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COLLECTED PAPERS
ON TEXAS ARCHEOLOGY
A PUBLICATION OF THE
TEXAS ARCHEOLOGICAL STEWARDSHIP NETWORK

the Steward

Texas Archeological Stewardship Network

The Texas Archeological Stewardship Network, founded in 1984, consists of men and women from the avocational archeological community who assist the Texas Historical Commission, the state agency for historic preservation, in archeological site preservation, research, and public education. Serving as extensions of the agency's Archeology Division, the stewards distribute educational materials, give slide presentations and lectures to school and civic groups, record new sites, monitor known sites, document private artifact collections, and assist landowners with the preservation of cultural resources on their lands.

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TEXAS HISTORICAL COMMISSION

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INTRODUCTION

In 1953, state legislation established the Texas Historical Commission (THC) to take responsibility for discovering, interpreting, and protecting the stories, historic places, and artifacts of this huge state. Since then the THC has become recognized nationally for its preservation of architectural, archeological, and cultural landmarks in Texas. The agency is also known for its efforts to tackle the preservation challenges of this rapidly growing state through feedback from and alliances with residents, businesses, and other government agencies.

THC Archeology Division staff are dedicated and capable, but the 10 or so archeologists on board need help covering Texas' 266,807 square miles divided into 254 counties. That is why in 1984 the Texas Archeological Stewardship Network (TASN) was formed. Stewards are avocational archeologists who serve as extensions of the Archeology Division. One of the most innovative and successful programs of its kind, the TASN has been a model for similar programs in other states.

These highly trained and motivated men and women donate their time, helping the THC Archeology Division accomplish its goal of preserving the state's archeological heritage. The space available in this brief introduction is inadequate to fully describe the numerous, varied jobs the stewards eagerly take on, so here is a small sampling. Stewards help THC archeologists carry out salvage excavations when an archeological resource is threatened with imminent destruction. They assist in obtaining protective designations for important sites and in documenting artifact collections. They help discover, record, and monitor archeological sites. They assist landowners with the preservation of cultural resources on their lands. The marine stewards assist the State Marine Archeologist in investigating and protecting historic shipwrecks in Texas waters.

Especially valuable are the stewards' educational and training activities that reveal the characteristics and lifeways of people who lived in this state during the time period from the Ice Age to the 1800s. The stewards present artifact displays, lectures, and slides to school and preservation groups; distribute educational materials throughout their regions; consult with regional museum staff and civic groups to make archeological information continuously available to the public; and sponsor Texas Archeology Month demonstrations, exhibits, and activities that provide visitors with experiential knowledge of Texas archeology. At the heart of the stewards' value when it comes to unearthing and protecting Texas's archeological heritage is their passion. After hearing his colleagues describe their activities during one of the TASN reporting periods, a long-time steward noted:

You could hear and feel the passion each one had for their individual topics. I guess that is something you could say about a steward. We don't do it for the money. . . . The cover sheet of my log book reads,

My passion is archeology.
It encourages discipline,
Inspires deeper thought,
And is driven by curiosity.

Doug Wilkens, 2005

The purpose of *the Steward* is to publish individual TASN reports that highlight samples of the stewards' myriad accomplishments. The authors have produced professional accounts of their experiences and discoveries. A subtle quality, however, sets their reports apart from those found in most scientific writing: a natural, ingenuous communication style that comes from the heart. We hope, as you read the words of these stewards, you too will "hear and feel the passion" they bring to their archeological endeavors.

The Archie King Ruins Rediscovered: Sites 41RB114–121

L. Douglas Wilkens

In 1919, Warren K. Moorehead visited the Archie King Ruins in Roberts County, Texas, but did not record the precise location. I rediscovered the location of the ruins in 2001 and made arrangements with the property owners to allow members of the Texas Archeological Stewardship Network (TASN) and other professional archeologists to survey the area and record its location. The survey resulted in the identification of eight site areas, which included 15 structures and other features. Based on diagnostic ceramic and lithic artifacts observed during the survey, the Archie King Ruins date to the Plains Village period.

Warren K. Moorehead first visited the Archie King Ruins, which are located north of the Canadian River in northwest Roberts County (Figure 1), in 1919. The ruins were briefly mentioned in a short article by Moorehead (1921), and later in his *Archeology of the Arkansas River Valley* (Moorehead 1931). I had read his 1931 entry pertaining to the Archie King Ruins many years ago, but failed to make the

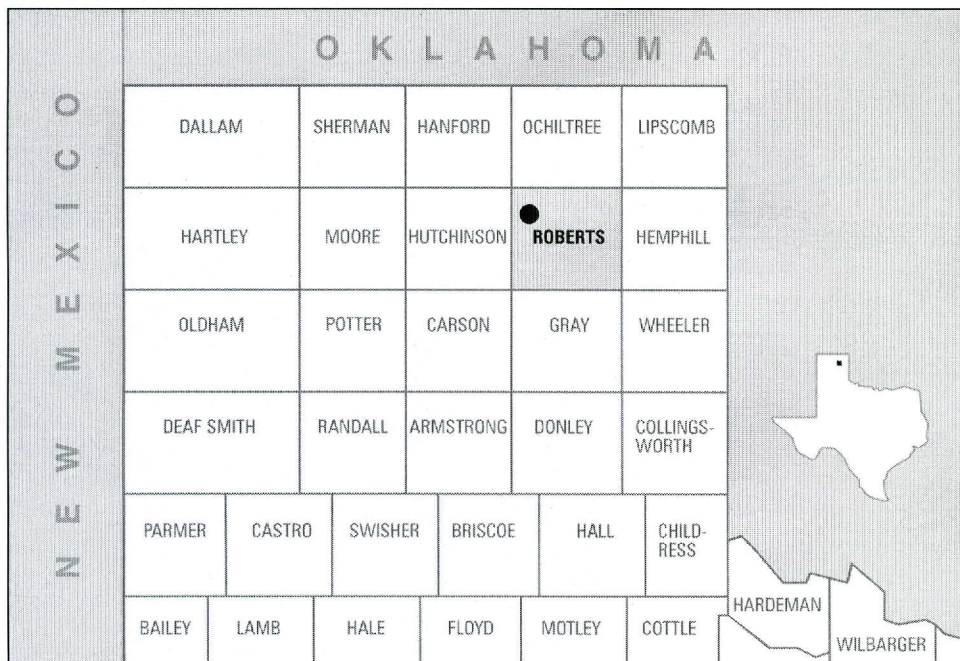


Figure 1. General location of the Archie King Ruins in Roberts County.

connection to the ranch he was describing. In the fall of 2001, it occurred to me that the late Mrs. Ruth Wilson was the granddaughter of Archie King, and she had owned and operated the King ranch prior to her daughter Carolyn and son-in-law Larry Rogers, who have now taken over the management of this historic ranch (Figure 2).

The King family has traditionally kept a tight rein when it comes to outside traffic, including oil and gas personnel, being allowed on the ranch. Moorehead (1931:106) noted this concern when he wrote, "Assuming that oil operators have not disturbed the King ranch, there is opportunity for careful study of an undisturbed site." It is fortunate that 75 years after Moorehead's statement the Archie King Ruins continue to be a unique opportunity for careful study, as they remain intact and undisturbed.

In February 2002, Carolyn and Larry Rogers agreed to allow a team of professional and avocational archeologists to conduct a survey across the ruins and to formally record the sites. It was a privilege to have the opportunity to visit and record these important, but nearly forgotten sites.



Figure 2. Doug Wilkens (second from left) discussing the Archie King Ruins project with landowners Larry and Carolyn Rogers.

Previous Investigations

In 1919, Warren K. Moorehead conducted archeological surveys along the north breaks of the Canadian River and of the Handley Ruins, better known as the Buried City site along Wolf Creek. How much time he spent surveying the King Ruins is unknown, but transportation of the day would have made it difficult to complete a thorough survey. The distance from the town of Canadian to the King ranch is 33 miles, mostly over rough roads, and from the King Ranch to the Handley Ranch, approximately 23 miles. Moorehead (1931:94) wrote, "We drove from Canadian to the Archie King ranch, inspected small ruins lying along the river and proceeded to Wolf Creek."

In his earlier publication, Moorehead (1921:10–11) discussed the King and Handley ruins in more detail:

As to the age of these remains, nothing positive can be affirmed. The King and Handley ruins are built upon a previous village site where buffalo, bear, antelope, and other bones have been found, one-half to one meter below the foundations . . . The floors were ordinary clay, hard packed . . . No turquoise and no ocean shells were found in the rooms.

In his 1931 publication, Moorehead gave detailed accounts of his excavations at Buried City, but he does not provide any details about excavations at the Archie King Ruins. It seems likely that no excavations were conducted at the King sites. As noted earlier, his account simply states that he "proceeded to Wolf Creek."

To my knowledge, these were the only references to the Archie King Ruins and the only times that the site had been visited by an archeologist until October 1995, when archeologists from the Panhandle-Plains Historical Museum in Canyon, Texas, were called to survey a proposed pipeline right-of-way near the site. Unaware that the survey area was encroaching onto the previously identified site, archeologists Rolla Shaller, Billy Harrison, and Fred Oglesby recorded a portion of the site and wrote their reports to the landowner and to the utility company that had requested the survey.

The surveyed area was a narrow strip of land stretching across two separate ranches, the C-C ranch to the east and the Rogers (King) ranch to the west. Archie King formerly owned this portion of the C-C ranch, which meant that the site area to the east would have been part of the initial Moorehead survey.

Upon the request of the current C-C landowner, a pipeline route was selected that avoided several identified cultural features and areas of dense cultural material. Features that were recorded during this survey included three stone-enclosed structures, an exposed hearth eroding from a small arroyo, and a probable burial cairn. Cultural materials observed included pottery sherds and flint tools. The features and artifacts represented a Plains Village assemblage (Shaller ca. 1995).

Buried soils exposed during the pipeline construction were recorded on the King ranch property. Two stacked buried soils in the ditch line contained cultural materials consisting of pottery sherds, burned rock, and bone (Shaller ca. 1995). These darkened soils were located on the T-1 terrace on the west side of

the creek, and were noted for some distance as the terrace expanded west up an intermittent drainage across two upper terraces on the south side. This area was void of surface cultural material. This information is important for understanding the distribution of potential sites buried beneath the valley fill.

Setting

The study area is located on the north side of the Canadian River in the northwest corner of Roberts County, Texas. The Archie King Ruins are actually a series of small habitation sites (41RB114–41RB121) situated on prominent knolls along the east and west sides of Couch Creek, a small intermittent stream that flows from north to south into the Canadian River (Figure 3). Couch Creek is approximately 13 km in length and its headwaters erode sharply into the High Plains escarpment. Seep springs are present at the southern end of the sites, where we found the heaviest concentration of structures. Other springs exist farther north, within the broken steep-sided canyons toward the head of Couch Creek.

The approximately 3 km-long site area on the west side of the Couch Creek is an upland terrace or ridge of Mobeetie fine sandy loam to Mobeetie-Veal-Potter soils (Wyrick 1981:24–25). Mobeetie soils are not generally considered suitable for cropland as slope is a limiting factor (Wyrick 1981:24–25). Site areas on the east side are positioned along a prominent ridge or several intermediate terraces. These areas are Mobeetie/Mobeetie-Veal-Potter soils.

Four distinct soil types are present along the T-1 creek terrace. These are Likes loamy fine sand, Lincoln fine sand, Guadalupe fine sand, and Spur clay loam. Of these four soil types, Spur and Guadalupe soils are rated as having high fertility rates and are among the most productive soils in the county (ranked II in a range from I to VII, with I being the highest).

While studying the county soil maps following the survey, archeologist Scott Brosowske noticed that all of the recorded habitation sites are situated immediately adjacent to soil patches of Spur clay loam or Guadalupe fine sandy loam. Research has shown that Plains Village habitation sites frequently are situated near these soils (Brosowske 2005:149–150).

The vegetation in the area is composed of approximately 80 percent grass, 10 percent forbs, and 10 percent woody plants (Wyrick 1981:20). Tall grasses and sagebrush cover most areas. In general, the entire site is covered with natural plant growth common to the Canadian River basin. These include grasses such as sideoats grama, little bluestem, sand bluestem, blue grama, buffalo, Indian, and western wheat grass, to mention a few.

Forbs include catclaw, prairie clover, bush sunflower, heather aster, and western ragweed. The woody vegetation includes such plants as yucca, sand sagebrush, shinnery oak, and skunkbush sumac (Wyrick 1981:24–25). A substantial stand of cottonwood and juniper is located around the seep springs between 41RB117 and 41RB118. Willow and mesquite are present but sparse. North of 41RB114, within the narrowing canyons near the head of Couch Creek, juniper growth is substantial, with some of the large trees ranging from 20 to 30 ft tall.

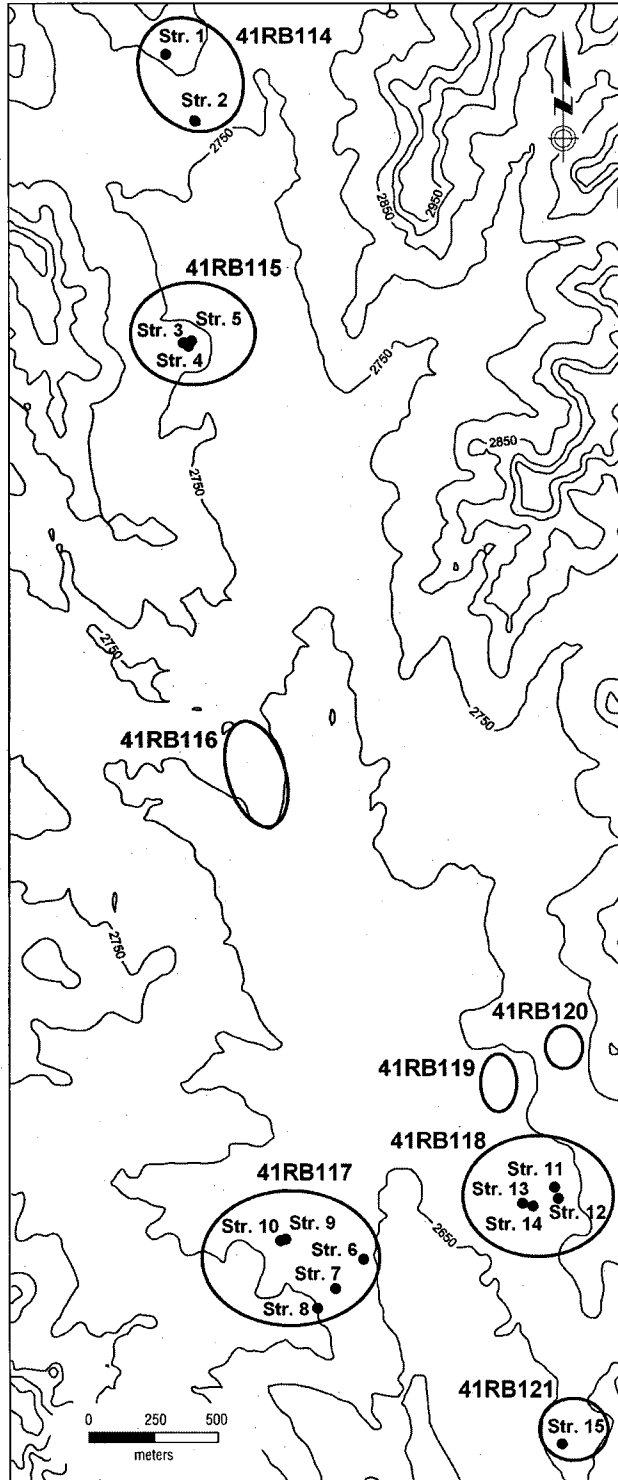


Figure 3. Site and structure locations associated with the Archie King Ruins.

Different natural resources are readily available near the sites. Approximately 0.5 km north of the northernmost site (41RB114), we noted in the vertical cutbank of Couch Creek a thick homogeneous clay deposit exposed approximately 3 m below the surface and buried beneath a fine-grained sand. This deposit contains clay suitable for the manufacture of ceramic products.

Beneath 41RB114 is a thick deposit of Ogallala gravel. In this deposit, cobbles of workable lithic materials can be found; they were undoubtedly used in the manufacture of various stone tools. A material of volcanic derivation known as scoria can be found in these gravels. Scoria was occasionally used for abrading implements, and it was often crushed and used as temper in pottery production.

On the southern end of the site and west of 41RB117, river-rolled gravels are exposed that contain moderate quantities of Alibates agate nodules. These deposits are a source of usable material for the manufacture of stone tools.

Initiating the Survey

Some time after the Archie King Ruins puzzle was put together, a meeting was arranged with Larry and Carolyn Rogers to discuss the sites. Unaware of the past events, they were very interested in the sites and the cultural history of the ranch. In December 2001, the Rogers gave me a tour of the ranch, including several of the sites where rock alignments were noted. They also showed me their small collection of artifacts that had been collected from the ranch over the years.

In February 2002, an eight-person team was assembled for the recording survey. This survey was designed as a TASN project to survey and officially record the site. The team was made up of professional and avocational archeologists as well as the landowners.

Prior to the start of the survey, we decided that all of the sites would retain the name "Archie King Ruins." The overall site would be broken up into separate areas, based on densities of features and cultural materials. Eight separate areas were assigned trinomial numbers and features were assigned numerically in each area. Structures were given unique numbers and not trinomial site numbers. As more features may be discovered in the future, they can be added to the feature list per site area.

Methodology

The bulk of the crew drove to the site locations and conducted an intense pedestrian survey, which included recording the stone alignments and other features present, areas of dense cultural debris, possible buried features, and diagnostic artifacts (Table 1). One crewmember surveyed the immediate areas surrounding and between the high-density sites, walking zigzag transects across the area to search for other outlying features or sites.

We began the survey on a prominent ridge west of Couch Creek and on the north end of the site complex. We then moved south along the west side of Couch Creek recording the other site areas. The general site materials associated with the sites are described in the following section. Features and specific artifacts are described individually within the associated site.

Table 1. Summary of the Archie King Ruins Sites and Features

Site	Size in Meters	Stone Enclosure	Stone Circle	Depression	Rock Cairn	Hearth or Burned Area	Total
41RB114	300 x 100	1		1			2
41RB115	700 x 100	3				1	4
41RB116	600 x 150						0
41RB117	500 x 500	5				1	6
41RB118	400 x 400	4				3	7
41RB119	100 x 100		1				1
41RB120	25 x 25				1		1
41RB121	250 x 250	1			2	1	4
Total		14	1	1	3	6	25

Results

All of the recorded sites contained cultural materials and features reminiscent of Plains Village tradition habitation sites. The materials included debitage noted on the ground surface, atop recent gopher mounds, or in eroded areas. Other observed materials were burned and unburned bone from bison, deer, antelope, and smaller animals. Mussel shell, fire-cracked rock, burned rock, hammer stones (from the Ogallala gravels), and pottery sherds were also observed.

Surface treatments noted on pottery sherds were predominantly cordmarks or smoothed-over cordmarks (Figure 4). A few sherds did not have any visible surface treatment and were considered plain or smooth wares. The largest sherd measured approximately 5 cm by 5 cm, though most were 2 to 3 cm. One rim sherd was decorated with horizontal finger impressions immediately below the lip. Most of the sherds were moderately thick with coarse sand temper.

Local lithic materials observed were various Ogallala gravels and Alibates agate. Other workable stone in the gravels include Potter chert and quartzite. Opalite occurs naturally in the area and is associated with the limestone/caliche caprock. Though not considered to be a good material, it is commonly found in the form of utility flakes and tools. Obsidian, the only nonlocal lithic material recorded during the survey, was represented by only a small number of flakes.

The lithic tool assemblage consisted of side-notched arrowpoints, biface fragments, uniface tools and fragments, end scrapers, and edge-modified flakes. Not surprisingly, the predominant lithic material was Alibates agate.

Site 41RB114

Site 41RB114 is positioned atop a high prominent ridge that extends north into the caprock and south to an east-west trending knoll or toe. This ridge varies in width from 300 m wide on the north end, pinching down to approximately 60 m near the center and then expanding to approximately 100 m wide on the ridge toe on the south end. The top of the ridge is gently sloping to level in most areas.

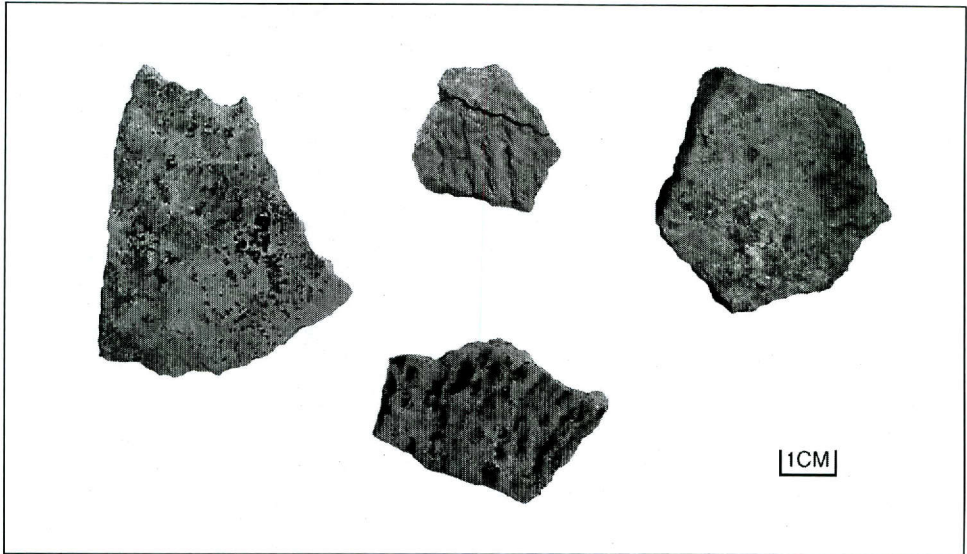


Figure 4. Cordmarked ceramic sherds found near Structure 4.

The entire site contains a moderate to dense scatter of cultural debris. Stained soils exposed on gopher mounds probably represent buried features such as middens, fire pits, or perhaps house floors. A dense scatter of crushed bone fragments probably indicates that bone processing or related activities occurred in the area.

Structure 1, a rock foundation enclosure, was situated along the southwestern margin of the northern end of the site. The structure measured 16 m north-south by 12 m east-west. The rocks associated with the structure are rounded caliche cobbles similar to those observed at the Buried City site along Wolf Creek in Ochiltree County (Hughes and Hughes-Jones 1987). The rocks are not slabs like those typically associated with Antelope Creek sites along the Canadian River further to the west (Lintz 1986). There appears to be a small, semi-circular stone alignment located near the southwest corner of the structure. A low mound is visible above the ground surface covering portions of the east wall. One Fresno and one Washita arrowpoint, both of Alibates agate, were found near Structure 1.

On the extreme southern end of 41RB114, positioned in the center of the east-west trending knoll, is a noticeable depression believed to be a pithouse-type structure. The depression, designated as Structure 2, measures 7.8 m x 4.4 m. A dense concentration of material was observed eroding down the abrupt steep slope of the north side of the knoll. A Harrell arrowpoint of Alibates agate (Figure 5) was found near Structure 2.

Site 41RB115

This site consists of three closely spaced knolls along the west side of a sharp meander of Couch Creek. The overall site area measures approximately 700 m by 100 m. The northernmost knoll is the most predominant, and it contains at least three stone enclosures (Structures 3, 4, and 5). Structure 3 measures 8 m

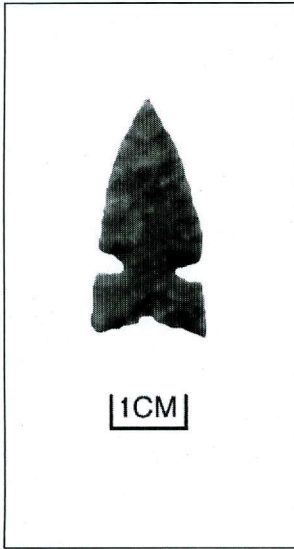


Figure 5. Harrell arrowpoint found near Structure 2.

north-south by 5.8 m east-west, Structure 4 measures 9 m north-south by 7 m east-west, and Structure 5 measures 5 m north-south by 5.5 m east-west. The stones observed at each of the structures are rounded caliche cobbles. Much of the same types of debitage observed at site 41RB114 occur here, but in lower densities. A red sand-tempered plainware, unique to the area, was recorded south of Structure 5. This sherd had a red exterior and interior, as well as a red paste that was not the result of firing (Lynn 2002).

The two knolls further south were void of visible stone structures, and debitage density was low. Because these two landforms are near the creek and are very sandy, cultural features or materials could be buried beneath the sand deposits. An exposed ephemeral hearth, Feature 8, was recorded in the creek cutbank east of the northernmost knoll of this site area.

Site 41RB116

Situated along the west bank of Couch Creek immediately above the T-1 terrace, 41RB116 is a long narrow strip approximately 100 to 150 m wide by 600 m long running north-south along the creek and positioned on the second terrace. This is a low colluvial terrace that expands west up both sides of an intermittent drainage. The site occupies a stable short grass bench with good surface visibility. No cultural materials were recorded on the surface of this terrace, but artifacts were found along the creek cutbank and included a broken mano fragment, pottery sherds, a ceramic disc pendant, and lithic debitage. These artifacts certainly relate to a habitation site, and because of the large amount of colluvial and aeolian deposition in this area it is probable that habitation features are buried within the terrace.

Site 41RB117

The largest of the sites is 41RB117, measuring approximately 500 m by 500 m. The area consists of a gradual upland slope from the secondary bench above Couch Creek to a prominent knoll to the southwest. Six features are associated with this site and include five stone structures and one hearth exposed in a pasture road.

The easternmost structure, Structure 6, appears pristine. Structure 6 sits just above the creek on the second terrace and measures approximately 10 m east-west by 9 m north-south and has an east-extending entryway. Like Structure 1 at 41RB114, this structure has a rock alignment north and east of the entry, suggesting an adjoining room. Those of us who had seen and worked on the large Kit Courson structure (41OC43) at Buried City commented about the striking resemblance of that structure with Structure 6. A dense scatter of artifacts is associated with the house, including a four-beveled knife fragment of Alibates agate, numerous cord-marked pottery sherds, and a small fragment of daub.

Located approximately 100 m southwest of Structure 6 and up the slope to a level bench is a north/south-trending ranch road that cuts through the site. Adjacent to this road on the east side is Structure 7, a small stone enclosure that measures roughly 8.3 m by 3 m (Figure 6). The road appears to have affected this stone structure. South of this house, a hearth (Feature 1) has been exposed in the ranch road as well. Several years ago, the late Mrs. Ruth Wilson told me of a human burial exposed in this ranch road. According to Mrs. Wilson, the burial was covered, and the road was moved to avoid further impact. No evidence of the burial was found during our survey.

Structure 8 is positioned west of the road and up a prominent knoll. This structure measures 6 m east-west by 4 m north-south. Very little debitage or other artifacts were associated with this structure.

Structures 9 and 10 are located on an extended ridge toe in the extreme northwestern quadrant of the site area. Structure 9 measures approximately 4.2 m north-south with an undetermined east-west wall. Structure 10 also was difficult to discern. This structure is a depression that measures approximately 7 m east-west by 6 m north-south. A number of subsurface rocks were located with a probe along one edge of the depressed area, apparently associated with a wall of the structure. Dense concentrations of cultural material associated with the structures were present on the surface.

Site 41RB118

This site is located on the east side of Couch Creek across from 41RB117. A county road and a property line fence running north-south divide 41RB118 roughly in half. Harold Courson owns the property on the east side of the fence, and the Rogers own the west side. Seven features were recorded at this site, four of which are believed to be stone structures.

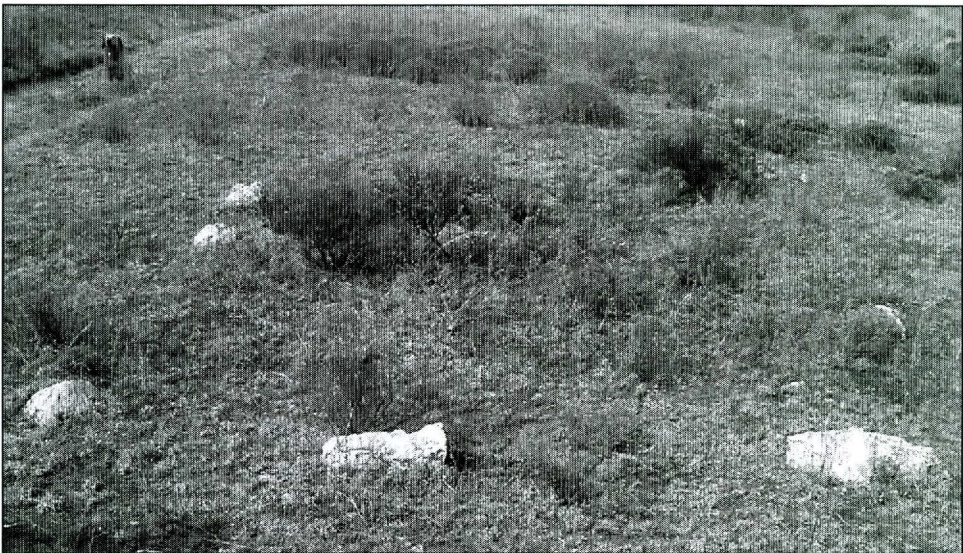


Figure 6. View to the north of the rock walls of Structure 7.

Structures 11 and 12 are situated on the higher terrace and west of the county road. Structure 11 is positioned on a low, badly eroded ridge toe. Due to the erosion, the foundation stones are highly visible. The structure measures 11 m east-west by 18.6 m north-south, and it appears to have an extending east entry. Artifact densities were low, but abundant vegetation growth in and around the structure obscured the ground surface visibility at the time of the survey.

Structure 12 is on a gentle slope immediately south and below Structure 11. The highly visible foundation of this structure measures 5.3 m east-west by 5.6 m north-south. Again, artifact densities were low around this structure.

Structures 13 and 14 sit on the lower broad terrace west of the road. They are positioned on a slight westerly-extending rise overlooking Couch Creek, approximately 500 m to the west. Structure 13 is on the westernmost edge of this rise and has an undetermined wall alignment with some boulder-size rocks in situ. Measurements were taken from the overall dense scatter of artifacts associated with Structure 13. The approximate measurements were 28 m east-west by 24 m north-south. Structure 14 is located just east and slightly south of Structure 13. Once again, there was no discrete outline to determine the dimensions, but the structure did appear to have an east-west orientation.

Three separate burned features (Features 2, 3, and 4), believed to be hearths or refuse pits, were exposed in the borrow ditch on the east side of the road. The distinct outlines of these features suggest large hearths with dense concentrations of ashy soil approximately 50 cm in diameter. A thin scatter of debitage was associated with the features.

Cultural material densities from this site area were some of the highest among the site areas recorded. Artifacts recorded in this area included a number of cordmarked sherds, one being a decorated rim sherd with horizontal finger impressions immediately below the lip. A second unusual sherd, red in color, was similar to the one recorded at 41RB115. The tip of a four-beveled knife, a Fresno arrowpoint, the base of a side-notched arrowpoint, and an obsidian flake were recorded from this site area as well. Except for the flake, all of these artifacts were made from Alibates agate.

Site 41RB119

This site is approximately 300 m north of 41RB118 atop a low knoll just west of the county road. No definite structures were observed, but a circular rock feature (Feature 5) about 4.4 m in diameter was recorded. The function of this feature is unknown. A diffuse scatter of cultural material was associated with this feature.

Site 41RB120

This site is approximately 150 m north-northeast of 41RB119 and about 50 m east of the county road. A low density of cultural debris and a rock feature (Feature 9) approximately 3 x 4 m in size may represent a large stone-capped burial cairn. This site was discovered during a pipeline survey by Rolla Shaller in 1995 and recorded in his field notes.

Site 41RB121

Located approximately 800 m south-southeast of 41RB118, 41RB121 is the final area recorded during our investigations. This site is situated on a prominent north-south trending ridge, approximately 75 m east of the county road. The site is primarily limited to the ridge, but also includes a lower terrace to the northeast. One structure and three features were recorded within this area.

Structure 15 is a rock-enclosed structure positioned on the southern end of the ridge. It measured 8.5 m east-west by 7 m north-south. Features 6 and 7 were recorded near the structure and represent possible stone-capped burial cairns. Feature 10 is the remains of a hearth or fire pit eroding from a cutbank of a small gully located approximately 100 m northeast of the ridge.

This site area has a dense amount of lithic debris scattered along the deflated edge of the ridge. The material is mainly Alibates along with local quartzite. A moderate scatter of debitage is exposed along a ranch road and gully along the north and the northeast sides of the ridge.

Discussion

The survey investigations of the Archie King Ruins identified 15 structures located in five separate areas; 12 structures had distinct perimeter alignments (Table 2). Eight structures were above average in square meters of floor space compared with Antelope Creek structures that average 30 m² (Lintz 1986:91). The maximum for recorded Antelope Creek structures is 60 m², to which two structures (Structures 1 and 11) at Archie King were more than triple this size. It is possible these structures have something different happening that is not discernible from a surface survey, such as multiple rooms, or new construction over abandoned structures with remnant walls intact. If these two structures are excluded, the average size for the Archie King structures is approximately 44 m².

David Hughes states that the houses at Buried City were generally large with over 60 m² of floor space (Hughes and Hughes-Jones 1987:101). However, we must keep in mind that comparisons to Archie King are not completely accurate. These comparisons are from excavated structures and could differ considerably from the surface measurements taken at Archie King.

Three structures had undetermined wall alignments and one structure is thought to be a pithouse without visible stone foundations and measuring roughly 7.8 by 4.4 m. Once again, we are relating surface material, location, and presence of large rocks out of place to recognize the features as structures.

Interestingly enough, the circular rock feature at 41RB119 (not considered a structure) has a considerable resemblance to features tested at the Indian Springs site (41RB81). At this site, located upon a high terrace above the spring, are two similar features determined to be surface structures with small basin-shaped ephemeral hearths in the center of the structures. These hearths dated to A.D. 1400-1460 and A.D. 1460-1660 (Cruse 2007; Boyd 2008).

Finally, three separate cairns were recorded during the survey of the Archie King Ruins, but only two were close in proximity. These cairns do not represent cemeteries, but individual interments.

Table 2. Archie King Site Structure Dimensions

Structure	Length (m)	Width (m)	Area (sq. m)
1	16.0	12.0	192.0
2	7.8	4.4	34.3
3	5.8	8.0	46.4
4	7.0	9.0	63.0
5	5.5	5.0	27.5
6	10.0	9.0	90.0
7	3.0	8.3	24.9
8	6.0	4.0	24.0
9	—	4.2	—
10	7.0	6.0	42.0
11	11.0	18.6	204.6
12	5.3	5.6	29.7
13	28.0	24.0	672.0
14	—	—	—
15	8.5	7.0	59.5
Average	9.3	8.9	116.1

Averages are based on the number of entries per column.

Conclusion

The rediscovery of the Archie King Ruins is significant at this juncture of Panhandle-Plains archeology. The past five years have seen a significant increase in research in the eastern Texas Panhandle, particularly on the M-Cross ranch located 20 mi east of the King ruins (Boyd and Wilkens 2001, Boyd 2004, Erickson 2004, Cruse 2007), and at the Buried City location. Additionally, investigations have been conducted at the Odessa Yates site in the Oklahoma Panhandle (Brosowske 2005).

This research suggests that Plains Village archeology in the northeastern Texas Panhandle is more diverse, subtle, and complex than previous investigators supposed. The discovery of pithouses and/or earthlodges at Odessa Yates, the M-Cross Ranch, and Buried City has made it difficult to assign cultural affiliation to sites based strictly on the presence of stone enclosed architecture (Boyd 2008).

The Archie King Ruins are located in a key geographical area some 40 mi east of the core area of Antelope Creek as defined by Lintz (1986) and approximately 30 mi southwest of Buried City (Moorehead 1931, Hughes and Hughes-Jones 1987). The surface structures we observed on the King sites show similarities to Buried City structures (large houses and caliche boulders) as well as to those associated with Antelope Creek (stone slab foundations).

If, as we surmise, pithouse structures are also present—subtle, buried, and always difficult to identify—then the Archie King Ruins may have similarities to sites on the M-Cross Ranch, which are associated with the Plains Village tradition, but they have not been assigned to a particular cultural affiliation (Boyd 2008). It is possible that the stone structures we observed at the Archie King Ruins are only a

small part of the actual number of structures at the site and pithouses or earthlodges may also be present that either pre-date the stone enclosures or are contemporaneous with them.

The Archie King Ruins represent a very large, rich, and probably pristine site complex in an area where little archeological investigation has taken place. The sites we observed appear to belong to the Plains Village traditions. At the present time, we cannot assign the Archie King Ruins to Antelope Creek or Buried City traditions, nor would it serve any purpose to do so. Further investigation of the Archie King Ruins is required before the cultural affiliation can be determined. Additional investigations would add substantially to our knowledge of the prehistoric record of the northeastern Panhandle.

Acknowledgments

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References

Boyd, Douglas K. and L. Douglas Wilkens

- 2001 Burnin' Down the House: Late Prehistoric Architecture, Abandonment, and Agriculture at Hank's Site, 41RB109, Roberts County, Texas. *Current Archeology in Texas* 3(2):1-7. Texas Historical Commission, Austin.

Boyd, Douglas K.

- 2004 Hank's House 1: Anatomy of a Burned Pithouse. Electronic document, <http://www.texasbeyondhistory.net/villagers/hank2/index.html>.

- 2008 Prehistoric Agriculture on the Canadian River of the Texas Panhandle: New Insights from West Pasture Sites on the M-Cross Ranch. *Plains Anthropologist* 53(205):33-57.

Brosowske, Scott D.

- 2005 The Evolution of Exchange in Small-Scale Societies of the Southern High Plains. Ph.D. Dissertation, UMI Dissertation Service, Department of Anthropology, University of Oklahoma, Norman.

Cruse, J. Brett

- 2007 Architecture Variability of the Late Woodland and Plains Village Occupations at the Indian Springs Site (41RB81), Roberts County, Texas. *Current Archeology in Texas* 9(1):11-18. Texas Historical Commission, Austin.

Erickson, John R.

- 2004 Hank's House 2: A Puzzle Wrapped in Mystery. Electronic document,
<http://www.texasbeyondhistory.net/villagers/hank2/index.html>.

Hughes, David T. and A. Alicia Hughes-Jones

- 1987 *The Courson Archeological Projects: Final 1985 and Preliminary 1986*. Courson Archeological Projects, Perryton, Texas.

Lintz, Christopher

- 1986 *Architecture and Community Variability within the Antelope Creek Phase of the Texas Panhandle*. Studies in Oklahoma's Past No. 14. Oklahoma Archeological Survey, Norman.

Lynn, Alvin

- 2002 Personal communication with the author, February 23.

Moorehead, Warren K.

- 1921 Recent Explorations in Northwest Texas. *American Anthropologist* 23:1.
1931 *Archeology of the Arkansas River Valley*. Phillips Academy, Andover, Massachusetts.

Shaller, Rolla

- ca. Pipeline survey. Manuscript on file, Panhandle-Plains Historical Museum,
1995 Canyon, Texas.

Wyrick, Jim C.

- 1981 *Soil Survey of Roberts County, Texas*. United States Department of Agriculture, Soil Conservation Service, Washington, D.C.

Archeological Investigations at the Colonel John I. Gregg Battle Site (41RD77), Randall County, Texas

Alvin Lynn and Rolla H. Shaller

From the spring of 2000 through the winter of 2002, we periodically conducted a systematic search along Palo Duro Creek in central Randall County. Equipped with metal detectors and hand-held global positioning system (GPS) units, we located, mapped, and recorded the site of an Indian attack made on Colonel John I. Gregg's Eighth U.S. Cavalry in 1872. The subsequent discovery of approximately 200 military- and Indian-associated artifacts of the 1870 time period indicates that this battle was fought approximately 2 mi northeast of the present-day city of Canyon, Texas. In addition to the standard description of our site investigation and the recorded artifacts, this report includes excerpts from a diary kept by one of the soldiers under Colonel Gregg's command when the battle took place.

Late in the summer of 1872, Colonel John Irvin Gregg departed from Fort Bascom, New Mexico, and headed for Texas in command of the Eighth U.S. Cavalry. The purpose of this 40-day expedition onto the Staked Plains of West Texas was to locate and report the locations of hostile Indians who had reportedly attacked settlers in the area. Kiowa Indians attacked Gregg's command during the early morning hours of August 16, 1872, while they were encamped along Palo Duro Creek in what is now Randall County, Texas. Though brief, the skirmish was recorded in the personal diary of Private Eddie Matthews and in several later military reports.

Background

Colonel John Irvin Gregg's 1872 campaign into the Texas Panhandle from New Mexico was one of many undertaken during the 1860s and early 1870s (Gregg 1872). Most of these expeditions originated at Fort Union, located near present-day Las Vegas, but Fort Bascom, 9 mi from Tucumcari, New Mexico, was the actual jumping-off place for the troops as they headed eastward into the Texas Panhandle or into the Indian Territory of Oklahoma. Information about the expeditions has come primarily from military records, but occasionally an enlisted man kept a diary. Eddie Matthews, a private who served under Colonel Gregg, kept "a small 'journal' of events" (Koster 1980) documenting his experience as a soldier during the Indian Wars of Texas and New Mexico. The animated descriptions Matthews sent "To the loved ones at Home" (Koster 1980:100) impart an insight into these events that is usually lacking in most official reports.

During the summer of 1872, the Eighth Cavalry was camped along the Canadian River near Fort Bascom. Although Fort Bascom was officially closed in 1870, it remained a point of departure for campaigns to the east. On August 7, Colonel Gregg left Fort Bascom for Texas with a regiment of 229 soldiers divided into Troops B, D, L, and M; 2 citizen guides; and 14 citizen employees. Thirty-three 6-mule wagons, two 4-mule wagons, and three 4-mule ambulances were used to haul supplies and rations. Several head of cattle were also driven along as a source of food for the troops.

Colonel Gregg's command marched southeast to a site near Tucumcari Mountain, where they spent the night near a small lake. Then they continued southeast for two days until they came to the Fort Smith-Santa Fe Road. At this camp Eddie Matthews commented in his diary on the abilities of the military cooks:

Our cooks (kind hearted fellows) thought they would treat us to some soft bread. So last night they baked. At breakfast this morning I was handed something which from its color and weight I presumed must be part of a brick, but was told by the cook that it was my ration of bread. Now I believe my digestive organs are about as strong as the majority of the white race and I would no more attempt their powers on that piece of bread, than I would on a 12 lb. solid shot. I politely thanked our gentlemanly cook, but declined eating any of his fresh bread, preferring "hard tack" which had been baked in some mechanical bakery in the first year of the late Rebellion (Koster 1980:100).

The command traveled eastward along the Fort Smith Road for approximately 10 mi. Near Salidito Springs in present Quay County, New Mexico, they turned southeast, onto a road that would take them up a gradual slope onto the High Plains. They marched southeast to Ojo Garcia (present Garcia Lake in Deaf Smith County, Texas), which was a large, nearly dry lake with springs located in creeks along the west edge. There was enough water in the springs for the command and the livestock, so Colonel Gregg chose to make camp there. Eddie Matthews described his impression of the High Plains in this journal entry:

We ascended a high hill then found ourselves on the "famous staked Plains" of Texas. Famous for wild game of all kinds including Kiowa and Comanche Indians . . . What a pity some poor man could not own about forty miles of this land in some Eastern City. It would then be worth something, but as it is, it is not worth one cent an acre at the present time. And it never will be worth any more (Koster 1980:101).

After leaving Ojo Garcia, the command marched southeast until they reached Punta de Agua on Tierra Blanca Creek in present Deaf Smith County. They followed this creek for a day and a half before turning northeast to Palo Duro Creek. After continuing along the Palo Duro for 3 mi, they made camp on the flood plain near the confluence of the Tierra Blanca and the Palo Duro approximately 2 mi northeast of the present-day city of Canyon. With a more plentiful source of water than the rest of the area, this camp site was probably

more appealing than other options in that arid location. However, Eddie Matthews apparently was not favorably impressed with this site: "Yesterday's march brought us to the commencement of a very rough looking country, and our camp was located in a splendid place for a surprise, and night attack by Indians (Koster 1980:101)." Matthews most likely did not anticipate that his prediction would come to pass within hours of that journal entry:

About 1 o'clock A.M., I awoke from a sound sleep by the report of several carbines, connected with the most unearthly yelling it has ever been my misfortune to listen to. It sounded to me like all the Devils incarnate, and all the Demons of Hell had issued forth in that one lonely spot to make the night hideous with their orgies. No pen is capable of describing my feelings at that moment. I of course knew that we were "jumped," (attacked) by Indians, and from those blood-chilling yells, I imagined we had been totally surprised and that the Indians were right in our midst, dealing death on all sides.

I was only a moment getting a cartridge in my carbine, and with revolver in one hand and carbine in the other with only my shirt and pants on, I ran to the right of our troop and on a line with "B" Troop where the firing and yelling was the loudest. I could see the Indians by the light of the moon riding in a circle near our lines, firing at us as they charged by. I discharged my carbine at the first Indians I saw, and never taking time to notice with what effect I reloaded and fired as fast as I possibly could. By this time our whole Command was up and the firing became more general. The Indians seeing that there was no hope for them, commenced to withdraw. At this state of the fight a detail of 10 picked men was made from each troop to form a line and advance about one hundred yards from camp and take station as pickets. I was one of the numbers from our troop. We advanced at a double quick step, firing at the retreating Indians as we ran. When we reached the prescribed distance from camp, we came to a halt, and kept up a fire from our carbines, as long as we could hear a yell from an Indian. Finally all became quiet, when we deployed as pickets. And there remained until daylight relieved us from our unpleasant watch (Koster 1980:101).

Gregg (1872) recorded that an estimated 40 mounted Indians attacked the troops, with some of the Indians keeping up a scathing, armed attack from the surrounding bluffs. The reported casualties for the command were 1 enlisted man wounded, 2 mules killed, 1 horse wounded, and 8 head of beef cattle lost. Among the Indians, 4 were killed and 8 wounded.

After this fight the command spent almost a month reconnoitering the country along the north side of the Red River and south of the present town of Clarendon. The scouts had mistaken a large hill south of present-day Clarendon in Donley County for the Quitaque Peaks in Motley County, so the command never reached the intended destination. They retraced their route back to their camp near Fort Bascom, arriving on September 14, 1872.

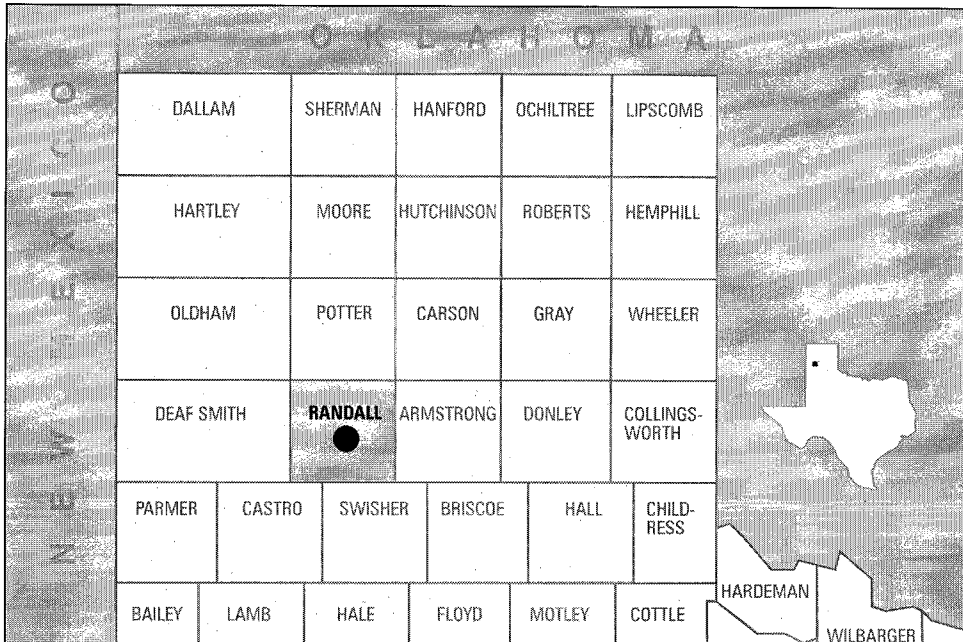


Figure 1. General location of the Colonel John I. Gregg battle site (41RD77) in Randall County.

Setting

The Colonel John I. Gregg 1872 battle site (41RD77) is located along an alluvial-colluvial bench on the north side of Palo Duro Creek and the Prairie Dog Town Fork of the Red River in central Randall County (Figure 1). Randall County is situated near the center of the Texas Panhandle. The county seat, Canyon, is located in what was once a Pleistocene lake basin. The township is situated to the west of the confluence of Tierra Blanca and Palo Duro creeks. Just northeast of Canyon, the Tierra Blanca flows into the Palo Duro. Several area maps indicate that this is the beginning of the Prairie Dog Town Fork of the Red River, while other maps continue to refer to the Palo Duro Creek until after it reaches the confluence of South Cita Creek. The headwaters of Tierra Blanca Creek begin in central eastern New Mexico and the creek meanders east-southeast into the Texas Panhandle. The headwaters of Palo Duro Creek, which eventually becomes the Prairie Dog Town Fork of the Red River, begin in western Deaf Smith County. The creek meanders eastward across Deaf Smith and Randall counties cutting through the Llano Estacado and flowing through the Palo Duro Canyon lands. Through time, the forces of Palo Duro Creek have formed numerous deep canyons as well as wide flood plains on either side of the creek as it crossed the county. The Prairie Dog Town Fork of the Red River eventually joins with the Salt and North Forks of the Red River to form the boundary between Texas and Oklahoma.

Both commercial and noncommercial development has had a significant impact on an area within a 2 mi radius of the battle site. East of the site, development of a restricted cooperative village began in the early 1900s, and this cooperative continues to operate in 2008. To the north, above the escarpment,

construction of another large home site development began in the early 1970s. The areas to the west and southwest have been compromised by the Atchison, Topeka and Santa Fe Railroad since the early 1900s, and by a section of Interstate 27 that was constructed in the mid-1980s. This section of highway is within a half mile of the site.

Perhaps the greatest impact to the Gregg battle site was caused by a major flood in 1978 that had a devastating affect on the whole area. On May 27, heavy rain in the watersheds of the Tierra Blanca and Palo Duro creeks resulted in torrents of water rushing over the creek banks and across their flood plains. The powerful force of the flood washed several houses from their foundations just east of and below the battle site.

The Gregg battle site is located along the eastern portion of a 10-acre field. The field and the lower surrounding areas have been under almost constant cultivation since the mid-1900s and possibly earlier. The site is bordered on the north by a steep caliche escarpment, to the west and south by a broad flood basin of the Palo Duro Creek, and to the east by the beginning narrows of Palo Duro Canyon (Figure 2). At the present time, native grasses have returned to the area containing the largest portion of the site. A north-south property line fence bisects the eastern portion of the site; few artifacts related to the site have been located east of the fence. Another east-west wire fence bisects the southern portion of the site.

The present landowner has constructed a residence, a horse barn, corrals, and a roping arena to the immediate north and northwest of the site. He recently built a small pond along the southern edge of the site and a pipeline that crosses a portion of the site from the stock pond to a windmill located near the corrals.



Figure 2. View to the southeast from the bluff top showing the escarpment and the beginning of the Palo Duro Canyonlands. The easternmost limit of the site is in the foreground.

Methodology

Our methods for locating the Colonel John I. Gregg 1872 battle site were similar to those the Texas Historical Commission used during the 1998–1999 Red River War Battle Sites Project (Cruse et al. 2000, 2001). The metal detector types used during this investigation included a Whites Spectrum XLT and Garrett Models 750 and 1000. One of the Garrett models was equipped with a deep scan coil for maximum soil penetration. Random metal detector searches were made at several possible locations for the site.

Upon finding a series of associated artifacts, we began using a more systematic search method that included a sweeping grid pattern in which a series of parallel passes with metal detectors was made in one direction across the site. A second series of parallel sweeps was made at right angles to the first. The width of each sweep of a metal detector varies among individual users and is based on height, arm length, and length of stride, but some sweeps can be much as 1 meter. As an artifact was recovered, its location was flagged, and a GPS reading was later

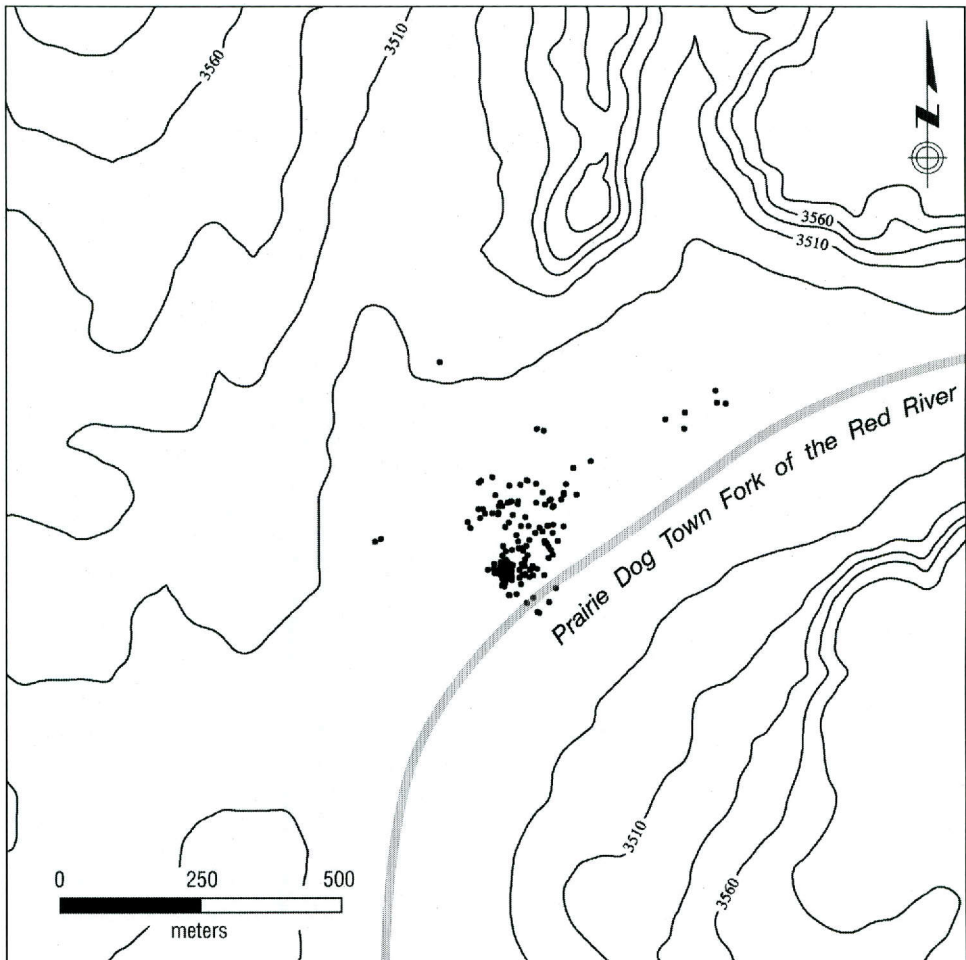


Figure 3. Gregg battle (41RD77) artifact distribution.

recorded for each artifact before it was collected. These GPS readings were later used in the production of the artifact distribution map (Figure 3). Each artifact was placed in a separate collection bag and recorded numerically as it was collected. Once all the artifacts were collected, they were cleaned, catalogued, and photographed. To search for isolated Indian artifacts, we used similar procedures to investigate areas beyond the military site proper, which included the windmill/stock pond pipeline trench and back dirt that remained after the excavation.

Recent unassociated artifacts were collected and removed from the site but not recorded. These items consisted of nails, fence staples, shot shell brass, nuts, bolts, and other various pieces of broken farm machinery.

Results

Of the 209 recorded artifacts collected from the Gregg battle site (Table 1), 51 percent relate to ammunition and armaments, 21 percent to animal husbandry, 23 percent to equipment and supplies, 3 percent to personal objects, and 2 percent to miscellaneous items.

Ammunition and Armaments

The majority of the brass cartridge cases collected are .50/70 caliber (Figure 4: items 1, 3–5, and 6). The .50 caliber carbine was the standard issue of the U.S. Cavalry in 1872. With the exception of one Berdan (externally primed) cartridge case, all of the cartridge cases are internally primed. Four of the recovered cartridges are broken and have never been fired. Also recovered were two 56/50 Spencer cartridge cases designed by the Springfield Armory in 1861 (Thomas and Thomas 1996). These cartridge cases were used in the 1865 model Spencer repeating carbine. Two .44 caliber Henry cartridges (Figure 7: item #116) recovered at the site were developed by B. Tyler Henry for the lever action repeating rifle that bears his name and were manufactured by the New Haven Arms Company (1860–1866). Three .32 caliber rim fire cartridge cases found up-slope to the northwest of the site are possibly from firearms used by the Kiowa. Three spherical lead balls used in percussion type firearms were also recovered: specimen 142, with a diameter of .348 in and a weight of 64.5 grains; specimen 162, .382 in and 137.5 grains; and specimen 168, .43 in and 137.5 grains.

Additional items collected from the site include 11 Berdan cartridge cases from a later period. Five are .40/82 cartridge cases (Figure 4: item #2) that are head-stamped D.C. Co. (indicating they were manufactured by the Dominion Cartridge Co.); these cartridge cases were made for the 1885 Winchester single shot and also for the 1886 Winchester lever-action repeating rifle. The remaining 6 were manufactured by the Union Metallic Cartridge Co.: 3 are .44 caliber CFW (center-fire Winchester) cases, and 3 are .45 Colt cartridge cases (Logan 1959).

Two .50 caliber bullets, one of which is mushroomed (Figures 6 and 7), were also recovered. Twenty-five conical-shaped .44 caliber bullets (Figure 5: items 55, 56, and 58) show no evidence of use. These bullets may be the remains of paper cartridges that were dropped and lost during the battle since they were all

Table 1
Site 41RD77 Artifact Inventory

Artifact Description	Number
Ball: lead	3
Brace: metal	1
Bracelet: brass, Indian	2
Brad: brass, harness	5
Buckle: cinch	1
Buckle: flat, metal	1
Buckle: harness	4
Bullet: .44 caliber	25
Bullet: .50 caliber	2
Bullet: unknown caliber	8
Button: brass, military	1
Button	3
Can: fragment, leaded	2
Cartridge case: .32 center fire	3
Cartridge case: .32 rim fire	3
Cartridge case: .40/82	5
Cartridge case: .44	3
Cartridge case: .44 Henry	2
Cartridge case: .45 Colt	3
Cartridge case: .50/70	41
Cartridge case: .50/70 Ext.	1
Cartridge case: .56/50 Spencer	2
Cartridge case: fragment, no ID	1
Chain: fragments	4
Extractor tool	2
Flat metal	1
Hook: metal	2
Horseshoe: half	1
Knife: handle fragment	1
Knife: pocket	1
Lead fragment: small	2
Muleshoe	2
Nail: flat fragment	1
Nail: horseshoe	16
Nail: cut, square	31
Piece: brass, no ID	1
Piece: brass, decorated	2
Piece: metal, no ID	1
Ring: harness	1
Rod spacer: wagon	1
Rod: metal, no ID	1
Saddle guard plate: brass	1
Spring: straight	2
Staple: wagon bow	1
Tube: brass, pointed	1
Wood screw: large	11
TOTAL	209

found in the same general location. These cartridges are typical of the cartridges used in early Remington and Colt military handguns. Eight other unidentified lead bullets were also recovered from the site.

Two military type combination gun tools were also recovered. One, a musket nipple wrench (Figure 5: item #59) that fits most muskets and rifles, was first issued with the Mississippi Rifle and later used with the Sharps Rifle. The second tool is a combination screwdriver (3 blades) and mainspring clamp (Figure 6: item #98) that was issued for the model 1866 rifle. This tool was made from the old percussion lock screwdriver by cutting off the cone wrench and making a notch in the stump, which serves to clamp the mainspring when dismounting the lock (Kirkland 1989). Two brass pieces shown in Figure 8 (item #150) may be fragments of a brass trigger guard.

Animal Husbandry

Recovered artifacts that relate to animal husbandry consist of metallic pieces used in the construction of harnesses and saddles. The following items were found: 5 harness buckles, a cinch ring (Figure 5: item #54), brass brads and rivets (Figure 5: item #57), mule shoes and horseshoes (Figure 9: item #200), 16 horseshoe nails (Figure 9: item #199), and 1 brass guard plate or oval (Figure 6: item #101) from the rear of the saddle seat (cantle) of a U.S. McClellan military saddle.

Equipment and Supplies

Four sections of various types of link chains collected, along with various hooks and metal parts, probably came from the supply wagons. Other identified

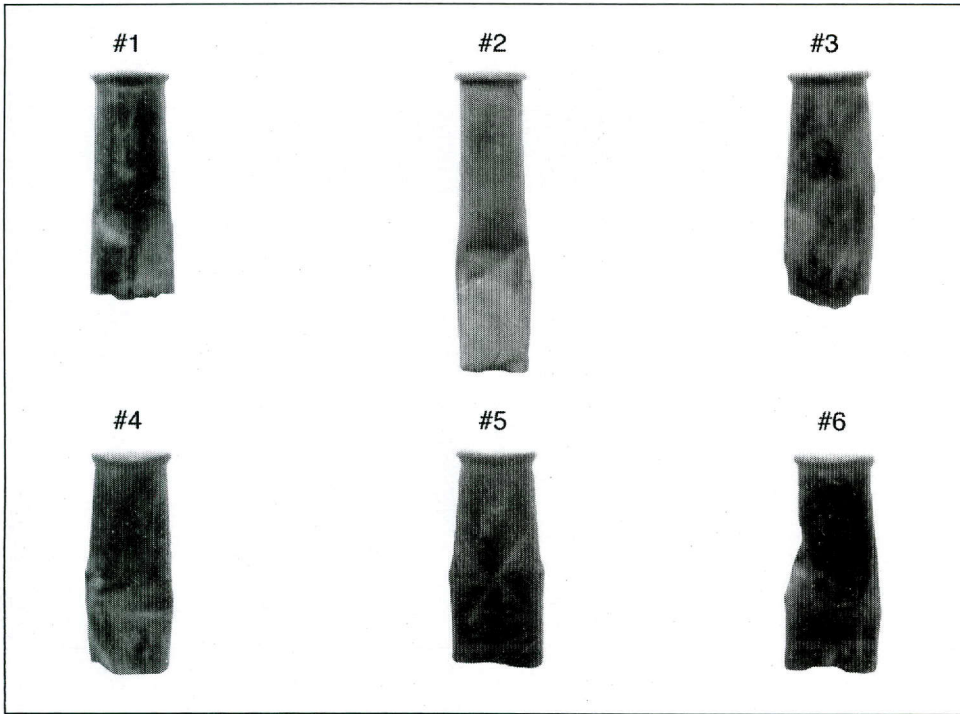


Figure 4. .50/70 caliber cartridge cases: #1, 3, 4, 5, 6; .40/82 caliber cartridge case: #2.

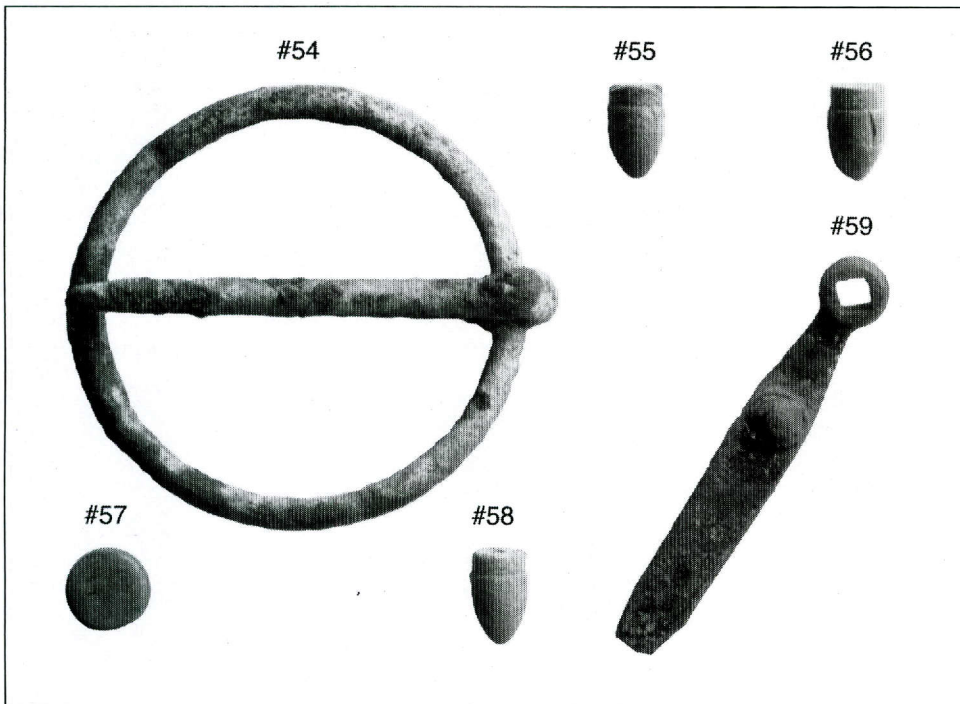


Figure 5. Cinch ring: #54; .44 caliber bullets: #55, 56, 58; brass harness brad: #57; musket nipple wrench: #59.

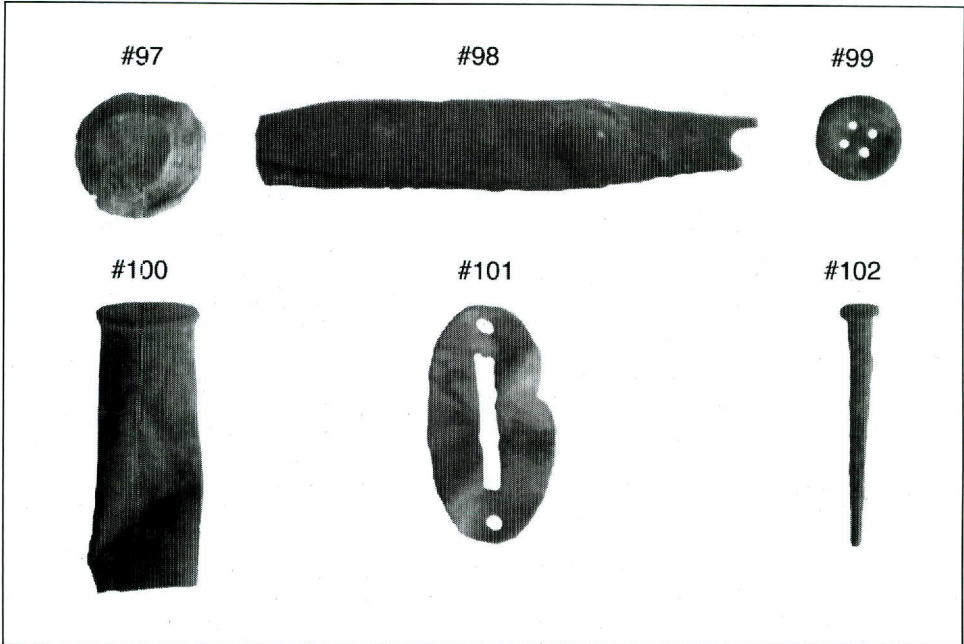


Figure 6. .50 caliber bullet: #97; Springfield combination wrench: #98; metal button: #99; .50/70 caliber cartridge case: #100; brass guard plate: #101; cut nail: #102.

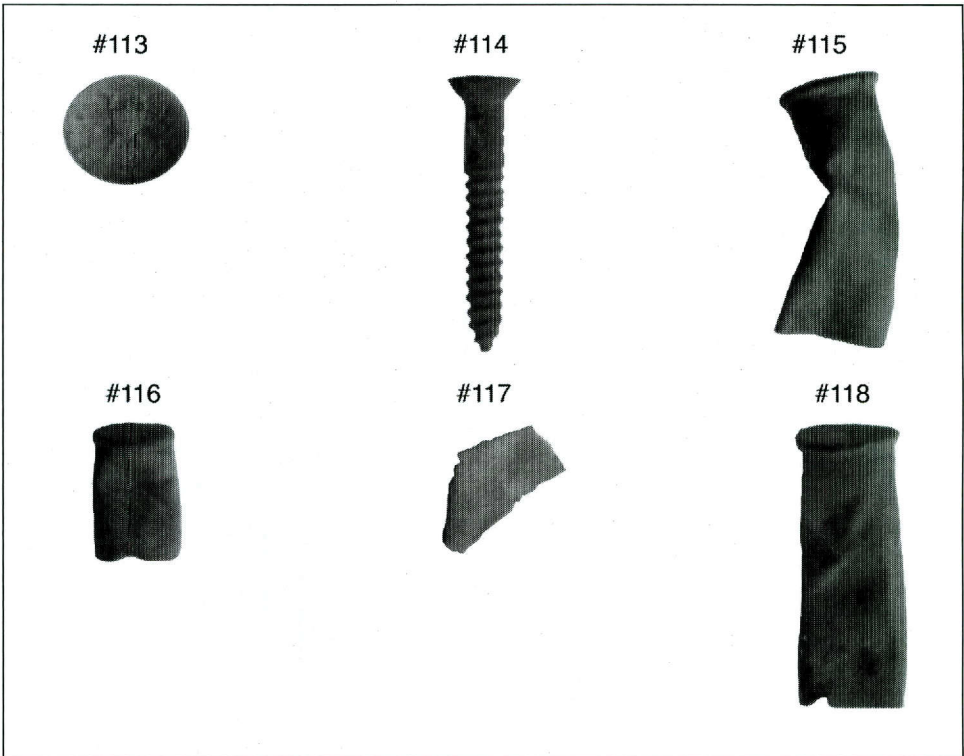


Figure 7. Brass military button: #113; woodscrew: #114; .50/70 caliber cartridge cases: #115, 118; .44 caliber Henry cartridge case: #116; unidentified cartridge case fragment: #117.

wagon parts include a wagon rod spacer and a wagon bow staple. Several fragments and parts of lead-sealed metal cans were also collected. The largest of the can fragments recorded is a base section (Figure 8: item #154) that may have been a container for foodstuffs.

The following artifacts are similar to those from the Red River War Battle Sites Project (Cruse et al. 2000, 2001): 11 woodscrews (Figure 8: item #151) and 31 cut or square nails (Figure 6: item #102) of various sizes. These items were probably used to secure lids on supply boxes and crates.

Personal Effects

A limited number of metallic artifacts of a personal nature were recovered from the site and surrounding area: three 4-hole metal clothing buttons and one 2-bladed pocket or jack knife (both blades hinged from the same end) that measures 3 5/8 in in length with both knife blades broken at mid-blade and folded closed. Attached to one side of the knife body is a partial, checkered bone grip. The body of the knife has an unusual square, blunt-metal distal end. No brand names or manufacturing information were found on any of these artifacts.

Also recovered was one brass military eagle uniform button (Figure 7: item #113), back marked "Wm Lang/Boston, Mass." This button was most likely manufactured by William Lang of Boston, Massachusetts, a merchant in West India goods. Lang had an Army contract on April 14, 1857, for 1,050 gross coat buttons and 1,250 gross vest buttons (McGuinn and Bazelon 2001). Apparently, the eagle button with the Lang's back mark is from this contract. Two round wire brass bracelets (Figure 8: item #152) similar to ones worn by Southern Plains Indians during the mid to late 1800s were found south of the creek and may be associated with the battle.

Miscellaneous

Several pieces of miscellaneous brass, iron, and lead materials from the site were collected and recorded. Some of these have yet to be identified, so they may or may not be associated with the 1872 battle. As stated previously, agricultural artifacts of a more recent manufacture and present-day debris were not recorded.

Conclusions

The site area has been greatly impacted not only by nature but also by man. It is safe to say that over the past century plowzone movement has shifted all of the recovered artifacts from their original locations. What remains unique is that there was still a definite pattern of occupation at the battle site. The portion of the site containing large amounts of spent military cartridges seems to suggest that only an outer segment of the encampment was actively engaged in the battle. Still, the question remains as to why more artifacts were not recovered from the overnight encampment of more than 225 military personnel and livestock traveling with 38 wagons. Were these other artifacts washed away by previous floods or collected in the past by other individuals? The small number of Kiowa projectiles at the site—limited to two .50 caliber bullets, three percussion balls, and three .32 caliber rim

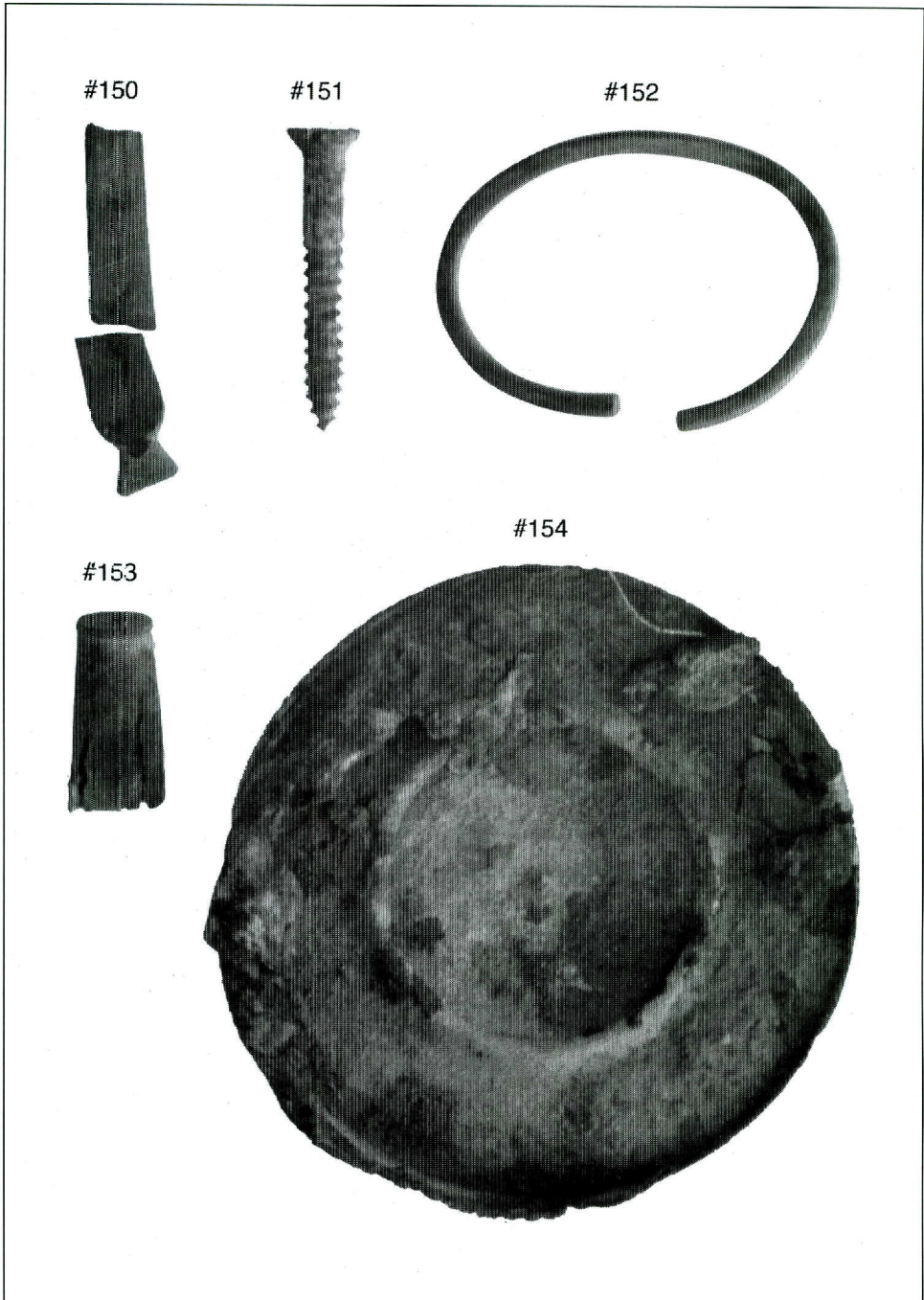


Figure 8. Decorated brass piece: #150; woodscrew: #151; brass bracelet: #152; .45 caliber center fire cartridge case: #153; end piece from leaded tin can: #154.

fire cartridge cases—may confirm a report that most of the Indian's gunfire was aimed high. The use of muzzle loading weapons by the Indians may also explain the lack of more Indian-associated cartridge cases at the site. The night attack was



Figure 9. Cut nails: #197, 199; base fragment of unfired .50/70 caliber cartridge case: #198; horseshoe with horseshoe nail: #200.

probably only an attempt to harass the troops by stealing the military livestock. It is likely that the Indians retreated from the battle once they realized they were not only outnumbered but also outgunned.

The military artifacts recovered at this Randall County site and the terrain that matches Colonel Gregg's records provide reasonable evidence that it is the location of the 1872 battle between Kiowa Indians and Colonel John I. Gregg's Eighth Cavalry.

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The cooperation of the landowner as well as neighboring landowners is essential for any survey of this type. We could not have been more pleased with the landowners who allowed us access to their property: Vicki and Terry Funk; Edward Burgess, whose property contains a known military trail that descends from the north; Hugh Lackey, land tenant of the Blackburn family's property, which extends to the east and to the south of the site; and Myrl Goodwin, on whose property we located the 1872 Gregg battle site.

Mr. Goodwin's support included mowing areas of the site with heavy vegetation and informing us in advance of construction projects, which included excavation of a stock pond and trenching for a water pipeline across the site. During the latter stages of our investigations, Mr. Goodwin and his brother Earl obtained permission to donate a day of their time to lead the researchers into eastern New Mexico to the former location of Fort Bascom and the general area of Colonel John I. Gregg's 1872 Summer Camp for the Eighth Cavalry by the Canadian River. Mr. Goodwin's support never once faltered during the many trips made onto his property in search of the battle site. We especially appreciate the enthusiasm he expressed at the end of each day as we reviewed our finds and his plans to donate the collection of artifacts to the Panhandle-Plains Historical Museum, where they will be available for future studies.

We also extend our thanks to Texas Historical Commission Archeologist Brett Cruse for his advice, assistance in the field, and technical assistance in producing the artifact distribution map. Especially to our wives, Nadyne Lynn and Sidney Shaller, we express our deep gratitude and love. They understood the importance of our research, provided technical assistance, edited countless drafts of this report, and had evening meals prepared regardless of how late we returned home from the field.

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References

- Cruse, J. Brett, Patricia A. Mercado-Allinger, Douglas D. Scott, and Pamela Folds
 2000 *The Red River War Battle Sites Project, Phase 1*. Report submitted to the National Park Service, Washington, D.C., Texas Historical Commission, Austin.
- 2001 *The Red River War Battle Sites Project, Phase 2*. Report submitted to the National Park Service, Washington, D.C., Texas Historical Commission, Austin.
- Gregg, Colonel John I.
 1872 Report of a Scout to the Vicinity of Quitta Que, September 17, 1872. File 4548, Adjutant General's Office, 1872. Record Group 94, National Archives.
- Kirkland, Turner
 1989 *Dixie Gunworks, Inc.: Catalogue*. Union City, Tennessee.
- Koster, John (editor)
 1980 The Forty-Day Scout: A Trooper's Firsthand Account of an Adventure with the Indian-Fighting Army in the American Southwest. *American Heritage*, 31(4):99-107.
- Logan, Herschel C.
 1959 *Cartridges: A Pictorial Digest of Small Arms Ammunition*. Bonanza Books, New York.
- Lynn, Alvin, and Rolla Shaller
 2004 Historical Background and Archeological Investigations at the Col. John I. Gregg Battle Site (41RD77). *Transactions of the 39th Regional Archeological Symposium for Southeastern New Mexico and Western Texas*, edited by Pinky Robertson, pp. 1-15. Midland Archeological Society, Midland.
- McGuinn, William F. and Bruce S. Bazelon
 1988 *American Military Button Makers and Dealers; Their Backmarks and Dates*. BookCrafters, Inc., Fredericksburg, Virginia.
- Thomas, James E. and Dean S. Thomas
 1996 *Civil War Bullets and Cartridges*. Thomas Publications, Gettysburg, Pennsylvania.

A Preliminary Archeological Study of “Old Town” Elysian Fields, Texas

Thomas E. Speir

Members of the Texas Archeological Stewardship Network (TASN) who are based in East Texas conducted an archeological study centered on the intersection of U.S. Highway 451 and Old Town Road just east of the current site of Elysian Fields, in southeast Harrison County. The town of Elysian Fields was originally established around 1840. In 1910 the town was moved a mile west to its current location to take advantage of a newly laid stretch of the Marshall and East Texas Railway. This report focuses on the archeological findings from the original site of Elysian Fields, an area local residents call “Old Town.” The artifacts recovered from the site are generally consistent with the historic record of the township.

In the fall of 2002, Billy Furrh of Elysian Fields, Harrison County, Texas, contacted the Texas Historical Commission (THC) to request a study of the original site of the town, hereafter referred to as Old Town. Because most of the documentation regarding this site had already been lost over the years, Billy Furrh requested the study for the purpose of compiling information on any remaining archeological evidence of Old Town before any further data was lost due to construction, erosion, or other factors.

Background

Harrison County, whose county seat is Marshall, is located in northeastern Texas on the Louisiana border. According to *The Handbook of Texas Online*,

Elysian Fields is located in the southeast part of Harrison County . . . a mile north of the Panola county line in Harrison County. The name of the town originated in a dinner conversation in New Orleans in 1817. Capt. Edward Smith, having lately ridden through what was then a Caddo Indian village known as Biff Springs, so vividly described the beauty of the area that one of his guests likened it to the Elysian Fields of Greek mythology, which described it as the final resting place of famous heroes. Smith returned to Elysian Fields with his family in 1837 and established one of the first general stores in the area. By 1848 the town had a post office. Elysian Fields attained a population of sixty in 1884, and grew to 160 by 1896; that year the town had three churches and daily mail service at postmaster J. M. Furrh’s general store. Cotton and lumber formed the economic base of the community. In 1910 the town was moved a mile west to take advantage of a newly laid stretch of the Marshall and East Texas Railway (Nordstrom 2002).

The original site of Elysian Fields had been settled about 1840 as an agricultural community, then grew slowly but steadily over the years to eventually include stores, storehouses, a steam-powered cotton gin, private residences, and other structures. The town moved to its current location in 1910 to take advantage of the railroad service.

There were few physical remains of the town left standing at the time of this study. The northeast (NE) quadrant was overgrown forest changing to planted pine forest. The southeast (SE) quadrant was cleared hay meadow with surface artifacts found only near roads and currently occupied structures. The northwest (NW) and southwest (SW) quadrants had reverted to overgrown forest, although these two sections still contained some residential structural remains.

No published archeological studies had been previously conducted in this part of Harrison County. There is an oral history of a prehistoric component in the area but minimal evidence for a prehistoric occupation in the Old Town area.

The focus of our investigation was the historic township, consisting of a small community that serviced the surrounding cotton- and corn-producing farmsteads. Historical records and interviews with local residents indicate Old Town may have eventually contained, besides homesteads, a solid mercantile base with three or four stores, storage warehouses, three grist mills, a blacksmith shop, and possibly a hotel. Old Town also had a school and a Mason's hall located in the same two-story building. The only industrial structure known to have been located in Old Town was a steam-powered cotton gin, which was moved in 1910. A cotton press now adjacent to the cotton mill in Elysian Fields also might have been moved from Old Town.

One of the stores was moved on logs to a new site in the current location of Elysian Fields when the Old Town site was abandoned. Another store was moved in the 1980s to Carthage, Texas, where it still stands. The fate of the third store is currently unknown.

Our efforts concentrated on the number, location, and functionality of structures, but the lack of historical documents related to Old Town greatly hindered our research. Various interviews revealed that the surviving balance of these historic documents was in the personal possession of the late Judge John Furrh up to the mid 20th century when a house fire may have caused the loss of any existing maps, records, or plats of the town. A U.S. agricultural map of Harrison County made in 1912, only two years after the town was moved, was found in the Harrison County Historical Museum.

Site Description

Topography

Southern Harrison County is part of the Sabine River drainage basin. Surface water moves predominantly in a southerly direction and is abundant through creeks and several natural springs. The predominant natural water sources in the Old Town area are Socagee Creek and Biff Springs. Several water wells dating from the Old Town period were discovered, and they generally hit a water table 12 ft below ground surface.

Elevations range from 340 ft above sea level near Socagee Creek to 360 ft above sea level on nearby rises. The county is in the East Texas Timberlands Land Resource Area, which is characterized by a gently sloping topography occasionally interrupted by steep or level terrain. About 51 percent of the county is managed as woodland; 22 percent as improved pasture or hay-production fields; an additional 14 percent as native pasture; and the remaining 13 percent as cropland, built-up areas, recreational areas, wildlife habitats, urban land, or water areas (Golden et al. 1994:1).

Climate

Harrison County in summer has an average temperature of 81°F with an average daily maximum temperature of 92°F. It is generally cool in winter, with only an occasional cold snap and infrequent snowfall. In winter, the average temperature is 46°F with an average daily minimum temperature of 35°F. The climate readily supports an agricultural economy.

Other than a springtime peak, rainfall is uniformly distributed throughout the year and is normally adequate for cotton and grain crops. Annual precipitation is 46.9 in, of which about 50 percent falls in April through September. Thunderstorms occur about 44 days each year, with occasional severe storms and tornadoes (Golden et al. 1994:3).

Landscape

Planted pine, native pine, and hardwood forests surround the Old Town site. The county's forests provide the raw material for its current economy: commercial timber production. Most of the woodland is on privately owned tracts, with much of the area, including the land northeast of the Old Town site, planted in loblolly pine. The mature pines and some hardwoods are harvested for pulpwood, saw logs, crossties, posts, and poles (Golden et al. 1994:3).

Soils

Harrison County occupies a portion of the Gulf Coastal Plain, which is made up of unconsolidated sands and clays. The soils in the county are greatly enhanced from decomposition of forest vegetation (Golden et al. 1994:1).

The dominant soil in the northern Old Town area and west to the current location of Elysian Fields is a fine, sandy loam called Bernaldo. The U.S. Department of Agriculture characterizes Bernaldo as prime soil for farmland. The properties of this soil favor the economical production of sustained high yields of crops, making it the preferred soil for meeting short- and long-range needs for food and fiber (Golden et al. 1994:87).

In the southern and eastern portions of Old Town are soils of the Guyton-Cart complex. The Cart soil is typically found on circular mounds 2 to 5 ft high, 40 to 125 ft in diameter, and 50 to 250 ft apart. These circular geologic features are generally referred to as pimple mounds. The poor drainage of Guyton soil, which typically has water standing on the surface for several days during wet periods, makes it unsuitable as prime farmland. The Cart soil, however, dries quickly after rains.

Research Design

The focal point for our research was a highway intersection located near the Harrison-Panola County lines. We recorded one historic residential site that was 1 mi from the intersection; the rest were within 1/2 mi of this intersection.

The intersection of U.S. Highway 451 and Old Town road divided the Old Town area into four search areas. The team searched and reported findings by NE, SE, SW, and NW quadrants.

The research design developed for this preliminary study of the historic archeological remains of Old Town Elysian Fields focused on recovery of data from historic records, local oral traditions, and archeological field studies.

Records at the Harrison County Courthouse, Harrison County Historical Museum, General Land Office, and local survey and abstract offices were examined and failed to yield any map or plat of Old Town. Structures shown on current U.S. Geological Survey (USGS) maps (Stricklin Springs and DeBerry quadrangles) were identified. The most useful document found was a 1912 U.S. Department of Agriculture (USDA) map of Harrison County. Dated only two years after the town was moved, an enlargement of the Old Town area showed several structures that still existed at that time. Our efforts to identify the structures by using an enlargement of this map and interviews with local residents were minimally successful.

Land survey records indicated that the current east-west highway, U.S. Highway 451, corresponds with Old Town Main Street, or the Grand Bluff to Shreveport Road as it was known. The main north-south route through Old Town was Mill Street, now known as Old Town Road. Deed records indicate that a Spring Street once existed in the town as well, but no local resident knows where it might have been.

Surveys were conducted primarily with metal detectors to aid in locating historic structures. Any presence of metal indicated by the detectors was flagged. The team would then identify and flag concentrations and perform shovel tests in those areas. Because the focus of the study was the historic Old Town, the team did not search for prehistoric components. Prehistoric artifacts randomly recovered, however, are listed by location in Tables 4–5.

Recovered artifacts were bagged and labeled by date, quadrant, and specific location. In almost all cases, artifacts were recovered 5–20 cm below the surface. The few shovel tests exceeding this range often encountered a water table at the 50 cm depth. Due to the known high level of soil disturbance from agriculture (both historic and current), construction, limited erosion, and burrowing animals, there is no stratified site context.

Recovered artifacts were analyzed and assessed, and their descriptions were documented in this report. Among the problems found during artifact identification were the lack of stratified site context and the randomness of shovel tests.

Results

According to Calvin McGuire, a local inhabitant and key informant, the northern portion of Old Town road was moved to the east about 10 ft during the 1940s. This move aligned the northern portion of Old Town Road with the southern

portion. It should be noted, however, that the 1912 USDA map of the Old Town area shows the north and south portions already aligned at that time—most likely because this large, countywide map was drawn that way for simplicity. No evidence was found that conclusively determines when the northern portion of the road might have been moved.

Northeast Quadrant

Lacy/Pippen Store—41HS869

Early maps of Stricklin Springs show a structure at the intersection of U.S. Highway 451 and Old Town Road. The structure no longer stands at this location but is believed to have been what was known locally as the Lacy/Pippen Store, one of three general mercantile stores of Old Town. The old store was purchased and moved to a new location near Carthage, Panola County, Texas, in the 1990s and still exists at that location at the time this report was written.

An earlier store, believed to date back to before the Civil War, probably stood on the site prior to the construction of the Lacy/Pippen Store sometime in the late 19th century. Reported to have included a grist mill, the store may have originally been owned and operated by a Colonel Hendrix. During the late Old Town period, it was owned and operated by the Lacy family. The store was purchased by W. J. Pippen on February 4, 1913, for \$125. According to Harrison County Records (General Deed 79:314), the land consisted of “one lot forty ft, fronting on Main Street, and running back seventy ft, being a part of Lot No. 8, known in the plat of said town as the W. corner of block on which the Hendricks storehouse formerly stood, and bounded on the E. by Lot No. 9. This Lot No. 8 is the lot on which the storehouse of B. E. Lacy now stands.” This document also confirms that a plat of the town had existed at one time.

Another Harrison County document (Harrison County Records, General Deed 59:194), dated January 20, 1905, mentions “a stake on sidewalk” for a nearby lot. According to McGuire, the store, like other buildings in the center of Old Town, originally fronted right on the edge of the road, with no bordering right of way. He also mentioned that the store had been moved back from Main Street (now U.S. Highway 451) a few yards in the 1940s when the road’s right-of-way was widened. This move would have severely impacted the archeological deposits associated with all the structures facing Main Street. In fact, the first reconnaissance of the area in early 2003 showed freshly disturbed soil from a recent waterworks project adjacent to the roadside ditches (on the south side of U.S. Highway 451), pushing the impacted area even further into the town lots.

A photo of the store (Figure 1), supplied by Allen K. Lacy of Houston, Texas, shows surrounding structures. The photo, taken about 1905, confirms the presence of a covered porch for the frame structure. There is limited archeological evidence of the Lacy/Pippen Store, however. Artifacts recovered from shovel testing at the site include 1 sherd of transitional whiteware/pearlware (1820–1870), snapped during inspection; 2 sherds of blue-tinted ironstone (1850–1910); 1 aqua bottle neck, medicinal or possible toiletry with hand-applied lip finishes (1850–1920); and 13 cut nails (1840–1880). (An inclusive list of recovered artifacts from



Figure 1. Lacy/Pippen Store, ca. 1905. (Courtesy Allen K. Lacy)

this site is in Table 1 of this report.) These finds suggest the area was occupied from the mid-1800s to about 1910.

No cultural features from the original construction were evident. After 1910, a single gasoline pump was added in front of the store. Eventually the ground surrounding the pump was covered with a tar-asphalt composite. Though mostly covered with dirt, the composite still exists and appears to be undisturbed. At least one Elysian Fields area resident believes an underground storage tank still exists at this site, so caution should be taken if any future excavations are done at this location.

Log Barn—41HS870

Another interview with McGuire revealed that a log storage barn once stood north of the Lacy/Pippen Store. The structure can be found on the 1912 USDA map, but was destroyed in the 1990s during the expansion of the right-of-way and construction of the nearby baseball park. Today, all that remains of the structure is a cluster of bulldozed dirt and burnt logs. There are heavy charcoal deposits at the 15 cm level over the surrounding area. This barn may have been connected by a corral to another storage barn to the east that can be seen in Figure 1. A brick-lined well supposedly associated with this compound has not yet been discovered.

Table 1
Lacy/Pippen Store (41HS869) Artifact Inventory

Category	Description	Number
Ceramic	Sherds: blue-tinted ironstone (1850–1910)	2
	Sherd: burned ironstone (1840–1910)	1
	Sherd: semiporcelain	1
	Sherd: transitional whiteware/pearlware, snapped during inspection (1820–1870)	1
	Sherd: yellowware bowl with brown interior glaze and light brown slip on rim and unglazed bottom	1
	Possible bowl: stoneware with salt glazed exterior/interior	1
Glass	Fragment: possible milk glass or colored decorative item	1
	Sherds: olive green bottle	2
	Sherds: light aqua tint window	2
	Sherds: aqua tint bottle, including 3 base fragments	14
	Sherd: manganese decolorized bottle (1880–1920)	1
	Sherd: thick, lightly tinted, possibly from auto or truck	1
	Sherd: bottle fragment, ash tint, decorative (post-1915)	3
	Sherd: bottle or decorative fragment, clear	1
Metal	Bottle neck: aqua, medicinal or toiletry, with hand-applied lip finishes (1850–1920)	1
	Wood screw	1
	Cut nails (1840–1880, continuous to present)	13
	Unidentified nails: possible wire	4
	Unidentified iron object: possible nail	1
	Piece: Unidentified sheet metal	1
	Unidentified valve stem or petcock	1
	Screw-on cap: possibly medicinal (ca. 1920–present)	1
	Cut nails (1840–1880, continuous to present)	2
	12-gauge shotgun shell: Peters "Target"(unknown exact date, but Peters existed 1897–1934)	1
Other	Pistol casing: "US" .32-caliber rimfire (1869–1936)	1
	Piece: possible Bakelite, burned	1
	Piece: mortar	1
Total		61

Eaton House—41HS867

The 1912 USDA map shows that further north of the log barn were two more structures, identified from interviews as private residences. Two newer structures were added to the USGS Stricklin Springs map when it was revised in 1978.

The structure closest to the log barn to the north was identified as the Eaton house. The original construction date of this residence is unknown, but it most likely existed during the Old Town period (1830s–1910) and was still occupied after Elysian Fields was moved in 1910. According to McGuire, the house was owned at that time by an African American family, the Eatons.

The entire area is now covered with thick new-growth forest, some vines, and a thick leaf carpet. Some scattered fragments of hand-pressed and machine-

pressed brick can be found on the northern edge near a large, bulldozed pile of burned tree stumps. Another trash pile is located 30 m northeast of the site. The surface debris, all less than 50 years old, includes various bottles, jars, and cans; the remains of a 5-gal metal bucket; and a 55-gal drum. However, no observable features that can be associated with the Eaton house remain at the site. The only remaining evidence that this structure ever existed is its oral history and its inclusion on the USGS Stricklin Springs map.

Warren House—41HS866

The northernmost of the structures seen on the 1912 USDA map is identified as the Warren house, the residence of a family of European-American heritage. A concrete culvert serving Old Town Road provides access to the site, now an abandoned lot covered with thick vegetation. A more recently built gray brick home with a chain-link fence has been built adjacent to the site on the north side.

On the north side of the site, outside the chain-link fence of the brick home, is a well house about 3 ft high that has no remaining roof and is constructed of modern, machine-pressed brick. It has two separate chambers, each approximately 3 ft x 3 ft, and oriented on an east-west axis. When the well house was in use, the western chamber apparently contained modern pump equipment. The eastern chamber contains the actual well, of unknown depth, lined with hand-pressed brick similar in appearance to those of other wells in the Old Town area.

Biff Springs

Another point of interest in the NE quadrant is a pool identified by local residents as Biff Springs (Figure 2), which flows year-round into Socagee Creek, located a few meters to the east of the springs. The area is heavily overgrown, with only an isolated fencepost to indicate human use of the site. One unconfirmed local legend tells of the recovery of a portion of an old musket when the spring was dredged in the early 20th century.

In December 2003, investigations of this area and the planted-pine area to the north included a random test hole dug in a low mound 500 m north of the springs. The hole revealed one tested cobble or scraper made of jasper and one weathered lithic flake. Other random shovel tests failed to produce any additional artifacts. According to McGuire and Elysian Fields resident Johnny Brown, the immediate area to the north had been under cultivation since at least the time of the Civil War and has been used for timber harvesting for the last several decades.

Boisseau Lake

The lake property, located east of Socagee Creek, is named after an influential family that had once owned the property (Figure 3). A random test hole dug in a pine- and straw-covered, elevated landform near the highway on the east bank of the creek recovered three sherds of Caddoan pottery. Subsequent tests dug by the team in similar mounds failed to produce any other artifacts.

Additional random shovel tests were conducted in some promising mounds adjacent to the lake. Test 106, on the eastern shore, revealed five pieces



Figure 2. Biff Springs, view from southeast to southwest.

of lithic debitage. An additional piece was found 8 m southwest of the test site. Test 107, on the southeastern shore, revealed four lithic debitage pieces. Surface finds on the northeastern shore included two pieces of lithic debitage and one lithic tool (possibly a scraper).

A natural gas pipeline follows a north-south route a quarter mile to the east of the lake. In January 2005, a plain lip-ball bottle neck, possibly part of a panel style medicine bottle, was found on the surface above this pipeline. The glass is manganese decolorized, a technique prevalent in glassmaking from 1880 to about 1920. This isolated find may have been carried with fill dirt into the pipeline during its construction.

Elysian Fields Cemetery—41HS862

Located east of the central study area, this site is identified on the USGS Stricklin Springs map (Figure 4) as the “Elysian Fields Cemetery.” Interviews with local residents indicate the cemetery was never known by that name. Brown identified this cemetery as the “Boisseau Cemetery.” He also suggested that this site is exclusively an African American cemetery. The “Old Town Elysian Fields Cemetery” or the “Tucker/Cooke Cemetery” (41HS859) is discussed later in this report.

In another conversation with McGuire, he shared an unconfirmed local story that an artifact collector digging into low elevated landforms on the northern edge of the cemetery (believing they were “Indian mounds”) excavated a skull from a grave in the 1960s. Another unconfirmed story states that sometime in the

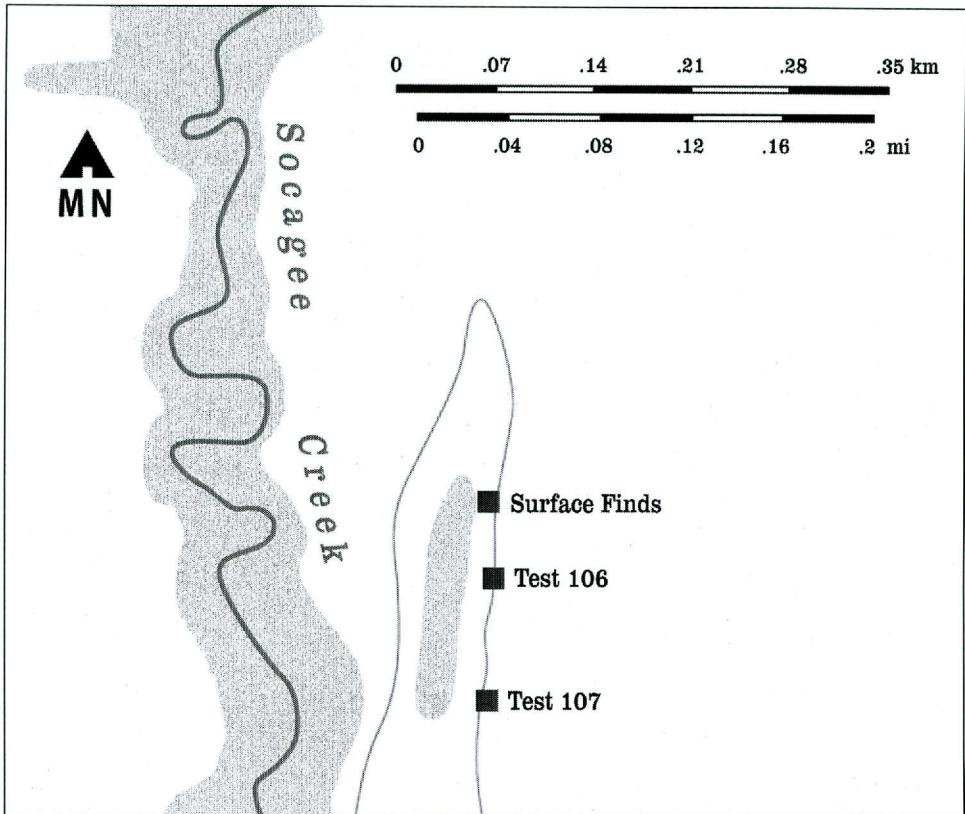


Figure 3. Boisseau Lake area map. Tests 106 and 107 were conducted in this area.

1990s, the cultivated pines surrounding the site were nearly planted within the cemetery boundaries because the workers could not discern the cemetery there.

The low, mounded area to the north of the cemetery is heavily overgrown with thick vines and briars. Informant James M. Furrh revealed that this area was open pasture in the early 1960s. He told of a time around 1962 when a few teenagers dug a trench in one of these mounds and recovered a cranium, which was shipped to Austin where it was subsequently identified as that of a teenage Native American male. The trench reportedly was never backfilled. The area in question is currently covered with thick briars, so the presence of a trench is difficult to verify. In a similar story, a Harrison County schoolteacher in the late 1960s accidentally exhumed a grave while digging for Indian artifacts. These unsubstantiated stories from multiple sources are included in this report only to highlight the dangers of untrained excavations at this site.

The cemetery is adjacent to U.S. Highway 451, but there are no markers to indicate its location. A visitor on foot would find only an overgrown open pasture with a scattered assortment of headstones, almost all lying flat on the ground. Two upright headstones were found during our investigation between two trees near the center of the site. They were not readily apparent as they were nearly buried by encroaching fire ant mounds.

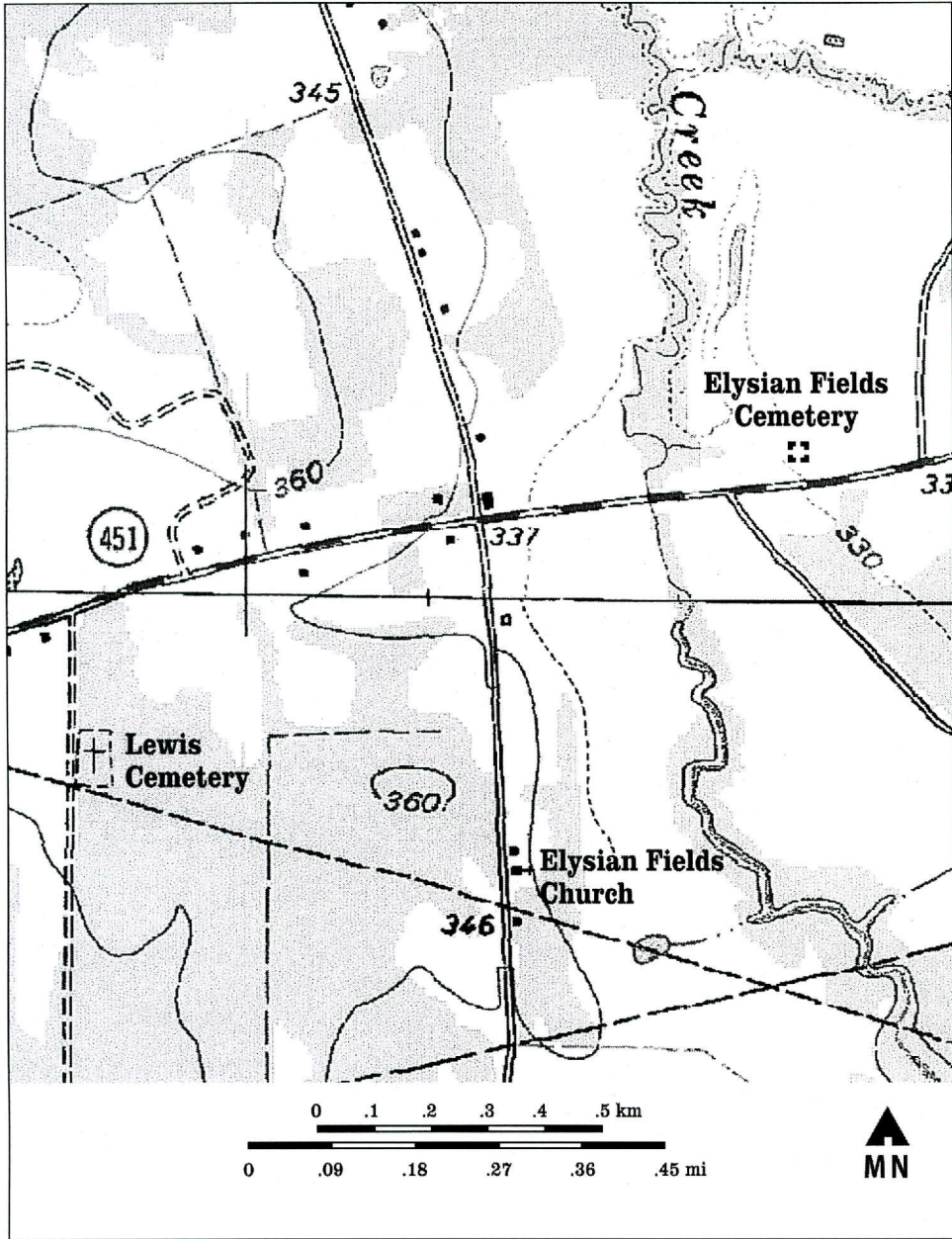


Figure 4. Map of Old Town Elysian Fields intersection area shows the Elysian Fields Cemetery, which was identified as the Boisseau Cemetery by local residents. (USGS 7.5 Series: Stricklin Springs and De Berry, 1962)

Southeast Quadrant

The entire SE quadrant is currently an open hay meadow covered with several naturally occurring, low earthen mounds and a newly constructed pond. Several metal detector sweeps were conducted in this quadrant.

The only currently occupied structure in the Old Town area is the James Hodges residence in this quadrant. His home, built around 1981, is located only 50 m east of the J. M. Furrh homestead site (discussed later in this section). According to James Hodges, the driveway was a preexisting roadbed that led to the pasture. Behind the Hodges residence, on the east side, is a north-south line of trees that reportedly follows an old fence line. This tree line differs only slightly from projected fence lines that TASN member Robert D. Vernon speculated might be found in a composite property/topographical map he created in January 2003.

No physical remains of any roadside structures from the Old Town period are still extant today. Oral accounts suggest that mercantile stores had once stood at all four corners of the intersection of U.S. Highway 451 and Old Town Road. The easternmost may have been the Chimney Fall site, but the westernmost site is unidentified. It falls in the area of the Cat Tail Springs site.

Cat Tail Springs—41HS865

This is a scatter of historic debris located directly south of the U.S. Highway 451/Old Town Road intersection (described above). According to interviews and archeological evidence, the entire area has been heavily and repeatedly disturbed by mechanized earth-moving equipment.

Bulldozer work was conducted in the Cat Tail Springs area at least twice during 2004 and 2005. During initial studies, the area consisted of surface springs surrounded by cattails. At this time, water from the springs flows to the east and drains into a newly constructed pond a few dozen meters downstream from the springs and slightly upstream from Socagee Creek.

The site is located in an open, cleared pasture that has been used as a hay meadow since at least the 1960s. The wide range of artifacts recovered from the surface suggests this area was used as a disposal area after Old Town Elysian Fields was abandoned. Informants report that at one time the following items were on this site: a livestock dipping vat in the early 1900s and a lumberyard of some kind in the mid-1900s. Quantities of charcoal in the debris field suggest several fires at various times.

To confirm the location of the J. M. Furrh house (discussed later in this section), a series of shovel tests were performed every 20 m on a north-south axis through the middle of the site. Shovel test #6, 100 m north of the current property owner's existing driveway, yielded a single sherd of brown bottle glass, which is heavily scratched, as if trampled by livestock or plowed repeatedly (Table 2).

Several gopher mounds 30 m north of shovel test #6 revealed nothing, but shovel test #8, 55 m to the north, revealed two sherds of ash tint glass: one possible window glass fragment and one possible bottle glass sherd (Table 2). This type of glass dates from 1915 to the present. Recent impacts to the area were obvious: clear signs of bulldozer activity, discarded 4-in PVC water pipe sections, and orange paint (associated with a nearby telephone junction box).

Artifacts recovered from the surface of the site (Table 2) include one sherd of transitional pearlware/whiteware with blue feather edging (1820–1870), one sherd of ironstone with partial maker's mark (possibly from New York City

Table 2
Cat Tail Springs (41HS865) Artifact Inventory

Category	Description	Number
Ceramics	Sherd: transitional pearlware/whiteware with blue feather edging (1820–1870)	1
	Sherd: burned stoneware, possibly Euro brown salt glaze (1820–1920)	1
	Sherd: ironstone with partial maker's mark, possibly from New York City Pottery (1853–1888)	1
	Stoneware: grey-bodied salt glaze (1850–1945)	1
Glass	Bottle lip: light aqua tint, turn-molded/finish (1880–1910)	1
	Sherd: brown bottle glass, heavily scratched	1
	Sherds: ash tint glass (one possible window glass and one possible bottle glass)	2
	Sherd: green bottle, late modern with seam	1
	Sherds: "Coca-Cola" bottle	2
Metal	Sherd: thick, aqua, possibly from a canning or battery jar	1
	Cut nail spike (1840–1880, continuous to present)	1
	Unidentified nail	1
	Cut nail (1840–1880, continuous to present)	1
Other	Wire nails, possible "gutter spikes"	2
	Leather pads to form the heel of a shoe, possibly woman's	Several
	Pieces: burned wood	2
	Fragments: brick	2
Total		>21

Pottery, 1853–1888), and one light aqua tint bottle lip with turn-molded finish (1880–1910). These surface finds suggest the area was occupied from the mid-1800s to about 1910. Surface finds not collected include pieces of iron plate (1/4 in thick); burnt heavy planks; portions of metal drums; brick and brick fragments (both handmade and mechanically pressed); and can and tin remains.

Genus Furrh Barn—41HS854

The current USGS DeBerry map shows the remains of a structure just to the east of Old Town Road. This site, recorded as the Genus Furrh Barn site, was well known to the current property owner (James Furrh) as a barn built and used by one of his relations, Junius Furrh, in the 1940s. Its absence from the 1912 USDA map helps confirm it is not an Old Town site. [Note: When the formal site's name was documented, Junius Furrh's name was entered as Genus Furrh in error.]

Interviews suggest the pole-and-plank barn was used to house cows, hogs, mules, and hay. The main entrance faced Old Town Road to the west and may have had wing extensions. The barn was abandoned or destroyed by the early 1960s. In the spring the grass on the site is thicker and greener than that of the surrounding pasture.

Shovel tests revealed charcoal deposits indicative of a large fire. Artifacts recovered included one cut nail (ca. 1840–1880, continuous to present); two pos-

sible cut nails; three possible nail fragments; a curved, clear glass bottle shoulder fragment; and nine brick fragments (both handmade and mechanically pressed).

The presence of fragments from handmade brick may indicate that the brick was salvaged from abandoned nearby sources and incorporated into the barn. This site was known not to exist during the Old Town period, so no further action was warranted.

James Madison Furrh Home—41HS855

The James Madison Furrh Home site, located in the front yard of the current property owner (James Furrh), is known to be the home site of one of his ancestors. The house belonged to J. M. Furrh who moved to the area after the Civil War and became a prosperous merchant and community leader. Interviews suggest the house was of plank construction and survived until sometime after World War II.

The location of the house was verified in October 2002 by a series of shovel tests conducted every 20 m on a north-south axis through the middle of the site. The topsoil-clay interface was identified at a depth of 20 cm in all tests. Artifacts recovered from the first shovel test hole, 20 m south of the existing driveway, included two sherds of a transitional type pearlware/whiteware (ca. 1820–1870) and one sherd of ash tint (possibly window) glass dated post-1915.

The second shovel test hole, 40 m south of the driveway, contained 10 fragments of bricks with significant inclusions (probably hand pressed locally ca. 1840–1915). A concretion and cast, and two possible wire nails (post-1880) were found. One fragment of a cut nail (1840–present) and two unidentified rusted iron objects completed the metal recovered from hole #2. The glass recovered from the same test included four sherds of possible window pane (ash tint glass, post-1915), four sherds of ash tint bottle glass (1915–present), and three sherds of brown bottle glass.

Shovel test hole #3 was placed 90 m south of the driveway to determine the scope of the site, but no artifacts were encountered. Shovel test hole #4, placed 20 m north of the driveway, produced five sherds of clear bottle or tableware glass. Shovel test hole #5, dug 40 m north of the driveway, produced no artifacts. The topsoil in this area, within a few meters of the southern edge of the Genus Furrh Barn site, is dark, with a subsurface of mottled clay. One last surface find was collected in December 2002: a single sherd of decorative clear glass, possibly from a bottle or tableware.

The only remaining feature at this site is a hand-dug water well. The current owner found the well and has since covered it with a brace of welded tractor mower blades for safety reasons.

Danny's Site—41HS861

Danny's site consists of a concentration of historic artifacts recovered by these investigations and prior excavations by D. Stanfield in an open pasture used as a hay meadow since at least the 1960s. It is located directly east of an existing metal building that belongs to James Hodges.

Table 3
Danny's Site(41HS861) Artifact Inventory

Category	Description	Number
Ceramic	Sherd: whiteware (1890–present)	1
	Sherd: stoneware, unknown type or function (ca. 1820–1920)	1
Glass	Sherd: green bottle (post-1930)	1
	Sherds: possible window	3
	Sherd: aqua bottle	1
	Sherd: clear bottle	1
	Sherd: clear, decorative (tableware or possible lamp globe)	1
	Sherd: “gullet stone”	1
	Sherd: manganese decolorized bottle (1880–1920)	1
	Sherds: window	2
	Sherds: ash tint bottle	4
	Sherds: manganese decolorized window	3
	Sherds: light aqua tint window	16
	Sherds: very light tint aqua window	60
	Sherds: clear bottle	2
	Metal	Fine-cut nails, possibly brads, small (1840–1880, continuous to present)
Cut nails (1840–1880, continuous to present)		3
Rusted buckle		1
Fragments: rusted (possible nails)		Numerous
Unidentified nail or wire		1
Wire nail		1
Possible nails		9
Part: possible iron equipment		1
Possible iron pipe sections		3
Other		Fragment: slate
	Fragment: brick	1
	Fragment: green plastic	1
	Pieces: slate	5
	Fragments: handmade brick, some highly fired	17
Total		>142

Note: This table includes artifacts recovered by these investigations and previous work by D. Stanfield.

As previously mentioned, on the east side of the James Hodges residence is a line of trees that reportedly follows an old north-south fence line. The western border of Danny’s site falls almost exactly on the eastern side of this old fence line. The site is bordered on the south by the northern edge of the existing driveway, which lends credence to the information that the driveway is from a preexisting roadbed.

Artifacts recovered from the site include 60 sherds of very light tint aqua window glass, 3 sherds of manganese decolorized window glass, and 16 sherds of light aqua tint window glass (Table 3). Comparison of the recovered window glass with Moir’s predictive model for dating lower- to middle-class rural dwellings

based on mean thickness of window glass (Jurney and Moir 1987:79) yielded interesting results. Excluding the 3 sherds of manganese decolorized window glass, the remaining 76 fragments have an average thickness of .193 mm, a result that suggests the glass was manufactured around 1870–1880. This time frame could indicate when the original structure was built.

In a 2005 conversation, McGuire suggested that the town's Masonic hall could have been located in this general area is supported by statements in an undated article from the *Marshall News Messenger* found on file at the Harrison County Historical Museum:

Elysian Fields was the site of one of Texas' early Masonic Lodges, Joppa Lodge #65, which was chartered in 1851. Not long after its formation the lodge acquired a lot in the business center of Elysian Fields and erected thereon a two-story building. North upstairs was the lodge hall and north downstairs room was meeting place for the Golden Rule Presbyterian Church. The south side of the Masonic building, upstairs and downstairs, was used as a school of elementary nature. Older children went to Marshall to the Marshall University and the Marshall Female Masonic Institute.

There is, however, no direct evidence that this is the location of that two-story structure. An old photo of the school dating from 1900 shows that it was a frame structure with double exterior doors and shuttered windows (Figure 5). It is not shown on the 1912 USDA map, suggesting it may have been moved to the new location of Elysian Fields. Some of the recovered brick, nails, and glass from the site suggest the remains of the structure were burned in place. A lack of structural hardware indicates whatever type of structure was there was possibly either moved in toto or stripped of useful components prior to burning.

Chimney Fall Site—41HS860

Local residents who were interviewed said they had no memory of any kind of structure or ruins in this area as early as the 1930s. It cannot be found on the 1912 USDA map.

The initial examination of the Chimney Fall site area with the aid of metal detectors revealed clusters of anomalies. Also discovered was a buried scatter of hand-pressed brick identified as a chimney fall. Shovel tests were conducted in five of the anomaly clusters. The location of these shovel tests are numbered and noted on the map as diamond symbols (Figure 6). A clay interface was encountered at the 30–40 cm level; virtually all the artifacts recovered were found 10–25 cm below the surface. They included one sherd of ironstone whiteware (ca. 1840–1910), one sherd of semiporcelain with pressed floral design, one sherd of stoneware with Bristol glazed exterior (ca. 1890–1915), and one sherd of whiteware (1890–present) (Table 4). Random shovel tests at the site in February 2005 revealed similar material, including one sherd of flow blue whiteware (1840–1870) with a partial but identifiable maker's mark, one sherd of manganese decolorized glass (1880–1920), and three sherds of possible lamp glass.



Figure 5. 1900 photo of Old Town Elysian Fields school. (Courtesy W. K. Furrh, Jr.)

The materials recovered from shovel test #74 alone suggest a home site might have been located here ca. 1860–1870 and destroyed, probably by fire. Interviews with Brown, however, suggest that the site is the location of a steam-powered cotton gin. The home of the owner of the gin, J. M. Furrh (41HS855), is located nearby. Further study is needed to conclusively identify the site's function.

Dark, loamy soil can be found at the northern edge of the site; the numerous bulb plants still blooming each spring in this area suggest its former use as a garden (Figure 7). An estimated 11 x 11 m area in the center of this site was covered with grass surrounded on the periphery by these flowering bulbs.

The buried chimney fall is located on the southern edge of site. The extent of the chimney fall was readily determined by probing the loamy soil. A primary datum for the site was established in the chimney fall, and a 1 x 1 m unit was placed such that the datum was in the center of the unit. A pace and compass map of the shovel tests was made. Again, a clay interface was encountered at the 30–40 cm level, with virtually all artifacts recovered from depths of 10–25 cm.

The results of these shovel tests (Table 4) are more consistent with a residence than an industrial site. The early electrical wire fragments found in shovel test #2 are the only indications of electric power encountered in Old Town. The Harrison County Historical Museum's Library research staff indicates that electricity came to Harrison County about 1900, but there is no record for when the southeastern part of the county received electrical lines.

Table 4
Chimney Fall Site (41HS860) Artifact Inventory

Test Area/ Shovel Test	Category	Description	Number
1	Metal	Possible wire nail	1
	Other	Lithic projectile point (Alba)	1
2	Ceramic	Sherds: blue-tinted ironstone (1850–1910)	3
		Sherds: hand-painted stoneware with gold gilding (1890–present)	5
	Glass	Sherds: brown snuff bottle, bead lip (1870–1920)	12
		Sherd: brown bottle base with “10” embossed on it	1
		Sherd: window	1
	Metal	Thimble	1
		Fragments: unidentified sheet metal	3
		Pieces: fabric-covered electrical wire	2
		Fragment: horseshoe	1
		Unidentified nail, possible wire	1
		Wire nails (1880–present)	2
		Nails: cut box or common (1840–1880, continuous to present)	10
Other	Pieces: burned (calcified) bone	2	
3	Glass	Sherd: cobalt blue bottle	1
	Metal	Part: cast iron decorative, possibly from a stove	1
		Portion of a harness trace or chains	1
		Handle (possible clothes iron or kettle)	1
		Cut nail (1840–1880, continuous to present)	1
		Portion of hinge	1
4	Metal	Portion of hinge	1
		Sherd: aqua bottle	1
6	Glass	Sherd: clear, possible chimney lamp/globe	1
		Sherd: clear, possible chimney lamp/globe	1
	Metal	Pieces: iron ore/dog iron	2
		Lead buckshot, possibly 000 or 00	1
	Other	Fragments: brick	7
		Sherd: milk glass	1
7	Glass	Sherd: aqua panel bottle	1
		Sherds: window	2
	Metal	Sherd: clear glass; burned and melted	1
		Pieces: unidentified	3
	Other	Fragments: brick, some likely mechanically pressed	12
		Fragments: mortar	2
8	Other	Fragments: brick (not collected)	Several
9	Glass	Sherds: clear bottle	2
		Sherd: brown bottle	1
	Metal	Wire nails (1880–present)	2
		Cut nail (1840–1880, continuous to present)	1
		Fence wire staple	1

(continued on next page)

Table 4 (continued)
Chimney Fall Site (41HS860) Artifact Inventory

Test Area/ Shovel Test	Category	Description	Number
	Other	Fragment: mortar	1
		Fragment: slate	1
10	Metal	Wire nail (1880–present)	1
	Other	12-gauge shotgun casing: UMC New Club casing/head portion (ca. 1891–1915)	1
		Fragment: brick, possibly locally made	1
		Fragment: slate	1
11	Metal	Wire nail (1880–present)	1
	Other	Fragment: possible brick	1
12	Metal	Piece: unidentified, sheet metal	1
	Other	Tooth (probably pig)	1
13	Glass	Sherd: manganese decolorized (1880–1920)	1
		Sherd: ash tint (1915–present)	1
	Metal	Wire nails (1880–present)	2
	Other	Fragment: brick	1
14	Metal	Cut nail (1840–1880, continuous to present)	1
	Other	Fragments: brick	2
		Fragment: slate	1
15	Metal	Wire nails (1880–present)	2
	Other	Fragment: brick	1
16	Glass	Sherd: brown bottle	1
	Metal	Cut nails (1840–1880, continuous to present)	2
		Wire nail (1880–present)	1
	Other	Fragments: brick	2
17	Ceramic (as surface find)	Sherd: semiporcelain with pressed floral design (identical pattern as sherd recovered from shovel test #74)	1
	Other	Fragment: small, brick	1
18	Metal	Cut nail, common or box (1840–1880, continuous to present)	1
19	Glass	Sherd: light aqua bottle	1
	Metal	Cut nail (1840–1880, continuous to present)	1
20	Metal	Fragment: unidentified sheet metal	1
	Other	12-gauge shotgun casing: UMC New Club casing/head portion (ca. 1891–1915)	1
21	Other	Fragments: tree root (See Figure 7)	-
22	Metal	Fragment: cut nail (1840–1880, continuous to present)	1
	Other	Fragment: brick	1
23	Glass	Sherd: bottle glass	1
72	Glass	Sherd: clear, possible bottle	1
	Other	Fragment: brick	1
		Fragment: small petrified wood	1
		Piece: unidentified bone	1

(continued on next page)

Table 4 (continued)
Chimney Fall Site (41HS860) Artifact Inventory

Test Area/ Shovel Test	Category	Description	Number	
73	Glass	Sherd: clear, possible bottle	1	
	Metal	Cut nail	1	
	Other	Lithic flake, possibly utilized	1	
74	Ceramic	Sherd: ironstone whiteware (ca. 1840–1910)	1	
		Sherd: semiporcelain with pressed floral design	1	
		Sherd: stoneware; Bristol glazed exterior (ca. 1890–1915)	1	
	Glass	Sherd: whiteware (1890–present)	1	
		Fragments: bottle, manganese decolorized (ca. 1880–1920)	4	
		Sherd: brown	1	
		Sherd: green bottle	1	
		Sherd: blue bottle, possible tableware	1	
		Sherd: ash tint bottle, Hazel-Atlas mark (1920–1964)	1	
		Sherd: ash tint bottle (1915–present)	4	
		Sherds: clear	2	
		Sherd: clear, possibly from oil/kerosene lamp globe	1	
		Sherd: aqua tint, from panel bottle, partial lettering evident (“...nt”)	1	
		Sherd: milk glass, portion of figure or doll	1	
		Sherd: window	1	
		Sherd: clear, bottle	1	
		Sherd: bottle, manganese decolorized (1880–1920)	1	
		Metal	Fragment: sheet iron, formed or cast	1
			Cut nails: box and/or common (1840–1880; continued but lesser use after 1880)	8
			Cut nail: with burned wood attached	1
Twisted wire	1			
Other	Cut nails (1840–1880, continuous to present)	8		
	Fragments: slate	3		
	Fragments: brick, probably hand-pressed or locally made with coarse inclusions (possibly ca. 1840–1900, 1910)	10		
	Fragment: brick with glazing, possibly from firebox or burning of structure	1		
	Tooth: unknown animal	1		
	Lithic debitage/debris	1		
	102	Ceramic	Sherd: blue-tinted ironstone (1850–1910)	1
Sherd: blue-tinted nonvitrified ironstone (1850–1910)			1	
Sherd: ironstone (1850–ca. 1925)			1	

(continued on next page)

Table 4 (continued)
Chimney Fall Site (41HS860) Artifact Inventory

Test Area/ Shovel Test	Category	Description	Number	
103	Glass	Sherd: aqua	1	
		Sherds: ash tint window	2	
		Sherd: brown bottle	1	
	Metal	Part: iron, unidentified machine or mechanical equipment	1	
		Cut nail (ca. 1840–1880, continuous to present)	1	
		Wire nails (post-1880)	2	
		Wire fence staple	1	
	Other	Fragment: slate	1	
		Fragment: brick, small	1	
	Ceramic	Sherd: whiteware, decorated edge (1890–present)	1	
		Sherd: ironstone/whiteware (ca. 1840–1910)	1	
	Glass	Sherd: possible bottle, manganese decolorized (1880–1920)	1	
		Sherd: clear, pressed	1	
		Sherds: ash tint (post-1915)	2	
		Sherd: thin, possible photo frame	1	
		Sherd: melted, burned	1	
		Metal	Straps with hammered rivets (2 each)	2
			Piece: sheet metal, unidentified	1
	Wire nail (post-1880)		1	
	Cut nails, box or common (1840–1880, continuous to present)		6	
Other	Fragment: burned bone	1		
	Fragments: mortar, burned limestone	3		
	Fragments: slate	2		
	Piece: lithic debitage	1		
Random Shovel Tests	Ceramic	Sherd: semiporcelain	1	
		Sherd: whiteware (1890–present)	1	
		Sherd: stoneware, exterior only	1	
		Sherd: flow blue whiteware; partial, unidentified maker's mark (1840–1870)	1	
Glass	Sherd: amber/brown bottle	1		
	Sherd: manganese decolorized (1880–1920)	1		
	Sherds: window	5		
	Sherds: possible lamp	3		
	Sherds: clear	4		
Metal	Wire nails (1880–present)	4		
	Cut nails (1840–1880, continuous to present)	12		
	Part: unidentified, possible wing nut	1		
Other	Fragments: sheet metal	2		
	Fragment: mortar and brick	1		
	Fragments: brick	2		
	Lithic debitage/debris/scatter, possible jasper	1		
	Fragments: brick	2		
Total			>279	

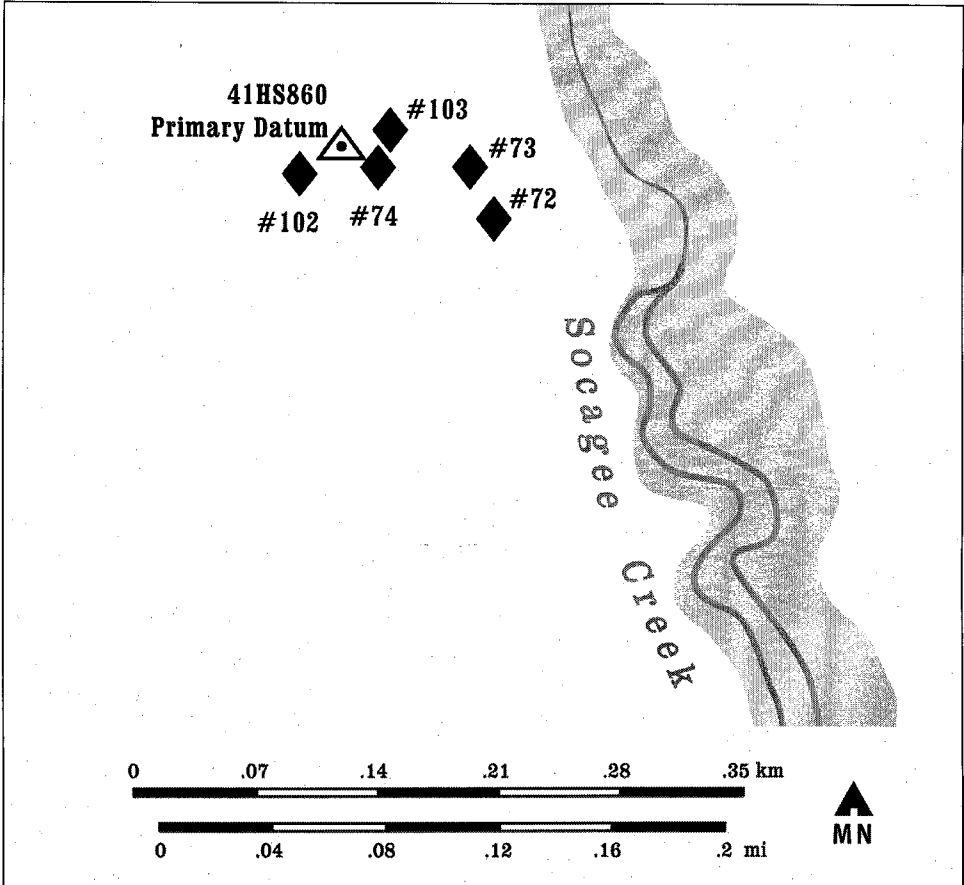


Figure 6. Chimney Fall site area.

The obvious lack of household hardware, such as doorknobs and hinges, in the recovered artifacts suggests the structure was later stripped. Finally, the remaining shell of the structure may have been burned in place, resulting in the melted glass from shovel test #7 and the cut nail with burned wood from shovel test #74.

In June 2005, landowner James Hodges constructed a pond on the northern edge of the SE quadrant of the study area. This pond may have impacted an edge of the Chimney Fall site.

Tenement House 1—41HS863

The only site recorded on the eastern bank of Socagee Creek is Tenement House 1 (Figure 8), located on a low-lying mound near the creek. Three shovel tests recovered the following: 2 fragments of petrified wood; 11 fragments of brick; 1 sherd of burned and well-worn pottery; and 9 pieces of lithic debitage, 1 of which was burned.

Bill Hodges, brother of property owner James Hodges, informed the project team of the mound and how it was named after the old tenement house

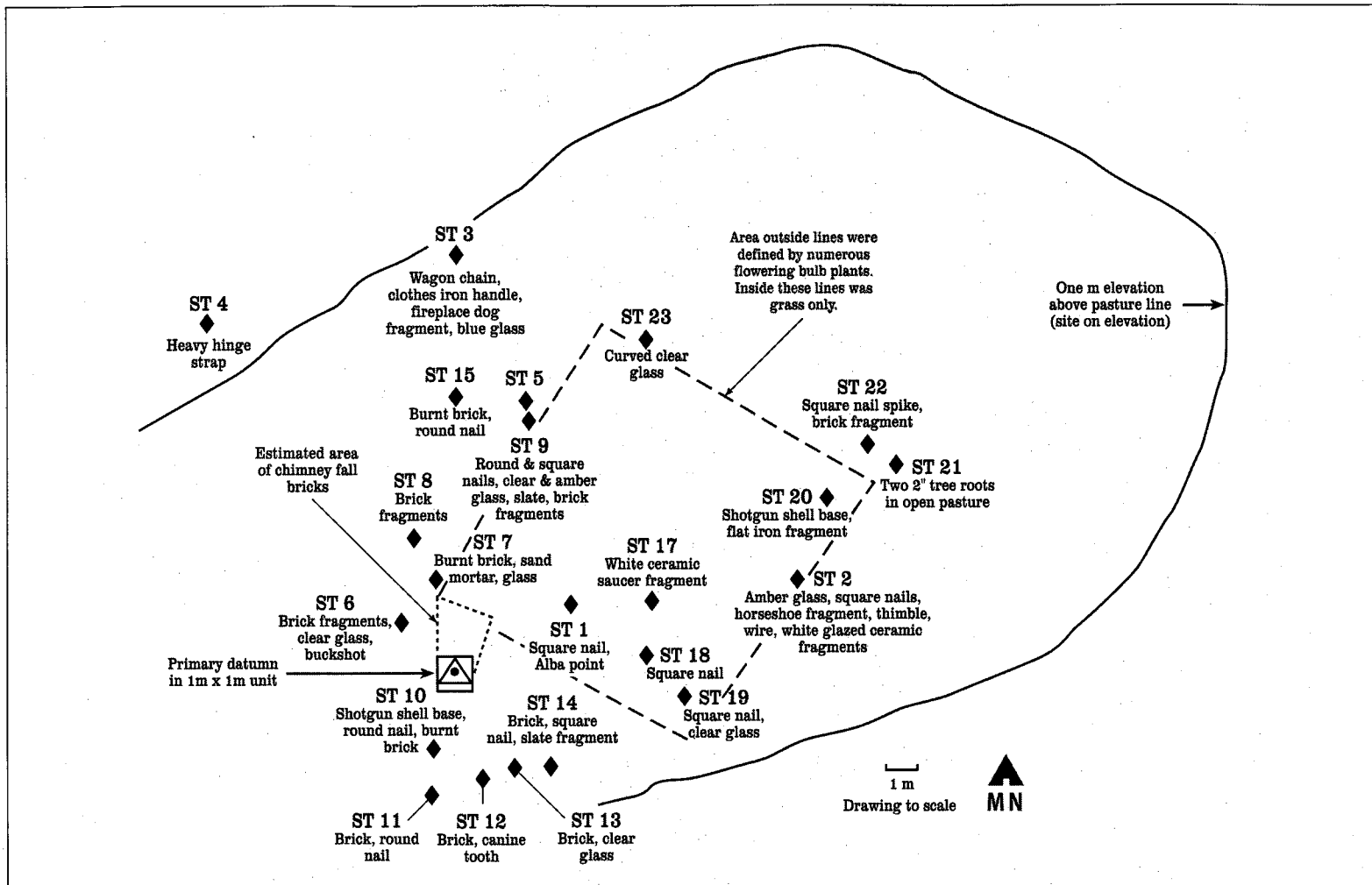


Figure 7. Close-up view of Chimney Fall site area showing location of primary datum and other features.

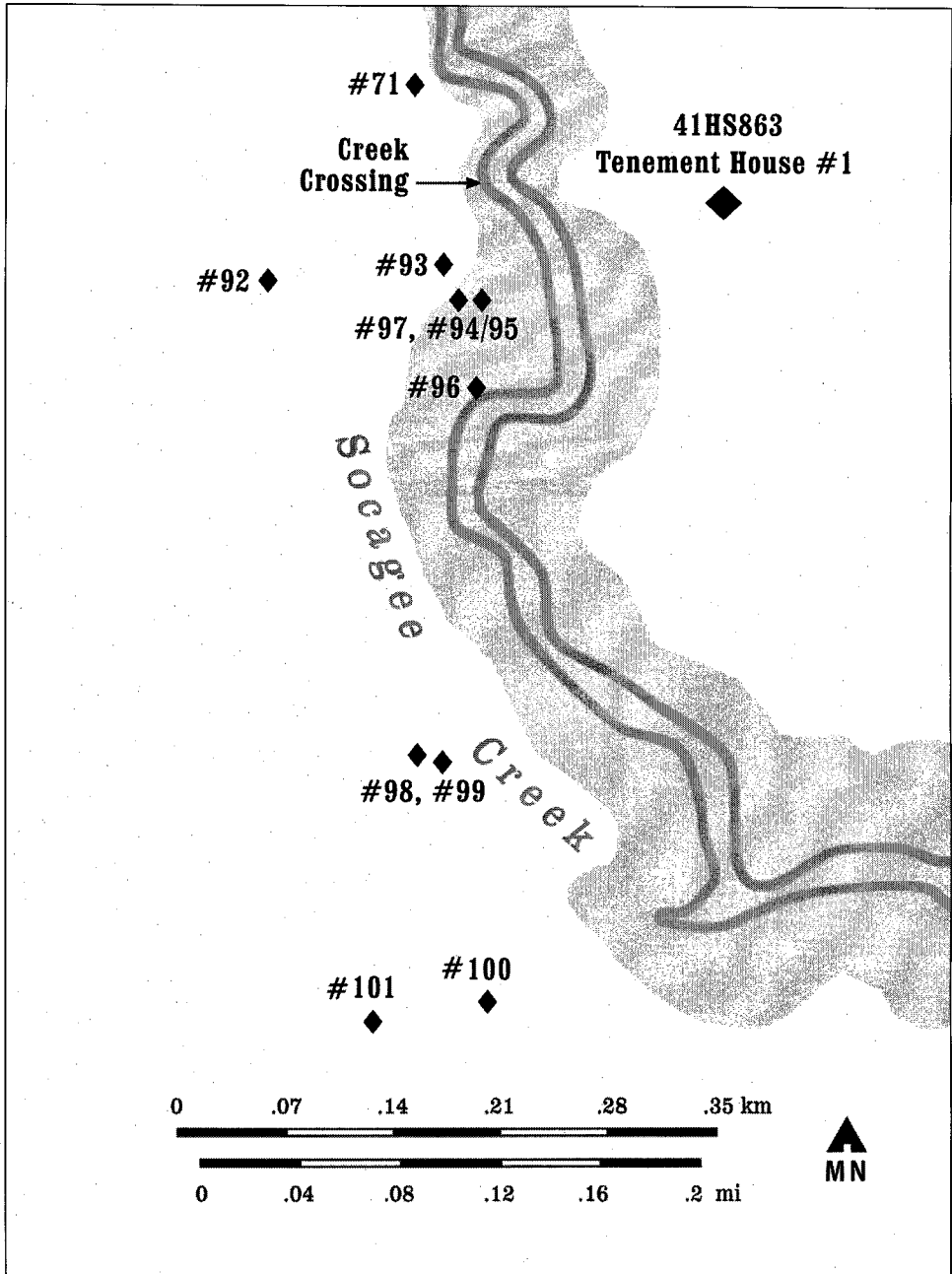


Figure 8. Map showing location of Tenement House 1 and some unrecorded features near Socagee Creek.

that had once stood there. The construction date of the house is unknown, and it does not appear on the 1912 USDA map. Bulb flowers still grow on the mound in the spring. The site is located near a low creek crossing where pipe and remnants of mortared brick columns had been dumped to help firm up the crossing bed for vehicular traffic.

Tenement House 2—41PN182

This site was recorded as part of the Old Town Elysian Fields study even though it is located nearly a mile away in Panola County. It is the reported remains of one of several tenement houses that existed in the area during the Old Town period. Residents of these tenement houses provided agricultural labor for the community of old Elysian Fields.

Tenement House 2 is located in an old, uncleared forest covered with heavy vines and underbrush. Bill Hodges stated that a water well we found was from an old tenement house. There were no shovel tests conducted to confirm that a residential structure was associated with the well feature. The well, about 80 in in diameter and lined with hand-pressed brick about 30 in in diameter, was located and recorded.

Future investigators should be warned that this is an open well of unknown depth. Crossties were laid over the mouth of the well, and as an added precaution the area of the well was carefully marked with yellow tape. Nevertheless, this safety hazard should be kept in mind during future studies in this area.

Unrecorded Features

A few shovel tests, based on metal detector hits, were conducted on the western bank near Socagee Creek (Figure 8). These tests reveal some prehistoric evidence. Test hole #71 contained two lithic flakes/debitage, one piece of lithic debitage or shatter, and one fragment of possibly burned brick or iron ore. Tests 93 and 94/95 revealed one piece of lithic debris each and no metal. Test 96 held an unidentified nail and possible wire, which seemed to be of post-1880 manufacture. Test 97 revealed another possible wire nail or spike and a .45 cal. FMJ SA bullet (modern). These clusters of hits are across the creek from Tenement House 1, but there is no direct association with the artifacts recovered.

During interviews, two local residents said the SE quadrant on the west side of Socagee Creek once had a steam-powered cotton gin. This industrial structure had its machinery moved to the location of present day Elysian Fields in 1910. The gin was owned and operated by J. M. Furrh. Although the gin's current location is unknown, one of its features is evident. A few decades ago, the landowner at that time found a large concrete slab in the pasture and used his bulldozer to move it to the west bank of Socagee Creek, where it still rests today. The block is approximately 12 ft wide and 9 ft long. It varies in thickness from 30 in to 32 in. It appears to be solid concrete, poured in place, with an irregular bottom. The top 8.5 in of the concrete block face is smooth with a 6-in-thick border or lip around the top. Its appearance suggests a foundation platform for a heavy piece of machinery. The current owner said its weight is so great that "it was all my little bulldozer could do to push it over there." He cannot recall its original location, only that it had already been dug up and was resting on the ground surface.

James Hodges also recalls discovering a second concrete slab while he was cultivating the pasture. It was too large to move, even with the bulldozer, so he covered it. Its present location is unknown. A second concrete block appears to

have supported another piece of equipment, such as a cotton press, but that theory is unconfirmed.

According to Furrh family history, J. M. Furrh returned home to Elysian Fields from the Civil War on foot. He borrowed a mule team and wagon and earned a living hauling cotton bales to Shreveport, Louisiana. This trade evolved into a storehouse, cotton gin, and general store business.

To estimate the size of Old Town, a metal detector survey was conducted in the west pasture of Socagee Creek in the SE quadrant. No evidence of any structures was discovered. The meager findings are indicated by diamonds on the map of the southern portion of the southeast quad (Figure 8). These include shovel test #92, which yielded a single brick fragment. Shovel tests #98 and #99 contained one unidentified nail (possibly cut) and one possible fragment of burned brick or iron ore. In shovel test #100, only a portion of a cast iron harrow tine was found. In shovel test #101 there was one piece of lithic debitage and one sherd of manganese decolorized glass.

Southwest Quadrant

This quadrant, slightly elevated above the surface of Old Town Road, contains a forest with thick undergrowth and vines in many places. An inspection of this area confirmed previous occupation but without any temporally diagnostic remains. On the land directly west of the James Furrh home site is a half-buried, hog-wire fence that runs east-west. Land south of this fence is at a slightly higher elevation, but contains numerous bulldozer gouges in the soil and several small dirt piles.

North of this fence is a shallow, spring-fed creek containing the remains of two wrecked autos (ca. World War II) and some low, mounded areas among the trees. The area contains sporadic evidence of trash dumps. There were no apparent culverts on the Old Town Road to indicate entrances to structures. Random shovel tests failed to reveal any artifacts.

Cooke Store—41HS871

The Cooke Store was referenced separately by McGuire and Brown as having existed at the corner of U.S. Highway 451 and Old Town Road. An associated gristmill also supposedly stood at this location. Few artifacts were recovered: two different styles of hand-pressed brick, one that was of a uniform consistency with occasional 2 mm iron ore inclusions. This type of brick was more than 10 cm thick and exhibited some scratches from a fine, narrow tool on one surface. The other type of brick was heavily fired and had a less uniform consistency with inclusions of charcoal. There appeared to be slightly more of the latter type of brick on the site.

The only obvious remaining features in the thick forest carpet are a concrete culvert connecting the site to U.S. Highway 451 and traces of a north-south oriented shallow ditch approximately 20 m to the west of Old Town Road. Lack of charcoal deposits suggest the store was dismantled rather than burned in place. The structure is shown on the 1912 USDA map, but its subsequent fate is unknown.

Cooke House—41HS872

Near the corner of U.S. Highway 451 and Old Town Road are the remains of the area's most recently constructed unoccupied house (exact age unknown), identified by local residents as the Cooke house. This frame house, once the home of the Cooke Store's owner, is thought to have been built at the location of an earlier house owned by the same family.

The rear (south side) of the Cooke house is completely collapsed. More recent additions to the house include the brick porch with large wooden columns that are now collapsed. Safety concerns precluded inspection of the house interior.

Much of the house remains in various stages of decay. The most prominent feature is a brick porch on the north side of the house. The porch is less than 50 years old and made of machine-pressed brick. Other modern additions include a vertical PVC drain pipe/vent on the east side of the house. A concrete culvert over the ditch on U.S. Highway 451 remains. Bessie Cooke lived in the house until she died in the 1950s. The house was later leased and subsequently sold; it was last occupied in the 1980s.

Dr. W. J. Phippen House—41HS873

Dr. Phippen purchased the Lacy/Phippen Store in 1913 after the Old Town period ended in 1910. His house was referred to by one source as the "Hendrix house," but further interviews place the home of a Colonel Hendrix elsewhere. The Phippen house, reportedly abandoned in 1961 or 1962, now remains in various stages of decay. Parts of the north side of the frame house are still standing, along with a garage/outbuilding directly to the west of the house and an underground propane tank located between the two buildings. Two buildings shown on the 1912 map could represent these structures.

Conversations with informant McGuire indicate that a storm cellar and water well were associated with the house on the east side and southeast corner of the house, respectively. No evidence of either feature was found in the heavily wooded area. The house has two chimneys, one on the east side and one on the west.

Northwest Quadrant

This quadrant is slightly elevated above the surface of Old Town Road and covered with heavily overgrown forest with thick undergrowth and vines. The NE quadrant contains the oldest surviving structure and what is possibly the town's original cemetery.

Bagley House—41HS868

McGuire identified the Bagley house, shown on the 1912 USDA map, as the oldest surviving structure in the Old Town area. The chimney on the east side, made of hand-pressed brick, collapsed. McGuire also indicated that the original structure is the southern part of the residence and is believed to have been built in the 1840s.

A later addition (now collapsed) to the structure extends out of the north side (back) of the house. Nearby, on the northwest corner, is an exposed water

well. Investigations at the Bagley House site recovered an old, clothes iron with its handle broken off, square nails, brick fragments, and a long copper tube. The copper tube could have been part of an old gaslight.

The location of the house so close to the main intersection of town suggests it belonged to a prominent family. A surface study of the rear area of the house, which faces north, and of the area that faces toward the Old Town Cemetery, to the west, failed to reveal any outlying buildings. The entire site comprises collapsing ruins with encroaching undergrowth. For safety reasons, investigations were not conducted inside the structure, and the well was flagged with yellow tape.

Furrh Store Well—41HS864

A brick-lined water well was discovered east of the Bagley house, a few meters from Old Town Road. The well's placement suggests it may have been associated with the J. M. Furrh Store that is believed to have been located on this corner during the Old Town period. At least for the time being, the recovered artifacts do not link the well to any specific dwelling or business. McGuire indicated, however, that he believes this is the well that serviced the J. M. Furrh Store. There was also a blacksmith shop possibly associated with the store.

As mentioned before, the J. M. Furrh Store is the only known Old Town structure removed *in toto* to the new location of the town in 1910; however, the same structure is still indicated at this location on the 1912 USDA map. It could represent a gristmill or blacksmith shop. The only known remaining photo of the store was not included in this report as the photo shows a Bell telephone sign in front of the store, which was clearly already in its new location. The first phone books in Harrison County are from Marshall and are dated 1912 and 1913, after the Old Town period.

Some of the artifacts recovered near this well include one piece of Bennington exterior yellowware (appearing mostly on molded spittoons ca. 1880–1920); one blue-tinted nonvitrified ironstone with relief molded edge in blue, ca. 1850–1910 (in three cross-mended pieces); and one piece of blue feather-edge pearlware (1805–1830). This last piece is probably from a hollowware plate about 10–12 in diameter; it is possibly a curated object. (See Table 5 for an inclusive list of artifacts from this site.)

Also recovered from the site were some prehistoric artifacts, including two pottery sherds. One appears to be shell- and sand-tempered, the other is burned and very worn. Also recovered were seven lithic flakes and debitage. The presence of these artifacts is consistent with other prehistoric artifacts recovered in Harrison County.

All future investigators should use caution studying this site because it contains an open well partially concealed at the base of an old tree.

Unrecorded Feature: John DeWitt Furrh House

According to McGuire, another residence from the Old Town period once existed in the NW quadrant. In a conversation with W. K. "Pat" Furrh, we learned that the residence may have belonged to John Dewitt Furrh (1883–?), son of James

Table 5
Furrh Store Well (41HS864) Artifact Inventory

Category	Description	Number
Ceramic	Sherd: yellowware, Bennington exterior; appears mostly on molded spittoons (ca. 1880–1920)	1
	Sherd: yellowware, brown slip and unglazed	1
	Sherd: blue-tinted nonvitrified ironstone with relief-molded edge in blue, in three cross-mended pieces (1850–1910)	1
	Sherd: pearlware, blue feather-edged; probably hollowware (plate), about 10”–12” in and possibly a curated object (1805–1830)	1
	Sherds: pottery; one appears to be shell- and sand-tempered; other is burned and very worn	2
Metal	Coin: dime, 1903	1
	Coin: Lincoln-head penny, 1936	1
Other	Shell button: possibly hand manufactured	1
	Fragments: petrified wood	3
	Lithic flakes and debitage	7
Total		19

Madison Furrh (whose homestead was recorded in the SE quadrant). McGuire pointed out the approximate location of the residence during a field trip on November 6, 2005. He clearly recalled the house, its nearby cornfields, and the brick-lined well with its wooden “curb.” That residence, and possibly all archeological traces of it, are now gone, covered up by a baseball park. This park was constructed about the time of the road renovations in the 1990s and is located north of the location of the Furrh Store. The house is not shown on the 1912 USDA map, and there are no artifacts associated with any structure left in the ballpark. The well was undoubtedly filled in during the construction of the park.

Old Town Elysian Fields Cemetery—41HS859

This site, not to be confused with the Elysian Fields Cemetery located in the NE quadrant, has been identified by local residents as the Old Town Cemetery (e.g., McGuire) and as the Tucker/Cooke Cemetery (e.g., Brown). Area residents generally accept that Elysian Fields founder Edward Smith is buried in this cemetery although no graveside marker or other historical documentation has been found to confirm this belief.

This old cemetery is currently bordered by chain-link fencing. A single-lane blacktop driveway entrance connects the property to U.S. Highway 451. Two other local residents noted the cemetery’s original entrance arch was stolen some years ago. When the cemetery was cleared in September 2005 by a local Girl Scout Troup, their efforts uncovered a fallen and broken headstone as well as some depressions in the soil.

On January 15, 2003, Vernon recorded the following tombstone inscriptions found in the Old Town Cemetery. In addition to the tombstones, he also found several modern metal/paper "place markers" clustered together in the cemetery. These had no dates on them.

Mary Mildred Boisseau
Wife of Capt. Joseph Turner
Born: August 16, 1835, Fayette County, Tenn.
Died: Elysian Fields, Harrison Co. Texas
October 17, 1894

The Boisseau tombstone is directly adjacent to the Fletcher tombstone

Joseph Fletcher
[son of]
J.R. and M.M. Strange
Born: September 6, 1882
Died: October 26, 1883

J.C. Shepherd
B. Jan. 21, 1830
D. Dec. 28, 1878

WILLIE
Infant Son
J.A. and C.V. Sanders
B. June 27, 1865
D. November 19, 1866

November 9, 1866, is the earliest observed interment date.

Joseph Aaron Tucker
1856–1932

Conclusion

Old Town Elysian Fields was abandoned about 100 years ago. The loss of the vast majority of documentation about Old Town had relegated most of what is known about its past to a few old maps, oral histories, and archeological finds. The investigations reported in this paper generated archeological data that verifies some of the stories and fills in some of the gaps in the existing area maps. We can now place additional features on the area map (Figure 9).

Previous and current impacts on the area are rapidly erasing the context of any archeological findings. Careful removal of the thick vegetation currently covering the majority of the Old Town Elysian Fields study area probably will reveal evidence of other unrecorded structures. However, the significant impact of agriculture, erosion, street and utility improvements, and construction done since the village was founded presents challenges when it comes to site identification and interpretation, and particularly to differentiation between pre- and post-Civil War periods.

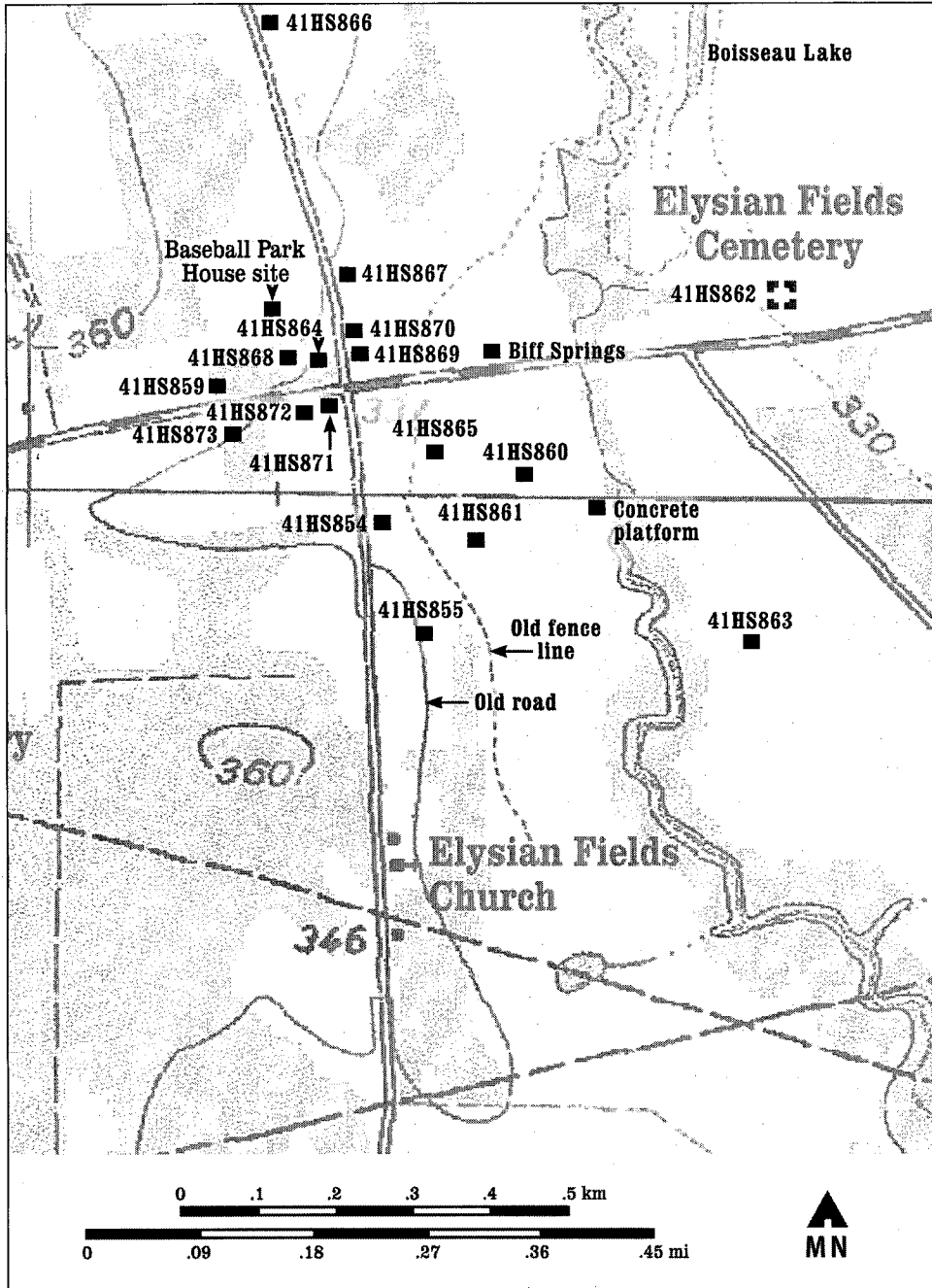


Figure 9. Map of Old Town Elysian Fields showing all the Harrison County sites discussed in this paper. (USGS 7.5 Series: Stricklin Springs and De Berry, 1962)

While the evidence for a prehistoric occupation of the area is minimal, further studies focusing on the identification of a prehistoric component may be warranted. Certainly the original reference to “what was then a Caddo Indian village known as Biff Springs” (Nordstrom 2002) deserves more investigation.

Some details about the original settlement of Elysian Fields may never be available. The community, based on a vibrant agricultural economy, may have begun to grow around the properties of its leading citizens during the Republic of Texas period.

With a supporting mercantile economy and a post office, Elysian Fields was a well-established community during early Texas statehood. Although the town's economy was agriculturally based, no direct evidence of a slave culture was revealed during this study. After the Civil War, the Old Town economy remained robust enough to support three dry goods stores, all literally a "stone's-throw" distance from each other.

The political organization of the community remains unknown and may be lost with the town's early records. The blurring of class distinctions is suggested by the close proximity to the downtown commercial center of homes for both African American and European American residents.

When the decision to relocate the town was made in the early 20th century, only one structure, the Furrh Store was actually moved to the new town site by logs and mules. The owner, J. M. Furrh, may have continued to reside in Old Town. According to area informants, however, he did relocate the mechanical components of his cotton gin to a new structure in the town's new location.

After Old Town had been abandoned, some structures, particularly private residences, remained in place. It is certain the Lacy/Pippen Store remained in place and continued to conduct business at its original location until the 1990s. One house at the Chimney Fall site location may have continued to be occupied at least until electricity became available to the Old Town community.

Our findings suggest that upon abandonment of the Old Town's remaining structures, useful building materials such as brick and planks were salvaged. Afterwards, the remaining debris was removed to the Cat Tail Springs area and burned. The findings we report here are based primarily on random shovel tests and are in no way part of a comprehensive study of the area. Additional professionally conducted excavations are needed to reveal further evidence of archeological sites that might still exist in the Old Town area.

The accuracy of the 1912 map is also called into question. Some structures known to be gone at the time (e.g., the Furrh Store) are still indicated on the map. The road intersection itself may not be accurately represented; however, the map was a useful tool in providing leads and confirming site locations.

Acknowledgments

I would like to start by thanking area TASN members Danny and Pam Stanfield, Patti Haskins, Robert D. Vernon, and Mandy Hartzo for the long hours they spent on this investigation. Other avocational archeologists in the area provided periodic assistance as well. I am especially grateful to Mark Parsons, THC regional archeologist for this area at the time of the study, for asking our TASN group to participate in this project since no archeological sites had been recorded in this portion of the country. I also want to thank the following people for their support and

assistance: Bo Nelson and Marshall McIntosh, Jacques Bagur, Bob Skiles, Margaret Agnor, and Gail Beil.

We would not have been able to conduct this study at all without the assistance of Elysian Fields residents Billy Furrh, brothers James and Bill Hodges, Johnny Brown, and Calvin McGuire. I must also acknowledge Allen K. Lacy, his brother Albert Lacy, Tim Timmins, Musson Tiller, and Arthur Bagley. Thanks also go to Pastor Gene Huntzinger of the Golden Rule Presbyterian Church, Pastor Gohlsten of the Elysian Fields Baptist Church, Carrie Oden, Vance and Bess Wellborn, Billie Faris, and Coach Gary Holt of Elysian Fields High School. I am also grateful for the help provided by W. K. Furrh, James M. Furrh and his wife Gail, and Harrison County Commissioner Jerry Lomax.

Special thanks go to Stephen P. Austin for his participation in the review and analysis of the recovered artifacts. All descriptions of these artifacts in this report are quoted from his assessments. Robert D. Vernon documented all the Old Town Cemetery tombstone locations and inscriptions. This information, as well as the drawing Bret Lynn made of the Old Town Road and U.S. Highway 451 intersection, was invaluable. We also must acknowledge Mrs. Billie Farris for guiding her Girl Scout troop's efforts that resulted in an unexpected, highly significant contribution (the broken headstone and soil depressions mentioned in this paper) to our investigation of the Old Town Elysian Fields cemetery. Finally, I thank the research staff of the Harrison County Historical Museum Library for their help.

I apologize for any omissions in this printed acknowledgment. So many people helped with this project that there is not room to thank them all here, but I do appreciate everyone's help.

References

Golden, M., A. C. Peer, and S. E. Brown, Jr.

1994 *Soil Survey of Harrison County, Texas*. U.S. Department of Agriculture, Soil Conservation Service, Temple.

Harrison County, Texas

1905 General Deed. In Harrison County Records, 59:194.

1913 General Deed. In Harrison County Records, 79:314.

Jurney, David H., and Randall W. Moir

1987 *Historic Buildings, Material Culture, and People of the Prairie Margin*. Richland Creek Technical Series, Volume 5. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University.

Marshall News Messenger

n.d. News article discussing Masonic Lodge, Golden Rule Presbyterian Church, and elementary school. Copy on file at the Harrison County Historical Museum, Marshall, Texas.

Nordstrom, Pam

2002 Elysian Fields, Texas. In *The Handbook of Texas Online*. Electronic document, <http://www.tsha.utexas.edu/handbook/online/articles/view/EE/hle16.html>, accessed April 25, 2004.

Archeological Reconnaissance and Testing at the Freddie Reed Site (41WM687): An Archaic and Late Prehistoric Habitation Area in Williamson County, Texas

Steven L. Wick and Kay E. Clarke

In July and September of 1999, we undertook an archeological investigation of the Freddie Reed Site to collect data on the site's depth of deposits, stratigraphic makeup, and potential for a future study of individual cultural horizons. These data would also augment the minimal previous documentation of the site.

The Freddie Reed site is located in Williamson County, Texas, on the Reed Ranch, a 165-acre tract of land. The site is located within an area situated between two separate biomes: the Blackland Prairie to the east and the Lampasas Cut Plain to the west. The prolific presence of archeological sites within this ecotone may be directly related to the increased resource base typically available within this type of region.

Situated upon Cretaceous Glen Rose limestone, the site is adjacent to the southern bank of Jenks Branch Creek, within an area of sporadic cedar and oak woodland as well as pasture, west of the creek's confluence with the South San Gabriel River. The site is also adjacent to a small spring within the creek drainage. The owner, Johnny Reed, has never known the spring to run dry, so the area surrounding the spring was excavated and dammed for the purpose of creating a stock tank. Bulldozer activity immediately adjacent to the site was somewhat intense but was limited to the area surrounding the spring and drainage. Other portions of the Jenks Branch drainage above the site are said to be intermittent except during times of moderate rainfall.

For almost 30 years, the owner has been familiar with and has periodically surface collected on the site, but he has never noticed any vandalism (e.g., pot hunting). Reed also informed us of the presence of several large burned-rock middens on nearby properties.

No other site impact is evident, barring the area's use as pasture for cattle. However, 41WM687 also harbors the remains (now mostly removed) and artifacts of a historic homestead/cabin from the original John Jenks plantation. The copious amount of historical cultural debris such as bottle glass indicates the land directly to the north of the cabin, which includes portions of the site, had been used, but details regarding the specific use during that time are unknown. This structure is located approximately 35 m south of the area outlined by this investigation.

The site was first investigated in April 1985 by members of the Lotis Archeological Group. Their work consisted of a short reconnaissance and surface collection of a number of artifacts they described as "projectile points and bird points." They also indicated that a number of photos were taken, but these photos were not present during our investigations of the site files at the Texas Archeological Research Center (TARL) at the University of Texas. The Lotis Group also reported their "controlled and selective" survey included numbered and mapped specimens, but these were also not in the collections at TARL, nor were they returned to the landowner. Unfortunately, our follow-up revealed that the bulk of this material as well as the collected artifacts were lost when the Lotis Group broke up shortly after their 1985 investigation.

Reconnaissance and Testing

The primary focus of this investigation was to test the most concentrated area of artifact and burned-rock exposure at the surface. First, we interviewed the land owner. Having collected on the site for many years, Reed was especially helpful in recommending certain areas of the site for further study. Comparison of this site's artifacts with Reed's personal collection of Early, Late, and Transitional Archaic artifacts as well as a number from the Late Prehistoric period suggests the site was inhabited periodically throughout the Archaic and Late Prehistoric periods. Included in his collection are projectile points such as Bulverde, Pedernales, Castroville, Ensor, Fairland, Montell, Edwards, and Scallorn, among others not readily identifiable. Reed collected many artifacts from the exposed portion of the site and from the area immediately south of the current stock pond. It is possible that the artifacts at the latter area were present as a result of the stock tank excavation.

The secondary goal was to determine the site's size and the most favorable location for testing. Reconnaissance of the site revealed that cultural material such as debitage, burned rock, and snail shell fragments covers a wide, heavily wooded portion of the site as well as a portion of open pasture. Although copious, the accumulations of burned rock do not appear midden-like. Instead, they bear more of a resemblance to the scattered remains of numerous hearths (Black et al. 1997). The only ground stone artifacts or formal lithic tools (other than projectile points) discovered during this reconnaissance or noted in the Reed collection were one large biface/perform and several small drills.

An area especially dense with cultural material was selected for the location of a long test trench 4–5 m long and approximately 50 cm wide. This area was also chosen for its potential to have the greatest soil depth. The trench was excavated using a small backhoe. The uppermost portions of ground consisted of bedrock that was fissile, due to the intrusion of roots, but became fairly solid throughout the trench at depths of approximately 70 to 80 cm. The western wall of the trench was cleaned using trowels, but the hard nature of the soil, coupled with weeks of drought-like conditions, made profiling difficult.

The profile of the site overall did reveal that the uppermost A horizon was, at most, only 35–45 cm thick. No distinct cultural layers were revealed, though burned rock, debitage, and snail shell fragments permeated the entire

A horizon. A very narrow B horizon, just above bedrock, was located directly below the A horizon.

There is no evidence of deposition as a result of periodic flooding, which would have greatly enhanced the aggradation of the creek terrace and the separation of cultural horizons. Also, the site's lack of depth and its wide temporal range of artifact types suggest that it has remained fairly stable or is in the process of slow degradation. This situation would account for the wide variety of artifact types located on the surface and suggests that most of the cultural horizons contained within the deposits may be badly overprinted or mixed. The evidence indicates that the test area of this site is unlikely to have a well-stratified ensemble of cultural horizons.

Conclusion

Primary investigations of the Reed site have disclosed a minimal amount of ground-stone, cores, and formal lithic tools other than points. It is located in a fairly restricted area. These characteristics suggest the Reed site was less frequently occupied than were other nearby sites such as the Indian Mound Ranch site (41WM142), which exhibits large middens with similar but more prolific cultural assemblages. The Reed site appears to have been a temporary camp for transient inhabitants taking advantage of the nearby spring.

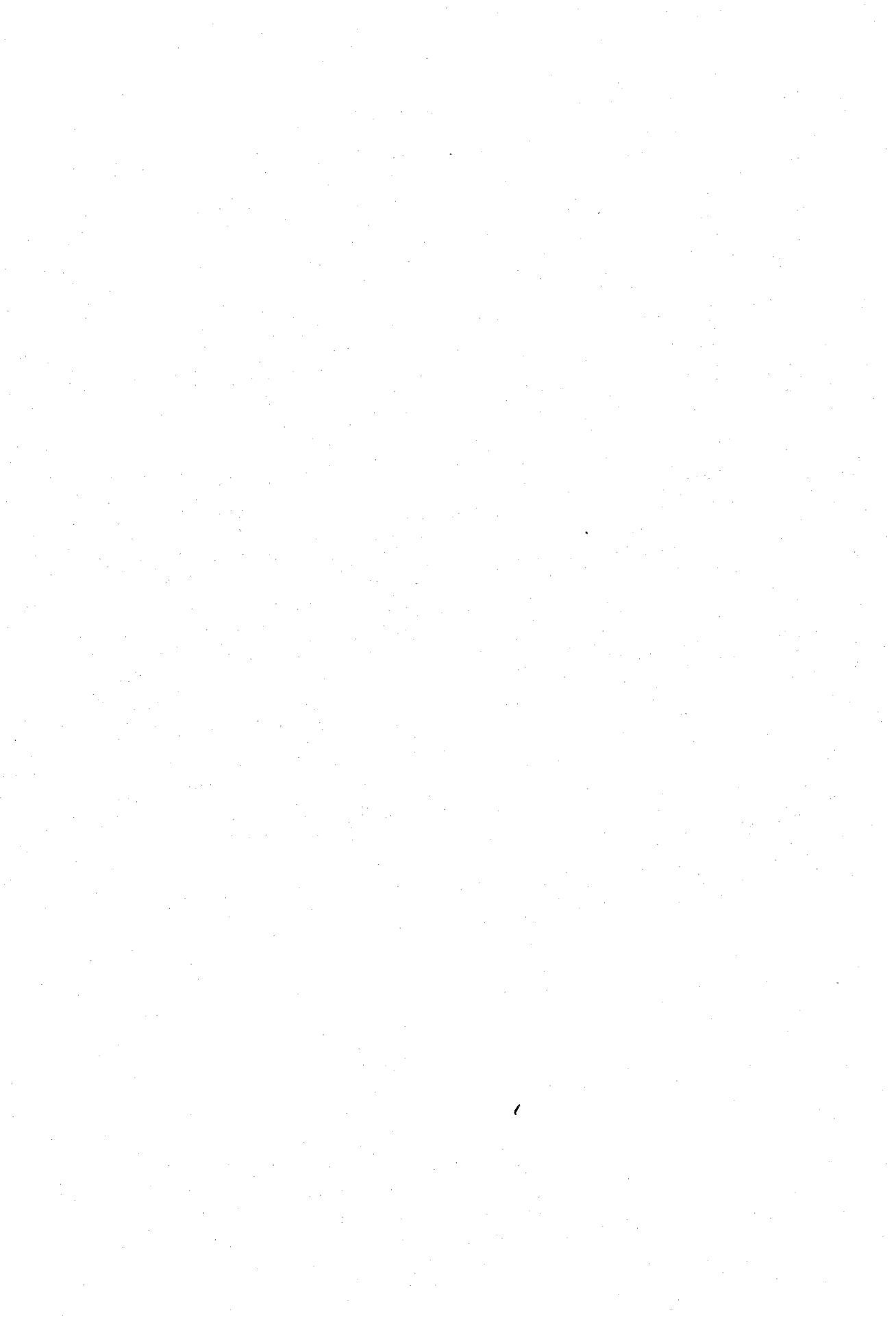
As this study focused on testing the site's depth and the presence of distinct cultural horizons, no attention was given to collecting or identifying ad hoc tools, nor shell or bone fragments. Further investigations in these areas may help elucidate the site's functions.

Regarding site significance, we note that over time the Reed site has produced a fair number of diagnostic artifacts. However, its shallow depth, lack of stratigraphic integrity and apparent overprinting are all factors that likely detract from the research value of the site. We propose that further excavation is inadvisable. Instead, our recommendation at this time is that the Reed site be periodically monitored and preserved. Its primary research value may lie in its settlement relationship to the many other sites and middens in the vicinity.

References

Black, S.L., L.W. Ellis, D.G. Creel, and G.T. Goode

- 1997 *Hot Rock Cooking on the Greater Edwards Plateau, Volumes 1 & 2*. Studies in Archeology No. 22. Texas Archeological Research Laboratory, The University of Texas at Austin.



Excavations Associated with the Indian Mound Ranch Site (41WM142): A Burned-Rock Midden in Williamson County, Texas

Steven L. Wick and Kay E. Clarke

The Indian Mound Ranch site (41WM142) is primarily an Archaic and Late Prehistoric river terrace site located near Liberty Hill. Like many of its counterparts, the burned-rock midden associated with this site has seen significant destruction at the hands of inexperienced, unskilled artifact collectors. It also has been threatened by the commercial removal of substantial portions of its deposits. The site's prehistoric cultural time frame provided the foundation for our study. This report provides a detailed description of our excavation methodology, data collection and management, and diagnostic lithic artifacts collected, as well as the results and interpretations of the fieldwork.

Our investigation of 41WM142 evolved from Kay Clarke's initial association in 1997 with the current landowners, Clarence and Pat Jones, through their collaborative historical/archival investigation and documentation of the Jones' family history, which also focused on the historical significance of the ranch. In the course of her investigation, Clarke became aware of the potential importance of adding a prehistoric study to the historical one. Upon her suggestion, the owners graciously permitted Steve Wick to conduct a cursory examination of their extensive artifact collection. This examination revealed the potential significance of the site and provided enough inspiration to warrant an extensive test excavation.

Background

Located on the south bank of the South San Gabriel River's south fork, ca. 1.2 mi south of State Route 29, the Indian Mound Ranch site also extends to the Balcones Escarpment between the Lampasas Cut Plain and the Blackland Prairie biomes (Black et al. 1997; Prewitt 1981; Suhm 1960). Its position is near a stable portion of river terrace (Figure 1) and a large protecting bluff, which made the site desirable for extended habitation. The site's advantageous ecotone, with nearby sources of quality lithic material and a wide variety of faunal and floral subsistence resources (Figure 2) also contributed to its desirability.

The Indian Mound Ranch has been the property of the Jones family since the mid-19th century. In addition to site 41WM142, the ranch contains a cemetery dating to the Civil War, several 19th-century structures, and portions of the railway



Figure 1. View from 41WM142, showing a portion of the South San Gabriel River.

that helped transport building materials to the Texas State Capitol site as that building was being constructed. The railway, now operated by the City of Austin, is used by the Hill Country Flyer on its Cedar Park-Burnet route. The investigation of the Jones property has also revealed its historical significance in the production of agricultural products. Agricultural activity, which has taken place throughout the family's ownership, has included corn and cotton cultivation, pecan harvesting, and cattle breeding.

The initial investigation of the Jones' extensive collections focused primarily on the archeological documentation of 41WM142.

Previous Investigations

Site 41WM142 was first investigated by Steward C. K. Chandler in the mid 1970s. His site records, on file at the University of Texas at Austin's Texas Archeological Research Laboratory (TARL), contain the only description of this initial investigation, apart from sketchy information gleaned from the current landowners. Chandler's report describes a "severely potholed" burned-rock midden of uncertain dimensions. He also describes several biface fragments he collected on-site, one of which can be identified from his report as a Castroville projectile point (Turner and Hester 1993). In the past, Central Texas middens have been regarded as being wholly Archaic manifestations, but the Jones' extensive artifact collection supports more recent findings of similar features in use during the Late Prehistoric period (Black et al. 1997; Goode 1994).

According to Pat Jones, Chandler verbally described a "cave" somewhere in the general vicinity of the site. From it, Chandler is reported to have collected a



Figure 2. General site view, 41WM142.

metate fragment supposedly associated with a burial, but the site was not recorded. Grottos and sinkholes in the area are of the type used during prehistoric times for mortuary purposes (Bement 1994).

Chandler's report notes gross looting already taking place in the 1970s at 41WM142. At the time of this investigation, the commercial removal of sandy loam surrounding 41WM142 on the river terrace had also had an impact on the site. Evidence of this quarrying could be seen as close as 10 m from the midden, and further investigation revealed that portions of the midden itself had been removed with heavy machinery in the course of loam-quarrying activities.

The site also contains a large freestanding stone wall, which suggests the immediate area around the midden possibly had been farmed or otherwise disturbed during historic or recent times. Chandler's investigation of 41WM142 produced evidence that several different crops had been harvested there. However, specific farming locations are not mentioned in any available historical records.

Setting

The vicinity of the Indian Mound Ranch is dominated by thinly and massively bedded Cretaceous-age Glen Rose Formation limestone. M.B. Collins (1998) has noted a regional absence of quality lithic material from this formation.

A large limestone bluff, which forms a portion of the southern margin of the site, is responsible for a large portion of the clastic material that manifests itself in almost every portion of the excavation area. Its stair-step topography, combined with alternating hard and soft layers, facilitates the lateral movement of water, which then supports clastic formation and displacement (Trippet and

Garner 1976). The course of the San Gabriel is relatively straight in this portion of the drainage. In spite of its karstic nature, the Glen Rose Formation has revealed little in the way of topographic features such as rock shelters or sinkholes in the immediate area of the site.

Deposits associated with fluvial conditions, which vary from high-energy gravels to low-energy silts, can be seen throughout a large portion of the terrace (as a result of extensive exposures from the commercial removal of loam). Undoubtedly, the bluff provided an abundance of readily available cobbles for use during food procurement and processing. The cultural significance of 41WM142 stems from the fact that the Jones' collection comprises a wide variety of artifacts diagnostic of the Archaic and Late Prehistoric periods in Central Texas. Situated on the south fork of the South San Gabriel River, the Indian Mound Ranch site is well positioned in regard to a number of factors that relate to food preparation such as hot-rock cooking by means of a burned-rock midden: the accessibility of rocks, availability of suitable fuel, and amount of moisture in the sediments (Black et al. 1997). The site's location also allows several geologic forces to have a significant positive impact on the site.

A few seemingly rare instances have undoubtedly had an impact on the San Gabriel channel. The deposition of large gravels upstream of the site and a lack of them in the adjacent channel indicate a more forceful water flow as the river passes the midden (Rapp and Hill 1997). Nevertheless, the geologic profile of the nearby river-cut bank (6 m high) suggests the river has been in a long period of downcutting rather than the expected successive stages of incutting (Mear 1998). A seemingly long period of terrace aggradation indicates a potential for the integrity of cultural deposits in the immediate terrace area. Another rare event occurred in the early 1980s when the river crested to an estimated 35 ft above its normal level during a period of heavy precipitation (Jones 1997).

Methodology

The first phase of the project involved conducting test excavations at 41WM142 to determine which portions of the site contained dense accumulations of cultural material and to obtain stratigraphic information to help guide the placement of the excavation. The primary focus was on the collection of temporally diagnostic projectile points that would provide the framework for a chronology of site occupations.

Test Excavations

Investigations commenced with the excavation of four backhoe trenches (A, B, C and D) (Figure 3). Trenches A, B, and C were placed on a north-south axis in various parts of the river terrace immediately adjacent to the midden. Each of these three trenches was approximately 4 m long, 1 m deep, and 0.75 m wide. Trench A revealed well-defined stratigraphy and the greatest amount of cultural material, including two Archaic projectile point fragments as well as the most well-defined stratigraphy.

Trench D was placed approximately 100 m northwest of the midden in an area of sandy loam that yielded copious chert flakes, mussel shell fragments,

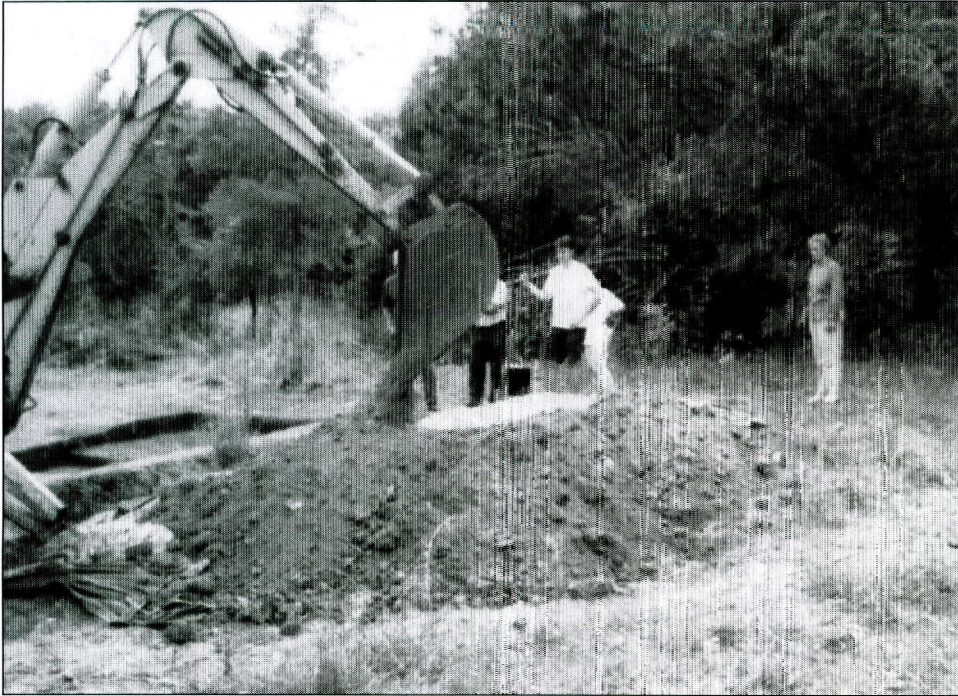


Figure 3. Kay Clarke (right) observes the excavation of Trench A. Area A excavation units can be seen in the background.

and soil carbonates. The presence of this cultural material along with B horizon carbonaceous soils indicates the possibility of a Paleoindian assemblage. However, because of the great depth of the cultural deposits and the lack of a well-defined stratigraphy in Trench D, excavations were limited to the burned-rock midden area adjacent to Trench A. Trench A and its adjoining excavation area were then designated as Area A (Figure 4). The three remaining trenches were subsequently backfilled.

Site Preparation

Area A is located approximately 10 m north of the midden, has a relatively flat ground surface, and is sandwiched between the midden proper and the river's bank, which is 8 m steep (Figure 4). Surface preparation primarily involved the removal of small brush and grass within the borders of a thickly wooded zone. Large trees and bushes were not in the immediate excavation area. This process had an impact on only a small portion of the site surface.

After the site area was cleared, a total data station (TDS) was used to help establish primary and secondary datums, which were placed in concrete to insure their positions would remain unchanged. Specific, coordinate provenience for the primary datum was arbitrarily assigned using an Easting and Northing of 1000 m and an elevation of 100 m. This standard approach insured that all points measured within a large area of the primary datum would be allotted positive values, thereby simplifying the collection of provenience information.

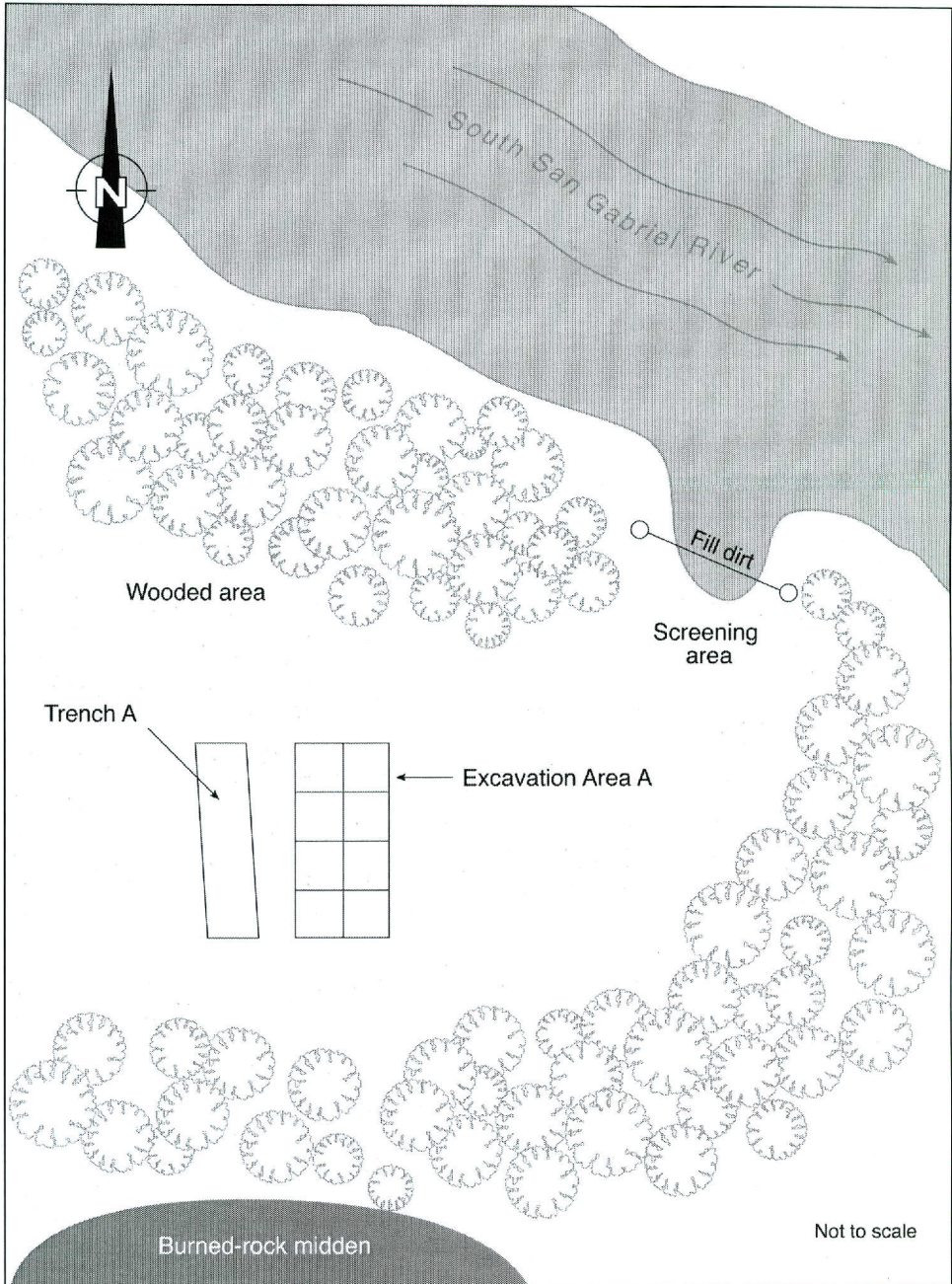


Figure 4. Plan of Area A, 41WM142.

A 2 x 4 m grid of 1 m sq units was then established approximately 0.5 m east of Trench A on a north-south axis (Figures 4 and 5). With a 1-cm margin of error for provenience, the 12-in grid stakes were positioned using the TDS. During the preparation phase of the project, water screens were placed downslope from the excavation area. Two tiers of fill dirt were placed below the screens and

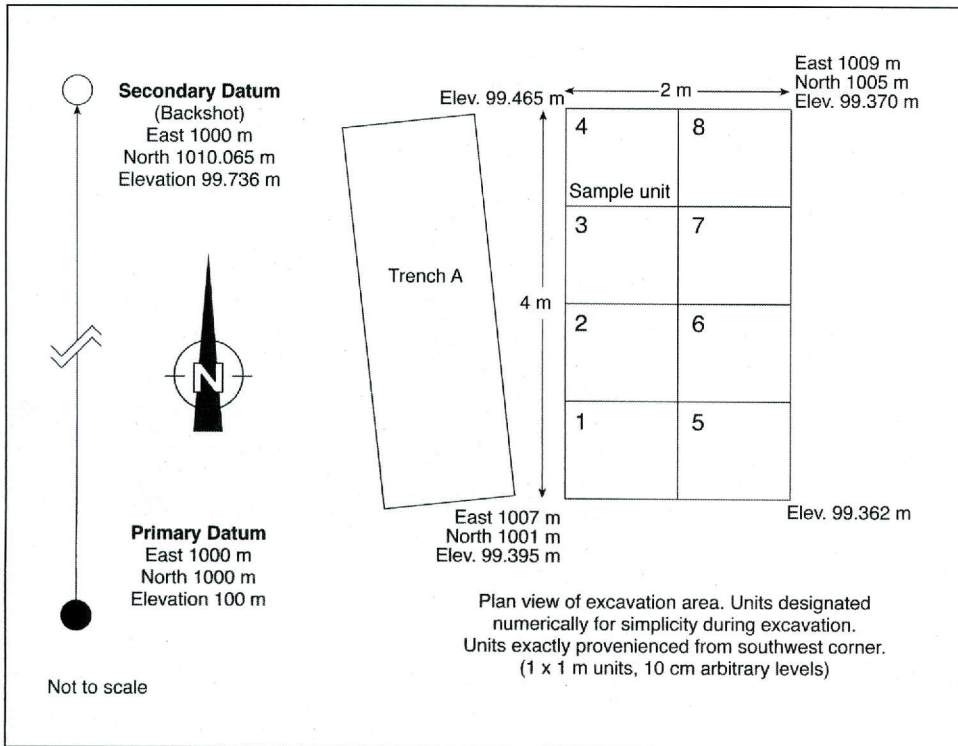


Figure 5. Detail plan of Area A, including test unit designations.

situated directly above the river drainage in an effort to provide runoff barriers and thus inhibit further erosion of the river terrace. Next, a sun shade was erected over the excavation site and a small field lab nearby.

Data Collection and Management

Setting up an effective system of data collection and management was a primary concern during the initial phase of the project. We implemented several procedures to maximize the amount of data collected and keep the data organized. These procedures included collecting a sample matrix column as well as potentially datable materials such as bone and charcoal. Excavation fill was screened through 1/8-in hardware cloth in order to obtain a representative and varied sample of deposits.

With trowel and whisk broom, we meticulously excavated individual 1-m units by 10-cm levels (Figure 6), hoping to reveal diagnostic artifacts in-situ rather than in the screens. A line level was adequate for controlling the depth of each level, but exact provenience of in-situ artifacts was established using a TDS. As each level was completed, results were documented on record forms and maps were drawn to illustrate any significant cultural and natural features. Black and white photographs were also taken to document the investigation.

Each level was excavated across the entire grid before the next level was begun. This process provided the maximum amount of horizontal exposure to reveal features that might be missed during the removal of deposits at different levels.

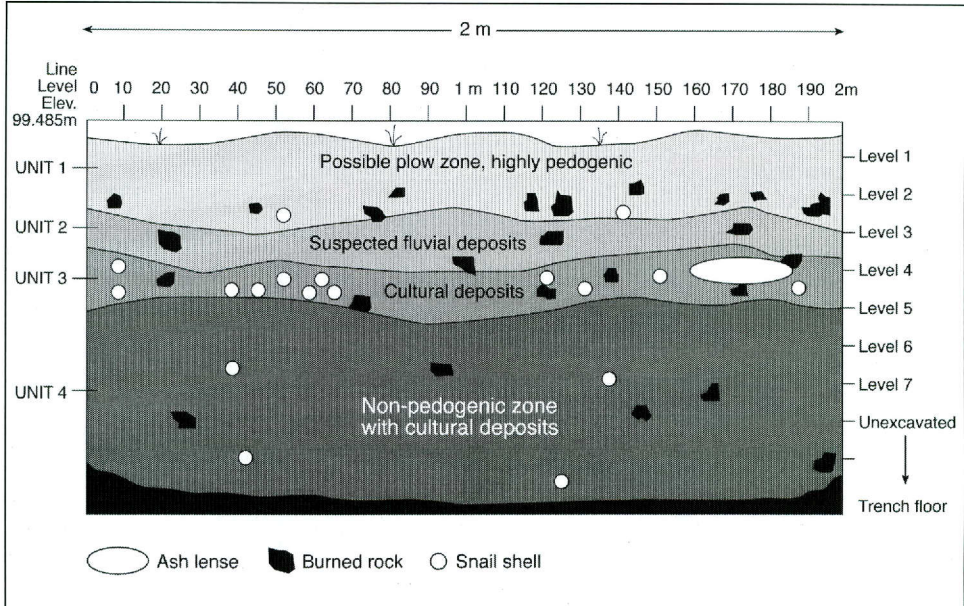


Figure 6. Profile, east wall of Trench A. Stratigraphic units, left; excavation levels, right.

Deposits were water screened using 1/4-in hardware cloth to ensure collection of readily diagnostic lithic artifacts and identifiable bone fragments. Unit 4 was designated as a “sample unit” and subjected to 1/4-in and 1/8-in screening simultaneously (Figure 5). In contrast to the greater portion of the grid, all materials, except for large fragments of burned rock, were collected from Unit 4. This process provided for the recovery of a sample of floral and faunal remains as well as cultural materials such as microdebitage. A 25 x 25 cm matrix column (in 10 cm levels) was also collected from the northwest corner of Unit 4. This unscreened material was placed in plastic sacks for the purpose of possible future examination. The plastic sacks had formerly contained oats, which could affect the identification of floral remains.

Stratigraphy

The stratigraphic profile of Trench A (Figure 6) revealed four stratigraphic units. Stratigraphic Unit 1 occupies the uppermost portions of the profile. Containing dark, clay-rich loam, this unit consists of a pedogenic, O and A horizon that includes evidence of bioturbation (Rapp and Hill 1998). This unit is further complicated by structural evidence and a lack of rock that may be indicative of a plow zone (Collins 1998).

Stratigraphic Unit 2 consists of tan, sandy loam with inclusions of dark clay-rich material and burned rock. The gross morphological differences illustrated by this unit, compared with the others, may indicate the fluvial deposition of upstream deposits.

Stratigraphic Unit 3 appears as an organic-rich layer of deposits that includes quantities of burned rock, chert flakes, and various shell fragments. It also

contains a distinct ash lens in the southernmost portion of the profile. Upper portions of this unit include small lenses of the tan material that suggests a zone of disturbance at its contact with Unit 2. Unit 3 continues downward, gradually blending into Unit 4.

Stratigraphic Unit 4 consists of a tan, clay-rich A horizon no longer affected by pedogenic processes. This unit contains quantities of burned rock, snail shell fragments, and chert flakes as it nears its contact with Unit 3. Lower portions of Unit 4 reveal a decrease in these materials but not a complete absence. Evidently, cultural materials extend below the exposed portions of the profile. Unit 4 also contains a limited amount of bioturbation, including small roots, root casts, and insect tunnels. No evidence of a B horizon structure is evident throughout the profile.

Description of Excavations

Level 1 (elev. 99.465 m–99.365 m) is a dark, clay-rich level consisting of a minimal amount of cultural material. Its location within the aforementioned plow zone suggests a disturbed nature. It is also possible that no prehistoric cultural manifestations occurred in this area of the site during the formation of these uppermost deposits. It must be noted that due to the site's slope, Level 1 excavations involved removal of fill across only portions of the units. No diagnostic artifacts were found in this level.

Level 2 (elev. 99.365 m–99.265 m), also dark and clay-rich, seems affected by similar circumstances in its upper portions as is Level 1. Although Level 2 deposits occur across the excavation area, they are (in most units) somewhat thin and do not constitute a complete 10-cm level. Upper portions of the level were within the plow zone area. Lower portions of Level 2 showed an increase in burned rock, accompanied by an increase in cultural debris including bone fragments and chert flakes, especially in the northern portion of the grid (Units 4, 7, and 8) (Figure 7). As Level 2 reached maximum depth, exposures of burned-rock clusters became apparent, which suggested the possibility of features in Level 3. No diagnostic artifacts were found in Level 2.

Level 3 (elev. 99.265 m–99.165 m) contained varying amounts of burned rock. Like Levels 1 and 2, this level consists primarily of dark, clay-rich loam. Although burned rock was found in most areas of the grid, feature-like accumulations were revealed in Units 4, 7, and 8. Exposures of burned rock at uniform depths became evident and suggested the possibility of limited disturbance.

Cultural material closely associated with these burned-rock accumulations (labeled as Feature # 1) includes a marked amount of chert flakes, bone fragments, and snail and mussel shells as well as charcoal fragments (Figure 8). In spite of the fact they do not appear hearth-like, these accumulations may represent an eroded hearth. Several bone samples for potential dating were recovered from within this scatter. A single Perdiz projectile point (Figure 8) was also recovered in close proximity to the scatter in the lower, northwest portions of Unit 8.

Level 4 (elev. 99.165 m–99.065 m) contains the most distinct depositional feature in the excavated portion of the terrace. This stratigraphic unit in approxi-

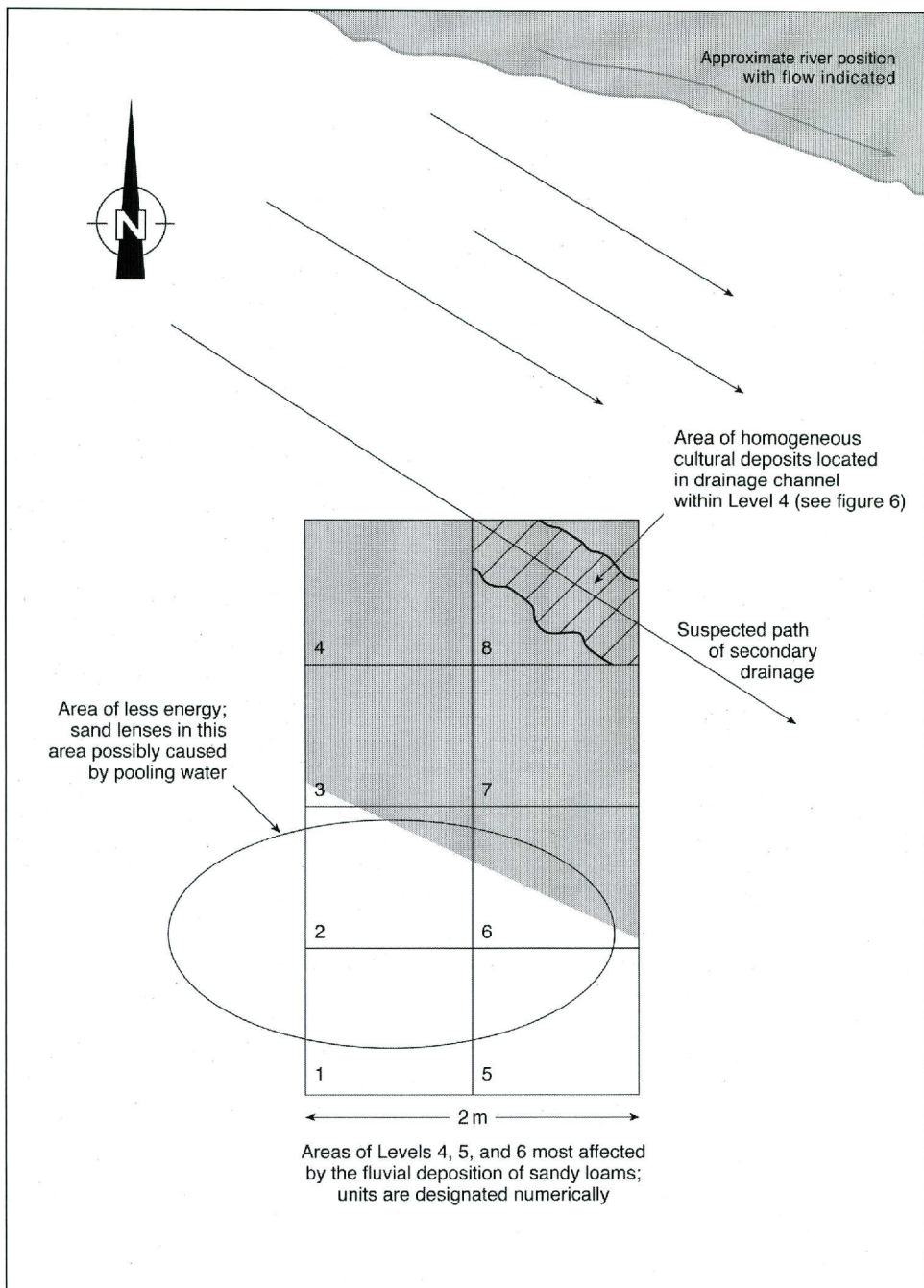


Figure 7. Portions of Area A excavations most affected by alluvial processes.

mately the same thickness was evident in Trenches B, C, and D. This stratigraphic unit consists of tan, sandy loam, which contains inclusions of small, dark, clay nodules; a mixture of cultural debris; and burned rock. The unit intrudes somewhat into its upper and lower stratigraphic counterparts.

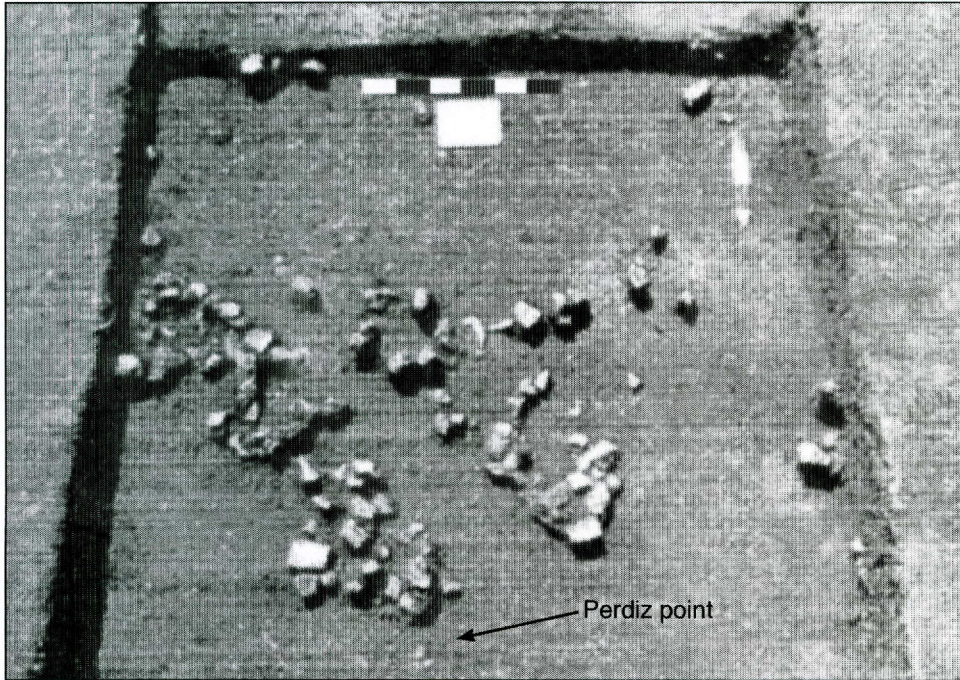


Figure 8. Feature 1, a burned-rock concentration in Level 4, Units 3, 4, 7, and 8. The approximate location of the Perdiz point is also shown. View is to the south and the scale is in 10 cm units.

In Level 4, a heterogeneous concentration of burned rock and cultural material initially denoted as Feature #2 was encountered in Units 4, 7, and 8. Careful excavation of this possible feature resulted in recovery of the most concentrated accumulation of chert flakes, bone fragments, charcoal flakes, and shell during these investigations. This area also produced the proximal portion of a Late Archaic Pedernales period projectile point at an elevation of 99.080 m. The short vertical and linear distance of this point from the Perdiz point recovered from Level 3 and the excessive temporal difference between the two may indicate disturbance within Level 4.

Although sandy loam was found throughout Level 4, it appeared to be concentrated in the grid's northern half. Furthermore, its association with the accumulation of debris suggests this deposit of sandy loam was a result of flooding. The axis of this material and its associated accumulation of sand suggest that the northern portion of the grid was positioned over what was a secondary drainage channel on the surface of the prehistoric river terrace.

A second Pedernales point was recovered from Level 4 in Unit 1, and a well-made drill was collected during excavations in Unit 2. (See Table 1 for a complete listing of diagnostic artifacts recovered during excavation.) An unidentified dart-point fragment was also found during the screening of materials from Unit 5.

Another round of testing was done before deeper excavations were begun. Trench A was excavated to the maximum depth of the backhoe's capabilities

Table 1
Specific Provenience of Diagnostic Artifacts

Artifact Number	Description	Unit	Level	Provenience	Temporal Status
1	Perdiz	8	3	In-situ Elev. 99.158	Late Prehistoric A.D. 1200–A.D. 1500
2	Pedernales	8	4	In-situ Elev. 99.074	Middle Archaic 2000 B.C.–1200 B.C.
3	Archaic (?) drill	2	4	In-situ Elev. 99.100	No positive identification
4	Pedernales	1	4	In-situ Elev. 99.085	Middle Archaic 2000 B.C.–1200 B.C.
5	Ensor	1	5	In-situ Elev. 98.970	Transitional Archaic 200 B.C.–A.D. 600
6	Unidentified Archaic fragment	5	4	(Found in screen)	No positive identification
7	Ensor	2	5	In-situ Elev. 98.969	Transitional Archaic 200 B.C.–A.D. 600
8	Castroville	1	6	In-site Elev. 98.908	Late Archaic 800 B.C.–400 B.C.

(approximately 3 m). This afforded the investigators an opportunity to view a much greater stratigraphic exposure and to evaluate the vertical extent of cultural material. No additional, well-defined stratigraphic units were revealed, although a small amount of cultural material was present. Snail shell fragments and a very small number of medium-sized burned rocks were located as deep as 2.5 m. Wick, the senior author, and Michael B. Collins conducted a brief reconnaissance of the river cutbank (immediately adjacent to the site), which revealed similar cultural expressions in the excavated trench. Collins suggested these deeper cultural materials are possibly related to an Early Archaic period habitation. These materials appeared to be located at a depth that exceeded the excavation capabilities of this investigation.

As a result, several research limitations became evident. The number of diagnostic artifacts recovered from the upper portions of the terrace was not great enough to allow for an accurate chronological interpretation. Logistical limitations related to this study did not permit an expansion of the project's excavation at that time.

It is important to note that this study was constructed around a research plan that emphasized testing and the vertical provenience of diagnostic artifacts.

Because of the disturbed nature of Units 3, 4, 6, 7, and 8, a decision was made to shift the excavations to the southern units. Unit 4 excavations were continued due to its status as the test unit.

Level 5 (elev. 99.065–98.965) was excavated in Units 1, 2 and 5. Upper portions of this level continued to produce thin lenses of sand that decreased in frequency toward the bottom of this level. The associated increase in dark, clay-rich material, burned rocks, chert flakes, and charcoal fragments suggested a potential for contextual integrity.

Although no features were evident, two artifacts were collected in-situ in Level 5. One can be classified as an Ensor point. The other, a basal fragment, also appears to be an Ensor point (Hester 1998).

Unit 4 was also excavated through Level 5. Although this unit continued to reveal copious amounts of chert flakes, burned rock, and other associated cultural material, it also showed a matrix of sandy sediment, possibly indicating a less favorable set of depositional conditions.

The most notable aspect of Level 6 (elev. 98.965–98.865 m) was the significant decrease in burned rock and chert flakes. This level was excavated in Units 1 and 5 with both revealing very similar characteristics. In spite of its lack of cultural material when compared with previous levels, one diagnostic artifact, a Late Archaic period Castroville projectile point, was recovered at a depth of 98.908 m.

The excavation of Level 6 in Unit 4 revealed interesting results. This level showed a marked decrease in tan material in favor of the darker, clay-rich material exhibited by other portions of this level. Several large bone fragments and one suspected bison tooth were also collected as well as a number of burned-bone fragments (although very few burned rocks were noted).

Level 7 (elev. 98.65 m–98.765 m) was excavated only in Unit 1, simply as a probe to confirm the decreasing cultural manifestation illustrated by Level 6. The dark, organic material evident in preceding levels slowly gave way to less pedogenic circumstances which, accompanied by the shortage of cultural material, suggested a lower probability for artifact collection.

Within this level, Unit 4 continued to reveal characteristics similar to those of Unit 1, where little material was observed. Very few burned rocks or other cultural material was evident except for continued recovery of bone fragments. A large accumulation of charred fragments was found during the excavation of this level. Excavations were discontinued upon completion of Level 7 in Units 4 and 7.

Results

As noted earlier, temporally diagnostic artifacts recovered during this investigation are listed in Table 1. No other formal lithic tools were recovered during the excavation. A modest quantity of flakes was recovered from all portions of the excavation. A variety of flake sizes are represented that may provide clues regarding specific lithic manufacturing techniques. Interestingly, lithic materials such as cores and preforms were absent from the sample unit (Unit 4) as well as from all other units across the grid.

Discussion

Stratigraphic Unit 1 deposits are not well represented within the excavation area due to the site's slope. They also appear to be disturbed to some degree by agricultural activity.

The Perdiz projectile point and its possible association with Feature 1 suggests limited disturbance within lower portions of Stratigraphic Unit 1, raising the possibility that these deposits are part of a Late Prehistoric horizon. Although somewhat disturbed, those deposits located directly below this horizon may offer insights into prevailing climatic conditions immediately preceding the Late Prehistoric period in Central Texas.

However, only one diagnostic artifact was recovered from Level 3. The lowermost portions of this level revealed shallow lenses of tan, sandy loam at an elevation of approximately 99.150 m. Since the elevation of the Perdiz point was 99.158 m, this artifact was possibly deposited as a result of the fluvial conditions indicated by the sandy deposits within Stratigraphic Unit 2.

Many questions still remain in light of the small number of diagnostic artifacts and their seemingly disturbed contexts. Stratigraphic Unit 3 and the upper portion of Stratigraphic Unit 4, especially in the northern half of the grid, appeared well-stratified in profile and suggest these contexts were not disturbed. In order to filter out unreliable contextual data, an area of deposits much larger than those represented by this study must be excavated.

From the standpoint of vertical provenience, the stratigraphic position of the Ensor points below Pedernales suggests artifacts were hydraulically disturbed or were mixed during culturally-related activities. Another possible explanation for the unusual positioning of the points in this grid is that lithic tools manufactured during the earlier time period may have been reused and discarded during the later period. Although the morphology of the large perforator collected from Level 4 suggests origins during the Archaic period, the possibility it was redeposited must be considered. The overall positioning of artifacts suggests that Stratigraphic Units 3 and 4 evolved slowly, resulting in a compression of cultural material.

Conclusions and Recommendations

A long period of aggradation is suggested by the excavation profile and the terrace cutbank and may reflect on the nature of the site's cultural manifestations. Cultural materials may have been exposed for long periods of time before burial. This exposure would subject deposits to clastic movement, fluvial disturbance, and even more important, to further disturbance during continued, extensive cultural activity at the site.

Most of the cultural material collected during this excavation appears to have come from deposits in which contextual reliability is questionable. The stratigraphic profiles suggest otherwise, but without substantial removal of additional deposits and collection of more diagnostic artifacts, no firm chronology for the site can be constructed at this time. It must be noted that aside from the two Pedernales points, the rest were found to be in general chronological order

(Table 1). Although one Pedernales point clearly came from a disturbed context, it is possible the other point was reused, representing the compression of cultural materials. Should this interpretation be taken seriously in light of the fact so few diagnostic artifacts were recovered? Without additional supporting evidence what “seems” and what “is” remains hard to define.

Furthermore, aside from Feature 1, no other distinct features were uncovered. The presence of sandy lenses and accumulations of cultural material throughout much of the excavation area coupled with a lack of well-defined burned-rock accumulations offers little help in the way of establishing reliable contexts.

Outside the immediate excavation area are some 475 acres that may hold a wealth of additional cultural resources. Two separate middens as well as several apparent campsites have been tentatively located elsewhere on the Indian Mound Ranch. A structured survey, rather than simple reconnaissance, would undoubtedly reveal a host of other unknown sites on the ranch.

Also, the existence of at least three separate middens in relatively close proximity on the Indian Mound Ranch may offer a unique opportunity for comparative research. The interrelated problems of midden dating, duration, and frequency of use are of critical importance in understanding Central Texas burned-rock middens, whether one is interested in culture history or in human behavior (Black et al. 1997).

Acknowledgements

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References

- Black, Stephen L., L. W. Ellis, D. G. Creel, and G. T. Goode, editors
 1997 *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*. Studies in Archeology No. 22, Texas Archeological Research Laboratory, The University of Texas at Austin.
- Bement, Leland C.
 1994 Hunter-Gatherer Mortuary Practices during the Central Texas Archaic. In *Texas Archeology and Ethnohistory Series*, edited by T. R. Hester, The University of Texas Press, Austin.
- Collins, M. B.
 1998 Personal communication with the authors, Liberty Hill, Texas.

Goode, Glenn T.

- 1994 Late Prehistoric Burned Rock Middens in Central Texas. In *The Burned Rock Middens of Texas: An Archeological Symposium*, edited by T. R. Hester, Studies in Archeology 13: 33-44, Texas Archeological Research Laboratory, The University of Texas at Austin.

Hester, Thomas R.

- 1998 Personal communication with the authors, Liberty Hill, Texas.

Jones, P.

- 1997 Personal communication with Kay Clarke, Liberty Hill, Texas.

Mear, Charles E.

- 1998 Terrace Deposits and Late Quaternary Climate, South-Central Edwards Plateau, Texas. *Bulletin of the Texas Archeological Society* 69:79-88.

Prewitt, E. R.

- 1981 Cultural Chronology of Central Texas. *Bulletin of the Texas Archeological Society* 52:65-89.

Rapp, George Jr. and Christopher L. Hill

- 1998 *Geoarchaeology*. Yale University Press, New Haven and London.

Suhm, D. A.

- 1960 A Review of Central Texas Archeology. *Bulletin of the Texas Archeological Society*, 29:63-107.

Trippet, A. R., and L. E. Gamer

- 1976 *Guide to Points of Geologic Interest in Austin*. Guidebook No. 16, Bureau of Economic Geology, The University of Texas at Austin.

Turner, E. S. and T. R. Hester

- 1993 *A Field Guide to Stone Artifacts of Texas Indians*, 2nd ed. Gulf Publishing, Houston.

The Use of Plants by Native Americans in Texas: Observations from Archeological Studies, Historical Accounts, and Oral Tradition

Alice A. Schorre Stultz

This paper is a compilation of selected archeological sources and historical accounts of observed or perceived uses of plants by Native Americans in Texas. Archeological studies of layers of occupational materials, trash piles, burial sites, hidden caches, and rock art provide clues to how Native Americans in Texas used plants for food, fuel, shelter, clothing, tools, decorations, medicine, and ritual preparation. The literature provides information from Native American oral tradition and from first-hand accounts by explorers and missionaries of their historical encounters with roots, seeds, bulbs, nuts, flowers, fruit, grasses, wood, and plant leaves, as well as plant usage, tools made of plant parts, and tools associated with working with plants. Archeological records reveal plant remains in caches and coprolites preserved in shelters. Macrobotanical flotation samples also provide information about plants from sites. Rock art portrays possible images of plants and items made from plants.

Multiple uses of plant material are evident in prehistoric and historic Native American sites across Texas. Native Americans had to adapt their use of the land to the changing seasons and climate patterns that in turn brought about changes in animal populations and plant diversity. Prehistoric plant use is surmised from underground storage pits and ovens, burned-rock middens, stone tools associated with plant procurement, preserved remains, coprolite studies, and oral tradition. Macrobotanical evaluation of soils containing preserved floral remains has also generated information on diverse plant resources at sites. Interpretation of findings must take into account whether the items are actually associated with Native American usage at the archeological sites or happened to be deposited there naturally.

Early Archaic sites seem to be thinly distributed in Texas, suggesting small bands of people searching for food and perhaps social contact. Fuel, shelter, safety, water, and food resources all affected the use of the land by the Native Americans and dictated the length of time spent at various places (Creel 1978: 241–249, 260, 294–303; Greaves 2002:11). Hunting and gathering societies traditionally lived on what they foraged or took from the environment in a relatively small geographic area.

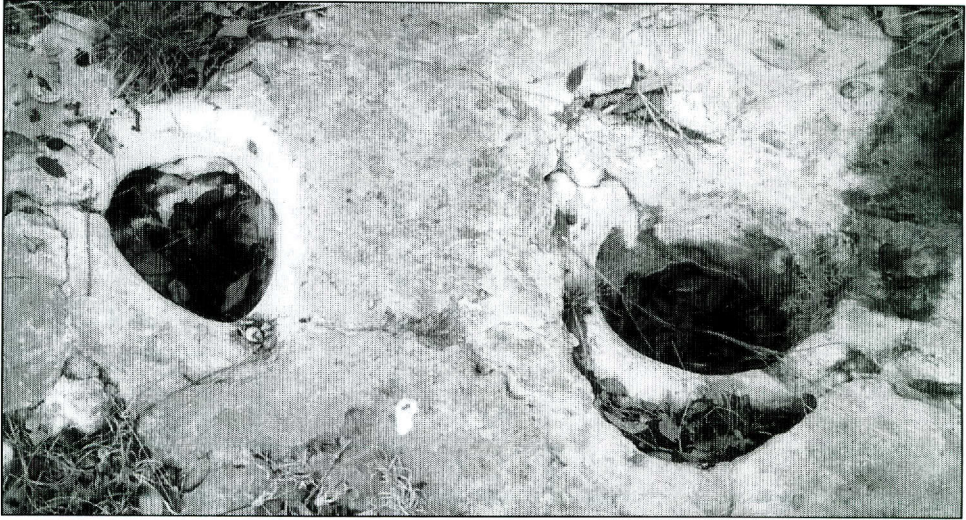


Figure 1. Two differently shaped mortar holes in a large rock near a spring at the Margaret Loveless site (41CC298). (Courtesy Bill Yeates and Margaret Loveless)

Early domestication of food generally marks a shift in the artifacts found at a site, the size of the group, and the shelters (Nunley 1989:30–34). Sites indicating plant procurement and processing are often characterized by features such as burned-rock middens, hearths, and ovens, as well as artifacts including manos, pestles, mortars, and milling slabs (Suhm et al. 1954:68–71; Black et al. 1997a: 29; Turner and Hester 1985:301). Burned-rock middens and hearth features are distributed throughout Central and Trans-Pecos Texas (Creel 1978:298–300; Mauldin et al. 2003:29–30). Plant material provided both fuel and food to these features. Mortar holes, commonly found in parts of the Edwards Plateau, were used to process a variety of plant foods (Figure 1).

A study was done on 15 prehistoric sites along the Richland Creek drainage area in the northern part of Central Texas, which has a varied topography and climate range (Bruseh et al. 1995:5–8). The sites, very near an area where early Texas agriculture was practiced, differ in size as well as duration of habitation, ranging from sedentary to seasonally migratory. The people who occupied these sites were hunters and gatherers. Flotation studies found a predominance of preserved oak (*Quercus*) acorns and hickory (*Juglans*) nuts. A varied diet could be obtained here—fats from acorns, carbohydrates from roots, and protein from animals (Bruseh et al. 1995:42).

Plant processing tools and features were both in evidence at the Sleeper site in Blanco County (Johnson 1991:51–58). Among the features was a stone-lined depression, considered a baking heap, with the bottom thicker than the sides. A large number of manos and metates was associated with this heap. Smaller hearths, which could have been used for cooking or grilling, were present as well.

A cultural resource inventory at Camp Bowie in Brownwood, Texas, revealed an apparent “staging area for plant gathering” (Wormser and Sullo-

Prewitt 2001:23). Crescent and ring-shaped hearths and burned-rock middens were found on the upper terraces of Pecan Bayou and on upland slopes near rocks and intermittent springs.

People of the East Texas prehistoric pottery cultures grew crops and were also hunters and gatherers. Evidence of campsite remains have been found on terraces above flood plains, near water sources. Tools for processing plants, such as manos and metates, have been found along with pots displaying various decorative techniques (Suhm et al. 1954:151–216). Among the plant remains found in this area were prehistoric charred maize. At the base of a midden, located at the Griffin Mound site in Upshur County, a large unlined pit feature was possibly used for storage of harvested crops (Nelson et al. 1996:53).

Changes in climate affected prehistoric subsistence patterns in the Panhandle Plains region (Nickels 2002:23–25). Hughes (1991:15–20) described the Early Archaic period on the High Plains as a time of transition from a focus on hunting large and small game to gathering and processing native plants. The Middle Archaic period (5,000–3,000 B.P.) has fewer sites recorded, but the presence of fire-cracked rock and boiling stones is evidence of plants having been processed (Nickels 2002:23–24). Bedrock mortars and grinding stones have been found at the Justiceburg Reservoir project area, and boiling pebbles as well as lined and unlined fireplaces have been found at the Palo Duro complex sites (1,450–850 B.P.) (Cruse 1989:61–67). Horticultural remains of corn, beans, and squash have been found that date from the Late Prehistoric II period (850–350 B.P.) (Nickels 2002:23–30).

Along the Rio Grande and the Lower Pecos, archeological sites range from village sites with permanent houses and cultivated crops of beans, squash, and corn (Cloud et al. 1994:16–17) to rock shelters with storage pits; from ring-shaped middens, indicating the possible use of desert plants (Mallouf 1985:125), to open campsites and buried sites; and from caches and cairns to rock art (Lehmer 1958:111–113). Dry caves, shelters, and cache sites have revealed plants used for baskets, nets, sandals, mats, snares (Figure 2), carved wood and sticks, drills and atlatls (Mallouf 1985:117–119), fiber netting and cords, gourd vessels, throwing sticks, wooden tongs, snares, cradles of twigs and fiber cord, bags of woven vegetal fibers, and prickly pear (*Opuntia*) pad containers, as well as cane cigarette-type holders, bulbs, roots, nuts, seeds, and grasses (Snow 1996:169). Also found were several kinds of durable plant preparation tools such as manos, millstones, mortars and pestles, and grinders. Sheltered areas apparently used for personal toilets have revealed consumptive use of plants such as seeds, husks, and other plants (Acker 1996:45–50).

European perspectives were reflected in the observations recorded by Spanish and French missionaries, explorers, naturalists, and journalists when they encountered Native American groups. The earliest such account is Álvar Núñez Cabeza de Vaca's *La Relación (The Account)*, in which he documented the seven years (1528–1535) he spent “marooned” with the Native Americans of the Texas Gulf Coast and interior. In this chronicle, he described the plants he ate and the plants he noticed being used daily and in rituals (Cabeza de Vaca 1528:47–93).

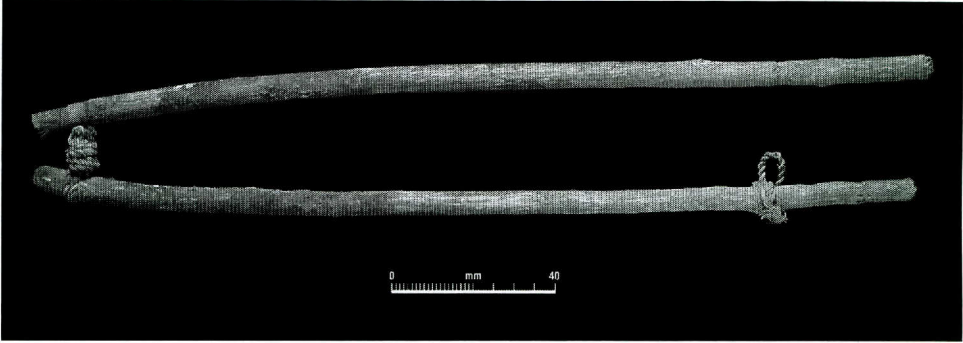


Figure 2. A wooden snare from the Conejo Shelter site (41VV162). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

Both Juan Bautista Chapa, exploring for the Spanish from 1630 to 1690, and René Robert Cavalier, Sier de La Salle, through his diarist, Henri Joutel, exploring for the French from 1684 to 1687, revealed their interpretations of the habitats, nomadic and seasonal migrations, and general ways of life of the Native Americans they encountered. Many other uses of native plants by Native Americans have been and are continuing to be passed down in oral tradition (Talamantez 2007) and from more contemporary recorded observation and usage. Some plants have known medicinal and hallucinogenic uses. Rock art may also serve as documentation of traditional usage and reverence toward plants by Native Americans in Texas.

Parts of Plants and Their Possible Uses

Bulbs and Roots

Bulbs and roots have been found in prehistoric and historic archeological sites. The roots and bulbs of some plants were steamed in subsurface ovens for extended periods of time. Flotation of soil samples led not only to an increase in the recovery of flora in burned-rock middens but also to evidence of previously undiscovered plant forms (Dering 1998:1632). The discovery of wild hyacinth (*Camassia scilloides*) bulbs dated ca. 8,000 B.P. makes the Wilson-Leonard site the first from which a complete bulb was found (Dering 1998:1632–1634). Bulbs store nutrients in the form of carbohydrates and can be eaten raw in small quantities. There is mounting evidence that geophytes (root and bulb foods) were a major food source for hunter/gatherers (Dering 1998:1634; Dering 2002:99–105; Dering et al. 2006:156).

Sotol (*Dasyilirion texanum* Scheele) and yucca (*Yucca angustifolia*) were considered a staple and recognized ethnohistorically at 41MS32 (Dering 1997: 587–596). This is a burned-rock midden site where spring bulbs of sotol/yucca and lilies were steamed. At the Fate Bell Shelter in Seminole Canyon, “sotol pits” of various sizes and depths, used for baking the crowns, were found (Newcomb 1967:60–61).

Wild onions (*Allium perdulce*) were found in two human coprolite samples dating to around 6,000 years old at Hind’s Cave in the Lower Pecos (Reinhard 1988:59). The evidence was very well-preserved and intact as at least one bulb

appeared to have been swallowed whole (Edwards 1990:99). The bulbs could have been used for flavoring, eaten raw, boiled, or used medicinally (Kindscher 1987:15; Tull 1987:116). Onion bulbs and fiber (*Allium*) were found in 29 percent of the samples of coprolites at Baker Cave (Sobolik 1988:118). Associated with the bulbs were dirt and sand but there was no charring, which suggests raw consumption. All pit oven features at the Toyah Bluff site (41TV441) contained processed onion bulb fragments (Karbula 2003:66).

Cabeza de Vaca (1528:52–58) wrote that the principal food of his captors along the Texas Gulf Coast included several kinds of roots. The women dried the peelings in ovens for two days and nights, ground them into a powder, mixed the powder with water, and then squeezed the juice into a hole in the ground. They drank the sweet, golden liquid from the hole. The captors also washed their clothes with soap made from a root (Cabeza de Vaca 1528:89). Jean Louis Berlandier (1969:45) later noted that some of the native people along the coastal marshes supplemented their favored diet of meat with roots of a water lily (*Nymphaeacea*) that grew in these swamps. Hester (1999:22) presumed that they might have used digging sticks similar to those found in dry shelters in the Pecos to dig for these bulbs. Another translation of the same account portrays the roots as a staple, along with fish caught with cane weirs. The women dug the roots from November through December. These roots were not considered palatable after this period (Cabeza de Vaca 1998:61).

Nuts, Seeds, and Fruit

It is difficult to assess the importance of seeds and nuts simply through their abundance at archeological sites, as they could have been naturally deposited at the site; however, in some contexts, plant use is quite clear or at least probable.

Investigations at the burned-rock midden and hearth at 41MS32 indicated that oak (*Quercus*) acorns were harvested (Dering 1997:587, 596). At Baker Cave traces of walnut shell were found in a coprolite (Sobolik 1988:118). It is unknown whether these were intentionally consumed or how they were prepared.

Hickory (*Carya* sp.) was the most commonly found nut at the Hurricane Hill site (41HP106) in East Texas. The nuts were possibly crushed in a mortar and then boiled. The shells sank, and the oil, which floated to the top, may have been used in cooking and seasoning. The nuts could have been parched, making them easier to crack open and store. Consisting mainly of fat and protein, nuts provide a high energy food. Hickory is superior to maize and acorns as a protein source because it contains 9 of the 10 amino acids (Goldborer and Perttula 1999:368).

A gourd fragment was found at the Fate Bell Shelter in the 1930s (Pearce and Jackson 1933:31). A gourd (*Cucurbita pepo*) rind fragment was recovered through macrobotanical flotation at the Cobb-Pool site (41DL148) (Fritz 1993:236–237). Berlandier (1969:64) wrote of dried gourds filled with pebbles used as instruments among Texas Native Americans in the 1830s.

At Hurricane Hill, macrobotanical flotation recovered seeds of Solomon's seal (*Polygonatum biflorum*), wild grape (*Vitaceae*, *Vitis mustangensis*), charred sumac (*Rhus* sp.), charred juniper (*Juniperus* sp.) berries, sunflower (*Helianthus* sp.),

and wild rose (*Rosa* sp.) (Goldborer and Perttula 1999:368). Seeds of cottonwood (*Populus deltoids*), dogwood (*Cornus drummondii*), and sugarberry (*Celtis reticulata*) were found at the Wilson-Leonard site (Dering 1998:1630). Whether they were used by early occupants of the site is unknown, but these seeds do have known medicinal and dietary uses (Kirkpatrick 1992:72, 194-196).

Macrobotanical flotation study also revealed that oak (*Quercus*) acorns are the most prevalent of the recovered nuts at the Cobb-Pool (41DL148) site (Fritz 1993:235). Acorns were shelled, ground, and then boiled several times to leach out the tannic acid. Hot stones were dropped into a basket, skin, or gourd pouch containing a mixture of water and acorn flour. In one account, powdered iron ore was also added to bind the tannic acid, reducing its harmful effects (Heizer and Elsasser 1980:146-152). The use of limestone to grind the acorns on bedrock may have enhanced the leaching process (Creel 1991:33-44). Joutel mentioned eating a porridge of acorn meal with broth as he and his companions camped along the Neches River with Native Americans in Houston County (Foster 1998:234-235).

Coprolite analysis from Hinds and Baker Caves in Texas revealed varied seeds. In Baker Cave the most abundant seed was of the prickly pear (*Opuntia*) (Sobolik 1988:118), followed by pincushion cactus (*Mammillaria*) seeds, and mustard (*Brassicaceae*) seeds. Other seeds found were hackberry (*Celtis*), goosefoot (*Chenopodium*) (Sobolik 1988:135), intact mesquite (*Prosopis*) seeds, juniper (*Juniperus*), and walnut (*Juglans microcarpa*). One sample had a high concentration of juniper and prickly pear seeds (Sobolik 1988:118). Hinds Cave had hackberry (*Celtis*) seeds in two samples (Reinhard 1988:60), tansy mustard (*Descurainia* sp.) in five samples, mustard (*Brassicaceae*) in five samples, mesquite (*Prosopis*) seed and fruit in one sample, Texas persimmon (*Diospyros*) in two samples, sunflower (*Helianthus* sp.) in three samples, walnuts (*Juglans*) in two samples, and dropseed (*Sporobolus* sp.) in six samples (Reinhard 1988:61).

Cabeza de Vaca (1528:47) mentioned that pecan (*Carya illinoensis*) nuts were ground with small grains and stored for winter. He noted that Native Americans gathered pecans on their annual migration through the "river of nuts." For the two leanest months in winter, they subsisted on pecans ground with small grains from storage (Cabeza de Vaca 2003:69). According to Hester (1999:20), there is no mention of the method of preparation, although the Spanish explorer Alonso De León, the elder, reported wooden mortars and pestles in Nuevo León prior to 1650 A.D. (Chapa 1997:15). Fray Isidro Espinosa wrote that the Caddo collected "thin-shelled nuts" near the San Marcos River (Swanton 1942:133). Nuts have been found stored in underground pits, and some were probably left unshelled and transported in pouches (Tous 1930:10-11).

Cabeza de Vaca (1528:79) also noticed Native Americans using the thin, husked nuts from the small, egg-like cones of the pinyon pine (*Pinus cembroides* Zucc.), which they ground into powder (flour). They ground the greener nuts into pellets, which they ate or stored for later consumption.

Mesquite beans were also ground into flour. Cabeza de Vaca (1528:73) described his captors along the coast grinding the beans in a hole in the dirt,

adding more dirt, and continuing to grind with a stick as thick as a leg and 1? fathom long (about 6 ft long). The ground, powdered bean/flour was put into a basket-like vessel with water, and the preparer added more dirt if it was not sweet enough, according to the translator. With their hands they put this mixture on a hide to winnow seeds and hulls. The remainder was again placed in a basket with more hot water, and the juice and water were squeezed out. This hot-water leaching was performed between several poundings of the bean mash (Cabeza de Vaca 2003:100–101). When the people consumed this drink their bellies swelled (Cabeza de Vaca 1528:73).

Cabeza de Vaca (1528:74; 2003:63, 72, 75) ate blackberries (*Rubus texanus*) or dewberries (*Rubus trivialis*), which would have been abundant in the late spring along the Texas coast, with the Native Americans. While he was with Francisco Vásquez de Coronado's expedition around 1540, Pedro de Castañeda reported seeing wild grape, mulberries, nuts, plums, and gooseberries from the Pecos to the Blanco rivers (Riley 1997:336–337). La Salle's diarist Joutel observed mulberry trees with black, ripened fruit probably near Fort St. Louis. He also described plums (Foster 1998:270), boiled green peaches, and persimmons (*Diospyros virginia*) (Foster 1998:277). In 1689, the elder De León's men passed by grapes and dewberries while looking for La Salle (Foster 1995:27). According to Fray Espinosa, Native Americans such as the Caddo consumed mulberries that grew in the region between the San Marcos and Colorado rivers (Swanton 1942:143; Dering 1998:1631). Fray Espinosa and Governor San Miguel de Aguayo, in 1716 and 1721 respectively, noted grape vines measuring 3 ft in diameter at the Medina River (Foster 1995:149). In 1767, the Marqués de Rubí traveled through Texas from the Rio Grande to the Presidio San Sabá. He mentioned passing by mesquite, wild persimmon, pecans, and blackberry bushes (Jackson 1995:109–111). Near the Presidio of San Antonio on the Guadalupe River, he recognized wild grapes and plums "and other delicious fruits growing along the bank (Jackson 1995:116)."

Cabeza de Vaca (1528:89) wrote of the people eating green fruit with milky juice that burned their mouths. These could have been the bitter *granillas* of the ebony tree (*Pithecellobium flexicaule*) (Krieger 2002:52) or persimmons (*Diospyros texana*) (Amos 1988:102). There is documentation of the presence of persimmon trees in several other locations. They were observed in 1709 by Fray Espinosa near streams in Central Texas (Foster 1995:256) and near Trinity Bay and Maverick County during Rubí's 1767 expedition. In the 1830s Berlandier reported seeing them near the Frio River (Jackson 1995:131). Cabeza de Vaca also referred to fruit from a tree the size of an apple tree that the Native Americans used as a source for poison that they rubbed on arrowheads (Cabeza de Vaca 1528:91).

Cabeza de Vaca (1528:66–67) watched natives eating prickly tunas raw and roasted, and De León, the elder, noted Native Americans drying the tunas of the prickly pear for later use (Chapa 1997:15).

Leaves and Grasses

Leaves and grasses have been found in a preserved state in dry caves in the Trans-Pecos region. They seem to have been used in weaving (Figures 3a, 3b, 3c),

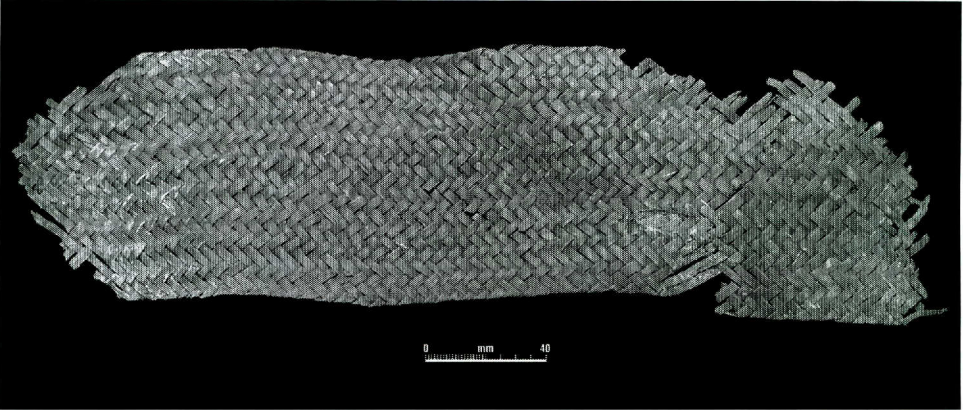


Figure 3a. A woven mat from the Perry Calk site at Fate Bell Ranch (41VV87). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

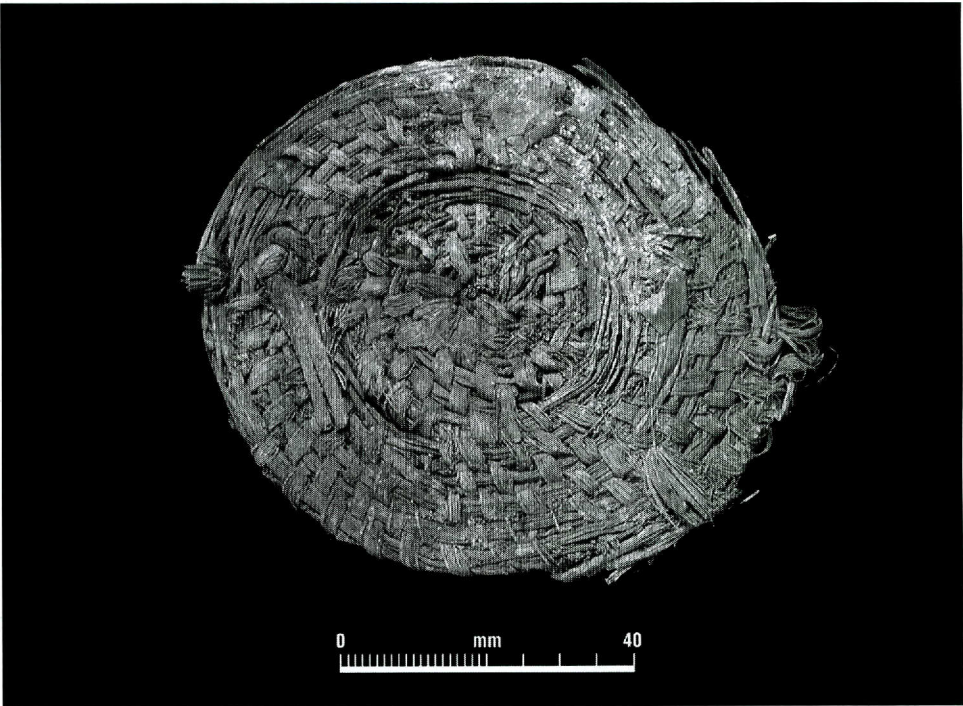


Figure 3b. A coiled woven piece from the Conejo Shelter site (41VV162). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

lodgings, possible teas and food, bedding, protective layering and camouflage, and adornment. These materials would have been used in ring middens and hearths as well for food processing.

At the Gault site (41BL323) in Central Texas, stone blades for cutting grass were found (Collins and Brown 2000:11). Microscopic study of four Clovis blades reveals wear patterns that indicate they had been used to cut “plants rich in

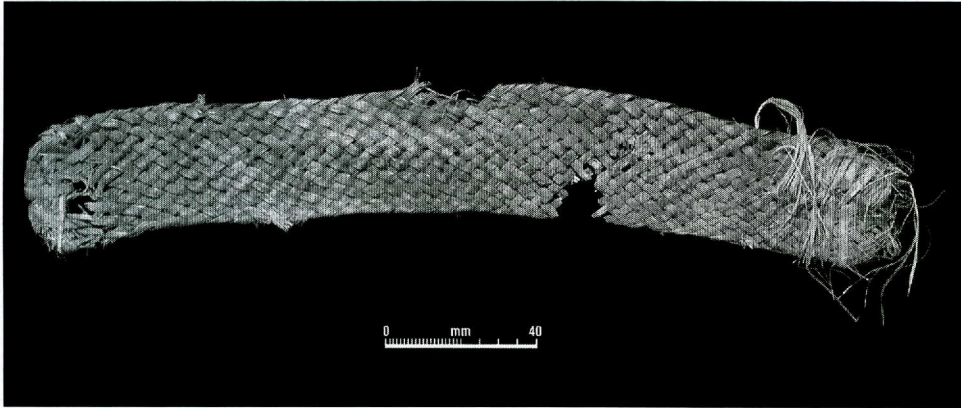


Figure 3c. A tump line from the Centipede Cave site (41VV191). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

silicate” (Collins 1998:9). Knapped chert blades with scratch marks in parallel wear or usage patterns similar to ones found at the Gault site have been replicated by archeologists in the field by chopping grasses (Collins 2001).

Archeological evidence indicates grasses might have been used for steaming agave and/or sotol (*Dasyilirion*) bulbs when they were cooked in ovens of hot rocks to break down complex carbohydrates and saponins to sugar (Dering 1997:587–592). Grasses also were used to leach acorn meal. Grasses found at the Wilson-Leonard site were bunchgrass (*Sporobolus airoides*), side-oats grama (*Bouteloua curtipendula*), Texas crabgrass (maybe *Digitaria*), mesquite grass (*Muhlenbergia wrightii*), marsh foxtail (*Alopecurus aristulatus*), bear grass (*Nolina microcarpa*), panic grass (*Panicum*), paspalum grass (*Paspalum*), and bristlegrass (*Setaria*) (Dering 1998:1629).

Pearce and Jackson (1933:11, 30, 31, 34, 38) mention some of the artifacts constructed of plant material from rock shelter collections in Seminole Canyon in Val Verde County. Included were a cloth made of fiber cord and a fur, grass-strung necklaces of shells and beads, sacahuista (*Nolina texana*), a prickly pear pad with a sacahuista thong tied into it, a split leaf sandal, possible grass and fiber cord bedding, and pieces of sotol with a skin tied up with a small cord net of hemp-like (*Apocynum*) fiber that looked like a snare. Pearce and Jackson (1933:38, 117) also mention a rock embedded in a prickly pear (*Opuntia*) tied up with sacahuista grass (*Nolina texana* Watson); at deeper elevations excavators encountered bent sotol lechuguilla (*Agave lechuguilla*) and little bluestem (*Andropogon schizachyrium*), a bone implement wrapped in sacahuista, bands woven of sacahuista, small stones wrapped with grass and leaves, and a stash of 22 prickly pear leaves, some constructed into three receptacles tied together with sacahuista. Tanglehead grass (*Heteropogon contortus*) was found in relation to woven mats and grass sleeping areas in the Lower Pecos River region (Shafer et al. 1975:15, 17; Shafer and Bryant 1977:31–32, 41–62).

Cabeza de Vaca (1528:48, 2003:92) wrote that his coastal captors traveled away from the coast to harvest prickly pear cactus (*Opuntia*). As mentioned

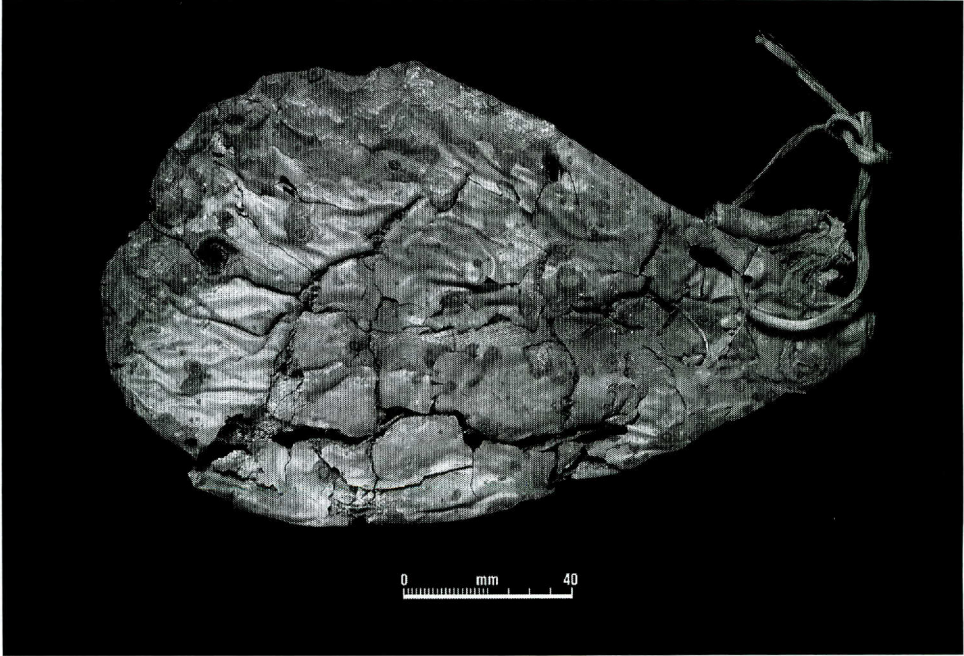


Figure 4. A prickly pear pad “bag” with twine from the Conejo Shelter site (41VV162). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

previously, they ate prickly pear tunas raw as well as tunas and leaves that were roasted all night (Cabeza de Vaca 1528:66–67, 2003:92). Krieger (2002:41) noted that the harvesting area was probably east of the Nueces River between the Atascosa and the Frio rivers, about 90 mi from Lavaca Bay. The Hinojosa site (41JW8) (Black 1986:28) is about 55 mi inland from the coast and is a major location for a high concentration of nopal (prickly pear) cactus in Texas. In *Discourses of Nuevo León*, De León, the elder, saw Native Americans near the Lower Rio Grande using hollowed-out pads as water vessels that they hung in nets from bowed wood and carried on their shoulders (Chapa 1997:14) (Figure 4).

Several uses for moss, grass, and brush are noted in diaries and journals. Cabeza de Vaca (1528:42–43, 1998:63) described women clothed in wool that grew from trees. This was probably Spanish moss (*Tillandsia usneoides*). He saw grasses used to fuel fire, to prepare food, and to make bedding (Cabeza de Vaca 1528:87). When Cabeza de Vaca went northwest from the coast to find the native people who cultivated corn, he recorded seeing “permanent dwellings called *buhios*” made of mud and woven mats wrapped around four hoops and finished with a floor of oyster shells (Cabeza de Vaca 1528:88, 1998:62). According to Cabeza de Vaca (1528:90), for about a third of the year, powdered straw was part of the diet of these people. He also noticed that the native people made foxholes and covered themselves with brush to hide from their enemies (Cabeza de Vaca 1528:68–69). In 1828 Berlandier (1969:43) described a Tancahue camp along the banks of the Colorado River in Texas where Spanish moss was used as padding under fur bedding.

Berlandier (1969:82–83) noticed Comanche using cut brush as a camouflage shield to advance upon enemy encampments. He wrote that they would wrap themselves in brush and roll toward enemy encampments for a surprise attack or to frighten, disperse, and capture horses, and that they seemed to imitate tumbling weeds and dry brush rolling around in a “norther.”

De León, the elder, in the mid 1600s, described the grass pillows that the Native Americans north of the Rio Grande slept on, as well as their bell-shaped grass and reed huts (Chapa 1997:13). In winter they ate *lechuguilla* bulbs and leaves and had bowstrings made of twisted *lechuguilla* fiber. The women wore twisted or woven grass hanging from their waists in the front and back and decorated with beads, animal teeth, or shells (Chapa 1997:14).

There is evidence of the use of finely chopped grasses, leaves, and small branches in the daub at the Presidio Nuestra Señora de Loreto de la Bahía del Espíritu Santo in Victoria County (Fox and Tomka 2006:133). Mission structures made of grasses were thought to have been constructed around 1715 by Native Americans near the Big Bend area of Texas (Cloud et al. 1994:19).

Wood, Plant Stems, and Cane

Wood and cane artifacts include clubs, cane with notches, sharpened wooden sticks, woven cane in mats and shelters, plant stalks wrapped around bundles of fibers, bows, arrow shafts, snares, firesticks, musical instruments, and atlatls (Suhm et al. 1954:33–34) (Figures 5a–c). Tools for cutting wood have been found, including a stone adze from 41BL323 in Central Texas (Collins and Brown 2000:11).

At the Fate Bell Shelter, there were bundles of Spanish dagger (*Yucca treculeana* Carr.) and sotol (*Dasylirion texanum* Scheele) stalks (Pearce and Jackson 1933:15); wooden sticks that were bundled, staked, woven, and notched; possible cradles made of four bent branches of unknown wood tied together with grass (Pearce and Jackson 1933:117); sotol fire sticks; quids of *lechuguilla* flower stalks with red “paint” on them; a fire drill of black persimmon (*Diospyrus texanum*) (Pearce and Jackson 1933:38); a wooden awl grooved at one end and sharp at the other; a carved rabbit stick or grooved club (Pearce and Jackson 1933:44); a wooden shovel or scoop-like implement (Pearce and Jackson 1933:46, 121); a wooden digging stick sharpened at both ends; and an unidentified wooden “needle-like” implement with a V-shaped hook at one end and slightly rounded at the other end (Pearce and Jackson 1933:49). Some species of yucca and sotol seem to have been roasted and chewed since there were visible tooth marks on the quids found at Fate Bell Shelter (Pearce and Jackson 1933:40). There were also parts of arrow shafts and bows (Pearce and Jackson 1933:31, 122–126), possible meat-drying racks, and awls and needles of unknown wood (Pearce and Jackson 1933:38, 49, 51). Reeds and plant stems also were found smeared with paint (Pearce and Jackson 1933:41); they were found as shelter materials, as whistles, and as a reed “container” (Pearce and Jackson 1933:128–129). Several possible graves were found at Fate Bell Shelter: one consisted of branches tied with fiber cord and a woven mat with grasses between the branches (Pearce and Jackson 1933:58).



Figure 5a. A wooden snare from a Comstock canyon shelter (41VV162). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

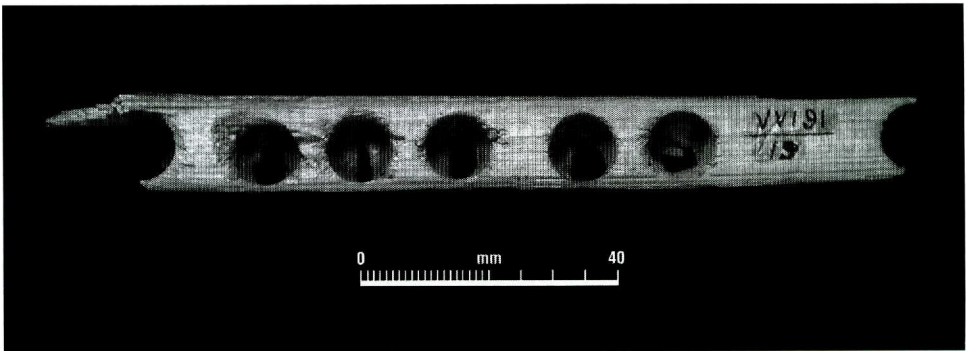


Figure 5b. A wooden fire stick from the Centipede Cave site (41VV191). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

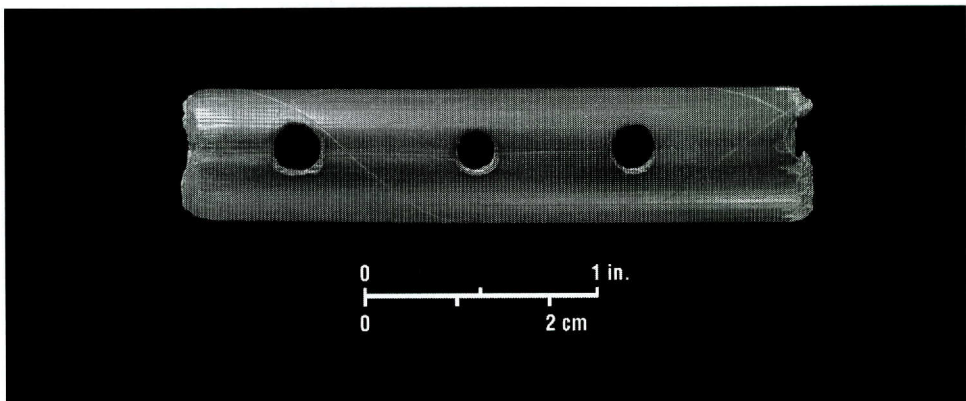


Figure 5c. A portion of a flute from the Perry Calk site at the Fate Bell Ranch (41VV87). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

A pouch of reed tubes containing cedar incense was found at the Shumla Cave (Boyd 2003:83). "Paint brushes" made from flower stalks and wrapped sticks (Tunnell 2000:37), which were used as tools of the pictograph trade, were in a collection of artifacts from the cave found by George C. Martin and given to the Witte Museum in San Antonio around 1933.

J. Charles Kelley found two sotol stalk hafted knives that were 20 cm long at Carved Rock Shelter in Brewster County, Texas, in the 1930s (Tunnell 2000:24–25). A walnut (*Juglans microcarpa*) "Perrin" bow with a radiocarbon date ca. 500 B.P. was found in a Terrell County cave (Wiederhold et al. 2003:92–95), and a "Knight" bow dating to ca. 150 B.P. was found in conjunction with a grass mat in Presidio County near Marfa.

An archeological investigation at the rock shelter site known as the Kyle site at the Whitney Reservoir in Hill County, Texas, revealed several objects of wood and cane, including the distal end of a wooden arrow shaft with a Perdiz point forced into the base of the notch and an arrow shaft made of 9 mm diameter switch cane (*Phragmites* sp. or *Arundinaria* sp.) (Jelks 1962:69). Jelks (1962:71, 76) also recorded two notched sticks, a possible digging stick that is pointed and charred, seven cylindrical sticks, two specimens of wood painted with red pigment, splinters of cedar wood, and wood shavings.

At the Wilson-Leonard site, carbonized samples of various woods were found, but the actual uses are unknown. They include hickory (*Carya* sp.); walnut (*Juglans nigra*); American elm (*Ulmus Americana*); hazelnut (*Corylus*); oak (*Quercus*); elm (*Ulmus* sp.); hackberry (*Celtis* spp.); sugarberry (*Celtis reticulata*); willow (*Salix*); dogwood (*Cornus drummondii*); mulberry (*Moraceae*); bois d'arc or osage-orange [*Maclura pomifera* (Raf.) Schneid]; bits of cottonwood (*Populus deltoides*); and pieces of wood of the rose family, including hawthorn (*Crataegus*), wild plum (*Prunus americana*), wild cherry (*Prunus*), and crabapple (*Pyrus*) (Dering 1998:1629–1631; Carlson and Jones 1939:524).

Oak is the most commonly identified wood in archeological reports of Central Texas sites from the Archaic to the late Prehistoric (Dering 1998:1631). Oak stumps were found at the Wilson-Leonard site and in stratigraphic units dating to 11,000 B.P. (Dering 1998:1635). Oak was the preferred fuel wood of the Mescalero Apache (Dering 1997:587–592).

Mesquite (*Prosopis glandulosa*) wood charcoal was found at prehistoric and historic sites along the Brazos and Colorado River watersheds (Dering 1997:594). De León, the elder, noted that the Native Americans in Nuevo León preferred mesquite roots for bows prior to the 1650s (Chapa 1997:14).

Canyon Creek site (41OC13) is a mid-19th century burial in a shelter containing artifacts that include a wooden ladle or drinking vessel that was common among the nomadic Plains horsemen (Shafer et al. 1991:304).

Juniper (*Juniperus pinchotii*), found at 41MK8 and 41MK9, suggests a major fuel use in the Rolling Plains and Frio River (41UV86) sites (Black et al. 1997b:593–594). Juniper (*Juniperus*) was used in eight houses identified from the late 1700s at the Vinson site (41LT1) (Smith 1993:78–93). Historically, juniper and willow (*Salix*) were used in the homes of the Wichita. They lived in villages

of durable grass houses that were 30 ft (9.14 m) in diameter. The interior supports were forked juniper posts, connected with horizontal juniper or willow poles with grass thatch over all. They also built other arbor-like structures for storage and drying of crops (Webb 1958:35–37).

Texas persimmon (*Diospyrus texana*) was found at 41MS32 with post oak (*Quercus stellata*) (Black et al. 1997b:595). A well-preserved black persimmon (*Diospyros texana* Scheele) fire drill was found at Fate Bell Shelter in Seminole Canyon (Pearce and Jackson 1933:38). When Cabeza de Vaca went northwest from the coast, he observed prolific trees that were either persimmon or ebony trees (Cabeza de Vaca 1528:88). In the early 1600s, De León, the elder, also noted ebony (*Pithecellobium*) sticks that were grooved for creating dance rhythms (Chapa 1997:15).

The Antelope Creek Focus in the Texas Panhandle and the High Plains has been radiocarbon-dated ca. 900–500 B.P. (Hughes 1991:29). Open campsites, middens, and rock shelter sites, as well as more permanent homesteads have been found. This was a time of transition to above-ground housing from large, semi-submerged, rectangular dwellings with central fire pits surrounded by four roof support poles, benches along the walls for working and sleeping, and spaces for storage pits and trash heaps (Hughes 1991:30–32).

Cabeza de Vaca (1528:41) mentioned scarcity of firewood for the Native Americans living on the coast of Texas. Cabeza de Vaca's records make no mention of boat-making, although he did write of his captors traveling to the mainland with boats (Cabeza de Vaca 1528:48). Jean Beranger, a Frenchman on the 1720–21 expedition in search of St. Bernard Bay or present-day Matagorda Bay, saw Karankawa using boats made by burning and scraping logs (Howard et al. 1997:15).

Cabeza de Vaca's records note the uses of cane or reeds in several ways. Cane weirs were made for fishing (Cabeza de Vaca 1528:45), and stiff canes were used to make arrow shafts. This cane could have been *Phragmites* or *Arundinaria*, which grow along the Gulf of Mexico (Vines 1960:44). Cabeza de Vaca (1528:39) also recorded that the native men had pierced nipples and lips and used pieces of reed in the piercings. They had houses made of four bent-reed arches and with mats placed on a bed of oyster shells (Cabeza de Vaca 1528:41). As a trader, he carried cane for arrow-shaft construction (Cabeza de Vaca 1528:44–45). In 1709, near present-day San Antonio, Fray Espinosa observed Native Americans approaching his party and carrying cane crosses (Foster 1995:102). Joutel described Native Americans lighting canes for torches when camped near the Neches River (Foster 1998:235).

As noted earlier, De León, the elder, described huts shaped like bells in Nuevo León near the Texas/Mexico border (Foster 1998:89, footnote 21). The Tonkawa had small, movable dwellings made from poles and light branches covered in leaves, bark, and smaller branches (Sjoberg 1953:287). Joutel, in his journal written during the 1684–1687 La Salle expedition to Texas, described Native American use of the leathery bark of the mulberry tree for making rope and huts (Foster 1998:189). He also wrote of the Native Americans in the Matagorda Bay area living in huts, shaped of bent poles covered with reed or cane mats, that

looked like large ovens (Foster 1998:89). Trees 10–15 inches in diameter were sunk into the ground in a 60-ft circle and lashed at the top. They were thatched with grass from the ground to the top, making them appear to be similar but taller than haystacks, and they had reed partitions inside. There was a hole in the roof center for smoke to leave the hut. Beds were raised off the ground and constructed of long reeds and matting to form an individual “cradle.” These huts housed up to 10 families (Foster 1998:208–209). According to Rubí, the raised beds in this type of dwelling were comfortable (Jackson 1995:126).

Berlandier wrote of Tonkawa cabins made of branches and thatch south-east of San Antonio in the 1820s. Near the Colorado River he visited permanent Tanchahue and Lipan camps with cone-shaped huts that were 5 to 6 ft in height and had a diameter of around 10 ft (Berlandier 1969:42–43). Fire was built on a bed of Spanish moss (*Tillandsia usneoides* L.) located in the center of the hut, which had a small door on one side used for entry and as a chimney for the smoke. His records noted as many as 12 individuals living in these huts (Berlandier 1969:43). He traveled with the Comanche for a week and saw their skin tents and wooden poles carried by pack horses (Berlandier 1969:43). He also recorded seeing a wooden war club made by the Karankawa (Berlandier 1969:175–176).

Cultivation

Cultivation of plants was apparent in North America by about 5,000 B.P. At the George C. Davis site, corn cobs and corn cupules were the only cultivated plant found (Story 1997:1; Ford 1997:106–107). Charred maize cupules (*Zea mays* ssp. *mays*) were found at Hurricane Hill in Hopkins County (Goldborer and Perttula 1999:365). Flotation samples taken from features, post holes, and midden deposits at the Cobb-Pool site (41DL148) revealed that maize was the most abundant plant food found. The type of maize was unknown at the time of publication (Goldborer and Perttula 1999:368). Maize cupules, the hardest part within the cob, have survived in Early and Middle Caddoan sites. A Texas Archeological Society field school investigation in Ochiltree County helped in the investigation of 12 houses and a “temple” site with fire pits and found evidence of horticulture (Hughes 1991:107–143).

In addition to the abundant ethnohistorical and archeobotanical evidence for cultivation of plants in several parts of Texas by Native American populations, cultivated fields may be represented in a single pictograph at the Paint Rock site (41CC1) in Concho County. Here, a painted black-line image with parallel lines and leaf-like motifs (Figure 6) may represent a cultivated field. While cultivation is not thought to have occurred in this part of Texas prior to the historic era, it is possible that the artist/recorders at Paint Rock may have been depicting cultivated fields seen elsewhere.

The Polvo site (41PS21) in Presidio County has housing structures with circular storage pit features in affiliation with the La Junta phase, which occurred around 1200–1400 A.D. (Cloud et al. 1994:122–123). Cabeza de Vaca was probably the first European in this area when he was on his way to Mexico during his stay in Texas around 1528–1534 (Lehmer 1958:110–111).



Figure 6. An unusual black-line pictograph from Paint Rock (41CC1). While plant cultivation did not occur in this area in prehistoric times, the unusual image may represent cultivated fields that were seen elsewhere, but recorded here. (Courtesy Fred and Kay Campbell)

Cultigens of squash (*Cucurbita*) and maize were found at a central hearth at the Hurricane Hill site in East Texas (Goldborer and Perttula 1999:368).

Cabeza de Vaca was given squash and beans from a people who ate a bitter, dry fruit his translator referred to as *chacan*, which was crushed between two stones (Cabeza de Vaca 1528:86) and which he found unpalatable. He was told that this would be the only fruit his group would encounter for 17 days. Moving in a northwesterly direction, they found cultivated corn planted three times a year, squash, and beans (Cabeza de Vaca 1528:90). When he watched the unusual way the food was prepared, he gave this reason for wanting to describe it:

... people may see and know how diverse and strange human ingenuity and industriousness are. They have no pots; so to cook what they want to eat, they fill a large pumpkin halfway with water. They heat many stones in a fire, and when the stones are hot, they grab them with wooden tongs and put them in the water inside the pumpkin, until the water boils with the heat of the stones. Then they place in the water whatever they want to cook. The whole time they remove stones and add other hot stones to bring the water to a boil and cook whatever they wish (Cabeza de Vaca 1528:87).

The 1687 journal of Joutel documents encounters with different tribes and their cultivars in Texas. His party was given red beans, boiled corn meal (Foster 1998:207), and bread of parched cornmeal and nuts baked into cylinders

(Foster 1998:205). He also wrote of friendly Native Americans giving La Salle's group corn and beans for planting (Foster 1998:152). Near the Brazos River they met a nomadic group who indicated to them that they had semi-nomadic locations for corn cultivation (Foster 1998:183). As they reached the Cenís village near the Trinity River they were ushered into the chief's hut, sat on woven mats, were offered corn porridge and bread made out of corn, and then smoked tobacco with the elders (Foster 1998:207). The French traded with these people for beans, corn, meal, and nut breads. Joutel wrote in his journal about the practice of seasonal pasture burning to enrich the soil for grasses (Foster 1998:209).

In 1690 Governor De León, the elder, wrote in his diary that his group passed Tejas Indian houses with planted fields of watermelon, corn, beans, pumpkin, and squash near the Brazos River (Chapa 1997:166). He observed unknown trees bearing edible fruit and found that the natives stored nuts for winter. In 1709, Fray Espinosa reported fields of tobacco and a thorny shrub he called *cocolmecalt*, and in 1716 he noted that the Tejas tribe cultivated tobacco (Foster 1995:96). In 1709 Fray Espinosa also reported seeing what he described as alfalfa along the Nueces River in Zavala County (Foster 1995:247). In 1767, Rubí traveled through Texas from the Rio Grande to the Presidio San Sabá and encountered the remains of an Apache cultivated field (Jackson 1995:109).

Other Plant Uses

There were many other uses for plants found at sites besides their use for food, fuel, shelter and tools construction, decoration, and protection. Plants were used for mind-altering rituals, in preparation for hunts, for fertility and coming-of-age purposes, for medicinal purposes, as rock art subjects, and for actually painting rock art. Some of the medicinal knowledge of plants, as well as some of the rituals have been passed down in oral tradition.

Bentgrass seed (*Agrostis*), sumac (*Rhus* sp.), juniper (*Juniperus* sp.), and wild rose (*Rosa* sp.) were found at the Hurricane Hill site (41HP106) (Goldborer and Perttula 1999:373). The seeds could have dropped naturally on the site or could have been discarded after they were used. Bentgrass rhizomes promote healing when applied to wounds, and drinking a tea of the plant relieves digestive disorders. Fray Gaspar José de Solís, on his tour of Texas missions in 1768, saw battle-wounded Karankawa staunch blood flow with "special grasses" and continue on in battle (Foster 1995:202). This could have included bentgrass.

Sumac berries can be eaten and a tea brewed from the berries. Juniper could have been used medicinally or in arbor building at the Caddo site. Rose hips are high in vitamin C and could have been used in a tea as well (Goldborer and Perttula 1999:373).

Willow (*Salix*) and juniper (*Juniperus pinchotii*) wood, found at the Wilson-Leonard site (Dering 1998:1631), could have been used for medicine (Carlson and Jones 1939:524) in addition to their use as fuel or as building materials. The juniper berries can be eaten raw, used for expectorants, and in cakes (Vines 1960:34). The Comanche knew of the purgatory usefulness of willow (*Salix*) bark to induce visions (Fehrenbach 1994:49).



Figure 7. An incised gourd fragment from a Rio Grande Canyon site (41VV186). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

Solomon's seal (*Polygonatum biflorum*) is inedible, but the roots can be dug up all year and used for medicinal purposes. This plant was found at Hurricane Hill in the Caddoan settlement in East Texas (Goldborer and Perttula 1999:373). Historically, the Iroquois used Solomon's seal root in raw form, cooked, and pounded into flour. Pulverized rootstock was used medicinally (Goldborer and Perttula 1999:377).

Cabeza de Vaca's captors attributed special powers to the non-endemic hollow gourds that washed down the stream during floods. His captors felt these came from heaven, and they placed pebbles inside of them and used them as rattles for curing purposes and festivities. Cabeza de Vaca (1528:74) was given two of these gourds, which added to his "power" as a healer. De León observed Native Americans near Nuevo León in South Texas in the mid 1600s making music by shaking gourds with rocks inside (Chapa 1997:15), as did Berlandier (1969:64) in the 1830s (Figure 7).

In *La Relación*, Cabeza de Vaca (1528:91) wrote of trees with leaves so poisonous that brewing them and drinking their tea would cause a person or an animal to burst. Robert Vines (1960:647) thought this probably referred to the leaves and berries of the yaupon (*Ilex vomitoria* Ait.), which when consumed acts as a stimulant and an emetic; however, it is really unknown what they were. Cabeza de Vaca (1528:68) saw men drunk on smoke and a drink that was ritually concocted away from the women. The men boiled the plant for an extended period, skimming off the foam that was formed. They drank a portion of it very hot for three days while they abstained from eating.

Comanche youth were said to have smoked tobacco or sumac (*Rhus* sp.) leaves while fasting (Fehrenbach 1994:49).

Berlandier (1969:89) noted a small tree of the genus *Rhamnus* (buckthorn) that was used by the Native Americans to treat coughs and to bring on menstruation. He was aware of a curative treatment for syphilis sores made with a paste from the sap of the *Mimosa pseudoecchinus* (Berlandier 1969:88) combined with parts of the apricot tree (*Persica vulgaris*), as well as a soothing, cooked root concoction of a plant called *yerba capitana*, or *lengua de vaca* (cow's tongue). *Yerba capitana* had white flowers and grew on the edge of woods and riverbanks (Berlandier 1969:88). The *Mimosa* also was used to treat toothaches and as an eyewash (Berlandier 1969:89).

In the 1930s, Carlson and Jones (1939:533) noted Comanche using ashes of Bluestem grass (*Andropogon schizachyriam*) on syphilis sores. The Apache used the bark of poplar (*Salicaceae*, *Populus tremuloides*) to cure fevers and gonorrhea. For men, the body parts were wrapped in the pulverized bark, and for women, the vagina was packed with it (Mails 1974:121).

Berlandier (1969:88–89) wrote of the Comanche chewing a rather long plant root, *pouip*, to soften it, and then the juice was squeezed on wounds, which quickly healed. This may have been noted by the writer William Bollaert two decades later when he wrote that the Comanche carried a preparation to treat wounds that were suffered during hunts and in battle (Bolton 1930:364).

Berlandier (1969:89) observed leaves being chewed to relieve toothaches and the juice of those leaves also being used to aid in conjunctivitis. Specimens of the plant preserved by Berlandier were later analyzed and identified as the common mesquite (*Prosopis glandulosa*).

Berlandier noticed Native Americans gathering a species of the genus *Artemisia* on the Guadalupe River banks to treat vertigo and fevers. The plant was also used in steam baths to treat rheumatic pain, and the Comanche and Arapaho Indians used it as a purifying agent in their sweat lodges (Berlandier 1969:89–90).

In his expedition of 1767, Rubí noted medicinal plants near the Trinity River called *viperina* that were used as an antidote for snake bites (Foster 1995:252).

The mescal or mountain laurel bean (*Sophora secundiflora*) has been known to have been used medicinally as well as for hallucinogenic properties when brewed as a beverage. The bean was traded and probably used in brews with other plants (Vines 1960:569). From a decoction made of the mountain laurel bean, the Cheyenne made an eyewash (Berlandier 1969:123), the Comanche and Kickapoo used it as a cure for earaches, and the Chircahua Apache mixed it with *mescal* in their corn beer. In the 1830s Berlandier described Comanches using the emetic powdered *aincapu* in the annual first-fruits ceremony as a purge. This was later analyzed and identified from botanical samples preserved at Harvard University to be mountain laurel (Berlandier 1969:89, 144).

The common mescal bean contains sophorine, which is a “highly toxic alkaloid that can produce nausea, convulsions, and death” when consumed in sufficient quantity (Berlandier 1969:88–89). Several species have edible roots and

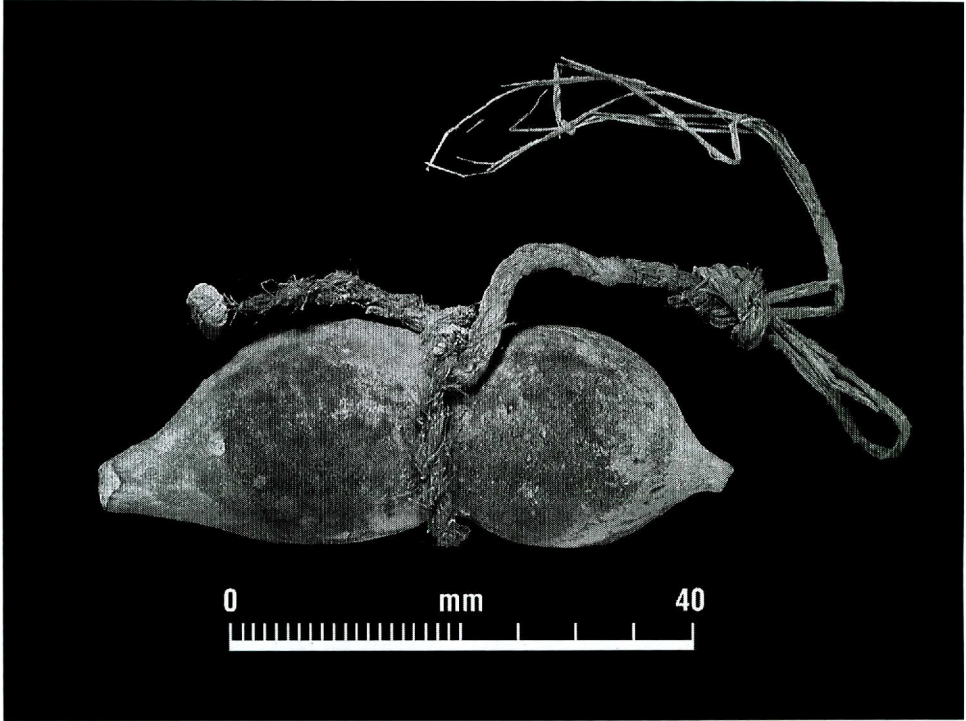


Figure 8. A mountain laurel bean pod tied with cordage from the Conejo Shelter site (41VV162). (Courtesy Amistad National Recreation Area and Texas Archeological Research Laboratory)

seeds and were known to be boiled, roasted, dried, and ground into meal by the Kiowa Indians (Vestal and Schultes 1939:27). Berlandier also mentions that the mescal bean was crushed into a powder to treat vermin on the skin, hair, and clothes. He saw Comanche rubbing a plant that had a putrid odor on their bodies and scalps as an insecticide. This was thought to be the mescal bean (Berlandier 1969:89).

As previously mentioned, Mexican buckeye (*Ungnadia speciosa* Endl) and Texas mountain laurel [*Sophora secundiflora* (Ortega) Lag] have been found in caves and rock shelters along the Pecos River (Newcomb 1967:65–73) (Figure 8). The buckeye can be eaten in small quantities, but both beans are usually considered inedible and toxic in any substantial quantity. Buckeye seeds were found in a rock shelter (41VV171) near Comstock (Boyd 2003:85–87). The beverage from this bean produces nausea and may induce a dream sleep. At Horseshoe Ranch Caves (41VV171), in Archaic period context, three layers of matting were on top of a twined bag. The bag contained 38 mescal or mountain laurel beans and 187 Mexican buckeye seeds. Other plant or plant processing materials found in the bag were woven fiber cords, a flat mano, and a woven package containing a chert knife, sinew bundles, and a small ball of clay (Boyd 2003:85–87). T.N. Campbell thought these items, along with the animal bones and red pigment in the bag, were further evidence of a ritualistic cult usage of the beans (Newcomb 1967:65–71).

Berlandier (1969:19) was the first to record the first-fruits ceremony among the Caddo. They used the mountain laurel/mescal bean to make a purgative and emetic to cleanse themselves in this ceremony (Berlandier 1969:42–43). Some tribes varied this ceremony in different ways, including its duration, and selected different fruits to honor in the spring. Berlandier (1969:94–95) watched as the Caddo made a black drink that was sucked through a hollow rod or tube that immediately produced vomiting. Comanche and Apache deer hunters would dream the location of the herd after imbibing a drink made from the mountain laurel bean. The Wichita and Pawnee used the drink in initiation ceremonies in addition to scraping their bodies with a garfish jaw of teeth to test the unconscious state. Hunting deer and elk was associated with a mescal bean cult in the Comanche, Iowa, Omaha, Pawnee, and Wichita tribes. The Pawnee believed that all animal powers came from the mescal bean (Newcomb 1967:75), and it was used for animal curing powers among the Wichita. Ortega and Berlandier observed the Tawakoni ceremony that was a veneration to the fruits of the spring season and that began with purging to honor the fruits (Berlandier 1969:89). Head men and certain women of high repute gathered in a hut to grind the mescal bean into a powder, which they made into a tea that they drank. The rest of the day was spent singing and purging, and then at night they smoked the leaves of the sumac (*Rhus glabra* L.), which they had dried in the fall and mixed with tobacco. After purging and smoking, the people were ready to partake of the fruits of the spring season (Berlandier 1969:144).

Mescal pits are associated with burned-rock debris that has a pit or depression in the center; these are called earth ovens. Since there are ethnographic accounts of mescal being prepared in pits in West Texas, these burned-rock deposits with center depressions could have been used for cooking bulbs or sotol/*lechuguilla* (Cason 2005:96–97). Wayne C. Young (1981:53) believed that some of the burned-rock middens were used as mescal pits annually at the Squawteat Peak site in Pecos County.

It is possible that the mountain laurel bean is represented in some pictographs in Texas. Newcomb (1967:75) wrote that once the historical uses of the plant have been identified, it is difficult not to look at the Pecos rock art as painting inspired by altered mind states. He suggests that the red dots in one panel could be the mescal beans and in another, in which an anthropomorph seems to be carrying feathers, could be similar to the Pawnee context in which altered dancers carry ropes braided with feathers.

Peyote (*Lophophora williamsii*) is a spineless cactus that produces vivid hallucinogenic effects and nausea when eaten. A tea from powdered peyote was used as a stimulant (Chapa 1997:15–17) also referred to a peyote drink. Fehrenbach wrote that the Comanche did not have a peyote cult until after their surrender in 1875 (Fehrenbach 1994:548), that the peyote was not addictive, and that it produced gentle, euphoric, nonviolent visions. In historical times migratory groups of Comanche, Kiowa, and Oklahoma Native Americans came to the Rio Grande/Pecos regions to collect peyote buttons that grow on the southeastern slopes of hills (Labadie 2007; Boyd 2003:73). Mescaline is the major active alkaloid in the peyote button and, if ingested by humans, produces hallucinations and psychic

effects and reduces appetite, thirst, and sexual drive (Boyd 2003:70–73). Modern Native Americans continue to use the buttons in ceremonies, and peyote is considered one of their sacred plants, as much for visionary as for medicinal properties (Boyd 2003:72–73; Talamantez 2007). In chemical lab analysis, crystalline peyocactin might have antibiotic uses and “does have in vitro antiseptic action against a wide variety of microorganisms” (Boyd 2003:73). Carolyn Boyd (2003:74–78) finds similarities between the Huichol peyote pilgrimages and the White Shaman pictograph compositions in Val Verde county of Texas.

Rock art depictions have been mentioned in this survey of plants Native Americans probably utilized. Some of the pictographs that appear to have wooden objects include one at Panther Cave. The pictograph is an “outline variation” of a 12-ft-tall “panther shaman” holding what appears to be a “spear thrower, darts, (and) fending sticks” (Zintgraff and Turpin 1991:63). At Rattlesnake Canyon (41VV180) and at White Shaman (41VV124) an anthropomorphic figure appears to be holding an atlatl in one hand and a staff-like object in the other (Boyd 2003:33, 34).

Datura (*Solanaceae Datura* spp.) is another plant that grows in the Pecos River area. It has medicinal and hallucinogenic properties. Almost all parts of this plant can be used in a preparation that produces physiological changes. Five seeds dating ca. 4,000–5,000 B.P. were found at Hinds Cave in Val Verde County (Boyd 2003:93–94). Canids also are associated with *datura* in oral tradition of Native Americans (Boyd 2003:99). At Fate Bell Shelter (414VV74), an anthropomorphic pictograph is holding what looks like a stalk of *datura* in one hand and a dog-like creature in the other. At 41VV78, a canid is facing the hindquarters of a deer marked with peyote-like dots.

Other pictographs, possibly representing plants at Fate Bell Shelter, include a red painting of a “person wearing a grass or reed skirt” (the skirt measures 27 x 14 in); a “barbed and feathered arrow shaft piercing the neck of a horned creature”; two bush-like images separated by thin, red, crosshatched lines; and a tree-like shape with a superimposed rabbit appearing to climb the tree (Pearce and Jackson 1933:25–26). In the shelter, an artifact, a “sotol flower stalk with red pigment at one end,” was found in association with the drawings (Pearce and Jackson 1933:38).

A. T. Jackson (1938:214–217) recorded rock art along the Rio Grande depicting bows, arrows, atlatl, and a possible Spanish dagger (*Yucca treculeana* Carr). In Edwards County one appeared to be a “man holding bow and rabbit stick” and in San Saba County he noted a “mounted Indian with spear in hand” (Jackson 1938:236, 264–265). Other objects of wood or plant material that were observed by Jackson in rock art included a possible atlatl and darts in Terrell, Brewster, Val Verde, Gillespie, Concho, Ward, Presidio, and Hudspeth counties; possible bows and arrows in Ward, Reeves, Presidio, Stephens, Winkler, El Paso, Concho, Terrell, Edwards, Val Verde, Jeff Davis, Loving, and Kimble counties (Jackson 1938:390); designs of trees and plants at Terrell, El Paso, Val Verde, Concho, Gillespie, Winkler, Reeves, and Hudspeth counties (Jackson 1938:426); possible clubs, axes, and adzes or picks in Reeves, Burnet, Concho, and Winkler counties; possible gourd vessels in Concho, Gillespie, Val Verde, Nolan, and

Presidio counties (Jackson 1938:398); and boat-like design elements in Terrell, Culberson, Concho, Mason, Walbarger, and Jeff Davis counties (Jackson 1938: 450–451). Forest Kirkland and his wife copied other paintings in Concho County of a mission or church building with two wooden crosses on towers (Newcomb 1967:152–153), a figure aiming an arrow at a bison (Newcomb 1967:153), and a corn stalk (Newcomb 1967:153).

Summary

Native plants were used by native peoples to supplement a meat diet. In addition, different woods and canes have been used for housing, boats, tools for hunting and gathering, and historic mission Native American crosses. Shelters and clothing items have been constructed from trunks, roots, leaves, and stems of plants, as well as from moss. Gourds have been used as containers and as ceremonial objects. Roots, bark and other pieces of wood, leaves, and seeds of plants have been made into medicines and mind-altering concoctions for ritual or healing purposes. The known and surmised uses of plants have come from archeological records in the form of pictographs, residues in archeological sites (including coprolites and materials derived from macrobotanical flotation studies), as well as historical records. New studies and analyses constantly change what we think we know about the plants Native Americans might have used in Texas. There are evaluations to be made from existing collections and more research will be done as future sites are recorded.

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References

- Acker, Elaine G.
1996 *Life in a Rock Shelter*. University of Texas Press, Austin.
- Amos, Bonnie B. and Frederick R. Gehlbach (editors)
1988 *Edwards Plateau Vegetation: Plant Ecological Studies in Central Texas*. Baylor University Press, Waco.
- Berlandier, Jean Louis
1969 *The Indians of Texas in 1830*. Edited and introduced by John C. Ewers. Smithsonian Institution Press, Washington, D.C.
- Black, Stephen L.
1986 *The Clemente and Herminia Hinojosa Site, 41JW8: A Toyah Horizon Campsite in Southern Texas*. Submitted to National Park Service, Interagency Archeological

Services-Denver, Contract No. C53007 (80). Special Report No. 18, Center for Archaeological Research, The University of Texas at San Antonio.

Black, S. L., L. W. Ellis, D. G. Creel, and G. T. Goode

1997a *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*, Studies in Archeology No. 22, Vol. 1, Texas Archeological Research Laboratory, The University of Texas at Austin. Archeological Studies Program Report 2, Environmental Affairs Department, Texas Department of Transportation, Austin.

Black, S. L., L. W. Ellis, D. G. Creel, and G. T. Goode

1997b The Central Texas Burned Rock Midden Reconsidered. In *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*, Studies in Archeology No. 22, Vol. 2, Texas Archeological Research Laboratory, The University of Texas at Austin. Archeological Studies Program Report 2, Environmental Affairs Department, Texas Department of Transportation, Austin.

Bolton, Herbert Eugene

1930 *Spanish Exploration in the Southwest, 1542-1706*. C. Scribner's Sons, New York.

Boyd, Carolyn E.

2003 *Rock Art of the Lower Pecos*. Texas A&M Anthropology Series. Texas A&M Press, College Station, Texas.

Bruseeth, James E., Daniel E. McGregor, and William A. Martin

1995 Hunter-Gatherer Adaptations along Richland Creek, North-Central Texas. In *Advances in Texas Archeology, Contributions from Cultural Resource Management*, Vol. I, edited by James E. Bruseeth and Timothy K. Perttula, pp. 5-8, 42. Cultural Resource Management Report 5. Department of Antiquities Protection, Texas Historical Commission, Austin.

Cabeza de Vaca, Álvar Núñez

1528 *La Relación (The Account)*. Electronic document, <http://alkek.library.txstate.edu/swwc/cdv/book/1.html>, accessed February 2007.

1998 *Adventures in the Unknown Interior of America*. Translated and annotated by Cyclone Covey. University of New Mexico Press, Albuquerque.

2003 *The Journey and Ordeal of Cabeza de Vaca: His Account of the Disastrous First European Exploration of the American Southwest*. Translated and edited by Cyclone Covey. Dover Publications, New York.

Carlson, D. G. and V. H. Jones

1939 Some Notes on Uses of Plants by the Comanche Indians. *Papers of the Michigan Academy of Science, Arts and Letters* 25:524, 533. Alma College, Alma.

Cason, Samuel S.

2005 Prehistoric Archeological Investigations at Perdiz Creek, An Inter-Landscape Comparative Analysis in the Southern Trans-Pecos Region, Texas. *Bulletin of the Texas Archeological Society* 76:96-97.

Chapa, Juan Bautista

1997 *Texas and Northeastern Mexico, 1630-1690*. Edited by William C. Foster. University of Texas Press, Austin.

- Cloud, William A., Robert J. Mallouf, Pat A. Mercado-Allinger, Cathryn A. Hoyt, Nancy A. Kenmotsu, Joseph M. Sanchez, and Enrique R. Madrid
 1994 *Archeological Testing at the Polvo Site, Presidio County, Texas*. Office of the State Archeologist Report 39. Texas Historical Commission and U.S. Department of Agriculture Soil Conservation Service, Austin.
- Collins, Michael B. (editor)
 1998 Interpreting the Clovis Artifacts from the Gault Site. *TARL Research Notes* 6(1):9, Austin, Texas.
 2001 Interview by Alice Schorre Stultz, Texas Archeology Society Field School, Gault Site, Bell County, Texas, June 2001.
- Collins, Michael B. and Kenneth M. Brown
 2000 The Gault *Gisement*: Some Preliminary Observations. In *Current Archeology in Texas* 2(1):11. Texas Historical Commission, Austin.
- Creel, Darrel
 1978 An Archeological Survey in the South Concho River Area, West Central Texas. *Bulletin of the Texas Archeological Society* 49:241–249, 260, 294–303.
 1991 Assessing the Relationship between Burned Rock Midden Distribution and Archaic Subsistences in West Central Texas. In *The Burned Rock Middens of Texas: An Archeological Symposium*, edited by Thomas R. Hester, pp. 33–44, Studies in Archeology No. 13. Texas Archeological Research Laboratory, The University of Texas at Austin.
- Cruse, J. B.
 1989 Archeological Investigations at the Kent Creek Site (41HL66): Evidence of Mogollon Influence on the Southern Plains. Master's thesis, Department of Anthropology, Texas A&M University, College Station.
- Dering, J. Philip
 1997 Appendix D, Macrobotanical Remains. In *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas* by S. L. Black, L. W. Ellis, D. G. Creel, and G. T. Goode, pp. 587–596. Studies in Archeology No. 22, Vol. 2, Texas Archeological Research Laboratory, The University of Texas at Austin. Archeological Studies Program Report 2, Environmental Affairs Department, Texas Department of Transportation, Austin.
 1998 Chapter 40, Carbonized Plant Remains. In *Wilson-Leonard: An 11,000 Year Archeological Record of Hunter-Gathers in Central Texas*, edited by Michael B. Collins, pp. 1629–1635. Studies in Archeology No. 31, Vol. 5, Texas Archeological Research Laboratory, The University of Texas at Austin. Archeological Studies Program Report 10, Environmental Affairs Department, Texas Department of Transportation, Austin.
 2002 Plant Remains from Sites 41BR392, 41BR500, and 41BR522 Located on Camp Bowie, Brown County, Texas. In *Archeological Testing of Four Sites on Camp Bowie, Brown County, Texas* by Raymond P. Mauldin, David L. Nickels, and Cory J. Broehm, pp. 99–105. Archaeology Survey Report No. 335, Center for Archaeological Research, The University of Texas at San Antonio.

Dering, J. Philip, Jon C. Lohse, and Boyd Dixon

- 2006 *Prehistoric Encampments at the Shepherd Site: Testing and Data Recovery at 41WM1010, Williamson County, Texas*, Texas Department of Transportation and PBS&J, Austin.

Edwards, Sherrian Kay

- 1990 Investigations of Late Archaic Coprolites: Pollen and Macrofossil Remains from Hinds Cave (41VV456), Val Verde County, Texas. Master's thesis, Department of Anthropology, Texas A&M University, College Station.

Fehrenbach, T. R.

- 1994 *Comanches: The Destruction of a People*. Da Capo Press, New York.

Ford, Richard I.

- 1997 Preliminary Report on the Plant Remains at the George C. Davis Site, Cherokee County, Texas, 1968–1970 Excavations. *Bulletin of the Texas Archeological Society* 68:106–107.

Foster, William C.

- 1995 *Spanish Expeditions into Texas 1689–1768*. University of Texas Press, Austin.

Foster, William C. (editor)

- 1998 *The La Salle Expedition to Texas, The Journal of Henri Joutel, 1684–1687*. Texas State Historical Association, Austin.

Fox, Anne A. and Steve A. Tomka

- 2006 Excavations at Presidio Nuestra Señora de Loreto de la Bahía del Espíritu Santo. *Bulletin of the Texas Archeological Society* 77:133.

Fritz, Gayle J.

- 1993 Archeobotanical Evidence from the Cobb-Pool Site, A Late Prehistoric Farmstead in Dallas County. *Bulletin of the Texas Archeological Society* 64:235–237.

Goldborer, Eileen and Timothy Perttula

- 1999 Macrobotanical Remains from a Northeast Texas Late Archaic to Middle Caddoan Site: Hurricane Hill 41HP106, Hopkins County. In *The Hurricane Hill Site (41HP106): The Archaeology of the Late Archaic/Early Ceramic and Early Middle Caddoan Settlement in North East Texas*, edited by Tim Perttula, Special Publication No. 4, Vol. 1, pp. 365–377. Friends of Northeast Texas Archeology, Pittsburg and Austin.

Greaves, Russell D.

- 2002 *Archaeological Survey of Three Land Parcels and Shovel Testing of Four Sites at Camp Bowie, Brown County, Texas*. Archaeological Survey Report No. 328. Center for Archaeological Research, The University of Texas at San Antonio.

Heizer, Robert F. and Albert B. Elsasser

- 1980 *The Natural World of the California Indians*. University of California Press, Berkeley.

Hester, Thomas R.

- 1999 Artifacts, Archeology, and Cabeza de Vaca in Southern Texas and Northeastern Mexico. *Bulletin of the Texas Archeological Society* 70:20, 22.

- Howard, Margaret, Martha Doty Freeman, Eric Morley, Logan McNatt, Christine G. Ward, and Carlos Becceiro
1997 *Archeological Survey and History of Mustang Island State Park, Nueces County, Texas*. Cultural Resources Program, Texas Parks and Wildlife Department, Austin.
- Hughes, J. T.
1991 Prehistoric Cultural Developments on the High Texas Plains. *Bulletin of the Texas Archeological Society* 60:29, 30–32, 107–143.
- Jackson, A. T.
1938 *Picture-writing of Texas Indians*, Anthropological Papers, Vol. II, No. 27. Bureau of Research in the Social Sciences, The University of Texas at Austin. The University of Texas Publication No. 3809.
- Jackson, Jack (editor)
1995 *Imaginary Kingdom: Texas as Seen by the Rivera and Rubí Military Expeditions, 1727 and 1767*. Annotated by William C. Foster. Texas State Historical Association, Austin.
- Jelks, Edward B.
1962 *The Kyle Site, A Stratified Central Texas Aspect Site in Hill County, Texas*. Archaeology Series No. 5. Department of Anthropology, The University of Texas at Austin.
- Johnson, LeRoy, Jr.
1991 *Early Archaic Life at the Sleeper Archaeological Site, 41BC65 of the Texas Hill Country, Blanco County, Texas*. Office of the State Archeologist Report 39. Texas Department of Transportation and Texas Historical Commission, Austin.
- Karbula, James
2003 The Toyah Bluff Site (41TV441): Changing Notions of Late Prehistoric Subsistence in the Blackland Prairie, Travis County, Texas. *Bulletin of the Texas Archeological Society* 74:66.
- Kindscher, Kelly
1987 *Edible Wild Plants of the Prairie*. University of Kansas, Kansas City.
- Kirkpatrick, Zoe Merriman
1992 *Wildflowers of the Western Plains: A Field Guide*. University of Texas Press, Austin.
- Krieger, Alex D.
2002 *We Came Naked and Barefoot: The Journey of Cabeza de Vaca across North America*. Edited by Margery H. Krieger. University of Texas Press, Austin.
- Labadie, Joe
2007 Interview by Alice Schorre Stultz, March, 2007.
- Lehmer, Donald J.
1958 A Review of Trans-Pecos Texas Archeology. In *A Review of Texas Archeology*, Part One, edited by Edward B. Jelks, E. Mott Davis, and Henry B. Sturgis. *Bulletin of the Texas Archeological Society* 29:110–113, Texas Archeological Society, Austin.
- Mails, Thomas E.
1974 *The People Called Apache*. Promontory Press, New York.

Mallouf, Robert J.

- 1985 A Synthesis of Eastern Trans-Pecos Prehistory. Unpublished master's thesis, Department of Anthropology, The University of Texas at Austin.

Mauldin, Raymond P., David L. Nickles, and Cory J. Broehm

- 2003 *Archeological Testing to Determine the National Register Eligibility Status of 18 Prehistoric Sites on Camp Bowie, Brown County*. Archaeological Survey Report No. 334. Center for Archaeological Research, The University of Texas at San Antonio.

Nelson, Bo and Mike Turner with Timothy K. Perttula

- 1996 Archeological Investigations at the Griffin Mound Site: A Middle Caddoan Site in Upshur County, Texas. In *The Cache* 3:53, Texas Historical Commission, Austin.

Newcomb, W. W.

- 1967 *The Rock Art of Texas Indians*. University of Texas Press, Austin.

Nickels, David L.

- 2002 *Cultural Resources Inventory of the L7 Ranch, Crosby County, Texas*. Archaeological Survey Report No. 1. Center for Archaeological Studies, Southwest Texas State University, San Marcos.

Nunley, Parker

- 1989 *A Field Guide to Archeological Sites of Texas*. Texas Monthly Press, Austin.

Pearce, J. E. and A. T. Jackson

- 1933 *A Prehistoric Rock Shelter in Val Verde County, Texas*. Anthropological Papers, Vol. 1, No. 3, Bureau of Research in the Social Sciences, The University of Texas at Austin. University of Texas Bulletin No. 3327.

Reinhard, Karl J.

- 1988 Diet, Parasitism, and Anemia in the Prehistoric Southwest. Ph.D. Dissertation, Texas A&M University, College Station.

Riley, Carroll L.

- 1997 The Teya Indians of the Southwestern Plains. In *The Coronado Expedition to Tierra Nueva: The 1540-1542 Route Across the Southwest*, edited by Richard Flint and Shirley Cushing Flint. University Press of Colorado, Niwot.

Shafer, Harry J. and V. M. Bryant, Jr.

- 1977 *Archaeological and Botanical Studies at Hinds Cave, Val Verde County, Texas*. Texas A&M University. Submitted to the National Science Foundation by the Department of Anthropology, College Station.

Shafer, Harry J., Phil Dering, Glenna Williams-Dean, Vaughn M. Bryant, Jr.

- 1975 *A Preliminary Report of Hinds Cave, Val Verde County, Texas*, Report No. 8, Anthropology Laboratory, Texas A&M University, College Station.

Shafer, Harry J., John E. Dockall, Douglas Owsley, and Tom Ellzey

- 1991 The Canyon Creek Site (41OC13): A Component of the Southern Plains Equestrian Nomad Archeological Complex. *Bulletin of the Texas Archeological Society* 62:304.

Sjoberg, Andree F.

- 1953 Lipan Apache Culture in Historical Perspective. *Southern Journal of Archeology*, 9(1):287.

Smith, James E., II

- 1993 The Vinson Site (41LT1): A Norteño Focus Indian Village in Limestone County, Texas. *Bulletin of the Texas Archeological Society* 64:78-93.

Snow, Dean R.

- 1996 The First Americans and the Differentiation of Hunter-Gatherer Cultures. In *The Cambridge History of the Native Peoples of the Americas*, edited by Bruce E. Trigger and Wilcomb E. Washburn. Vol. 1, North America, Part 1, Cambridge University Press, Cambridge.

Sobolik, Kristin D.

- 1988 Diet Change in the Lower Pecos: Analysis of Baker Cave Coprolites. *Bulletin of the Texas Archeological Society* 59:118, 135.

Story, Dee Ann

- 1997 1968-1970 Archeological Investigations at the George C. Davis Site, Cherokee County, Texas. In *Bulletin of the Texas Archeological Society* 68:1.

Suhm, Dee Ann, Alex D. Krieger, Edward P. Jelks

- 1954 An Introductory Handbook of Texas Archeology, Part 1, Texas Culture, Complexes, Discussions, and Trait List. In *Bulletin of the Texas Archeological Society* 25:33-34, 68-71, 151-216, Texas Archeological Society, Austin.

Swanton, J. R.

- 1942 *Source Material on the History and Ethnology of the Caddo Indians*. Bulletin No. 132. Bureau of American Ethnology, Smithsonian Institution, Washington.

Talamantez, Ines

- 2007 Interview and lecture notes by Alice Schorre Stultz, Brown Symposium, Southwestern University, Georgetown, Texas, March 5.

Tous, Gabriel

- 1930 The Espinosa-Olivares-Aguirre Expedition of 1709. In *Preliminary Studies of the Texas Catholic Historical Society* 1:10-11, Austin.

Tull, Delena

- 1987 *Edible and Useful Plants of Texas and the Southwest*. Texas Monthly Press, Austin.

Tunnell, Curtis

- 2000 Their Own Words: Stories from Some Pioneer Texas Archeologists. *Bulletin of the Texas Archeological Society* 71:24-25, 37.

Turner, Ellen Sue and Thomas R. Hester

- 1985 *A Field Guide to Stone Artifacts of Texas Indians*. Texas Monthly Press, Austin.

Vestal, Paul A. and Richard Evans Schultes

- 1939 *The Economic Botany of the Kiowa Indians as It Relates to the History of the Tribe*. Botanical Museum, Cambridge.

Vines, Robert

- 1960 *Trees, Shrubs, and Woody Vines of the Southwest*. University of Texas Press, Austin.

Webb, Clarence H.

- 1958 A Review of Northeast Texas Archeology, Part 1. *Bulletin of the Texas Archeological Society* 29:35-37.

Wiederhold, James E., Harry J. Shafer, and Douglas Perrin

2003 A Study of Two Ancient Bows from Trans-Pecos Texas. *Bulletin of the Texas Archeological Society* 73:92-95.

Wormser, Alan and Shellie Sullo-Prewitt

2001 *Cultural Resources Inventory of Camp Bowie, Brownwood, Texas*. Archaeological Survey Report, No. 317. Center for Archaeological Research, The University of Texas at San Antonio.

Young, Wayne C.

1981 *The Squawteat Peak Site, Pecos County, Texas*. Archaeology Report No. 20. Highway Design Division, Texas Department of Transportation, Austin.

Zintgraff, Jim and Solveig A. Turpin

1991 *Pecos River Rock Art*. Sandy McPherson Publishing Co., San Antonio.

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