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Caddo Sites in the Saline Creek Basin in Northern Smith County, Texas

Timothy K. Perttula and Mark Walters

INTRODUCTION

This article concerns the documentation of the artifacts from four prehistoric Caddo sites in the Saline Creek drainage basin in the Post Oak Savannah in northern Smith County, Texas (Diggs et al. 2006:Figures 1-3). Saline Creek is a northward-flowing tributary to the Sabine River. The Caddo sites are ca. 10 km south of the confluence of Saline Creek with the Sabine River. Saline Creek enters into the Sabine River about 6 km east (downstream) of the confluence of a major tributary, Lake Fork Creek, with the river.

THE SITES AND COLLECTIONS

The four sites discussed in this article were recently recorded by Mark Walters, a Texas Archeological Stewards Network steward for East Texas, at the behest of the private landowner. During periodic land clean-up and clearing, the landowner discovered and collected visible surface artifacts at each of the sites, keeping them separate until they could be properly studied and put on record. The documentation effort took place in May 2011. A fifth site—the Bateman cache (41SM443)—is under study by Dr. Harry J. Shafer.

Sarah's Deer Stand (41SM440)

The Sarah's Deer Stand site is located on a sandy (Galline fine sandy loam, 1-5% slopes, Hatherly 1993) upland ridge that slopes to the west towards Saline Creek, the current channel of which is 540 m to the west. When the site was recorded in 2010, it had small hardwoods, brush, and a weedy understory; surface visibility was 5%. It has been estimated to cover a 2500 m² area (0.62 acres). There is one area of the site that has crepe myrtle bushes and a charcoal-stained area; these probably are associated with a 19th century component (see below).

There are 155 Caddo sherds in the collections from the Sarah's Deer Stand site, 42 (27%) of which have decorations. The plain to decorated sherd ratio is 2.69. The assemblage is from sherds that are primarily tempered only with grog (85%), although some sherds also have bone (12.9%) and hematite (2%) inclusions. Detailed analysis of a 9% sample of the sherds (Table 1) indicate that 21% of the sherds are from vessels fired in a high oxygen or oxidizing environment, and another 35.7% are from vessels incompletely oxidized during firing. The remainder of the sherds (42.9%) are from vessels fired in a low oxygen or reducing environment; half of these sherds are from vessels that were also cooled in a reducing environment, and the other half were from vessels that were cooled in the open air, leaving a thin oxidized surface and core on either one or both vessel surfaces.

The sherds from the site are well-preserved, as is indicated by the fact that 57% of them have evidence of surface treatment (smoothing) on either one or both vessel surfaces (see Table 1). Vessels were medium to large in size, based on the mean body wall thickness of 8.05 ± 0.95 mm (range 6.2-10.7 mm), many of them probably used for cooking and storage.

Table 1. Detailed analysis of Caddo sherds from Sarah's Deer Stand site.

Sherd type	Temper	FC	ST	Th (mm)	Comments
body	grog	G	E SM	7.0	engraved circles and hatched triangle areas; cf. Poynor Engraved
body	grog	G	—	8.3	plain
body	grog	B	E SM	6.2	plain
body	grog	B	I/E SM	7.1	plain
body	grog	A	I/E SM	8.6	plain
body	grog	B	—	9.0	plain
body	grog-bone	E	I SM	10.7	parallel brushed
body	grog-bone	A	—	10.1	plain
body	grog-hem.	C	—	7.1	parallel brushed
body	grog-hem.	A		7.6	parallel incised lines
body	grog-hem.	C	I/E SM	6.6	curvilinear engraved lines
body	grog-bone- hem.	G	—	8.4	parallel brushed with tool punctates pushed through the brushing
body	grog-bone- hem.	E	I SM	8.9	plain
body	grog-sandy paste	E	I SM	7.1	plain

hem.=hematite; FC=firing conditions: A=fired and cooled in an oxidizing environment; C-E, incompletely oxidized during firing; B=fired and cooled in a reducing environment; F-G=fired in a reducing environment and cooled in the open air; ST=surface treatment: I=interior; E=exterior; SM=smoothed; Th=thickness

The 42 decorated sherds are predominantly from utility ware vessels (92.9%), with only three fine ware sherds (7.1% of the decorated sherds). Almost 43% of the decorated sherds and 46% of the utility wares have brushed body decorations, either parallel or vertical (n=16) or overlapping (n=2) brushed marks. Two parallel brushed body sherds, possibly from Bullard Brushed jars (see Suhm and Jelks 1962:Plate 11), have tool punctations pushed through the brushing marks.

Fourteen (33% of the decorated sherds) have incised lines as the decorative method, with either parallel or straight (n=12) and opposed line (n=2) elements. Four sherds (9.5% of the decorated sherds), including a rim, have rows of tool punctations either on the rim and/or the body of jars. The remaining utility ware sherd has pinched rows; this may be from a Killough Pinched jar (Suhm and Jelks 1962:Plate 46).

Two of the fine ware body sherds have curvilinear engraved lines, while the third, from a bottle, has an engraved circle within a circle surrounded by a curvilinear arc of fine engraved lines (Figure 1a). The use of a curvilinear arc of engraved lines on this sherd is similar to other examples of Poynor Engraved, possibly including Poynor Engraved, *var. Lang* (Pertulla 2011:Figure 6-64f-g), although this style is most commonly seen on carinated bowls rather than bottles.

Figure 1. Selected decorated sherds from the Saline Creek sites: a, cf. Poynor Engraved, 41SM440; b, parallel engraved and pendant triangles, 4141SM442; c, horizontal-vertical engraved and opposed engraved lines, 41SM442; d, cross-hatched engraved column and excised and plain pendant triangles, 41SM442; e, cf. Poynor Engraved, *var. Hood*, 41SM444. Drawings by Lance Trask.

The chipped stone artifacts from the Sarah's Deer Stand site include 13 tools or tool fragments, 84 pieces of lithic debris, and four cores (Table 2). The lithic artifacts indicate that the site was first used by aboriginal peoples during the Late Archaic (ca. 5000-2500 years ago), as marked by the Yarbrough dart points and the ferruginous sandstone gouge. The mean stem width of the five Gary points from the site (13.02 mm) suggests these are Gary, *var. Camden* points from a more intensive occupation during the latter part of the Woodland period (ca. A.D. 200-700). The arrow point preform may be associated with the prehistoric Caddo component recognized in the ceramic sherds, but its presence does mean that arrow points were made on site during some period of Caddo use.

The lithic debris from the site is primarily from locally available raw materials, especially a quartzite that had to be heat-treated before it could be successfully reduced (see Table 2). Nevertheless, non-local lithic debris (probably from Red River gravels or source areas in the Ouachita Mountains) accounts for 27% of the lithic debris sample; 25% of the cores are on non-local raw material; and 7.7% of the chipped stone tools are on non-local lithic raw materials.

In addition to the chipped stone artifacts, there are four ground stone tools in the site collection. These are a ferruginous sandstone metate and mano, used in the past for grinding maize and seeds, a bi-pitted stone of ferruginous sandstone, as well as a fragment of a polished igneous rock, probably a celt fragment. Three quartzite fire-cracked rocks suggest that a modicum of hot rock cooking of plant foods (especially roots) took place at the site during one of the occupations.

Table 2. Lithic Artifacts from Sarah's Deer Stand Site.

Category	Number	Percentage
Arrow point preform, quartzite	1	1.0
Gary dart point, quartzite	3	3.0
Gary dart point, quartzite	1	1.0
Gary dart point, dark gray chert	1	1.0
Yarbrough dart point, quartzite	2	2.0
Dart point tip, quartzite	1	1.0
Bifacial tool fragment, quartzite	1	1.0
Biface preform, quartzite	2	2.0
Gouge, ferruginous sandstone	1	1.0
Subtotal	13	12.9
Lithic debris, subtotal	84	83.2
quartzite	51	50.5
petrified wood	3	3.0
chalcedony	6	5.9
ferruginous sandstone	1	1.0
non-local chert	23	22.8
Core, subtotal	4	4.0
single platform, quartzite	1	1.0
multiple platform, petrified wood	1	1.0
multiple platform, red chert	1	1.0
core fragment, dark grayish- brown chert	1	1.0
Totals	101	100.0

There is also a pre-Civil War component at the site, although its extent and character are unknown. This occupation is marked by a chert blade gunflint (for a rifle or musket) and several transfer-printed whiteware sherds. The latter were made from ca. 1830s-1860 (Samford 2000).

Handicap Deer Stand (41SM441)

This site is in a similar setting as the Sarah's Deer Stand site, as it is located on a sandy upland ridge that slopes towards Saline Creek, about 500 m to the west. The landform has Cuthbert fine sandy loam soils. The site itself had a few hardwood trees, brush, and weeds, and a ground surface visibility of 5%. The Handicap Deer Stand site is estimated to cover 2400 m² (0.6 acres) in size.

A total of 47 sherds comprise the collection of Caddo ceramic wares from the Handicap Deer Stand site, 32 plain rim, body and base sherds and 15 decorated rim and body sherds. The sherds are from vessels that are primarily grog-tempered, but 17% also have bone temper. At least one sherd is from a vessel made with a naturally sandy paste, based on the detailed analysis of a small sample of sherds from the site (Table 3). Firing vessels in a reducing environment was the preferred manner employed by the Caddo potters at the site. A majority of the vessels were smoothed on one or both surfaces as part of finishing the vessels and making them ready for use for food serving, cooking, and storage. Rim and body wall thickness of the sherds analyzed in detail indicate that the vessels were built to be durable, with thick rims (9.3 mm) and moderately thick body walls (6.97 ± 1.48 mm, range=5.1-8.6 mm).

Table 3. Detailed analysis of Caddo sherds from the Handicap Deer Stand site.

Sherd type	Temper	FC	ST	Th (mm)	Comments
body	grog	H	-	8.0	fingernail punctated row
body	grog	F	I SM	7.6	parallel brushed
body	grog	B	I/E SM	5.4	plain; ext. organic residue
body	grog	B	I SM	5.1	plain
rim	grog-bone	F	E SM	9.3	plain
body	grog-bone	B	I SM	7.1	plain
body	grog-sandy paste	F	-	8.6	plain

FC=firing conditions; A=fired and cooled in an oxidizing environment; C-E, incompletely oxidized during firing; B=fired and cooled in a reducing environment; F-G=fired in a reducing environment and cooled in the open air; ST-surface treatment; I=interior; E=exterior; SM=smoothed; Th=thickness

The small sample of decorated sherds from the Handicap Deer Stand site include both utility wares (n=13, 87%) and fine wares (n=2, 13%). The utility wares include parallel brushed body sherds (n=7, 47% of the decorated sherds), three sherds (20%) with parallel incised lines, a rim sherd with horizontal incised lines, and two body sherds with rows of fingernail punctations.

Both fine ware sherds are from red-slipped vessels. The use of slipping as a decorative method first become prominent on East Texas Caddo sites between ca. A.D. 1200-1450, in the Middle Caddo period, especially in the upper Neches, upper Sabine, and parts of the middle reaches of the Red River basin.

The chipped stone tools from the site consist of one Woodland period Gary dart point and four arrow points. The Gary, *var. Camden* point fragment (see Schambach 1982), made from quartzite, has the narrow stem width (13.0 mm) of this defined variety. This particular variety of Gary point was manufactured between ca. A.D. 200-700, during the latter part of the Woodland period. Three of the points are parallel-stemmed Alba points, both unifacially and bifacially worked. The unifacial Alba points are made from non-local gray chert, while the bifacially worked specimen is on a local quartzite. The fourth point is a contracting stem unifacial Perdiz, made on a gray chert. The two different arrow points suggest that the site was used by the Caddo on two different occasions, since they are not thought to be contemporaneous (see Turner and Hester 1999); the Alba points were apparently made and used between ca. A. D. 800-1200/1300, based on the dating of the Alto phase component at the George C. Davis site (Story 2000),

while the Perdiz point may have first been manufactured ca. A.D. 1200, but continued to be made and used well into the early 18th century in East Texas (cf. Story 1995).

There is a large (77 x 51 mm in length and width, and 37 mm thick) cobble-sized core with five flake removals; it is of a local tan chert, with a grayish-brown cortex. A second core has a single platform of flake removals; it is on a reddish-gray chert that is probably not from a local lithic raw material source. There are 28 pieces of lithic debris in the collection, including flakes from a local quartzite (68%) and several kinds of non-local chert (32%), namely gray, dark gray, and yellowish-gray brown chert. The likely source of these raw materials is the Red River gravels and the Ouachita Mountains of southeastern Oklahoma.

The one ground stone tool from the Handicap Deer Stand site is a quartzite mano. It has smoothing on one side from its use in grinding actions on a metate or grinding slab, and there is a slight circular depression on one face, suggesting it may also have been used as a pitted stone.

Alligator Pond (41SM442)

The Alligator Pond site is situated on two sandy upland ridge slopes that extend west to Saline Creek. Currently the area is part of a 4 year old pine plantation, some portions of which have been cleared for brush control; the small pine trees, brush, and weeds limit the surface visibility to 10%, except in the cleared areas. Sediments on the landform are Attoyac fine sandy loam. The site's extent is estimated at 6000 m² (1.5 acres).

The principal artifact in the Alligator Pond site collection is sherds from plain ware, utility ware, and fine ware ceramic vessels: 503 sherds in all. The sherds include three plain rims, 405 plain body sherds, and 23 base sherds, as well as 72 decorated sherds; these consist of four rim sherds (all from utility ware vessels) and 68 body sherds. The plain to decorated sherd ratio is a high 5.99.

The sherds are from prehistoric Caddo vessels that are principally tempered with grog (92.2%) (Table 4). Approximately 7% of the sherds are bone-tempered, along with 0.8% that have crushed hematite pieces that were employed as temper inclusions. Two plain body sherds are not tempered and have a naturally sandy paste; they are likely Woodland period sherds belonging to the type-variety Goose Creek Plain, *var. unspecified* (Aten and Bollich 2011); this kind of reduced fired sandy paste pottery was made between ca. 500 B.C. and A.D. 700.

Table 4. Detailed analysis of Caddo sherds from the Alligator Pond site.

Sherd type	Temper	FC	ST	Th (mm)	Comments
body	grog	G	–	7.3	plain
body	grog	G	–	6.4	plain; int. organic residue
body	grog	E	–	8.6	plain
body	grog	B	–	7.3	plain
body	grog	D	–	9.5	plain
body	grog	B	–	6.5	plain
body	grog	G	–	5.4	plain; int. organic residue
body	grog	F	I SM	8.0	plain
body	grog	C	–	8.4	plain
body	grog	F	I/E SM	6.0	int./ext. red-slipped

Table 4. Detailed analysis of Caddo sherds from the Alligator Pond site, cont.

Sherd type	Temper	FC	ST	Th (mm)	Comments
body	grog	A	I SM	6.9	parallel brushed and overlying opposed incised lines
body	grog	G	—	8.3	parallel incised lines adjacent to a fingernail punctated zone
body	grog	C	I SM	7.1	tool punctated rows
body	grog	B	—	7.4	fingernail punctated rows
body	grog	F	—	8.7	parallel incised lines
body	grog	B	—	9.4	cross-hatched incised
body	grog-bone	A	E SM	7.1	plain
body	grog-bone	C	—	6.0	plain
body	grog-hem.	A	—	8.9	plain
body	grog-hem.	F	—	9.6	plain
body	grog-hem.- sandy paste	G	—	7.4	plain
body	grog-organics	F	—	7.7	plain
body	grog-sandy paste	G	I SM	5.7	plain
body	grog-sandy	E	—	6.7	parallel incised lines paste
body	sandy paste	B	I SM	7.1	Woodland period sherd, plain

hem.=hematite; FC=firing conditions; A=fired and cooled in an oxidizing environment; D-E, incompletely oxidized during firing; B=fired and cooled in a reducing environment; F-G=fired in a reducing environment and cooled in the open air; ST=surface treatment; I=interior; E=exterior; SM=smoothed; Th=thickness

Based on the detailed analysis of a small sample of sherds from the Alligator Pond site, the sherds are from vessels that were fired in several different ways. Foremost, some 64% of the sherds are from vessels fired in a low oxygen or reducing environment, 24% were incompletely oxidized during firing, and 12% were fired in a high oxygen environment (see Table 4). Only a few sherds have been smoothed on either interior and/or exterior surfaces. The vessels at the site were coil-made, starting from a flat disk base, and they have relatively thick body walls: a mean thickness of 7.44 ± 0.96 mm, with a range of 5.4–9.6 mm. Vessels of different sizes and volume were obviously in use at the Alligator Pond site during its Caddo occupation.

Of the 72 decorated sherds, 75% are from utility ware vessels (Table 5). The utility wares are dominated by sherds from vessels with incised decorations (38.9% of all the decorated sherds); the incised designs are almost exclusively from straight line/horizontal and vertical to simple geometric designs, including curvilinear, cross-hatched, and opposed elements. Vessels with tool and fingernail punctations—including rows of punctations—comprise 22.2% of the decorated sherds from the site. Other decorative methods represented in the Alligator Pond utility ware sherds are brushed (9.7%), incised-punctated (2.8%), and appliqued (1.4%) (Table 5). The low percentage of brushed sherds suggests that the Caddo occupation here took place before the other Saline Creek Caddo sites (see below), perhaps several hundred years earlier.

Table 5. Decorated Sherds in the Alligator Pond ceramic assemblage.

Ware and Decoration	Number	Percentage
<u>Utility Ware</u>		
applied node, body	1	1.4
brushed, parallel, body	5	6.9
brushed, parallel and overlying opposed incised lines, body	1	1.4
brushed, overlapping and finger-nail punctates through brushing, body	1	1.4
incised, straight line, body	6	8.3
incised, cross-hatched, rim	1	1.4
incised, cross-hatched, body	4	5.6
incised, curvilinear, body	1	1.4
incised, parallel, body	9	12.5
incised-parallel-opposed, body	6	8.3
incised, vertical, rim	1	1.4
incised, parallel, adjacent to a fingernail punctated zone, body	1	1.4
punctated row, tool, adjacent to straight incised line, body	1	1.4
punctated, small circles, body	1	1.4
punctated rows, fingernail, body	5	6.9
punctated row, tool, rim	2	2.8
punctated row, tool, body	8	11.1
Subtotal, utility ware	54	75.0
<u>Fine Ware</u>		
int./ext. red slipped, body	4	5.6
ext. red slipped, body	1	1.4
engraved, cross-hatched column, pendant triangles and excised pendant triangles, bottle, body	1	1.4
engraved, curvilinear, body	2	2.8
engraved, hatched triangle, body	1	1.4
engraved, parallel, body	3	4.2

Table 5. Decorated Sherds in the Alligator Pond ceramic assemblage, cont.

Ware and Decoration	Number	Percentage
Fine Ware, cont.		
engraved, parallel and pendant triangle, bottle, body	1	1.4
engraved, single straight line, body	2	2.8
engraved, triangle, bottle, body	1	1.4
engraved, vertical, horizontal, and opposed lines, bottle, body	1	1.4
excised triangle, bottle, body	1	1.4
Subtotal, fine ware	18	25.0
Totals	72	100.0

The fine ware sherds include both engraved (n=13) and red-slipped (n=5) body sherds (see Table 5). The engraved sherds have straight line elements, parallel lines, as well as hatched and excised triangles, pendant triangles, and cross-hatched columns; sometimes combinations of elements occur on the same vessel, particularly on bottles (see Figure 1b-d). The frequency of red-slipped sherds at the Alligator Pond site is notable, given trends in the use and discard of red-slipped vessels in parts of East Texas in Middle Caddo period contexts.

There are 131 chipped stone artifacts in the Alligator Pond site assemblage (Table 6). This includes 17 chipped stone tools, 113 pieces of lithic debris from tool manufacture and maintenance activities, and one core. Almost 18% of the chipped stone tools are made on non-local cherts, which is a considerable amount, but not when compared to the fact that 55% of the lithic debris from the site is from the manufacture and/or resharpening of tools made from non-local cherts (i.e., gray, dark brown, light gray, dark grayish-brown, and brownish-gray cherts) and quartz. About 33% of the lithic debris is on local quartzite. The remainder of the local lithic debris includes petrified wood, ferruginous sandstone, and earth-toned cherts.

Table 6. Chipped Stone Artifacts.

Category	Number	Percentage
Expanding stem-corner notched arrow points, quartzite	2	1.5
Contracting stem arrow point fragment, quartzite	1	0.8
Arrow point fragment, quartzite	1	0.8
Arrow point fragment, gray chert	1	0.8
Arrow point preform, quartzite	2	1.5

Table 6. Chipped Stone Artifacts, cont.

Category	Number	Percentage
Gary point, quartzite	1	0.8
Yarbrough point, quartzite	1	0.8
Williams point, brownish-gray chert	1	0.8
Dart point tip, quartzite	1	0.8
Dart point medial fragment, quartzite	1	0.8
Celt preform, petrified wood	1	0.8
Gouge, quartzite	1	0.8
Biface fragment, quartzite	1	0.8
Scraper, gray chert	1	0.8
bilateral flake tool, petrified wood	1	0.8
Subtotal, tools	17	13.0
Lithic debris, total	113	86.2
quartzite	37	28.2
local chert	8	6.1
quartz	1	0.8
petrified wood	5	3.8
ferruginous sandstone	1	0.8
non-local chert	61	46.6
Core		
single platform, chalcedony	1	0.8
Totals	131	100.0

The chipped stone arrow points from the Alligator Pond include three fragments, two preforms (evidence of on-site arrow point manufacture activities), and two expanding stem, corner-notched arrow points made from the local quartzite. These points may be identified as either Homan or Scallorn points, with both types found in pre-A.D. 1200 Caddo contexts in East Texas sites. The polished petrified wood celt was a woodworking tool also used by the Caddo during their occupation at Alligator Pond.

The one Gary point is a *var. Camden* specimen. Its occurrence at the site is indicative of some use during the latter part of the Woodland period. The Yarbrough and Williams points at the Alligator Pond site are dart point types that characterize the Late Archaic in East Texas, and it is estimated that they date between ca. 5000-3000 years old. These points, and probably several of the chipped stone tools listed in Table 6, represent the earliest occupation on the landform.

In addition to the chipped stone artifacts, there are five ground stone tools in the Alligator Pond site collections. This includes two quartzite and ferruginous sandstone manos, with ground smoothed areas on either one or both surfaces. The manos range from 103-114 mm in length, 82-88 mm in width, and 35-45 mm in thickness. There is a ferruginous sandstone metate with a 15 mm deep concave depression on one side in its center, this being the active grinding and pounding area. The metate is 175 mm in length, 170 mm in width, and 50 mm thick. There is also a coarse-grained ferruginous sandstone pitted stone with a 20 mm circular depression on one side. This tool is 91 x 62 mm in length and width, and 42 mm thick. The final ground stone tool is the poll end of a Caddo tradition quartzitic sandstone celt fragment; this material originates in the Ouachita Mountains of southeastern Oklahoma, but is also present in gravels in the middle reaches of the Red River valley, well north of Saline Creek in East Texas.

Six pieces of fire-cracked rock (FCR) from the hot rock cooking of plant foods in ovens and pits are in the Alligator Pond site collections. Five of the FCR are quartzite, and the other is hematite, both local stone raw materials.

Thacker Farm House (41SM444)

The Thacker Farm House site is located on a gravelly upland landform about 1.1 km east of Saline Creek. Soils are a Redsprings very gravelly sandy loam (2-5% slopes). The site area, estimated at 2500 m² (0.62 acres), is in a cleared orchard, but orchard plantings and weeds limit the surface visibility to 10%.

A total of 140 Caddo ceramic vessel sherds are in the collections from the Thacker Farm House, including 104 plain sherds (one rim, 98 body sherds, and five base sherds) and 36 decorated sherds. The plain to decorated sherd ratio is a moderate 2.89.

The sherds are from grog-tempered vessels, with some vessels also having bone (3.6%) and crushed hematite temper inclusions (Table 7). The detailed analysis of a sample of the sherds suggests that most of the sherds are from unsmoothed vessels that were fired in a reducing environment, while 20% are from vessels that were incompletely oxidized during firing. Vessel walls of these vessels were relatively thick (mean thickness of 8.3 ± 0.9 mm), likely because vessels at the site were large in size, and some may have served as durable storage vessels with extra-thick body walls.

Table 7. Detailed analysis of Caddo sherds from the Thacker Farm House site.

Sherd type	Temper	FC	ST	Th (mm)	Comments
body	grog	C	–	9.6	parallel incised and straight applied ridge
body	grog	F	–	7.3	parallel brushed
body	grog	B	–	7.6	parallel incised lines
body	grog	G	–	8.3	plain
body	grog	C	–	7.6	plain
body	grog	F	–	10.8	plain
body	grog	F	–	7.7	plain
body	grog-bone	G	I SM	9.0	plain
body	grog-hem.	F	–	7.4	parallel incised lines
body	grog-hem.	F	–	7.7	plain

hem.=hematite; FC=firing conditions; A=fired and cooled in an oxidizing environment; C-E, incompletely oxidized during firing; B=fired and cooled in a reducing environment; F-G=fired in a reducing environment and cooled in the open air; ST= surface treatment; I=interior; E=exterior; SM=smoothed; Th=thickness

Table 8. Selected lithic comparisons between the Saline Creek sites.

Sites	% Non-local chert artifacts	Arrow Points and Types	Dart Points and Types	Projectile Point to Ground stone Ratio
SM442	47.0	7, Scallorn & Homan; preform; fragments	5, Gary (1), Williams (1) Yarbrough (1)	12:5
SM444	20.0	—	Yarbrough (1)	1:0
SM440	24.8	1, preform	8, Gary (5), Yarbrough (2)	9:4
SM441	25.7	4, Alba (3), Perdiz (1)	Gary (1)	5:1

The 36 decorated sherds are primarily from utility ware vessels ($n=33$, 91.6% of the decorated sherds), with only three engraved fine wares (8.3% of the decorated sherds). The utility ware sherds include brushed ($n=18$), incised ($n=12$), brushed-punctated ($n=1$), incised-appliqued ($n=1$), and incised-punctated ($n=1$).

The brushed body sherds have parallel brushing marks, likely from jars with vertical brushing, but the orientation of the brushing cannot be determined with confidence. All 12 incised body sherds have straight to parallel incised lines, but again the orientation of the incised decorations is not known. One body sherd has parallel brushing, with tool punctates pushed through the brushing; this is a common vessel decoration in both Middle and Late Caddo times. Another body sherd has parallel incised lines adjacent to a straight appliqued ridge; the latter was likely used to divide a vessel body into quadrants filled with different decorations; in this case, the quadrants probably were filled with vertical incised lines. Finally one incised-punctated rim sherd has opposed diagonal incised lines that create triangular zones; these zones are filled with tool punctates.

One fine ware rim sherd from a carinated bowl has two horizontal engraved lines on the rim panel. A body sherd has closely-spaced parallel engraved lines. The last engraved body/lower rim sherd (see Figure 1e) has a hatched bracket or divider, likely from a Poynor Engraved, *var. Hood* vessel (see Pertulla 2011:Figure 6-64e).

The lithic assemblage from the site is sparse, including only one dart point and four pieces of lithic debris. The dart point is a Late Archaic Yarbrough point made from a locally available quartzite. Both local (quartzite and brown chert) and non-local (gray chert) lithic raw materials were knapped at the site, although this was done sparingly.

SUMMARY AND CONCLUSIONS

Overall, the character of the lithic and ceramic artifacts from the four Saline Creek sites seems to indicate that this part of the valley was first settled by aboriginal peoples about 5000 years ago, at the beginning of the Late Archaic period. This period is marked by the recovery of Williams and Yarbrough dart parts at three of the sites, as well as a range of chipped and ground stone tools (Table 8). Likewise, during the latter part of the Woodland period, three of the four Saline Creek sites were occupied—as evidenced by the documentation of Gary, *var. Camden* dart points at the three sites—by Woodland peoples ancestral to the Caddo peoples that lived in East Texas after ca. A.D. 850. The Alligator Pond site

(41SM442) also had two sherds from Goose Creek Plain, *var. unspecified* sandy paste Woodland period vessels. The occurrence of ceramic sherds at the site, often taken as one indicator of the development of a more sedentary lifeway, suggests that the occupation during this time at the Alligator Pond site may have been more than a hunting and food processing camp, but a camp where the Woodland peoples may have stayed for a longer period of time during a seasonal occupation. Projectile point to ground stone tool ratios from the four sites suggest that hunting was a major pursuit at each of the sites, although plant foods were processed at them as well using ground stone manos, metates, and pitted stones.

A notable characteristic of the lithic assemblages from the Saline Creek sites is the use of non-local chert artifacts in the chipped stone tools, the polished celts, and the chipped stone lithic debris (see Table 8). At the Alligator Pond site, the percentage of non-local chert artifacts is 47%, while the other three have comparable, but lower, percentages of non-local cherts in their assemblages (20.0-25.7%). While it is uncertain just how many of the chipped stone artifacts from the sites can be associated with the prehistoric Caddo occupations, the fact that the Alligator Pond site is apparently the earliest site among the four Saline Creek sites, it does open up the tantalizing possibility that the earlier Caddo peoples that settled in the basin had a better and broader access to non-local sources of non-local cherts (either by direct procurement or through trade and exchange). The later Caddo peoples that settled in the basin did not have the same ready access to non-local chert raw materials, and thus they had to depend on local raw materials such as quartzite, petrified wood, and ferruginous sandstone.

The major settlement of the Saline Creek valley was by the ancestors of modern Caddo people. During the Caddo occupation of the Saline Creek sites, including a relatively intensive and early occupation at Alligator Pond, arrow point preforms, arrow point fragments, and several identifiable arrow point styles suggest the sites were first occupied before ca. A.D. 1000 and continued to be occupied episodically and on a generational basis until sometime after ca. A.D. 1300 (see Table 8). Given what we know about the ceramics from these four sites, the Alligator Pond was occupied the earliest during the Caddo era, while the other three—Sarah's Deer Stand (41SM440), Handicap Deer Stand (41SM441), and Thacker Farm House (41SM444)—may have been occupied at least one or two centuries later, but between them, more or less contemporaneously. These occupations are modest in size, from 2500-6000 m², and probably represent permanent year-round occupations by one or a few Caddo families, probably farmsteads or a small hamlet. All three sites may be part of one larger Caddo community in this part of the upper Sabine River basin.

Through several means of ceramic comparisons (Table 9), the four Saline Creek sites can be readily sorted into two groups: Group I, the Alligator Pond site, with a very high plain to decorated sherd ratio (P/DR), little brushed pottery in the assemblage, considerable numbers of wet paste utility ware ceramic sherds, and a relatively low use of bone as a temper; and Group II, the other three sites that may be part of the same community of peoples. The Group II sites have moderate P/DR values, considerable percentages of brushed decorated sherds, lower frequencies (40-50%) of wet paste utility wares, and the use of bone temper was moderate at two of the three Group II sites.

P/DR values from numerous Caddo sites in East Texas appear to hold considerable promise as an independent means of establishing the age of Caddo ceramic-bearing components (provided samples of plain and decorated sherds are larger than about 200-300 sherds per site, which three of the four sites on Saline Creek do not meet. Nevertheless, the P/DR comparisons for these assemblages still prove useful). When P/DR ratios from a number of different ceramic assemblages from the various ceramic traditions/regions in East Texas are linked with absolute ages as established by radiocarbon dating from those assemblages, it is expected that further refinements in how P/DR ratios change through time in East Texas Caddo sites will be established. At the moment, looking at Early Caddo to Historic Caddo ceramic assemblages in the region through time, the trend is that ceramic assemblages have lower proportions of undecorated sherds through time and thus a lower P/DR ratio (Pertulla 2008:9, 315-317). Analyzed pre-A.D. 1200 sites in East Texas have plain/decorated sherd ratios that appear to range from 2.97 to greater than 4.80; the Alligator Pond site P/DR of 5.99 fits this pre-A.D. 1200 P/DR range (see Table 9). Middle Caddo sites (ca. A.D. 1200-1450)

Table 9. Selected ceramic comparisons between the Saline Creek sites.

Sites	Plain/Decorated Sherd Ratio	% Brushed*	Wet Paste %	% Bone- Tempered	N
Group I					
41SM442	5.99	9.7	68.1	7.0	503+
Group II					
41SM444	2.89	50.0	41.6	3.6	140
41SM440	2.69	47.6	50.0	12.9	155
41SM441	2.13	46.7	40.0	17.0	47

*percent brushed among all decorated sherds from the site; ** percent wet paste (i.e., incised, punctated, appliqued, incised-punctated, etc.) among all decorated sherds from the site

+does not include two Woodland period sandy paste sherds

have ratios that range between 1.30-2.65; the three other Saline Creek sites generally fall in the Middle Caddo period based on their P/DR (see Table 9). In known Late Caddo sites in the Neches, Angelina, and Sabine river basins, by contrast, the P/DR ranges from only 1.30-0.47. Finally, post-A.D. 1680 Caddo occupations in the Neches-Angelina river basin have P/DR ratios that range from 0.20-0.30.

Further chronological confirmation of the ages of the four Caddo components is reflected in the percentages of brushed pottery in each assemblage (see Table 9). At the earlier Alligator Pond site, only 9.7% of the decorated sherds are brushed, compared to between 46.7-50.0% in the three other Saline Creek sites. It has been shown repeatedly in Caddo ceramic studies in much of East Texas (although not including the Red River valley, where brushed pottery is almost non-existent) that the proportion of brushed sherds in decorated sherd assemblages steadily increases through time, beginning around ca. A.D. 1200. By the early 15th century A.D., however, Caddo potters in the upper Neches River basin and parts of the upper Sabine River basin began to manufacture considerable numbers of jars with brushed vessel bodies and rims (Perttula 2011). Given the relatively high proportion of brushed sherds in three of the Saline Creek sites, and their ceramic assemblage P/DR values, it seems likely that they were occupied during the latter part of the 14th century through the mid-15th century A.D., and were probably abandoned after that time. The low percentage of brushed sherds, in concert with the high P/DR values, at the Alligator Pond site is primarily consistent with a pre-A.D. 1200 occupation, or at least an occupation that ended by that time.

How do the three Group II Caddo ceramic sites on Saline Creek compare to ceramic assemblages at other generally contemporaneous Caddo sites in the upper Sabine River such as Leaning Rock (Walters 2008), the Wolf site (Walters 2003), Bryan Hardy (Walters and Haskins 2000), Redwine (Walters and Haskins 1998), and Carlisle (Perttula et al. 1993). Using the same attribute comparisons from Table 9, Table 10 provides relevant attribute-level ceramic data from these five excavated sites on their P/DR; the percentage of brushed sherds among all the decorated sherds; the percentage of wet paste decorated sherds among all the decorated sherds; and the percentage use of bone temper. Each of these five sites also have either radiocarbon or OCR dates to establish the absolute age of their Middle Caddo occupations, and these range from as early as A.D. 1276 to as late as A.D. 1449, almost the full gamut of the Middle Caddo period in the upper Sabine River basin.

Table 10. Upper Sabine River Middle Caddo Sites and Ceramic Assemblages.

Site	P/DR	% Brushed	% Wet Paste	% Bone Temper	C14 and OCR Dates
Leaning Rock, 41SM325	3.59	20.8	66.3	21.7	mean 2 sigma calibrated age: AD 1297-1389
Wolf, 41SM195	3.37	0%	70.5	49.2	C14, 2 sigma: AD 1315-1440; OCR:AD 1317- 1413
Bryan Hardy, 41SM55	1.30	37.7	70.7	grog-bone temper, but % not specified	2 sigma C14, AD 1277-1401
Redwine, 41SM193	3.36	35.5	48.6	44.5	2 sigma C14, AD 1304-1434
Carlisle, 41WD46	2.72	51.3	35.8	5.0	2 sigma C14, AD 1276-1449

In a general sense, the most interesting aspect of these upper Sabine River basin ceramic assemblages is how different they are one from another, as if they represent assemblages from different local or community-wide ceramic traditions. P/DR values range from 1.30-3.59, even though the sites are contemporaneous, indicating that the proportions of decorated and plain vessels in each assemblage are rather divergent; this is especially the case for the Bryan Hardy site (a P/DR of 1.30) in comparison to the other four sites (P/DR values of 2.72-3.59). The proportion of brushed pottery ranges from 0.0-51.3%, and the proportion of wet paste decorated sherds range considerably from 35.8-70.7%. With the exception of Bryan Hardy, which has many brushed-punctated sherds (see Walters and Haskins 2000), the sites with the highest proportions of brushed pottery (Carlisle and Redwine) also have the lowest proportions of wet paste decorated sherds (see Table 10). Finally, while bone temper was used in the manufacture of ceramic vessels in all five Middle Caddo sites in the upper Sabine River basin, its use ranged from a low of 5% at the Carlisle site to 49.2% at the Wolf site.

Based simply on the comparison of these ceramic assemblage attributes, the Group II Middle Caddo sites on Saline Creek appear to be most closely affiliated with the Caddo peoples that lived at the Carlisle site and other nearby sites (41WD245 and 41WD507, see Perttula et al. 1993:57-58), at and near the confluence of Lake Fork Creek and the Sabine River, about 16 km north and east of the Saline Creek sites. The Middle Caddo sites in northern Smith County appear to represent occupations by at least three different communities of people. This close ceramic similarity between the Saline Creek sites and sites in the Sabine/Lake Fork confluence area thus implies that the Saline Creek sites also date from the latter part of the 13th century to the mid-part of the 15th century A.D.

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