

NOTES ON NORTHEAST TEXAS ARCHAEOLOGY



NO. 1, 1993

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**PANEL DISCUSSION: DIMINISHING
CADDOAN RESOURCES IN EAST TEXAS**

Timothy K. Perttula, The Problem of Site Looting

Timothy K. Perttula, Means of Site Preservation

James E. Corbin, Threats to Sites

Jay Blaine, Metal Detector Activities and Problems with
Metal Preservation and Study

Dan E. McGregor, Artifact Repatriation and Collection Documentation

Jerome C. Rose, The Study of Caddoan Skeletal Remains

1993 East Texas Archeological Conference

February 6, 1993, Tyler, Texas

The Problem of Site Looting in East Texas

Timothy K. Perttula

It is likely that looting by treasure hunters and grave robbers has destroyed thousands of sites in East Texas. In the last 5 to 10 years, the vandalism and looting of archeological sites by commercial looters on private, state, and federal property has reached epidemic proportions (Perttula 1992). Undisturbed Caddoan Indian habitation sites and cemeteries, thought to date from about 1200 to 200 years B.P., are very vulnerable to disturbance and destruction by commercial collectors and looters. These folks are destroying forever irreplaceable evidence about Texas' cultural heritage.

The looting and vandalism of Caddoan sites has been a persistent Texas problem since the early 1900s. In an illuminating October 1931 letter regarding the looting problems in Northeast Texas, Professor John R. Swanton of the Bureau of American Ethnology, Smithsonian Institution, commented that "there seems to be no way to handle [the looters] except to salvage as much of the material as possible before they get to it." Professor J.E. Pearce of the University of Texas also noted in 1931 that

unemployed geologists...and farmers are digging up camp sites and burial places all over and selling the returns for whatever they can get...It is exceedingly discouraging. I am working as hard as I can with the funds at my disposal to salvage what I can of the situation.

The extent of looting and vandalism, so discouraging to Professor Pearce in 1931, has unfortunately continued to expand, particularly within the last 10 to 15 years as the price of illegally obtained grave goods escalates and the numbers of looters increases (Kenmotsu and Perttula 1993:36).

My study of the looting of Caddoan sites with burials and burial goods (e.g., ceramic vessels, arrowpoints, and items of non-utilitarian use such as burial blades, gorgets, earspools, or shell beads) indicates that most large cemeteries in East Texas have been subjected to intensive looting and vandalism. These activities have been particularly common in the Cypress Creek and Red River Basins where many large (+70 individuals) cemeteries occur. Many important Late Caddoan (about 500 to 300 years B.P.) sites have been thoroughly looted, and several of these have been on Federal land at Lake O' The

Pines. The archeological, mortuary, and bioarcheological information from these sites have been totally lost because of looting.

Some numbers better illustrate these points:

- (1) More than 350 Caddoan sites with human burials are currently known in East Texas; these contained an estimated 3200-3300 individual interments (Kenmotsu and Perttula 1993:Appendix 2.5.4);
- (2) More than 40 percent of all "known" Caddoan burials reported in the region are from nine large cemetery sites in the Red River and Cypress Creek Basins. These sites have all been looted, and at best only limited archeological or bioarcheological analyses were ever completed (see Jerome C. Rose, this volume); and
- (3) More than 50 percent of the 97 known Titus phase cemetery sites in the Cypress and Sabine River basins are known only from looting and vandalism activities (Perttula 1993). What we know about many of these sites usually consists of no more than a mark on a map--the rest of the information is gone forever.

What makes all this so discouraging for those of us who are interested in understanding and preserving the East Texas archeological record is that except for a few arrests for trespassing and damage to federal property, no major prosecutions for looting have been concluded by law enforcement agencies for these actions. Truly, in many cases no illegal activities have been committed because the sites are on private property and the looters are there with landowner permission!

There is no one panacea to point to that will help to overcome the ineffectual attempts to preserve and protect archeological sites in East Texas. New laws probably would not improve matters, since enforcing the laws remains difficult; furthermore, the reach of the laws do not typically extend to private lands. Nevertheless, a state burial law must be devised to protect from desecration unmarked graves and cemeteries.

Overall, however, it is my feeling that the public's interest and awareness in archeology needs to be fostered *as the best overall way* in which to achieve real site preservation and protection measures. This conference is one successful way to do this. Another way is to urge the participation of the public at every opportunity in archeological research and preservation/protection efforts, and hopefully developing a constituency that is willing to work to further the long-term stewardship of important archeological sites in Texas.

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Means of Site Preservation in East Texas

Timothy K. Perttula

Although thousands of archeological sites are destroyed annually in Texas, *there are effective ways to preserve them* using existing State and Federal laws and regulations. These are not simply paperwork exercised, since the tangible results help to insure that prehistoric and historic sites are preserved as a special trust for the benefit of Texas' future generations. I encourage all persons interested in protecting and preserving the heritage of Texas to be an advocate to public and private landowners about site preservation.

Rather than review in detail applicable State and Federal laws about site preservation, a summary paper has been distributed here at the Conference (Perttula 1993). I will focus on the key points of site preservation as a means to initiate discussion on these issues.

Designating archeological sites as State Archeological Landmarks (SAL) or listing them on the National Register of Historic Places are two of the best known and effective means of preserving archeological sites in Texas.

State Archeological Landmarks

Archeological sites designated as SALs under the Antiquities Code of Texas are protected because they cannot be removed, altered, damaged, salvaged, or excavated without a permit from the Texas Historical Commission. The designation of a SAL on private land is recorded in the deed records of the county in which the land is located, and conveyed with the property when it is sold. Sites on public or private lands can be designated as SALs, but the landowner's permission must be obtained to designate such a site.

There are criminal penalties for violating the Antiquities Code of Texas. Furthermore, any citizen of the State of Texas may bring a civil action to restrain and enjoin violations or threatened violations to the Antiquities Code: such as intentionally damaging or destroying a SAL.

Nominating and designating SALs is a potentially powerful tool to protect important archeological sites in East Texas. Currently, however, there are only 41 SALs in East Texas (out of about 3900 recorded sites), and *most important archeological sites* lie unprotected on private land. We need to change this situation, and here are four simple steps that will help:

1. Nominate archeological sites in public ownership to the Texas Historical Commission, Department of Antiquities Protection (DAP), for SAL consideration. Nomination forms can be obtained from the DAP staff.
2. We need to work with private landowners on identifying important archeological sites on land they own, and encourage them to designate such sites as SALs.
3. If archeological sites are discovered on public lands (such as a State Park) that may qualify for designation as a SAL, notify the state agency or political subdivision owning or controlling the property as well as DAP. The DAP staff may then initiate designation proceedings if it determines that the site is significant, or in tuen it may require archeological investigations if the site is threatened by actions of the state agency or political subdivision; and
4. If archeological sites on public land are being damaged, or there is a threat to them, please contact the DAP staff about these possible violations to the Antiquities Code of Texas. Also contact state and local law enforcement agencies and officers about these violations, and request their cooperation and assistance in enforcing the provisions and carrying out the intent of the Antiquities Code.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established in 1966 as part of the National Historic Preservation Act. The NRHP is the official list of the Nation's cultural resources worthy of preservation, and it provides Federal recognition to properties of State, local and national significance. The NRHP is part of the national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the NRHP include districts, sites, buildings, etc. that are significant in American history, architecture, archeology, engineering, and culture because they contribute to an understanding of the historical and cultural heritage of the Nation.

Archeological sites tend to be considered for the NRHP if they have yielded, or may be likely to yield, information important in prehistory or history. Information that archeological sites contain, or are thought to contain, is important if it bears on significant research questions about the past, or if it is likely to be useful in addressing research questions that may be developed by archeologists or others in the future.

Listing in the NRHP assists in the preservation of archeological sites by providing national recognition of their individual and collective values, by making property owners eligible for Federal tax incentives and other preservation assistance, and by identifying significant properties to be considered in Federal and State cultural resource planning and management.

One of the more important points about nominating and listing an archeological site on private property on the NRHP is that the listing does not prohibit under Federal law or regulations any action which may otherwise be taken by the property owner with respect to the property.

Archeological sites listed on the NRHP, or determined eligible for inclusion in the NRHP through consultation between a Federal agency and the State Historic Preservation Office (SHPO), can be protected and preserved through the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires that every Federal agency take into account how each of its actions (including such activities as construction, demolition, licenses, permits, loans, grants, or property transfers, among others) could affect NRHP-listed or eligible sites.

"Taking into account" as a preservation method means that the Federal agency assesses the effect its undertaking will have on important archeological sites, then consults with the SHPO, the Advisory Council on Historic Preservation (an independent Federal agency charged by the President to administer the NHPA), and *interested members of the public*, on measures that will be taken to reduce, avoid, or mitigate the effects of the action on the site.

How then can the Section 106 process, and the NRHP program, be used to work to protect important archeological sites in East Texas? A number of ways come to mind:

- a. Inform Federal agencies about important archeological sites on their property, and encourage them to determine whether these sites are eligible for inclusion in the NRHP, and if they are, encourage them to nominate them to the NRHP and take steps to protect them;
- b. Assist the Texas SHPO in identifying and nominating NRHP-eligible sites on public and private lands in Texas;
- c. Work with private landowners in identifying important archeological sites on land they own, and encourage them to nominate (with the SHPO's assistance) such sites to the NRHP; and
- d. Participate (as individuals, and/or members of local historical, historic preservation, and archeological organizations) as interested persons under the Section 106 regulations. Interested persons are considered under NHPA

to be persons concerned with important sites in areas to be affected by federal undertakings, and as such must be consulted with in determining how sites are to be protected, excavated, and treated.

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Vulnerability of Archaeological Sites in East Texas

James E. Corbin

A discussion concerning the vulnerable archeological sites in East Texas, or anywhere for that matter, is a serious and complex one, primarily because all archaeological sites are vulnerable. Of course, it must be understood that it is the very nature of archaeological sites to be threatened with destruction.

From the moment of its inception, an archaeological site is faced with destruction; the formation process of the archeological site with which we are generally concerned is one of destruction of the cultural information we are trying to recover and protect. Although in this light we tend to attribute the destructive forces to that ever industrious creature, Mother Nature, humans have always been a part of the destructive process.

The "First Archaeological" Site was more than likely soon threatened and then impacted by whomever the second inhabitants of that site were. Consider the archaeological site known as 41NA113, the Adolphus Sterne Site. It was first occupied approximately 4000 years ago. The first significant human impact came some 2000 years later with the construction of firepits, trashpits, and houses of the Early Ceramic Period inhabitants. Six hundred years later, Caddoan folks constructed a house, storage pits, etc., on and into the earlier archaeological remains. In 1779, Domingo Martinez excavated wall trenches and post holes to build his "palisado" house. Adolphus Sterne, in 1831, then excavated a large cellar into the site and constructed his house over the location of Martinez' house floor. Subsequent swept yards, a grave, a sunken greenhouse, gardens, and chimney foundations continue to ravage the site.

Today, we, as conservators of the past fight a daily battle at this site, and other sites, to further protect them from the attacks of an ever-growing population. Since human societies have generally all had similar needs in terms of a place to live, it is those sites coming under the attack of urbanization in East Texas that are ultimately the most and immediately vulnerable. Given that it is probably impossible to protect sites from the ravages of Nature and human activity, it behooves us to make every effort to protect what sites we can in an effort to preserve the cultural heritage of Texas.

Problems in the Preservation and Study of
Archaeological Metals in East Texas

Jay C. Blaine

Dee Ann Story (1991) recently pointed out how little really is known about the archaeology of Texas Caddoan sites. Specifically, she notes how very few Caddoan sites have been systematically excavated and analyzed in Texas.

There has been some substantial effort in this direction recently as witnessed by the renewed investigations at the Sam Kaufman (Roitsch) site by the Texas Archeological Society and the Texas Historical Commission. However, it seems evident to some of us that while investigations of the prehistoric Caddoan archaeological data base has been less than adequate, our understanding of historic Caddoan groups remains even less satisfactory. In fact, archaeologically it is not yet possible to specifically and reliably identify many eighteenth century Indian sites in Eastern Texas as being affiliated with Caddoan peoples. Nor can we identify these Caddo from the many, more or less itinerant, candidates from among other tribes who may have paused and settled within known Caddoan tribal boundaries in historic times.

In dealing with these kinds of problems, it seems essential to first secure archaeological data from sites of limited time frames, and then to obtain information on other significant attributes, such as economic and status factors, for the occupations being examined. The imported artifacts of metal can form one of the potentially most useful categories for such data, although often they have been underutilized for this purpose in the past. While the archaeological metals are generally not easily dealt with on any level, this category of artifactual evidence need not continue to be slighted or their recovery generally considered to be of low priority.

As Story (1991) indicated, several Caddoan site artifact collections now in hand remain either largely unanalyzed, incompletely studied, or are in need of restudy. These collections and their data bases are at least now secured and not in significant jeopardy by further loss through natural or human processes. The same cannot be said for the archaeological metal components remaining buried in the historic Caddoan sites.

Here, in East Texas, I believe these metals are at significantly increasing risk from two fairly recent developments. One is the now widespread use of advanced metal detectors by persons who continue to disregard proper archaeological field techniques. Although they have become aware of our concerns and, in some cases, are at least exposed to some level of professional contact and advice, this behavior continues.

The other damage is more indirect but apparently even more pervasive- the advent of significant episodes of acid rain. Without question the rate of decay for buried metals can be directly proportional to soil acidity. It is known that such metals could once reach a state of relative equilibrium with their immediate soil matrix. But now acid rains are, I have reason to believe, destroying any such balances, particularly where soil drainage is not optimal. In so far as such metals can be hoped to yield useful information, we are now losing this part of the data base. In my experience, artifacts of both iron and copper now being recovered in our area are generally in much poorer condition than those found some thirty years ago in the same sites. Although the surface attributes of these artifacts are the first to be lost, as would be expected, even the basic forms for the smaller items are sometimes unrecognizable now. As might also be expected, it will become increasingly difficult and expensive to preserve these artifacts for study, long-term curation, or exhibit.

One good example of the level of data being lost from archaeological metals comes from Illinois. At the eighteenth century village site of Kaskaskia some 11 knife blades were collected about 1901. In most cases, even the makers names stamped into these blades were legible as French in origin. Similar blades recovered some 68 years later from this site are almost completely eaten away by rust. It is probable that the use of certain chemical fertilizers has accelerated such damage but since archaeological metals from wooden areas appear to be similarly affected, other causes must be involved.

In April 1988, Dr. George Crawford, a physics professor at Southern Methodist University, presented the results of a three year study concerning the acidity of rainfalls in North Dallas. Professor Crawford's experiments were far more elaborate than those conducted by the Texas Air Control Board and others, and his findings were startling. In 1985, he found that 76 percent of rainfalls were more acidic than would be expected naturally, with over four percent of these rainfalls being extremely acidic. By 1987, 93 percent of the rainfalls were more acidic than normal and 12.5 percent were highly potent; that is, they were some 100 times more acidic than a natural and normal rainfall level. He was able to correlate these most acidic rains with south and east winds blowing across areas with coal-burning and lignite-fired power plants from as far away as Houston.

Now, not all sites or subareas within a given site provide equally destructive environments for their buried metals. For example, in North Central Texas and Eastern Texas metal artifacts positioned in a relatively sandy matrix with good drainage have suffered the least destruction. In cultivated fields, however, metal artifacts at and below the base of the plow zone, and particularly those in still deeper pits, are now found in increasingly much poorer condition.

My purpose in this paper has been to remind us all that these particular areas of concern both continue to exist and to grow more critical. We are clearly losing a significant part of the data base by default, at least in the matter of unprofessional metal detector utilization. In that respect, perhaps we might consider initiating a vigorous survey program for locating suspected historic Caddoan sites. This effort, in utilizing the metal detector, could initially be directed toward mapping and piece plotting metal finds together with a limited sampling of those metals within detector range. If any nonprofessional aid in metal detection and sampling is considered, it should only be carried out under direct professional supervision and control. A similar effort was very productive at the Custer National Battlefield and has now provided concrete evidence for correcting and enlarging our perception of that historic and dramatic conflict.

Recently some of the magazines and books for relic collectors and metal detectorists have begun to include superficial advice on both cleaning and preserving their metallic finds. Most of these articles offer an interesting mixture of both relatively harmless, and/or bad, advice. Such catch-all kinds of information should not be accepted and followed uncritically by avocational archaeologists who would treat their excavated metals in a responsible manner. Publications by Hamilton (1976) and Plenderleith and Werner (1979) complement each other in offering the fullest range of options and procedures necessary for qualified metal conservation.

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Artifact Repatriation and Collection Documentation

Dan E. McGregor

The Native American Graves Protection and Repatriation Act (NAGPRA) became law in November 1990, giving Native Americans control over the disposition of human remains and certain artifacts with which they have "cultural affiliation". For East Texas, most Native American burials are unquestionably affiliated with the Caddo Tribe of Oklahoma. Implementation of NAGPRA will affect the archaeological data base for East Texas. Repatriation of human remains and associated artifacts to the Caddo Tribe will be required of most curation facilities with collections from this region. Under NAGPRA, future excavation and analysis of human remains and associated artifacts will become increasingly difficult for Federally-sponsored projects.

There are two basic parts to NAGPRA. The first deals with existing collections of human remains and associated artifacts. This affects all museums, universities, and curation facilities receiving Federal funds after November 1990; this includes just about every facility with East Texas collections, whether Federal, State, or private. Under NAGPRA, inventories of human remains and associated artifacts (funerary objects) are to be completed by November 1995, followed by their repatriation (National Park Service 1993). These remains and artifacts will be turned over to the Caddo Tribe upon their request.

The second part of NAGPRA involves new projects on **Federal or Tribal lands**. Prior to any excavation likely to encounter human burials, Federal agency coordination and agreement with the affiliated tribe is required. We will need agreement about the "treatment" and "disposition" of human remains and associated artifacts. "Treatment" includes the question of excavation itself, as well as the kinds of analyses that may be conducted of excavated materials. "Disposition" refers to repatriation and reburial of these remains. The Caddo Tribe has made it clear that they prefer that Native American burials be preserved in place and excavated only if disturbance by project construction is **unavoidable**. As a result, future excavation and analysis of human remains and associated artifacts is increasingly unlikely for Federally-sponsored projects in East Texas on Federal or Tribal lands.

NAGPRA can be viewed as a threat to an important part of Caddoan archaeology's data base. But it also presents a challenge we need to address. Archaeologists working in East Texas must: (1) work with the Caddo Tribe of Oklahoma to insure that repatriated collections remain intact and accessible to researchers; (2) develop standards of documentation for both human remains and associated artifacts that are subject to

repatriation; and (3) identify and document well-provenienced burial assemblages in the possession of private individuals.

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Alley's Mills: A 19th Century Mill Town

Mary Cay Jones

The Alley's Mills town site was discovered while examining a timber tract on Alley's Creek for a harvest cut by International Paper. A deep, rock-lined well, and a profusion of handmade bricks was discovered on a small knoll overlooking Alley's Creek, a tributary of Big Cypress Creek (Figure 1). Also found on the knoll were pieces of whiteware pottery, English blue transfer china, square nails, and glass fragments.

I contacted a local historian, Mr. Fred McKenzie, about the site. We walked over the site, which he had discovered several years ago. In the creek bottom, he pointed out an earthen structure that had been built around 1838 as a mill race to divert water to a grist mill wheel. The mill race is a levee-like structure, about one meter wide and two meters high, and runs in a NW-SE direction for about 800 meters. A wooden sluice was built on top of the race to direct the water flow. At the end of the mill race, under the surface of the water, is a large hand cut beam about one meter long with regularly spaced hand-hewn notches. The old roadbed of the Jefferson-Pittsburg road is visible across the tract, running directly past the knoll on which the brickwork was found and crossing the creek at the end of the mill race where the mill is located (see Figure 1).

HISTORICAL BACKGROUND

According to McKenzie (1981), James Alley and his son, Daniel N. Alley, came to East Texas before 1840. The father of James, Thomas J. Alley, by 1820 had built a mill on the banks of the Clinch River in Virginia. James and his wife Catherine Nelson had one child, Daniel N. Alley, born on July 4, 1810, in Russell County, Virginia.

The Alley's moved from Virginia to Kentucky and then to Indiana, and then finally travelled south by river barge to Helena, Arkansas. From there they went by wagon overland through the present site of the city of Texarkana. Continuing along this same road brought them through the then existing Texan settlements of Linden and Hickory Hill (now known as Avinger) [McKenzie 1988] to the banks of a noticeably swift and appealing stream that later came to bear their name.

Here they built their first cabins, mill race, and a mill similar to the one built by their ancestor Thomas J. Alley in Virginia. The settlement that grew up around the mill was known as Alley's Mills. Alley's Mills rapidly became the trade center of the area as it was situated on the Jefferson-Pittsburg Road, and was also only three miles from the Jefferson-Daingerfield Road and its intersection with Trammels Trace (Figure 2). Trammels Trace was

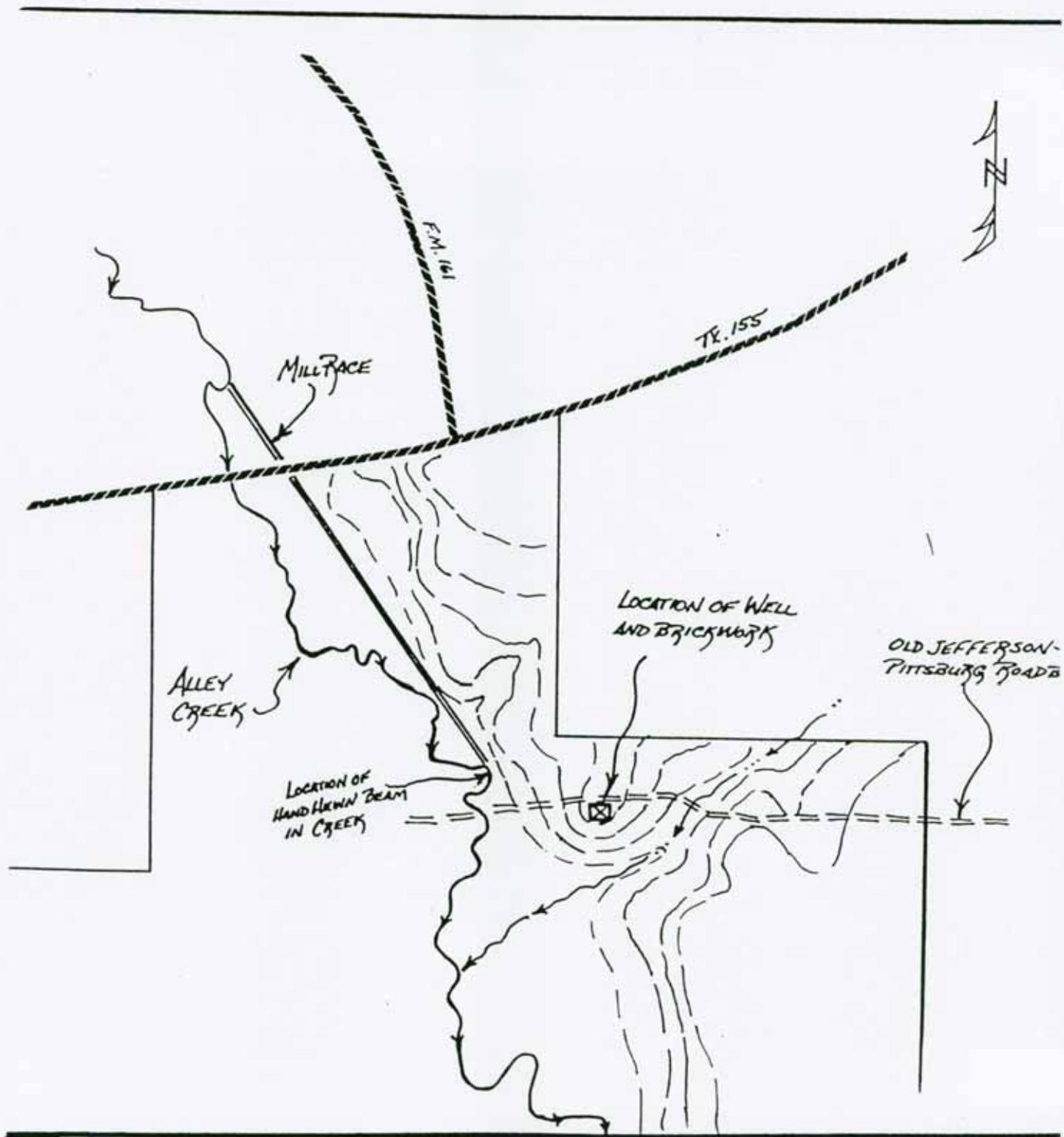


Figure 1. The Site of Alley's Mills, Marion County, Texas.

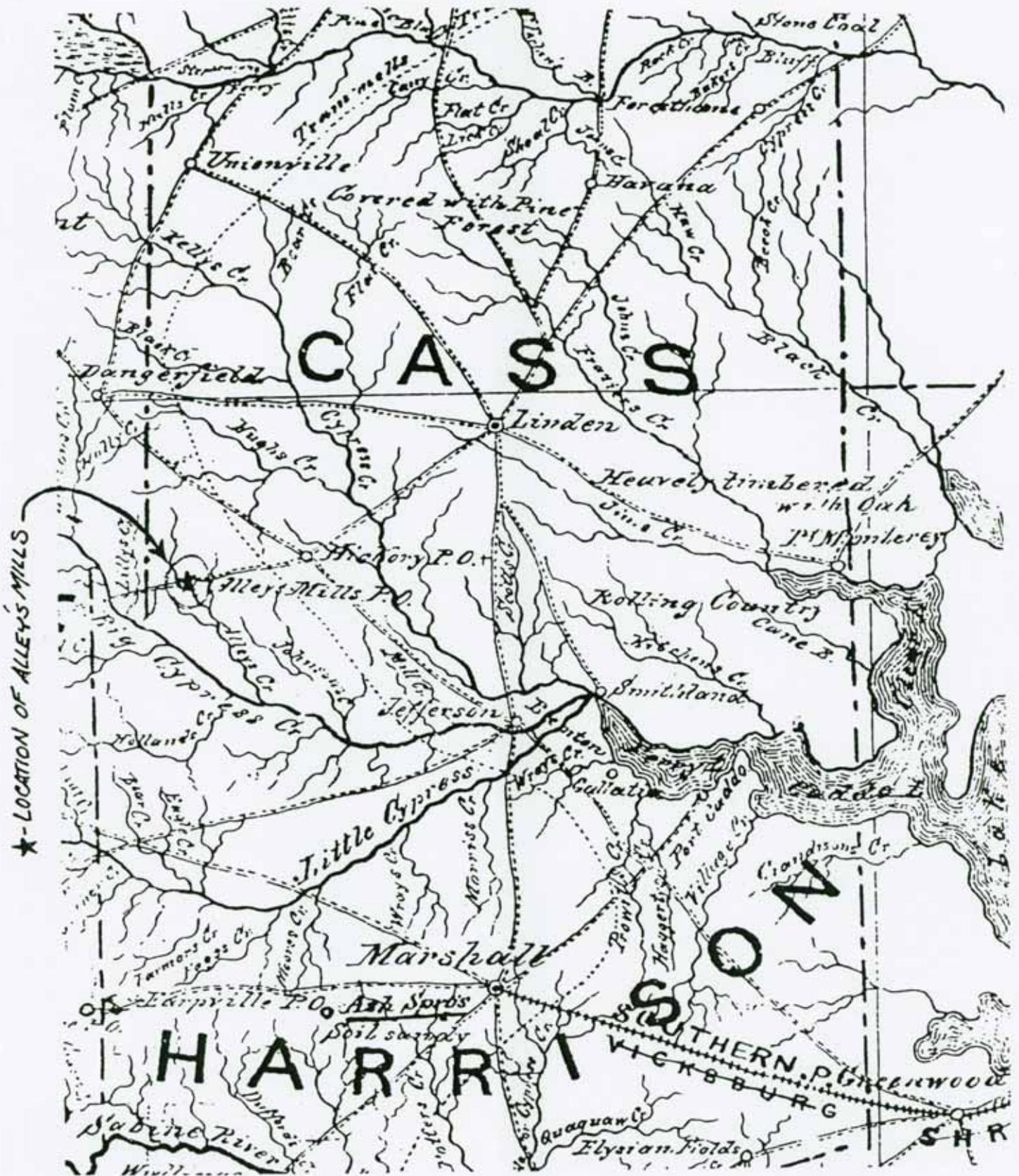


Figure 2. Civil War era map of the Hickory Hill area, dated 1865.

the first road established by white settlers in the area and it was a major route in the early days from Arkansas to Nacogdoches, Texas.

A Post Office was established in Alley's Mill on March 31, 1852 (Patman 1968). This Alley's Mills Post Office was in operation until August 10, 1861, when the name was changed to Nash Foundry Post Office (and presumably moved to the site of the Nash Foundry, about five miles to the south).

Daniel Alley, in the 1840s, turned his attention to the new and thriving riverboat town of Jefferson, 18 miles to the east. He soon became "a man of wealth and a pillar of the community and town which he helped lay out in the 1840's along with Allen Urquhart" (McKenzie 1981). He deeded one entire city block to the County Commissioners of Marion County, and the County courthouse and jail were built there in 1874.

The land survey where the town site was located, and the creek that fed the mill, still bears the Alley name. International Paper now owns the surface rights for the timber interests on this tract.

PRESERVATION: ACTIONS AND FUTURE PLANS

In preparing the timber sale, a sale boundary was painted around the knoll and around the creek bottom where the mill race is located. The buyer of the timber was notified of the significance of the site, and the desire of International Paper to have it protected as much as possible. He communicated this to his employees, and they took particular care not to disturb the site.

On June 2, 1992, the author and Tom and Vicky Speir recorded the site at the behest of the Texas Historical Commission. We completed a surface survey of the site, collected a sample of artifacts, mapped the features that were visible, and completed an archeological site data form for submission to the Texas Archeological Research Laboratory. The site has been assigned a permanent number and recorded in their database as 41MR85.

Following the recording of the site, and with the hearty approval of my Timberlands Manager, Bill Hughes, a letter was sent to our Regional Manager with the background information on the site and our recommendation that the site be placed on the National Register of Historic Places (NRHP), and be designated a State Archeological Landmark (SAL). The response was very positive, with the Regional Manager agreeing to set this area aside as part of International Paper's Unique Areas program, and to proceed with the designation of the site as a SAL and registration on the NRHP. The author is presently working on the necessary paperwork to accomplish these designations.

We are working on a plan to burn the brush from this area so that a more extensive surface survey of the site can be made. All heavy equipment has been excluded from the area so as to avoid the possibility of any further damage to the site.

With the support of International Paper, the author plans to record several other sites of historical significance on my Timber Unit. This includes Bowie, Cass, Marion, Harrison, and Upshur counties in Northeast Texas.

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Possible Archaeological Sites within the
City Limits of Jefferson, Texas

Thomas E. Speir

INTRODUCTION

In 1992, the author accompanied a longtime resident of Jefferson on a tour of the city to examine historic and prehistoric sites within the city limits that might be of archaeological interest. He became aware of many of these sites over 20 years ago while growing up in the area. The condition of the sites has, of course, changed radically since that time. Enough information about the sites was revealed to indicate where it might be worthwhile in the future to do more extensive archaeological and historical research.

We began our tour at 12:00 noon on July 24, 1992. My host drove, allowing the author to take notes on the sites. The first stops on the tour were in North Jefferson, while later in the day some possible sites in South and East Jefferson were looked at. Each site was numbered chronologically as they were shown to the author; the sites were also plotted on a map of Marion County and Jefferson. The same numerical system will be used in this report.

HISTORIC BACKGROUND

Jefferson is the Marion County seat located on the Texas/Louisiana border in Northeast Texas. The terrain is mostly hilly and approximately 80 percent forested with significant pine and hardwood production (Texas Almanac 1968-1969).

One of the principal Jefferson industries today is tourism focusing on the town's historic past. Located west/northwest of Caddo Lake, Jefferson realized regular steamboat trade with New Orleans via the Red River and Big Cypress Bayou by 1845 (Sheneman 1986).

Destruction of "The Great Raft" on the Red River lowered water levels, stopping the riverboat trade after the Civil War-era. Loss of rail service to nearby Marshall further caused the city to dwindle in size to that of a small town with a rich heritage.

SITE FINDINGS

Sites 1 and 2

These sites are located in North Jefferson on facing lots across a north-south city street. My host learned about Sites 1 and 2 in the early 1970s when, having recently married, he moved into a house in the neighborhood. He remembered a Blacksmith shop on one of the

lots about 35 meters south of the street intersection. Artifacts recovered in his yard at the time seemed to confirm this: broken handmade iron tools and scrap iron fragments from a forge. The site now has a small garage or shed built over its southern half.

Site 2 was reportedly the location of a Stagecoach stop that was adjacent to the Blacksmith shop. While building a common fence with a neighbor, my host recovered a badly rusted revolver from beneath a backyard corner fence post. Approximately 35 meters due west of the Blacksmith shop was the remains of a well in the backyard. Coins dating from 1900-1920 were recovered by the well, which no longer exists.

The rusted revolver was eventually donated to the Jefferson Historical Museum by my host and his neighbor. It has not been confirmed if the weapon is still on display or if its make and model have been determined.

Site 3

This site is now a vacant lot on the southeast corner of an intersection in North Jefferson. In the 1950s a very old building with a sign reading "City Laundry" was present on the lot.

Nearby sits an old home that my informant recalled had an old well and cannon at one time behind it. This cannon now sits before the Jefferson Historic Museum. The significance of the home is unknown.

Site 4

This site is located north of the Louisiana and Arkansas Railroad on the north side of the city. We proceeded some 30 meters in an easterly direction down the tracks. There, some 40 meters before the track curves south, is barely visible in the woods from the tracks the remains of a large brick water cistern. The cistern is nearly 2.5 meters in diameter. The front and back walls have collapsed, but part of the arched roof still remains. Traces of a recent campfire were noted at the bottom of the cistern. My host said that as a child it was called the "Hobo Cave", and he suspects that it was built in connection with the railroad itself. His father helped build the railroad trestle over Big Cypress Bayou about 1909.

Site 5

This is another vacant lot where an old building once stood. Numerous old bottles have been recovered from the site; all were labelled "DeWare & Sons Bottling Works". My informant suspects the site is the location of the Bottling Plant that once existed in Jefferson.

Site 6

This is an old historic trash dump in South Jefferson. It is in a wooded area bordered by a Baptist Church on the left side of the road. Traveling into the woods at the end of the street brings one to a ravine that empties into Big Cypress Bayou. The ravine has long been used as a trash dump and was once a source for old bottles by collectors. It is now heavily overgrown and we did not attempt to penetrate the area in the summer heat.

Site 7

This area is in the southernmost part of Jefferson, located within a bend of Big Cypress Bayou. This apparently used to be referred to as "Sand Town". There is a path leading down towards the river, probably for the convenience of local residents who still fish in the area. The site may have been significant during the city's riverboat era, although its use beyond warehousing is unknown.

Site 8

This site is located near sites 6 and 7, generally in the backyard of a nearby house. It is suspected to be the site of a Detention Camp for Union soldiers used during the Civil War, and possibly during the Reconstruction era. There is also supposed to be an unmarked graveyard associated with the Detention Camp.

Evidence of a stockade is suspected by my informant following a conversation with the current property owners, who believe the remains of the stockade are probably near their backyard garden. When disking up the area for the garden, numerous Minnie balls and other Civil War-era artifacts were uncovered. They also contend that an office and barracks area were across the street. If this second-hand report is accurate, it is possible that the location of the stockade and the barracks are reversed as ammunition would not likely be found within a prison stockade.

This site warrants further examination to establish whether it is a Civil War detention camp.

Site 9

This site is located on the east side of Jefferson. A "Scale House" is still standing; that is, a building that has a large drive-thru porch leading to large built-in scales for weighing wagons.

Across the street, and 20-30 meters south, are the remains of a one foot high concrete retaining wall running for about 100 meters by the road. At the southern end of this retaining wall is a large concrete piling. By proceeding on foot due east across a cleared

field, another large concrete piling is seen. These pilings may represent the foundations of a commercial building that once stood facing the street.

Behind the second, or back piling, was the location of a building known as "The Soap Factory". This is simply the name the structure was referred to by local residents, but may have nothing to do with the building's actual use. My host suggests that the building may have been a cotton gin.

Site 10

This is one of two prehistoric sites investigated in Jefferson. There is a very large oak tree adjacent to the remains of a large pine tree stump at the end of the street on the east side of the city. When playing in the area as a child, my informant and his friends recovered a very compact pile of projectile points buried beneath the roots of the pine tree. The current location of these artifacts is unknown.

Site 11

Across the tracks from Site 10 was an open field that was once a playground. At one time, several arrowheads were found on the surface of this field. One memorable day, the remains of a rifle with an octagonal-shaped barrel was recovered. This site has been the scene of industrial construction within the last decade, and likely this prehistoric site no longer exists.

Site 12

Driving northeast out of Jefferson is a stone house on the side of the road. Directly behind this home used to be a trail that led to Big Cypress Bayou. At this point the town's flood levee ends, and here within the bayou are several old pilings. These pilings, my host believes, are associated in some way with the old riverboat trade that served Jefferson. Old maps indicate this area was possibly a landing area with docks and warehouses. Local residents in the 1960s referred to the area as the "Buffalo Hole".

Site 13

In the center of the town's historic district is a large warehouse built during the mid-1800s. Although the structure is once again in use, it was deserted in the early 1960s. My informant and a group of friends discovered a trap door in the floor of the warehouse. Beneath the trap door was a hidden cellar containing an arched entryway into a tunnel. The tunnel itself was caved in, but extended in a line to Big Cypress Bayou. It should be noted

that a creek flows 20 meters beneath the structure, and any tunnel would have to run quite deep to go beneath the creek.

Found in the cellar at the time were small cardboard cylinders containing powder residue believed to be from cartridges. The cardboard cartridges crumbled with very little handling; also found were "Merry Widow" tins.

Site 14

This property forms an obtuse "L" shape that widens before intersecting with Big Cypress Bayou. It is located on the south side of the city.

Halfway towards the bayou is a ravine coming down from higher ground to the north. The higher ground through the woods, about one city block away, was the site of a saloon or a store at the turn of the 20th century. The ravine was used as a trash dump for this saloon, and the current property owner has several bottles that family members recovered from it.

Following the property to the bayou (which we did not do), leads to a trash dumping ground that may have been used by the riverboats. My informant noted that as recently as 10 years ago, rotting barrels containing "marbles" made of real marble could be dug out of the banks. Several of these old stone marbles of various sizes are in the property owner's possession. It is their contention that this area is the widest part of the bayou and, therefore, is the most likely site of the Turn-basin for the riverboats, and not downriver at the current highway bridge crossing as promoted by area tour-guides.

CONCLUSIONS

I suspect that many of these "sites" may now be lost forever. Nevertheless, it would be worthwhile to conduct investigations at the remaining endangered sites before they too become lost. Some, such as those on the bayou banks, are probably not endangered by anything except the actions of the bayou itself. Others, however, may fall to construction over the next few decades.

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The West Island Site (41MX65)

Kevin King and Mike Turner

INTRODUCTION AND SETTING

This paper describes a set of artifacts collected from the West Island site, a poorly-known Titus phase cemetery in Ellison Creek Reservoir. The site is on a small knoll adjacent to a small spring branch that flows into the now-inundated Ellison Creek, a tributary of Big Cypress Creek (Figure 1).



Figure 1. The West Island Site, Morris County, Texas.

The site knoll is now no more than one foot (30 cm) above the normal pool elevation of Ellison Creek Reservoir, and it is usually totally submerged. Up to five feet (1.52 meters) of white sand caps the knoll, and overlies the clay subsoil. Due to continued submergence, the knoll is being eroded by the reservoir, and consequently many stone tools and pieces of lithic debris are present along the water's edge. Dart points and arrowpoints have been found at the site, along with some pottery sherds, but no groundstone implements. Small amounts of charcoal were found around the top of the knoll in pockets of modern mussel shell and gravels, but its association with the site deposits is unknown. No middens are known to be present on the knoll.

The West Island site has been previously dug by private collectors sometime before 1965. Turner (1978:Figure 33) had examined some of the site collections, and reported that ceramic vessels of the types Avery Engraved, Bailey Engraved, Bullard Brushed, Cowhide Stamped, Harleton Appliqued, Hodges Engraved, Karnack Brushed-Incised, Maydelle Incised, Ripley Engraved, Simms Engraved, Taylor Engraved, and Wilder Engraved were present in an unknown number of burials. These types of decorated ceramics are characteristic of the Titus phase, which dates from about 1400 to the 1600s (Thurmond 1990; Perttula 1992).

SITE INVESTIGATIONS

Our investigations of the West Island site were conducted between February and September 1986. Upon initial inspection of the site, two large circular depressions were noted on the knoll. Troweling through the backdirt in the depressions established that not only were the depressions actually potholes previously dug in aboriginal graves at the site, but that artifacts missed in the potholing were encountered below the backdirt in both depressions. Four days were spent excavating the remnants of the burials-- here labelled burial #1 and #2.

Grave Locations and Descriptions

Burial #1 was found at the southeast end of the knoll. After several pottery sherds (mainly body sherds) were found in the backdirt, a 3 x 3 foot (0.92 x 0.92 meters) unit was laid out over the hole. Troweling the unit produced four ceramic vessels (vessels #1-4) side-by-side at what was the west end of the burial at 50 cm below the surface. No other artifacts were found in the unit, and no human remains were preserved in the burial fill. Excavation of Burial #1 was very difficult because of the constant flow of water into the excavation unit.

Burial #2, located along the northeast shore, was identified by troweling in a large circular depression visible at the water's edge. Excavation of another 3 x 3 foot unit (0.92 x 0.92 meters) at this depression also encountered four ceramic vessels (#5-8). These were 29 cm below the bottom of the pothole, about 55 cm below the ground surface. All four ceramic vessels were found clustered together at the west end of the burial. A small Gary dart point was recovered from inside vessel #7. Again, no human remains were found preserved with Burial #2.

Because of previous potholing, the graves were not complete. They did appear to be those of single individuals, based on the number of artifacts retrieved from them and their burial position. They were oriented east-west, the body probably supine with the head to

the east (Turner 1978:105). The east-west placement of the burials at West Island is a common and general characteristic of Titus phase cemeteries in Northeast Texas.

THE ARTIFACTS

This section describes the artifacts found with Burials #1 and #2 at the site, along with a small sample of material collected from the surface of the site by the authors. Artifacts of pottery, stone, and bone were recovered from West Island during the investigations discussed above.

Pottery

Eight pottery vessels were recovered from the site, vessels #1-4 from Burial #1, and vessels #5-8 from Burial #2. Each of the vessels is described below, with the exception of vessel #4, as this vessel was stolen before it could be thoroughly studied.

Vessel #1, Untyped Cooking Jar

Decoration: Brushed rim and plain body

Height: 27 cm

Rim Diameter: 25 cm

Base Diameter: 7 cm

Temper: Grog

Vessel #2, Ripley Engraved Carinated Bowl

Decoration: Scroll and circle motif (Turner 1978:28)

Height: 14 cm

Rim Diameter: 28 cm

Base Diameter: 8 cm

Temper: Shell

Vessel #3, Harleton Applique Jar

Decoration: Rim is quadrilaterally lobed with three fillets centered under each other while the upper body has appliqued chevrons with horizontal applique fillets (Suhm et al. 1954: Plate D-28)

Height: 19 cm

Rim Diameter: 16 cm

Base Diameter: 7 cm

Temper: Grog



Figure 2. Selected vessels from the West Island Site. Top row, vessels #1 and #3; Middle row, vessel #2; Bottom row, vessels #7 and #8.

Vessel #4, Avery Engraved, red-slipped

Height: N/A

Rim Diameter: 18 cm

Base Diameter: 7 cm

Temper: N/A

Comments: Further information not available because the vessel was stolen

Vessel #5, Ripley Engraved Carinated Bowl

Decoration: Interlocking scroll rim motif (Turner 1978:28)

Height: 12 cm

Rim Diameter: 24 cm

Base Diameter: 7 cm

Temper: Grog and Shell

Vessel #6, Ripley Engraved Carinated Bowl

Decoration: Interlocking scroll rim motif (Turner 1978:28)

Height: 11 cm

Rim Diameter: 27 cm

Base Diameter: N/D

Temper: Grog

Comment: This vessel rested on the clay at the base of the grave. It was broken in several pieces that could not be conjoined; rim and base diameters could not be accurately measured. A red hematite pigment was applied to the engraved design.

Vessel #7, Ripley Engraved Carinated Bowl

Decoration: Diamond pendant rim motif (Turner 1978:28)

Height: 7 cm

Rim Diameter: 15 cm

Base Diameter: 6 cm

Temper: Bone and Shell

Comments: This vessel was found broken, and it is about 75 percent complete. The vessel is black in color, due to its being fired in a reducing atmosphere. A small Gary point was found inside the vessel.

Vessel #8, Ripley Engraved Carinated Bowl

Decoration: Scroll and circle rim motif (Turner 1978:28)

Height: 7 cm

Rim Diameter: 19 cm

Base Diameter: 6 cm

Temper: Grit

Comments: A white pigment, probably kaolin, was applied to the engraved design. The use of a white pigment is not common on Ripley Engraved bowls with scroll and circle rim motifs.

One hundred fifty-seven sherds were collected from the site surface. Approximately 70 percent of the sherds were plain, with 49 rim and decorated pieces. Examples of decorative elements identified on the sherds include brushed, engraved, incised, pinched, punctated, appliqued, and red-slipped examples from Titus phase ceramic types (Figure 3); a number of the sherds were well-polished. Grog, grit, shell, and bone aplastics were used for tempers, similar to the whole vessels from burials #1 and #2.



Figure 3. Rim and Decorated Sherds.

Lithics

The lithic assemblage from the site consists of several hundred pieces of lithic debitage, four bifacial tools, 19 dart points, and six arrowpoints (Figure 4). The predominant lithic raw material is a locally-derived quartzite, along with petrified wood, and cherts. Novaculite from Red River gravels (Banks 1990) is also present at the site.



Figure 4. Selected Projectile Points from the West Island Site.

The diagnostic dart points include: 16 Gary, one Ellis, one Kent, and one Yarbrough. Among the arrowpoints were three untyped fragments, a Friley, an Alba, and a Scallorn type. The frequency of Gary points in the projectile point assemblage suggests that a Late Archaic component is also present at the West Island site. Except for the one Gary point from burial #2, all the diagnostic lithic tools were recovered from the site surface.

Bone Artifacts

A bone awl possibly made from a deer radius was found on top of a backdirt pile. It was poorly preserved, with most of the outside layer of bone badly eroded. The piece was 11.5 cm in length, with a basal width of 2.5 cm.

A poorly preserved charred or blackened deer mandible, with teeth intact, was also found at the site. This mandible was found in Burial #1 nestled between vessels #3 and #4.

CONCLUDING STATEMENTS

Our major objective in preparing this report was to provide information on the Titus phase burials at the West Island site. Our 1986 investigations confirmed that a severely disturbed Late Caddoan period cemetery was present at the site, as remnants of two burials with diagnostic Titus phase ceramics (Suhm et al. 1954; Turner 1978) were identified there. No midden deposits were detected at the site, and the number of individual burials that were once present there is unknown.

The artifacts found in the burials, particularly the ceramic vessels, are typical of the Titus phase. They included eight complete or fragmentary bowls and utility jars of the types Ripley Engraved, Harleton Applique, and Avery Engraved. The Ripley Engraved carinated bowls were the best represented in the small vessel sample. The red-slipped Avery Engraved bowl is considered an item of trade ware from the Texarkana or McCurtain phases on the Red River (Thurmond 1990). A scatter of Late Archaic projectile points and lithic debris also suggests that the site was utilized at other times than during the Titus phase, but the limited amount of such material is indicative only of an intermittent occupation.

ACKNOWLEDGMENTS

We would like to thank Ben Hay for his help, Bo Nelson for encouraging us to put our notes on paper, and we owe a special thanks to Dr. Timothy Perttula, who virtually took a combined set of jumbled notes and turned it into a readable report.

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The Carlisle Site (41WD46), a Middle Caddoan Occupation on the Sabine River, Wood County, Texas

Timothy K. Perttula
Bob D. Skiles
and
Bonnie C. Yates

INTRODUCTION AND SETTING

The Carlisle site (41WD46) is located on the Sabine River near its confluence with Lake Fork Creek in the Upper Sabine River Basin. As defined by Perttula et al. (1986), the Upper Sabine River Basin includes the area from the headwaters of the Sabine River to the mouths of Cherokee Bayou and Hatley Creek at the western edge of the Sabine Uplift (Bureau of Economic Geology 1965). Lake Fork Creek is one of several large south-southeastward flowing streams within the Upper Sabine River Basin. The town of Mineola is approximately 13 kilometers (km) west of the Carlisle site.

The site is situated at the tip of an upland projection overlooking the Sabine River floodplain, but extends into the floodplain to within ca. 30 meters of the river bank (Figure 1). The Lake Fork Creek channel is approximately one km east of the site.

While the site was an improved pasture for many years prior to 1975 and to the present, it had been previously cultivated. In fact, this cultivation may have contributed to its initial identification in the early 1930s (see below), as well as its subsequent partial burial. The upland sandy soils derive from the Queen City Formation, and these are highly susceptible to erosion and colluvial downwasting. Colluvial deposition seems to have been a prominent factor in the burial of cultural materials along valley margins and lower footslopes elsewhere in the Upper Sabine Basin (Perttula et al. 1986), and the site's topographic position suggests that both alluvial and colluvial deposition is responsible for the burial of the floodplain cultural deposits at the Carlisle site.

HISTORY OF INVESTIGATIONS

The Carlisle site was initially recorded in 1930 by A.T. Jackson as a "dense midden deposit; many mussel shells" on the Harry Meredith farm (Wilson and Jackson 1930). When the site was re-recorded in 1975, the midden deposits were not visible on the surface and were exposed only in coring activities near the bank of the Sabine River. The midden deposits (here labelled Area B) were covered with ca. 20 cm of sterile overburden (Skiles et al. 1980). A second area of concentrated cultural deposits was identified on the adjacent upland projection elevated about five m above the Sabine River floodplain (Area A).

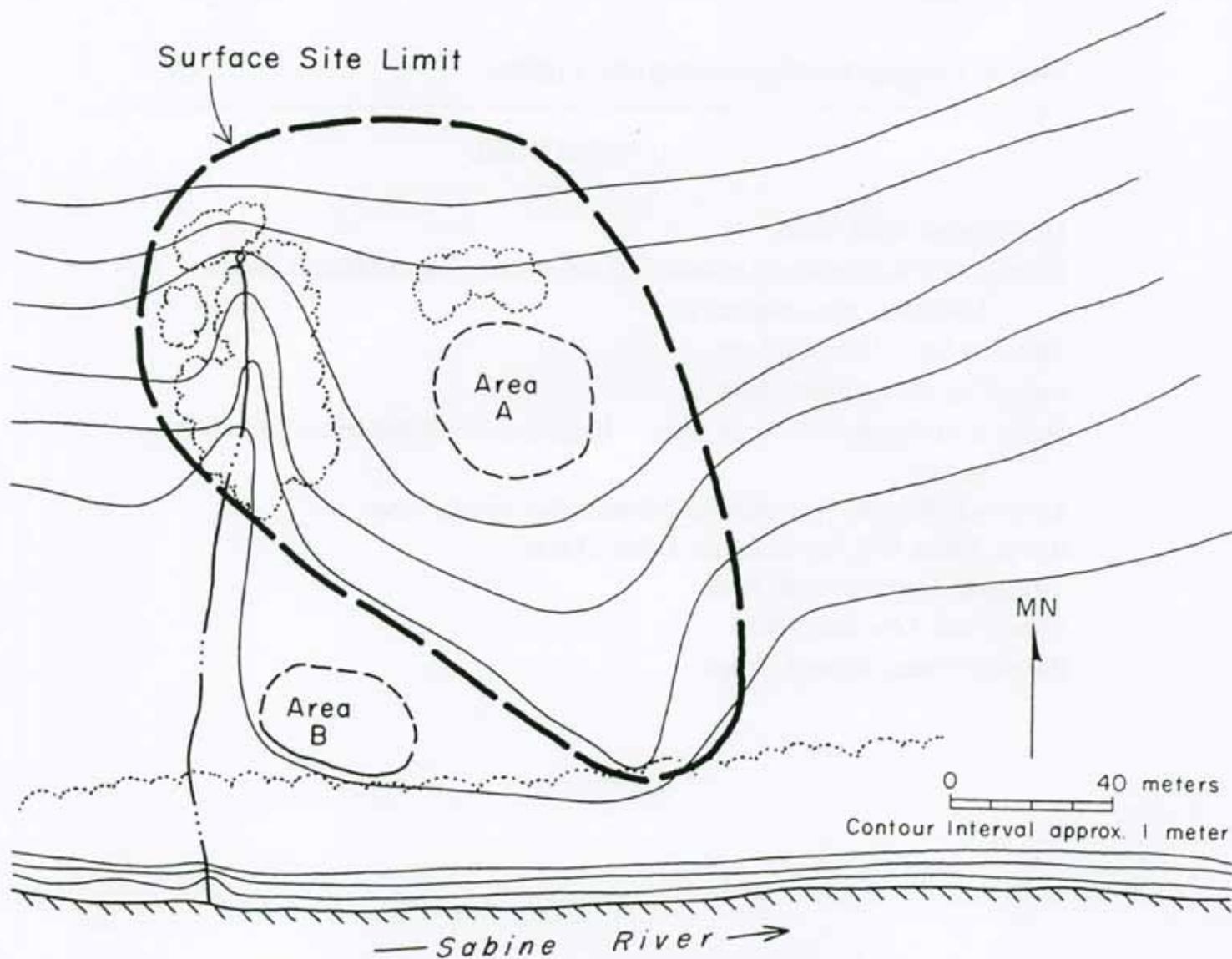


Figure 1. General Map of the Carlisle Site.

Test excavations were carried out in both areas of the site in 1975 by Skiles. In Area A Skiles excavated six 1x1 m test units to sample the deposits on the upland landform, and two 50x50 cm shovel tests were also excavated there in 1975 and 1986 (Figure 2). Although no obvious features or concentrations of cultural materials were encountered in the Area A excavations, most of the materials recovered (such as pieces of daub, a mud-dauber nest, and several large sherds from refired brushed and incised vessels) suggest that a Caddoan structure stood upon the crest of the upland projection.

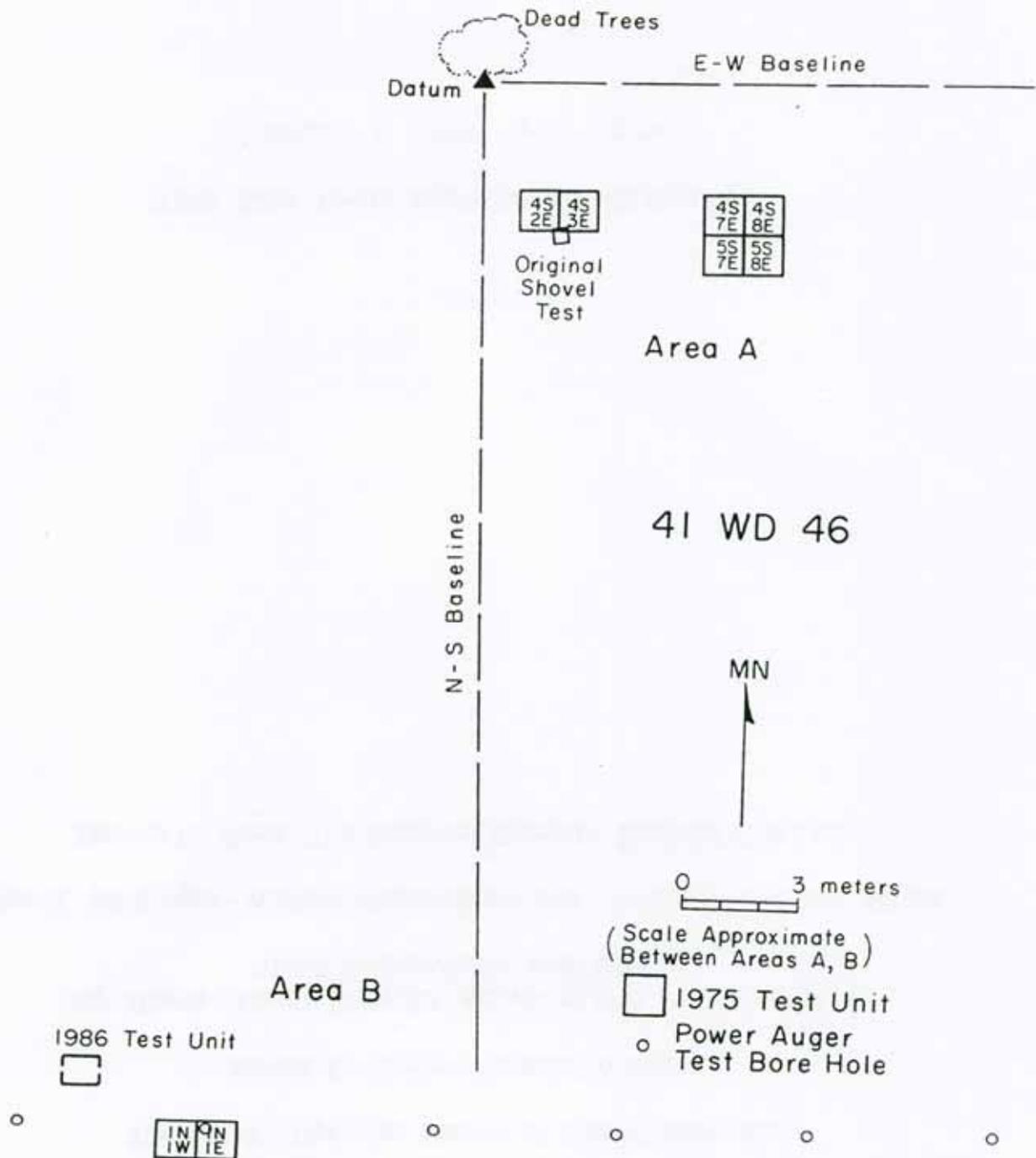


Figure 2. Plan of Site Excavations.

In 1975 a series of power auger holes excavated in Area B located a buried midden deposit at the site. Skiles excavated a 1x2 m unit in the midden in 1975 (see Figure 2), but because of the density of burned and unburned shell, the units were terminated prior to reaching sterile subsoil. Several thousand mussel shells were recovered in the midden, but

were never properly studied as they were lost after being sent to Southern Methodist University for study.

More recently, the Carlisle site was revisited in January and March of 1986 as part of the archaeological reconnaissance of the proposed Waters Bluff Reservoir (Pertulla 1986). As planned, this reservoir would cover a large area of the Sabine River floodplain in Wood and Smith counties, Texas, and at maximum floodpool levels (303 feet msl) would inundate the Carlisle site floodplain midden deposits.

Shovel testing in 1986 suggested that the midden may have been buried by as much as 50 cm of sand. The completion of an additional 1x1 m unit in March 1986 uncovered midden debris between ca. 20-25 to 55 cm below surface (Figure 3). Striae of pale brown sand within the midden indicates that alluvial and/or colluvial deposition occurred during the formation of the Caddoan floodplain midden deposits. The vast majority of the Area B cultural materials were recovered in the plow zone and the buried midden. An occupational surface was recognized between ca. 25-35 cm (labelled Feature 1) in the midden. It was defined by a concentration of large ceramic sherds, many complete mussel shell valves, and turtle shell fragments all lying on a common horizontal plane. Charcoal from Feature 1 was dated to 540 +/- 60 years B.P. (Beta-17494). Feature 1 in the 1986 investigations may be part of the larger shell concentration encountered in the 1975 work by Skiles, which is suspected to have been deposited in a large pit.

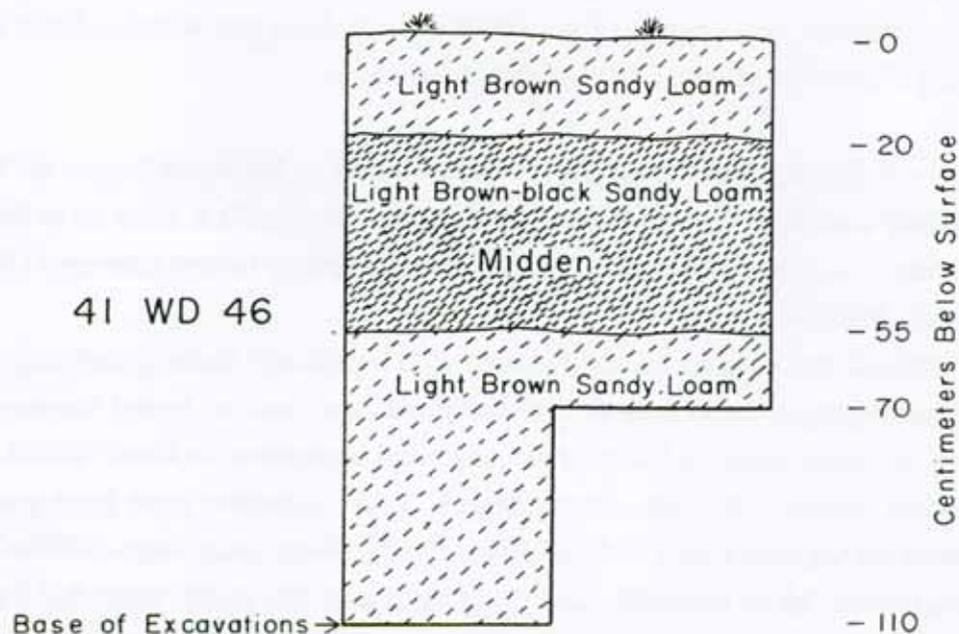


Figure 3. Area B Midden Profile.

Mussel shells are a consistent component in Caddoan middens in the Upper Sabine River Basin that predate ca. A.D. 1400, with substantial quantities being recovered from excavations at sites such as Taddlock (41WD482), Son Gibson (41WD1), and 41WD36, all dating to the Early Caddoan period. Nevertheless, the absolute quantity and context of the mussel shell at Carlisle (i.e., a 30 cm thick, homogeneous lens) is very different from other Upper Sabine River basin middens.

ARTIFACT ASSEMBLAGES

A wide variety of artifacts was found at the Carlisle site in the 1975 and 1986 investigations (Table 1). Plain and decorated ceramic sherds and lithic debitage were the most common types of artifacts present at the site, followed by unifacial lithic tools, bifaces and biface fragments, and dart projectile points. Most of the materials were collected from the Area A knoll and the general surface, particularly the lithic tools and debris, while ceramic sherds and daub comprised 85 percent of the artifacts from the Area B midden (see Table 1).

Table 1. Artifact Assemblages

Artifact Classes	Area A	General Surface	Area B	Total
Ceramics	119	168	329	616
Daub		3	7	10
Burned Clay	1			1
Cores	8	11	3	22
Thin Bifaces	1	16		17
Thick Bifaces	5	17		22
Biface Fragments	7	12	1	20
Dart Points	10	25		35
Arrow Points	4	10	1	15
Perforator		1		1
Piece esquille		1		1
Unifacial Tools	28	37		65
Debitage	324	319	38	681
Fire-cracked rock	2		16	18
SUMMARY	509	620	395	1524

Lithics

Including fire-cracked rock, 838 lithic artifacts were recovered from surface collections and limited excavations in Area A of the Carlisle site. While most of the lithic artifacts are from the surface collections (see Table 1), lithic densities from subsurface contexts are about 70 artifacts per cubic meter.

Dart points, bifaces and biface fragments, and a variety of unifacial tools (three scrapers, two alternately retouched pieces, and 65 unilaterally worn flakes) are well represented in the Area A artifact assemblage. In general, the high frequency of bifaces and biface fragments, as well as cores, and the common discarding of broken dart projectile points, indicates that the manufacture and refurbishing of bifacial tools was a common activity at the site.

The types of dart projectile points found at Carlisle (Table 2) suggest considerable use of the site during Archaic and Early Ceramic periods (Figure 4 and 5). Corner-notched, parallel-stemmed, and contracting-stem arrowpoints represent the use of the bow and arrow by the Caddoan occupants of the Carlisle site.

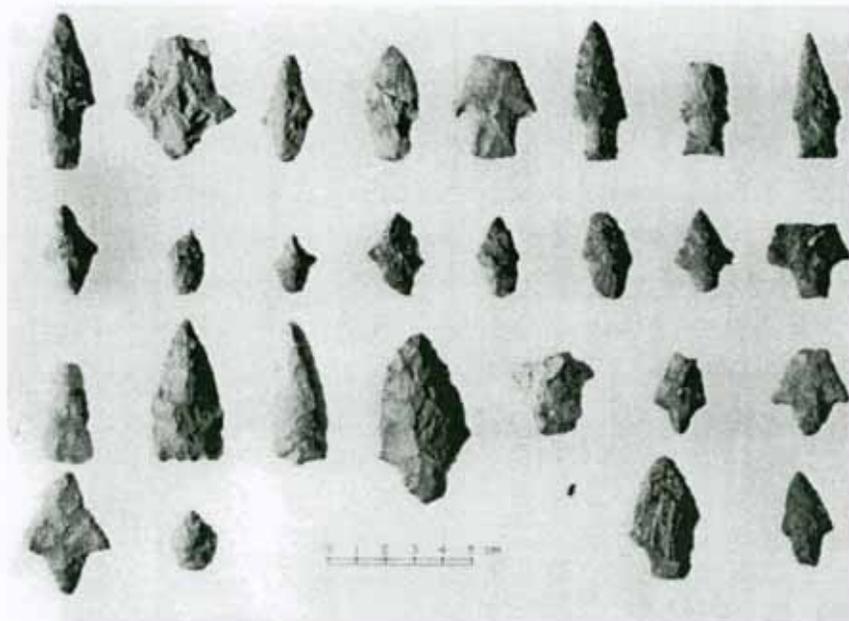


Figure 4. Dart Points from the General Surface: (top row, l-r) Gary, Bulverde, and Yarbrough types, (second row, l-r) Gary types, (third row, l-r) Unidentified and Gary types, (bottom row, l-r) Gary and Kent types.

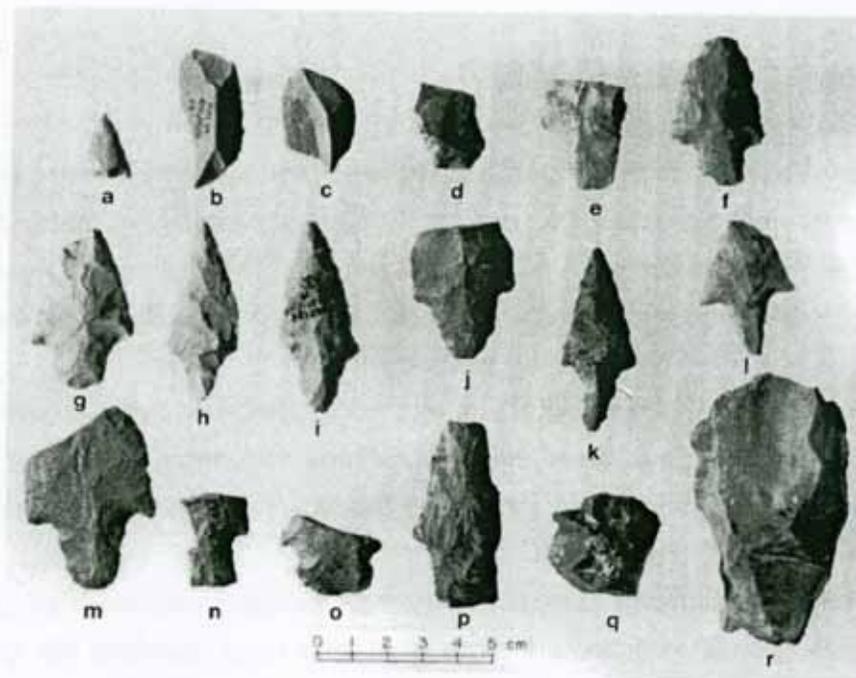


Figure 5. Lithic Tools, Area A.

Table 2. Dart Points.

Types/varieties	General Surface	Area A
Bulverde	1	
Wells		1
Kent	2	
Yarbrough	3	1
Gary, <i>var. Camden</i>	12	2
<i>var. LeFlore</i>	4	
Unidentified	8	1

Cutting, scraping, woodworking, and other such activities on bone and wood were also important tasks conducted at the site as based on the flake tools (see Figure 5b-d, q). A single lithic tool used for perforating leather, wood, or bone was found on the site's

surface (see Table 1); these types of perforators are common on Caddoan sites in the Upper Sabine River basin (Bruseh and Perttula 1981).

Most of the flake tools (about 65 percent) were on pieces of chert collected from local Sabine River gravels. Another 27 percent of these tools were on quartzite, and the remainder were on petrified or fossil wood; both these materials were also available in local gravels (Perttula 1984). The analysis of the types of flakes selected for tool use indicates that flakes with a point of applied force (i.e., complete or broken flakes) were preferred, along with flake fragments (flakes with a discernable ventral surface but lacking the point of applied force [Sullivan and Rozen 1985:759]). The debris flake type--that is, flakes lacking a striking platform, a bulb of percussion, and with margins that are not intact--comprises less than 10 percent of the unifacial/utilized pieces.

Broken flakes and flake fragments dominate the unused flakes in the Area A assemblage (Table 3). Debris is also common from this part of the site, and complete flakes account for only 15.7 percent of the Area A flakes. The high proportions of broken flakes, flake fragments, and debris, along with the low number of cores, suggest that tool manufacturing activities were important compared to core reduction. The frequency of broken bifaces also hints at the frequency of manufacturing failures.

Unlike the flake tools, where chert was the preferred material, the unused flakes are primarily of coarse and fine-grained quartzites. These quartzites comprise between 63-73 percent of each of the four flake types in the debitage sample from Area A, which indicates their reduction during all phases of tool manufacture (Table 4).

Table 3. Percentages of Flake Types.

Flake Types	Area A/General Surface	Area B
Complete	15.7	21.1
Broken	30.1	7.9
Fragment	31.3	36.8
Debris	22.8	34.2
TOTALS	643	38

There was a clear selectivity by the Carlisle site inhabitants for chert in tool use. Chert raw materials were about three times as likely to be selected for tools than the other raw materials in the lithic assemblage.

Table 4. Percentage of Flake Raw Materials.

Raw Materials	Area A/General Surface	Area B
Chert	23.1	21.1
Coarse-grained Quartzite	37.8	44.7
Fine-grained Quartzite	26.6	21.1
Petrified of Fossil Wood	8.4	2.6
Ferruginous Sandstone	4.2	10.5
TOTALS	643	38

Two small unprovenienced pieces of fire-cracked ferruginous sandstone were found in one of the 1975 test pits at Carlisle. Ferruginous sandstone is available locally in bedrock outcrops of the Queen City Formation.

Few lithics were recovered from the buried Caddoan midden in Area B except for fire-cracked rock, a small assortment of cores, a biface fragment, and 38 pieces of lithic debitage. One fine-grained quartzite Scallorn arrowpoint was found at 80-90 cm below surface, about 30 cm below the buried midden (see Table 1).

The Area B cores include core fragments of chalcedony, petrified wood, and a fine-grained quartzite. The debitage was dispersed through a meter of alluvial sediments, with about 65 percent of it deriving from the buried midden deposits. The types of flakes present are again suggestive of tool manufacturing byproducts in that fragments and debris account for 71 percent of the Area B flakes (see Table 3). The use of raw materials for tool manufacture is similar between Areas A and B at Carlisle, with quartzites comprising 65.8 percent of the debitage in Area B (see Table 4). The petrified wood biface fragment was found between 40-50 cm.

Sixteen pieces of ferruginous sandstone fire-cracked rock were found in Area B. The small pieces were all recovered in association with the buried midden, being most common 20-40 cm below surface.

Ceramics

A total of 119 sherds were recovered from the test excavations at Area A, along with another 168 sherds from the surface of the upland knoll. About five percent of these ceramics were tempered with bone, with the remainder being grog-tempered. Of the 83 decorated sherds, 51 percent have brushed bodies, 19 percent are incised, 14 percent are punctated, 7 percent are engraved, 4 percent are neck-banded, 2 percent have applied designs, and one decorated sherd has both incised and punctated designs. In the main, the brushed sherds derive from the body of everted rim jars with parallel or cross-hatched incised lines, but a brushed carinated bowl is also present (Table 5); this particular vessel has been refired. One characteristic decorative motif for the large jars at Carlisle include cross-hatched incised rims with a horizontal row of punctations on a clay-applied fillet at the body/rim juncture, and then vertical brushing on the body (see Figure 14).

Table 5. Ceramic Decorative Elements.

Decoration	Element	Surface	A	B	Vessel/Rim Forms
Red-slipped	Plain			5	Carinated bowl
	Noded			7	Bottle
Neck-banded	Regular crimped		2	2	Jar/Standing rim
	Smoothed coil	1			
Appliqued	Linear with brushing/incision	1			
	Curvilinear	1		1	
	Curvilinear with brushing			1	
	Linear with punctation			1	
Engraved	Diagonal and/or triangles	2	1	1	Standing rim
	Cross-hatched			3	Bowl/Standing to flaring
	Zoned Diagonal			5	Carinated bowl/ Standing-inverted
	Ladders	1	1	1	
	Broad-line			1	Carinated bowl/ Standing rim
	Curvilinear A Curvilinear B Below rim only		1	1 1 1	Carinated bowl Shallow bowl

Table 5. cont.

Incised	Parallel Diagonal	2	2	3	Jar/Everted rim
	Opposed Diagonal	2		5	Standing rim
	Cross-hatched	5	4	8	Jar/Standing rim
Incised-Punctated	Diagonal/Panel			1	Standing rim
	Parallel/Panel			1	Standing rim
	Cross-hatched with punctation panel			2	Jar
	Narrow Incised/ small punctates			2	
	Broad Incised/ large punctates	1		1	
Incised-Punctated-Brushed	Parallel/Cross-hatched with punctation panel			2	Jar/Everted rim
	Broad Incised/ large punctates/ random brushing			1	
Punctated	Slash			2	
	Vertical with panel			2	
	Punctation panel	1			Jar/Everted rim
	Opposed	1		1	
	Small, 4-5 rows	1		6	Standing rim
	Large, random	2	1	3	
	Broad, 1 row	1		1	
	Small, random	3	1	2	
	Horizontal rows		1		Bottle
Brushed	Vertical	12	10	47	Jar/Everted rim
	Sweeping*	12	6	18	
	Random	2	2	3	
	Curvilinear, horizontal			1	Carinated bowl
		N= 51	32	143	

* Bone-tempered

Initially, we were inclined to associate the brushed sherds and brushed-incised jars with a limited Late Caddoan use of the site (Pertulla 1986a). It has usually been assumed that brushing is a Late Caddoan vessel surface treatment in Northeast Texas, and the vertical association between the brushed sherds and the rest of the ceramics was poorly known from the 1975 work. The recovery in 1986 in Area B of Maxey Noded Redware bottle sherds found in association on the same occupational surface as a large rim section of an incised-brushed jar with the punctated fillet makes it evident that the brushed ceramics at Carlisle are not from a separate, Late Caddoan, component.

The neck-banded sherds from Area A are from one or two possible LaRue Neck-banded vessels; the regularly crimped neck-banded coils have been partially smoothed but are still visible (Figure 6a-d). The applied sherds have linear and curvilinear designs, and in one case the applique ridge separates fine incised lines and parallel brushed elements on a jar form (see Figure 6e, g). The decorative treatment resembles that seen on Pease Brushed-Incised jars. The engraved sherds from Area A include a pendant triangle motif on a possible Ripley Engraved bowl, as well as curvilinear and "ladder" motifs from sherds in Unit 4S 2E. The engraved sherds are from straight rim bowls and carinated bowls (Figure 7).

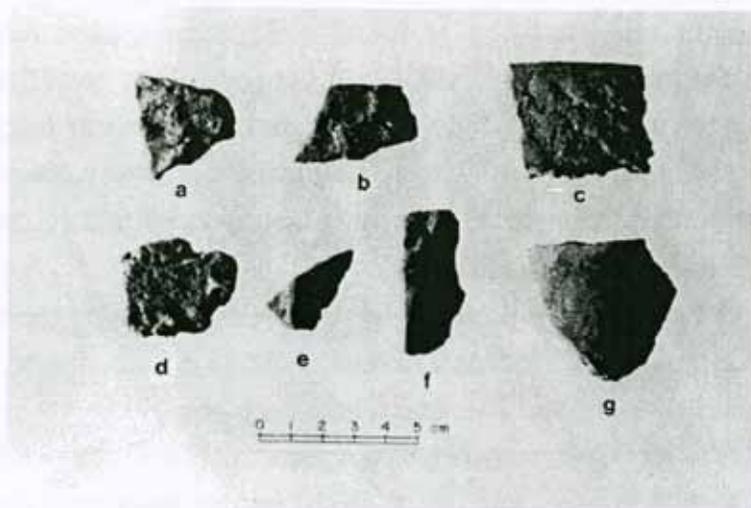


Figure 6. Neck-banded and applied sherds.

Incised sherds are relatively common in the Area A ceramic assemblage (see Table 5). Both cross-hatched and diagonal incised decorative elements are represented, with cross-hatched sherds accounting for 60 percent of the incised pieces (Figure 8). In general, the incised vessels are large jars with both standing and everted rims.

Unlike in Area B, incised-punctated or incised-punctated-brushed sherds are very rare in Area A at the Carlisle site. The single incised-punctated sherd from Area A has broad incised lines with large fingernail or tooled punctations.

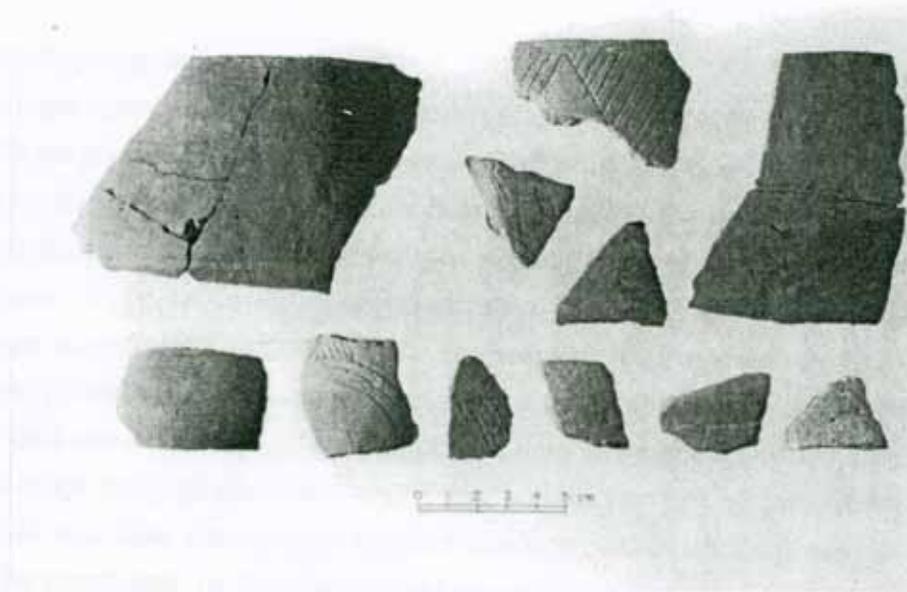


Figure 7. Engraved Sherds.

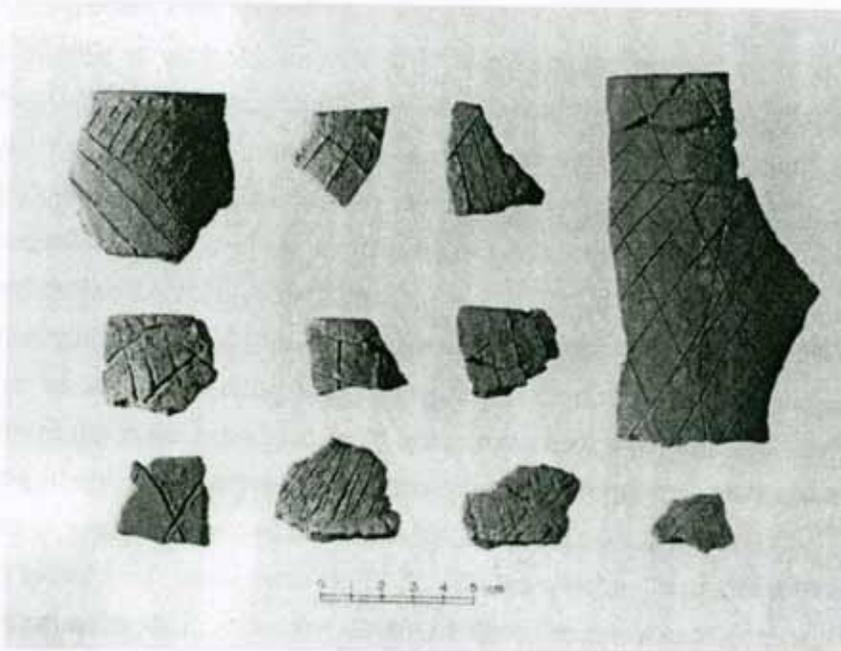


Figure 8. Incised rim and body sherds.

A variety of punctated sherds are seen in the Area A collection (see Table 5). Most occur in random orientation on the body and/or rim of standing and everted rim jars, with small, large, and broad sizes in the tool or finger punctations themselves (Figure 9). One sherd represents the punctated fillet panel at the base of the rim of large incised-brushed jars; this type of vessel decoration is apparently much more common in Area B (see Table 5). Rows of rim punctations are present on only three sherds from Area A, one from a standing rim jar and another from a bottle.

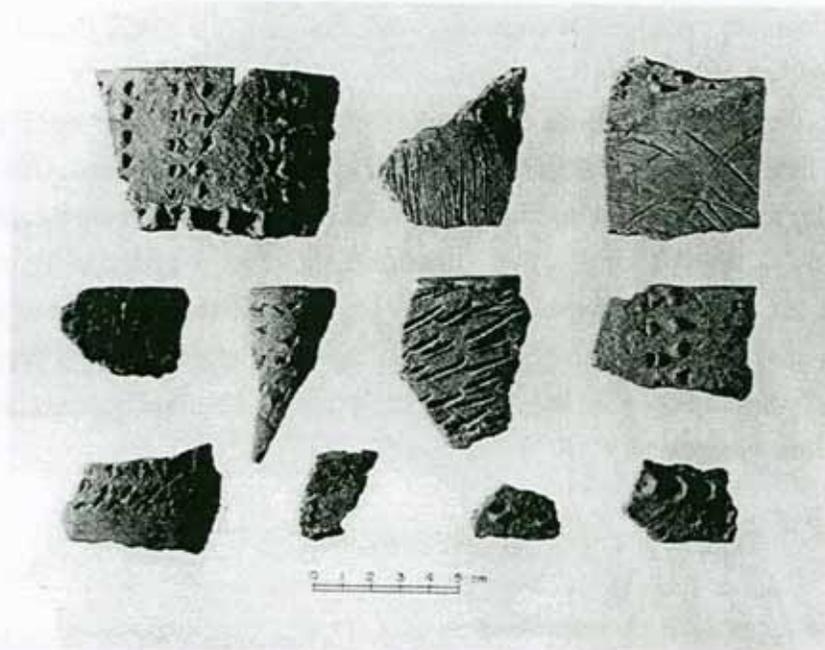


Figure 9. Punctated sherds.

Brushed sherds are well-represented in surface and excavated contexts at Area A. Generally, the brushed sherds represent the bodies of everted rim jars with incised and/or punctated rims (Figure 10). Over thirty sherds of a large cross-hatched incised/brushed jar were recovered from Unit 4S 7E. The vessel body brushing was commonly applied vertically with swaths of grasses before the vessel was fired, but sweeping, curvilinear brush marks account for about 40 percent of the brushed sherds (Figure 11). In a few instances, the brushing was rather randomly placed on the vessel body, and then partially obliterated through vessel finishing and/or use.

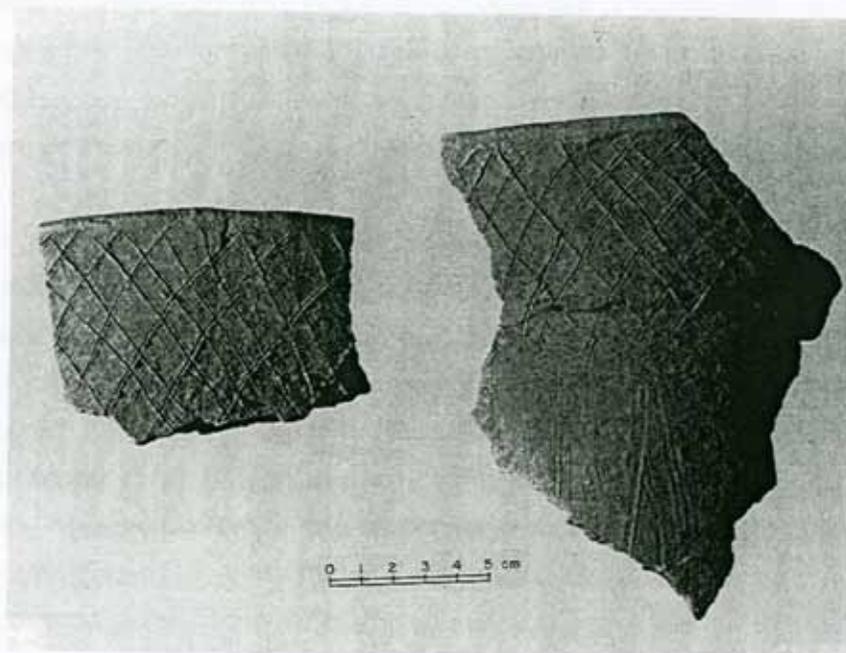


Figure 10. Large incised-brushed jar from Area A.

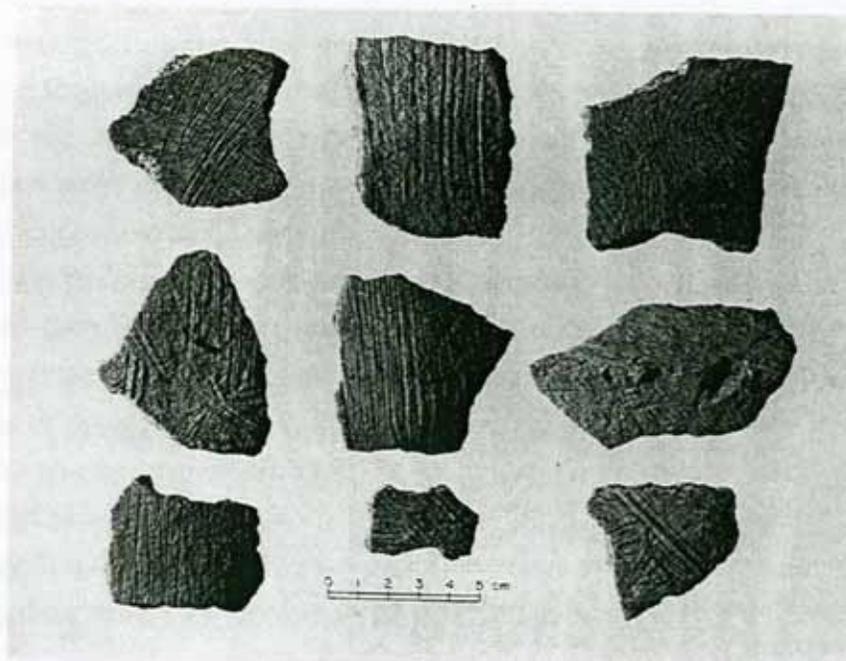


Figure 11. Brushed Sherds.

The large incised-brushed jars frequently have smudging areas and patches of carbonized organic residue from their apparent use as cooking jars (e.g., Skibo 1992). Analyses of these residues are planned to identify what foodstuffs may have been cooked in these vessels, and thus gain information on vessel contents and possible uses (e.g., Heron and Evershed 1993).

Among the plain rims, standing and rolled rims were the two most common forms (Table 6). These derive from deep bowls and jars, and bowls or carinated bowls, respectively (Figure 12). Other plain rims have lip notching, small nodes, or are interior thickened. The latter type of rim form occurs on certain bowls and carinated bowls.

Table 6. Plain rims.

Rim Type	Surface	Area A	Area B	Vessel Form
Standing-direct	6	2	4	Deep bowls and jars
Lip Notched	1		1	
Rim Node		1		
Scalloped			1	
Interior Thickened		1		Bowls and carinated bowls
Rolled	3	2	2	Bowls and carinated bowls
N=	10	6	8	

Characteristics of the Carlisle site, Area B ceramic assemblage include: (1) the motif of cross-hatched engraved triangles pendant from the rim, (2) horizontal engraving, (3) scalloped and interior thickened rims, (4) plain and Sanders Plain carinated bowls and Maxey Noded Redware bottles, and (5) a high frequency of diagonal and cross-hatched incised and incised-punctated vessels. Brushed sherds account for about 48 percent of the decorated sherds.

Plain and noded red-slipped sherds account for about eight percent of the Area B decorated sherds. The plain red-slipped sherds are from carinated Sanders Plain bowls.

The red-slip was derived from pulverized hematite materials added to a clay wash, then applied to the vessel surface prior to firing. Petrographic and thin-section analyses indicate that these vessels were smoothed and burnished prior to the application of the slip, then burnished and polished after firing (Ferring and Perttula 1987).

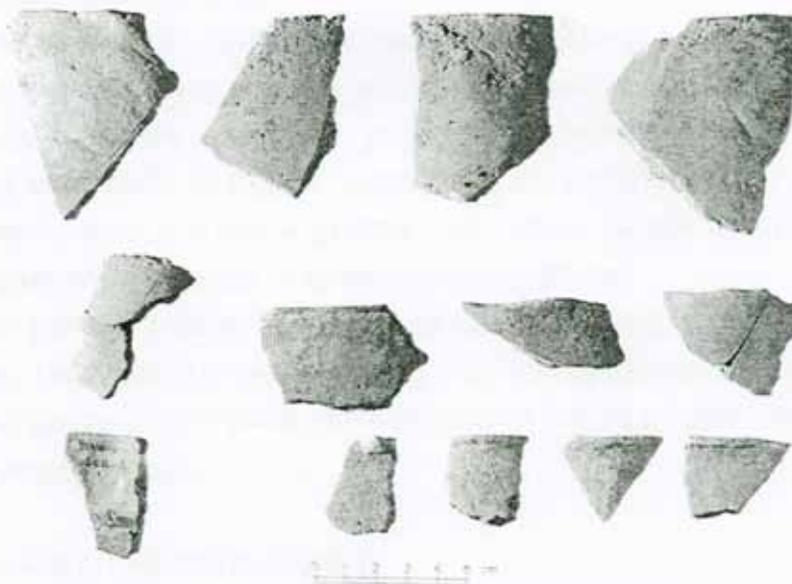


Figure 12. Plain Rims.

The red-slipped noded sherds are from two separate Maxey Noded Redware bottles. These are grog-tempered, squat, long-necked bottles decorated with parallel lines of applique nodes and a red slip added to the exterior vessel surface. The nodes are placed below the neck of the bottle and run vertically from there to just above the base in two to four sets of parallel lines. Another variety of Maxey Noded Redware has sets of fingernail punctates below the bottle neck to replace the nodes (Krieger 1946).

Maxey Noded Redware is an uncommon, but distinctive, Middle Caddoan ceramic type estimated to have been manufactured between about A.D. 1200-1400 (Thurmond 1985:189). At the Sanders site (41LR2), Maxey Noded Redware accounted for only about eight percent of the vessels (Krieger 1946:Table 5). The type appears to have been made by Caddoan peoples living in the area from the Upper Sabine River basin to the Middle Red River.

Neck-banded and applied sherds from Area B account for 3.5 percent of the decorated sherds (see Table 5). The neck-banded sherds are from jars with standing rims. The neck-banding is characterized by regularly crimped, but unsmoothed, coils that overlap to create a shingle-like effect (see Figure 6a-d). In the Upper Sabine River basin neck-banded sherds resembling those from Carlisle have been noted at several sites in Lake Fork Reservoir (Bruseth and Perttula 1981:Table 5-3, 5-8) and the Fred Yarbrough site in Van Zandt County (Johnson 1962:206).

Linear and curvilinear applied ridges occur on a few Area B sherds. The applique is typically added to vessel exteriors to divide parallel brushing on vessel bodies.

An interesting assortment of engraved bowl and carinated bowl sherds were recovered from Area B at the Carlisle site (see Table 5 and Figure 7). Decorative elements #9 and #10 are from Sanders Engraved bowls; one of the cross-hatched engraved rims has lip notching. Curvilinear and ladder engraved motifs are harder to characterize typologically, but similar decorative elements are seen on pottery from undated Caddoan sites in the Upper Sabine and Upper Neches river basins.

Decorative element #11 is the most common engraved design in Area B. Represented by five sherds from one carinated bowl, the design consists of fine, zoned diagonal, engraved lines on the rim (Figure 13). Small excised triangles are nested in the angles of the diagonal engraved lines, and the broad lip has diagonal notched lines on it.



Figure 13. Engraved Vessel, Decorative element #11.

Both diagonal and cross-hatched incised sherds from straight and everted rim jars are represented in the Area B ceramic assemblage (see Figure 9). These are probably from Canton Incised and/or Maydelle Incised types.

The majority of the incised-punctated and incised-punctated with vertical brushed sherds, as well as a few of the punctated sherds (decorative element #28), are from the most diagnostic Carlisle ceramics: the large jars with cross-hatched or parallel-opposed incised lines on the rim, a punctated applique fillet at the rim/body juncture, and a vertical brushed body (Figure 14). Other incised-punctated sherds consist of incised zones at the rim filled with either large or small circular punctations. These sherds are from standing rim jars.

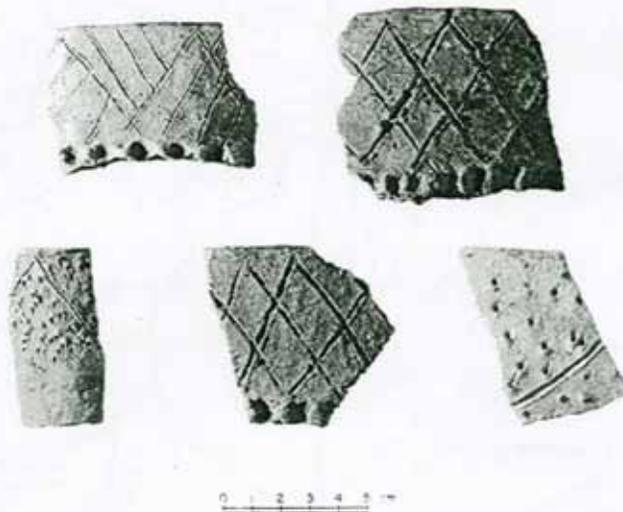


Figure 14. Incised-punctated sherds with appliqued panels.

In addition to the punctated panels on the aforementioned jars (see Table 5), other types of punctated sherds from Area B include a diagonal fingernail-slashed variety from a simple bowl, four to five horizontal rows of small punctations, and random punctations of various sizes (see Figure 9). The horizontal and random punctations are the two most frequent punctate elements.

About 68 percent of the brushed sherds have vertical brushing marks on the bodies of everted rim jars (see Figure 11) decorated with broad-line incisions and punctations. Sweeping, curvilinear brushing is present on another 26 percent of the brushed sherds, and all these are from a distinctive vessel heavily tempered with bone (instead of the grog used with almost all the rest of the sherds from Carlisle). Finally, one carinated bowl was decorated with curvilinear and horizontal brushing marks on the rim.

Plain rims from Area B are predominantly standing and direct types (see Table 6). Lip-notched and scalloped-rim bowls are also present; these types of lip and rim treatment are notable in Middle Caddoan ceramic assemblages in the Upper Sabine River basin.

Small pieces of burned clay and daub were recovered from both Areas A and B at Carlisle (see Table 1). These are generally rounded and eroded pieces of clay that had been applied to the walls of structures, or were used to line hearths, and became fire-hardened through hearth cooking and/or structure burning. The daub has grass and stick impressions on them.

FAUNAL ANALYSES

A small but extremely diverse faunal assemblage was obtained in the excavations of Area A and B at the Carlisle site. Represented in the 258 identifiable specimens are eleven species of mammals, one bird species, five species of reptiles, and five fish species:

Mammals

Deer
Swamp/jackrabbit
Fox Squirrel
Opossum
Pocket Gopher
Cottonrat
Raccoon
Skunk
Gray Squirrel
cf. Dog
Vole

Birds

Turkey

Fish

Bowfin
Drum
Bass/Sunfish
Gar
Catfish

Reptiles

Box turtle
Softshell turtle
Red-eared turtle
Map turtle
Slider

Most of the faunal remains were recovered in the Area B midden deposits and Feature 1, with about 18 percent recovered from general proveniences in the 1975 investigations (most of this material is also from the Area B midden deposits). In terms of identifiable faunal elements, deer, box turtle, and drum are most common, followed by swamp or jackrabbit, opossum, red-eared turtle, and gar. Fish remains were particularly

abundant in Feature 1, and in the middle part of the midden deposits (Table 7), as were reptile faunal elements. Mammal remains were particularly common in the general midden deposits.

Table 7. Faunal Analyses.

	Provenience (levels or features)									
	Lv. 2*	3	4	5	6	7	8	F1	ST1	General
ID mammal	0	7	8	6	1	0	0	2	0	12
ID bird	0	0	0	0	0	0	0	0	0	1
ID reptile	1	24	19	5	4	1	0	7	4	8
ID fish	1	8	31	1	0	0	0	20	2	9
UID non-mammal	0	0	0	2	0	0	0	0	0	0
UID medium mammal	0	3	9	0	0	0	0	0	0	16
UID small mammal	0	1	0	0	0	0	0	0	0	0
UID deer-sized	1	8	5	4	1	0	1	0	1	0
UID mammal	0	0	5	4	0	0	0	15	0	0
TOTALS	3	51	77	22	6	1	1	44	7	46

* Lv.= levels, F1= Feature 1, ST1= shovel test 1, ID=identified, and UID=unidentified

In general character, the Carlisle faunal assemblage resembles that noted in Formative-Middle Caddoan archaeological sites in the Upper Sabine and Sulphur River basin of Northeast Texas (Perttula and Bruseth 1983; Perttula 1993). The assemblages are diverse, indicating that an assortment of upland, riverine, and aquatic species were exploited for food, with deer the most important mammal species, but turtles and fishes also were valued supplements to the Caddoan diet.

MUSSEL SHELL ANALYSES

A total of 133 identifiable mussel shells were recovered from the Area B midden. About 60 percent of the mussel shell were not identifiable to species, being represented only by pseudocardinal teeth. The most common mussel shell species included *Amblema plicata*, *Quadrula quadrula*, and *Tritogonia verrucosa*, but a number of other species were identified in the assemblage (Table 8).

In general, the mussel shell species represented at the Carlisle site preferred muddy and slow moving water from medium-sized streams and rivers, although a few species preferred clear water with sandy bottoms. Both stream conditions can be found on both the Sabine River and Lake Fork Creek.

Table 8. Mussel Shell Analysis

Species	Level 1	2	3	4	5	6	7	8	9	FEA.1	ST 1	TOTAL
<i>Amblema plicata</i>	1	1	11	5	2	2					1	23
<i>Quadrula quadrula</i>	1	1	3	1	1			1				8
<i>Lampsilis hydiana</i>					1	1				1		3
<i>Lampsilis radiata</i>				3	1							4
<i>Lampsilis sp.</i>			1									1
<i>Fusconia flava</i>			2	3								5
<i>Obliquaria reflexus</i>			1	2								3
<i>Tritogonia verrucosa</i>	1		1	4								6
<i>Proptera purpurata</i>		2	1									3
Pseudocardinal teeth	2	13	22	21	5	1	3	1	2	1	7	78

SUMMARY

This section summarizes the areal contexts and artifact associations from the Carlisle site based on 1970s surface collections and limited test excavations in 1975 and 1986. Since much of the material derives from surface collections, chronological and functional relationships between material remains are based in large measure upon the regional overview of artifact sequences for Northeast Texas proposed by Story (1990).

Area A

The earliest occupation at the Carlisle site occurs on the upland projection (Area A). A small Middle Archaic period occupation (ca. 3500-2500 B.C.) is represented by single examples of Bulverde and Wells projectile points, but a Late Archaic component with considerable subsurface depth is probably represented by the Yarbrough darts. One Yarbrough point was recovered in Unit 5S 7E between 80-90 cm below surface.

Over 51 percent of all the dart points from the Carlisle site are *Gary var. LeFlore* (dated ca. 450 B.C. to A.D. 250 by Schambach [1982]) and *var. Camden* (ca. A.D. 250-750) projectile points from Area A (see Table 2). This suggests that a fairly substantial

Early Ceramic period occupation was present on the upland landform. No features were noted in the Area A excavations that relate to the Early Ceramic occupation, but much of the lithic debris, broken and finished tools, as well as the unifacial tools, probably can be associated with this occupation. Similar types of Early Ceramic period components are common in the Sabine and Sulphur River drainages, namely archeological deposits with large numbers of Gary points and other lithic tools, no ceramics, and no features (see Fields et al. 1992; Perttula et al. 1993). They appear to represent intensively, but intermittently, utilized places where tool manufacture and refurbishing activities took place along with the procurement and processing of animal and plant food resources.

A more substantial Caddoan occupation is also present in Area A of the Carlisle site. The test excavations there encountered evidence that a structure probably stood on the upland projection: pieces of daub, a mud-dauber's nest, and several large sherds from brushed vessels that appear to have been refired during structure burning. Additionally, 31 sherds from a large incised/brushed jar were found on what appears to have been a living surface (or house floor?) at about 30-40 cm below surface (see Figure 11). Ninety percent of the vessel is present, and all of the sherds were recovered at a common depth in Unit 4S 7E. The Area A Caddoan occupation probably represents a small farmstead or houseplace, with the Area B midden as its related trash dump; in fact, several sherds from both areas are conjoinable. Ceramic decorative similarities, and conjoined ceramic pieces, indicate that the Caddoan occupations were generally contemporaneous in Area A and B. The functional character of the Caddoan component at Carlisle is basically the same as that noted throughout the Upper Sabine River Basin.

Area B

This area contains a buried Caddoan midden dated to A.D. 1410 +/- 60 (uncorrected). The midden was concentrated between 20-55 cm below surface and contained an abundance of mussel shell, faunal remains, carbonized seed fragments and nutshells, and ceramic sherds.¹

The same types of ceramic decorative styles and vessel forms noted in Area A are present in Area B (see Table 5). By far the most common vessel form present was a cooking jar with an everted rim, and these were decorated with cross-hatched incised lines and punctated marks on the rim and vertically brushed bodies. The punctated marks were commonly applied on an applied fillet at the rim/body juncture (see Figure 12). Plain

¹ This ecofactual material has not been thoroughly examined by a paleobotanist to date.

carinated bowls and noded bottles with a hematite slip were represented only in Area B, while a variety of carinated and shallow bowls were found in both Area A and B that had mainly diagonal or cross-hatched engraved lines on them.

Scallom and Bassett arrowpoints were recovered from both Areas A and B.

CHRONOLOGICAL AND CULTURAL AFFILIATION OF THE CADDOAN OCCUPATION

Because of the limited amount of archaeological research conducted on the Sabine River, the few available radiocarbon dates from the region, and the nature of the Carlisle site ceramic assemblage itself, the chronological and cultural affiliations of the Caddoan occupation at the site are not clear. Of particular significance is the high frequency of brushed cooking jars from the site.

Admittedly, the absolute percentage of brushed sherds is skewed due to the recovery of most of a large brushed-incised jar *in situ* in Area A; nevertheless, brushed sherds are common in the Area A and B ceramic assemblages (see Table 5). In nearby Three Basins subcluster sites of the Titus phase, like Goldsmith (41WD208) and Steck (41WD529), brushed utility wares are not particularly common (Thurmond 1990; Perttula, Skiles, and Yates in press), and engraved sherds are four to five times more common in sherd assemblages. In Lake Fork Reservoir, brushed utility wares are extremely rare, and occur only in Late Caddoan Titus phase contexts (Bruseh and Perttula 1981).

On the south side of the Sabine River, however, at sites such as Bryan Hardy (41SM55) (only 25 km from Carlisle) and Emma Sanford (41SM57), excavated by Mr. Sam Whiteside in the 1950s, brushed ceramics are quite common. Indeed, they are as frequent as any other decorated sherds in the ceramic assemblages. Sites 41WD245 and CXA (41WD507) on the north side of the Sabine River also have similar ceramic assemblages, particularly with respect to the numbers of brushed sherds and to some of the distinctive styles of engraved ceramics.

One of the engraved carinated bowls from Carlisle has an alternating triangular motif, and the lip has been regularly notched. A very similar carinated engraved bowl was uncovered in Burial 2 at the Bryan Hardy site by Sam Whiteside, along with a pinched pedestaled jar (Killough Pinched?) with strap handles, a plain bowl, and a tiny effigy bowl. The Bryan Hardy site is undated, but an initial examination of the excavated ceramic assemblage suggests a probable date range between about A.D. 1200-1400 (Perttula et al. 1986:81).

The A.D. 1410 +/- 60 date from the Carlisle site seems consistent with the frequency of brushed ceramics, the presence of interior thickened rims, and the recovery of

Maxey Noded Redware vessels from the site. A thermoluminescence (TLM) date of ca. A.D. 1280 (Alpha-2398) was obtained from an interior thickened Sanders Plain vessel at site 41WD117 on Big Sandy Creek, while another TLM date of ca. A.D. 1400 (Alpha-2397) was secured on a Maxey Noded Redware vessel from another site in that drainage (Perttula et al. 1986:484). Similar interior thickened rims and lip notches have also been noted in the ceramics at the nearby Yarbrough (41VN6) and Limerick (41RA8) sites in the Upper Sabine River basin (Johnson 1962:Figure 23i; Duffield 1961:88).

Radiocarbon and TLM dates on Titus phase sites in the Upper Sabine River basin fall after about A.D. 1450 (Bruseh and Perttula 1981; Perttula et al. 1986), and it is possible that the occupation at Carlisle is not contemporaneous with the Titus phase. Perhaps, then, the affiliation of the Caddoan component at Carlisle lies with the heretofore poorly known occupations along and parallel to the Sabine River valley, and not with Titus phase Three Basin subcluster groups on Caney, Dry, and Big Sandy creeks in the Upper Sabine River basin, or with Sanders phase groups along the woodland border areas of Northeast Texas. Among the latter groups, settlements are distributed almost exclusively along tributaries and headwater areas of streams rather than to the major streams such as the Sabine River.

CONCLUSIONS

Caddoan middens roughly contemporaneous with the Carlisle site are known throughout the Upper Sabine River basin, all located on major streams like the Sabine River, Lake Fork Creek, and Caney Creek. These middens represent small habitation areas of fairly brief occupational span, and usually occur as related house and trash midden components at hamlets and probable farmsteads. Sites such as 41WD245, CXA (41WD507), Son Gibson (41WD1), Yarbrough, Area B (Johnson 1962), Taddlock (41WD482), and Spoonbill (41WD109) are only a few of the middens that have been excavated over the last 50 years in the region. The Carlisle Caddoan occupation generally resembles these sites in functional character, although the geomorphological context/location on the floodplain, the relative abundance of freshwater mussel shell, and the frequency of brushed sherds are specific differences between Carlisle and these other sites.

The Carlisle occupation represents a ca. A.D. 1400 small farmstead or houseplace that shares more similarities in ceramic styles with sites on the Sabine River than it does with generally contemporaneous Titus phase occupations upstream in the Lake Fork Creek drainage. Considerable refinement in cultural assemblage character and chronological

sequences are still necessary, however, to understand more adequately the regional significance and social differentiation of the Caddoan use on this part of the Sabine River itself.

There is still a great need for the development of a reliable chronological framework for the Caddoan period occupations in the Upper Sabine River basin (see Story 1990). Isolating distinctive chronological components in space and time, combined with the identification of discrete single component assemblages, has to be done if archaeological units are to be related to regionally meaningful socio-cultural entities (Johnson 1987), and if we are to move past simple and basic settlement patterning questions.

Every effort should be made to investigate depositional contexts such as those at Carlisle where ecofactual remains might be preserved in cultural association. Certainly sites such as Taddlock, Spoonbill, and Carlisle exist where well-preserved subsistence data can be obtained, but these types of sites have not really been the focus of intensive study in the Upper Sabine River basin. Obviously, the systematic recovery and analysis of faunal and floral remains will contribute immeasurably to the full consideration of Upper Sabine River basin Caddoan lifeways.

Finally, an understanding of the regional paleoenvironmental and geomorphological record is an integral aspect of attempts to conceptualize prehistoric cultural adaptations. Moreover, these types of investigations may help to locate contexts such as those at Carlisle where buried archaeological deposits are present. Currently, the overall paleoenvironmental record for Northeast Texas is poorly known (Bryant and Holloway 1985; Story 1990), although the potential to recover significant information on Late Holocene environments for the basin is good (e.g., Perttula et al. 1986:322).

In each case, the potential exists with the data base already in hand to carry through exciting and useful research endeavors in Caddoan archaeology in the Upper Sabine River basin. The problem now is to turn that potential into reality by considering broader concepts of cultural change beyond simply basic temporal-spatial analyses. The Carlisle site contains much of the data we need to forge new understandings of Northeast Texas prehistory.

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