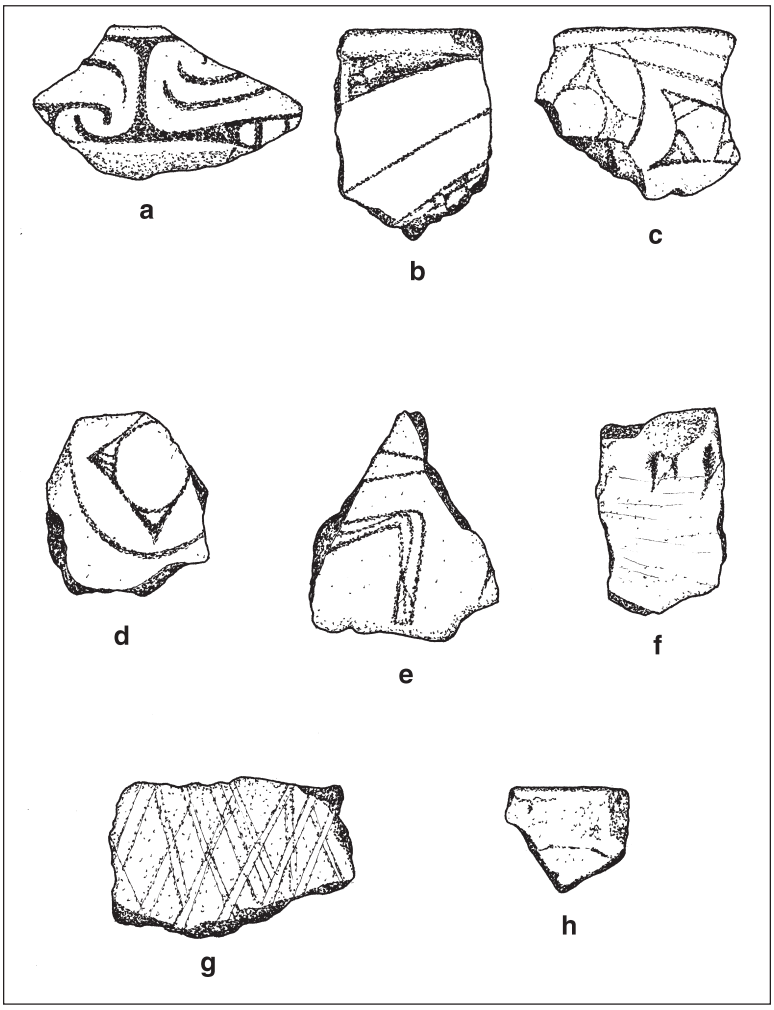

Figure 7. Decorated Sherds from the S. Stockade Site: a, Taylor Engraved; b-e, Ripley Engraved; f, fingernail punctated; g, overlapping brushed; h, neck-banded. Provenience: a, BHT 15, 33 cm; b-c, Unit 354, 10-20 cm; d, BHT 15, D; e, Unit 354, 20-30 cm; f, BHT 15, G; g, Unit 354, 30-40 cm; h, Unit 354, 0-10 cm. Scale is 1:1.

7f), but in each case the decorative element is the same, namely horizontal rows of punctates encircling the rim, and extending from the rim to the rim-body juncture. Such cooking jars were a common utility ware in the ceramic vessels at the nearby Mockingbird site (41TT550) Titus phase cemetery (Perttula et al. 1998), dated between ca. A.D. 1430-1600.

Four of the eleven engraved sherds simply have a single straight engraved line from an indeterminate decorative element. Two others from the S. Stockade site have diagonal lines on the rim of carinated bowls, and these are probably from one of the Ripley Engraved design motifs. The remaining engraved sherds include one Taylor Engraved carinated bowl (see Figure 7a), and four Ripley Engraved carinated bowl sherds (see Figure 7b-e).

The Taylor Engraved sherd from BHT 15 (33 cm bs in the midden) has deep and regularly spaced engraved and excised scrolls on the carinated bowl that hook towards one another (see Figure 7a; see also Suhm and Jelks 1962). Taylor Engraved vessels appear to have been made and used after ca. A.D. 1550 by Titus phase groups (see Perttula 1992: Appendix A), and become more abundant in mortuary contexts that postdate ca. A.D. 1600. The absence of the pendant triangle motif—perhaps the best stylistic element signifying a post-A.D. 1600 Titus phase occupation (see Perttula et al. 1998) in the Big Cypress Creek basin—in the four different Ripley Engraved vessels from the S. Stockade site suggests that it may have been occupied between ca. A.D. 1550-1600, immediately after the initial contacts between the Caddo in the region and the Spanish Moscoso entrada.

All four of the Ripley Engraved sherds have a scroll motif (cf. Thurmond 1990:Figure 6), and two specifically have the scroll and circle motif (see Figure 7c-d). This particular engraved motif is relatively abundant only in later Titus phase contexts (see Perttula 1992:Apendix A), and thus is consistent with the age range suggested above based on the occurrence of the Taylor Engraved vessel, although this motif is less frequent than the pendant triangle motif. This motif is also commonly seen in many upper Big Cypress

Creek Titus phase vessels from mortuary contexts, including sites in the Tankersley Creek and Three Basins subcluster sites discussed by Thurmond (1990; see also discussion in Perttula et al. 1998:252-253).

One Kent dart point was found in Unit 349 (0-10 cm bs). It was made from a local brown chert, has a parallel stem, a flat base, and minimal barbs, with a resharpened and serrated blade. Kent points are commonly found in Woodland period contexts in Northeast Texas archeological sites, and thus its recovery here suggests that the S. Stockade site was also used in the Woodland period. The point measures 32.0 mm in length, 18.0 mm in width, 7.2 mm in thickness, and has a stem width of 15.0 mm.

There are two cores and 18 pieces of lithic debris from the site, with the majority of the lithic artifacts found in units 349 and 354, the 50 x 50 cm units excavated along BHT 10 and BHT 15, respectively (see Figures 4 and 5). They come from 0-60 cm bs, but the majority were recovered between 0-30 cm bs in and above the midden deposits.

The core fragments are from Unit 349 (20-30 cm bs) and Unit 354 (40-50 cm bs). Both are quartzite, and one has been heat-treated; it also has a small area of cortex (2%) on one face, and the other probably represents a fragment from an exhausted core, from which all the cortex had already been removed by knapping.

The lithic debris is exclusively local raw materials, including quartzite (n=11, 45% cortical), Ogallala quartzite (n=2), and petrified wood (n=5, 80% cortical); the proportion of petrified wood lithic debris (25%) is higher here than any of the other U.S. 271 Mt. Pleasant Loop sites. Fifty percent of the lithic debris is cortical, hinting at the importance of initial lithic reduction activities—perhaps to produce useful flakes for tools—and a similar proportion of the lithic debris (73% quartzite and 50% of the Ogallala quartzite) has evidence of heat treatment.

The midden deposits also had a small amount of quartzite fire-cracked rock (n=2, 53.3 g) from Unit 353 (0-10 cm bs) and from the BHT 15 profile (artifact G, see Figure 5).

Wood charcoal (n=15) and charred *Carya* sp. nutshells (n=3) were recovered from three different 50 x 50 cm units at the S. Stockade site. These remains occurred between 10-50 cm bs, namely in the Late Caddoan Titus phase midden deposits preserved at the site.

As part of the work at the site—which included the hand excavation of several 50 x 50 cm units along certain backhoe trenches to recover archeological materials from controlled contexts—a single 40 x 40 cm fine-screen column (Unit 355) was excavated adjacent to Unit 354 in BHT 15. The midden sediment matrix from the column was water-screened through 1/16-inch mesh hardware cloth, and the resulting residue was processed to recover any archeological materials present in the midden. The purpose of the fine-screen column was to more precisely determine the density of cultural materials in the midden itself, and better assess the quality and quantity of any preserved animal bones and charred plant remains. The column was excavated in three levels: 0-10 cm, 10-20 cm, and 20-35 cm bs. The first level—above the midden—contained no archeological materials of any kind when it was first screened through 1/4-inch hardware cloth, and thus a fine-screen sample was not processed from the level. The second and third levels were in the midden deposit, and fine-screen column samples were obtained from them.

A variety of archeological materials were recovered from midden deposits in Unit 355, including lithics, ceramic sherds, burned clay, animal bone, charred nutshells, and wood charcoal. There were eight

pieces of lithic debris, equally divided between quartzite (n=4) and petrified wood (n=4). Seventy-five percent of the lithic debris came from the 20-35 cm bs sample. The density of lithic debris in this midden column is 48 pieces per m^2, and 200 pieces per m^3.

There were 20 pieces of burned clay, weighing 19.7 g. Almost 90% of the burned clay by weight, and 80% by frequency, came from the 20-35 cm bs fine-screen sample. The overall density of the burned clay is 120 pieces and 118.2 g per m^2, and 500 pieces and 492.5 g per m^3.

Including sherdlets (n=6), a total of 27 sherds were found in Unit 355. About 56% of the sherds are from 10-20 cm bs. The density of sherds in the Titus phase midden is 162 per m^2 and 675 sherds per m^3.

Three of the sherds are decorated: a parallel incised body sherd (10-20 cm), a parallel brushed body sherd (20-35 cm), and a rim sherd (20-35 cm) with tool punctates below the lip and diagonal incised lines on the rim itself. Similar decorated sherds were found at the S. Stockade site in the 50 x 50 cm units, in the backhoe trench profiles, and in the backhoe trench backdirt.

Almost 95% of the 18 small pieces of animal bone were found between 20-35 cm bs. All are burned. The density of bone is ca. 112 pieces per m^2 and 450 pieces per m^3.

One very small unidentifiable fragment from an indeterminate vertebrate was found at 10-20 cm bs (Table 1). The remaining pieces came from 20-35 cm bs, and were comprised of eight indeterminate vertebrate bones, seven small mammal bones, and two pieces of turtle shell. The unidentifiable small mammal remains are not identifiable beyond size and class because the absence of diagnostic attributes prevented specific identification. Based on size, these may be the remains of a rabbit or squirrel, as both are easily procured by hunters, and such remains have frequently been found in prehistoric Caddo faunal assemblages. Turtles are also common in Caddoan faunal collections. All of the faunal specimens are burned white, probably the result of trash disposal after processing. The small faunal sample from the S. Stockade site most likely represents subsistence debris.

Wood charcoal was abundant in the midden deposits, and a total of 15.4 g was found in the fine-screen column. About 57% of the wood charcoal is from the 10-20 cm fine-screen sample. The density of wood charcoal is 92.4 g per m^2 and 385 g per m^3.

Charred *Carya* sp. nutshells were also present in the Titus phase midden deposits. A total of 25 pieces (1.1 g) was recovered in the fine-screen column, with 80% by number and 91% by weight coming from the 20-35 cm bs sample. The density of nutshell is 150 pieces and 6.6 g per m^2 and 625 pieces and 27.5 g per m^3.

Table 1. Faunal Recovery from the S. Stockade Site, Backhoe Trench 15, Unit 355.

Unit	cm bs	Qty	Taxon	Element	Burn	Wt/g	Comments
355	10-20	1	unidentifiable	unid	white	0.01	fine screen
355	20-35	2	turtle	shell frags.	white	0.1	fine screen
355	20-35	7	small mammal	unid	white	0.1	fine screen
355	20-35	8	unidentifiable	unid	white	0.1	fine screen

The Titus phase midden at the S. Stockade site (41TT865) contains abundant archeological materials based on the processing and sorting of a fine-screen column in Unit 355. Sherds and wood charcoal are most abundant in the upper part of the midden (10-20 cm sample)—while still common in the lower 20-35 cm sample—but all other archeological materials (animal bone, nutshell, lithic debris, burned clay) are much more abundant in the lower part of the midden in this one sample. It is reasonable to conclude that the 20-35 cm bs fine-screen sample is from the best preserved part of the Titus phase midden.

CONCLUSIONS

The S. Stockade site is a well-preserved Late Caddoan Titus phase midden deposit in the Big Cypress Creek basin. The investigations summarized here recovered ceramic, lithic, faunal, and paleobotanical materials from a ca. A.D. 1550-1600 occupation. The small size of the settlement suggests that the S. Stockade site is a farmstead affiliated with a larger local community in the Big Cypress Creek valley.

ACKNOWLEDMENTS

We thank Dr. Nancy A. Kenmotsu and Mike Jordan of the Texas Department of Transportation for permission to publish the results of our investigations at the S. Stockade site in *Caddoan Archeology*. Clay Schultz prepared the site map and profiles, and Nancy Resee prepared the sherd illustrations.

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The James Owens Site (41TT769) in the Sulphur River Basin of Northeast Texas

Mark Walters, Bryan Boyd, Bo Nelson, LeeAnna Schniebs, and Timothy K. Perttula

INTRODUCTION

The James Owens site (41TT769) is an apparent Middle to Late Caddoan settlement that was investigated in June 2001 at the request of the landowner, Mr. James Owens of Irving, Texas. The landowner is planning on building a house here in the future, and during the course of clearing the land and constructing a gravel drive way to the future house site, he noted some archeological materials on the surface. Discussions between Mr. Owens, Bryan Boyd (Texas Archeological Steward Network), and Mark Parsons, regional archeologist for the Texas Historical Commission, led to the limited investigations reported on here. The work we conducted was designed to obtain information on the age and content of the James Owens site, and determine what further archeological steps might be necessary to preserve the site and the information it contains.

The James Owens site is situated on a small and heavily overgrown natural rise near the edge of an expanse of "moundy uplands" (Roberts 1990) in the Post Oak Savannah. Immediately to the south is a flat stream terrace and floodplain of White Oak Creek, a tributary of the Sulphur River, and the current channel of White Oak Creek lies about 4 km to the south of the site. At the time of the 2001 investigations, the rise had been partially cleared by the landowner, with a gravel road leading from a Farm-to-Market road to the site itself (Figure 1). Lithic and ceramic artifacts were visible on the surface in the clearing.

EXCAVATIONS

The June 2001 investigations consisted of 10 shovel tests and 3 1 x 1 m units, all of which contained prehistoric archeological materials. At least two shovel tests (ST 1 and ST 10), but possibly three others (ST 4, 7, and 9), were located in a ca. 20-30 cm thick midden deposit (Fea. 1). The Woodtell-Raino complex sediments in the midden area consisted of a ca. 30 cm dark brown to very dark brown sandy loam overlying a dark yellowish-brown sandy loam that extended to ca. 50 cm bs (Figure 2). Outside the midden area, the A and E horizon sediments were lighter in color, and ranged in thickness from 40 to 80 cm in thickness; the deepest sediments were recorded in ST 2 on the north side of the natural rise. Feature 2, a small charcoal-stained pit (ca. 35 cm in diameter), was documented between 15-54 cm bs in Unit 3.

RADIOCARBON AND OCR DATING

A sample of 53 charred hickory nutshells weighing 3.1 g were collected from the midden deposits in a small column in Unit 1 (10-30 cm bs) for radiocarbon dating by Beta Analytic, Inc. The conventional radiocarbon age of the nutshells is 740 $\pm$ 70 B.P. The calibrated intercept is A.D. 1280, and at two sigma, there is a 95% chance that the calibrated age of the nutshells in the midden falls between A.D. 1180-1390 (Stuiver et al. 1998; Talma and Vogel 1993).

We also collected Oxidizable Carbon Ratio (OCR) samples (200 g of sediments) from a column in Unit 1 (see Figure 2). The samples were collected at 5 or 10 cm intervals (Table 1), and analyzed by Oxidizable Carbon Ratio, Inc. of Essex, Vermont.

The range of OCR dates in the midden deposits is A.D. 1241-1643 (see Table 1). The one pedogenic marker in the column—being marked by an increase in soil pH, the frequency of coarse sediment particles,

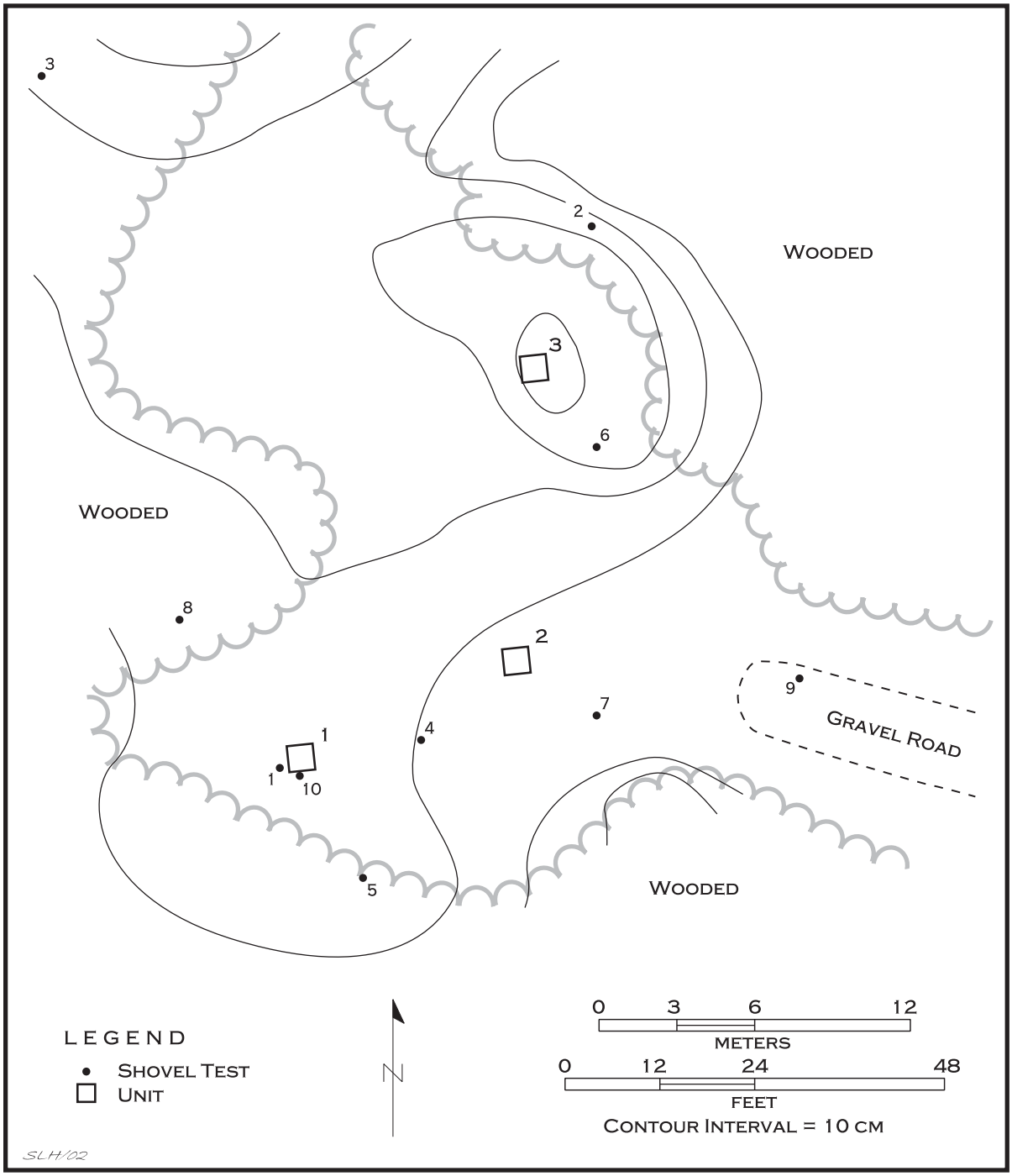

Figure 1. Map of the James Owens site (41TT769).

and an increase in the OCR ratio (Douglas Frink, 2001 personal communication)—dates from A.D. 1391-1423. The age of this pedogenic marker suggests that the midden has been undergoing pedogenic development since about that time, and this strongly implies that the midden itself dates to this same time range.

Taken together, the one calibrated radiocarbon date and the OCR dates suggest that the James Owens site midden accumulated between ca. A.D. 1200 and the early 15th century.

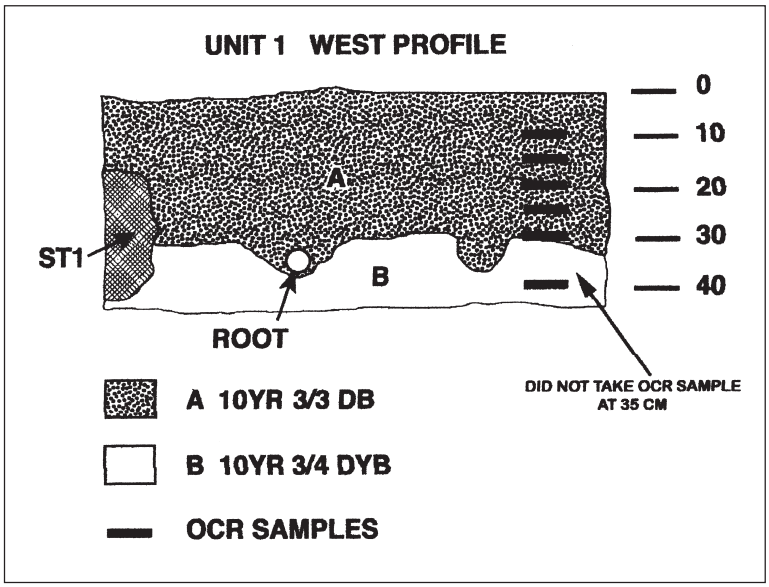

Figure 2. Unit 1 profile, west wall. Zone A is the midden deposit.

ARTIFACT ANALYSES

A wide variety of prehistoric artifacts were recovered in the investigations at the James Owens site, primarily lithic debris, daub, and plain and decorated ceramic sherds (Table 2). The highest densities of artifacts were in ST 1 and Unit 1, apparently in the best-preserved part of a Middle to Late Caddoan midden deposit. Artifact densities in ST 1 and Unit 1 were a very substantial 3150-3280 artifacts per square meter. In units 2 and 3, outside the midden, artifact densities ranged from 826.7-875 per square meter.

Table 1. OCR Dates from the James Owens Site (41TT769).

Sample Depth	Sample No.	% Organic Carbon	OCR Date and sd (B.P.)	Age Range (A.D.)
Midden Samples				
8-10 cm	ACT-5519	2.925	307-325	A.D. 1625-1643
13-15 cm	ACT-5520	2.068	378-400	A.D. 1550-1572
18-20 cm	ACT-5521	1.791	527-559	A.D. 1391-1423
23-25 cm	ACT-5522	1.458	647-685	A.D. 1265-1303
28-30 cm	ACT-5523	1.181	669-709	A.D. 1241-1281
E-horizon Sample below the Midden				
38-40 cm	ACT-5524	0.889	786-834	A.D. 1116-1164

Table 2. Prehistoric Artifacts from the James Owens site.

Provenience	DS*	PS	DP	AP	T	LD	Da	NS	B/Sh	Ch
Surface	6	12	–	–	–	27	–	–	–	–
ST 1	7	12	–	1	1	53	76	11	21	8
ST 2	4	6	1	–	–	37	1	–	1	–
ST 3	–	–	–	–	–	2	–	–	–	–
ST 4	–	3	–	–	–	10	3	1	–	–
ST 5	–	1	–	–	–	12	17	–	–	–
ST 6	–	1	–	–	–	31	–	1	–	–
ST 7	2	3	–	–	–	10	1	11	1	–
ST 8	–	2	–	–	–	14	4	–	–	–
ST 9	1	1	–	–	–	9	1	1	1	–
ST 10	3	7	–	–	1	22	27	9	6	3
Unit 1	33	138	–	4	–	455	541	33	95	23
Unit 2	14	30	–	–	–	191	–	9	–	4
Unit 3	4	30	2	1	1	299	6	2	–	6
Totals	74	246	3	6	3	1172	677	80	125**	44

*DS=decorated sherd; PS=plain sherd; DP=dart point; AP=arrow point; T=chipped stone tool; LD=lithic debris; Da=daub; NS=nutshell; B/Sh=bone and mussel shell; Ch=charcoal.
**Does not include flotation samples.

Ceramics

The initial investigations at the James Owens site produced a total of 320 sherds, of which 74 are decorated (see Table 2). The plain/decorated sherd ratio is 3.32. The 246 plain sherds include three bases (two flat and one rounded) and nine plain rims (five everted, with rounded and rolled-out lips, and four that are direct, with rounded lips). About 77% of the sherds are from units 1-3, another 18 are from the general surface, and 53 were found in ST 1-10.

Of the 320 sherds, 72.5% are tempered with bone and grog. Another 26.3% have only grog temper, and four sherds (1.3%) are red-slipped sherds with shell tempering. There is considerable variation in the temper composition in different parts of the site. Temper of the sherds from Unit 2 (n=44) are 59% bone and grog, and 40.9% grog, while in Unit 1 (n=171 sherds), 73.7% have bone and grog temper, 24.6% are grog-tempered, and there are three shell-tempered sherds. Unit 1 was placed adjacent to ST 1 (which has the remaining red-slipped shell-tempered sherd) and ST 10, both in a midden deposit. ST 1 and ST 10 sherds also have a high proportion of bone temper compared to the sherds in Unit 2. There are also a considerable variation in the design elements on the sherds (see below).

Vessel forms represented in the sherds include small jars with everted rims (n=12) or direct rims (n=9), and they have rounded (n=20) or flat (n=1) lips. Eleven of the lips are also rolled-out or folded to the exterior, and one has been rolled-out and smoothed. A heavy sooty coating on the exterior of some of the sherds indicates the jars were used for cooking over an open fire. Overall, the average sherd thickness is 6.2 mm, with the decorated sherds slightly thinner (6.0 mm).

Figure 3. Punctated rim and brushed sherds from the James Owens site.

Firing conditions indicate that 63.8% of the sherds have been fired in a reducing or low oxygen environment (e.g., Teltser 1993); about 57% of these sherds were subsequently cooled in a high oxygen environment. The proportion of sherds that are from vessels fired in a high oxygen environment is 18.4%, and 17.8% are from vessels that have been incompletely oxidized during firing.

The 74 decorated sherds include 12 rims. Horizontal rows of tool punctates (tear-drop to rectangular-shaped) are the most common (n=16, or 21.6% of the decorated sherds) form of decoration (Figure 3). Included in these sherds are eight punctated rims (representing 67% of the 12 decorated rims), one of which had a single row of tool punctates below the lip followed by horizontal brushing or rough incised lines. One punctated sherd from ST 2 has randomly placed half-moon shaped indentations. Absent in the assemblage are punctated sherds with large gouge marks or punch and drag forms.

Next in abundance are engraved sherds (n=14, 18.9% of the decorated sherds), followed by sherds with incised decorations (n=9, 12.2%) (Figure 4). The engraved sherds primarily have single or parallel lines, either straight or curvilinear. One engraved sherd from Unit 1 has a horizontal line at the point of carination, with opposing lines forming panels (see Figure 4, top row, second from left), and another has a circular engraved element (see Figure 4, top row, upper left). The incised sherds include those with cross-hatching on the rim as well as horizontal and diagonal lines (see Figure 4, top row, third and fifth from left).

There are also nine neck-banded sherds (12.2%), including at least one rim (Figure 5), and another with an appliqued node below the lip (Figure 5, right). Several of the neck-banded sherds from more recent investigations are from shell-tempered Nash Neck Banded cooking jars. Another eight sherds (10.8% of the decorated sherds) have appliqued elements. Some of the appliqued sherds, where sherd size was large enough to distinguish decorative motifs, formed chevrons, while others were single fillets, occasionally with punctations on the fillet (see

Figure 4. Engraved, incised, appliqued, and tool punctated sherds from the James Owens site.

Figure 5. Nash Neck Banded rim sherds from the James Owens site.

Figure 4, top row, fourth from left, and bottom row, first and second from left).

Brushed sherds account for 14.9% of the decorated sherds, but their method of decoration, composition, and distributions vary across the James Owens site. Unit 1 had three brushed sherds, one similar to Pease Brushed-Incised with faint vertical brushing marks separated by a vertical appliqued ridge. The other two brushed sherds have thin parallel brushed lines, and one is a rim with a single line of punctates above horizontal brushed/incised lines (see Figure 3, top row, first from left). All three sherds had bone and grog temper. About 73% of the brushed sherds are from Unit 2, and seven of the eight sherds were grog-tempered and were brown or light brown in color. Brush marks were light on some, and overlapped, while others had wider and more evenly spaced brushing marks (see Figure 3, bottom row, third from left). The brushed sherd from Unit 3 is probably also from a Pease Brushed-Incised vessel as it has parallel brushing marks that end at an eroded but raised area that is probably an appliqued fillet.

There are 17 red-slipped body sherds in the sherd assemblage; they are red-slipped on both exterior and interior sherd surfaces. Thirteen are from Unit 1 (0-40 cm bs), three are from Unit 3 (0-10 cm bs), and one red-slipped sherd was found in Unit 2 (10-20 cm bs). Four of the red-slipped sherds are shell-tempered, and the remainder were tempered with grog and bone. Most (82%) are from vessels fired in a reducing environment and cooled in a high oxygen environment, and the remainder were incompletely oxidized during firing.

There were six sherds with punctated-incised decorations. These have straight horizontal lines separating rows of tool punctations. One Unit 1 sherd has a row of tool punctates in a wide area between three parallel and straight lines.

Daub

There are 677 pieces of daub collected from the excavations. The majority (n=541) are from Unit 1, ST 1, and ST 10, all in the midden. The distribution of daub in the midden suggests that the midden marks the approximate location of a burned Middle to Late Caddoan house structure (This was confirmed in later April 2002 excavations, when a clay-lined hearth was documented in another 1 x 1 m unit about 2 m north-northwest of Unit 1; the analysis of these excavations is still in progress by the authors), or that after the structure burned, the house debris was cleaned-up and dumped in the midden. The remainder of the daub from the other proveniences consists of small and eroded fragments.

The daub from the midden ranged from ca. 3 cm diameter pieces to small, rounded, orange-colored fragments, several of both kinds with grass impressions. There appears to be more sand in the daub material than in the clay used to make the ceramic vessels, and the daub matrix also contains small sandstone

fragments which were absent in the ceramic sherds. Most of the recognizable pieces of daub have one smoothed surface that was either tan or gray in color. The other surface is mostly blackened and has grass/cane impressions, with the grass and cane oriented perpendicular to each other. A few pieces of daub had charred material or impressions sandwiched between two layers of clay, indicating that several layers were applied at once or that there were multiple refurbishing episodes.

The charred materials and the blackened daub imply that a prehistoric Caddo house burned and was either covered, creating a reducing atmosphere, or that the daub itself smothered the fire. A few of the smoothed surfaces are convex, suggesting that the smoothed surface was located on the exterior of the dwelling.

There has been considerable speculation about the use of daub in Caddo house construction: was the daub added as protection against the elements, as protection against fire, or perhaps did the clay daub surface serve a decorative function? In Northeast Texas Caddo sites, the use of daub appears to be more common north of the Sabine River. However, since daub is the result of thermal alteration, the location and preservation of daub around a structure must be studied in light of the processes that occur when a structure actually burns (Bankoff and Winter 1979).

Lithic Tools

The 12 chipped lithic tools include six arrow points or arrow point fragments, three Gary dart points, and three expedient flake tools (see Table 2); later work at the James Owens site also recovered a Yarbrough and several other small arrow points. The two identifiable arrow points are triangular Maud forms from ST 1 and Unit 1 (10-20 cm bs), both are made from quartzite (Figure 6, top row). Such arrow points were commonly made and used after ca. A.D. 1300/1400 in this part of the Sulphur River basin (see Fields et al. 1997; Sherman et al. 2002), and they may have continued in use until the 17th century. They range from 14.1-18.8 mm in length, 9.4-10.0 mm in width, and 2.6-2.8 mm in thickness. Their basal concavities are 1.7-2.6 mm in height.

A parallel to slightly expanding stemmed and unifacially worked arrow point made of a local tan chert was found in Unit 1 (10-20 cm bs), and a square-stemmed arrow point with prominent barbs was recovered in Unit 1 between 20-30 cm bs. This point was made from a heat-treated quartzite. The blades of two other arrow points—both also made from heat-treated quartzite—were found in Unit 1 (20-30 cm) and Unit 3 (20-30 cm bs).

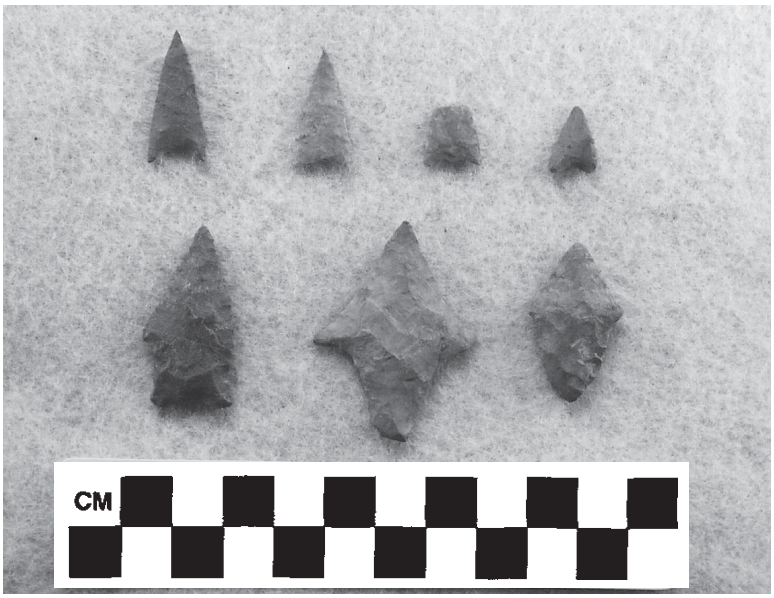

Figure 6. Maud arrow points and Yarbrough and Gary dart points from the James Owens site.

The contracting stem dart points include a Gary, *var. Camden* specimen from Unit 3 (20-30 cm bs), and two Gary, *var.*

Gary points from ST 2 and Unit 3 (20-30 cm bs) (see Figure 6, bottom row, second and third from left). All three Gary points were made from local quartzite. According to Schambach (1998), these contracting stem dart points were made and used during the Woodland period, perhaps between ca. 2800-1250 years ago, and their recovery at the James Owens site suggests it was periodically utilized by Woodland period peoples prior to the more intensive Middle to Late Caddoan settlement.

The expedient flake tools in ST 1, ST 10, and Unit 3 are on quartzite flakes. These tools have retouched and use-worn areas along the flake edge, and they were probably used for the cutting and scraping of moderately durable materials, including wood, leather, and green bone.

Lithic Debris

The prehistoric occupants of the James Owens site depended heavily on the procurement and use of locally available stone for the manufacture of chipped stone tools. More than 96% of the 1172 pieces of lithic debris are on the local quartzite (n=1135) that could be procured from stream gravels along White Oak Creek and in upland lag gravels. Other locally available raw materials present in the lithic debris are petrified wood (n=17), red chert (n=1), brown chert (n=1), and tan chert (n=3). The few pieces of non-local lithic raw materials include gray chert (n=8), a chalcedony (n=1), white novaculite (n=4), and gray novaculite (n=2). These materials were probably obtained from Red River gravel sources below the mouth of the Kiamichi River, in Red River County, Texas, about 60 km to the north of the James Owens site.

About 37% of the local quartzite lithic debris has cortical remnants, and 29% of the petrified wood pieces are cortical. The amount of cortical flakes in the lithic debris assemblage, along with the many non-cortical flakes that range from 0.64-2.54 cm in size, relate to the prehistoric inhabitants bringing the raw materials back to the site as nodules and cores for further reduction, rather than as flakes previously detached from cobble or pebble masses.

Paleobotanical Remains

Paleobotanical remains found at the James Owens site includes charred thick-shelled hickory (*Carya* sp.) nutshells (n=80) and wood charcoal (n=44). Most of the remains were found in the midden deposits (ST 1, ST 10, and Unit 1), and in ST 7, near the midden (see Figure 1 and Table 2). The nutshells are probably the product of being boiled in ceramic jars to obtain the oil (Gardner 1997:174), and the wood charcoal are charred and discarded pieces from the use of gathered wood in hearths and cooking pits.

Mussel Shell

The preservation of mussel shell in Northeast Texas prehistoric archeological sites is always a good indication that a site has a well-preserved midden deposit. Some 22 pieces of freshwater mussel shell were found only in ST 1 (0-50 cm bs) and Unit 1 (10-30 cm bs).

JAMES OWENS SITE (41TT769) FAUNAL ANALYSIS

The investigation of the James Owens site (41TT769) yielded 175 faunal specimens. Total weight of the assemblage is 43.13 grams. Faunal material was recovered from five shovel test pits and one excavation unit. Depths range from 0-50 centimeters below surface (cm bs). The following sections discuss

the methods employed in the faunal analysis, results of taxonomic identification and quantification, and distribution of these remains.

Methodology

All prehistoric vertebrate remains were inventoried and weighed. Excel 5.0 for Windows was used to manipulate the generated data. An Ohaus digital scale, Model CT600-S, was used to record bone weight. All fragments recovered were analyzed by the author, using comparative collections on loan from or housed at the Institute of Applied Sciences, Zooarchaeology Laboratory, University of North Texas, Denton, Texas. Occasional supplements were required, using conventional osteological keys such as Olsen (1964), Gilbert (1980), and Schmid (1972). Identifications were made to the most specific category possible depending on condition of the bone and available comparative material. Only positive identifications resulted in the assignment of elements to genus or species.

Standard zooarcheological methods have been used. The animal bones were inventoried and bagged by the excavators, then submitted for identification and quantification. Both unidentifiable and identifiable pieces were analyzed in similar fashion. That is, the same attributes were recorded: taxon, element and portion of that element, anatomical location of the element, condition of the bone and any notes on age, taphonomy, burning or breakage patterns, and presence of modification if applicable. Provenience information was also recorded.

Quantification of the assemblage is summarized as number of identified specimens per taxon (NISP) and as minimum number of individuals (MNI) for identified elements. MNI estimates were calculated according to the most frequently occurring element, based on symmetry and element portion (Munzel 1986). In some cases, complete long bones and proximal or distal ends were considered. In other cases, the presence of a single element constituted an MNI of one.

The faunal data tables included here are standard species lists with the number of occurrences for each animal. Those specimens regarded as unidentifiable (those coded to only class or order) have been consolidated into a few general categories. Elements of non-diagnostic skeletal value (ribs, vertebrae, and long bone shafts; Olsen 1964), are coded in an indeterminate category by class and/or size range. Specifically, specimens counted as “unidentifiable mammal” are of indeterminate size, and “large mammal” refers to a deer-size mammal. “Indeterminate vertebrate” includes the bones uncertain of class. Recording these specimens in a size category enables the most precise level of observation as the specimen allows. In small samples, taking note of weight and the size categories of nondiagnostic elements broadens the function of the bone assemblage. However, percentages referred to in this report are calculated by number of bones (NISP) rather than weight. Weights of specimens by unit number can be found in Table 3.

Results

The following section describes the vertebrate taxa recovered from the James Owens site. Taxonomic classes identified include fish, reptile, and mammal (artiodactyla only). The faunal assemblage is dominated by unidentifiable large mammal remains. None of the faunal specimens are modified. Number of identified specimens (NISP) and minimum number of individuals (MNI) for each taxon are summarized in Table 4, as are weights for each taxon and percentages of site assemblage. Composition of anatomical elements can be found in Table 5.

Table 3. Inventory of 41TT769 Faunal Assemblage.

Unit	cmbs	Qty	Taxon	Elem/Por	Side	Age	Taph	Burn	Gnaw	Mod	Wt/g	Comments
ST 1	0to20	2	lg mam	unid			none	blk			0.5	
ST 1	0to20	1	lg mam	unid			none	not			0.1	
ST 1	0to20	1	lg mam	l.b.frag			none	wh			1.1	
ST 1	0to20	3	lg mam	unid			none	wh			0.5	
ST 1	20to40	3	lg mam	unid			none	wh			1	
ST 1	20to40	1	mammal	unid			none	not			0.1	
ST 1	20to40	1	turtle	shell frg			none	not			0.1	
ST 1	40to50	1	box turtle	carapace f	L		none	not			1.1	
ST 10	0to10	1	lg mam	unid			none	blk			0.9	cf med art petrous
ST 10	0to10	1	lg mam	l.b.frag			none	not			1.5	
ST 10	0to10	1	lg mam	l.b.frag			none	wh			0.2	
ST 10	0to10	1	lg mam	unid			none	wh			0.2	
ST 10	20to50	2	lg mam	unid			none	wh			0.3	
ST 2	unknown	1	med art	mtpod frg			none	wh			1.8	
ST 7	0to20	1	lg mam	unid			abrade	not			1.6	
ST 9	0to20	1	lg mam	l.b.frag			abrade,exf	not			1.1	
U 1	0to10	1	box turtle	peripheral frg			none	not			0.4	
U 1	0to10	1	deer	tooth frg			none	char			0.05	flot
U 1	0to10	1	lg mam	unid			none	blk			0.2	flot
U 1	0to10	2	lg mam	l.b.frag			none	wh			0.6	flot
U 1	0to10	4	lg mam	unid			none	wh			0.4	flot
U 1	0to10	1	lg mam	l.b.frag			exfol	char			0.4	
U 1	0to10	3	lg mam	l.b.frag			abrade	wh			1.1	
U 1	0to10	8	lg mam	unid			abrade	wh			1.2	
U 1	0to10	1	mammal	unid			none	blk			0.05	flot
U 1	0to10	14	mammal	unid			none	wh			0.3	flot
U 1	0to10	1	med art	mtpod shft frg			exfol	not			0.5	flot
U 1	0to10	1	med art	mtpod shft frg			none	wh			0.3	
U 1	0to10	5	turtle	shell frg			none	wh			0.2	flot
U 1	10to20	5	box turtle	carapace frg			none	char			2.8	
U 1	10to20	1	box turtle	peripheral frg			none	wh			0.6	
U 1	10to20	1	lg mam	l.b.frag			none	blk			0.2	flot
U 1	10to20	4	lg mam	unid			none	char			0.5	flot
U 1	10to20	3	lg mam	unid			abrade	not			0.4	flot

Assemblage Composition

Class Osteichthyes

Order indeterminate: Two very small cranial fragments from unidentifiable small-sized bony fish are present in the James Owens site faunal collection. Fragmentation prevented specific identification. The specimens were recovered from a flotation sample taken in Level 2 (10-20 cm bs) of Unit 1. The pieces are burned. The presence of fish remains in the collection is not unusual. Fish were used extensively by the Caddo Indians, with no known limitations on variety or size (Newcomb 1993). They were caught in several ways, employing trotlines: short lines were hung about a foot apart from a long line with hooks on each end baited with "dough bait" or meat. The line can be checked several times a day, yielding good-sized fish. The method is almost identical to the one used today.

Order Testudinata, Family Emydidae: Box turtle (*Terrapene* sp.) is represented by eight shell fragments from two units. Two levels in Unit 1 yielded seven fragments, and one fragment was recovered from Shovel Test 1 at 40-50 cm bs. The six pieces from Level 2 (10-20 cm bs) in Unit 1 are burned. Box turtles,

Table 3. *(Continued)*

U 1	10to20	2	lg mam	l.b.frag			none	wh			0.3 flot
U 1	10to20	2	lg mam	l.b.frag			exfol	not			4.3 spir frac
U 1	10to20	1	lg mam	l.b.frag			none	wh			0.2 spir frac
U 1	10to20	2	lg mam	l.b.frag			none	char			2.1
U 1	10to20	7	lg mam	unid			none	char			1.2
U 1	10to20	2	lg mam	l.b.frag			exfol	not			0.9
U 1	10to20	2	lg mam	l.b.frag			none	wh			0.5
U 1	10to20	9	lg mam	unid			none	wh			1.5
U 1	10to20	10	mammal	unid			none	blk			0.1 flot
U 1	10to20	2	med art	mtpod shft frg			exfol	char			2.7 spir frac
U 1	10to20	1	sm fish	cran frg			none	wh			0.01 flot
U 1	10to20	1	sm fish	dentary frg			none	wh			0.05 flot
U 1	10to20	5	turtle	shell frg			none	char			1.4 cf box turtle
U 1	10to20	2	turtle	shell frg			none	wh			0.05 flot
U 1	10to20	1	turtle	plastron frg			none	not			0.1
U 1	10to20	1	turtle	plastron frg			none	wh			0.1
U 1	10to20	4	turtle	shell frg			none	wh			0.4
U 1	10to20	9	unid	unid			none	not			0.1 flot
U 1	10to20	9	unid	unid			none	wh			0.1 flot
U 1	20to30	1	lg mam	unid			none	blk			0.1 flot
U 1	20to30	1	lg mam	unid			none	wh			0.1 flot
U 1	20to30	4	lg mam	unid			abrade	wh			1
U 1	20to30	1	mammal	unid			none	char			0.1
U 1	20to30	2	mammal	unid			none	not			0.1
U 1	20to30	1	med art	astrag frg	R		none	blk			1.6
U 1	20to30	1	turtle	shell frg			none	blk			0.1
U 1	20to30	4	turtle	shell frg			none	not			1.1
U 1	20to30	1	turtle	shell frg			none	wh			0.2
U 1	20to30	1	unid	unid			none	not			0.01 flot
U 1	20to30	4	unid	unid			none	wh			0.01 flot
U 1	20to30	3	unid	unid			none	wh			0.3

Table 4. Taxonomic Composition of 41TT769 Faunal Assemblage.

Scientific Name	Common Name	NISP	MNI	% of Site	Wt./g
Vertebrata (indeterminate)	unidentifiable	26		15	0.52
Osteichthyes (small)	sm. bony fish	2	1	1	0.06
Testudinata	turtle	25		14	3.75
Terrapene sp.	box turtle	8	1	5	4.9
Mammalia (indeterminate)	unid. mammal	29		17	0.75
Mammalia (large)	lg. mammal	78		44	26.2
Artiodactyla (medium)	deer-size artiodactyl	6		3	6.9
Odocoileus sp.	deer	1	1	1	0.05
	TOTAL	175		100	43.13

which are strictly North American, range widely over the eastern and central United States and into the Southwest, and they also occur in many parts of Mexico. These are dry-land turtles that close their shells tightly when danger threatens (Conant 1975).

Order Testudinata (family indeterminate): A total of 25 shell fragments from unidentifiable turtle are included in the James Owens faunal collection. Turtle remains were recovered from the three levels in Unit

Table 5. Composition of Faunal Elements from 41TT769.

Scientific Name	Common Name	Element					
		unid	tooth frg	cranial frag	long bone frag	podial frag	shell frag
Vertebrata (indeterminate)	unidentifiable	26					
Osteichthyes (small)	sm. bony fish			2			
Testudinata	turtle						25
Terrapene sp.	box turtle						8
Mammalia (indeterminate)	unid. mammal	29					
Mammalia (large)	lg. mammal	56			22		
Artiodactyla (medium)	deer-size artiodactyl				5	1	
Odocoileus sp.	deer		1				
	TOTAL	111	1	2	27	1	33

1, and the majority came from the second level (10-20 cm bs, n=13). One specimen was found in Shovel Test 1 at 20-40 cm bs. Nineteen fragments from Unit 1 are burned.

Class Mammalia

Order Artiodactyl, Family Cervidae: Deer (*Odocoileus* sp.) is represented by one specimen recovered from a flotation sample taken in the first level (0-10 cm bs) of Unit 1. This tooth fragment is charred. Whitetail deer (*Odocoileus virginianus)* is the only species in Family Cervidae that currently occupies the project area, found in forests, swamps, and open brushy areas nearby (Burt and Grossenheider 1980). In Texas, whitetail deer prefer suitable brushy or wooded country throughout the state (Davis 1978). Whitetail deer are smaller in size, as compared to the larger mule deer of the western United States.

Medium artiodactyl is represented by six specimens. Three levels in Unit 1 yielded five leg bone fragments, including one fragment from a flotation sample taken in the first level (0-10 cm bs). One metapodial fragment was found in Shovel Test 2 (depth unknown). Five pieces are burned. These are most likely the remains of deer rather than pronghorn (*Antilocapra americana).* Both are similar in size, but pronghorn antelope are found in open prairies and sagebrush plains well outside of the project area (Burt and Grossenheider 1980). The two are osteologically similar, but a specific identification was not made because of its fragmentation. Pronghorn currently reside in the western half of Texas from the Panhandle to the lower Rio Grande Valley (Davis 1978). However, one pronghorn element was recovered from the Hurricane Hill Site (41HP106), a Caddoan habitation

Table 6. Summary of Taphonomic Patterns on 41TT769 Faunal Assemblage.

Scientific Name	Common Name	Type of Taphonomy			
		absent	abraded	exfoliated	abrade & exfol
Vertebrata (indeterminate)	unidentifiable	26			
Osteichthyes (small)	sm. bony fish	2			
Testudinata	turtle	25			
Terrapene sp.	box turtle	8			
Mammalia (indeterminate)	unid. mammal	29			
Mammalia (large)	lg. mammal	53	19	5	1
Artiodactyla (medium)	deer-size artiodactyl	3		3	
Odocoileus sp.	deer	1			
	TOTAL	147	19	8	1

site at Cooper Lake on the south Sulphur River in nearby Hopkins County (Yates 1999). Yates also states that Henderson (1978) reported pronghorn remains at the Arnold and Luna sites at Cooper Lake. Elk remains have also been found at another Cooper Lake site (Shaffer et al. 1995).

In addition to this quantity, artiodactyl is probably represented in the unidentifiable large mammal category (n=78). The large mammal and medium artiodactyl samples consist entirely of unidentifiable fragments and lower limb bones ("non-meat items"). Sixty-seven large mammal bones are burned, 38% of the site sample.

Table 7. Summary of Burning Patterns on 41TT769 Faunal Specimens.

Scientific Name	Common Name	Degree of Burning			
		not	charred	black	white
Vertebrata (indeterminate)	unidentifiable	10			16
Osteichthyes (small)	sm. bony fish				2
Testudinata	turtle	6	5	1	13
Terrapene sp.	box turtle	2	5		1
Mammalia (indeterminate)	unid. mammal	3	1	11	14
Mammalia (large)	lg. mammal	11	14	6	47
Artiodactyla (medium)	deer-size artiodactyl	1	2	1	2
Odocoileus sp.	deer		1		
	TOTAL	33	28	19	95

Table 8. Distribution of 41TT769 Burned Faunal Specimens by Unit and Level.

Provenience	Scientific Name	Common Name	Depth (cmbs)		
Shovel Test 1			0to20	20to40	
(B=9)	Mammalia (large)	lg. mammal	6	3	
Shovel Test 2			unknown cmbs		
(B=1)	Artiodactyla (medium)	deer-size artiodactyl	1		
Shovel Test 10			0to10	20to50	
(B=5)	Mammalia (large)	lg. mammal	3	2	
Unit 1			0to10	10to20	20to30
(B=127)	Vertebrata (indeterminate)	unidentifiable		9	7
	Osteichthyes (small)	sm. bony fish		2	
	Testudinata	turtle	5	12	2
	Terrapene sp.	box turtle		6	
	Mammalia (indeterminate)	unid. mammal	15	10	1
	Mammalia (large)	lg. mammal	19	28	6
	Artiodactyla (medium)	deer-size artiodactyl	1	2	1
	Odocoileus sp.	deer	1		
		TOTAL	41	69	17

Assemblage Condition

The James Owens site faunal collection is highly fragmented, explaining the low rate of identification. Taphonomic patterns are absent on 147 specimens (Table 6), 84% of the entire site sample. Abrasion and exfoliation are visible on 28 fragments. A total of 142 specimens are burned, probably a result of trash disposal. Summary of burned specimens can be found in Table 7, and the distribution of these burned remains can be found in Table 8. A majority of faunal remains were recovered from flotation samples taken in three levels in Unit 1 (Table 9). Flotation samples yielded 78 very small fragments, 45% of the site collection (Table 10).

Table 9. Distribution of 41TT769 Faunal Flotation Recovery.

Provenience	Scientific Name	Common Name	Depth (cmbs)		
Unit 1			0to10	10to20	20to30
(N=78)	Vertebrata (indeterminate)	unidentifiable		18	5
	Osteichthyes (small)	sm. bony fish		2	
	Testudinata	turtle	5	2	
	Mammalia (indeterminate)	unid. mammal	15	10	
	Mammalia (large)	lg. mammal	7	10	2
	Artiodactyla (medium)	deer-size artiodactyl	1		
	Odocoileus sp.	deer	1		
		TOTAL	29	42	7

Table 10. Summary of 41TT769 Faunal Flotation Recovery.

Scientific Name	Common Name	NISP
Vertebrata (indeterminate)	unidentifiable	23
Osteichthyes (small)	sm. bony fish	2
Testudinata	turtle	7
Terrapene sp.	box turtle	0
Mammalia (indeterminate)	unid. mammal	25
Mammalia (large)	lg. mammal	19
Artiodactyla (medium)	deer-size artiodactyl	1
Odocoileus sp.	deer	1
	TOTAL	78

The condition of the bone suggests that at least some of the bone was boiled, possibly for bone grease processing. The degree of fragmentation also supports this conclusion. The bones are broken into small pieces and boiled in water. The floating fat is then skimmed from the top of the pot. The substance is used for frying and other culinary purposes. This practice has been well documented over time, and is a method used by many different cultures (Leechman 1951).

Distribution

The following section is organized by analytical unit. Distribution of faunal remains by area is summarized in Table 11. Specific recovery by unit and level can be found in Table 12.

Table 11. Summary of 41TT769 Faunal Distribution by Area

Area	Scientific Name	Common Name	Provenience			
Midden			ST 1	ST 10	Unit 1	
(N=172)	Vertebrata (indeterminate)	unidentifiable			26	
	Osteichthyes (small)	sm. bony fish			2	
	Testudinata	turtle	1		24	
	Terrapene sp.	box turtle	1		7	
	Mammalia (indeterminate)	unid. mammal	1		28	
	Mammalia (large)	lg. mammal	10	6	60	
	Artiodactyla (medium)	deer-size artiodactyl			5	
	Odocoileus sp.	deer			1	
		TOTAL	13	6	153	172
Other Shovel Tests			ST 2	ST 7	ST 9	
(N=3)	Mammalia (large)	lg. mammal		1	1	
	Artiodactyla (medium)	deer-size artiodactyl	1			

Shovel Test 1 (Midden Area)

Three levels in Shovel Test 1 yielded a total of 13 faunal specimens. The sample is dominated by large mammal remains, recovered from 0-20 cm bs (n=7). Three large mammal bone fragments, one indeterminate mammal bone fragment, and one piece of unidentifiable turtle shell were found in the second level (20-40 cm bs). One box turtle shell fragment came from the third level (40-50 cm bs). Nine specimens are burned.

Shovel Test 2

Only one faunal specimen was recovered from Shovel Test 2. This medium artiodactyl bone fragment is burned.

Shovel Test 7

One faunal specimen was recovered from Shovel Test 7, between 0-20 cm bs. This unidentifiable fragment from a large mammal is not burned, but it is abraded.

Shovel Test 9

One long bone fragment from an unidentifiable large mammal came from Shovel Test 9 (0-20 cm bs). Abrasion and exfoliation are noted. The specimen is not burned.

Shovel Test 10 (Midden Area)

Shovel Test 10 yielded six large mammal bone fragments. Four pieces came from 0-10 cm bs, and two pieces came from 20-50 cm bs. Five specimens are burned.

Table 12. Distribution of 41TT769 Faunal Specimens by Unit and Level.

Provenience	Scientific Name	Common Name	Depth (cmbs)		
Shovel Test 1			0to20	20to40	40to50
(N=13)	Testudinata	turtle		1	
	Terrapene sp.	box turtle			1
	Mammalia (indeterminate)	unid. mammal		1	
	Mammalia (large)	lg. mammal	7	3	
Shovel Test 2			unknown cmbs		
(N=1)	Artiodactyla (medium)	deer-size artiodactyl	1		
Shovel Test 7			0to20		
(N=1)	Mammalia (large)	lg. mammal	1		
Shovel Test 9			0to20		
(N=1)	Mammalia (large)	lg. mammal	1		
Shovel Test 10			0to10	20to50	
(N=6)	Mammalia (large)	lg. mammal	4	2	
Unit 1			0to10	10to20	20to30
(N=153)	Vertebrata (indeterminate)	unidentifiable		18	8
	Osteichthyes (small)	sm. bony fish		2	
	Testudinata	turtle	5	13	6
	Terrapene sp.	box turtle	1	6	
	Mammalia (indeterminate)	unid. mammal	15	10	3
	Mammalia (large)	lg. mammal	19	35	6
	Artiodactyla (medium)	deer-size artiodactyl	2	2	1
	Odocoileus sp.	deer	1		
		TOTAL	43	86	24

Unit 1 (Midden Area)

A total of 153 faunal specimens were recovered from three levels in Unit 1, and just over half came from the flotation sample in the midden deposits (n=78, 51%). Depths range from 0-30 cm bs. The unit sample is dominated by large mammal bone fragments (n= 60), but also includes indeterminate vertebrate, unidentifiable fish, turtles, unidentifiable mammal, medium artiodactyl, and deer remains. One hundred twenty seven fragments are burned.

Summary of the Faunal Remains

The small faunal collection from the James Owens site gives further evidence to the fact that the prehistoric Caddo peoples supplemented their diet with large game, turtle, and fish, utilizing the rich resources of the Northeast Texas Post Oak Savannah. The sample reveals the potential for further investigations to yield additional information on prehistoric subsistence practices.

CONCLUSIONS

The James Owens site (41TT769) is a multi-component prehistoric archeological site in the White Oak Creek basin of Northeast Texas. Thanks to the permission of the landowner, Mr. James Owens, we have been able to conduct archeological investigations at the site, and in the process we have gathered archeological information on the past settlement of this part of the Post Oak Savannah.

The first use of the site was during the Late Archaic to Woodland period (ca. 2800-1200 years ago). This component on the natural rise is marked primarily by discarded Gary and Yarbrough dart points, some fire-cracked rock from hot rock cooking of plant and animal remains, and a relatively dense deposit of locally-collected lithic debris from the manufacture and maintenance of stone tools.

The principal occupation of the James Owens site apparently took place between the 13th to 15th centuries A.D. by prehistoric Caddo peoples, and the occupation is marked by a midden deposit, high densities of ceramic sherds and daub/burned clay, as well as preserved animal bones of deer, turtle, and other species, mussel shells, and plant remains (primarily charred hickory nutshells). The midden may represent a trash deposit that accumulated in, or in the immediate vicinity of, a burned Caddo structure. The density of cooking jar sherds (the utility ware sherds decorated with brushing, punctation, applique, and incised lines), in combination with the estimated size of the midden, indicate that the midden may have accumulated (cf. Varien and Mills 1997) over ca. 20-30 years by at least one or two households.

The dominance of grog-bone tempered pottery at James Owens, in combination with a dominance of punctated and incised decorative elements, but with some brushed and brushed-incised jars—and a relatively abundant amount of red-slipped pottery in the assemblage—suggest social affiliations to other Caddo groups living in the White Oak Creek basin as well as living north and east (downstream) on the Sulphur River. Sites like the Cheatwood Place (41RR181, see Gaither et al. 1991) on Little Mustang Creek in the Sulphur River basin, Cheatwood Lake (41RR39), 41RR65 on Shawnee Creek (Heartfield, Price, and Greene, Inc. 1982), 41TT670, and 41BW553 (Largent et al. 1997) all have dense midden deposits from sedentary Caddo occupations. They represent what must have been a substantial population of Caddo peoples living in this part of the Post Oak Savannah in the one or two centuries immediately preceding initial European contacts in the mid-16th Century. The occasional shell-tempered sherd, from both Nash Neck Banded, Avery Engraved, and red-slipped vessels, in these Sulphur River basin sites point to some contacts with Caddo groups living to the north in the Red River valley. These same groups may have provided the non-local lithic raw materials that are also present on these sites.

Further work is planned at the James Owens site before Mr. Owens constructs a house there. This work will be to explore the midden deposits in more detail, so as to better estimate its size, contents, and rate of accumulation; locate other cultural features (particularly post holes and hearths from structures); collect more flotation samples to determine if maize or other cultigens were an important part of the Caddo diet at this locale; and obtain more radiocarbon samples from the midden and other cultural features. These will be crucial, along with the existing radiocarbon and OCR dates, in refining the estimated occupation span of the James Owens site.

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Book Reviews

Thinking About Cultural Resource Management: Essays From the Edge, by Thomas F. King, 2002. AltaMira Press, Walnut Creek, California. xix + 196 pp.

Reviewed by Robert Cast, Caddo Tribal Historic Preservation Officer

The Guru of Section 106 has just compiled a book of essays that every CRM professional, archeologist, anthropologist, historic preservationist, environmentalist (have I covered all the pertinent "ists"?), and Native Americans concerned with preserving, protecting, and managing historic properties should read. There is even a nifty glossary of terms for those readers who may not be familiar with the compliance lingo that goes along with Section 106, the National Environmental Protection Act, the Native American Graves Protection and Repatriation Act, and the whole host of other federal laws related to historic preservation.

In this collection, Dr. King, or "Dr. Phil of National Preservation Institute" as I like to refer to him, has organized the book into four separate sections that address a number of issues of interest to at least one of the disciplines mentioned above, plus he devotes an entire section of the book to "Thinking About Indigenous Issues." The titles of the chapters alone are enough to catch one's eye and entice the reader to follow King on his journey to the edge. Such chapters as: "Process vs. Preservation: A False Dichotomy," "What Should We Consult About," and "Archeo-Bias: Recognition and Prevention," are not only catchy titles but address valid, complex, quandries that those of us who work in the bureaucratic mire of cultural resource management regulations and compliance are faced with every day. King offers us a series of real-life problems in the compliance world, plenty of real-world examples, and as always, a variety of unique alternatives to solving the problems.

One of the underlying themes throughout this entire book of essays, and stated openly in the chapter "Process vs. Preservation: A False Dichotomy," is the simple fact that while King, being an advocate of "good process," understands that with all the procedural regulations and laws that we have in place, these laws and processes are merely words on paper. The process is only as good as the people who perform it, and only as good as the people working within the process. Through consultation, these people can bring their own personalities and life experiences to the otherwise stale, question-ridden, full-of-flaws laws. King states: "You need *processes* for deciding what's important, how justified actions are that may affect important things, what alternatives are available to achieve a proposed action's purposes, and what to do about the effects of justified alternatives." This is the crux of the Section 106 process in a single sentence.

The chapter entitled, "What Should We Consult About?," reinforces this central theme. King is not so naive as to think that the *process* of Section 106, as it is traditionally practiced across the United States of America, is a good thing, or a viable practice in considering all views of any number of consulting parties. This fine-line between *process* and *practice* is where most of the compliance problems occur, and only by "thinking outside the box" are we able to address them in a manner that will bring closure, compliance, and usually some kind of compromise to otherwise unsolvable scenarios within the conundrum of the compliance process.

As the Tribal Historic Preservation Officer for the Caddo Nation of Oklahoma, I am all too familiar with these issues. For example, in King's essay "Archeo-Bias: Recognition and Prevention" he gives us his definition of what "archeo-bias" is along with a list of some of its character traits. One of the symptoms listed is: *A tendency to "write off" areas that have been "disturbed."* I must admit, as King readily does, that I too have been both "victim" and "victimizer" by thinking only in terms of archeology when dealing with consultations regarding historic properties. However, I have seen over and over how thinking only in these terms can be unjust in relating how the *Caddo people* perceive certain projects. One of the projects that readily comes to mind is when human remains affiliated to the Caddo were discovered while workers dug a pipeline at a water treatment plant that had been built in the 1950s. In the real world, the construction work that had been on going would never have been reviewed by the State Historic Preservation Office (SHPO) since the whole area had been predetermined to be far too "disturbed." In the end, the Caddo Nation, city officials, the archeological contractor, and the SHPO's office consulted together and reached an agreement on what needed to be done.

One of the other listed tendencies Dr. King mentions is: *Considering the significance of properties largely with reference to their information content—if they may contain interesting data they're significant; if they probably don't, they aren't.* In my job, I must consider what is important and significant only in terms of what the Caddo Nation sees as important and significant. As an example, Caddo Lake and its surrounding areas are significant to the Caddo people. It is also significant to archeologists and environmentalists. No doubt it is significant to the people living there presently; however, the Caddo people do not need the information that archeologists or environmentalists have obtained to tell them that this is a significant place. Moreover, if the area had never contained any archeological information, it would still be significant to the Caddo. If Caddo Lake, god forbid, was entirely drained, filled-in, and had a Wet-n-Wild Water Park built in its place, it would not lose any of the significance it has to the Caddo Nation. That in a sense is the difference between an area being significant for the *information* it provides archeologists and significance of location to tribal beliefs and history. In the words of Dr. King: "And if you're an archeologist, be of good cheer; archeo-bias can be cured. Rigorously review your own writing, and your own thinking, for evidence of archeo-bias, and try to weed it out…Like it or not, CRM isn't just applied archeology."

This book of essays, whether you agree with him or not, has something for everyone. As for me, I tend to think of things in terms of food and eating. I read this book in my biased, preconceived point-of-view as a book of recipes for the practice of CRM. My mother was a wonderful cook and rarely ever used a recipe but cooked meals "by taste." In following the procedural regulations of Section 106, and the plethora of laws that govern what shall and shall not be done, Dr. King asks us to ask ourselves what we are trying to accomplish. He asks us to not simply follow the recipes of all these compliance procedures but look at the ways in which we may add a little spice to the process. This can be done in a variety of ways, such as the use of Programmatic Agreements, Memoranda of Agreements, and involving a wide array of interested parties in the consultation process. Like my mother, Dr. King knows the proof is in the pudding.

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