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Timothy K. Perttula
Archeological & Environmental Consultants, LLC

Tom Middlebrook

Mark Walters

Bo Nelson

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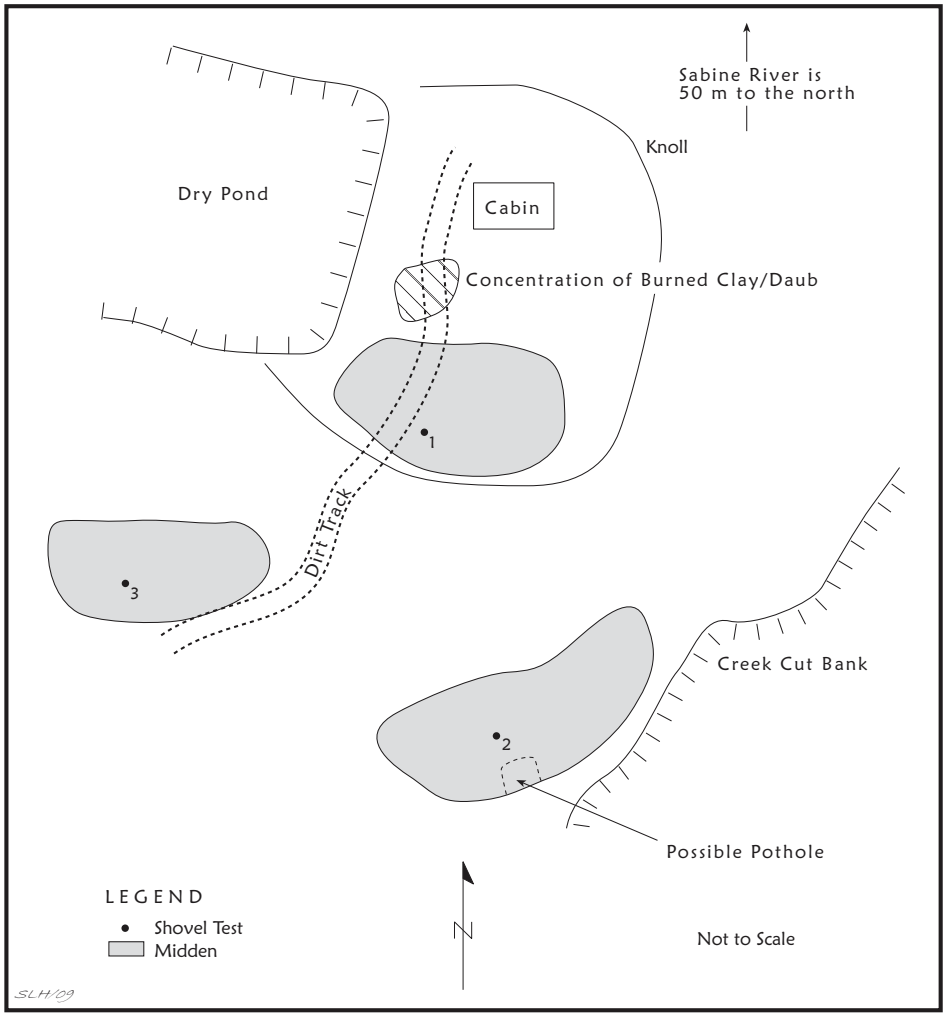

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Editor, Timothy K. Perttula
10101 Woodhaven Dr.
Austin, Texas 78753
tkp4747@aol.com

Distribution, Bo Nelson
344 CR 4154
Pittsburg, Texas 75686
RBoNelson@aol.com

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List of Authors

Tom Middlebrook, Texas Archeological Stewardship Network, Nacogdoches, Texas

Bo Nelson, Archeological & Environmental Consultants, LLC, Pittsburg, Texas

Timothy K. Perttula, Archeological & Environmental Consultants, LLC, Austin, Texas

LeeAnna Schniebs, ArchaeoFaunas, Sanger, Texas

Mark Walters, Texas Archeological Stewardship Network, Kilgore, Texas

The Jack Walton Site (41SA135), San Augustine County, Texas

Tom Middlebrook

INTRODUCTION

This article describes archaeological excavations I conducted at the Jack Walton site (41SA135) in San Augustine County, Texas, between November 1981 and July 1982, with the assistance of Suzanne Middlebrook and John Hart (see also Middlebrook 1983). During a total of 20 days in the field, 14 m^2 were excavated in four areas of the site (Figure 1). The excavated units are designated Areas 1, 2, 3, and 4.

The site is located on a high bluff overlooking the Attoyac Bayou. It was apparently wooded until the 1930s, when the timber was clear cut; the present open field has been used for pasture and cultivation of corn since. Although Walton family members have collected surface artifacts from the area for many years, the site has been undisturbed by pothunters and looters.

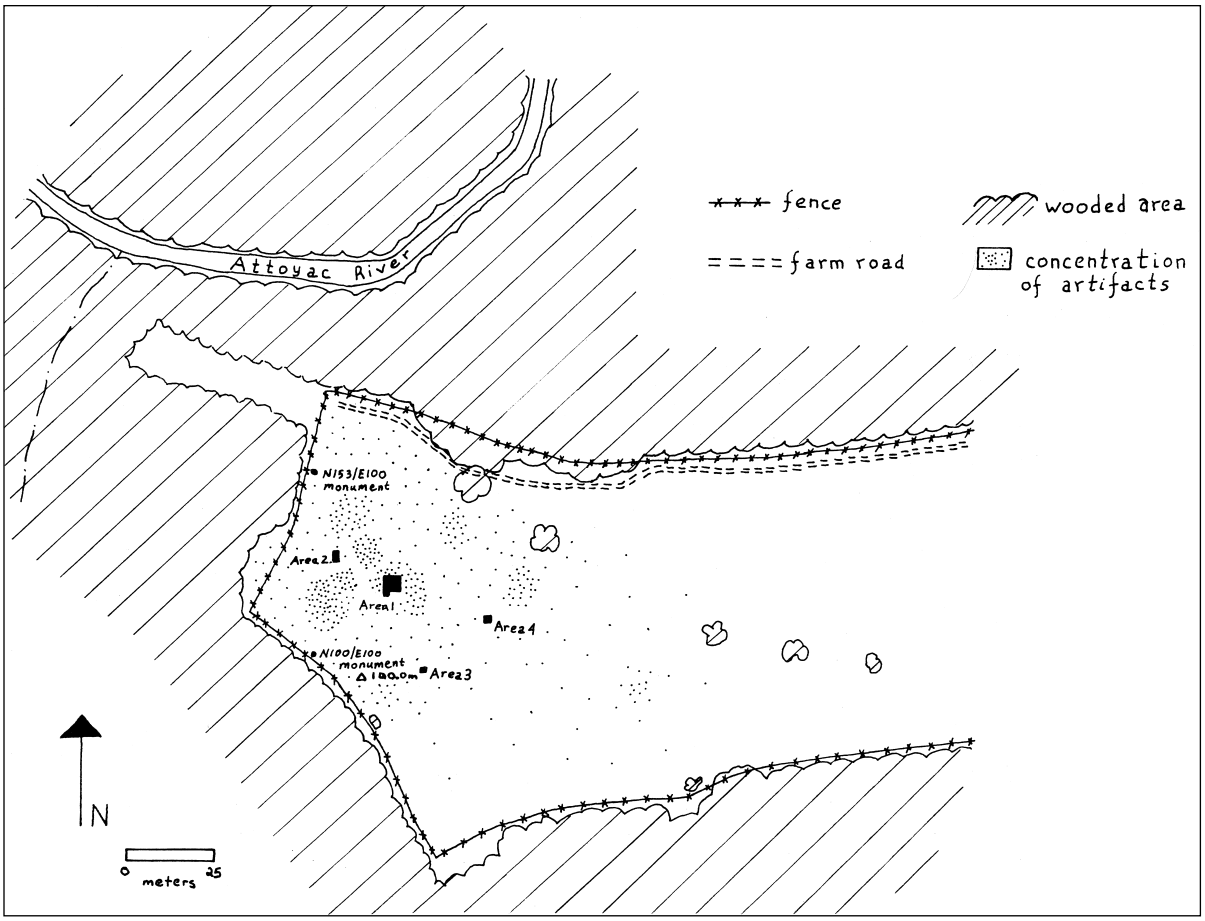


Figure 1. Sketch map of the Jack Walton site, showing the four excavation areas.

The Walton site was first reported in May 1980 by Dr. James E. Corbin. His site form described a surface collection of "hundreds of Caddoan potsherds, hundreds of lithic flakes, arrowpoints, dartpoints, pitted stones, milling stones, hammerstones, 3/4 grooved axe, fragments of granite porphyry, Frio point of Central Texas flint." I became aware of the site in June 1981 through information provided by Mr. Bud Hooper, who had collected projectile points there years ago. After several trips to the site, I became convinced that the site would lend itself well to ongoing dual research goals: (1) to arrive at a thoughtful understanding of the prehistoric peoples inhabiting the site through careful excavation, laboratory analysis, and appropriate environmental study; and (2) to provide adequate field work for the archaeological education and training of the primary investigators.

THE JACK WALTON SITE

The Walton site is situated on a tongue of a Pleistocene fluvial terrace rising about 15 m above the eastern floodplain of the Attoyac Bayou, 20 km west of the city of San Augustine and 2.4 km north of the Highway 21 crossing (El Camino Real de los Tejas) of the Attoyac. The selection of this bluff by perhaps several groups of aboriginal peoples was undoubtedly influenced by the fact that it is the only high ground near the bayou for several kilometers in both directions (Figure 2). It is located only 50 m south of an eastward projecting meander of the bayou (Figure 3). While the terrace has an overall general incline to the east, the topography is gently rolling. There are many 0.5 m high rises or small knolls across the site (Figure 4).

From casual surface collections, there is a differential spatial distribution of artifacts across the site. Lithic debitage and dart points are scattered over a ca. 150 x 300 m area (ca. 11 acres), but the majority of ceramic sherds are concentrated in a 100 x 100 m area nearest the bayou. This smaller cluster is also notable for several areas of darkly stained soil in the otherwise light-colored sandy loam soil.

In Areas 1-4, the soil A-horizon is quite shallow, rarely more than 20 cm in depth. The typical plow zone (Ap horizon) in the midden areas (Areas 1, 2, and 4) is a dark brown (7.5YR 4/4) friable sandy loam with abundant gravel-sized particles and many fine roots. In addition to the ceramic and lithic artifacts, bits of charcoal and flecks of bone speckle the soil. Only in Area 4 was undisturbed A-horizon midden present beneath the plow zone (Figure 5). Numerous recent and fossil gopher runs are evident in the lower part of the A-horizon, often packed with lithics and ceramics from rodent backfilling. The B-horizon is a reddish-yellow (7.5YR 6/6) to yellowish-brown (10YR 5/6) mottled, and moderately friable to blocky, sandy clay with abundant gravel (ferromanganese or other iron-containing concretions). Because of their darker color from midden staining, aboriginal cultural features are most easily noted when levels within the B-horizon are troweled. However, the many gopher runs and old root stains that are present are easily confused with features, and careful excavations are required to distinguish between them

METHODS

A metric coordinate system was used for excavations at the Jack Walton site, established by placing a N100/E100 monument (with an elevation of 100.0 m) near the southwest margin of the site and along a fence line. At this spot a 4 x 6 x 12 inch cinderblock was firmly buried in the ground, with its 4 x 6 inch surface exposed flush with the ground surface. An additional cinderblock is buried at N153/E100 to mark a true north-south line.

A systematic surface collection of artifacts in 10 x 10 m units was to be done prior to initiating the excavations; however, the site was covered with tall grass, leaving little topsoil exposed during the field sessions. Occasional projectile points and decorated sherds have been collected from gopher mounds, but more formal surface collection must await future disking of the field.

The initial area for excavation—a 3 x 3 m unit at N118/E121—was selected for its apparent central location in the site and an abundance of surface artifacts (Area 1). Subsequent areas were chosen to sample other midden deposits (Areas 2 and 4) and places with light colored soil (Area 3).

Each 1 x 1 m unit was excavated in 10 cm levels. Because of the shallowness of the A-horizon, 11 of the 14 units were excavated only to Level II (20 cm bs); the remaining three units were excavated to Level III (30 cm bs). In later phases of the excavations, soil profiles were drawn of at least one wall of each unit, and Munsell colors were noted for the different soil horizons. At each level, the floor and walls of the units were carefully troweled for the identification of cultural features; plan maps were

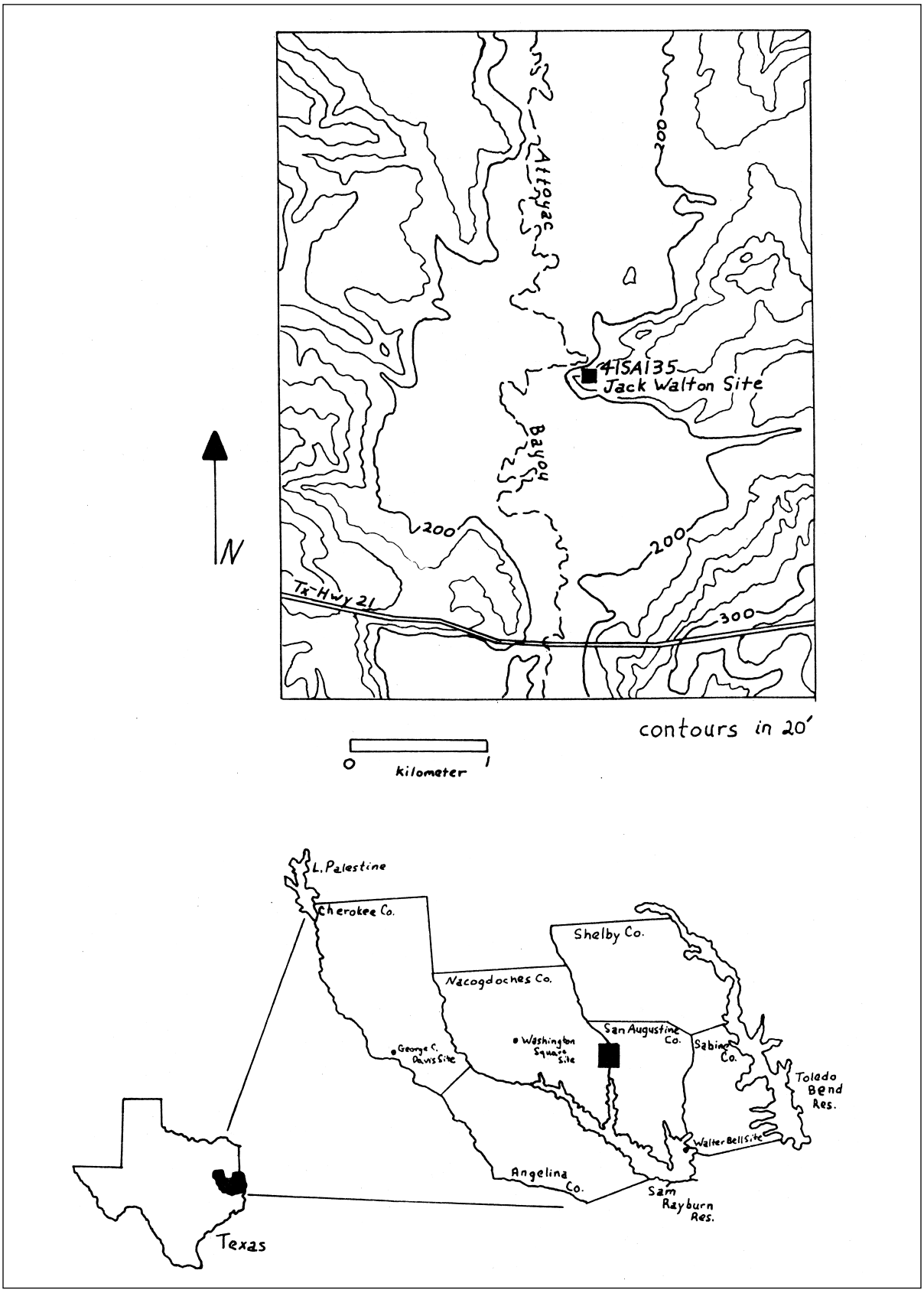
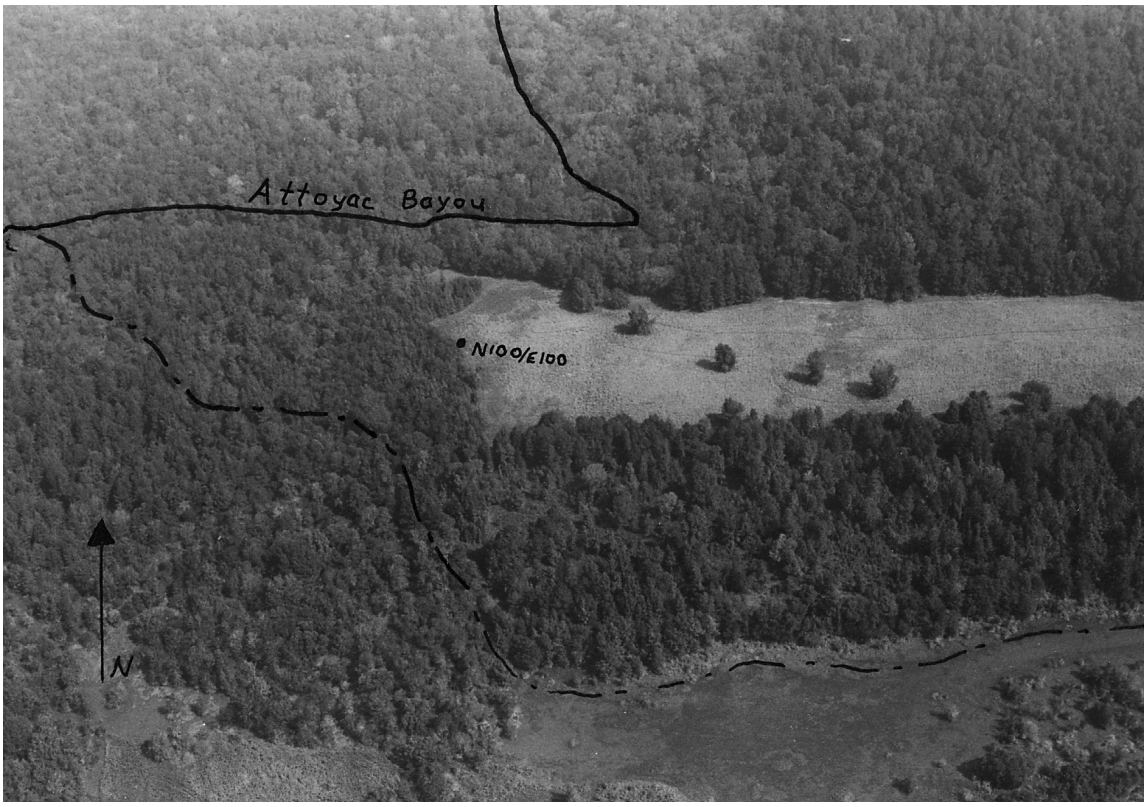


Figure 2. Topographic map of the Jack Walton site and its location within San Augustine County and East Texas.



a

b

Figure 3. Views of the site: a, aerial photograph as viewed from the south; b, excavations in Area 1, November 1981.

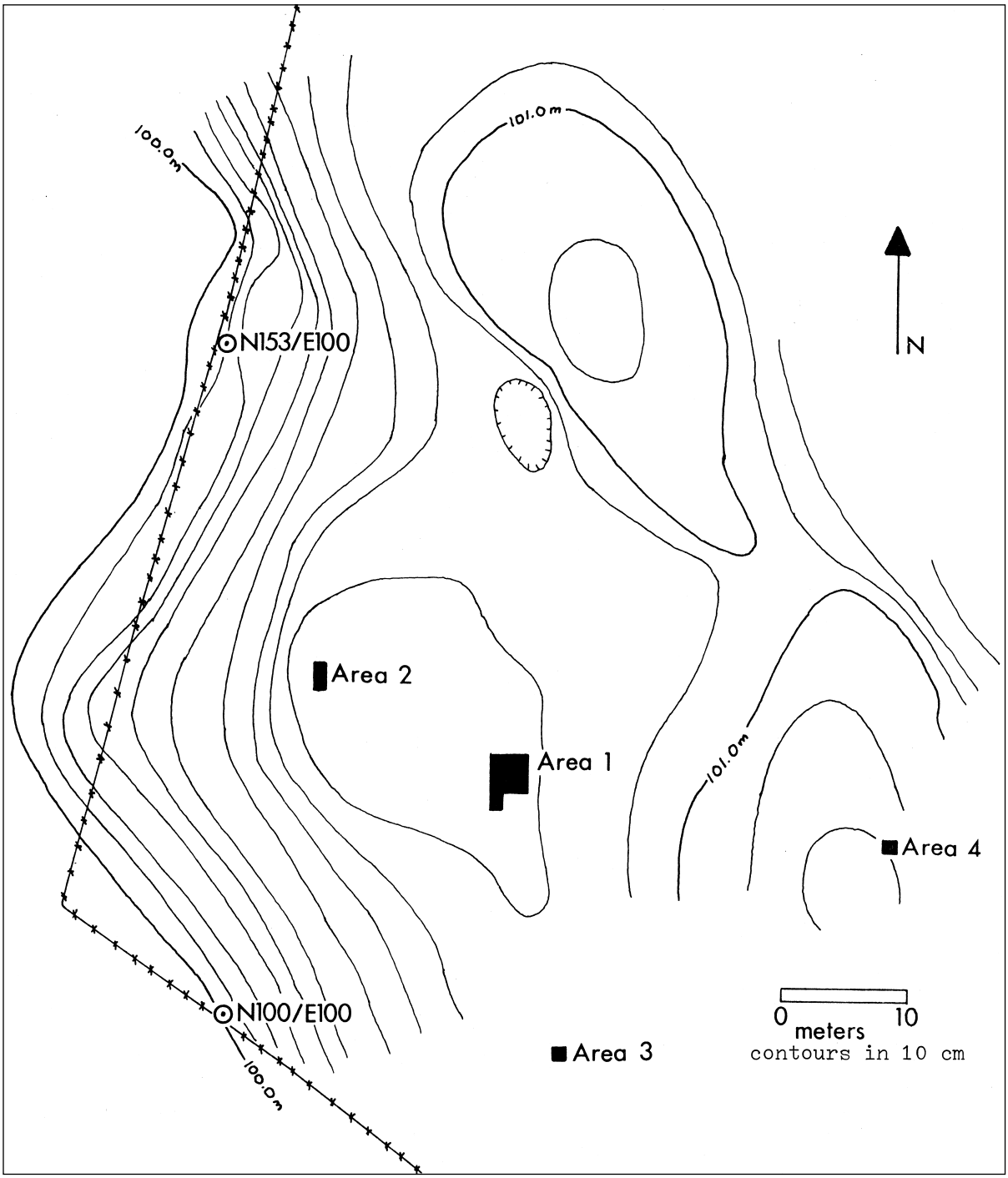


Figure 4. Topographic map of Areas 1-4 at the Jack Walton site.

drawn and photographs were taken (both black and white prints and color slides) at the end of excavating each 1 x 1 m unit. Features were easily seen in Level II (near the top of the B-horizon) as dark discolorations on a background of light colored sandy clay.

All soil removed from each level was passed through a 1/4-inch wire screen mesh. The recovered artifacts were bagged and labeled by unit and level. In the lab, the screened samples were first separated by flotation to collect any charcoal fragments and then by water washing to remove sand and silt so

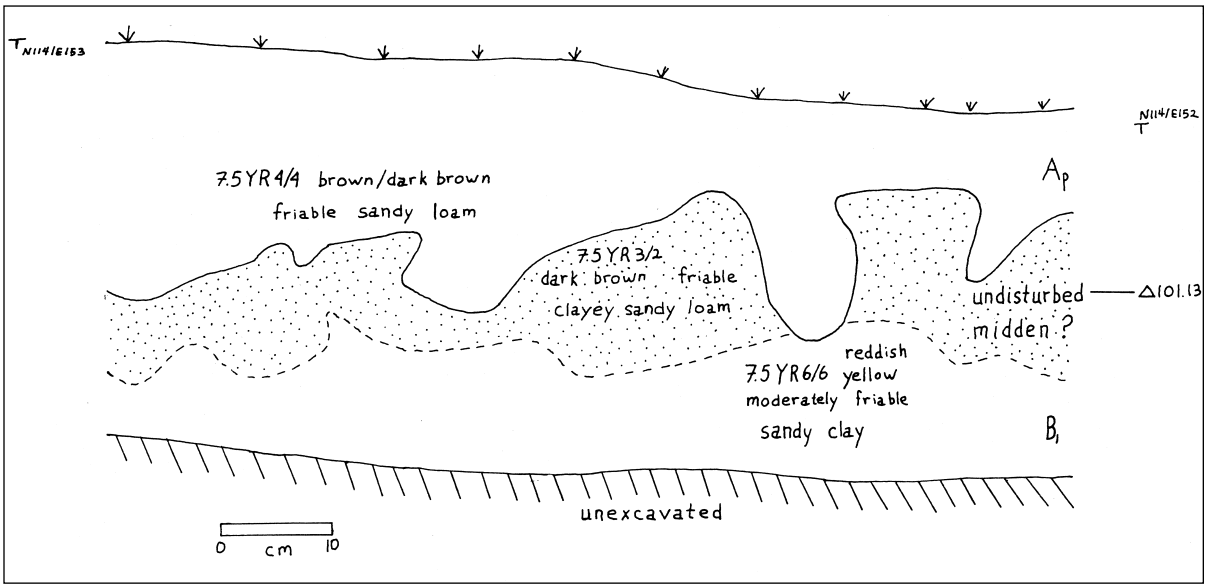


Figure 5. Profile of the south wall of N114/E152. The deep gouges in the upper surface of the undisturbed A-horizon midden were probably made during plowing.

concretions could be identified and discarded. The artifacts remaining were divided into broad groups (ceramics, chipped stone, lithic debitage, other lithics, faunal remains), underwent further cleaning, and were catalogued.

EXCAVATIONS

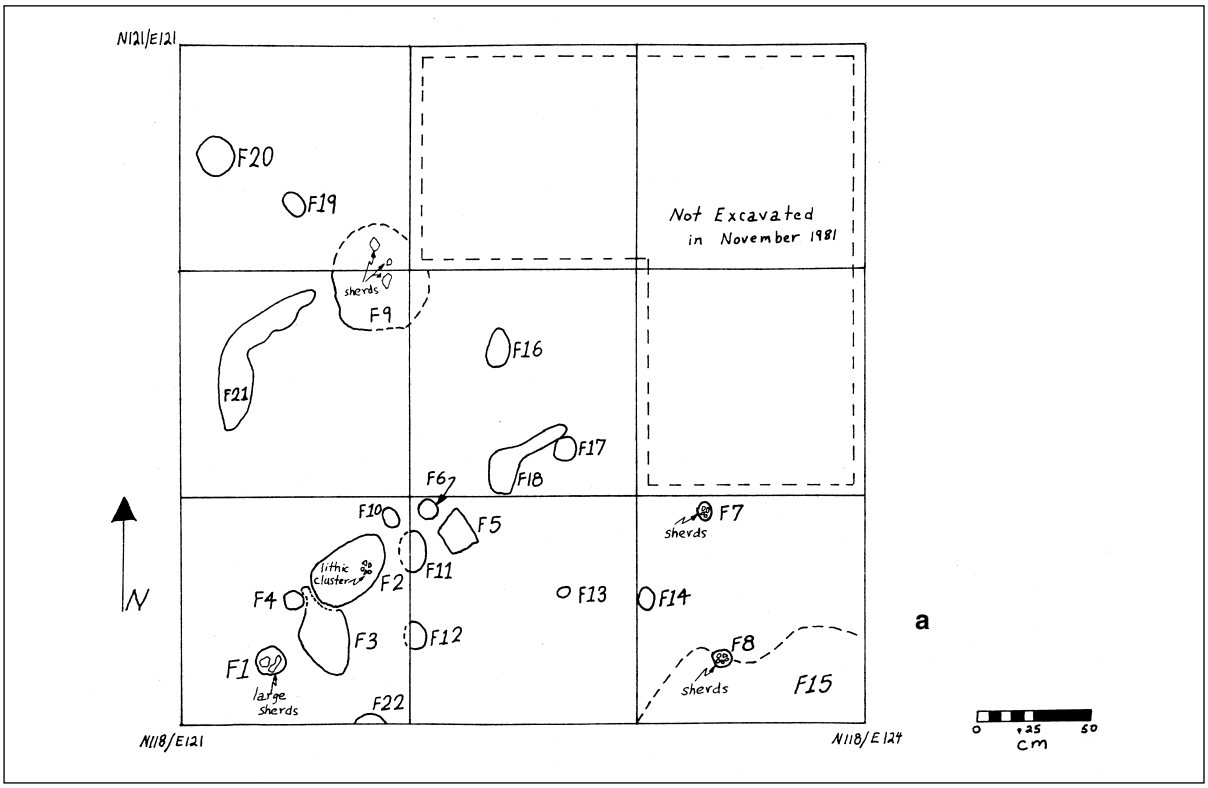
Excavations took place during 10 days in November 1981, four days in April 1982, and five days in July 1982. Fourteen m^2 were opened to depths of 20-30 cm bs. Owing to our inexperience with the soil at the site, we designated many features during the initial phases of excavations, only to realize later that a vast majority of them were gopher and root stains (Figure 6a-b). Of the 23 features originally identified in the work, only two (Feature 1 and Feature 22) are clearly of aboriginal origin; four others (Feature 2, Feature 16, Feature 17, and Feature 20) are possibly of aboriginal origin. Fortunately we placed plastic sheeting at Level II over units where Features 16, 17, and 20 are located. This will offer us a chance to take a second look at these possible features during future excavations.

As will become apparent in the summary of the four excavated units, there exists a considerable variation between the areas in terms of the number of lithics, the number of sherds, the average weight of the sherds, the presence of bone and shell, ground stone tools, etc. Table 1 and Figure 7 summarize the total artifacts found in Areas 1-4.

Area 1

Area 1 is 10 m^2 that was initially excavated as a 3 x 3 m unit with a southwest corner at N118/E121 (elevation 100.91 m); an additional 1 x 1 m unit (N117/E121) was opened in order to examine Feature 22 more closely. The plow zone is a dark brown, friable, sandy loam with plentiful gravel-sized concretions, typical for midden areas at the site. The top of the sterile B-horizon was at 17 cm bs on average. Some artifacts were recovered when Level III (20-30 cm bs) was excavated, but these appeared to be derived from the numerous gopher runs in this horizon.

A large number of sherds (103 per 10 cm level) and lithic flakes (64 per 10 cm level) were collected in the screen. The average sherd was quite small (1.36 grams) and only 32% of the sherds were larger than 1.5 cm (see Table 1). A great diversity of surface decoration and tempering agents were found in the sherds. The sherds, however, from Area 1 as a group were typical of the overall sherd assemblage from the site, and no decorative pattern was found exclusively or predominantly here. A portion of a ceramic pipe bowl (with an inner shelf) was found in Area 1. Among the chipped stone artifacts from Area 1, there were 15 arrow points, 1 Palmillas (?) dart



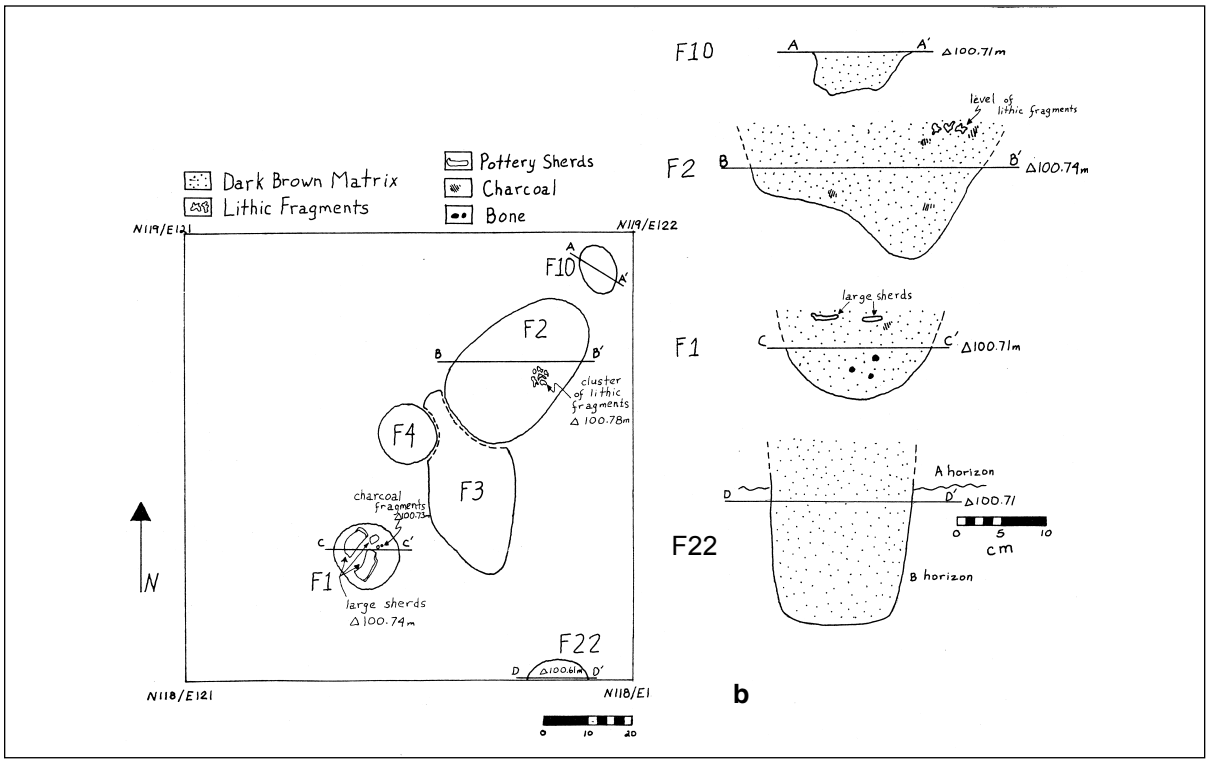


Figure 6. Features designated during excavations: a, Plan of N118/E121 (3 x 3 m unit) at level II (100.71 m in elevation). Only Feature 1 (trash pit) and Feature 22 (post hole) were later shown to be aboriginal. All the others are gopher runs or root stains. Feature 2 may have been a refuse pit, however. Features 16, 17, and 20 will be reexamined to determine their nature; b, Plan of N118/E121 (1 x 1 m unit) and cross-section of features.

Table 1. Artifact Data by Areas.

Artifact Data	Area 1	Area 2	Area 3	Area 4	Surface Collection
Ceramics (<1.5 cm)	1437	273	16	49	56
Ceramics (>1.5 cm)	679	267	7	77	46
Total No. of Ceramics	2116	540	23	126	102
% of Ceramics >1.5 cm	32	49	30	61	45
Average Wt. of Sherds (g)	1.36	2.65	1.74	2.78	–
No. of Sherds per 10 cm level	101	135	12	42	–
Total No. of Lithics	1282	348	37	77	–
Ground stone tools	–	6	–	–	–
No. of Lithics per 10 cm level	61	87	19	26	–
Bone (g)	10	295	–	35	–

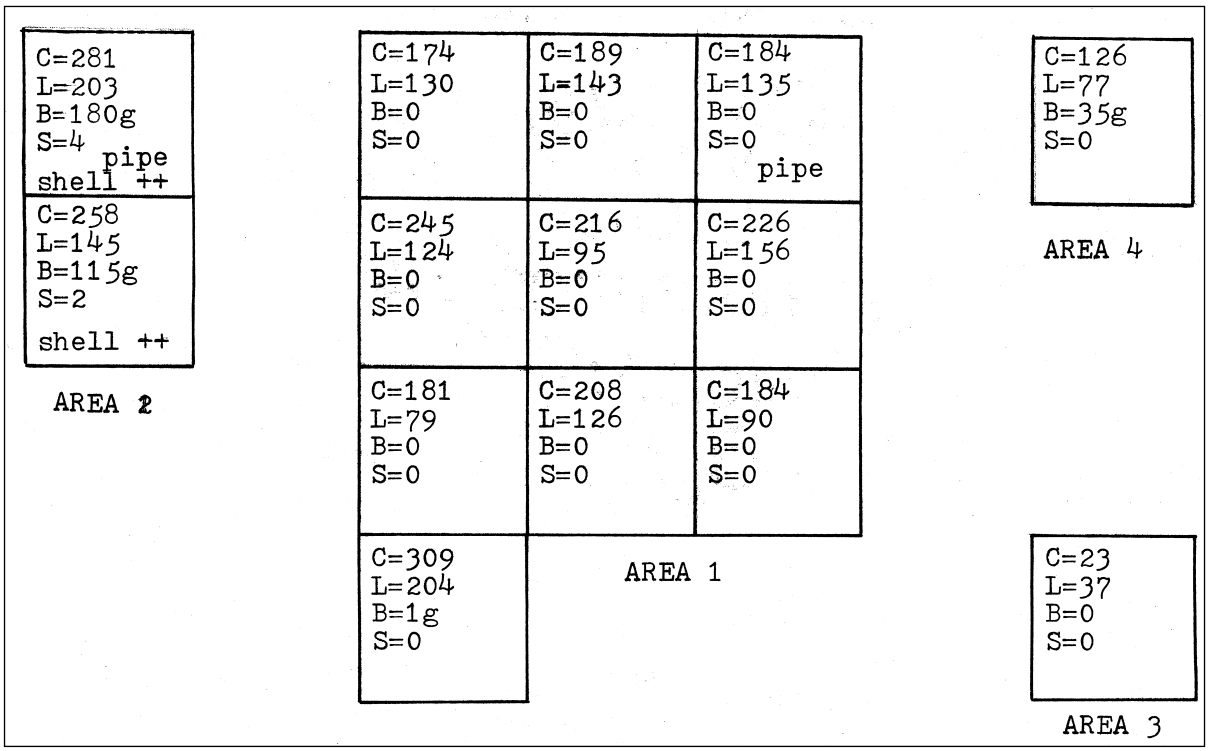


Figure 7. Total number of artifacts found in each 1 x 1 m unit. C=number of ceramic artifacts; L=number of lithic artifacts, including points; B=amount of bone (in grams) recovered in the screen; S=number of ground stone artifacts and other large lithics. Additional notes indicate where pipes and shell were found.

point, one preform, a drill, and seven other small unidentified broken lithic fragments. Eleven of the arrow points are made of local cherts, and three others are made from petrified wood. The arrow point types include six Perdiz, three Alba, one Bassett, and one Friley; there are four untyped points. In contrast to Area 2, only 15 m to the west, no ground stone tools or large cobbles were found here. While there

were occasional flecks of charcoal and bone noted in the soil, only a very small amount of these materials were collected from the screen.

Two cultural features were discovered in the Area 1 excavations. Feature 1 was found on the first day of excavations when two large pottery sherds in Level II of N118/E121 were encountered (Figure 8a; see also Figure 6b). One sherd is a large section near the base of a jar approximately 14 cm in greatest outside diameter, with diagonal coarse brushing paneled by parallel diagonal columns of fingernail punctations (Figure 9a). Vessel 2 is a large bowl roughly 35 cm in diameter with delicate cross-brushing on its surface (Figure 9b). Bits of charcoal and small bone fragments were quite numerous in the soil just beneath the sherds. Troweling at the base of Level II revealed a 16 cm, round, dark brown discoloration in the lighter colored B-horizon (Figure 8b). On cross-sectioning, Feature 1 appears to have been a small smooth-bottomed pit scooped out to a depth of 26 cm bs (see Figure 6b, profile C-C'). The residents of the site probably used the pit for discarding refuse.

Feature 22 is a post hole found while cleaning the south wall of N118/E121. This feature is a dark brown circular stain 15 cm in diameter that is most readily seen as it extends into the B-horizon. In cross-section, the sides of the post hole are straight; the rounded bottom is 36 cm bs (see Figure 6b, profile D-D').

As noted above, all of the other designated features have subsequently been shown to be fossil gopher runs or root stains, except Features 2, 16, 17, and 20 (see Figure 6). The latter three features are round dark soil discolorations at Level II and may be shown to be post holes in future examination. Feature 2 is problematic: it was originally designated on the basis of finding six large chert cores and flakes as well as one hematite conglomeration fragment in a large oval-shaped soil discoloration. Numerous bits of charcoal were also found. In profile the feature is basin-shaped and extends to 26 cm bs. Whether Feature 2 represents a refuse pit similar to Feature 1, or is an extensive gopher disturbed area, is unclear.

Area 2

A 1 x 2 m test pit (N126/E107 and N127/E107) was opened to Level II in order to study an area of especially dark soil and a high surface artifact content. The plow zone was a very dark brown, friable, sandy loam with a high organic material and charcoal content.

This unit differed from Area 1 in several ways. Both lithic (87 artifacts per level) and ceramic sherd (134 sherds per level) frequencies in Area 2 were considerably higher. Sherd size was larger (2.65 g per sherd), and the percentage of sherds larger than 1.5 cm (49%) was also greater (see Table 1).

While the ceramic decorative groups were typical of the site, there were two notable findings. First, a curvilinear trailed and rocker stamped sherd typical of Troyville ceramics (Clarence H. Webb, 1983 personal communication) was found in Area 2. Second, the number of fingernail impressed sherds found here far exceeded what would have been expected by a random distribution of sherds over the excavated areas.

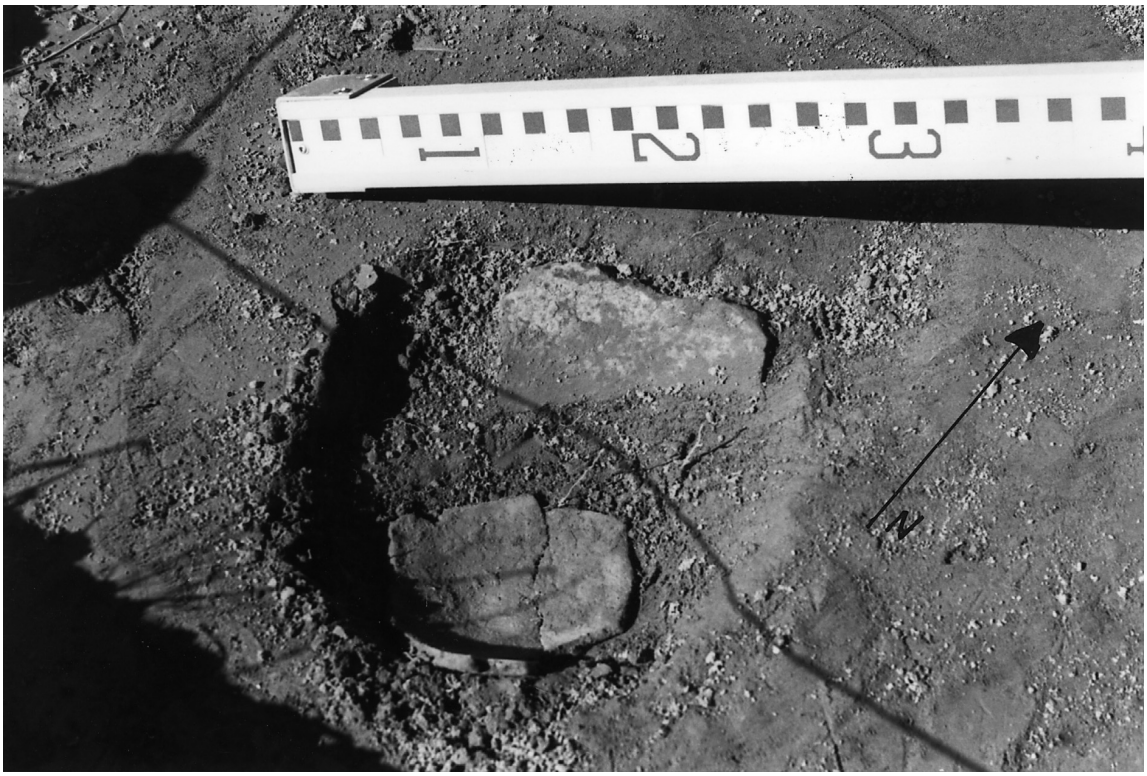
Chipped stone artifacts included one Perdiz point, one untyped arrow point, a drill, one scraper, and an atypical triangular chert point. In contrast to Area 1 where the majority of the lithic debitage was small flakes, a high percentage of the lithics in Area 2 were large cores, blades, and flakes, as well as chert cobble raw material. Four smoothed stones with a single shallow pit were also recovered; one unsmoothed sandstone fragment had a single large and deep pit. A ferruginous sandstone tool with a smoothed surface was also recovered in Area 2.

A moderate amount of charred wood and hardwood nut fragments were recovered from the screened sample by flotation. Six grams of shell remains were recovered in the form of mussel shell fragments and numerous small snails. The bones and teeth of deer and small game animals were very abundant (see Table 1). About 10% of the bones had been thermally altered, and several fish vertebrae were found.

With the large and diverse number of artifacts found there, Area 2 excavations seem to have been in a general purpose refuse midden. There is no indication, however, that the Caddo residents of the site attempted to modify the land surface (i.e., digging a pit for refuse disposal) to accommodate the accumulation of refuse. The sterile sandy clay B-horizon was consistently encountered by the time Level II was troweled, and no additional cultural features were identified after the troweling. Because of the small size of the Area 2 test pit, the areal extent of the midden is unknown.

Area 3

Area 3 is a 1 x 1 m unit (N97/E126) 22 m south of Area 1 in a subtle surface depression. The A-horizon was a light brown, friable, sandy loam 15



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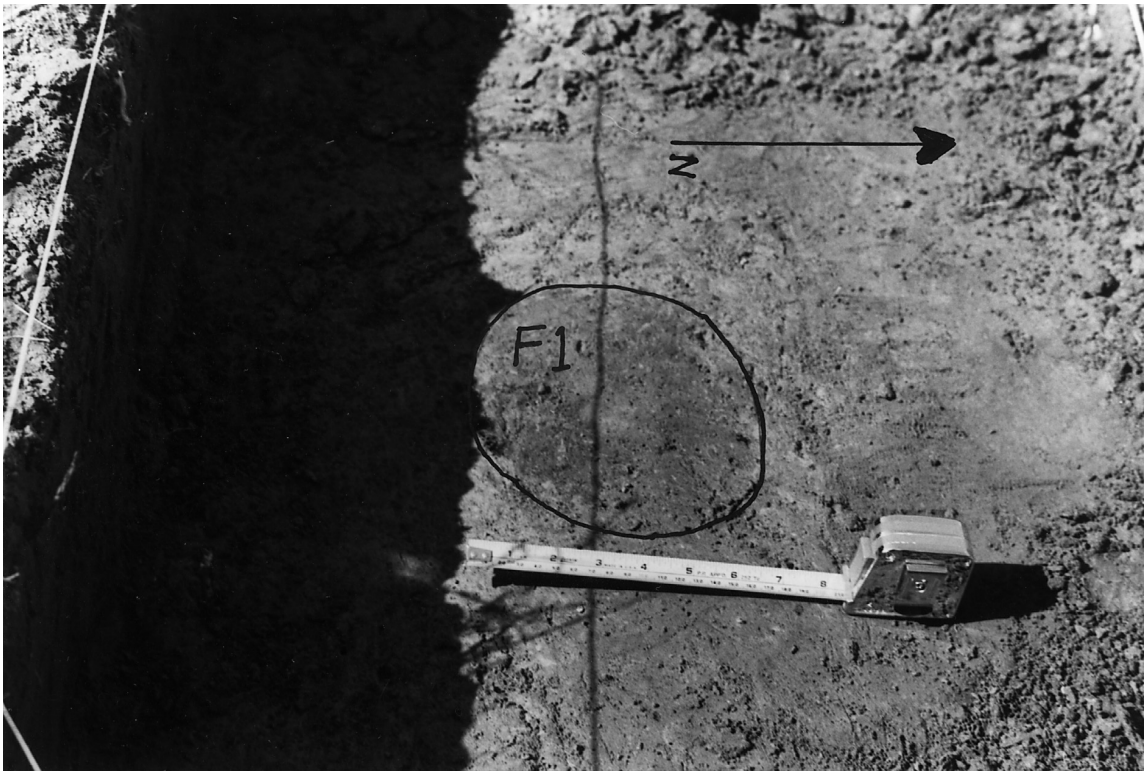

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Figure 8. Feature 1: a, the discovery of two large sherds (Vessels 1 and 2); b, Feature 1 as seen at Level II beneath the two large sherds.

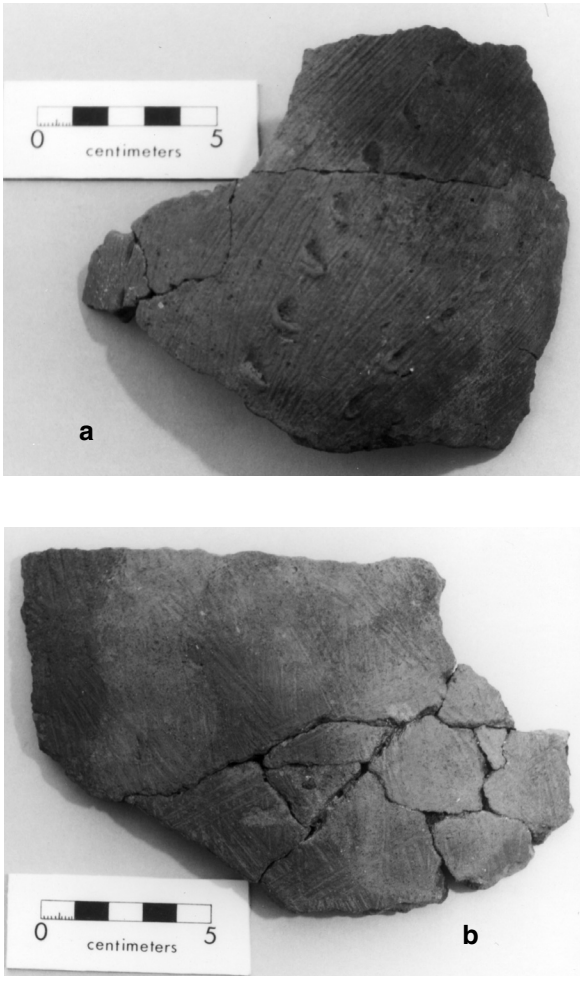

Figure 9. Vessel sections from Feature 1: a, Vessel 1; b, Vessel 2.

cm in thickness. Few ceramics (12 sherds per level) were recovered in the screening, and these were quite small (30% of the sherds were larger than 1.5 cm). One Friley arrow point was found in Area 3 along with 19 lithic debitage.

Area 4

About 30 m east of Area 1 is a 40 cm high rise on which there is a small concentrated midden deposit. A 1 x 1 m unit (N114/E152) was excavated in this area to examine the midden. The B-horizon in Area 4 was found at a greater depth (22-30 cm bs) than in other site areas, which allowed for the distinction between the plow zone and the underlying undisturbed midden deposits (see Figure 5). The soil was speckled with charcoal and bone fragments (35 g; about 50% of the bone had been thermally altered). No cultural features other than the midden itself was noted in Area 4.

While the frequency of artifacts in Area 4 was modest (31 sherds per level and 26 lithics per level) in comparison to the middens in Areas 1 and 2, average sherd size was larger (2.78 g per sherd and 62% of the sherds were larger than 1.5 cm). Ceramic decorative styles were typical of the site as a whole. No arrow points were found, but two well-made Yarbrough dart points and the broken stem of a dart point were recovered from Area 4.

CONCLUSIONS REGARDING AREA 1-4 EXCAVATIONS

Although the foregoing excavation data is limited, some suggestions as to the prehistoric use of the four areas of the Jack Walton site are warranted. Areas 2 and 4 have significant similarities: both have very dark brown midden deposits with large amounts of animal bone and plentiful charcoal fragments. Additionally, in both areas ceramic sherds are much larger in size than they are in Areas 1 and 3. Since other determinants of sherd size (such as inherent ceramic breakage qualities, destruction by modern agricultural practices, differential washing and erosion of smaller sherds, etc.) appear to have been uniform over the site, it is possible to speculate that the larger sherds in Areas 2 and 4 are a product of some protection to broken pottery during original deposition from mechanical destruction (i.e., being repeatedly stepped on or otherwise crushed). Areas for the preparation and cooking of food or adjacent refuse piles could have offered such protection. Indeed, the artifact assemblage in both areas suggests such a use.

Area 1 is more difficult to understand. This portion of the site has a high density of lithic debitage and ceramic sherds, and the sherds are small in size on average. Area 1 is virtually devoid of bone, shell, charred wood and hardwood nuts, lithic raw material pieces, and ground stone tools. Refuse seems to have been handled by filling small, shallow pits (e.g., Features 1 and 2). Obviously, learning what association Feature 22 has to other post holes will be a great help in discerning the aboriginal use of the area. The most that can be said now is that Area 1 was likely used for residential activity.

The use of Area 3 by Archaic and Caddo inhabitants is uncertain.

There are findings that may bear on the age of the components at the Jack Walton site. First, only one dart point was recovered in 2.8 m^3 of screened deposits in Areas 1-3, while two Yarbrough points and the broken stem of a third dart point were found in 0.3 m^3 of soil in Area 4. This tends to support a conclusion derived from surface collections that Archaic points are most frequently found in the eastern sections of the site, and away from the greatest concentrations of Caddo ceramics. Second, 63% of the sherds with fingernail impressions used as the only decoration (n=17) were found in Area 2, but only 25% of the total sherd assemblage was found there. Although the sample size is too small to be certain, this finding may suggest the use of the Area 2 midden by peoples who employed fingernail impressed ceramics at higher frequencies than temporally different (perhaps later) Caddo groups who utilized other midden areas.

CERAMICS

The focus of the ceramic analysis is to place the ceramic sherds (n=2893) and other clay artifacts (n=12) into broad descriptive groups based on surface decoration or form (Table 2). Generally, no attempt has been made to identify any particular group of sherds as belonging to recognized ceramic types.

Of all the collected sherds and other artifacts of clay, 63% (n=1831) were smaller than 1.5 cm in their longest dimension and had no recognizable decoration. They were tabulated by unit and level, but received no further analysis. The remaining sherds and ceramic artifacts (n=1074, 37% of the total) were divided into seven broad groups: (a) undecorated (n=582, 54.2% of the analyzed ceramics); (b) brushed as the only decoration (n=232, 21.6%); (c) fingernail impressed and punctated (n=98, 9.1%); (d) linear incised and engraved (n=90, 8.4%); (e) curvilinear and complex incised and engraved (n=48, 4.5%); (f) plain sandy paste (n=12, 1.1%), and (g) other clay artifacts (n=12, 1.1%). These major groups were subsequently subdivided into more narrowly defined groups, which are described below.

Plain Sandy Paste Sherds (n=12, 1.1%)

These plain body sherds are composed almost entirely of fine to medium grain sand; their eroded surfaces are gritty like sandstone, and sand easily rubs off them. About half of the sherds are dark brown to black in color, while the others are light tan on their outer surface. Mean thickness is 5.0 ± 0.85 mm (4-7 mm range). These sherds fit Jelks (1965) description of Bear Creek Plain as well as the sandy paste sherds at the George C. Davis site (Story 1981).

An equal number of these sherds were found in both Areas 1 and 4, although Area 1 had nine times as many sherds overall. This finding may reflect the greater relative frequency of sandy paste sherds in the eastern portion of the site.

Undecorated Sherds (n=582, 54.2%)

Most of these ceramic sherds are plain body sherds (n=518). In order to get an impression of this large group, 50 sherds were randomly selected for further analysis. Microscopic paste analysis identified three primary paste-temper agents (Table 3). A medium to fine-grained quartz and hematitic sand (occasionally with large hematitic granules) was by far the most common agent (88% of the sherds), followed by grog (74%) and bone (50%). Usually when sand was present, it was in amounts of 20-25% of the paste, although it some sherds sand formed as much as 40-60% of the paste. The most frequent tempering combination was sand-grog-bone (42%). Sand and grog (20%) and sand alone (22%) were also common. Bone was never found as the sole tempering agent. A few flecks of charcoal were present in a few sherds. Shell temper has not been identified in the sherds from the Jack Walton site.

The surfaces of the plain body sherds were generally well smoothed, and in a few cases were polished. Interiors were usually dark brown to black, while outer surfaces ranged in color from brown to red to yellow. Mean body wall thickness is 5.8 ± 1.14 mm (range, 4-9 mm).

Twenty-seven undecorated rim sherds are in the assemblage. The rims are vertical to gently everted, and most have straight sides; one rim is markedly thinned. Mean thickness is 4.8 ± 0.9 mm (range, 3-7 mm). The lip forms range from convex to flattened, and three rims have rolled out lips. Twenty-four plain shoulder sherds and 13 base sherds (average thickness, 8.8 mm, range, 7-14 mm) were also in the assemblage.

Brushed Sherds (n=232, 21.6%, Figure 10a-d)

Brushing as the only decoration appears in nearly half of all the decorated sherds (see Table 2). This

Table 2. Ceramic groups from the Jack Walton site.

Ceramic Groups	N	%
Ceramics smaller than 1.5 cm	1831	63.0
Ceramics larger than 1.5 cm	1074	37.0
Undecorated	582	54.2*
Body	518	48.2
Rim	27	2.5
Base	13	1.2
Shoulder	24	2.2
Plain Sandy Paste	12	1.1
Brushed as the only decoration	232	21.6
Body	228	21.2
Rim	4	0.4
Punctated and Fingernail Impressed	98	9.1
Fingernail Impressed	17	1.6
Single poorly defined Punctation	43	4.0
Punctated	23	2.1
Punctated/Incised	11	1.0
Punctated/Engraved	1	0.1
Punctated/Brushed	3	0.3
Linear	90	8.4
Single Incised line	21	2.0
Single Engraved line	24	2.2
Parallel Incised lines	26	2.4
Parallel Engraved lines	19	1.8
Curvilinear and Complex	48	4.5
Incised	16	1.6
Engraved	31	2.9
Trailed/Rocker Stamped	1	0.1
Other Artifacts of clay	12	1.1
Pipe sherds	2	0.2
Cylinders or coils	5	0.5
Burned clay	1	0.1
Appliqué node	1	0.1
Atypical clay object	2	0.2
Historic Ceramic	1	0.1

*percentage of the ceramics larger than 1.5 cm

Table 3. Temper and paste analysis of a sample (n=50) of plain sherds.

Paste-Temper Categories	No.	%
Sand (20-30% of the sherd)	4	8
Sand (40-60% of the sherd)	7	14
Sand (20% of the sherd), bone-grog temper	19	38
Sand (50% of the sherd), bone-grog temper	2	4
Sand (20% of the sherd), bone temper	2	4
Sand (20% of the sherd), grog temper	10	20
Grog-bone temper	2	4
Grog temper	4	8
Summary of paste categories		
Sherds with 20-60% sand in the paste	44	88
Sherds with grog temper	37	74
Sherds with bone temper	25	50

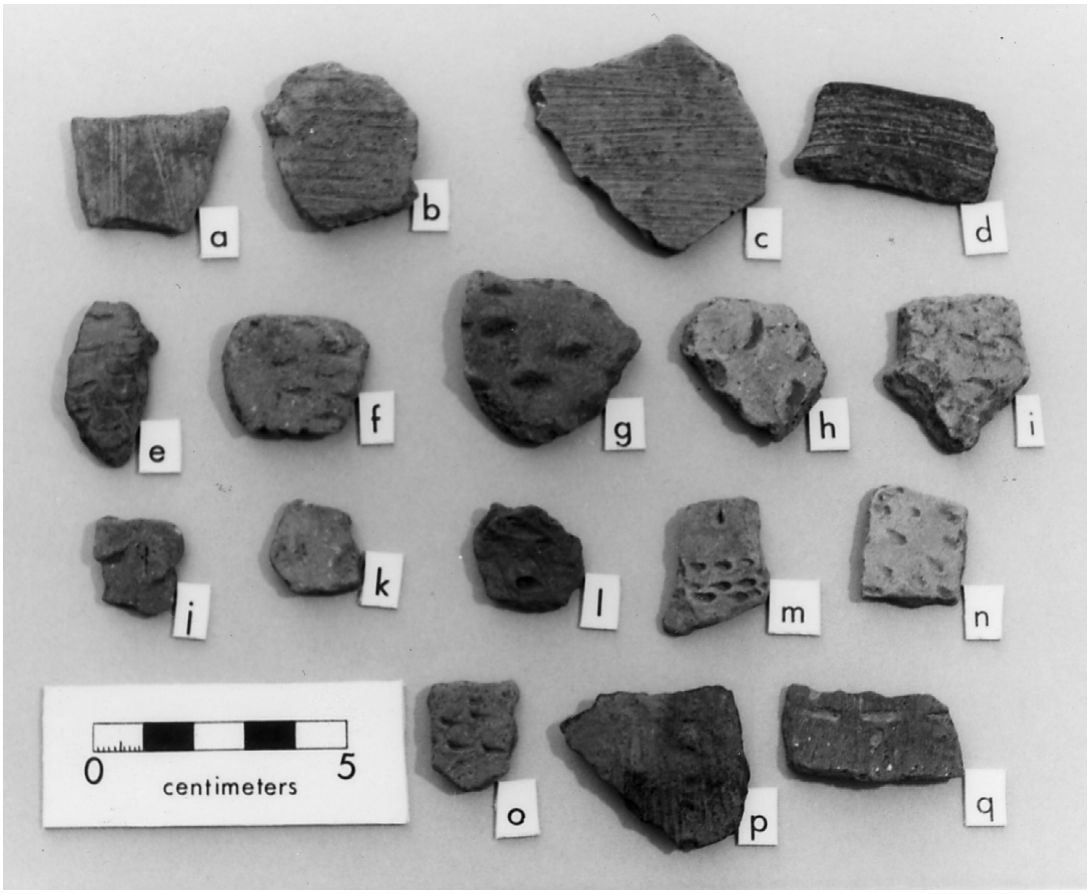

Figure 10. Brushed and punctated sherds: a-c, brushed; d, brushed rim; e-i, fingernail impressed; j-k, pinched; l-o, punctated; p-q, punctated/brushed.

group is comprised of four rim and 228 body sherds. The brushing varies widely from delicate wispy brushes to very coarse deep brush marks that seem to grade into parallel trailed and incised designs.

Of the sherds in which vessel axis could be determined, 35% had vertical brushing, 35% had horizontal brushing, 16% had diagonal brushing, and 14% had cross brushing. The four rim sherds (all with horizontal brushing) were gently everted with convex and slightly rolled lips. Colors of the brushed sherds were typically light to dark brown. Mean thickness of the sherds was 5.3 ± 1.2 mm (range, 4-8 mm). Brushed sherds seem to be evenly distributed across the excavated areas.

Fingernail Impressed Sherds (n=17, 1.6%, Figure 10e-k)

This group of sherds were decorated with the use of fingernail impressions while the clay was still plastic; this includes three pinched sherds (see Figure 10j-k). There is considerable diversity in the form of the punctations. Some have crisp margins; five sherds have evidence that the clay was intentionally raised on one side of the fingernail impression; another sherd has a circular impression where the fingernail was used to gouge out a depression. Patterns ranged from neat columns of impressions to haphazard arrangements.

The sherds ranged from very dark gray to light brown in color. Mean thickness was 5.9 ± 1.45 mm (range, 4-9 mm). As mentioned above, 63% of the fingernail impressed sherds came from Area 2. No fingernail impressed sherds were found in Area 4 on the eastern side of the site.

Punctated Sherds (n=81, 7.5%, Figures 10i-q and 11a-f)

This group was subdivided into sherds with single or poorly defined punctations (n=43), sherds with multiple punctations (n=23), punctated/incised line (n=11), punctated/engraved line (n=1), and punctated/brushed (n=3) (see Table 2). The punctations in this group are very heterogeneous: pin point, triangular, irregular gouges, elongated instrument punctated, etc. The general impression is that the decoration was not very carefully done,

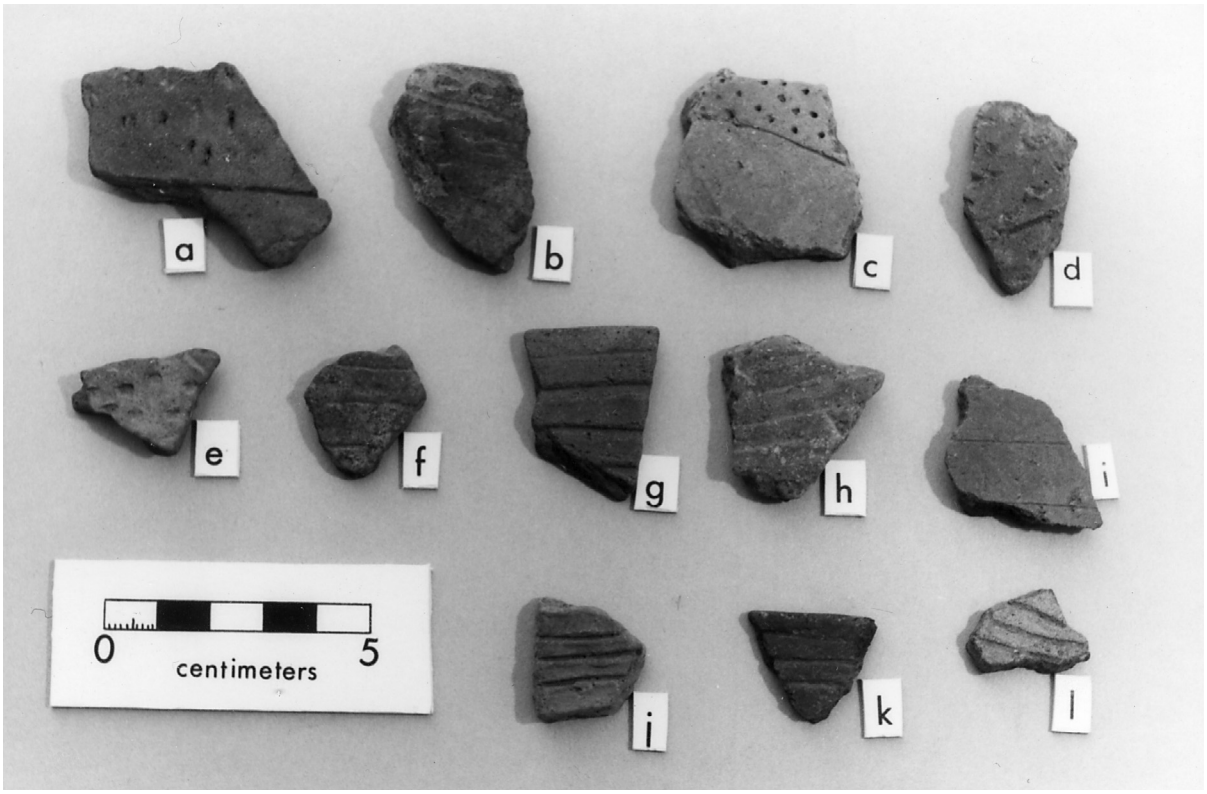

Figure 11. Punctated and Incised sherds: a-f, punctated/incised lines; g-l, incised lines.

and fields of punctations are not symmetrically arranged. In the punctated/incised sherds, the punctations are zoned on one side of an incised line. One rim sherd had a horizontal row of dot punctations; the rim was slightly flared with a convex rounded lip.

The punctated sherds are typically dark brown to tan in color. Mean thickness is 6.3 ± 1.34 mm (range, 5-9 mm). Punctated sherds are apparently evenly distributed across the site.

Linear (Incised and Engraved) Decorated Sherds (n=90, 8.4%, Figure 11g-l)

Although difficult to distinguish in some sherds, about half of the sherds in this group have incised lines and the remainder have engraved lines. Four groups have been defined: single incised line (n=21); single engraved line (n=24); parallel incised lines (n=26); and parallel engraved lines (see Table 2). The incised lines vary from very narrow and shallow to deeply trailed. The lines are 4.7 mm apart on average (range, 2-12 mm). The sherds with engraved lines looked similar to those with incised lines, and they had similar spacing of lines (5.5 mm on average, range, 3-10 mm). Both incised and engraved sherds had comparable surface treatment, and none were polished. Colors in the linear sherd group varied from dark brown to light brown, with some reds. No concentration of these sherds was noted in any one area of the site.

Curvilinear and Complex (Incised and Engraved) Decorated Sherds (n=47, 4.4%, Figure 12a-h)

This group includes 31 engraved and 16 incised sherds. No one sherd is large enough to display the overall decorative pattern, however, several sherds may have a scroll design; these sherds have a cross-hatched pattern. One sherd from the neck of a bottle may have an engraved "brick wall" design (Figure 12h). Several of the incised sherds tend to grade into a cross-brushed design.

Figure 12. Curvilinear and complex decorated sherds: a-h, curvilinear and complex; i, curvilinear trailed and rocker stamped (possible Troyville Stamped).

Curvilinear Trailed/Rocker Stamped Sherd (n=1, 0.1%, Figures 12i and 13)

One sherd was found in Area 2 with deep curvilinear trailing (3 mm wide line) with zoned rocker stamping. This sherd is likely from a Troyville Stamped vessel. The sherd is 5 mm thick with a dark brown exterior and black core and interior surface. A medium quartz-hematitic sand forms 70% of the sherd paste, and is the only tempering agent.

Figure 13. Close up of Curvilinear trailed/rocker stamped sherd.

Pipes (n=2, 0.2%, Figure 14a-b)

Two pipe sherds were found at the Jack Walton site during the excavations. One in Area 1 is the front half of a thick pipe bowl with a 3 mm wide inner shelf. The walls of the bowl are 6-7 mm thick. Its exterior surface is U-shaped and has been lightly polished. The other pipe sherd was from Area 2. It is a thick-walled (6-10 mm) pipe bowl with a 3 mm inner shelf; it is more crudely made than the first pipe. The second pipe sherd has been smoothed but not polished.

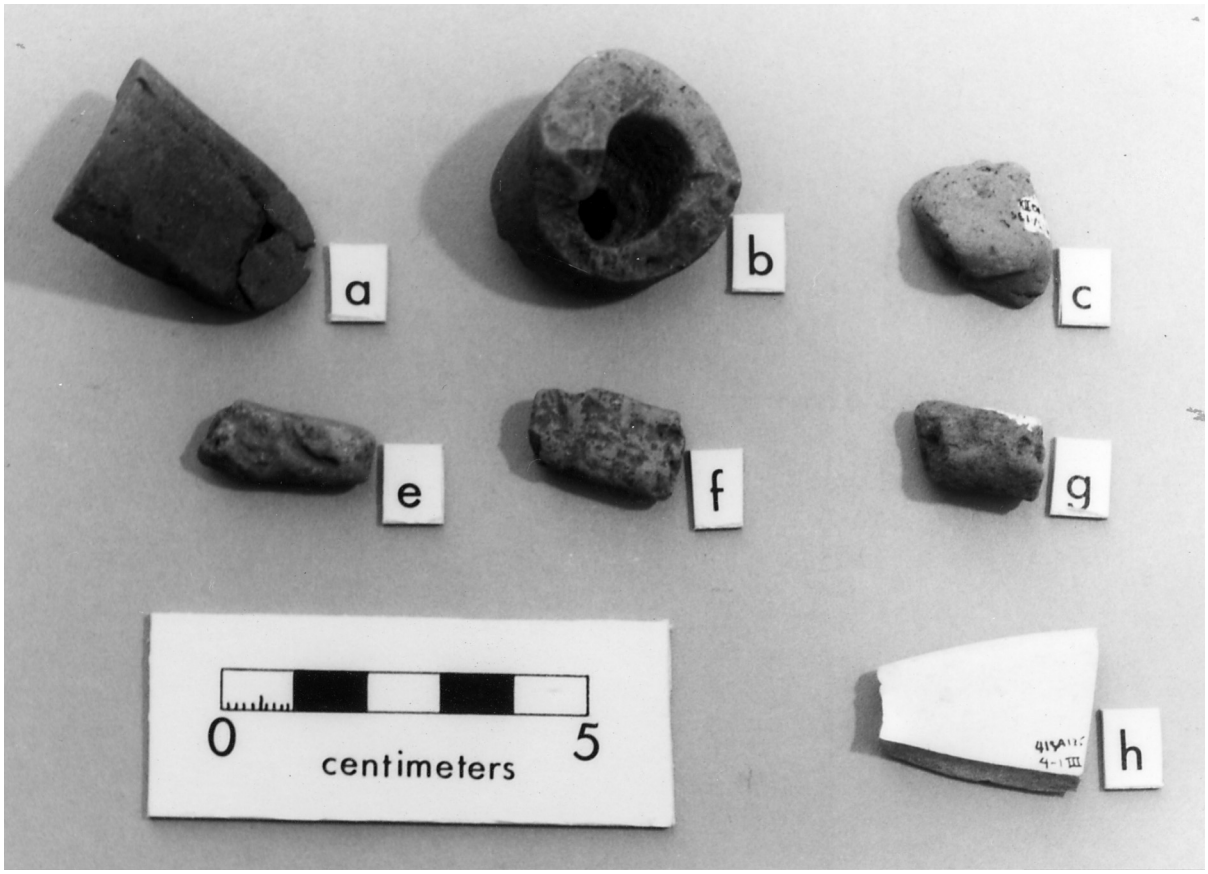

Figure 14. Pipes and other clay artifacts: a-b, pipes; c, appliqued node; e-g, coils; h, modern historic ceramic sherd.

Other Clay Artifacts (n=10, 0.9%, Figure 14c-h)

Five coils of fired clay were recovered in the excavations, four from Area 2 and one from Area 1. Other clay artifacts include an amorphous chunk of burned clay (Area 2), a broken off appliqued node, two atypical clay objects, and a piece of historic ceramic pottery (Area 4).

LITHICS

All but 63 of the 1744 lithic artifacts found at the Jack Walton site were classified as lithic debitage or raw material. These were usually small chips and flakes, but blades, cores, and unmodified lithic raw material was also recovered, especially in Area 2. Most of the chipped lithics were composed of tan to red local creek chert, and to a lesser extent local petrified wood. However, the sample does include light-colored Central Texas cherts and other exogenous cherts.

At present, no systematic analysis of the lithic debitage has been conducted except to document the location where the artifacts were found. In general, lithic concentrations tend to co-vary with ceramics: high numbers of artifacts in Area 1 (61 per level) and Area 2 (87 per level), but lower frequencies in Area 3 (19 per level) and Area 4 (26 per level) (see Table 1). Area 3 is the only area where more lithics than ceramics were found.

The 39 identifiable chipped stone artifacts and 12 ground stone tools are described below. Sixteen fragments of arrow points, dart points, and manufacture failures were also found, but have not been analyzed.

Arrow points

The largest group of identified arrow points (Suhm and Jelks 1962) were Perdiz points (n=7, Figure 15a-g). These were all recovered in the western part of the site (six from Area 1 and one from Area 2). Three other points are probably

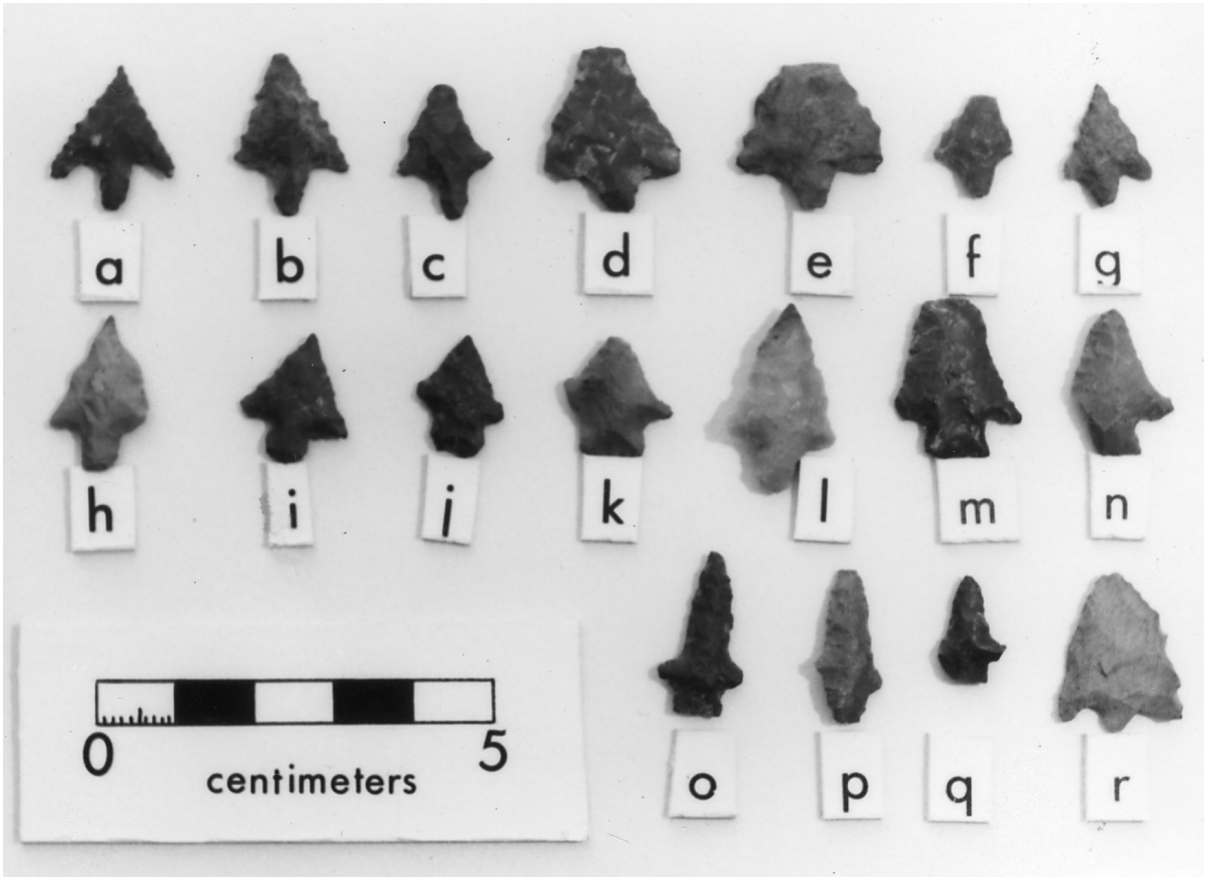

Figure 15. Arrow points: a-g, Perdiz; h-l, Alba; m-n, Colbert; o-q, Friley; r, Bassett.

Perdiz, but are untyped because they have broken stems. The Perdiz points vary from red to tan and gray in color; two were formed of petrified wood, and the others were made on local cherts. Workmanship varies from poor to excellent. Some have delicately serrated edges. The blades are triangular with straight edges, and shoulders are straight to markedly barbed. Stems (average length is 4.7 mm) are quite contracted.

The group of five Alba points are somewhat heterogeneous, but all of them share a triangular blade with basically triangular stems (see Figure 15h-l). Edges are straight to very slightly recurved. Shoulders are straight to mildly barbed. Two points (see Figure 15j-k) have wide stems (7-9 mm); another has a slightly bulbous stem (see Figure 15i).

Three Friley points were also recovered (see Figure 15o-q). All were small with narrow (5 mm) recurved blades and laterally projecting barbs. Two broken arrow points are tentatively identified as Colbert (Webb 1963) on the basis of blades that resemble Alba points but with expanding stems produced by corner-notching (see Figure 15m-n). One Bassett point was found (see Figure 15r). Five arrow points are untyped because of broken stems.

Dart points

By far the most striking of the dart points is one with a triangular blade, a blunt tip, and a strongly concave base (Figure 16f). This point was found in an Area 2 surface collection. It measures 50 mm in length and is 25 mm wide at the base. The composition is a brown non-local chert; microscopic examination suggests a chert formed by siliceous replacement of a fossiliferous limestone. Webb (1983 personal communication) conjectured that the point was made by late Paleoindian peoples.

Two well-made Yarbrough points were found in Area 4 (see Figure 16h-i). They are both formed from petrified wood and have similar dimensions (55 mm in length and 20 mm wide at the shoulders). One possible Palmillas (see Figure 16g) has a short

Figure 16. Projectile points: a-e, untyped arrow points; f, untyped point of possible Paleoindian origin; g, Palmillas; h-i, Yarbrough; j-k, untyped dart points.

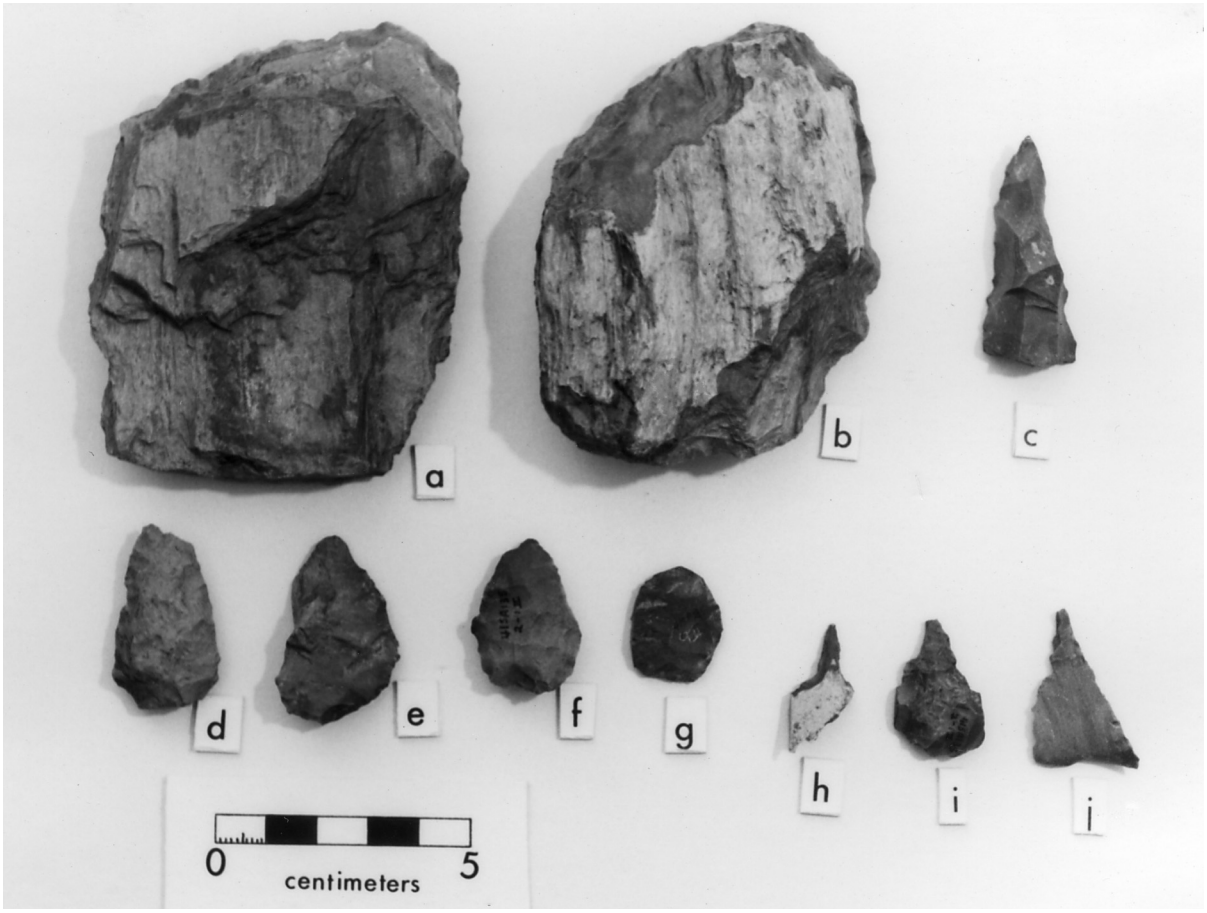

Figure 17. Other chipped stone artifacts: a-b, choppers; c, atypical triangular point; d, preform; e-g, scrapers; h-i, perforators.

triangular blade with slightly convex edges and barbed shoulders. The stem is bulbous and is not quite 33% of the entire length. Two crudely formed petrified wood dart points (see Figure 16j-k) were found in surface collections in the far eastern sector of the site.

Other Chipped Stone Artifacts (n=10)

Three perforators were recovered at the Jack Walton site, each with a distinctive morphology. One has a long (11 mm), narrow (4 mm) bit on a largely unworked base (Figure 17h). This perforator, made of a local red chert, fits the description of Jelks' (1965) Form III drill. A second perforator (akin to Jelks' Form II) is a bifacially worked petrified wood artifact with a triangular bit and an ovoid base (Figure 17i). The third perforator is a wedge-shaped fragment of petrified wood 30 mm in length and lightly chipped on the lateral edges.

One tan chert preform was recovered from Area 1 (see Figure 17d). Three generally oval-shaped scrapers (see Figure e-g) were also collected from the site. All three were formed of dark red local chert and were bifacially chipped. An unusual red chert point triangular in cross-section was found in Area 2 (see Figure 17c). It is unclear if this is a fragment of a larger artifact or a preform, core, or another kind of chipped stone artifact. Two large choppers of petrified wood (see Figure 17a-b) were found in surface collections.

Ground stone Tools (n=12, Figures 18 and 19)

Six cobble-sized stones with most sides smoothed by abrasion were found, four in Area 2 and two in surface collections. All had a single, shallow, centrally located pit on a flat, smoothed surface (Figure 18b-c). Three of these pitted stones were

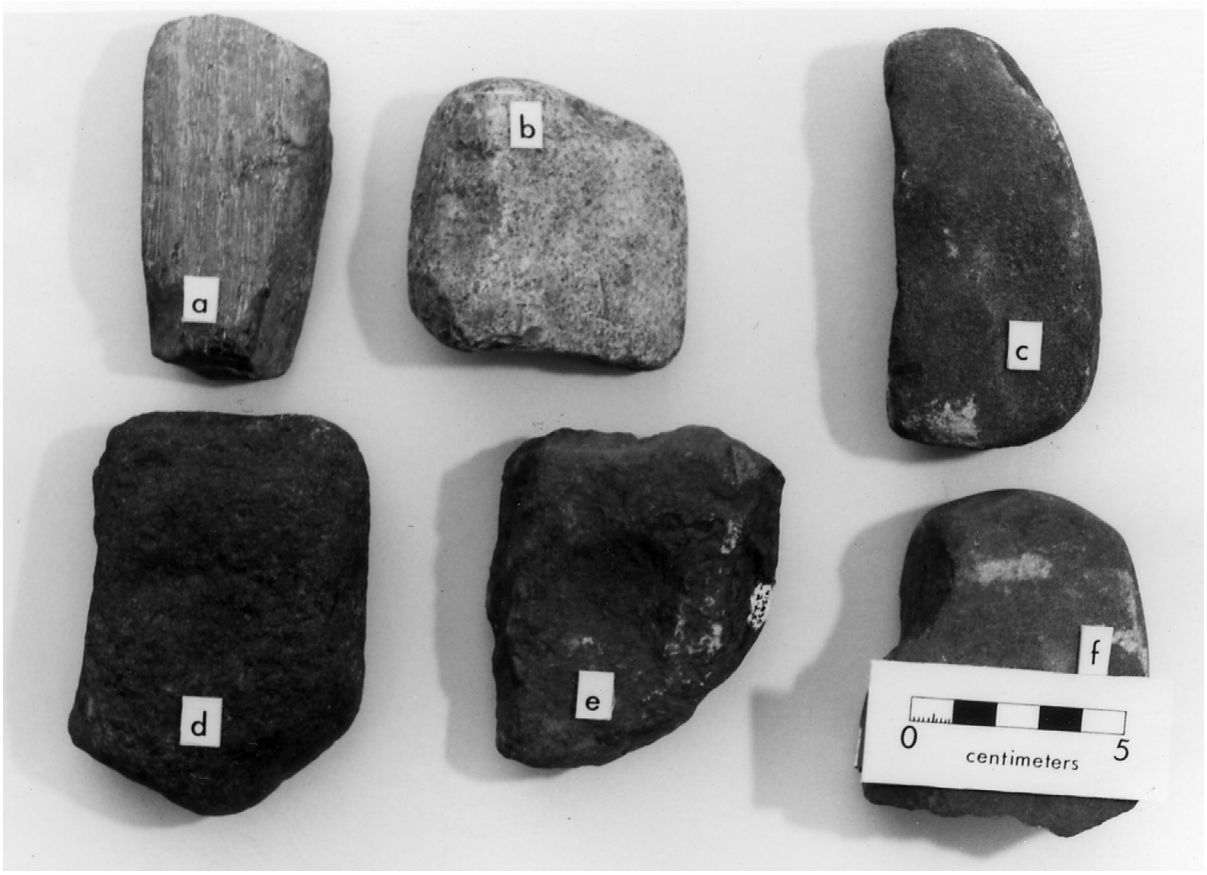

Figure 18. Ground stone tools: a, petrified wood hammerstone; b-c, smoothed pitted stones; d, smoothed/pecked pitted stone; e, rough surface pitted stone; f, mano (?) fragment.

composed of ferruginous sandstone, two of quartzite (Catahoula Formation?), and one of limestone. Two of the ferruginous sandstone artifacts also have evidence of pecking (Figure 18d).

A second category of pitted stones consisted of two large lithic artifacts with a rough surface and one large, deep pit (see Figure 18e). One stone was composed of ferruginous sandstone; the other was made of a large slab of fossiliferous marly sandstone from the Weches Formation (Figure 19a).

One each of the following artifacts were recovered from the Jack Walton site: (a) a concave abraded stone composed of ferruginous sandstone, found in the surface collections, most likely a milling slab (see Figure 19b); (b) a broken mano (?) from Area 2 (see Figure 18f) made of ferruginous siltstone; an oblong abraded cobble of marly glauconite from a surface collection (see Figure 19c); and (d) a petrified palm wood hammerstone found in a surface collection (see Figure 18a).

CONCLUSIONS

The modest amount of archaeological investigations at the Jack Walton site in 1981 and 1982 does not support detailed interpretations. Therefore, the emphasis of this article has been a descriptive one. Nevertheless, a few conclusions about the cultural components represented at the site can be made.

Excavation data suggests several occupations of this high bluff on Attoyac Bayou: (1) one triangular dart point (see Figure 16f) may represent the work of a late Paleoindian group; (2) a Middle/Late Archaic component is evidenced by a number of dart points, including Yarbrough and Palmillas types and crudely-made petrified wood points. These points and the lithic debitage related to their manufacture are scattered over a large area, especially in the eastern portions of the site; (3) a curvilinear trailed/rocker stamped sherd tempered with local sand indicates the presence of Troyville peoples at the

Figure 19. Other ground stone tools: a, pitted stone in slab of Weches glauconitic sandstone; b, fragment of milling stone; c, atypical smoothed stone.

site, although I cannot rule out that this sherd came from a trade vessel; (4) a component of the Early Ceramic or Woodland period is recognized on the basis of several sandy paste sherds; these sherds may be distributed in areas similar to the Middle/Late Archaic points; and (5) the Caddo component is certainly the most prominent one at the Walton site, and is characterized by a large ceramic assemblage and arrow points such as Perdiz, Alba, and Bassett.

The crucial question is whether or not there are several Caddo components here. The fingernail impressed sherds (concentrated in Area 2) and the punctated/incised sherds are similar to some Early Caddo (Alto phase) types. On the other hand, the large number of brushed sherds and the overall similarity to the artifact assemblages from a few Angelina Focus sites (e.g., Walter Bell, see Jelks 1965; see also Corbin et al. 1978) suggests a Middle/Late Caddo period component. Future work emphasizing the differential intrasite distribution of lithic and ceramic types, radiocarbon dating, and careful comparison to nearby sites such as Washington Square (41NA49) in Nacogdoches and the McElroy site a few kilometers to the northeast of Jack Walton, will help delineate the Caddo cultural components present at the Jack Walton site.

Jack Walton is a rich archaeological site bearing evidence of occupation by a wide range of native inhabitants. It clearly provides exciting possibilities for continued investigations.

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Documentation of Caddo Ceramic Vessel Sherds from the Shelby Site (41CP71) in the Vernon Holcomb Collection, Camp County, Texas

Timothy K. Perttula

INTRODUCTION

The Shelby site (41CP71) is an important Late Caddo period, Titus phase, religious and political center on Greasy Creek in the Northeast Texas Pineywoods. The site, occupied from the 15th century A.D. until at least the late 17th century A.D., is a large and well-preserved settlement with abundant habitation features as well as plant and animal remains, evidence of mound building activities in the form of a 1.5 m high structural mound, and a large community cemetery with at least 119 burial pits and perhaps as many as 200. The Shelby site is the nexus of one of a number of Titus phase political communities in the Big Cypress Creek stream basin (Perttula 2009; Perttula and Nelson 2004).

Nevertheless, very little is known archaeologically about the site—or the history of the Caddo's settlement there—since almost all the work done at the site since it was discovered in 1979 has been by looters. Perttula and Nelson (2004:21-44) completed a limited amount of work in the village area in 2003, and Bob Turner and others worked in the 1.5 m high structural mound between 1985-1988 (see Perttula and Nelson 2004:13-20), but an overall synthesis of the Caddo occupation at the Shelby site awaits more extensive professional archaeological investigations.

One key step in any professional archaeological work that may be forthcoming at the site includes the documentation of Caddo material culture remains, especially Caddo ceramics, that are known to have come from the site, as they provide a record of the temporal, functional, and stylistic range of the ceramic vessels used and discarded at the site, as well as evidence of interaction and contact between different but contemporaneous Caddo groups. In August 2009, I had an opportunity to document a collection of Caddo ceramic sherds held by Vernon Holcomb from the Shelby site. He collected these sherds from the surface of the site some 25-30 years ago where they had been eroded out of the banks of a dry or intermittent stream branch that drains north to Greasy Creek.

COLLECTIONS

The Caddo sherd collections in the Vernon Holcomb collection include 10 vessel sections (i.e., large sherds and/or sherd sections likely from recently broken whole vessels, probably from burials), 57 miscellaneous decorated rim and body sherds, and 56 plain rim, body, and base sherds. Based on the decorative motifs and elements on these vessel sections and other miscellaneous sherds, this collection has sherds from Titus phase fine wares (i.e., engraved and/or slipped vessels), utility wares (i.e., wet paste decorations on vessels), and plain wares.

Sherd Vessel Sections

Vessel section 1 (grog-tempered, fired in a reducing environment, 8.2 mm thick at the rim, 9.4 mm thick at the body) is from a large jar (22.0 cm orifice diameter), possibly of the Pease Brushed-Incised type (Suhm and Jelks 1962), with a horizontal brushed rim and a vertical brushed body. There are also two rows of tool punctations on the rim (beneath the lip and at the rim-body juncture), and vertical appliqued fillets on the body, dividing it into panels filled with brushing. Each appliqued fillet ends with a small appliqued node at the top of the fillet.

Vessel section 2 (grog-tempered, fired in a reducing environment, 6.6 mm thick) includes two body sherds from a jar with straight appliqued ridges. These may be from a Cass Appliqued vessel.

Vessel section 3 is 50% of a plain bowl with an 18.0 cm orifice diameter, a direct rim, and a flat lip. The vessel is grog-tempered, smoothed on both vessel surfaces, has 6.8 mm thick vessel walls, and was fired and cooled in a reducing environment.

Vessel section 4 includes two body sherds from a Harleton Appliqued jar with curvilinear appliqued ridges on the lower part of the vessel. The vessel is grog-bone-tempered, fired in a reducing environment, and has 6.5 mm thick body walls.

Vessel section 5 is represented by two neck sherds and two body sherds from a flaring neck Wilder Engraved, *var. Wilder* bottle (Perttula et al. 2010). The design includes the hooked arms of scrolls that meet at a small cross-hatched circle (Figure 1a); the hooked arms of the scroll begin at upper and lower triangles with hatched corners and a small vertical engraved dash along one side of the triangle. A red clay pigment has been rubbed in the engraved lines. The bottle is grog-tempered, fired in a reducing environment, burnished on the exterior surface, and ranges from 6.6-7.0 mm in body wall thickness.

Vessel section 6 is an everted rim (rounded lip) from a large (26.0 cm orifice diameter) McKinney

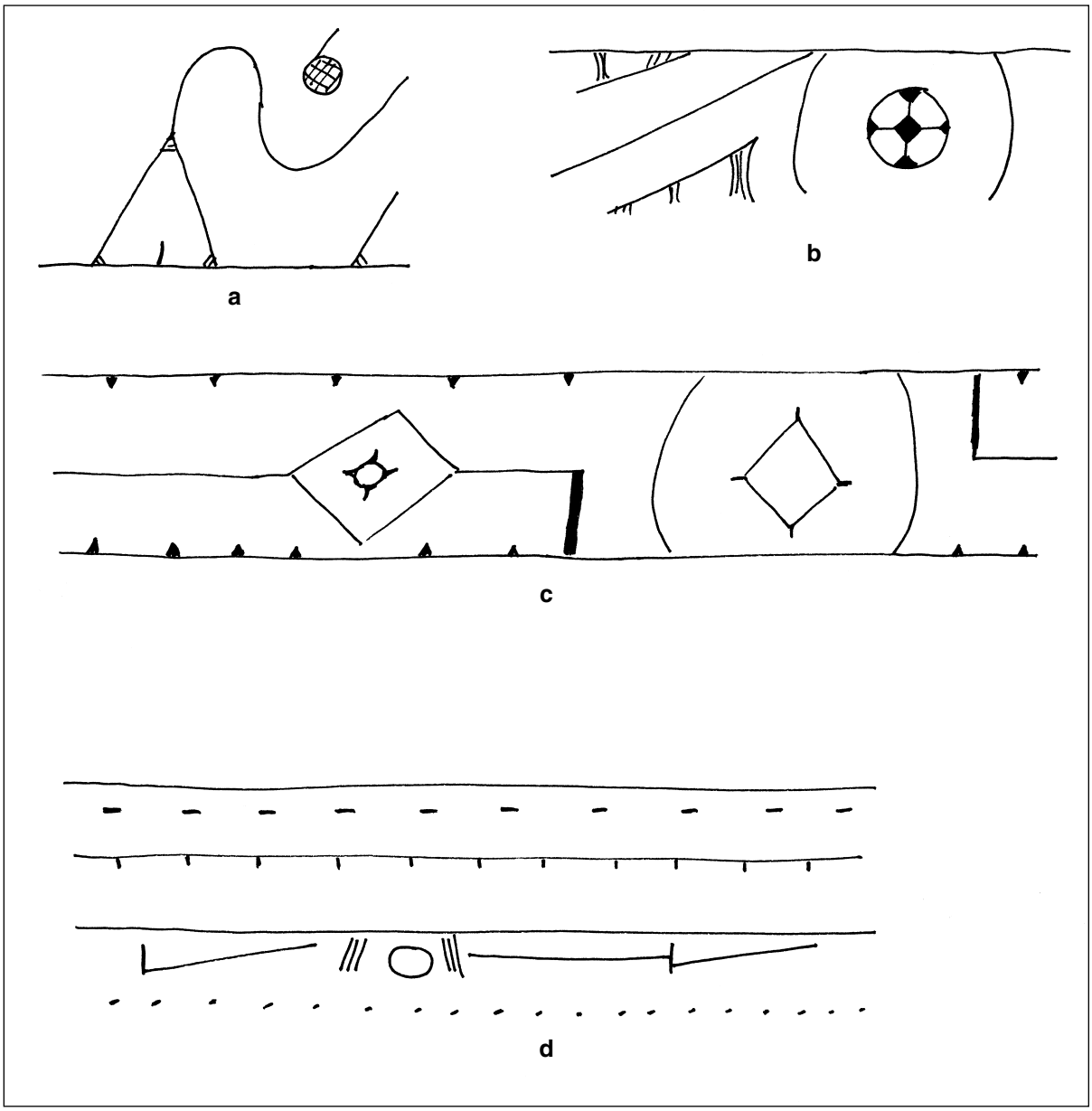

Figure 1. Engraved motifs on selected vessel sections from the Shelby site: a, Wilder Engraved, *var. Wilder* (Vessel section 5) ; b, Ripley Engraved, *var. Galt* (Vessel section 8); c, Ripley Engraved, *var. McKinney* (Vessel section 9); d, Belcher Engraved, *var. Belcher* (Vessel section 10).

Plain jar with a roughened vessel surface. The vessel is grog-tempered, fired in a reducing environment, smoothed on the vessel interior, and is 8.4 mm thick along the rim.

Vessel section 7 is from a large (31.0 cm orifice diameter) utility ware jar of unidentified type with rim peaks and an everted rim (rounded lip). The rim has a roughened surface, like Vessel section 6, but the body has vertical to diagonal brushing marks on it, along with vertical appliqued ridges and nodes, set under each rim peak. The vessel is tempered with grog, fired in a reducing environment, smoothed on its interior surface, and ranges from 6.4 mm (rim) to 6.7 mm (body) in vessel wall thickness.

Vessel section 8 is a section of a large (25.0 cm orifice diameter) Ripley Engraved, *var. Galt* (Perttula et al. 2010) carinated bowl with a direct rim, and a rounded, exterior folded lip. The rim has an engraved scroll and circle motif, and the central circle (probably repeated four times) has a smaller circle, cross, and diamond element within it (Figure 1b). The carinated bowl is grog-tempered, fired in a reducing environment, and burnished on the exterior vessel surface.

Vessel section 9 is another Ripley Engraved carinated bowl (23.0 cm orifice diameter) with a direct rim and a rounded, exterior folded lip. It is decorated with an engraved pendant triangle motif, and is classified as Ripley Engraved, *var. McKinney* (Perttula et al. 2010), that has either central engraved diamonds or circles repeated twice around the vessel (Figure 1c). The central diamond has within it a small circle with excised rays, while the central circle has within it a diamond-shaped element with four excised rays. A white kaolin clay pigment has been rubbed in the engraved lines. The vessel section is grog-tempered, fired in a reducing environment, and has been burnished on both interior and exterior vessel surfaces. The rim and body walls are both 6.7 mm in thickness.

Vessel section 10 is a trade vessel from a Belcher phase Caddo group that lived along the Red River in northwestern Louisiana and southwestern Arkansas (see Schambach and Miller 1984; Webb 1959). This vessel section is a Belcher Engraved, *var. Belcher* everted rim (rounded lip) compound bowl (see Schambach and Miller 1984:Figure 11-11), commonly made in the 16th century A.D. The upper panel of the vessel has a line of excised punctates as well as a horizontal engraved line with small tick marks. The lower panel has four small appliqued nodes with sets of three short diagonal engraved lines on either side of the nodes. The remainder of the lower panel is divided into short horizontal engraved scrolls, as well as a horizontal row of excised punctations at the rim-body juncture (Figure 1d). The vessel is grog-tempered, fired in a reducing environment, burnished on both vessel surfaces, and ranges from 7.0-7.2 mm in thickness on the rim and body walls.

Decorated Sherds

The miscellaneous decorated rim (n=14) and body (n=43) sherds include both utility wares (66.7%) and fine wares (33.3%). Utility wares comprise 71% of the rim sherds in the collection (Table 1). Identified ceramic types in this small assemblage are consistent with a Titus phase assemblage from the Greasy Creek area in that they include jars of Bullard Brushed, Pease Brushed-Incised, Harleton Appliqued, La Rue Neck Banded, Mockingbird Punctated, and Maydelle Incised, along with Ripley Engraved and Taylor Engraved carinated bowls and bottles. One of the Ripley Engraved sherds is from a *var. McKinney* carinated bowl.

Plain Sherds

The plain sherds include three rims (tempered with grog and grog-bone), 48 body sherds, and five base sherds. One of the rims is from a bottle neck, and the other two are from carinated bowls with direct rims and rounded, exterior folded lips. The base sherds (tempered with grog and grog-bone) range from 9.7-17.7 mm in thickness; one of the base sherds has a drilled hole, suggesting it was used as a spindle whorl.

Analysis of Temper

As with other Titus phase ceramic assemblages in the Big Cypress Creek basin, both utility ware, plain ware, and fine wares are predominantly tempered with grog (or crushed fired clay). In the Holcomb collection, more than 96% of the analyzed sherds are tempered with grog, either as the sole temper (n=22, 76%), or as combinations of grog-bone (n=6, 20.7%). A single sherd (3.4%) has bone temper additives.

Table 1. Miscellaneous decorated sherds in the Vernon Holcomb Collection from the Shelby site (41CP71).

Decorative method, sherd type	No.	Comments
Utility Ware		
Horizontal and diagonal brushed, rim	1	Bullard Brushed jar
Parallel brushed, body	21	Utility ware jar sherds
Parallel brushed-tool punctated, body	1	Pease Brushed-Incised or Bullard Brushed jar
Curvilinear appliqued, body	1	Harleton Appliqued jar
Neck banded rows, rim	2	La Rue Neck Banded jar
Tool punctated rows, rim	1	Mockingbird Punctated jar
Tool punctated rows, body	1	Utility ware jar sherd
Linear punctated rows, rim	1	Mockingbird Punctated jar
Horizontal and curvilinear punctated rows, rim	1	Jar, also lip notched
Opposed incised triangles filled with tool punctates, rim	1	Maydelle Incised jar
Nested incised triangle, diagonal dashed lines, rim	1	Jar of unidentified type
Horizontal incised lines, appliqued lugs, rim	1	Jar with rim peaks
Parallel incised lines, body	4	Maydelle Incised jar
Cross-hatched incised lines, rim	1	Maydelle Incised jar
Subtotal	38	
Fine Ware		
straight engraved line, body	6	Fine ware sherds
Horizontal engraved lines, rim	1	Carinated bowl
parallel engraved lines, red-slipped, body	1	Carinated bowl
Concentric engraved circles, body	1	Bottle
Taylor Engraved, bottle	1	multiple curvilinear engraved lines
Ripley Engraved decorative elements, rim	2	Scroll motif; 1 rim is red-slipped
Ripley Engraved decorative element, rim	1	Pendant triangles (*var. McKinney*)
Ripley Engraved decorative elements, body	6	Ripley Engraved, *var. unspecified*
Subtotal	19	

CONCLUSIONS

The Vernon Holcomb collection from the Shelby site contains 113 miscellaneous decorated and plain sherds as well as vessel sections (associated rim and body sherds) from 10 distinctive vessels. These sherds pertain exclusively to a grog-tempered eastern Titus phase ceramic assemblage (cf. Perttula 2005:404-405) with Ripley Engraved and Taylor Engraved fine wares, Belcher phase engraved fine ware trade wares, and an assortment of brushed, appliqued, punctated, and incised utility wares. The occurrence of a Ripley Engraved, *var. McKinney* carinated bowl, a Taylor Engraved bottle, and a Belcher Engraved, *var. Belcher* compound bowl in the collection suggests that these vessel sections had been eroded or washed out of 16th and early 17th century A.D. burial features at the site.

ACKNOWLEDGMENTS

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Documenting Caddo Ceramic Sherd and Lithic Collections from Prehistoric Sites at Lake Bob Sandlin

Timothy K. Perttula, Mark Walters, and Bo Nelson

INTRODUCTION

Following on the heels of a previous archaeological effort where we documented collections of ceramic and lithic artifacts from a wide variety of prehistoric archaeological sites along the shoreline at Lake Bob Sandlin (Nelson and Perttula 2003a), this article puts on record the range of prehistoric ceramic and lithic artifacts in collections we recently documented from four sites at the lake in Camp and Titus counties, Texas. One of the four sites has been previously reported in the Caddo archaeological literature, but the other three have not.

New Island (41CP22)

The New Island site has been described by Thurmond (1990:53) as having Late Archaic (ca. 3000-500 B.C.) and Late Caddo (ca. A.D. 1400-1680) components. The Late Caddo component is apparently associated with at least eight burial-shaped looter pits.

The collection from the New Island site has 81 sherds, 68 of which are plain (Table 1). Utility wares (n=10) include sherds from punctated, incised-punctated, incised, and brushed vessels, while the fine wares are composed of three engraved sherds. The occurrence of brushed vessels as well as one body sherd with a carelessly engraved circular element (Figure 1a; see also Thurmond 1990:Figure 6d) suggests that this ceramic sherd assemblage dates to the earlier part of the Late Caddo period, although a larger sample of decorated sherds should be collected from this site to be more definitive about its temporal and cultural affiliations.

The lithic artifacts from the New Island site include chipped stone tools (n=2), lithic debris (n=62), and one quartzite core. The chipped stone tools are a Gary dart point and a quartzite biface tip. The Gary point in the documented collection hints at some use of the New Island site during the Woodland period (ca. 500 B.C. to A.D. 800), when this style of contracting stemmed dart point was in common use by Woodland hunters.

South of Milligan (41CP490)

The South of Milligan site is near the Milligan Point site (41CP276). That site has extensive mid-19th century Anglo-American farmstead archaeological deposits, as well as evidence of occasional use in the Late Archaic and Early Paleoindian periods (Nelson and Perttula 2003a:26-34). The South of Milligan site, however, was primarily occupied during Late Caddo Titus phase times (ca. A.D. 1430-1680), as evidenced by a substantial sample of Titus phase decorated utility ware and fine ware sherds.

A total of 520 ceramic sherds are in the documented collection from the South of Milligan site, including 314 plain sherds and 206 decorated sherds (Table 2). The plain to decorated sherd ratio (P/DR) is only 1.52, compared to P/DR ratios that range between 3.24 and 3.75 for the Early Caddo ceramic assemblages from the Cedar Island (41TX891) and TXU Park (41TT892) sites (see below). Based on the proportion of rim sherds among the different wares, utility ware vessels are most common in the ceramic assemblage (51%), followed by fine wares (32%) and plain wares (16%). Among the decorated sherds, including both rim and body sherds, almost 83% of the decorated sherds in the assemblage are from utility wares. The fine wares—both engraved and red-slipped vessels—comprise the remainder of the decorated sherds (Table 2).

The utility ware sherds from the South of Milligan site are from brushed jars, as 66% of the rim and body sherds have brushing, either as the sole decoration or in combination with incised, incised-appliqued, punctated, and appliqued decorations (see Table 2). These sherds are from Bullard Brushed as well as Pease Brushed-Incised jars, and either the vessel was brushed on both the rim and the

Table 1. Ceramic sherds from the New Island site documented collection.

Decorative method/elements	Rim sherd	Body sherd	Base sherd
Plain	2	65	1
Utility Ware			
Tool punctated rows	–	2	–
Fingernail punctated rows	–	1	–
Incised-tool punctated row	–	1	–
Horizontal incised lines	1	–	–
Parallel incised lines	–	3	–
Parallel brushed	–	2	–
Fine Ware			
Opposed engraved lines	1	–	–
Horizontal engraved (bottle)	–	1	–
Circular engraved	–	1	–
Totals	4	76	1

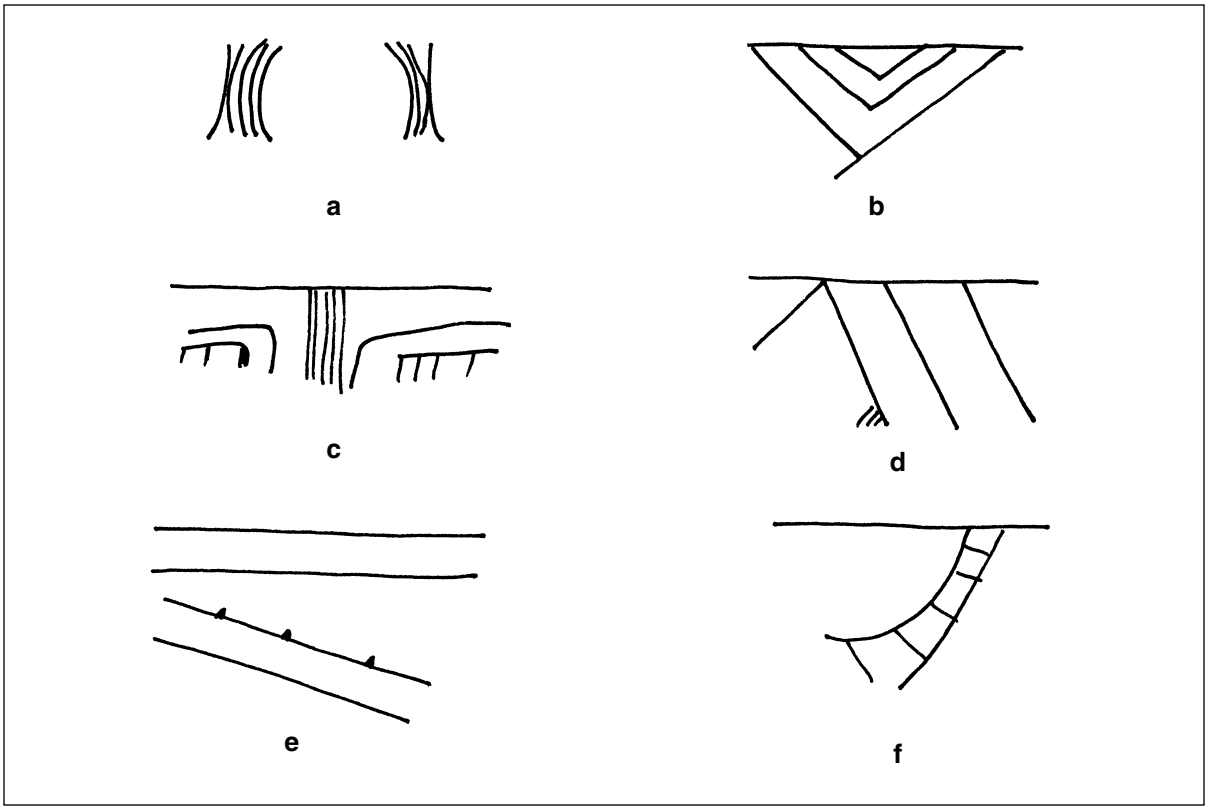

Figure 1. Selected decorative elements on sherds from the New Island and South of Milligan sites: a, carelessly engraved circle; b, opposed incised lines; c, Ripley Engraved scroll motif; d, Ripley Engraved, probable continuous scroll motif; e, Ripley Engraved scroll motif with triangular tick marks; f, hatched curvilinear zone. Provenience: a, New Island site (41CP22); b-f, South of Milligan site (41CP490).

body (as with Bullard Brushed), or else horizontal brushing was applied to the rim and vertical brushing was applied to the body in panels demarcated by vertical appliqued fillets or appliqued ridges (as with Pease Brushed-Incised). Vessels with simple vertical appliqued fillets or ridges on the body are probably from either misnamed McKinney Plain vessels (Suhm and Jelks 1962:97)—which are not plain—or from La Rue Neck Banded jars (Suhm and Jelks 1962:93). Tool punctated rims may be from Mockingbird Punctated jars, a recently recognized Titus phase utility ware with horizontal rows of tool punctations on the rim of the vessel; vessel bodies (based on whole vessels) tend to be plain or have simple vertical appliqued ridges/fillets as decoration. Incised jars of the Maydelle Incised type have opposed (see Figure 1b) as well as cross-hatched incised lines on the rim.

The fine wares from the South of Milligan site are apparently primarily from Ripley Engraved carinated bowls, based both on the recognizable elements of engraved scrolls characteristic of the type (see Thurmond 1990:Figure 6) along with other decorative elements that occur in the scroll fill zones or as supplemental elements to the larger motif (see Figure 1c and Table 2). These would include such elements as the hatched corners of engraved triangles (see Figure 1d), central scroll lines, triangular tick marks on scroll lines (see Figure 1e), or small triangular cross-hatched fill elements. One body sherd from a Wilder Engraved bottle has a widened or "swelled" curvilinear excised area on the arm of a scroll (cf. Suhm and Jelks 1962:155).

Other engraved sherds have hatched curvilinear zones (see Figure 1f) or have horizontal engraved lines on the rim (see Table 2). These latter sherds are probably from the upper panel of Ripley Engraved compound bowls, jars, or ollas, as these typically have 2-3 widely-spaced horizontal engraved lines on the upper panel or rim, and a scroll-related motif on the lower panel or vessel body (see Turner 1978:Figure 24a-e). Also included in the fine wares from the South of Milligan site is a trailed sherd, possibly from a Keno Trailed vessel, and two plain red-slipped body sherds. Red-slipped sherds are a consistent feature of a number of Titus phase ceramic assemblages in the general Lake Bob Sandlin area (e.g., Nelson and Perttula 2003b; Perttula 2005).

Prehistoric lithic artifacts in the collections from the South of Milligan site include 49 pieces of lithic debris and chunks (42 quartzite and seven petrified wood), as well as three quartzite cores, and a quartzite biface fragment. Projectile points from the site include three Late Caddo points—a quartzite Maud arrow point, a quartzite Bassett arrow point, and a Perdiz quartzite arrow point—three Woodland period style quartzite Gary points (*var. Camden* [n=1] and *var. LeFlore* [n=2]), one quartzite Yarbrough dart point, a Middle to Late Archaic style with a flat but expanding stem dart point base made from a non-local grayish-white chert, and a quartzite dart point tip. These tools suggest more intensive use of the South of Milligan site for hunting during the Woodland and Late Caddo periods.

Cedar Island (41TT891)

The Cedar Island site lies between two other known sites along the Lake Bob Sandlin shoreline: New Hope (41FK107) and Collins Pt. (41TT757). The New Hope site was occupied during Late Paleoindian (ca. 10,500-10,000 years B.P.), Late Archaic, and Woodland period times, but the principal settlement was during the Early Caddo period (Nelson and Perttula 2003a:43-44). The Collins Pt. site has a Middle Caddo settlement (Nelson and Perttula 2003a:50).

There are 250 ceramic sherds in the documented Cedar Island collection, including 191 plain sherds and 59 decorated sherds (Table 3). The plain to decorated sherd ratio is 3.24. Approximately 70% of the decorated sherds (but only 43% of the decorated rim sherds) are from utility wares, with the remainder (including 57% of the decorated rim sherds) coming from engraved and red-slipped fine ware vessels.

The predominance of punctated decorations in the utility wares (61%), along with incised-punctated (9.8%) and incised (29%) vessels—combined with the absence of any brushed, brushed-punctated, or appliqued vessels—indicate that the prehistoric Caddo occupation at the Cedar Island site dates before ca. A.D. 1200. After that date, brushed utility wares are ubiquitous on Caddo sites along this stretch of the Big Cypress Creek basin. The Early Caddo occupation at the Cedar Island site is further substantiated by the identification of two Holly Fine Engraved body sherds in the collection (see Table 3), including one with an excised triangle element (cf. Suhm and Jelks 1962:Plates 39 and 40).

In addition to the ceramic vessel sherds, the Cedar Island site collection has a clay coil fragment (evidence of on-site vessel manufacture) and a single piece of daub.

Table 2. Ceramic sherds from the South of Milligan site documented collection.

Decorative method/elements	Rim sherd	Body sherd	Base sherd
Plain	6	288	20
Utility Ware			
Parallel brushed	–	88	–
Overlapping brushed	–	4	–
Opposed brushed	–	2	–
Vertical brushed	–	1	–
Horizontal brushed	5	–	–
Brushed-incised elements	–	6	–
Brushed-incised-appliqued elements	–	1	–
Parallel brushed-tool punctated	–	1	–
Tool punctated rows	5	5	–
Tool punctated, free	–	3	–
Horizontal and diagonal tool punctated rows	1	–	–
Incised-punctated elements	1	–	–
Horizontal incised lines	1	–	–
Cross-hatched incised lines	–	2	–
Opposed incised lines	1	4	–
Parallel incised lines	–	15	–
Straight incised line	–	2	–
Neck banded	3	–	–
Appliqued nodes	1	–	–
Appliqued fillets	–	1	–
Appliqued fillets-parallel brushed	–	1	–
Appliqued fillets-incised line	–	1	–
Appliqued ridges	–	4	–
Appliqued ridges-parallel brushed	–	5	–
Appliqued ridge-tool punctated rows	1	1	–
Subtotals	19	152	–
Fine Ware			
Ripley Engraved scrolls	3	3	–
Ripley Engraved elements	2	–	–
Wilder Engraved elements	–	1	–
Cross-hatched fill elements	–	3	–
Horizontal engraved lines	5	1	–
Curvilinear engraved lines	1	1	–
Semi-circular engraved lines	–	2	–
Parallel engraved lines	–	4	–
Hatched engraved triangle	–	1	–
straight engraved line	–	4	–
Trailed line	–	1	–
Lip notched	1	–	–
Red-slipped	–	2	–
Subtotals	12	23	–
Totals	37	463	20

Table 3. Ceramic sherds from the Cedar Island site documented collection.

Decorative method/elements	Rim sherd	Body sherd	Base sherd
Plain	1	178	12
Utility Ware			
Tool punctated, free	–	11	–
Fingernail punctated, free	–	13	–
Diagonal linear punctated rows	1	–	–
Incised triangles filled with tool punctates	–	2	–
Horizontal incised lines and associated fingernail punctated row	1	–	–
Incised line-fingernail punctated	–	1	–
Diagonal incised lines	1	–	–
Straight incised lines	–	2	–
Parallel incised lines	–	6	–
Opposed incised lines	–	3	–
Subtotal	3	38	–
Fine Ware			
Interior engraved line	–	1	–
Straight engraved lines	–	2	–
Parallel engraved lines	–	9	–
Horizontal engraved lines	1	–	–
Diagonal engraved lines	1	–	–
Cross-hatched engraved lines	1	–	–
Holly Fine Engraved el.	–	1	–
Excised triangle, cf. Holly Fine Engraved	–	1	–
Red-slipped	1	–	–
Subtotal	4	14	–
Totals	8	230	12

Lithic artifacts in the Cedar Island documented collection include a quartzite Late Archaic dart point with a long parallel stem and a flat base, a quartzite biface tool fragment, 40 pieces of lithic debris, one core, and two pieces of fire-cracked rock.

TXU Park (41TT892)

The TXU Park site, based on the documented ceramic sherds to be discussed shortly, apparently has a substantial and virtually single component pre-A.D. 1200 Early Caddo archaeological deposit. A total of 542 ceramic sherds are in the collections from the site, including plain rim, body, and base sherds (n=428, 79%), utility ware rim and body sherds (n=63, 11.6%), and fine ware rim and body sherds (n=51, 9.6%) (Table 4). With respect to the proportion of rims in the assemblage, plain ware vessels are common (39.5% of the rims), as are fine ware (32.6%) and utility ware (28%) vessels in roughly equal measure.

The P/DR ratio at the TXU Park site is 3.75, not much different than that from the Early Caddo ceramic assemblage from the Cedar Island site (P/DR=3.24), but substantially different from the P/DR of 1.52 for the Late Caddo Titus phase ceramic

Table 4. Ceramic sherds from the TXU Park site documented collection.

Decorative method/elements	Rim sherd	Body sherd	Base sherd
Plain	17	389	22
Utility Ware			
Parallel brushed	–	2	–
Diagonal tool punctated row	1	–	–
Tool punctated, random	–	17	–
Tool punctated rows	1	2	–
Linear punctated row	–	1	–
Fingernail punctated, random	–	11	–
Cane punctated rows	1	–	–
Incised-punctated elements	3	3	–
Cross-hatched incised lines	–	3	–
Diagonal incised lines	3	–	–
Horizontal incised lines	3	1	–
Rectilinear incised lines	–	1	–
Parallel incised lines	–	8	–
Straight incised lines	–	2	–
Subtotal	12	51	–
Fine Ware			
Holly Fine Engraved	6	5	–
Diagonal engraved lines	1	–	–
Horizontal engraved lines	6	1	–
Opposed engraved lines	–	2	–
Semi-circle engraved lines	–	2	–
Vertical-horizontal engraved lines	1	–	–
Parallel engraved lines	–	14	–
Straight engraved lines	–	4	–
Curvilinear engraved lines	–	8	–
Red-slipped	–	1	–
Subtotal	14	37	–
Totals	43	477	22

assemblage at the South of Milligan site. Clearly, the earlier Caddo ceramic assemblages from prehistoric Caddo sites in the Lake Bob Sandlin area of the Big Cypress Creek basin have much higher proportion of plain wares among the entire ceramic sherd assemblages, as well as a propensity to decorate vessels more often on only the rim, rather than on both the rim and the body. The latter became much more common after ca. A.D. 1200 with the advent of the use of brushing decoration on exterior vessel surfaces.

Among the engraved fine wares from the TXU Park site, the principal ceramic type is Holly Fine Engraved, with six rim sherds and five body sherds (Figure 2a-f, h) among the small sample of fine wares. One thick cambered rim (see Suhm and Jelks 1962:77) has a very wide lip with an excised triangle atop the lip (Figure 2a). The majority of these are carinated bowls that have finely engraved sets of opposed diagonal or opposed curvilinear engraved lines divided by triangular excised areas; one bottle

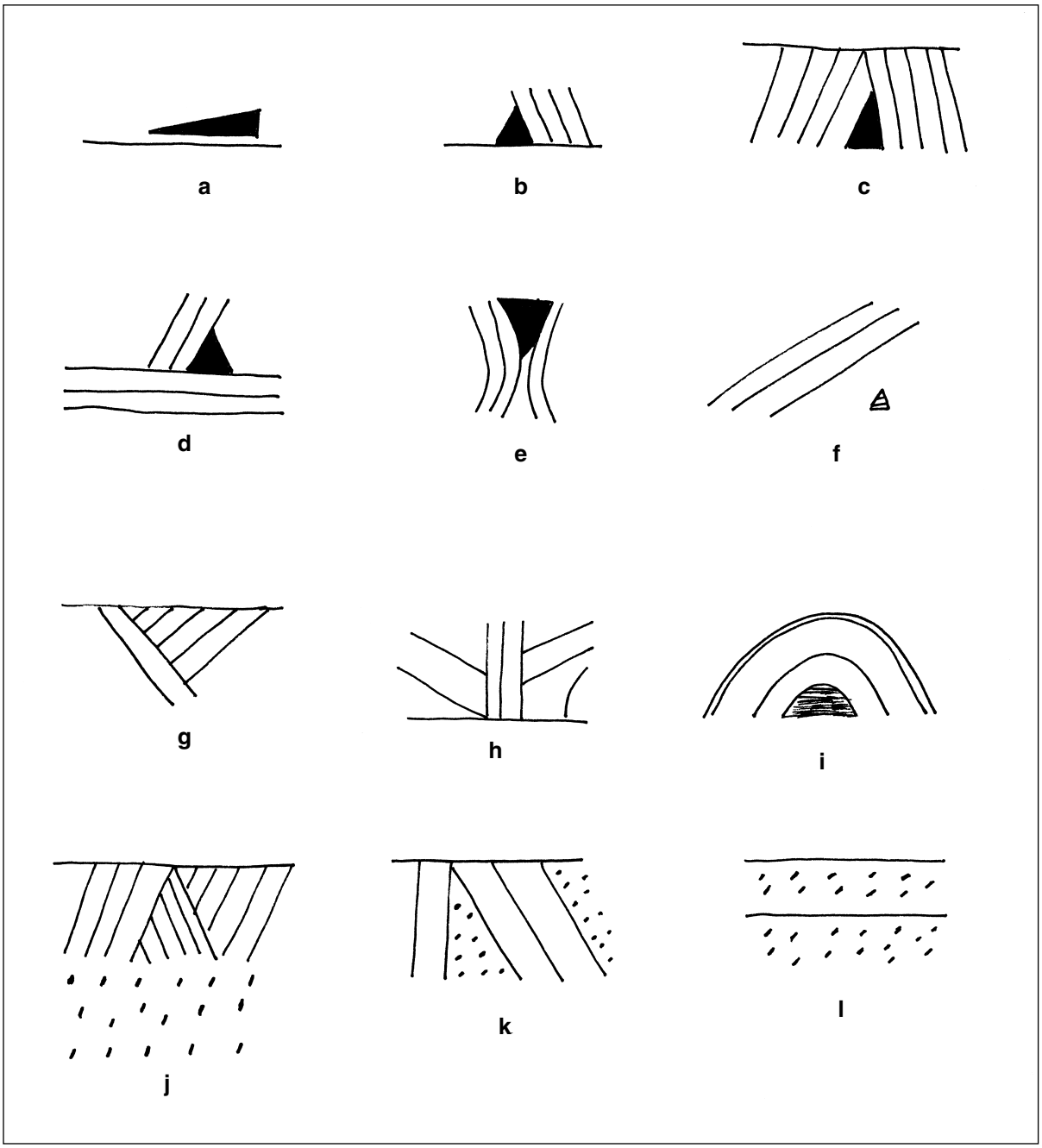

Figure 2. Selected decorative elements/motifs on sherds from the TXU Park site: a, Holly Fine Engraved, engraved element on cambered rim; b-f, h, Holly Fine Engraved rim and body sherds; g, diagonal opposed fine engraved lines, probably Holly Fine Engraved; i, semi-circular engraved lines; j-l, incised-punctated rim sherds.

sherd (Figure 2f) has a set of fine parallel engraved lines adjacent to a small hatched triangle element. A body sherd has sets of both finely engraved vertical and opposed diagonal engraved lines (Figure 2h), although there is no apparent associated excised triangle. Another probable Holly Fine Engraved rim at the site has opposed sets of finely engraved diagonal lines, but again no apparent associated excised triangle element (Figure 2g).

The other engraved type at the TXU Park site that can be confidently identified in the ceramic assemblage is Hickory Engraved (n=7), which are

rims and body sherds from bowls and carinated bowls with horizontal engraved lines encircling the vessel (Suhm and Jelks 1962:Plate 36). There are also several engraved sherds from carinated bowls that apparently have sets of semi-circular engraved lines (see Figure 2i). In one instance, the innermost semi-circle has been excised; in another sherd, a semi-circle engraved element has a single vertical engraved line within it. One red-slipped body sherd comprises 2% of the fine wares (see Table 4).

The utility ware sherds are from vessels decorated with punctations (54% of the utility ware sherds, see Table 4), incised lines (33%), or with both incised lines and punctations (9.5%); the two other utility ware sherds are two brushed body sherds, likely not temporally related to the early Caddo ceramic assemblage recognized at the TXU Park site. The punctated sherds are from both the rim and body of jars, with rows of punctations (tool and cane) on the rim, and more randomly or freely placed punctations (mainly tool and fingernail) on the vessel body. No Weches Fingernail Impressed sherds were noted in the TXU Park site utility wares. Incised-punctated rim sherds include one from a Dunkin Incised vessel with sets of opposed hachured incised lines on the rim and tool punctated rows on the body (see Figure 2j); a possible Pennington Punctated Incised vessel with vertical and diagonal sets of incised lines and triangular areas between filled with tool punctations (see Figure 2k); and horizontal incised lines dividing up freely placed tool punctations (see Figure 2l). Three incised-punctated body sherds have one or two straight incised lines adjacent to an area filled with tool punctations.

The incised rim sherds from the site have either horizontal (probably from Davis or Kiam Incised vessels) or diagonal (Dunkin Incised) incised decorations. Body sherds with cross-hatched lines may well be from Dunkin Incised carinated bowls (Suhm and Jelks 1962:Plate 19i).

The lithic artifacts from the TXU Park site include lithic debris (n=74), several chipped stone tools (n=7), and ground stone tools (n=3). The lithic debris is comprised of a single quartzite core, pieces of quartzite (n=48, 65%), petrified wood (n=9, 12%), and various kinds of chert (n=16, 22%) flakes and chips from tool manufacturing activities. The chert lithic debris includes red (n=1), grayish-brown (n=2), dark brown (n=3), gray (n=8), brown (n=1), and tan (n=1) colors; the red and tan cherts are likely from local stream gravel sources, but the other cherts are from unknown non-local sources.

The chipped stone tools in the TXU Park site collection include the following projectile points: a quartzite Gary, *var. Camden* dart point of Woodland period age, an Edgewood dart point made from a non-local dark brown chert, and a light gray chert (also probably from a non-local source) Alba arrow point. Other chipped stone tools are two thin novaculite and quartzite biface fragments, a thick quartzite biface fragment, and a petrified wood gouge.

The ground stone tools in the TXU Park collection include three celts in various stages of manufacture. One is the poll end of a broken celt made from a Ouachita Mountains graywacke, and the other two are greenish-gray quartzitic sandstone celt preforms. The preforms have been roughly shaped by flaking, cortex remains on both pieces, and the celts were never polished to bring them to their complete form.

SUMMARY

The ceramic and lithic artifact collections that we have documented from the New Island (41CP22), South of Milligan (41CP490), Cedar Island (41TT891), and TXU Park (41TT892) sites at Lake Bob Sandlin first provide information on their temporal and spatial attributes, and form part of the large database of sites known in some detail from the Lake Bob Sandlin area (e.g., Nelson and Perttula 2003a, 2003b; Thurmond 1990). All four of the sites are situated on landforms (now partly or regularly inundated) that occur in proximity to Big Cypress Creek and its once wide floodplain, and one site (New Island) is situated at the confluence of Big Cypress Creek with its principal tributary in this part of the basin, Brushy Creek.

Two of the sites, Cedar Island and TXU Park, were apparently occupied primarily in Early Caddo times, sometime prior to A.D. 1200. Sites of this age are not common at Lake Bob Sandlin (Perttula and Nelson 2003:Table 1), and those that are known are widely spaced across the lake area (Perttula and Nelson 2003:Figure 7), although they are found primarily along Big Cypress Creek and Brushy Creek, rather than in upland or valley margin areas. The most distinguishing characteristic of the recovered ceramic vessel sherds from the Cedar Island and TXU Park sites is the regular occurrence of Holly Fine Engraved and Hickory Engraved sherds in the fine wares, along with an assortment of utility wares with simple incised, punctated, and incised-

punctated rim and/or body decorations. Plain wares are also abundant in these pre-A.D. 1200 Caddo ceramic assemblages. Associated lithic artifacts include an Alba point, celts made from Ouachita Mountains lithic raw materials, and an assortment of lithic debris from tool manufacture utilizing primarily local sources of quartzite.

The other two sites, New Island and South of Milligan, primarily have Late Caddo Titus phase occupations. Late Caddo sites are predominant at Lake Bob Sandlin (Perttula and Nelson 2003:Table 1 and Figure 9) among all the prehistoric Caddo sites. These sites occur in several clusters that appear to represent parts of contemporaneous small communities or villages established along Big Cypress Creek and Brushy Creek, and in upland/valley margin settings. The Titus phase ceramics from the two sites are dominated by Ripley Engraved fine wares and brushed, appliqued, punctated, and incised utility ware jars from types such as Bullard Brushed, Pease Brushed-Incised, McKinney Plain, Mockingbird Punctated, and Maydelle Incised. Brushed wares are a particularly noticeable feature of the Titus phase utility wares in this part of the Big Cypress Creek basin. At the South of Milligan site, there are quartzite Maud, Perdiz, and Bassett style arrow points that were made and used during the Titus phase occupation there.

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Selected Prehistoric Caddo Sites in the Upper Sabine River Basin of Northeast Texas

Timothy K. Perttula, with contributions by LeeAnna Schniebs

INTRODUCTION

Some years ago, I commented that the upper Sabine River basin in Northeast Texas had "a highly significant and diverse archaeological record, one that has intrigued professional and avocational archaeologists alike for at least 75 years" (Perttula 1995:v). At the same time, I noted that "we still know very little about the prehistoric and early historic Caddoan groups who lived in the basin, and unfortunately it has been a number of years since dedicated archaeologists, professional or avocational, turned their attention to this region" (Perttula 1995:v).

In this article, I present information on five different prehistoric Caddo sites in the upper Sabine River basin, specifically in Smith and Wood counties, Texas (Figure 1). What these five sites share besides the fact that they are prehistoric Caddo sites is that the findings from the archaeological work completed at them has not previously been made available to, or shared with, the archaeological community, despite the work having been done more than 20-30 years ago (sporadically between 1977 and 1986). Each of the five sites is important in its own right as a place where the prehistoric heritage of the Caddo peoples has been preserved, and together they help illuminate the native history of the Caddo in the upper Sabine River basin of their traditional homelands.

THE SITES

41SM169

This site was located during a 1986 reconnaissance survey of the proposed Waters Bluff Reservoir along the Sabine River (Perttula 1986). It is situated on two large alluvial knolls overlooking the Sabine River and Mill Creek floodplains (Figure 2). An old channel of the Sabine River, called the 'Big Eddy," lies about 210 m north of 41SM169. The site is estimated, based on shovel testing (all six shovel tests contained prehistoric artifacts, and ceramic sherds were found in ST 3, 5, and 6 [Perttula 1986]), and a subsequent surface collection, to cover a 14,400 m^2 area (3.6 acres).

There are two distinct midden deposits (Midden A and B) on the crest of the alluvial knolls at 41SM169 (see Figure 2), both at least 10-15 m in diameter and a maximum of 55 cm in thickness as determined by shovel testing. The surface collection of artifacts from 41SM169 (Table 1) derives from Midden A at the eastern edge of the landform.

The grog-, bone-, bone-grog, and grog-hematite-bone-tempered sherds from 41SM169 are primarily from the undecorated portions of ceramic vessels or from plain vessels; the plain to decorated sherd ratio is 7.50, suggesting the Caddo occupation here predates ca. A.D. 1200. One of the decorated sherds is from a bottle that has curvilinear engraved lines on the vessel body. One rim from 41SM169 has rows of tool punctations, a body sherd has opposed incised lines, and another body sherd has rows of tool punctations.

The bifacial tool fragment, possibly from the blade of an arrow point or a thin bifacial knive, is made from a local quartzite. The core is also on the local coarse-grained quartzite. Among the lithic debris, quartzite (n=6) and petrified wood (n=2) are well represented, along with a local brown chert (n=1); all these materials are likely available in local gravel sources and 56% have cortical remnants. Non-local lithic debris is also present in the chipped stone, including a dark brown chert (n=1), a gray chert (n=1), and a dark gray chert (n=1).

41SM170

41SM170 was also recorded during the archaeological reconnaissance of the proposed Waters Bluff

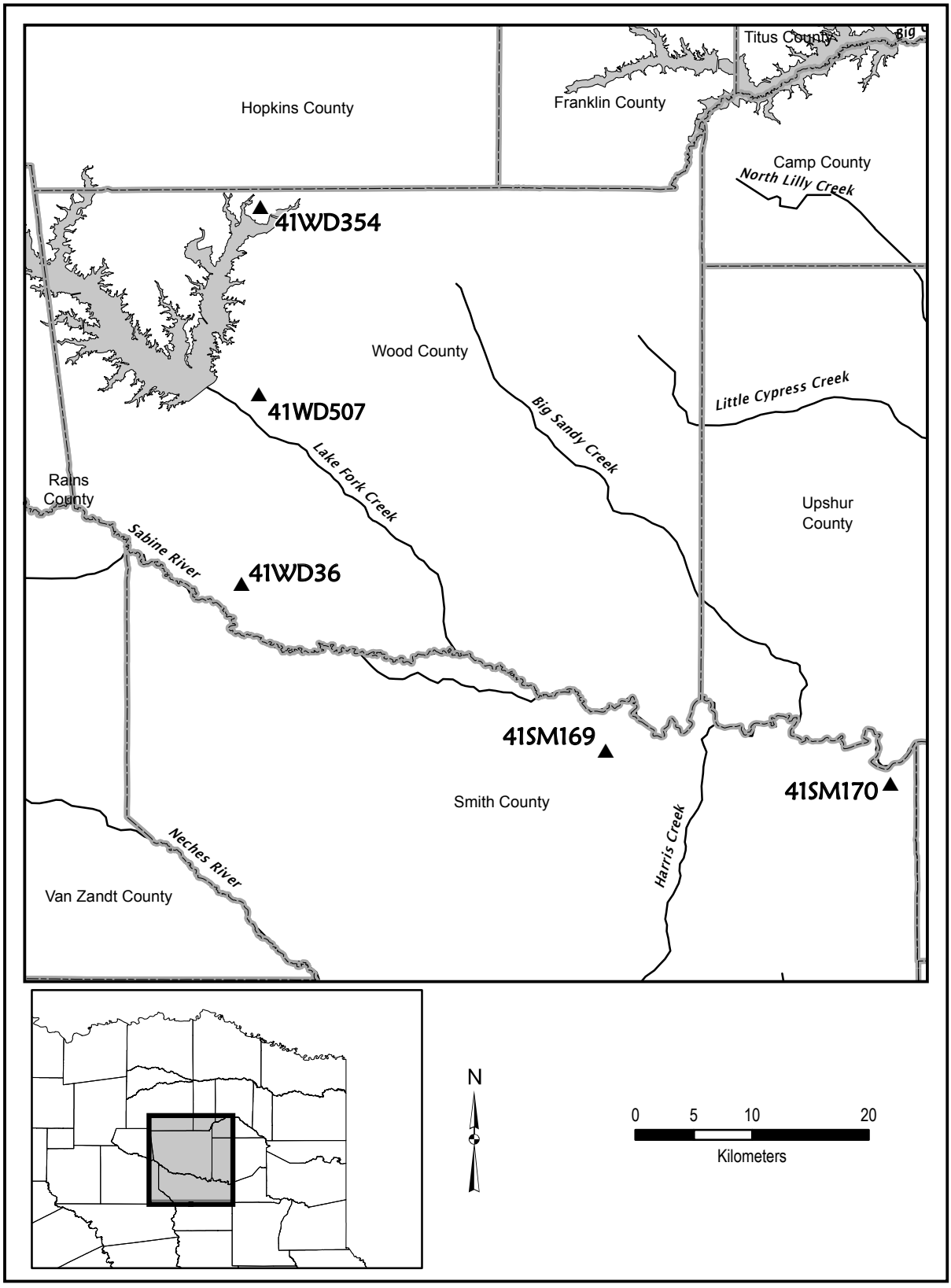

Figure 1. Locations of sites discussed in the text from the upper Sabine River basin in Northeast Texas. Map prepared by Sandra Hannum.

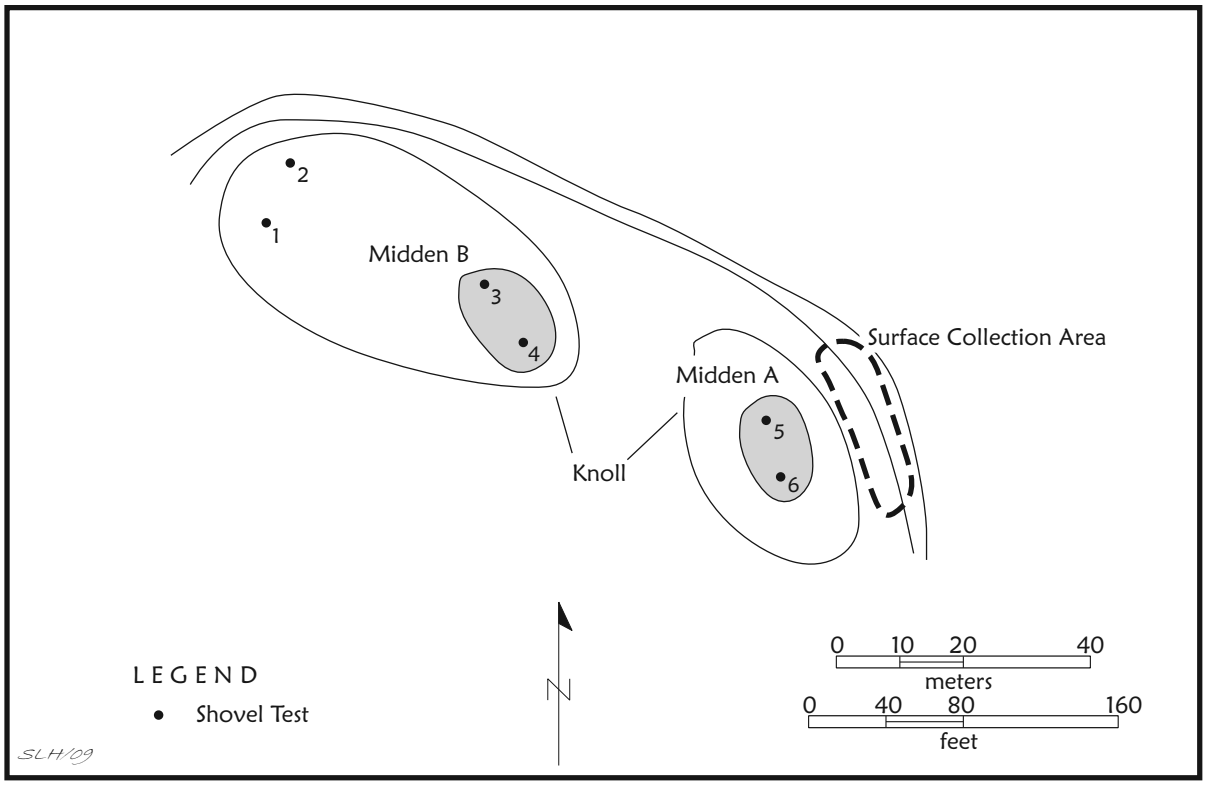

Figure 2. Map of 41SM169.

Table 1. Recovered archaeological materials from 41SM169.

Archaeological materials	No.	Comments
Decorated ceramic sherds	4	Includes one engraved bottle sherd
Plain ceramic body sherds	30	
Bifacial tool fragment	1	
Core	1	
Lithic debris	12	
Fire-cracked rock	1	
Totals	49	

Reservoir (Perttula 1986). It is situated on a prominent knoll overlooking the floodplain of the Sabine River (Figure 3) and covers an estimated 12,000 m^2 (ca. 3 acres); the current channel of the river lies ca. 100 m north of 41SM170, and a tributary creek marks the eastern limits of the site. It is very likely that this site is the same as the Hawkins site (41SM144) recorded by Sam Whiteside (Mark Walters, 2009 personal communication) in the 1950s, and that the latter site was misplotted on Texas Archeological Research Laboratory topographic quadrangle maps.

Prehistoric archaeological materials were abundant here in shovel testing, which identified three areas of midden deposits at 41SM170 (see Figure 3), and from a January 1986 surface collection (Table 2). Along the crest of the knoll, exposed in a dirt road, is a large area with burned clay and daub concentrations likely marking the location of a burned prehistoric Caddo house, just north of

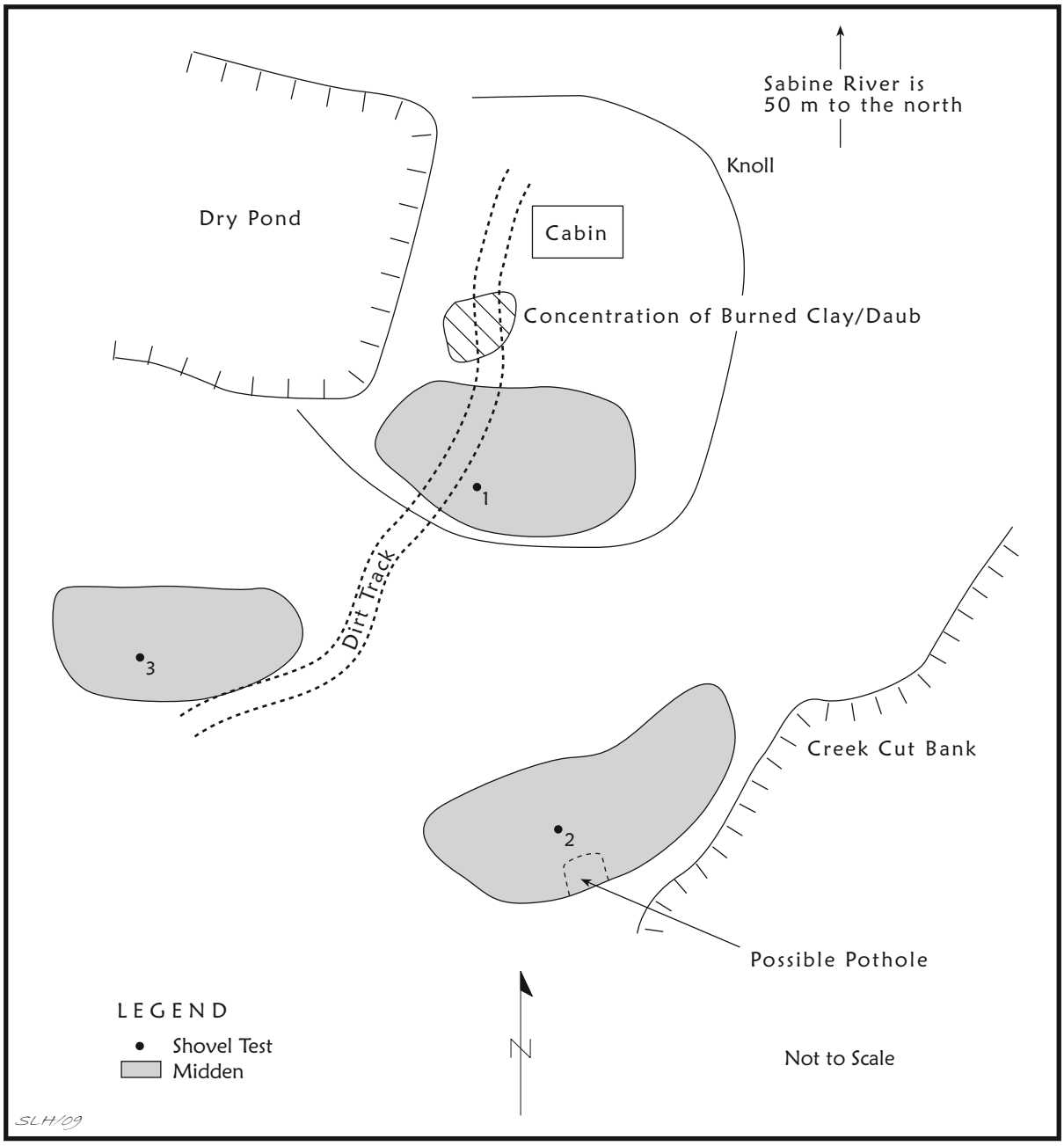

Figure 3. Map of 41SM170.

the northernmost midden on the site. The midden deposits, at least 35-45 cm in thickness, contained well-preserved mussel shell pieces (in ST 1 and ST 3 in two of the middens), animal bones (especially in ST 1), and ceramic vessel sherds.

In the surface collection from the dirt road that crosses the northern midden, plain (n=23) and decorated ceramic sherds (n=8) and animal bones are abundant (see Table 2). The plain to decorated sherd ratio is 2.88. The decorated sherds include three fine ware body sherds from bottles and carinated bowls and five utility ware rim and body sherds. The sherds are tempered with grog (75%) and grog-bone (25%).

The engraved bottle sherds have narrow hatched zones and ladders (Figure 4a-b), decorative elements widely shared on Middle Caddo ceramics in parts of the upper Sabine River basin (Perttula and Cruse 1997:34). The carinated bowl sherd has a single fine

Table 2. Recovered archaeological materials from 41SM170.

Archaeological materials	No.	Comments
Decorated ceramic sherds	8	Includes engraved bottle sherds
Plain ceramic rim sherds	2	
Plain body sherds	19	
Plain base sherds	2	
Animal bones	19	
Mussel shell fragments	+	
Charred nutshells	3	
Lithic debris	2	
Totals	55	

+=present

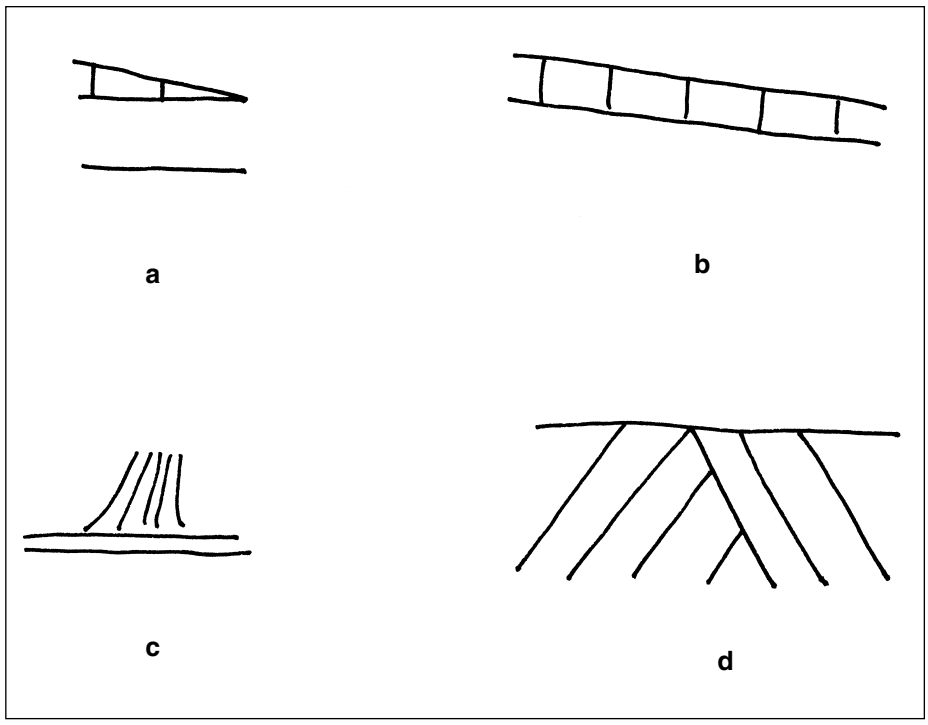

Figure 4. Selected decorative elements on sherds from 41SM170 and 41WD36: a-b, engraved bottle sherds from 41SM170; c, vertical engraved bracket element from the midden at 41WD36; d, opposed incised rim sherd from the midden at 41WD36.

diagonal engraved line on it.

The two utility ware rim sherds have rows of tool punctations on them. A body sherd has rows of fingernail punctations. Two other sherds have incised line decorations, including one with parallel incised lines and the other with only a single straight incised line. The two plain rims indicate that there are also plain vessels in the 41SM170 ceramic assemblage.

41WD36

This site had first been recorded in 1971 by Malone (1972) during the archaeological survey of

the proposed Carl Estes/Mineola Reservoir on the Sabine River, and a second time by James E. Bruseth in May 1976 (Bruseth 1976). The site is located on a large terrace, with several knolls or pimple mounds, overlooking the Sabine River floodplain and Cedar Lake (an old river channel) to the south, and Cottonwood Creek to the east. In 1976, one of the knolls had prehistoric Caddo sherds eroding out of it.

In 1977, Bob D. Skiles, then living in Mineola, found a trash midden on the edge of the landform at the site, just above a steep slope toward Cottonwood Creek; the midden was marked by darkly-stained soil and flecks of mussel shell in rodent back dirt piles. He excavated a single shovel test in the midden, which contained Caddo ceramic sherds, burned clay, animal bone, and mussel shell fragments. In January 1986, Timothy K. Perttula and Skiles returned to the site and excavated two additional shovel tests at 41WD36. They encountered midden deposits between 20-40 cm bs in one of the shovel tests (ST 2) (Table 3), and both shovel tests had ceramic sherds; ST 2 also had animal bone.

Only 8% of the 37 sherds recovered in the 1977 and 1986 shovel testing are decorated (see Table 3); this is a plain to decorated sherd ratio of 11.33. They include a carinated bowl sherd with horizontal engraved lines above the carination as well as a vertical engraved bracket element with multiple arcing lines (see Figure 4c); this decorative element is reminiscent of pre-A.D. 1400 Poynor Engraved motifs documented in the upper Neches River basin (Perttula 2009a). Another fine ware rim sherd has a single diagonal engraved line on it. The one decorated utility ware sherd is a grog-tempered rim with opposed sets of incised lines (see Figure 4d), either from a Canton Incised or Maydelle Incised jar.

41WD354, The Whooping Site

The Whooping site is a Late Caddo period, Titus phase, habitation site with midden deposits; it is estimated to cover an area of more than 9 acres. It is situated on an upland landform overlooking the Caney Creek floodplain, and the upland landform is just above the normal flood pool of Lake Fork Reservoir, which lies to the immediate south of the site. Before the floodplain was inundated, there was a small natural lake (probably an old channel of Caney Creek) about 200 m south of the Whooping site.

Midden A appears to be a trash midden in the edge of a post-oak flat, a shallow swampy upland depression that becomes a shallow pond after every rain (Figure 5). In 1977, James E. Bruseth and Bob D. Skiles excavated a 1 x 1 m unit in this midden; the archaeological materials recovered from this unit should be in curation at Southern Methodist University, but to my knowledge, no final publication of the analysis of these materials has been completed. The other three middens (Middens B-D) at the site are on slightly raised areas south of Midden A (Figure 5), and probably represent house locations, with Midden A representing the common trash area. A ca. 2 m diameter burned clay feature has been reported east of Midden C. It is also known that at least two prehistoric Titus phase Caddo burials have been excavated at the site by Mr. J. A. Walters in the 1960s (see Perttula et al. 2009).

Table 3. Recovered archaeological materials from 41WD36.

Archaeological materials	No.	Comments
Decorated ceramic sherds	3	Includes engraved carinated bowl sherds
Plain rim sherd	1	
Plain body sherds	31	
Plain base sherds	2	
Burned clay	4	
Animal bone	6	
Mussel shell fragments	+	
Totals	47	

+=present

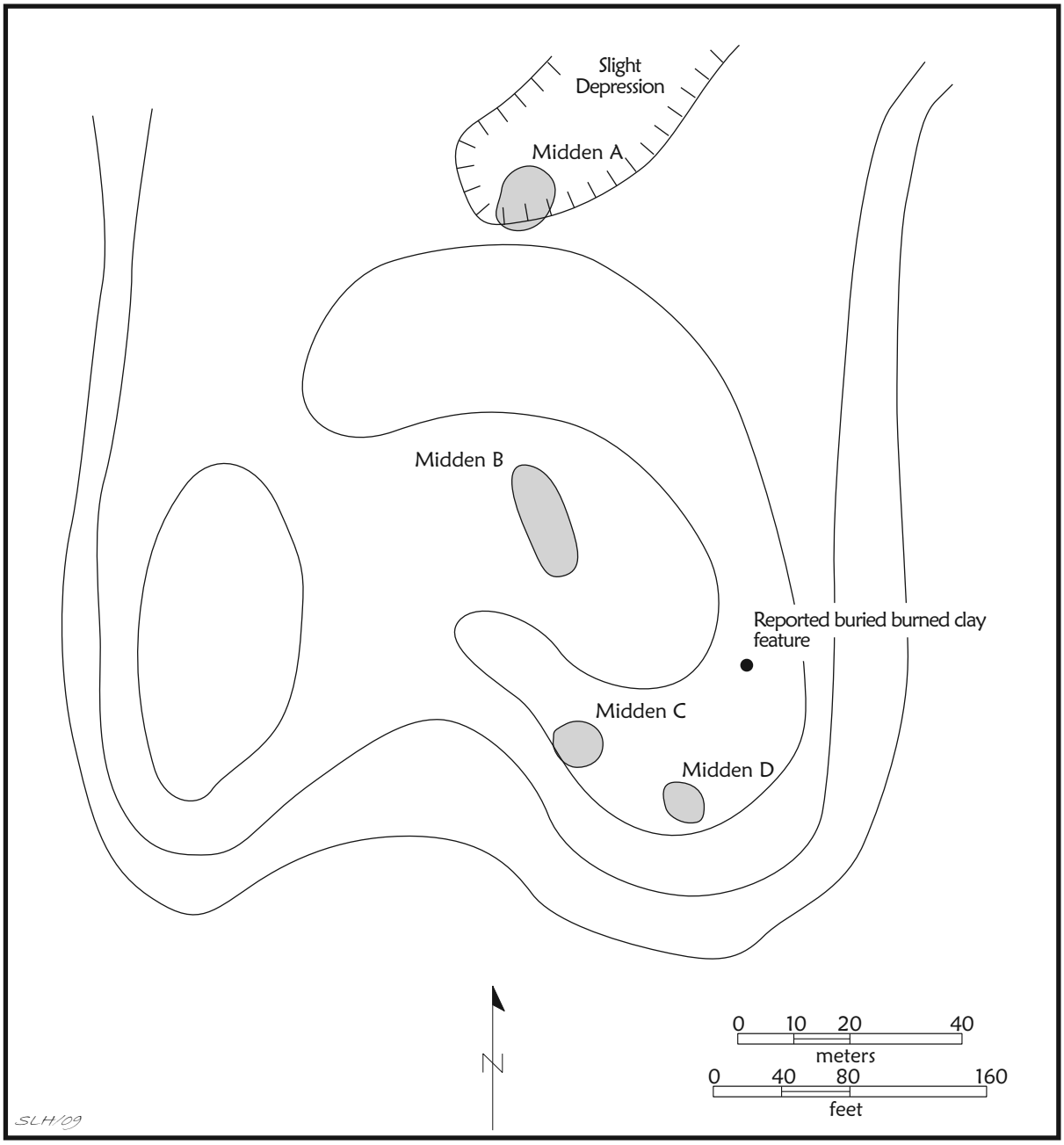

Figure 5. Map of the Whooping site (41WD354).

In May 1986, Perttula and Skiles returned to the site to excavate two shovel tests. One (ST 2) was placed in Midden A, and encountered dark charcoal-stained midden deposits and ash lens to 47 cm bs. The few limited notes are silent, unfortunately, on the location of ST 1, other than that it was placed in one of the other middens at the Whooping site, and extended to 35 cm bs. The shovel tests recovered an abundance of ceramic sherds (n=115), mussel shell fragments, as well as a few pieces of burned clay and animal bones. A single novaculite drill blade fragment was collected from 35-47 cm bs in ST 2 (Table 4).

The 115 sherds include 16 decorated fine ware and utility ware sherds and 99 plain rim, body, and base sherds (see Table 4). The plain to decorated sherd ratio is 6.19, which is consistent with other Titus phase sites in the Caney Creek locality in the

Table 4. Recovered archaeological materials from the Whooping site (41WD354).

Archaeological materials	No.	Comments
Decorated ceramic sherds	16	Includes red-slipped sherds
Plain rim sherd	4	
Plain body sherd	90	
Plain base sherd	5	
Burned clay	2	
Chipped drill	1	Made of novaculite
Animal bones	2	
Mussel shell fragments	+	
Totals	120	

+=present

upper Sabine River basin (Perttula 2009b:Figure 62 and Table 26). Seven of the decorated sherds are from fine wares, among them two red-slipped carinated bowl sherds and five sherds with engraved or excised lines and no discernible decorative elements/motifs, but most probably from Ripley Engraved carinated bowls given a horizontal engraved line under the lip on one rim and two other sherds with excised curvilinear engraved lines. One carinated bowl rim, red-slipped on both interior and exterior surfaces, has diagonal engraved lines on it.

The utility ware sherds include corn cob impressed (n=1), brushed (n=2), neck banded (n=1), appliqued (n=3), and incised (n=2) decorations, a range of decorations that are consistent with the Titus phase affiliation of the site. The corn cob impressed sherd is from an Anglin Impressed jar (cf. Perttula 2009b:34). The brushed sherds are body sherds with parallel (probably vertical) brushing marks, and the neck banded sherd is from a La Rue Neck Banded cooking jar. The appliqued sherds include two body sherds with straight appliqued ridges (McKinney Appliqued?), and a rim with an appliqued lug handle. One of the incised sherds is a Maydelle Incised rim with cross-hatched incised lines; the other is a body sherd with parallel incised lines.

41WD507, CXA Site

The CXA site is a probable Middle Caddo period (ca. A.D. 1200-1400) household trash midden recorded by Bob D. Skiles. It is situated on an upland ridge toe slope that projects into the Alum Branch floodplain, approximately 0.5 km west of the confluence of Alum Branch and Lake Fork Creek; Lake Fork Creek is one of the principal tributaries of the Sabine River in the upper Sabine River basin. The overall size of the site is unknown.

Bob Turbeville excavated the central part of this 20 m diameter midden in 1971, and then in 1977 Jim Bruseth and Skiles excavated a 1 x 1 m unit into an unexcavated part of the midden. The bone preservation was “exceptionally good; Bob [Turbeville] recovered several dozen antler tools, and a bunch of Sanders Plain... I remember one small (miniature) Sanders Plain carinated bowl he showed me from the midden (the only intact vessel). There is abundant charcoal” (Bob D. Skiles, 2009 personal communication). A level, slightly more elevated spot near the trash midden deposits is probably the location of an associated Middle Caddo house place; according to Skiles (2009 personal communication), “the sandy loam is quite shallow here over the B-horizon (so at least one could expect a good post hole pattern and the bottoms of the pit features to be preserved). "

The recovered archaeological materials are from general contexts at the CXA site (Table 5), presumably surface collections, except for the animal bones. The animal bones came from a single shovel test and the Unit 1 plow zone (0-20 cm bs). The analysis of the remainder of the archaeological materials from the 1977 excavation of Unit 1 has not been completed, and the location of these materials is not presently known.

Other than animal bones, the collection of prehistoric artifacts from the CXA site is dominated by

Table 5. Recovered archaeological materials from the CXA site (41WD507).

Archaeological materials	No.	Comments
Decorated ceramic sherds	30	Includes red-slipped sherds and engraved bottle sherds
Plain rim sherds	3	
Plain body sherds	106	
Plain base sherds	3	
Burned clay	16	
Dart point	1	Gary point
Lithic debris	9	
Animal bones	67	
Mussel shell fragments	+	
Totals	235	

+=present

plain and decorated ceramic sherds (n=142), with small amounts of burned clay (n=16), and lithic debris (see Table 5). Almost 90% of the lithic debris is from local quartzite and petrified wood sources.

The plain to decorated sherd ratio for the CXA site ceramic assemblage is 3.73. The fine wares (57%) dominate the decorated sherds. Eight of the fine ware sherds are body sherds from red-slipped bottles. The remainder of the fine ware sherds are engraved (n=9), including a rim with parallel vertical to curved lines (Figure 6a; Walters [2009:Figure 6h-i] illustrates similar sherds from the Henry Chapman site on Prairie Creek in the upper Sabine River basin); a cross-hatched engraved rim (Sanders Engraved) and two cross-hatched body sherds (including one with a red pigment rubbed in the engraved lines); a diagonal engraved rim (Sanders Engraved); a body sherd with parallel engraved lines; and a body sherd with an engraved triangle element (Figure 6d). The two bottle sherds have a cross-hatched triangular engraved element (Figure 6b) and a large hatched triangular element (Figure 6c).

The utility ware sherds are from vessels decorated with incised (n=10), incised-punctated (n=1), punctated (n=1), and brushed (n=1) elements; the brushed body sherd has parallel brushing marks. Among the incised sherds (Canton or Maydelle Incised) are four rim or body sherds with opposed incised lines (see Figure 6e); three rim and body sherds with diagonal incised lines; a cross-hatched incised rim (see Figure 6f) and body sherd; and a body sherd with a single straight incised line on it. The incised-punctated sherd has a zone of cane punctations adjacent to a single straight incised line; the punctated zone is probably triangular-shaped. Finally, the one punctated body sherd has randomly placed small circular punctations that cover the vessel exterior surface.

Analysis of Faunal Remains from 41WD507, *LeeAnna Schniebs*

Investigations at a probable Middle Caddo midden (41WD507) on the Sabine River in Wood County, Texas, yielded 67 bone fragments, with a total weight of 85.9 grams. They were recovered from a single shovel test (n=13) and from 0-20 cm bs (n=54) in one excavation unit. Approximately 54% of the sample is identifiable to the lowest taxonomic level possible (e.g., family, genus, or species). All classes of vertebrates are represented, but unidentifiable large mammal is dominant; these are most likely the remains of deer. Table 6 presents number of identifiable specimens, minimum number of individuals, their preferred habitat, and percent of the sample.

Standard zooarchaeological identification techniques were employed in this analysis, using comparative skeletal collections. Attributes of the identifiable bones include taxon, element and portion of that element, symmetry, age if possible, burning, and weight. Weights of specimens and burning were also recorded (information on file, Archeological &

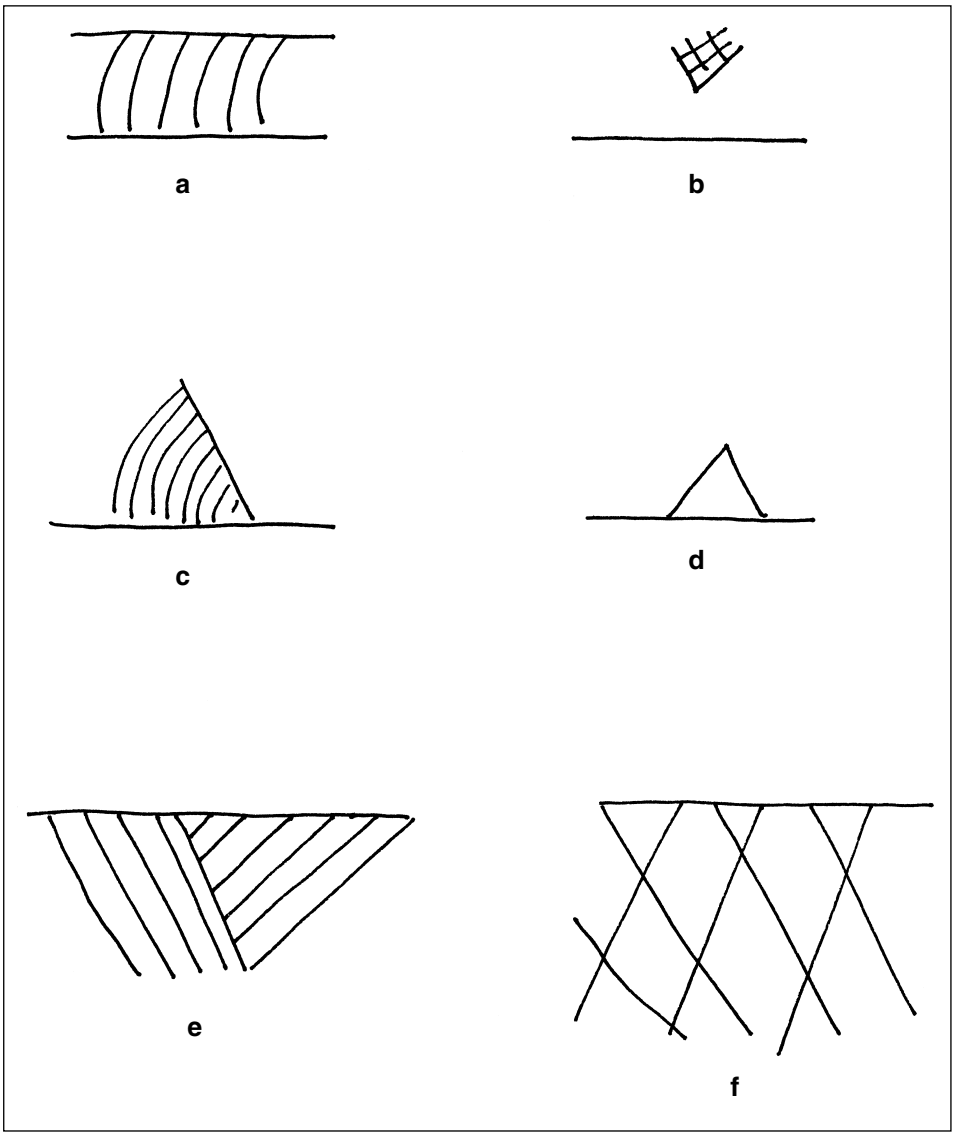

Figure 6. Selected decorative elements on decorated sherds from the CXA site: a, parallel vertical to curvilinear engraved rim; b, cross-hatched engraved element, bottle; c, hatched engraved triangular element, bottle; d, triangular engraved element; e, opposed incised rim sherd; f, cross-hatched incised rim sherd.

Environmental Consultants, LLC, Austin, Texas). The analysis presented herein is concerned with identifying broad trends in subsistence and animal exploitation of the Middle Caddo population at this specific site in the East Texas Pineywoods.

Although the 41WD507 faunal sample is small in quantity, it provides a general overview of the area's available animal resources and the dietary preferences of the Caddo in prehistoric times. Aquatic species (fish, bullfrog, and pond turtle) were easy to obtain as the site was located near the Sabine River, but they were probably just supplemental foods. The wooded edges provided habitat for the cottontail, turkey, and deer. The woodlands and bottomlands were hunted for the box turtle, squirrel, and swamp rabbit. The animals identified suggest occupation during warmer months.

White-tailed deer is undoubtedly the main meat source of the Caddo diet. The approximate edible meat weight of a single deer is about 35 pounds (White 1953). It is possible that more than one individual is actually represented in the small sample at 41WD507, as MNI estimates are usually numerically conservative.

Table 6. Summary of Taxonomic Recovery from 41WD507.

Taxon	NISP	MNI	Habitat*	Percent of Sample
Vertebrata (indeterminate)	1	–	–	1.49
Indeterminate fish (Osteichthyes)	1	1	A	1.49
Bullfrog (*Rana catesbeiana*)	1	1	A	1.49
Pond slider turtle (*Pseudemys* sp.)	1	1	A	1.49
Box turtle (*Terrapene* sp.)	1	1	W, B	1.49
Indeterminate turtle (Testudinata)	9	–	–	13.44
Turkey (*Meleagris gallopavo*)	2	1	WE	2.98
Cottontail or swamp rabbit (*Sylvilagus sp.*)	6	1	WE or B	8.96
Squirrel (*Sciurus sp.*)	1	1	B, W	1.49
White-tailed deer (*Odocoileus virginianus*)	14	1	WE	20.90
Mammal (large Mammalia)	30	–	44.78	
Total	67	8		100

NISP=number of identifiable specimens; MNI=minimum number of individuals; * Preferred Habitat (Davis 1978; Schmidly 1983): A=aquatic (rivers, swamps, marshes); B=bottomlands (riparian habitats); W=woodlands (deciduous or pine forests); WE=wooded edges (open meadows, parkland)

The faunal sample demonstrates that hunting activities played a role in the diet of the Middle Caddo peoples that lived at this site. Previous investigations at other Caddo sites in the general area have identified similar animal resource utilization patterns as well as comparable species composition of procured animals (see Yates 1999; Schniebs 2008; Walters 2008:80-103). Environmental areas exploited by Caddo hunters include aquatic and riparian habitats, forests, and open meadows with wooded edges

CONCLUSIONS

These five prehistoric Caddo sites in the Upper Sabine River basin of Northeast Texas run the gamut from pre-A.D. 1200 habitation sites to Late Caddo (ca. A.D. 1400-1680) settlements, with attendant differences in the character of their ceramic sherd assemblages (the most common kind of artifact found on the sites). From the available information, these prehistoric Caddo sites were each occupied during specific, and probably short-term, spans of time (each probably less than 50-100 years) during the lengthy Caddo settlement of the region, and they contain domestic features, primarily midden deposits. These midden deposits represent areas of concentrated trash disposal, and may also mark the locations of abandoned Caddo house structures.

Further investigations at these sites is likely to obtain significant information on the domestic character of different Caddo groups that occupied the region. This would certainly include archaeological data on the kinds of domestic structures that were constructed at the sites and how long the sites and the structures were occupied, the location and nature of preserved extra-mural features (such as trash middens, storage pits, outdoor activity areas, granaries, and cemeteries), as well as the diversity of ceramic and lithic material culture remains on each of the sites. Are the ceramic assemblages sufficiently distinctive through time and across space that particular ceramic traditions can be defined in the Upper Sabine River basin? Perhaps most importantly, the existence of well preserved midden deposits with preserved animal bones and (likely) charred plant remains at the five sites strongly suggests that direct evidence for the subsistence pursuits of these local Caddo groups can be obtained through further archaeological investigations, and we can quantify the importance of domesticated plants, wild plant

foods, and game animals in the local prehistoric Caddo diets.

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Archaeological Findings from an Historic Caddo Site (41AN184) in Anderson County, Texas

Timothy K. Perttula

INTRODUCTION

This article reports on the archaeological findings from a Historic Caddo site (41AN184)[1] in the upper Neches River basin in Anderson County, in East Texas. The site was found in about 1960 by Ron Green (of Rockdale, Texas) when he was a teenager. In 2007, he donated the collection of artifacts to the Caddo Nation of Oklahoma, noting that "[n]othing can undo what has been done, but I know that the Caddo Nation will ensure these artifacts are given the proper respect and honor they would get no where else" (Green 2007:2). The artifacts donated by Mr. Green are from a late 17th to early 18th century Caddo site, and includes European trade goods (glass beads) as well as Caddo manufactured objects (including ceramic vessels and arrow points), which are rarely found on Caddo sites in the upper Neches River basin.[2]

BACKGROUND ON THE SITE AND THE DISCOVERY OF ARTIFACTS

Site 41AN184 is situated on an alluvial fan (320 feet amsl) on the side south of Walnut Creek, just west of the confluence of Walnut Creek and Cooper Creek. Walnut Creek is an eastward-flowing tributary of the Neches River, about 15 km south of the Lake Palestine dam, and 50 km north of the various crossings of the Neches River by the El Camino Real de los Tejas (Corbin 1991). In 1960, the site was in an abandoned field that had not been cultivated for several years; Ron Green's father had leased the land from ca. 1930 to 1960 for cultivation and had told his son that he had found pieces of pottery there. When the site was recorded in 2007, the land had recently been cleared of hardwoods and pine trees that had grown up in the old field.

In 1960, Ron Green and friends were looking for artifacts in the old fields along Walnut Creek using a 1/4-inch thick pokey rod to help with their search. In two locations at what is now known as 41AN184, Ron Green and his friends encountered evidence of what turned out to be Caddo burial pits (an unknown depth below the surface). According to Green (2007:2):

> We tried to be careful with the digging to make sure we did not break anything. In removing the layers of dirt I noticed a thin layer of black dirt above where we would find the artifacts. It was not clear what this was about until the last place we excavated. In that excavation was a part of a skull and leg bone. It was then that I realized the black layer must have been a charcoal like material to prevent animals from digging into the shallow graves. We carefully filled in the excavation and never dug again.

The black charcoal-like layer encountered in their digging likely marked the accumulation of charred organic materials and foods that had been burned and deliberately placed in the graves of the Caddo deceased, possibly part of the "Sixth Day Feast" burial rituals of the Caddo peoples (Gonzalez 2005:57). The charcoal-like layer may also represent evidence of fires lit at the foot of the grave.

RECOVERED ARTIFACTS

A varied assortment of artifacts are in the donated Ron Green collection from 41AN184. This includes four Caddo ceramic vessels, four arrow points, one large biface, and five European glass beads. Information is not available, unfortunately, on either the provenience of any of the artifacts by burial feature, or which of the artifacts had been placed together in those features.

Ceramic Vessels

There are four ceramic vessels from 41AN184 in the Ron Green donated collection. They include a very large Patton Engraved bowl (Figure 1, back row), a medium-sized Poynor Engraved globular carinated bowl (Figure 1, front row, second from left), an inverted rim engraved carinated bowl (Figure 1, front row, far left), and a medium-sized engraved bottle (Figure 1, front row, far right). Patton Engraved is considered to be the principal engraved fine ware vessel in ca. post-A.D. 1650 Historic Caddo sites in the Neches-Angelina river basins in East Texas.

The Patton Engraved, *var. unspecified* bowl from 41AN184 has an engraved design on the upper vessel body, enclosed by upper and lower horizontal engraved lines, as well as horizontal brushing marks on the lower body (Figure 2a). The engraved design consists of a series of arcing curvilinear and ticked engraved lines that extend from the top to the bottom of the engraved panel, and are on opposite sides of two increasingly smaller central ticked circles. The central ticked circle element is also seen on Patton Engraved, *var. Fair* vessels in the upper Neches (Perttula 2008:Figure 2g). However, in the case of this variety of Patton Engraved, the ticked circle element, encircled by ticked semi-circles, is on the body of the vessel, while the rim has two widely-spaced horizontal engraved lines with triangular tick marks on them; the vessel from 41AN184 lacks the horizontal engraved and ticked rim panel.

In one instance on the 41AN184 vessel, the central ticked circle element has been bisected (because of a design or execution error?) by a single arcing curvilinear and ticked engraved line (Figure 2b). The placement of this additional curvilinear ticked engraved line at least indicates that the central ticked circle elements were engraved first on the vessel, followed by the adjacent curvilinear ticked lines.

The dark brown globular carinated bowl (see Figure 1, front row, second from left), a common Poynor Engraved vessel form (Suhm and Jelks 1962:Plate 62b, j), has a distinctive engraved motif on the rim. The motif includes a central negative oval outlined by two sets of hatched brackets (reminiscent of Poynor Engraved, *var. Hood*, see Perttula 2008:Figure 1e), and these elements are enclosed within a rectangular panel defined at either end by two closely-spaced vertical engraved lines and a large hatched pendant triangle whose apexes point towards the central negative oval. This vessel from

Figure 1. Ceramic vessels donated by Ron Green to the Caddo Nation of Oklahoma from 41AN184.

a

b

Figure 2. Patton Engraved, *var. unspecified* globular bowl from 41AN184: a, side view; b, close-up of the engraved lines and triangular tick marks.

41AN184 is considered to be a Poynor Engraved, *var. unspecified* vessel.

The inverted rim carinated bowl has a series of engraved hook arm elements within an oval-shaped area on a rim panel defined by upper and lower horizontal engraved lines (see Figure 1, front row, far left), and divided from each other by hatched vertical brackets on either side of the hooked arms. This particular motif clearly resembles two unnamed varieties (*var. N* and *var. P*) of Poynor Engraved recently recognized in the upper Neches River basin (see Perttula 2009:Figure 6-64), as well as Poynor Engraved, *var. Lang* (Perttula 2008:Figure 1g'). These unnamed varieties of Poynor Engraved make their appearance after ca. A.D. 1560 in the upper Neches River basin (Perttula 2009:Table 6-37), while Poynor Engraved, *var. Lang* vessels appear to have been a more common fine ware between ca. A.D. 1480-1560 (Perttula 2009:Table 6-37).

The bottle (see Figure 1, front row, far right). of unidentified type, has a globular body and a straight neck, with a slight collar at the neck-body juncture. Encircling the upper body is a single wavy to horizontal engraved line, and there are sets of cross-hatched engraved triangles that are pendant from the slight collar; the apex of the triangles touch the wavy horizontal engraved line. The vessel body has several sets of poorly executed curvilinear engraved scrolls (i.e., each scroll is comprised of three or four closely-spaced engraved lines rather than one broad and carefully executed scroll) that begin either along the upper or lower vessel body and intersect around a central oval formed by the meeting of the upper and lower scrolls.

Ceramic Pipe

Green (2007:2) notes that a ceramic pipe was also found in the partial excavations of the burial features. Unfortunately it was lost years ago, and it is not part of the collection from 41AN184 donated to the Caddo Nation of Oklahoma. Historic Caddo pipes from East Texas sites are elbow pipes, typically decorated with engraved lines or small punctated dots (see Napoleon 1995).

Arrow points

All four of the arrow points from 41AN184 are stemmed and corner-notched, with well-defined barbs or shoulders (Figure 3). The two complete

Figure 3. Arrow points and large blue glass beads from 41AN184 in the Ron Green collection.

Figure 4. Large well-made biface made from chert originating in a probable Central Texas chert source.

points (Figure 3, lower row, first and second from the left) are Cuney points that have expanding stems with concave bases (see Suhm and Jelks 1962:Plate 136). These two points are made from dark brown to dark grayish-brown Central Texas cherts.

The other two arrow points have partially broken stems. The first (third from left in the lower row of Figure 3) has a serrated blade and downward-pointing barbs, and may be from either a Cuney or Perdiz point. It is made from a translucent honey-colored or "beeswax" (Miller 2008:27) chert that can be found in the Central Texas/Edwards Plateau chert formations and outwash gravels in drainages to the east of Central Texas (cf. Shafer 1973). The other appears to be a Perdiz point with a roughly parallel stem, serrated blades, and downward-pointing barbs. It is made from a gray novaculite. This material is available from bedrock formations throughout the Ouachita Mountains in southeastern Oklahoma and southwestern Arkansas, as well as in Red River gravel sources well to the north of 41AN184 (Banks 1990).

The occurrence of Cuney and Perdiz points at 41AN184 is completely consistent with the Historic Caddo occupation at the site, and with other Historic Caddo sites in the upper Neches River basin (Cole 1975). Elsewhere in East Texas, as at the Deshazo site (41NA27), for example, 96% of the arrow points (n=123) are of the Perdiz type, followed by Cuney (2.4%) and Turney (1.6%) types (Girard 1995). Cuney points are also common at the Henry M. site (41NA60), accounting for 25% of the arrow points found there, along with Perdiz (8.3%) and unstemmed triangular arrow points (66.7%) (Perttula et al. 2010).

Large Biface

There is a single large biface in the Ron Green collection from 41AN184 (Figure 4). It is made from a dark grayish-brown, lustrous chert that has gray to white inclusions. This chert is not from any local East Texas raw material source, but strongly resembles in color and texture various Central Texas and Edwards Group cherts available in bedrock and outwash gravel sources (cf. Frederick and Ringstaff 1994) as well as Chickachoc chert from southeastern Oklahoma (Banks 1990). If the former, this biface was likely shaped or completely manufactured in Central Texas, and traded/exchanged to a Caddo group living in the upper Neches River basin.

The biface is about 14 cm in length, with pressure-flaked resharpened edges, with a small notched and bulbous stem (see Figure 4). Large bifaces, including Anderson and Jowell bifacial knives (Cole 1975; Jones 1968:Plates 28l-29a-bb), are frequent offerings placed in Historic Caddo burials in East Texas, but these have either broad and flat stems (Anderson bifaces) or are bi-pointed forms (Jowell bifaces), rather than a notched stem.

Glass Beads

The five large glass beads (see Figure 3) are a non-translucent aqua blue in color, and can be classified as IIa39 in the Kidd and Kidd (1970) bead nomenclature. These are non-tubular or rounded glass beads with simple or monochrome colors. These particular kinds of beads are generally most popular on East Texas Caddo sites that date from ca. A.D. 1685-1730 (see Perttula 2004), and are about the only kind of glass bead found on upper Neches River basin Historic Caddo sites (Cole 1975:Table 19).

SIGNIFICANCE OF THE ARCHAEOLOGICAL FINDINGS

The main archaeological significance of 41AN184, other than the fact that it provides further substantive information on the occupation of East Texas by Caddo peoples, is that it represents one of a few (less than 10 components) known Historic

Caddo sites in the upper Neches River basin of East Texas. These sites represent an *Upper Neches cluster* of Allen phase sites (see Perttula 2007:Figure 1) that occur on tributaries of the Neches River. In historic times, the archaeology of the East Texas Caddo groups living in parts of the Neches-Angelina River basins is associated with the Allen phase, dated from ca. A.D. 1650-1800 or later: "The Allen phase is believed to have developed out of the Frankston phase, and more importantly, to have shared the same form of organization, kinds of inter-group interaction, and settlement patterns" (Story and Creel 1982:34).

Story and Creel (1982:32) suggest that the Frankston and Allen phase populations were organized in a "weakly hierarchical structure" analogous to the Hasinai confederacy (see Swanton 1942). Allen phase components are found in the Neches and Angelina river basins in Cherokee, Anderson, Houston, Rusk, and Nacogdoches counties (see Cole 1975; Kenmotsu 1992; Perttula and Nelson 2006, 2007; Story 1982, 1995), and usually contain small amounts of European trade goods found in village and burial contexts. Caddo domestic remains at these settlements included a variety of decorated and plain ceramic fine wares (principally Patton Engraved) and utility wares, usually bone-tempered and with brushed vessel bodies, triangular and stemmed arrow points, elbow pipes (plain and decorated), ground stone tools, and bone tools. These Caddo groups were successful agriculturists.

The groups who during the Allen phase occupied parts of the Neches and Angelina river basins were direct ancestors of the Hasinai tribes. Some of these tribes were living in or near the Spanish missions established on the El Camino Real de los Tejas (originally a Caddo trail) in the region between ca. 1691-1772, and they continued to maintain residence there until the 1830s. There were no Spanish missions established in the upper Neches River, however, as the area was well north of the Camino Real, and there is no available ethnographic or historical information (see Swanton 1942) concerning either the tribal identity of the Caddo groups that lived in the upper Neches River basin in historic times, or how long they continued to reside in the upper Neches after sustained European contact.

The archaeological findings from 41AN184, and other Allen phase sites in the upper Neches River basin, do indicate that Caddo groups lived in this part of East Texas until at least the mid-18th century, if not later. A 1744 map by Bellin (Figure 5) may provide a clue to the tribal identity of the upper Neches River Caddo groups that occupied sites in the *Upper Neches cluster.*

This map locates the Pays des Cenis or the territory of the Hasinai Caddo in East Texas, including the Teijas (Tejas), Assinais (Hasinai), and Naouadiches in the Neches and Angelina River basins. It also shows the route of the Camino Real de los Tejas as it bisects the territory of these Caddo groups, and locates other Caddo groups—the Nacanne and Nondaque—well north of the Camino Real and on lands between the Neches and Trinity rivers. Based on the close similarity in the spelling of the tribal name, the Nondaque living on what appears to be the upper Neches according to the Bellin map (see Figure 5) may be related to the Nadaco (and then later Anadarko) tribe of the later 18th and early 19th centuries who lived in the upper Angelina and in the middle Sabine river basins. Thus, it is certainly possible that the Caddo living in the late 17th-early 18th century at sites such as 41AN184 represent an ancestral Nadaco or Anadarko Caddo group that once lived in the upper Neches River basin.

END NOTES

1. Mark Walters recorded the site, and an adjoining Caddo site (41AN183), based on the narrative provided to the Caddo Nation of Oklahoma by Ron Green.

2. An Allen phase site with glass beads, although not formally recorded with the State of Texas, has been reported (Clyde Amick, 1990 personal communication) less than 5 km to the northeast of 41AN184 on Brushy Creek. Brushy Creek is another eastward-flowing tributary to the Neches River.

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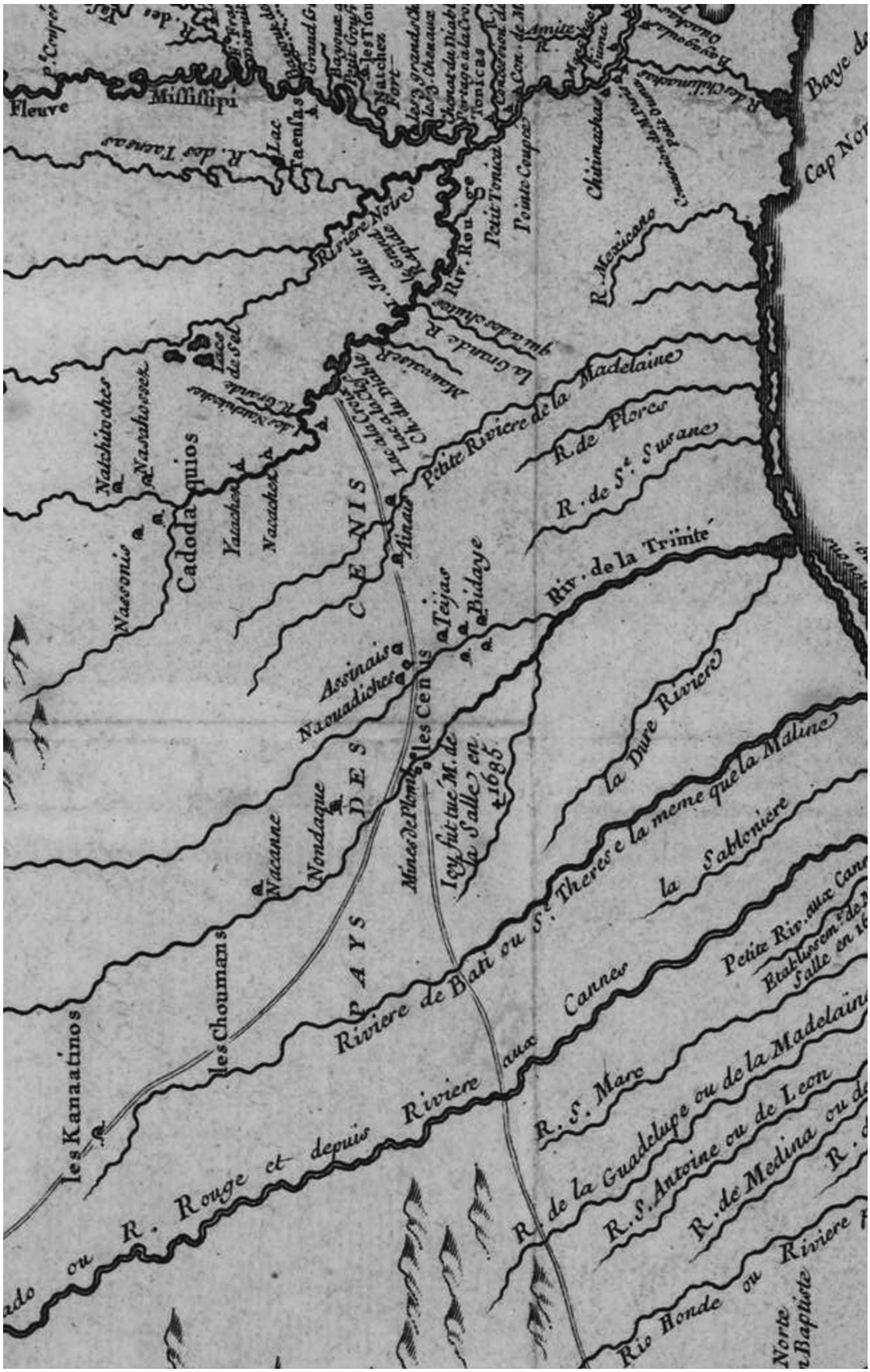

Figure 5. Detail of the 1744 Bellin map showing Pays des Cenis or Hasinai Caddo in East Texas, including the Teijas, Assinais, and Naouadiches in the Neches and Angelina River basins, the route of the Camino Real de los Tejas, and other Caddo groups (Nacanne and Nondaque) well north of the Camino Real and on lands between the Neches and Trinity rivers.

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Analysis of Prehistoric Artifacts from 2003 Excavations at the George C. Davis Site (41CE19), Cherokee County, Texas

Timothy K. Perttula

A small sample of artifacts were recovered in 2003 archaeological excavations at the George C. Davis site (Caddoan Mounds State Historic Site) by The University of Texas at Austin (Table 1). The work was done in conjunction with a large-scale geophysical survey of the site to locate archaeologically significant geophysical anomalies (i.e. Caddo structures, pit features, palisades, burial features, etc.) (Creel et al. 2005; Walker 2009). The excavations in Unit 113, ca. 150 m east of Mound B (Figure 1), were focused on Feature 237, a kind of circular Caddo structure called a "Button House" (Schultz 2010) because of its four support posts around a central hearth feature.

The principal kinds of artifacts found in the work include plain and decorated Caddo pottery sherds (40%), lithic debris (27%), and small pieces of what appears to be a glauconitic-rich clay (18%) that are likely not naturally found in the soils at the site. Appendix 1 provides an inventory, by provenience, of the recovered artifacts.

Table 1. Recovered artifacts from 2003 excavations at the George C. Davis site.

Artifact Category	No.
Burned clay	2
Daub	1
Glauconitic-rich clay pieces	10
Decorated ceramic sherds	4
Plain ceramic sherds	18
Chipped stone tool fragment	1
Lithic debris	15
Lithic chunks/cores	3
Iron cut nail	1
Totals	55

Four of the 22 sherds (18.2%) have decorations. One small rim from the plow zone has a single horizontal engraved line on it, while a body sherd from the same context may be from a Dunkin Incised vessel with opposed incised lines on the rim or upper portion of the vessel body (see Suhm and Jelks 1962:Plate 19). Feature 237-1 has a body sherd from a Kiam Incised vessel (see Suhm and Jelks 1962:Plate 45b-c, e) with at least four rows of tool punctates on the vessel body. The last decorated sherd is from a well-made and well burnished Holly Fine Engraved deep bowl with a engraved decoration consisting of sets of fine engraved lines running vertically and horizontally in different decorations (see Suhm and Jelks 1962:77 and Plate 40f), with small triangular-shaped excised areas attached to at least four sets of vertically-arranged engraved lines. Holly Fine Engraved, Dunkin Incised, and Kiam Incised are three of the principal decorated pottery types found in the ceramic assemblage from the ca. A.D. 850-early 1300s Caddo occupation at the George C. Davis site (Story 2000:14).

The ceramic sherds from the 2003 excavations at the George C. Davis site are tempered almost exclusively with grog or crushed sherds (91%) (see Appendix 2 for detailed analysis of the recovered ceramics). A few of these sherds are from vessels with crushed and burned bone (9.1%) or hematite (13.6%) added to the paste along with grog. Two sherds have no temper and have a sandy paste; however, these do not have coarse sandy textures like the Woodland period Goose Creek Plain, *var. unspecified* sherds found in low numbers at the site (Story 2000:11-12), and are thus probably from non-tempered Caddo vessels.

With respect to how the vessels were fired, an examination of sherd core cross-sections suggest that the majority of the sherds are from vessels that

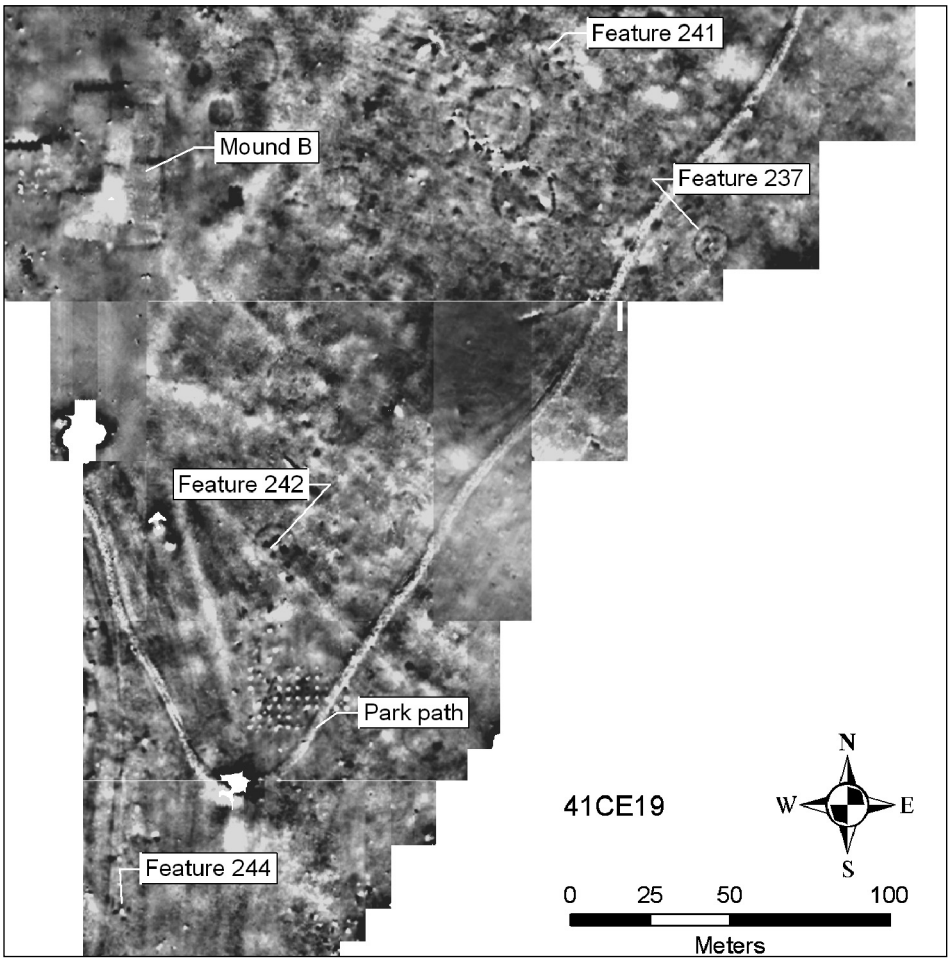

Figure 1. The location of Feature 237 (Unit 113) in the geophysical survey area at the George C. Davis site. This map was provided courtesy of T. Clay Schultz.

were fired in a reducing or low oxygen environment (63.6%), but then cooled in the open air (i.e., pulled from the fire to cool). Another 31.8% are sherds from vessels that were either fired in a high oxygen environment or incompletely oxidized during firing. Only 4.5% of the sherds are from vessels fired and cooled in a reducing environment.

Less than 15% of the sherds are from vessels that have been burnished or smoothed on interior and/or exterior vessel surfaces (see Appendix 2). Rather than a true absence of such forms of surface treatment—which are a common feature of both Caddo fine ware and utility wares—their absence here is likely a product of the small size and eroded character of the Unit 113 sherds.

Although the sample of sherds from the Unit 113 excavations is quite small, sherd thickness values range from 6.44 ± 1.07 mm for body sherds, 6.8 mm for the one rim, and 9.3 mm for the one base sherd. The apparent trend in Caddo vessels for vessel body walls (irrespective of the rims) to increase in thickness from the upper body to the lower body (which is probably the case here), and then the base (which is the thickest part of the vessel), suggests that the Caddo vessels made and used at the George C. Davis site were constructed from the bottom up, with the lower portion of each vessel considerably thicker than the upper part (e.g., Krause 2007:35).

The one chipped stone tool from Unit 113 came from the plow zone. It is a bluish-gray chert (probably from a Central Texas source area) bifacially-chipped tool fragment that is at least 20.4 mm in length, a maximum of 12.5 mm in width, and 4.2 mm in thickness; the bottom of the piece is rounded. There is no evidence of a distinct stem or shaft like the Group I and II perforators found at the site (Baskin 1981:Figure 34), but the Unit 113 piece may be part of a broken perforator.

Almost 87% of the lithic debris are from cherts, with the remainder being medium to coarse-grained quartzite pieces (see Appendix 1). Of the cherts, one lustrous gray chert piece (with a rough limestone cortex) may be from a Central Texas source, but the others were probably obtained from stream-worn pebbles in Neches River gravels. The colors of the chert lithic debris pieces are reddish-brown (n=1), brownish-gray (n=2, 100% cortex), gray (n=5, 20% cortex), light gray (n=4, 25% cortex), and dark gray (n=1).

The lithic debris is uniformly small, generally less than 1-2 cm in length and width, and 33% have cortex, almost all of which is smooth and stream-rolled. The pieces are likely the product of both the reduction of local stream-rolled pebbles to obtain flakes usable for tool manufacture (i.e., arrow points and a variety of flake tools) as well as the resharpening of tools, some of which may not have been made on site by Caddo knappers.

There are two small stream-rolled pebble cores/chunks of brown chert that have evidence of single flake removals. A third chunk in the artifact assemblage is an unmodified pebble-sized piece of hematite.

The pieces of glauconitic-rich clay are found in the plow zone (n=1) and Feature 237-4 and Feature 237-6. These pieces may be from a concentration of clay collected for use as a pigment. One small piece of burned clay also came from the screened plow zone, while the other was recovered in Feature 237-3. Feature 237-6 had a large fist-sized piece of daub (with stick impressions).

The one remaining artifact is a square cut nail (manufactured between ca. 1820-1890). It was recovered in the screened plow zone of Unit 113.

SUMMARY

A small sample of prehistoric artifacts from the Unit 113 excavations at the George C. Davis site comprises primarily domestic debris from an Early Caddo (pre-A.D. 1300) occupation (cf. Story 2000). The daub and burned clay found here suggests that the excavations were in an area with some structural burning, and the other artifacts are indicative of ceramic vessel use for cooking and food serving (and then eventual trash discard of broken vessels), while the lithic debris indicates that some tool manufacturing and/or maintenance activities took place in this one locale within the larger prehistoric Caddo village.

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Appendix 1, Inventory of Artifacts.

Lot 5378-14, Unit 113, Feature 237-3

1 fist-sized piece of burned clay, no obvious plant impressions

Lot 5378-16, Unit 113, Feature 237-1

1 Holly Fine Engraved body sherd

Lot 5378-18, Unit 113, Feature 237-1

1 cf. Kiam Incised body sherd

Lot 5378-20, Unit 113, Feature 237-1

1 plain body sherd

Lot 5378-49, Unit 113, Feature 237-4

2 pieces of glauconitic-rich clay

Lot 5378-51, Unit 113, Feature 237-6

6 pieces of glauconitic-rich clay

Lot 5378-52, Unit 113, Feature 237-6

1 piece of glauconitic-rich clay

Lot 5378-69, Unit 113, Plow zone

1 piece of burned clay; 17 plain body sherds; 1 cf. Dunkin Incised body sherd; 1 horizontal engraved rim sherd; 1 chert chipped stone tool fragment (possible dart point fragment); 15 pieces of lithic debris; 1 hematite chunk; 2 chert cores/chunks; 1 iron cut nail

Appendix 2, Detailed Analysis of Plain and Decorated Caddo Ceramic Sherds.

Lot No.	Sherd Type	Temper	FC*	ST	Th (mm)	Decoration
5378-16	body	grog-hematite	F	I/E B	6.0	fine engraved lines, Holly Fine Engraved
5378-18	body	grog	H	I SM	9.2	4+ rows of tool punctates; cf. Kiam Incised
5378-20	body	grog	H	–	7.6	plain
5378-69	body	grog-bone	C	–	7.2	opposed incised lines, cf. Dunkin Incised
	rim, __-Ro	grog	G	–	6.8	single horizontal engraved line
	body	grog	G	–	6.1	plain
	body	none/SP	E	–	5.3	plain
	body	grog	B	–	6.0	plain
	body	none/SP	E	–	5.4	plain
	body	grog	G	–	5.0	plain
	body	grog-hematite	A	–	6.8	plain
	body	grog	G	–	6.6	plain
	body	grog	G	–	5.9	plain
	body	grog/SP	F	–	6.9	plain
	body	grog-bone	G	E B	4.3	plain
	body	grog	G	–	7.3	plain
	body	grog-hematite	F	–	7.2	plain
	body	grog	G	–	8.1	plain
	body	grog	A	I SM	8.2	plain
	body	grog/SP	D	–	5.2	plain
	body	grog	G	–	4.6	plain
	body	grog	A	–	9.3	plain

*FC=firing conditions; A=oxidizing environment; B=reducing environment; C-E, incompletely oxidized; F-H=reducing environment, but cooled in the open air
ST=surface treatment; I=interior; E=exterior; B=burnished; SM=smoothed
SP=sandy paste; __-Ro=rim form indeterminate, lip is rounded
Th=thickness

Analysis of the Prehistoric Caddo Ceramics from 41LR351, Lamar County, Texas

Timothy K. Perttula

INTRODUCTION

Site 41LR351 was first recorded during the 2005 Texas Archeological Society summer field school on the Stallings Ranch in Lamar County, Texas. This prehistoric site is on a natural knoll (420-430 feet amsl) in the headwaters of Pine Creek, a northward-flowing tributary of the Red River. The site is currently being excavated by the Valley of the Caddo Archeological Society, and a large prehistoric Caddo ceramic assemblage has been recovered that warrants study. In addition to characterizing the assemblage of vessel sherds in terms of decorative style and various technological attributes (i.e., temper and paste, firing conditions, surface treatment, etc.), I am also concerned with establishing the temporal and cultural affiliation of the recovered ceramics from 41LR351.

ASSEMBLAGE AND PROVENIENCE INFORMATION

The ceramic sherd assemblage from the excavation of 11 units at 41LR351 includes 598 plain and decorated sherds (Table 1). The decorated sherds comprise 19.6% of the assemblage. The highest densities of ceramic sherds are in N98-E54, N99-E54, N100-E52, and N99-E58, with between 74-157 sherds per unit.

The plain to decorated sherd ratio (P/DR) is 4.1:1 at 41LR351. By way of comparison, the P/DR at the Stallings site (41LR297), across a small tributary to Pine Creek from 41LR351, is 14.3:1 (Perttula 2008a; see also Bruseth et al. 2009:Figure 1). The high P/DR ratio at the Stallings site indicates that the assemblage in this pre-A.D. 1150 Caddo occupation was dominated by plain ware vessels and vessels with decoration confined almost exclusively to a small portion of the upper part of the vessel, but this tendency had changed by the time 41LR351 was occupied, which was apparently sometime after ca. A.D. 1100.

Pre-A.D. 1200 Caddo sites in the lower Red, middle Sabine, and Neches-Angelina River basins have P/DR values between 2.97-4.80:1 (Perttula 2004:390; Bruseth and Perttula 2006). Closer to 41LR351, at the Ray site (41LR135), thought to have been principally occupied between ca. A.D. 800-1000 by Bruseth et al. (2001:212), the P/DR value is 56.6:1. At the slightly later prehistoric Caddo component (ca. A.D. 1000-1250) at the Sam Kaufman/Roitsch site (41RR16) on the middle reaches of the Red River—specifically the East Mound excavations—the P/DR in the ceramic assemblage is 4.86:1 (Skinner et al. 1969:Tables 5 and 6), almost the same as 41LR351.

METHODS OF ANALYSIS

Detailed analysis of the decorated and plain ceramic sherds from 41LR351 (Appendix 1) is based on differences in temper, type of sherd (i.e., rim, body, or base), rim and lip form (cf. Brown 1996: Figure 2-12), decoration (if present), surface treatment (smoothing, burnishing, or polishing; see Rice 1987), and firing conditions (cf. Teltser 1993). Sherd cross-sections were inspected macroscopically and with a 10X hand lens to determine the character of the paste and its inclusions. Determining the firing conditions is based on the identification of the firing core in the sherd cross-sections and the identification of oxidation patterns as defined in Teltser (1993:535-536 and Figure 2a-h).

More specifically, the following attributes were employed in the analysis of the vessel ceramics: (a) temper, the deliberate and indeterminate materials found in the paste (Rice 1987:411), including a variety of tempers (grog or crushed sherds, burned bone, hematite, and burned mussel shell) and "particulate matters of some size;" (b) although most of the

Table 1. Ceramic sherd assemblage from 41LR351.

Provenience (N-E)	No. of Plain Sherds	No. of Decorated Sherds	N
95-55	43	9	52
96-55	10	–	10
97-60	12	–	12
98-54	123	34	157
98-59	24	7	31
99-54	71	29	100
99-58	61	13	74
100-51	49	11	60
100-52	67	8	75
100-57	2	–	2
101-53	19	6	25
Totals	481	117	598

sherds are small and thus from indeterminate vessel forms, where sherds were large enough, vessel form categories include open containers (bowls and carinated bowls) and restricted containers, including jars and bottles. Other form attributes include rim profile (outflaring or everted, direct or vertical, and inverted) and lip profile (rounded, flat, or folded to the exterior). Base shape was recorded if possible. Observations on ceramic sherd cross-sections permit consideration of oxidation patterns (Teltser 1993:Figure 2), namely the conditions under which a vessel was fired and then cooled after firing. Finally, wall thickness was recorded in millimeters (mm), using a vernier caliper, along the mid-section of the sherd.

With respect to interior and exterior surface treatment on the sherds, the primary methods of finishing the surface of the vessels includes smoothing and burnishing, and polishing, although a few sherds may still have scraping marks from initial surface treatment work by the potter. Smoothing creates "a finer and more regular surface… [and] has a matte rather than a lustrous surface" (Rice 1987:138). Burnishing creates an irregular lustrous finish marked by parallel facets left by the burnishing tool (perhaps a smoothed pebble or bone). A polished surface treatment is marked by a uniform and highly lustrous surface finish, done when the vessel is dry, but without "the pronounced parallel facets produced by burnishing leather-hard clay" (Rice 1987:138).

Decorative techniques present in the 41LR351 ceramic sherd collection include engraving, slipping, incising, punctating, and appliqued, and on certain sherds, combinations of decorative techniques (i.e., incised-punctated) created the decorative elements and motifs. Engraving was done with a sharp tool when the vessel was either leather-hard or after it was fired, while the other decorative techniques were executed with tools (incising or punctating with wood or bone sticks or dowels) or fingers (fingernail punctating and the creation of appliqued strips) when the vessel was wet or still plastic.

DECORATED SHERDS

The decorated sherds from 41LR351 are represented by 37 rims and 80 body sherds. The decorated sherds are readily separated into fine wares (n=51, 43.6% of the decorated sherds) or utility wares (n=66, 56.4% of the decorated sherds), following the distinctions discussed by Schambach and Miller (1984) at the Cedar Grove site in the Great Bend area in southwestern Arkansas. These distinctions include apparent differences in temper, surface treatment, vessel forms, and decorative methods between the two wares. Utility wares generally are jars and simple bowls used for the cooking and storage of foods, have a coarse temper, and lack burnishing, polishing, or slipping on interior and exterior vessel sherd surfaces. Such vessel sherds are decorated with brushing, incising, punctations (tool, cane, or fingernail), and appliqued elements, either by themselves or in combination with one or more of these decorative methods (see Perttula et al. 1995; Schambach and Miller 1984; Suhm and Jelks 1962). Fine wares, on the other hand, consist principally of engraved and slipped vessel sherds from carinated bowls, some simple bowls, and bottles. The fine ware vessel sherds more frequently are smoothed or burnished on the exterior vessel surface, and as will be discussed in more detail below, the fine ware vessels from 41LR351 were made, fired, and used in different ways than were the utility ware vessels.

The fine ware sherds from 41LR351 include 11 rim and 40 body sherds that have engraved and/or red-slipped decorations (Table 2). More than 90% of the rim sherds are from engraved vessels, including

Table 2. Decorated fine ware sherds from 41LR351.

Decorative elements	Rim	Body	% RS
Engraved			
parallel engraved lines	–	7	–
diagonal engraved lines	2	3	20.0
diagonal-horizontal engraved lines	3	1	75.0
vertical-diagonal engraved lines	1	1	–
opposed diagonal engraved lines	1	–	–
cross-hatched engraved lines	–	1	–
horizontal engraved lines	3	2	80.0
int. horizontal engraved lines	–	1	–
single straight engraved line	–	7	42.9
Subtotal	10	23	33.3
Red-slipped			
int./ext. red-slipped	1	12	100.0
ext. red-slipped	–	5	100.0
Subtotal	1	17	100.0
Totals	11	40	56.9

RS=red-slipped

carinated bowls and compound bowls. There are also body sherds represented in the fine wares from the site. In addition to the 18 red-slipped sherds that may be from plain slipped vessels (bottles and carinated bowls) as well as from the undecorated portions of slipped vessels, 33.3% of the engraved sherds are from vessels that have also been red-slipped (Table 2). Approximately 55% of the fine ware sherds from 41LR351 have a red slip on either one or both vessel surfaces.

The engraved sherds have simple geometric decorative elements composed of horizontal, parallel (where the sherd orientation is not known) diagonal, opposed diagonal, vertical-diagonal, or cross-hatched lines (Figures 1a-e and 2a-d and Table 2). The decorative elements are confined to the rim of carinated bowls, compound bowls, and probably simple bowls.

Two sherds from 41lR351 compare favorably to decorative elements on Holly Fine Engraved vessels (see Suhm and Jelks 1962:Plates 39 and 40) in that they have closely spaced sets of vertical and diagonal engraved lines on a vessel rim (see Figures 1b-c and Figure 2a). Where they differ from classic examples of Holly Fine Engraved is in the absence of excised triangles (Suhm and Jelks 1962:77) as an integral attribute of the motif, as well as the fact that the engraved lines are not finely executed. According to Story (2000), Holly Fine Engraved vessels were likely manufactured between ca. A.D. 850-1300 in various locales across Northeast Texas.

The other engraved sherds (see Figures 1a, d-e and 2b-d and Table 2), many of which are red-slipped, are likely from Sanders Engraved vessels (see Brown 1996:403-404 and Figures 2-38a, c, e and 2-39a-c, i, m; Krieger 1946:Plate 27, 2000:139, 142-143; Suhm and Jelks 1962:137 and Plate 69). Suhm and Jelks (1962:137) describe the decorative elements on Sanders Engraved vessels as "very simple straight-line motifs in a single zone around rims…the designs may consist only of parallel lines pitched in opposite directions at intervals… groups of vertical lines at intervals… and a continuous series of triangles filled with hachuring or crosshatching."

The red-slipped sherds comprise 35% of the fine wares from 41LR351. If these sherds are from vessels that are decorated only with red-slipping on either one or both vessel surfaces, then they can be

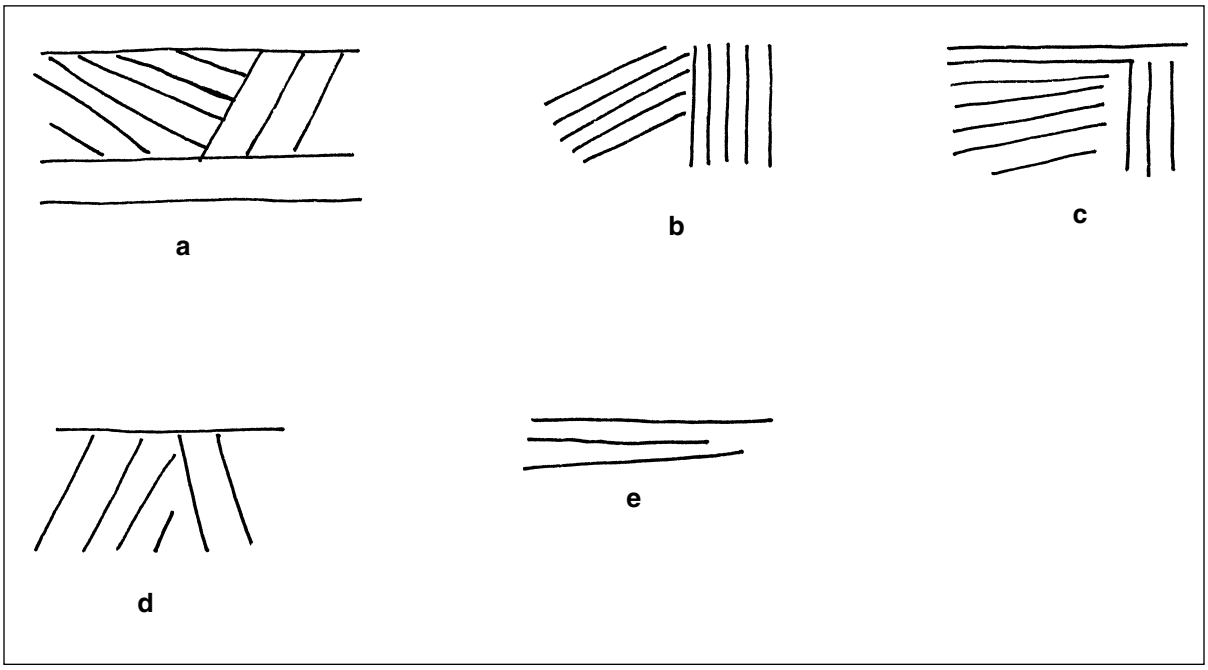

Figure 1. Selected fine ware decorative elements: a, horizontal and diagonal opposed engraved rim; b, vertical and diagonal engraved lines, cf. Holly Fine Engraved; c, horizontal-vertical-diagonal engraved rim; d, opposed diagonal engraved rim; e, horizontal and diagonal engraved/red-slipped rim. Provenience: a, N99 E54 (Lot 134); b, N98 E54, lv. 6 (Lot 137); c, N95 E55, lv. 8 (Lot 160); d, N100 E52, lv. 6 (Lot 138); e, N98 E54, lv. 4 (Lot 130).

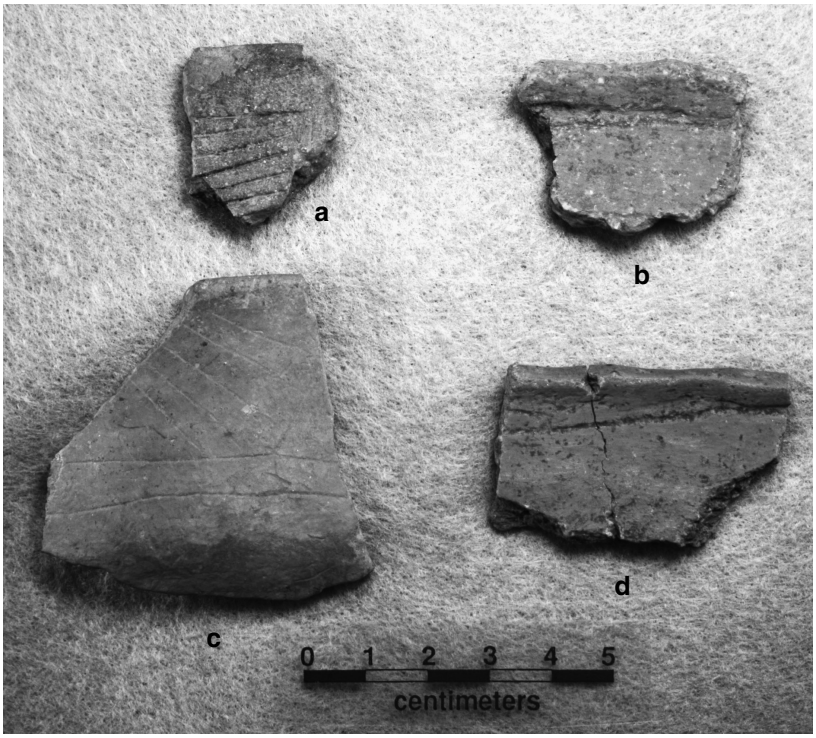

Figure 2. Engraved sherds from 41LR351: top row, left to right: a, horizontal-vertical-diagonal engraved rim (N98 E59); b, horizontal engraved and red-slipped rim (N98 E59); bottom row, left to right, c, horizontal and diagonal opposed engraved rim (N99 E54, Lot 134); d, horizontal and diagonal engraved and red-slipped rim (N98 E54, Lot 130).

classified as Sanders Plain (Suhm and Jelks 1962:139 and Plate 70; see also Krieger 1946:Plates 24-26). According to Brown (1996:401), Sanders Plain is "a grog tempered slipped and undecorated ceramic."

The majority of the decorated utility ware sherds from 41LR351 have incised decorative elements (Table 3 and Figures 3b, d, f and 4a-g). The incised sherds comprise 68% of the decorated utility wares, including 69% of the utility ware rim sherds. Other utility wares include rim and body sherds with various punctated elements (18%), sherds with incised-punctated designs (12%, Figure 3a, c, e), and one sherd (1.5%) with a simple appliqued design.

The incised sherds (see Figures 3b, d, f and Figure 4a-g), and many of the incised-punctated sherds, are from Canton Incised vessels that have "parallel diagonal lines around rim, all in the same direction… alternating in direction…alternating with intervening spaces filled with small punctations or fingernail marks… nested together in hachures… or crossed in a diagonal grid" (Suhm and Jelks 1962:23; see also Krieger 1946:Plate 28f-g). At 41LR351, the most common decorative elements (based on 15 rim sherds) feature sets of diagonal incised or cross-hatched incised lines. The two rims with tool punctate-filled incised triangles (see Figure 3c, e and Figure 5a) are also from Canton Incised vessels.

There are three incised-punctated sherds from

Table 3. Decorated utility ware sherds from 41LR351.

Decorative elements	Rim	Body
diagonal incised lines	7	2
diagonal opposed incised lines	–	3
opposed incised lines	1	–
cross-hatched incised lines	8	6
parallel incised lines	–	10
vertical incised lines	1	2
vertical-horizontal incised lines	–	1
vertical-diagonal incised lines	1	–
horizontal-diagonal incised lines	–	1
straight incised line	–	2
subtotal	18	27
tool punctated rows	1	2
tool punctates, free	1	–
fingernail punctated rows	2	1
cane punctated rows	1	1
large circular punctated rows	1	–
linear punctated rows	–	1
free punctates	–	1
subtotal	6	6
parallel incised band with circular punctates	–	1
parallel incised band with cane punctates	–	2
vertical incised lines above circular punctates	–	1
tool punctate-filled incised triangles	2	2
subtotal	2	6
curvilinear appliqued ridges	–	1
Totals	26	40

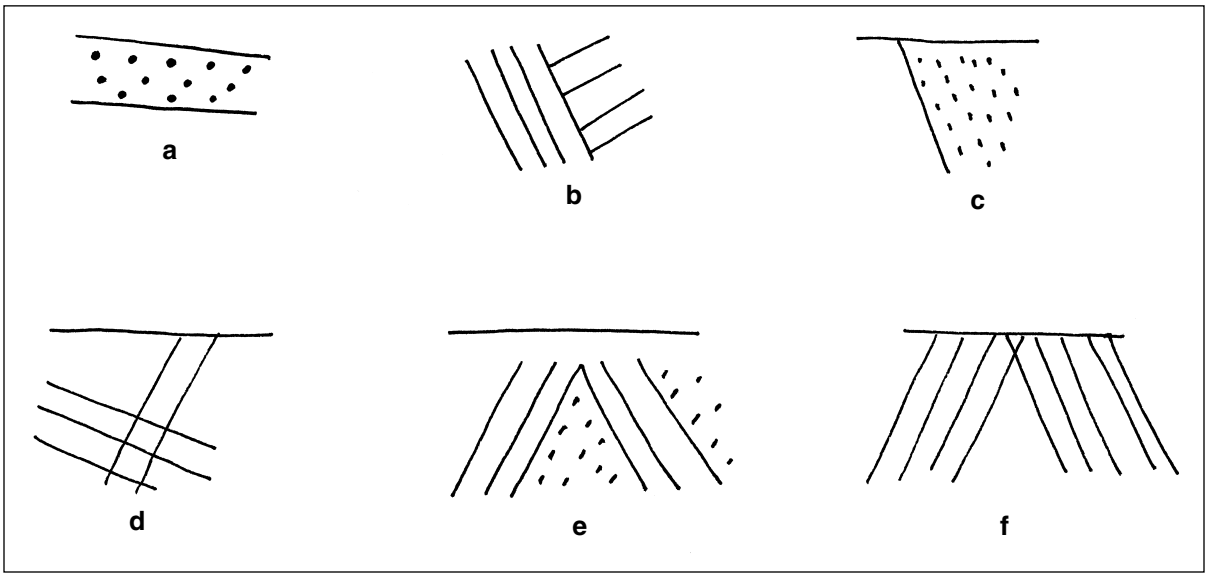

Figure 3. Selected utility ware decorative elements: a, cane punctate-filled incised zone; b, diagonal opposed incised lines; c, tool punctate-filled incised triangle rim; d, cross-hatched incised rim; e, tool punctate-filled and alternating incised triangles; f, opposed incised rim. Provenience: a, N98 E 54 (Lot 127); b, N100 E52, lv. 5 (Lot 122); c, N98 E54 (Lot 123); d, N95 E55, lv. 6 (Lot 158); e, N99 E54 (Lot 126); f, N99 E58 (Lot 110).

Figure 4. Incised sherds from 41LR351: top row, left to right: a, opposed incised rim (N99 E58, Lot 110); b, opposed incised lines (N98 E54, Lot 123); c, diagonal incised rim (N99 E58, Lot 112); d; cross-hatched incised (N98 E54, Lot 127); bottom row, left to right: e, cross-hatched incised (N98 E54, Lot 127); f, vertical incised lines (N100 E52, Lot 122); g, cross-hatched incised rim (N100 E52, Lot 152).

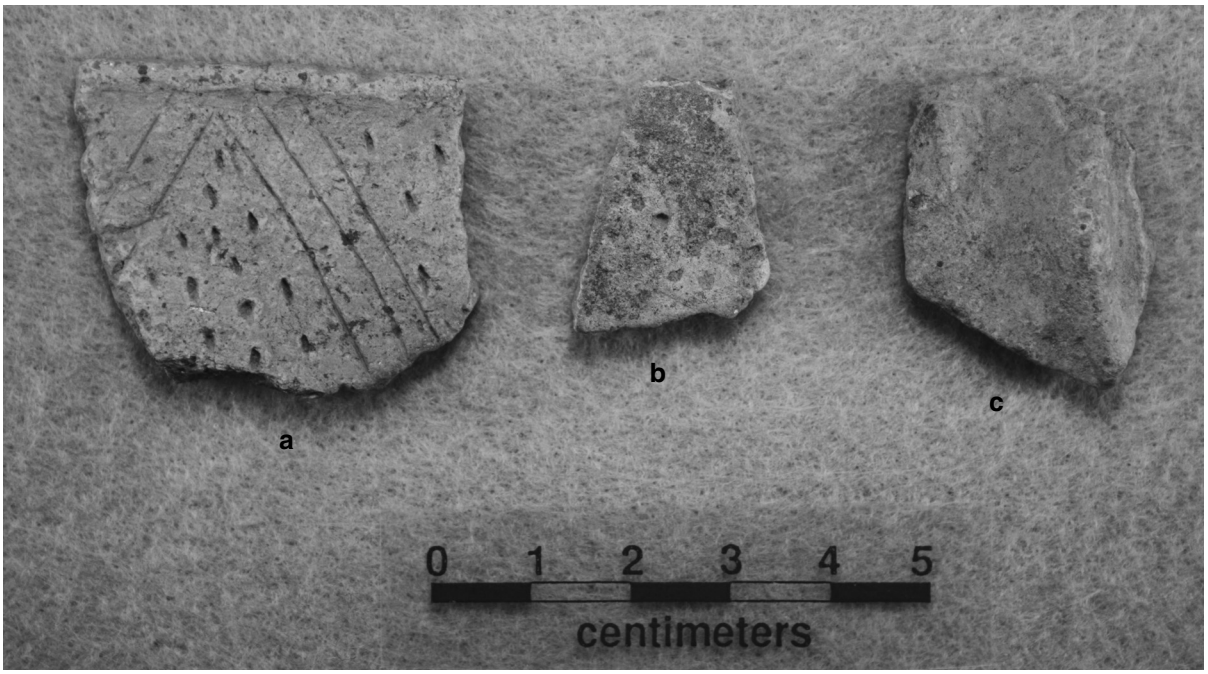

Figure 5. Incised-punctated and appliqued utility ware sherds: left to right: a, Canton Incised rim (N99 E54, Lot 126); b, possible Pennington Punctated-Incised body sherd (N98 E54, Lot 127); c, appliqued body sherd (N98 E54, Lot 130).

41LR351 that may be from Pennington Punctated-Incised vessels (see Figures 3a and 5b). These have well-defined parallel incised bands filled with either circular or cane punctations (see Table 3).

Other utility ware vessel at 41LR351 may have had a punctated zone (or rows of punctations) around the top of the vessel, or perhaps had punctations on both the rim and body. In these cases, the punctations were made with tools, fingernails, or a cut piece of cane (Figure 6a-d; see Table 3). One body sherd has curvilinear appliqued ridges on it (see Figure 5c), perhaps part of a modeled element attached to the vessel surface.

PLAIN SHERDS

The 481 plain sherds from 41LR351 account for 80.5% of the ceramic assemblage. The plain sherds include 16 rim sherds (30.2% of all the rims), 432 body sherds (84.2% of all the body sherds), and 33 base sherds.

Based on the proportion of decorated (n=37) and plain rims (n=16), and the assumption that the number of rims is an accurate proxy for the relative frequency of vessels of different kinds, about 30% of the vessels at 41LR351 are from plain, non-slipped vessels. At the Stallings site, by contrast, 89% of the rims are from plain, non-slipped vessels (Perttula 2008a).

DISCUSSION OF THE CERAMIC ASSEMBLAGE FROM 41LR351

There are three distinct ceramic wares in the prehistoric Caddo sherd assemblage from 41LR351: fine ware, utility ware, and plain ware. These three wares are not only different with respect to the kind of surface decorations found on them (see above), but also in terms of the technological analyses to be discussed below, including temper and paste, firing conditions, vessel wall thickness, surface treatment, and rim and lip form.

Temper and Paste

Between 95.5-100% of the fine ware, utility ware, and plain ware sherds from 41LR351 had grog (crushed sherds) added to the clay paste (Table 4). Crushed and burned bone and crushed hematite were also added to the paste as temper in all three wares. Bone occur in slightly higher but not statistically significant frequencies in the coarser utility

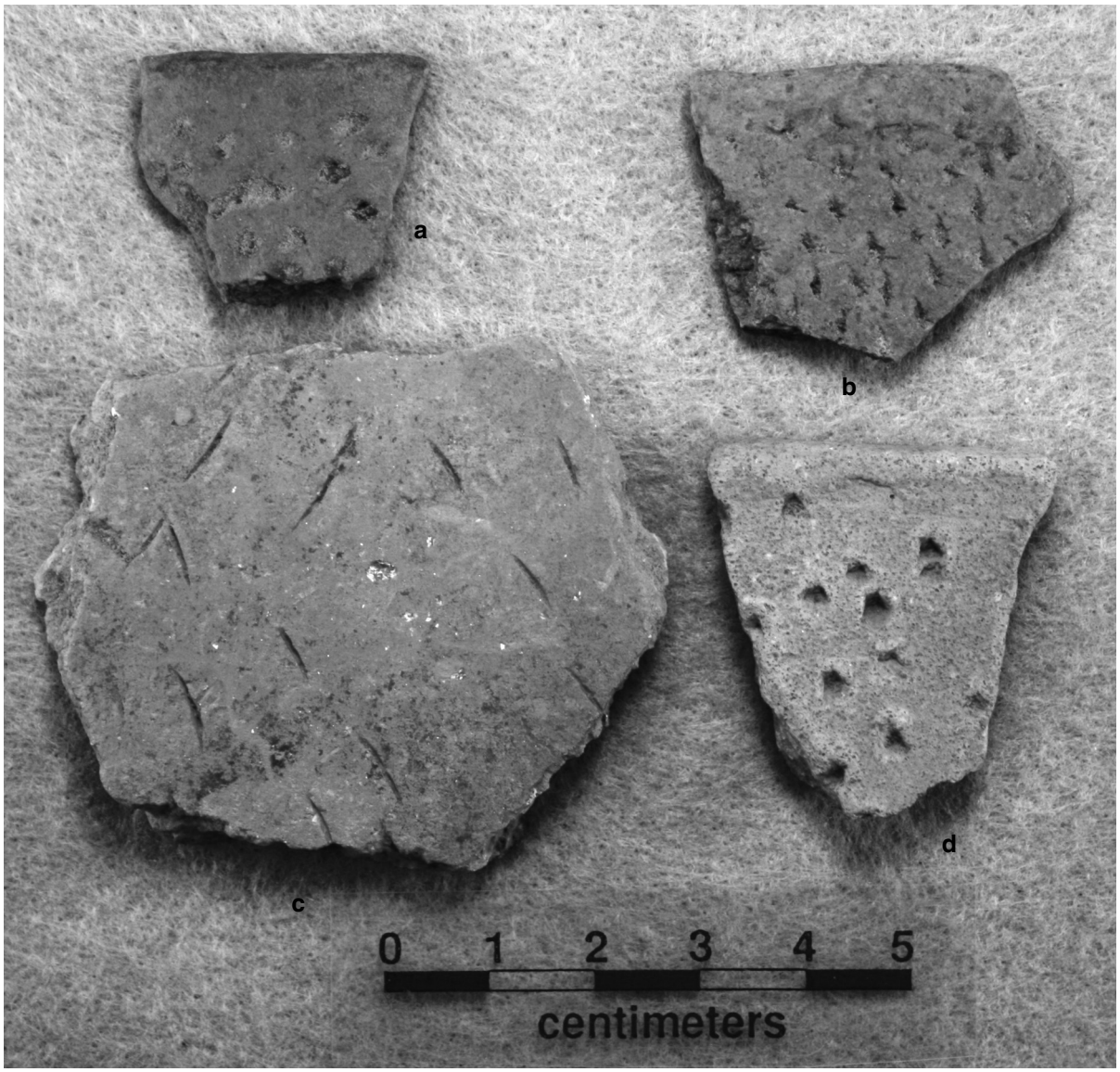

Figure 6. Punctated rim and body sherds from 41LR351: top row, left to right: a, cane punctated rim (N99 E54, Lot 150); b, tool punctated rim (N99 E58, Lot 101); bottom row, left to right: c, fingernail punctated body sherd (N95 E55, Lot 156); d, tool punctated rim (N99 E54, Lot 135).

wares as well as the plain wares, while hematite temper is particularly abundant in the utility wares. Sherds from vessels with a sandy paste (apparently from the infrequent use of a naturally sandy clay) are found in low frequencies (6.0-6.5%) in all three wares (Table 4).

The potters that lived at 41LR351 used bone and hematite temper for several reasons. In addition to it likely being a matter of personal preference or part of a family stylistic tradition for particular Caddo potters in vessel manufacture, the addition of coarse fragments of crushed bone and hematite would have made the clay more plastic and increased its strength and use-life, properties that were important in the successful manufacture of durable pottery vessels. Grog, on the other hand, contributes to the ability of the fired vessel to withstand heat-related stresses, as well as increasing its flexural strength. Such vessels would also have had better thermal conductivity (O'Brien et al. 1994:281; Rice 1987:362). These attributes suggest that the grog-tempered wares from 41LR351 were intended for long and common use, both for the cooking of food stuffs but also for serving hot and cold foods.

Table 4. Temper and paste categories by wares.

Temper/paste category	Fine ware	Utility ware	Plain ware
Grog	67.7*	58.3	**72.2**
Grog/sandy paste	3.2	2.1	4.5
Grog-organics	**9.7**	4.2	1.5
Grog-organics/sandy paste	3.2	–	–
Grog-bone	9.7	12.5	11.3
Grog-bone-hematite	3.2	4.2	0.8
Grog-hematite	3.2	**10.4**	4.5
Grog-hematite/sandy paste	–	4.2	0.8
Bone	–	2.1	3.0
Bone-organics	–	2.1	0.8
Bone-hematite/sandy paste	–	–	0.8
Summary:			
sherds with grog	100.0	95.8	95.5
sherds with bone	12.9	**20.8**	16.5
sherds with hematite	6.5	**18.8**	6.8
sherds with organics	**12.9**	6.3	2.3
sherds with sandy paste	6.5	6.3	6.0
Totals	31	48	133

*percentage; columns underlined and in bold represent significantly distinct proportions of temper-paste categories

There are differences in the proportion of fine ware and utility ware sherds with either bone (33.3-37.7%) or hematite (3.7-4.9%) temper from the earlier Stallings site ceramic assemblage (Perttula 2008a:Table 4) and the later ceramic assemblage at 41LR351. The use of bone temper seemingly decreased over time—to only 12.9-20.8% at 41LR351—while hematite was more frequently selected as a tempering agent (6.5-18.8%).

Firing Conditions

The Caddo fine ware and utility vessel sherds, as well as the plain ware sherds, from 41LR351, were fired primarily in a reducing or low oxygen environment, probably smothering the vessel in a bed of coals from a wood fire (Table 5). This method of firing is typical of Caddo ceramic assemblages throughout East Texas, almost without exception. The percentage of fine ware sherds fired in a reducing environment is 90.2%, compared to 73.0% for the utility wares, and 66.1% for the plain rims (see below).

After firing, most of the vessels made and used at 41LR351 were apparently cooled in a high oxygen environment (48.3-58.6%, see Table 5), meaning that the fire-hardened vessels were probably removed from the fire to cool, producing a thin

Table 5. Firing conditions.

Firing category	Fine ware	Utility ware	Plain ware
A (Oxidizing)	–	16.7*	**18.0**
B (Reducing)	**41.9**	16.7	7.5
C	3.2	4.2	5.3
D (Incompletely	–	2.1	0.8
E Oxidized)	–	2.1	**5.3**
F	29.0	31.3	31.6
G (Reducing, cooled	16.1	16.7	**22.5**
H in open air)	3.2	**8.3**	4.5
K (Sooted, smudged,	–	2.1	2.3
L refired/erratic	3.2	–	0.8
X firing)	3.2	–	1.5
Summary			
Oxidized firing	0.0	16.7	**18.0**
Reduced firing	**41.9**	16.7	7.5
Incompletely oxidized firing	3.2	8.4	**11.4**
Reduced firing, open air cooling	48.3	56.3	**58.6**
Sooted, smudged, refired/erratic firing	**6.4**	2.1	4.6
Totals	31	48	133

*percentage; columns underlined and in bold represent significantly distinct proportions of temper-paste categories

oxidized or lighter surface on either one or both vessel surface. The consistency in how the vessels at the site were fired indicates rather clearly that the prehistoric Caddo potters who made those vessels were well-versed in regulating firing and cooling temperatures as well as maintaining control over the final finished end product, namely the manufacture of durable and relatively hard vessels with certain colors and hues.

A few sherds in the three wares (2.1-6.4%) have distinctive fired cores. These were either fired in an oxidizing environment, then reduced, leaving a thin black band along the vessel interior (firing conditions K and L, Perttula 2005:Figure 5-30k-l). Other sherds—including fine wares and plain wares—have multiple thin bands of reduced and oxidized clay in the vessel core (firing condition X).

Thickness of the Ceramic Wares

The fine ware vessel sherds from 41LR351 are thinner than the decorated utility ware or plain ware sherds, particularly along the body, but the rim walls are also thinner on the fine wares than they are on the decorated utility wares or plain wares (Table 6). For the rims, fine ware vessels are less than 10% thinner-walled than either the utility wares or the plain ware vessel rims. Body sherds are about 20% thinner in the fine wares compared to either the utility or plain wares.

Table 6. Thickness of the ceramic wares.

Sherd type	Fine ware (mm)	Utility ware (mm)	Plain ware (mm)
Rim	6.56 ± 0.47 range, 5.8-7.9	7.00 ± 1.16 range, 4.9-10.0	6.74 ± 0.66 range, 5.9-8.8
Body	6.16 ± 0.87 range, 4.5-8.8	7.24 ± 1.00 range, 4.2-9.2	7.39 ± 0.82 range, 4.3-9.6
Base	—	—	10.79 ± 0.88

These variations in vessel wall thickness are likely related to functional and technological differences in how these different wares were intended to be used by Caddo potters. The more substantial vessel walls in the utility wares and plain wares would be well suited to the cooking and heating of foods and liquids and would have contributed to their ability to withstand heat-related stresses. Fine wares were probably intended for use in the serving of foods and liquids.

Another factor that would influence vessel body wall thickness would be the sequence in which a vessel was constructed (Krause 2007:35). Vessels constructed from the bottom up, as these prehistoric Caddo decorated vessels likely were, would tend to have thinner walls moving up the vessel body towards the rim, with the lower portion of the vessel—especially on the base—usually significantly thicker than the upper portions of the vessel.

Surface Treatment

Fine ware vessel sherds at 41LR351 are more frequently smoothed and/or burnished than the utility wares or plain wares (Table 7), particularly on exterior vessel surfaces. When not burnished, the fine wares tend to be well smoothed on the vessel exterior; it is suspected that most of the fine wares at the site were actually burnished after they were fired, but the burnish has been degraded by time and soil conditions.

Utility ware and plain ware sherds are from vessels that are commonly smoothed on one or both vessel surfaces (see Table 7), with utility ware vessels more likely smoothed on the interior surface, but more frequently smoothed on the exterior surface of plain wares (probably from bowls or the lower and undecorated portion of carinated bowls). The frequency of utility ware vessels that have been

Table 7. Surface treatment by ceramic ware.

Surface treatment	Fine ware	Utility ware	Plain ware
Interior smoothed	**48.4***	27.1	15.8
Exterior smoothed	**48.4**	10.4	28.6
Exterior burnished	**6.5**	–	–
Interior burnished	–	–	0.8
Totals	31	48	133

*percentage; columns underlined and in bold represent significantly distinct proportions of temper-paste categories

smoothed on exterior surfaces (10.4%) suggests that not only were decorations on these vessels most likely restricted to rim or upper vessel areas (and left unsmoothed), but that the undecorated or lower portions of these vessels were sometimes smoothed before or after firing for some purpose.

The smoothing of utility ware interior vessel surfaces (27.1%) was probably done to lower the permeability and increase the heating effectiveness of particular vessels in cooking tasks (cf. Rice 1996:148). With the fine wares, the well-smoothed and/or burnished interior surfaces may have been advantageous in the repeated use of these wares as food serving vessels. The purpose of exterior smoothing and burnishing (which are more common surface treatments in the fine wares) may have been for stylistic and display purposes, creating a flat and lustrous surface well-suited to highlight the engraved and/or slipped exterior surfaces of the fine ware vessels.

Rim and Lip Form

They are several rim and lip forms in the fine ware, utility ware, and plain ware rim sherds (Table 8), suggesting they come from different sorts of vessels of wide-ranging sizes, although the rim sherds are in most cases too small to accurately determine the form of the vessel. Most appear to be from bowls and jars, as well as carinated bowls and bottles. Where measurable, vessel orifice diameters ranged from at least 12.0 cm to as large as 27.0 cm in size (see Appendix 1).

Where rim and lip form could be determined, more than 90% of the rims have a direct or vertical rim profile (see Table 8). One rim (2%) from a fine ware vessel has an everted profile and is probably from a compound bowl with an everted upper rim panel. Most of the vessels in turn have a rounded lip (especially the plain wares), with the remainder having flat lips (especially the utility wares). Several other rims in all three wares have a different and distinct lip treatment, where the lip has been folded over to the exterior surface. This form of lip treatment is present in 45.4% of the fine ware rims, 12.5% of the utility ware rims, and 21.4% of the plain ware rims (see Table 8).

Burned Clay

There are also seven pieces of burned clay in the ceramic assemblage submitted for analysis from 41LR351 (Table 9). These pieces are likely the fragmentary evidence of the use of clay hearths or earth ovens during the Caddo occupation.

SUMMARY

Recent excavations by the Valley of the Caddo Archeological Society at 41lR351 in the Pine Creek drainage basin in northern Lamar County, Texas, has recovered a substantial (n=598) sherd assemblage from a prehistoric Caddo occupation. These sherds are from hand-made and coiled pottery and include engraved and red-slipped fine wares, incised, punctated, and incised-punctated utility wares, and plain ware vessels. Based on the rim sherds, about 70% of the vessels made and used at 41LR351 are decorated, and of these, approximately 70% are utility wares decorated with incised, incised-punctated,

Table 8. Rim and lip form.

Rim and Lip Forms	Fine ware	Utility ware	Plain ware
Direct-Rounded	36.3*	41.7	**64.3**
Direct-Rounded, ext. folded	**45.4**	12.5	14.3
Direct-Flat	9.1	**37.5**	7.1
Direct-Flat, ext. folded	–	–	7.1
Everted-Rounded	9.1	–	–
--Rounded	–	8.3	7.1
Totals	11	24	14

*percentage; columns underlined and in bold represent significantly distinct proportions of temper-paste categories

Table 9. Burned clay from 41LR351.

Lot No.	Provenience	Level	No. of burned clay pieces
110	N99 E58	?	1
130	N98 E54	lv. 4	2
137	N98 E54	lv. 6	3
150	N99 E54	lv. 5	1

and punctated decorative elements. Red-slipped fine wares are also relatively abundant in the fine wares, which is a known feature of Middle Caddo period (ca. A.D. 1100-1300) ceramic assemblages in this part of the Red River basin (Perttula 2008, ed.; Prikryl 2008). Identified or provisionally identified ceramic types in the 41LR351 assemblage are Sanders Engraved, Holly Fine Engraved, Sanders Plain, Canton Incised, and Pennington Punctated-Incised.

The sherds from 41LR351 are from vessels that are tempered primarily with grog (crushed pieces of fired clay), but burned bone, and/or crushed pieces of hematite or a hematitic sandstone are also important tempering agents. Vessel forms represented in the collection are carinated bowls, compound bowls, simple open bowls, bottles, and jars. The vessels have typically been fired in a reducing or low oxygen environment and then cooled in the open air. Vessels are smoothed, but only rarely burnished, on one or both vessel surfaces. These vessels have thick, flat, bases more than 10 mm in thickness, but mean vessel rim and body walls for all three wares range between 6.16-7.39 mm; no obvious thick Williams Plain (see Brown 1996; Schambach 1998) vessel sherds have been identified in the 41LR351 plain wares.

The ceramic assemblage at 41LR351 shares many characteristics with other prehistoric Caddo ceramic assemblages of Middle Caddo period age in the middle reaches of the Red River basin (i.e., that portion of the Red River just below, and then above, the confluence with the Kiamichi River, but within forested areas of Northeast Texas), the lower reaches of the Kiamichi River basin in southeastern Oklahoma, and the upper South Sulphur River basin. These ceramic assemblages, including 41LR351, appear to date from ca. A.D. 1100 to ca. A.D. 1300, although none of the sites are well-dated through the use of radiocarbon, and also they predate the use of shell-tempered pottery in these areas, as that technological feature does not become a predominant part of local ceramic assemblages until the 14th century (see Early et al. n.d.). In the past, these sites have been included in the now outdated Sanders focus or phase (see Krieger 1946), but currently there is no accepted cultural taxonomic unit for sites of this age and cultural affiliation in this part of Northeast Texas or southeastern Oklahoma.

These sites have grog-tempered assemblages with engraved and red-slipped fine wares (including Sanders Engraved, Sanders Plain, Maxey Noded Redware, and Holly Fine Engraved), a variety of decorated utility wares (among them Canton Incised, Crockett Curvilinear Incised, Pennington Punctated-Incised, and punctated vessels such as Monkstown Fingernail Impressed), and plain slipped and non-slipped wares (not notably thick-walled) are relatively common. The relevant sites on the Red River include Holdeman (41RR11) (Perttula 2008b), Sam Kaufman/Roitsch (41RR16) (Skinner et al. 1969; Perttula 2008, ed.), Fasken (41RR14) (Prikryl 2008), and Sanders (41LR2) (Krieger 1946, 2000) in Texas, and the Nelson (34Ch6) and Cook (34Ch7) sites in southeastern Oklahoma (Rohrbaugh 1973:184-193; Wyckoff and Fisher 1985:Figures 2 and 30); the Pat Boyd (34Ch113), Hugo Dam (34Ch112), and Mahaffey (34Ch1) sites on the lower Kiamichi River (Burton 1970; Rohrbaugh 1973; Perino and Bennett 1978; the Snapping Turtle (41LR11), Weekend Warrior (41LR31), and Cundleff (41LR29) sites on Sanders Creek (Lorrain and Hoffrichter 1968); A. C. Mackin (41RR36) and Neely (41RR61) on Big Pine Creek (Mallouf 1976); and Hurricane Hill (41HP106) in the upper reaches of the South Sulphur River (Perttula 1999).

Examining in more detail the characteristics of ceramic assemblages in Red River and Lamar counties, Texas, including 41LR351, it is possible to recognize temporal differences between them (Table 10). The earlier components include the Ray site (Bruseth et al. 2001) and 41LR297 (Perttula 2008a). These are plain ware-dominated and grog

Table 10. Comparisons with selected nearby prehistoric Caddo ceramic assemblages in Northeast Texas.

Assemblage Attributes	Sites			
	Ray	Sam Kaufman*	41LR297	41LR351
Decorated sherds	101	163	88	117
Plain sherds	5719	792	1255	481
P/DR	56.6:1	4.86:1	14.3:1	4.11:1
Grog temper %	73	94	90**	96**
Bone temper %	27	6	32**	17**
Incised sherds	83	63	40	45
Punctated sherds	14	19	13	12
Incised-punctated sherds	–	2	8	8
Appliqued sherds	–	–	–	1
Brushed sherds	3	–	–	–
Engraved sherds	1	1	27	33
Red-slipped	–	70	–	18
Coles Creek Incised	+	+	+	
Crockett Curvilinear Incised	+	+	+	
French Fork Incised	+	+		
Hickory/Holly Engraved			+	+
Williams Plain	+	+		

*East Mound (Skinner et al. 1969: Tables 5 and 6)
**percentages do not total to 100% because many sherds have more than one tempering agent
+=present

and bone-tempered ceramic assemblages. At the Ray site, which has nine calibrated radiocarbon dates that range from AD 700-1200 (Bruseth et al. 2001:Table 11)—with six that postdate AD 1000—the P/DR value is 56.6:1. Site 41LR297 has no radiocarbon dates, but the Caddo occupation there appears to pre-date ca. A.D. 1150. With respect to the different kinds of decorated sherds found in these Early Caddo assemblages, incised decorative elements predominate. These incised vessels have primarily simple straight line and geometric designs, with a number of horizontally incised rims, including rims from Coles Creek Incised vessels along with Caddo types such as Davis Incised, Dunkin Incised, and Kiam Incised. Incised and incised-punctated elements from Crockett Curvilinear Incised vessels are also important constituents of these Early Caddo ceramic assemblages, and Coles Creek Incised vessel sherds are present at both Ray and 41LR297. Engraved sherds from Hickory and Holly Fine Engraved vessels comprise 30% of the decorated sherds at 41LR297. Red-slipped sherds are not present.

Later, ca. A.D. 1100-1300, Caddo ceramic assemblages are present in the East Mound at the Sam Kaufman site and 41LR351. Excavations at the East Mound at Sam Kaufman recovered a ceramic assemblage from archeological deposits (House 3) with four calibrated dates: their mean age ranges from AD 1008-1206 (Perttula 1998:334). The P/DR

of this assemblage is 4.86:1 (see Table 10), roughly comparable to the P/DR from 41LR351, and both have considerably lower P/DR values than do the pre-A.D. 1100/1150 assemblages at the Ray site and 41LR297 (14.3:1 to 56.6:1). These post-ca. A.D. 1100 Caddo ceramic assemblages apparently have at least three times the percentage of decorated vessels and vessel sherds when compared to their pre-A.D. 1100 counterparts in the same region. Red-slipped sherds are also common in both post-A.D. 1100 assemblages (see Table 10). Finally, the use of bone temper by Caddo potters appears to have decreased from pre-A.D. 1100 (27-32%) to post-A.D. 1100 (6-17%) contexts.

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Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
100/100-52	rim (EV-Ro)	g	B	I/E SM	5.8	horizontal and diagonal engraved lines; int./ext. red-slipped
	base	g	F	E SM	10.8	plain
101/99-58	rim (D-RO, +12 cm OD)	g	B	–	5.6	6+ tool punctated rows
	body	g	G	–	9.0	plain
103/100-51	body	g-o	H	I SM	7.9	parallel incised lines
	body	g-b	F	–	4.8	plain
106/99-58	rim (D-FL)	g	A	–	7.3	vertical and diagonal incised lines
	body	g	A	E SM	7.4	plain
107/99-58, lv. 3	body	g	G	E SM	7.9	plain
	base	g	G	–	10.2	plain
108/100-52	body	g	C	–	–	parallel engraved lines
	body	g	F	–	8.2	plain
	rim (D-Ro)	g	G	–	6.7	plain
109/100-51	body	g	A	E SM	8.3	plain
110/99-58	rim (D-FL, ext f)	g	B	–	6.4	diagonal opposed incised lines
	body	g	F	–	7.6	plain
	body	g	A	E SM	7.7	plain
	body	g	A	–	6.5	plain
111/99-58	body	b-g	C	E SM	4.3	plain
	body	g	G	E SM	8.0	plain
112/99-58	rim (D-FL)	g	A	E SM	5.4	diagonal incised lines
	body	g	G	I/E SM	5.6	plain
	body	g	B	I SM	7.9	plain
	body	g	G	I SM	7.3	plain
113/99-58	body	g	F	–	7.7	broad parallel incised lines
	body, Jar	g	G	I SM	6.9	2+ tool punctated rows
	base	g-b	A	–	12.2	plain
	body	b	F	I/E SM	6.6	plain
	body	g/SP	F	E SM	8.2	plain

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
114/100-52	body	g	B	–	8.3	plain
	body	g	G	I SM	6.0	plain
	body, CB	g-b	G	E SM	6.3	plain
	body	g	B	–	7.5	plain
115/101-53, lv. 2	body	g-h/SP	X	–	8.0	plain
	body	g	A	E SM	7.7	plain
116/101-53, lv. 3	rim (-Ro)	g-b	F	–	6.6	diagonal incised lines
	body	g	G	–	6.0	cross-hatched incised lines
	body, CB	b-g	X	–	6.0	int. horizontal engraved lines
	rim (D-FL, ext f)	g	B	E SM	6.2	plain
	base	g	G	–	9.5	plain
	body	g	F	–	8.3	plain
	body	g-h	A	I/E SM	5.9	plain
117/101-53	body	g	F	–	5.7	diagonal engraved lines; red-slipped
	rim (D-FL)	g	H	–	8.9	cross-hatched incised lines
	body	g	L	E SM	7.7	plain
118/99-54	base	g-b	A	–	11.8	plain
	body	g	G	E SM	7.2	plain
	body	g-b	F	–	8.4	plain
119/97-60	rim (D-Ro)	g	F	E SM	6.9	plain
	body	g	F	–	7.2	plain
120/100-51	body	g-o/SP	G	I SM	6.9	ext. red-slipped
	body	g-o	F	I SM	8.8	cross-hatched incised lines
	body	g-h	F	I/E SM	8.4	cross-hatched incised lines
	body	g-h	F	–	8.0	plain
	body	g	B	–	5.5	plain
121/98-54	body	g-b	G	–	5.5	plain
	body	g	H	–	8.1	plain
	body	g-h	F	–	8.1	plain

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
122/100-52, lv. 5	body	g-h	A	I SM	9.0	vertical incised lines
	body	g-h/SP	A	–	5.6	opposed diagonal incised lines
	body	g	F	I/E SM	7.6	parallel engraved lines; red pigment
	body	g	A	–	6.5	plain
	body	g	B	–	9.0	plain
123/98-54	body	g	F	–	7.9	opposed incised lines
	body	g	G	–	8.2	parallel incised lines
	body	g	B	–	6.5	vertical incised lines
	body	g-b-h	L	–	5.9	diagonal engraved lines
	rim (D-Ro)	g-h	A	–	4.9	tool punctate-filled incised triangle
	rim	g/SP	A	I SM	10.0	large circular punctated rows
	base	g	F	–	10.5	plain
	body	g	K	–	8.8	plain
	body	g	F	–	7.2	plain
	body	g	A	–	7.0	plain
	body	g	B	E SM	6.8	plain
124/98-54	body	g	E	–	8.4	plain
	body	g-o	F	–	8.5	plain
	body	b-g	H	I SM	8.7	plain
	body	g	F	–	7.6	plain
	body	g	F	–	7.2	plain
125/99-54	body	g/SP	F	–	7.2	diagonal engraved lines
	body	g	F	I SM	5.9	parallel engraved lines
	body, Bottle	g-b	B	–	4.5	ext. red-slipped
	body	g/SP	F	–	7.1	plain
	body	b-o	G	E SM	9.2	plain
	body	g	G	–	7.4	plain
126/99-54	body	g-h	B	I/E SM	6.4	int./ext. red-slipped
	body	g	B	I/E SM	7.0	int./ext. red-slipped
	body	g-b	D	–	7.1	2+ tool punctated rows
	rim (D-Ro, ext f)	g-h/SP	F	–	7.3	cross-hatched incised lines
	rim (D-FL)	b-o	F	–	5.4	tool punctate-filled and alternating incised triangles
	body	g	H	–	8.0	diagonal incised lines
	body, Jar	g	G	–	7.6	2+ linear punctated rows

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
126/99-54, cont'd.	rim (D-Ro)	g	H	–	6.0	plain
	body	g	C	–	8.6	plain
	body	g	C	–	8.4	plain
	body	g	F	–	6.7	plain
	body	g-b	G	I SM	6.7	plain
	body	b-g	G	–	7.6	plain
127/98-54	body	g	A	E SM	5.8	horizontal and vertical incised lines
	body	g	A	–	6.5	cross-hatched incised lines
	body	g-h	F	E SM	6.6	cane punctated-filled incised zone
	body	g	A	–	5.9	plain
	body	g	G	I/E SM	7.9	plain
	body	g	H	–	7.2	plain
	body	g	G	–	7.3	plain
128/98-54	body	g	D	–	7.5	plain
	base	g-b	G	–	12.7	plain
129/98-54	body	g	F	I SM	7.7	parallel incised lines
	rim (D-FL)	g-b	C	–	7.0	cross-hatched incised lines
	base	g	F	–	9.7	plain
130/98-54, lv. 4	body	g-o	F	I/E SM	5.3	single straight engraved line; int./ext. red-slipped
	body	g-o	F	I/E SM	5.1	int./ext. red-slipped
	body	g	F	–	6.2	curvilinear appliqued ridges
	body, CB	g-o	B	I/E SM	7.3	diagonal-horizontal engraved lines; int./ext. red-slipped
	rim (D-Ro)	g-b	F	–	6.3	cross-hatched incised lines
	rim (D-Ro)	g	G	I SM	8.2	cross-hatched incised lines
	rim (D-Ro, ext f)	g	B	E SM	6.8	horizontal engraved line; int./ext. red-slipped
	rim (D-Ro, ext f, 27 cm OD)	g	B	E B/ I SM	6.0	horizontal engraved line; int./ext. red-slipped
	base	g	F	–	9.6	plain
	body	g	G	–	6.6	plain
	body	g	A	E SM	6.5	plain
	body	g	E	I SM	7.0	plain
	body	g-b	C	E SM	9.0	plain

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
133/97-60	body, CB	g	A	E SM	7.2	plain
134/99-54	body	g	G	–	6.5	cross-hatched engraved lines
	rim, CB (D-Ro)	g	F	I/E SM	6.5	horizontal and opposed diagonal engraved lines
	body	g-o	G	E SM	9.2	plain
	base	g-b	G	I/E SM	10.6	plain
135/99-54, lv. 1	body	g	B	E B/ I SM	5.5	horizontal engraved line; int./ext. red-slipped
	body	g	B	I/E SM	5.1	int./ext. red-slipped
	body	g	B	I/E SM	4.8	single straight engraved line; int./ext. red-slipped
	rim (D-Ro, +15 cm OD)	g-b-h	F	–	9.7	free tool punctates
	body	g	F	–	6.2	parallel engraved lines
	body	g	G	–	6.3	plain
	body	g	X	–	7.7	plain
	body	g	F	E SM	7.0	plain
	body	g	F	–	7.9	plain
136/98-59, lv. 7	body	g	B	–	9.2	parallel incised lines
	body	g	E	–	7.7	plain
	body	g/SP	A	–	6.9	plain
137/98-54, lv. 6	body	g	H	–	7.3	cane punctated rows
	body	g-b	G	I/E SM	7.7	int./ext. red-slipped
	body	g	G	–	8.8	vertical and diagonal engraved lines
	rim	g	A	–	5.9	plain
	rim, CB (+13 cm OD)	b	A	–	6.0	plain
	body	g/SP	K	–	6.9	plain
	body	g	B	–	6.4	plain
	base	g	F	–	11.0	plain
138/100-52, lv. 6	rim (D-Ro)	g	F	–	6.3	opposed diagonal engraved lines
	rim (D-Ro)	g	G	I SM	8.8	plain
	body	g	G	–	6.3	plain
	body	g-h	F	–	5.2	plain
	body	g	G	E SM	5.4	plain
139/100-51	body	g	A	I/E SM	5.6	plain
	body	g-h	A	–	6.0	plain

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
139/100-51, cont'd.	body	b-h/SP	E	I SM	7.4	plain
140/100-51	body	g	G	E SM	5.4	horizontal engraved line; int./ext. red-slipped
	body	g	E	–	8.4	plain
	body	b	F	I/E SM	7.2	plain
141/100-51, lv. 7	rim (D-FL)	g-b	B	I SM	6.2	diagonal incised lines
	rim (D-Ro), Bottle, 4 cm OD	g	F	–	7.5	plain
	base	g-h	F	–	12.5	plain
	base	g	H	–	11.6	plain
	body	g	F	–	8.7	plain
	body	g	A	I SM	7.5	plain
144/98-59	rim (D-Ro, ext f)	g	B	E SM	6.6	horizontal engraved lines; int./ext. red-slipped
	rim (D-Ro, ext f)	g	H	–	7.9	horizontal and vertical engraved lines
145/98-59	body	b	F	I SM	4.2	cross-hatched incised lines
146/98-59	body	g	A	E SM	8.0	plain
147/98-59, lv. 6	body	g	B	E SM	5.7	int./ext. red-slipped
	body	g	F	–	8.0	plain
	body	g	F	I/E SM	7.3	plain
148/98-59	body	g	B	E SM	7.9	plain
149/99-54	body	g	F	–	7.9	plain
150/99-54, lv. 5	rim	g	B	I SM	8.1	cane punctated rows
	body	g	B	–	8.4	tool punctate-filled incised triangle
	body	g	G	E SM	6.0	cane punctate-filled incised zone
	rim (D-Ro)	g	G	–	6.2	diagonal incised lines
	rim (D-Ro)	g-h	F	–	7.3	diagonal incised lines
	body	g	G	–	7.2	plain
	body	g	E	–	8.7	plain
	body	g	H	–	8.7	plain
151/100-57, lv. 4	body	g	E	I SM	6.6	plain
	base	g	F	–	10.3	plain

Appendix 1, Detailed Analysis of Decorated and Plain Sherds from 41LR351, cont'd.

Lot/Provenience (N-E)	Sherd type	Temper	FC	ST	Th (mm)	Decoration
152/100-52, lv. 7	rim (D-Ro)	g	G	–	9.0	cross-hatched incised lines
	body	g-b	G	–	9.6	plain
	body	g	F	E SM	7.2	plain
	body	g/SP	G	–	8.1	plain
153/95-55, lv. 1	body	g	F	–	7.1	plain
155/95-55, lv. 3	body	g	A	I SM	5.4	plain
156/95-55, lv. 4	body, Bottle	g	B	–	5.1	ext. red-slipped
	body	g-b-h	K	–	9.0	free fingernail punctated
	body	g	B	I B	5.6	plain
	body	g/SP	F	I/E SM	7.2	plain
	body	g-b-h	F	–	7.6	plain
157/95-55, lv. 5	base	g	F	–	10.2	plain
158/95-55, lv. 6	rim (D-Ro)	g	F	I SM	5.1	cross-hatched incised lines
	body	b	F	–	8.4	plain
	body	g	G	E SM	7.2	plain
159/95-55, lv. 7	body	g	C	–	7.0	parallel incised lines
	rim (D-Ro)	g	E	–	6.2	cross-hatched incised lines
	body	g	C	E SM	7.9	plain
	body	g	C	–	6.8	plain
	body	g	G	–	7.6	plain
160/95-55, lv. 8	rim (D-FL)	g-b	B	I SM	7.1	2+ fingernail punctated rows
	body	g	A	E SM	7.4	plain
	body	g	F	–	6.8	plain
161/95-55, lv. 9	base	g	F	–	9.5	plain
	body	g-b	F	–	8.4	plain
164/96-55, lv. 2	body	g	A	–	6.2	plain
165/96-55, lv. 3	rim (D-Ro, ext f)	g	A	I/E SM	6.7	plain
	body	g	K	–	8.8	plain
	body	g	C	–	7.1	plain

*Rim Form: D=direct; INV=inverted; EV=everted; Lip: Ro=rounded; FL=flat; ext f=exterior folded
Temper: b=bone; g=grog; h=hematite; o=organics; SP=sandy paste
FC=firing conditions, follow Teltser (1993:Figure 2) and Perttula (2005:Figure 5-30); X=multiple oxidized and reduced bands in the sherd cross-section
ST=surface treatment; E=exterior; I=interior; SM=smoothed; B=burnished
Th=thickness; OD=orifice diameter; CB=carinated bowl

Documentation of Additional Vessels from the Johns Site (41CP12), Camp County, Texas

Timothy K. Perttula, Bo Nelson, and Mark Walters

INTRODUCTION

The Johns site (41CP12) (Figure 1) is a Titus phase cemetery in the Prairie Creek valley in the Big Cypress Creek stream basin of the Northeast Texas Pineywoods (Diggs et al. 2006:Figures 1-3). The Caddo artifacts from the site are from the Robert L. Turner, Jr. and Tommy John collections. Both men are current residents of Camp County, Texas.

A total of 35 Late Caddo (ca. A.D. 1400-1680), Titus phase, burials were excavated between May 1966 and December 1984 at the Johns site. The first 19 burials were excavated by Tommy Johns and Robert L. Turner, Jr., and Johns continued to excavate burials at the site until 1984. No single map of the plan of the Johns site cemetery exists in the available notes, but enough information is provided to reconstruct the arrangement and extent of the burial interments. The burials occur in a number of east-west rows (Figure 2), with the head of the deceased oriented almost always to face to the west. The deceased were placed in long, narrow, and relatively deep burial pits in an extended supine position, with funerary offerings generally placed along both the sides of the body and at the feet. Funerary offerings consisted of ceramic vessels (3-16 vessels per burial), ceramic pipes, arrow points (usually in quivers), celts, smoothing stones, as well as scrapers and other chipped stone tools. All of the burials have ceramic vessel funerary offerings, but only a small proportion had either ceramic pipes (25.7% of the burials), arrow points (62.9% of the burials), celts (17.1% of the burials), or other stone tools (17.1% of the burials) placed in the burial pit.

In the summer of 2009, the Robert L. Turner, Jr. vessel and pipe collection and the Tommy Johns collection of vessels, pipes, celts, and arrow points were fully documented from the Johns site. A detailed description of each ceramic vessel or ceramic pipe was made for documentation purposes, accompanied by drawings appended to vessel documentation forms (on file, Archeological & Environmental Consultants, LLC files in Austin, Texas), where needed, of ceramic vessel decorative motifs or pipe morphology to supplement the artifact descriptions. Analysis notes and photographs were also obtained on the arrow points, celts, and other stone artifacts from a number of burials in the Johns collection (Perttula et al. 2010).

A total of 277 ceramic vessels were documented in the Turner and Johns collections from the Johns site (Perttula et al. 2010). Subsequent to the completion of the published report, Tommy Johns located six additional vessels from the Johns site cemetery in his collection, and these vessels were documented in January 2010. This article provides information on the six previously undocumented vessels from the Johns site, increasing the total number of vessels to 283.[1]

With the larger sample of 283 vessels, the vessels from the Johns site are dominated by engraved fine wares (68.1%, Table 1). Utility wares comprise 25.5% of the ceramic vessel mortuary offerings, and plain wares another 6.4%.

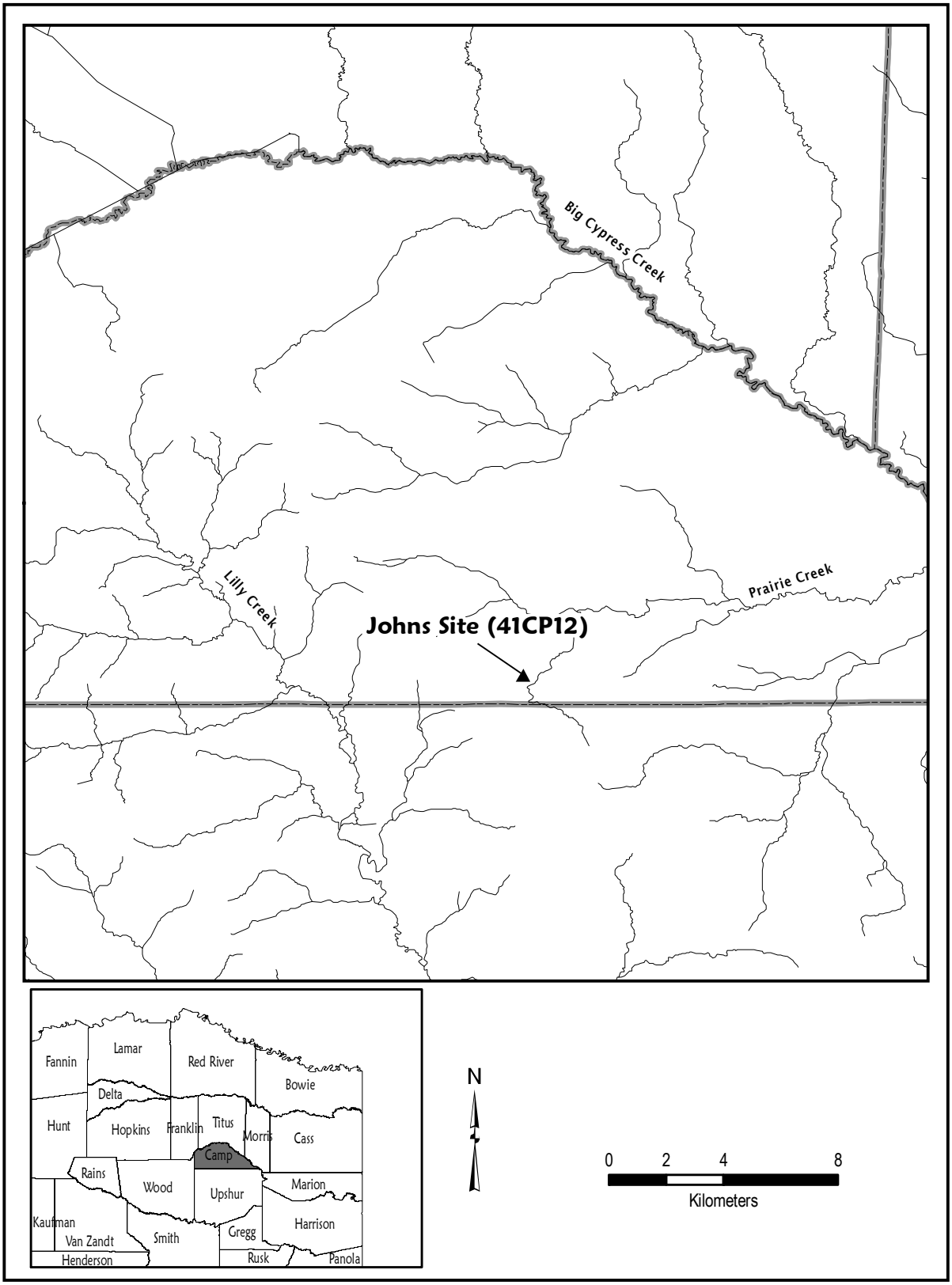

Figure 1. Location of Camp County in East Texas and the location of the Johns site (41CP12) within the county.

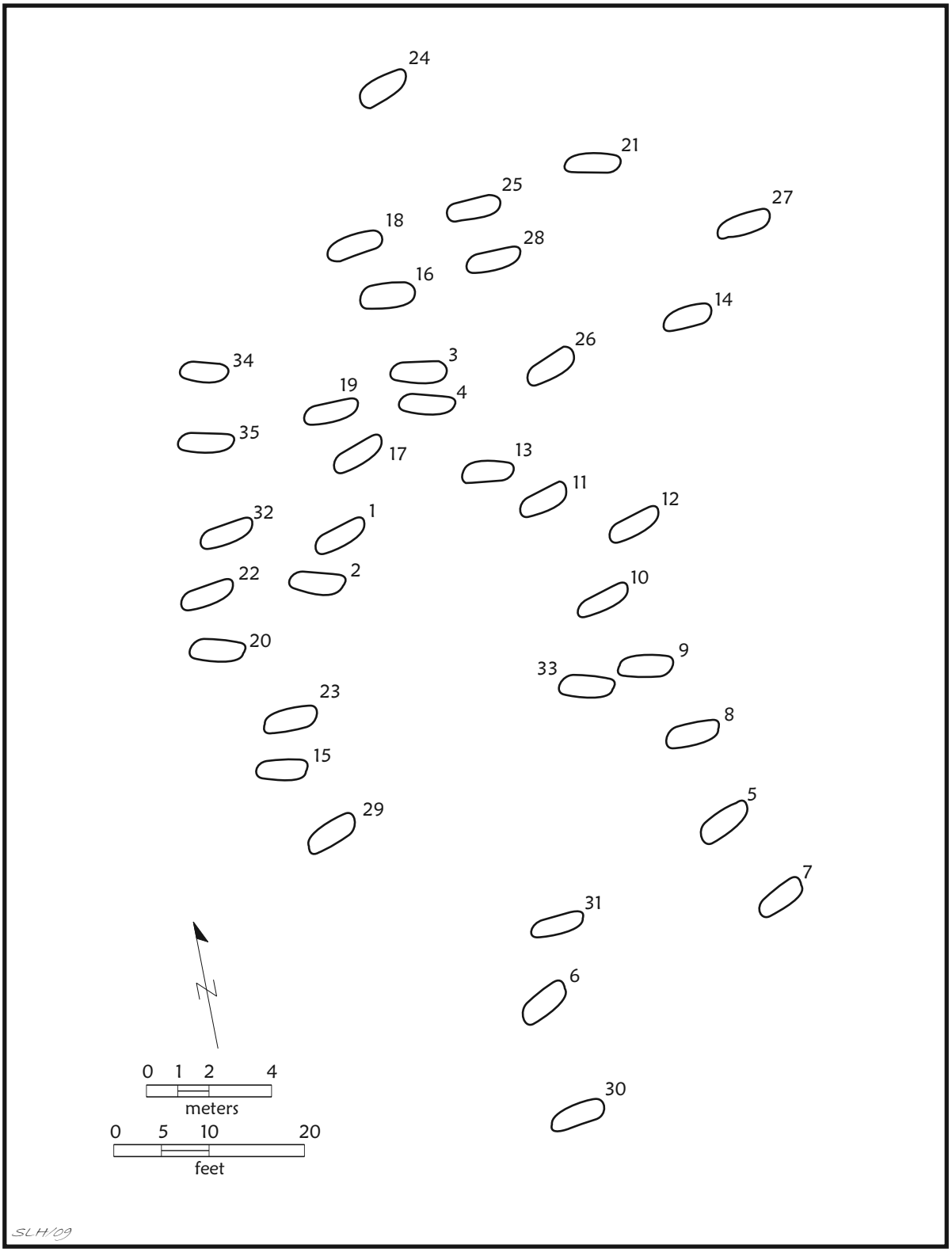

Figure 2. Map of the Johns site cemetery.

Table 1. Vessels Forms at the Johns site.

Vessel Forms	Fine wares	Utility wares	Plain wares	N
Jar	4	69	3	76
Carinated bowl	104	–	5	109
Compound bowl	34	–	1	35
Bowl	14	2	8	24
Effigy bowl	1	–	–	1
Chalice	1	–	–	1
Bottle	31	–	1	32
Olla	3	–	–	3
Compound vessel*	1	1	–	2
Totals	193	72	18	283

*The fine ware compound or conjoined vessel is a bottle-compound bowl; the utility ware vessel is a bowl-jar combination.

VESSEL RECORDATION FORMS

SITE NAME OR SITE NUMBER: Johns (41CP12)

VESSEL NO.: Burial 3, Pot 7

NON-PLASTICS: grog

VESSEL FORM: Carinated bowl

RIM AND LIP FORM: Direct rim with a rounded, exterior folded lip

CORE COLOR: F (fired in a reducing environment and cooled in the open air)

INTERIOR SURFACE COLOR: brown (10YR 4/3)

EXTERIOR SURFACE COLOR: brown (10YR 4/3)

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 6.9 mm, rim; 6.7 mm, body; 7.3 mm, base

INTERIOR SURFACE TREATMENT: smoothed on the rim

EXTERIOR SURFACE TREATMENT: burnished

HEIGHT (IN CM): 17.0

ORIFICE DIAMETER (IN CM): 30.0

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): 16.7

BASE DIAMETER (IN CM): 6.7+

ESTIMATED VOLUME (IN LITERS): 4.6 liters

DECORATION: The rim panel has five upper and lower sets of engraved alternating nested triangles (Figure 3). Each nested triangle has ovals or negative ovals within them delineating by engraved, excised, or cross-hatched zones or small triangular areas. One of the ovals has a small central engraved dot within it.

TYPE: Ripley Engraved, *var. Williams* (see Perttula et al. 2010:Figure 2h)

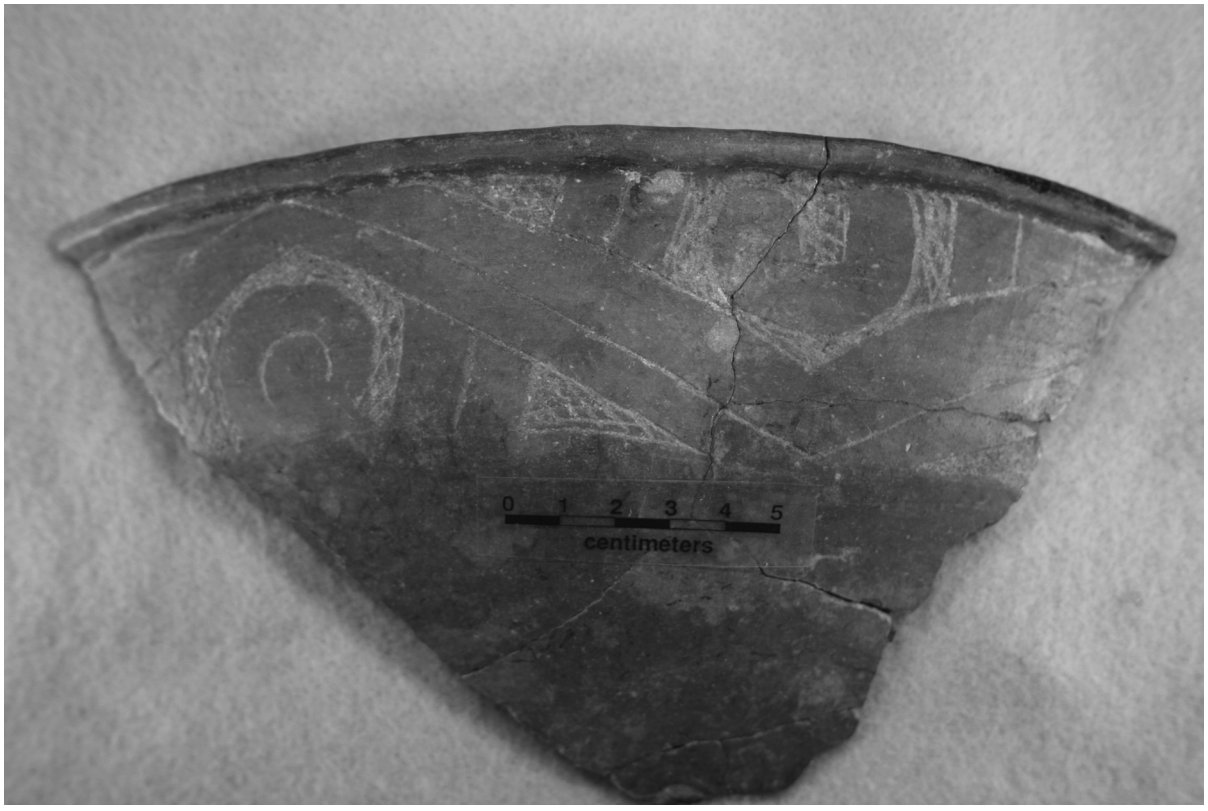

Figure 3. Ripley Engraved, *var. Williams* carinated bowl (Burial 3, Pot 7) from the Johns site.

SITE NAME OR SITE NUMBER: Johns (41CP12)

VESSEL NO.: Burial 11, Pot 8

NON-PLASTICS: grog and bone; sandy paste

VESSEL FORM: Carinated bowl

RIM AND LIP FORM: Direct rim and a rounded, exterior folded lip

CORE COLOR: G (fired in a reducing environment and cooled in the open air)

INTERIOR SURFACE COLOR: very dark grayish-brown (10YR 3/2)

EXTERIOR SURFACE COLOR: red (2.5YR 4/6)

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 5.6 mm, rim; 6.6 mm, body; 8.7 mm, base

INTERIOR SURFACE TREATMENT: smoothed on the rim

EXTERIOR SURFACE TREATMENT: burnished on the rim and smoothed on the body

HEIGHT (IN CM): 7.5

ORIFICE DIAMETER (IN CM): 16.0

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): 16.0

BASE DIAMETER (IN CM): 5.3

ESTIMATED VOLUME (IN LITERS): 0.72 liters

DECORATION: Exterior vessel surface is red-slipped (Figure 4)

TYPE: Unidentified fine ware

Figure 4. Red-slipped carinated bowl, Burial 11, Pot 8, from the Johns site.

SITE NAME OR SITE NUMBER: Johns (41CP12)

VESSEL NO.: Burial 16, Pot 5

NON-PLASTICS: bone and grog

VESSEL FORM: Carinated bowl with four rim peaks

RIM AND LIP FORM: Everted rim and a rounded lip

CORE COLOR: B (fired and cooled in a reducing environment)

INTERIOR SURFACE COLOR: very dark grayish-brown (10YR 3/2)

EXTERIOR SURFACE COLOR: very dark grayish-brown (10YR 3/2)

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 7.6 mm, rim; 7.4 mm, body

INTERIOR SURFACE TREATMENT: smoothed on the upper rim panel

EXTERIOR SURFACE TREATMENT: burnished on the upper and lower rim panels, and smoothed on the body

HEIGHT (IN CM): 8.8

ORIFICE DIAMETER (IN CM): 15.5

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): 13.6

BASE DIAMETER (IN CM): 7.0

ESTIMATED VOLUME (IN LITERS): 1.1 liters

DECORATION: The upper rim panel and rim peaks have S-shaped engraved ovals under the rim peaks, with short curvilinear engraved lines along the upper rim panel itself (Figure 5). The lower rim panel has an engraved scroll and circle motif repeated six times around the vessel; the central circle is centered under the rim peaks and the S-shaped ovals on the upper panel. A white kaolin clay pigment has been rubbed in the engraved lines.

TYPE: Ripley Engraved, *var. Galt* (see Perttula et al. 2010:Figure 2c)

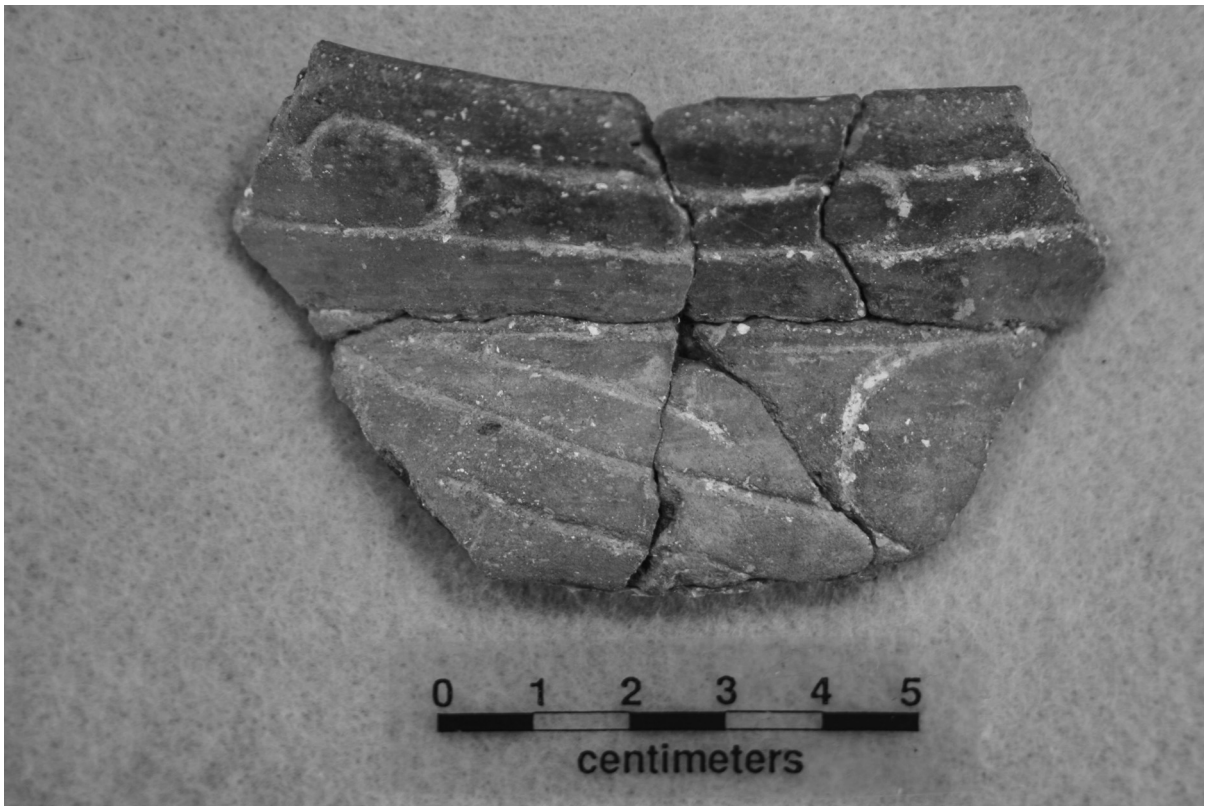

Figure 5. Rim sherds from Ripley Engraved, *var. Galt* compound bowl, Burial 16, Pot 5, from the Johns site.

SITE NAME OR SITE NUMBER: Johns (41CP12)

VESSEL NO.: Burial 21, Pot 3

NON-PLASTICS: grog

VESSEL FORM: Carinated bowl

RIM AND LIP FORM: Direct rim and a flat lip

CORE COLOR: F (fired in a reducing environment and cooled in the open air)

INTERIOR SURFACE COLOR: yellowish-brown (10YR 5/4); fire clouding on the rim and the upper body

EXTERIOR SURFACE COLOR: yellowish-brown (10YR 5/4); fire clouding on the rim and the upper body

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 7.2 mm, rim; 6.7 mm, body

INTERIOR SURFACE TREATMENT: burnished

EXTERIOR SURFACE TREATMENT: burnished

HEIGHT (IN CM): 19.4+

ORIFICE DIAMETER (IN CM): 29.0

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): 29.1

BASE DIAMETER (IN CM): N/A

ESTIMATED VOLUME (IN LITERS): 5.0+ liters

DECORATION: The rim panel has a continuous series of narrow engraved panels filled with small punctations etched in the clay after the vessel was fired (Figure 6). The panels (at least 20, but the total number is not known) change from vertical, diagonal, and opposed in orientation around the vessel. A red hematite-rich clay pigment has been rubbed in the engraved and punctated decorative elements.

TYPE: Unidentified fine ware vessel

Figure 6. Engraved-punctated carinated bowl, Burial 21, Pot 3, from the Johns site.

SITE NAME OR SITE NUMBER: Johns

VESSEL NO.: Burial 28, Pot 9

NON-PLASTICS: grog

VESSEL FORM: Deep bowl (Figure 7)

RIM AND LIP FORM: Inverted rim and a rounded lip

Figure 7. cf. Simms Plain red-slipped deep bowl, Burial 28, Pot 9 from the Johns site.

CORE COLOR: F (fired in a reducing environment and cooled in the open air)

INTERIOR SURFACE COLOR: red (2.5YR 4/8)

EXTERIOR SURFACE COLOR: red (2.5YR 4/8)

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 5.5 mm, rim

INTERIOR SURFACE TREATMENT: smoothed

EXTERIOR SURFACE TREATMENT: burnished

HEIGHT (IN CM): 21.7

ORIFICE DIAMETER (IN CM): 22.7

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): 23.1

BASE DIAMETER (IN CM): 10.8

ESTIMATED VOLUME (IN LITERS): 3.9 liters

DECORATION: The vessel has a red slip on both interior and exterior vessel surfaces (Figure 7).

TYPE: cf. Simms Plain, based on vessel shape (see Suhm and Jelks 1962:Plate 71e)

SITE NAME OR SITE NUMBER: Johns (41CP12)

VESSEL NO.: Burial 31, Pot 4

NON-PLASTICS: grog

VESSEL FORM: Bottle

RIM AND LIP FORM: unidentified

CORE COLOR: G (fired in a reducing environment and cooled in the open air)

INTERIOR SURFACE COLOR: black (10YR 2/1)

EXTERIOR SURFACE COLOR: yellowish-brown (10YR 5/4)

WALL THICKNESS (RIM, BODY, AND BASE IN MM): 3.7 mm, neck; 4.1 mm, body; 10.3 mm, base

INTERIOR SURFACE TREATMENT: none

EXTERIOR SURFACE TREATMENT: burnished on the neck and body

HEIGHT (IN CM): N/A

ORIFICE DIAMETER (IN CM): N/A

DIAMETER AT BOTTOM OF RIM OR NECK (IN CM): N/A

BASE DIAMETER (IN CM): 9.4

ESTIMATED VOLUME (IN LITERS): N/A

DECORATION: The vessel body has an unknown number of sets of curvilinear scrolls whose upper and lower arms circle around each other and meet at a large central cross-hatched engraved circle (Figure 8). There are also at least three horizontal engraved lines encircling the top of the vessel body. The arms of the scroll begin from upper and lower body triangles and have widened and cross-hatched engraved arms on either side of the central engraved circle. A red hematite-rich clay pigment was also rubbed in the engraved lines.

TYPE: Wilder Engraved, *var. Wilder* (Perttula et al. 2010:Figure 4a-c)

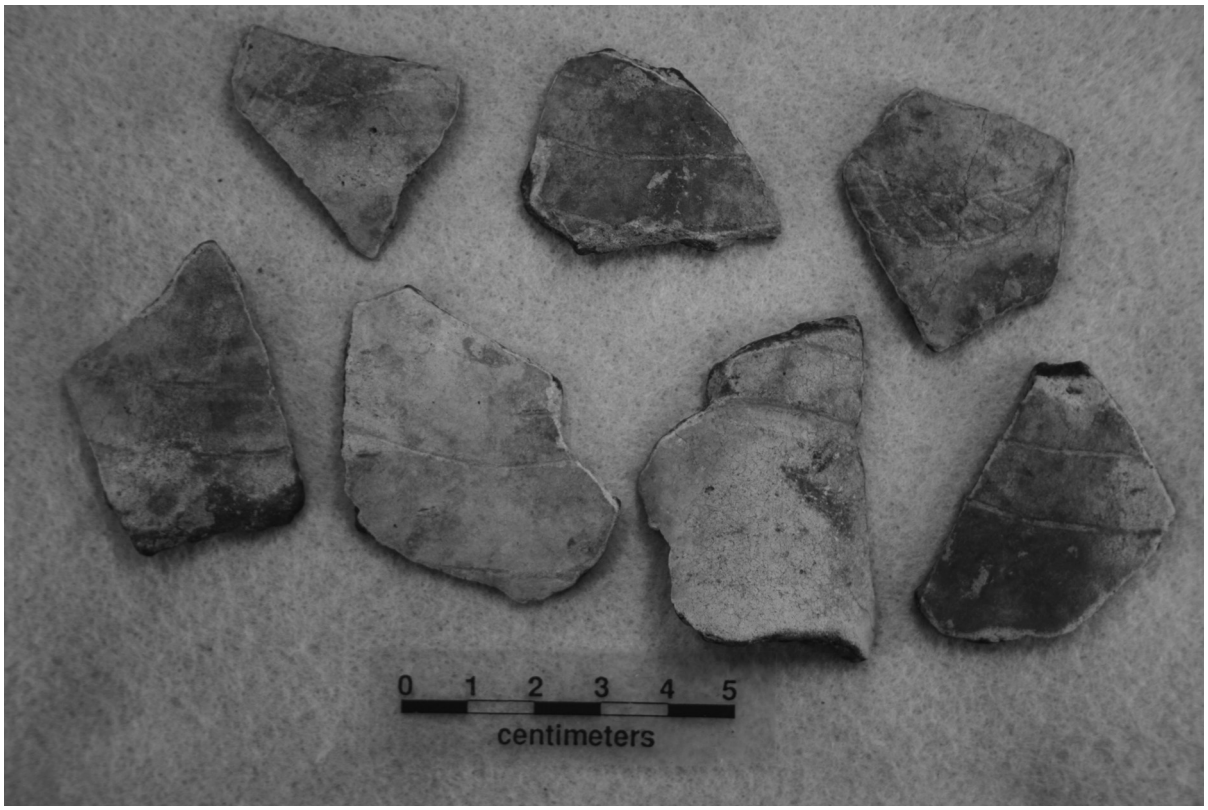

Figure 8. Wilder Engraved, *var. Wilder* bottle sherds, Burial 31, Pot 4.

SUMMARY AND CONCLUSIONS

This article reports on an additional six Titus phase ceramic vessels from the Johns site (41CP12) in the Tommy Johns collection. Perttula et al. (2010) discuss a sample of 277 vessels in the Tommy Johns and Robert L. Turner, Jr. collections from the site.

The Johns site (41CP12) appears to have been used by Caddo peoples as a place of burial interments for kin-related families or lineages for perhaps as long as ca. 170 years, from the beginning of the Titus phase at ca. A.D. 1430 to the start of the 17th century A.D. (Perttula et al. 2010:271-274). From the available evidence, the main use of the site took place during much of the 15th century A.D. and some portion of the 16th century A.D. During that time, the Johns site cemetery grew from an early and relatively centrally-placed cluster of burials (Episode A) covering a ca. 10.7 x 7.3 m area (see Perttula et al. 2010:Figure 280) to an expanded cemetery with added rows of later burials (Episodes B and C) and single interments (Episode D) in all directions from the Episode A burials. Common funerary offerings in these burials included Perdiz and Bassett arrow points, and several ceramic vessel varieties of Ripley Engraved (primarily *var. Cash, var. Caldwell, var. Carpenter, var. Reed, var. Williams, var. Galt,* and *var. Gandy*), Wilder Engraved, *var. Wilder*, Johns Engraved, and Turner Engraved fine wares and an assortment of utility ware vessels. At the abandonment of the Johns site cemetery by a local Titus phase Caddo group, the overall size of the cemetery was ca. 38 m north-south and 22 m east-west.

END NOTE

1. An additional vessel (Burial 22, Pot 9) was given to a friend of Tommy Johns' in the 1970s, and we have no information about it.

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