A PHASE I CULTURAL RESOURCES SURVEY OF THE WALKER COUNTY JAIL AND OFFICE EXPANSION AREA PROJECT

Texas Antiquities Permit Number 1918

by

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A PHASE I CULTURAL RESOURCES SURVEY OF THE WALKER COUNTY JAIL AND OFFICE EXPANSION AREA PROJECT

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BVRA Project 97-15

Prepared for

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ABSTRACT

An Phase I archeological assessment of a 12.82 acre tract in central Walker County, Texas was performed on December 8, 1997 by Brazos Valley Research Associates (BVRA) of Bryan, Texas under Texas Antiquities Permit 1918. This site is located on land belonging to Walker County and is under the jurisdiction of the Walker County Commissioners Court. The project area was examined using a 100% Pedestrian Survey supported by shovel testing. No prehistoric or historic sites were found, and it is recommended that construction be allowed to proceed as planned. The entire tract consisted of hard clay at the surface. The project area is considered low a low probability area for prehistoric sites because of the lack of sandy soils and nearby streams.

ACKNOWLEDGMENTS

The following individuals are thanked for their participation in this project. The Honorable Charles H. Wagamon, County Judge, Jerry Nemec, County Engineer, and William Powell, Precinct 1 Foreman. Mark H. Denton of the Division of Antiquities Protection, Texas Historical Commission, served as the reviewer for the project. Carolyn Spock, Head of Records, at the Texas Archeological Research Laboratory (TARL) and her staff were very helpful during the site records investigation. Lili Lyddon of Lyddon Illustrations in College Station drafted the figures. Their efforts greatly enhanced the quality of this report.

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INTRODUCTION

This report documents the results of a Phase I assessment of a 12.82 acre tract on land owned by the County of Walker in central Walker County, Texas (Figure 1). The site area is on a high clay ridge overlooking a low area to the north. The project area is bounded on the north by F.M. Road 2821, on the west by the Walker County jail complex, and on the south and east by private land. Although no creeks are immediately adjacent to the project area, there are three streams in the area. The lower reaches of Hadley Creek is approximately 600 meters to the north, the lower reaches of Parker Creek is approximately 250 meters to the northeast, and two unnamed tributaries of McGary Creek end approximately 300 meters to the west and 800 meters to the southwest. At its highest point, the project area is 410 meters above mean sea level.

The project area is in a region where significant prehistoric sites are known to occur. Therefore, a Phase I cultural resources survey was considered appropriate. The Walker County Commissioners Court retained Brazos Valley Research Associates to perform this service. A research design was submitted to the Division of Antiquities Protection, Texas Historical Commission, and Texas Antiquities Permit number 1918 was issued. The Principal Investigator for this project is William E. Moore. The project number assigned by Brazos Valley Research Associates is BVRA 97-15.

The site is depicted on topographic quadrangle Huntsville dated 1963 and photorevised in 1976 (Figure 2). A detailed map of the project area showing the location of shovel tests and existing structure appears in this report as Figure 3. This figure was drafted from a map prepared by the County Engineer in 1997.

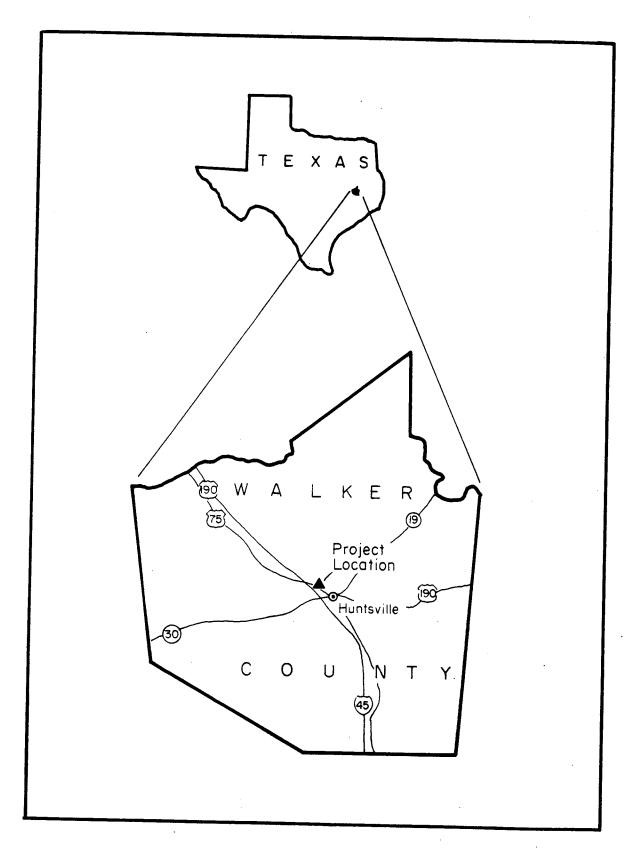


Figure 1. General Location Map.

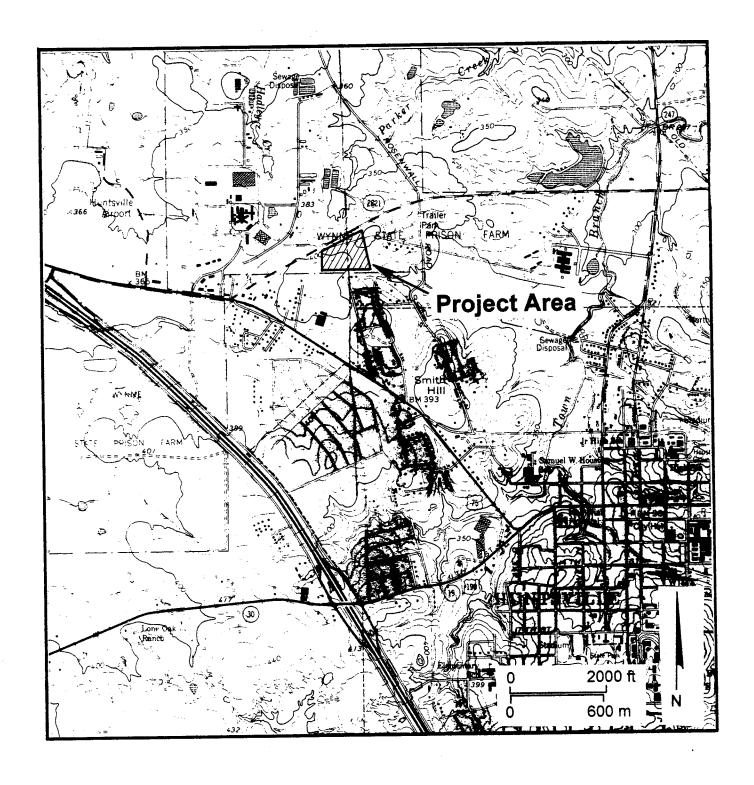


Figure 2. Project Area as Depicted on Topographic Map.

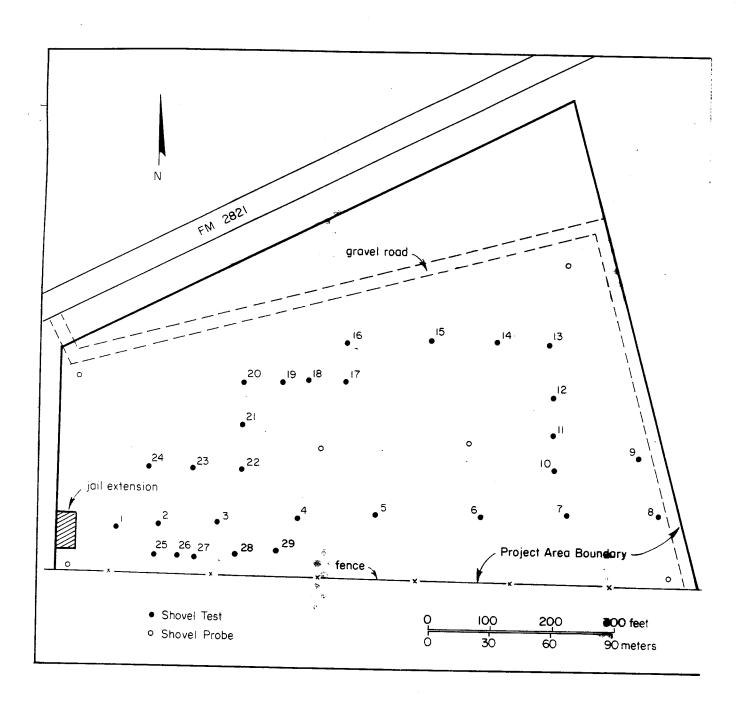


Figure 3. Project Area Map.

ENVIRONMENTAL SETTING

General

Walker County is located within the Austroriparian biotic province as defined by Blair (1950) and includes the Gulf coastal plain from the Atlantic Ocean to eastern Texas. The western boundary of this province in Texas is approximated by a line running north from western Harris County to western Red River County. The western boundary of the Austroriparian is also the western boundary of the main body of the pine and hardwood forests of the eastern Gulf coastal plain (Blair 1950:99). According to Thornthwaite (1948), these forests are limited on the west by available moisture.

Flora

The Project Area is located within the loblolly pine, shortleaf pine, and upland hardwood plant community as defined by the United States Forest Service for the four National Forests in East Texas. According to Ippolito (1983:6-7), the major forest cover types in this community include loblolly pine, shortleaf pine, slash pine, post oak, southern red oak, white oak, black oak, blackjack oak, black gum, sweet gum, American elm, red maple, hickories, and beech. Approximately 70 percent of East Texas is currently occupied by the Piney Woods with Post Oak Savannah and Blackland Prairie in the rest of the region (Boyd and Howard 1988:4). Keller (1974:139-156) believes that deciduous trees may have been more numerous during most of the Holocene and were probably more important resources to prehistoric populations than the modern flora would suggest.

Fauna

The vertebrate fauna of the Austroriparian is considered typical of that to the east. Blair (1950:99) states that at least 47 species of mammals occur or have occurred there in recent times. Known types include at least 29 species of snakes, 10 lizards, 2 land turtles, 17 anurans, and 18 urodeles. Ippolito (1983:11) states that there is an inadequate sample of faunal material for the area in an archaeological context. Therefore, assumptions concerning prehistoric exploitation of animals must be based on historical accounts and current populations.

A study by Keller (1974:78-81) of the paleoecology of the middle Neches region lists those mammals most likely to have been hunted in the area. They are Whitetail deer, Cottontail rabbit, Swamp rabbit, Grey squirrel, Fox squirrel, Flying squirrel, Raccoon, Opossum, Red fox, Grey fox, Woodchuck, Bobcat, Spotted skunk, Striped skunk, Mink, Otter, Long-tailed weasel, and Muskrat. According to Ippolito (1983:11), this list excludes many species of birds, especially migratory fowl, and fish that can still be found in the area. Species not found in the area today include Black bear, beaver, and wild turkey. These were once numerous but were eradicated by uncontrolled hunting and timber harvesting that irreparably altered their habitats.

Climate

The following climatic data were taken from McClintock et al. (1979). The weather in Walker County consists of hot summers and cool winters. An occasional cold front may cause temperatures to drop below freezing, sometimes quite suddenly. The average winter temperature is 51 degrees Fahrenheit with an average daily minimum of 41 degrees. In summer, the average is 82 degrees with an average daily maximum of 94 degrees. The growing season has 234 days above freezing each year. Prevailing winds are from the south-southeast. Rainfall is uniformly distributed throughout the year and snowfall is rare.

Soils

According to the Soil Survey of Walker County (McClintock et al. 1979:Sheet 31), there are two soil types in the Project Area. They are Houston Black clay, 1 to 3 percent slopes and Ferris clay, 1 to 5 percent slopes (Figure 4). Houston Black clay is described by McClintock et al. (1979:15) as a deep soil found on convex uplands. Areas are long to oval and range from 10 to 100 acres. The surface layer is very firm, moderately alkaline black clay about 27 inches thick. From 27 to 45 inches very firm moderately alkaline, very dark gray clay is present. The underlying material to a depth of 65 inches is very firm, moderately alkaline, gray clay. This is a moderately well drained soil, runoff is medium, and permeability is rapid when the soil is dry and cracked; it is very slow when it is wet. The available water capacity is high.

Ferris black clay is described by McClintock et al. (1979:12) as a deep soil found on upland side slopes on the open prairie and in small, scattered areas in timbered regions. Areas are long to irregular and range from 8 to 75 acres. The surface layer is firm, moderately alkaline dark gray clay about 6 inches thick. From 6 to 47 is firm moderately alkaline, light gray clay mottled with brownish-yellow or reddish-yellow. The underlying material to a depth of 70 inches is firm, moderately alkaline, light gray clay mottled with brownish-yellow. Runoff is rapid and permeability is rapid when the soil is dry and cracked, but is very slow when the soil is wet.

The project area is adjacent to an area that consists of moderately deep and deep, sandy and loamy, nearly level to sloping soils on uplands. These soils are defined by McClintock et al. (1979:3) as Falba-Eimina-Arriola. No evidence of these sandy soils was found in the area examined.

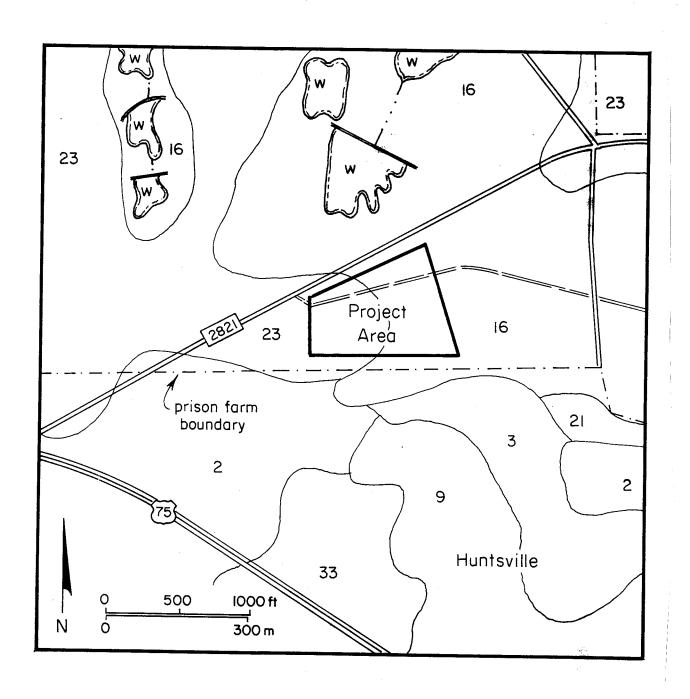


Figure 4. Project Area as Depicted on Soils Map.

ARCHAEOLOGICAL BACKGROUND

Although several significant studies involving prehistoric and historic sites have been conducted in Walker County, most of the site data are based on survey level studies with little or no subsurface testing. As a result, much of the information for Walker County is taken from projects in surrounding areas such as Lake Livingston in Polk and San Jacinto counties (McClurkan 1968; Ensor and Carlson 1988), Lake Conroe in Montgomery County (McNatt 1978; Shafer 1968; Shafer and Stearns 1975), and the Gibbons Creek Mine in Grimes County (Rogers 1993, 1994, 1995). Several overviews of the area provide valuable data for Walker County and vicinity. Some of the major works are discussed below.

In 1978, a file and literature search was conducted by TARL in an effort to prepare an overview of the cultural resources within the Davy Crockett, Sam Houston, Angelina, and Sabine national forests of Texas. Information in the TARL files was compiled by Ross Fields and Rosario Casarez. This report (Fields 1979) provides a good synthesis of central East Texas prehistory and assesses 17 sites in Walker County.

John Ippolito (1983), Forest Service Archeologist for the National Forest, Southern Region, compiled an overview of cultural resources present in the national forests of Texas which includes 53,490 acres of the Sam Houston National Forest in Walker County. This volume presents a short history of Texas forests and discusses such topics as environment and ecosystems, culture history, past archaeological activities relevant to the National Forests in Texas, and direction for future cultural resource investigations. A map depicting areas surveyed within the forest and a list of compliance projects with acreage, date conducted, and sites found are included.

More recently, six studies have been published which are worthy of mention. These are *Archeology in the Eastern Planning Region, Texas: A Planning Document* compiled by the Department of Antiquities Protection (Kenmotsu and Perttula (1993) Roger G. Moore's (1995) Ph.D. dissertation entitled *The Mossy Grove Model of Long-Term Forager-Collector Adaptations in Inland Southeast Texas;* Volume 66 of the *Bulletin of the Texas Archeological Society* which reviews the current state of Archeology in Texas and contains a chapter devoted to Southeast Texas (Patterson 1995); an archaeological study by the Texas Parks and Wildlife Department at the Huntsville Fish Hatchery (Davis et al. 1994:20-33); a survey for the Trinity River Authority by Moore Archeological Consulting (Moore and Moore 1995:6-12); and the recovery of a nearly complete prehistoric ceramic vessel approximately 1900 meters northwest of the current project area (Moore 1997).

The survey by Moore Archeological Consulting (Moore and Moore 1995) is particularly noteworthy because of the database created from encoding site data for all known sites in Walker County at the time of this project. This database was an attempt to define settlement rules specific to Walker County through the application of an empirical analysis cross-tabulating site data with environmental variables and was based, as stated above, on the computerization of data from all of the existing TARL site records for the county. A total of 181 sites were used for this study; however the analyses utilized only those sites with prehistoric components since the sample size for historic sites is inadequate and the settlement criteria for historic sites location are much different and currently more ambiguous than for prehistoric sites.

This study found that prehistoric sites seem to be found throughout the county where suitable landforms (sandy ridges and knolls) exist in close proximity to dependable water sources. The only large concentrations of prehistoric sites are the result of large area surveys. Single sites along major drainages should not be interpreted as sparse use of an area; rather, individuals most likely recorded these sites with restricted access to larger areas.

Chronometric dates for inland Southeast Texas are rare. Many sites in this area have been assigned to cultural periods by other means such as cross-dating artifacts with similar types from sites in other areas where absolute dates have been obtained. Therefore, the dates referred to in the following discussions are estimates and, according to Story (1981:142), are subject to revision.

The culture history of Southeast Texas begins with the Paleo-Indian period (circa 10,000 B.C. - 6000 B.C.). This is followed by the Archaic period (6000 B.C. - 2000 B.C.), the Early Ceramic period (200 B.C. - A.D. 700), the Late Ceramic period (A.D. 700 - A.D. 1700), and the Historic period which documents those events following contact with native Indian groups by European explorers and later settlers to the present. Shafer, although in agreement with these dates, refers to the Paleo-Indian and Archaic periods as the Early Lithic and Middle Lithic (Shafer et al. 1975:13-25). Under Shafer's system, the later part of the Paleo-Indian period conforms to his Early Lithic period; and the Archaic period conforms to his Middle Lithic period.

The Paleo-Indian period is the least understood time in the prehistory of Southeast Texas. It is typical to think of Paleo-Indians as small bands of hunters roaming over the landscape in pursuit of mammoth and other megafauna now extinct. No definite evidence of exploitation of Pleistocene fauna by man has been found in Southeast Texas. Therefore, other researchers (Shafer and Stearns 1975) believe that a more mixed resource base was utilized during this time.

Information concerning the Archaic period is also sketchy. Archaic sites are more common than Paleo sites and they tend to be poorly preserved and often mixed with later materials (Gadus 1988:6). Story (1981) states that Archaic sites in East Texas do not always provide the associated context needed for a clear definition of component structure. A population increase during this period is believed to have occurred based on the fact that more sites are present. Subsistence patterns and societal structure probably evolved and eventually adapted to changes in the environment following the Pleistocene. During this period, according to Gadus (1988:6), "seasonally clustered resources would have been favorable to a trend toward the reduction of group mobility, an increase in tool variety, and an increase in the complexity of group organization." Johnson (1962) based his definition of the La Harpe Aspect on the similarity of tool types and burial methods.

The Late Prehistoric period is marked by the addition of pottery to a lifeway that was for all practicable purposes Archaic. The temporal placement of this period is based on a few radiocarbon dates and the presence of pottery from the Lower Mississippi Valley (Story n.d.:15). According to Fields (1979:13), a primary problem in the identification of Early Ceramic occupations, especially in the southern portion of central East Texas, is that of separating them from Late Ceramic components. At sites near the Sam Houston National Forest the ceramics of the two periods are very similar, if not identical. In addition to pottery with very sandy paste lacking additional tempering agents (Shafer 1975:250-251), the contracting-stem dart point remained the most diagnostic of the chipped stone tools (Shafer et al. 1975:18).

Experimentation with horticulture during this period has been suggested (Wyckoff 1971:15-17). In central East Texas, however, there is no direct evidence to support this theory (Fields 1979:13). It appears that hunting and gathering remained the primary lifeway during the Early Ceramic (Shafer et al. 1975:18). Sites typically are found on small sandy knolls or ridges on or adjacent to stream floodplains of major water courses and their tributaries. A population increase may be hypothesized due to the increase in sites during this period. Early Ceramic sites have been reported from Lake Livingston (McClurkan 1968), Lake Conroe (Shafer 1968), and the Davy Crockett National Forest (Fields 1979).

In terms of material culture, significant changes occurred. A shift from the spear thrower, or *atlatl*, to the bow and arrow is indicated throughout central East Texas (Shafer et al. 1975:20). The change was certainly gradual as contracting-stem dart points continue through parts of this period. The Atakapa-speaking groups retained many of the traits of the Early Ceramic period. Plain sandy paste ceramics remain the dominant ware although grog-or bone-tempered pottery does occur. Influence from the Lower Mississippi Valley, present in Early Ceramic sites, ceased to exist. Caddoan pottery types are present and suggest interaction between the two groups.

Subsistence patterns in the Caddoan area now included horticulture with such crops as corn, bean, and squash being commonly grown. Although there is no firm archaeological data for the practice of horticulture in the Atakapa-speaking area, it is known that by the beginning of the Historic Period corn was being grown (Newcomb 1986:323; Sjoberg 1951:54-55). Fields (1979:18) states that "it seems likely that for at least a portion of the Late Ceramic Period, certain groups south of the Caddo were to some degree horticultural."

In both areas, sites dating to this period tend to be located on the same landforms as Early Ceramic sites; that is, on sandy ridges and knolls on or adjacent to the floodplains of major water courses and their tributaries. Occupation was widespread and, according to Fields (1979:19), "the Late Ceramic appears to have been the most intensively occupied as well as the most visible to modern researchers."

The first Europeans to encounter native Indian groups in East Texas were Cabeza de Vaca and his explorers who visited the coast in 1528 and visits by the survivors of the De Soto expedition to the Caddoan region in 1542. In 1690, Spanish missionaries established a series of missions across East Texas and signaled the beginning of European and Indian interaction in the area. Mission San Francisco de los Tejas was located in Houston County on San Pedro Creek (Newcomb 1986). Early roads connected the missions and provided trade routes. Later, the Contraband Trace brought early settlers into Texas. This early road crossed the western edge of the Sam Houston National Forest in the vicinity of F.M. 149 (Bement et al. 1987:6-5).

Between 1700 and 1835 (when native groups had been removed from East Texas), Indians in the area underwent rapid and dramatic changes. The Spanish failed in their efforts to Christianize the Indians of East Texas, but the French were able to involve them in an extensive trade network (Griffith 1954:135- 152). By 1700, Caddoan and Atakapan groups began acquiring horses from the Spanish and Indian groups to the west. The horses were traded to the French or used for hunting deer and bear to acquire hides and oil which were also traded (Griffith 1954:144-152). In exchange, they received guns, glass beads, clothing, and alcohol. Griffith (1954:144-154) suggests that this trading economy upset the established sedentary, horticultural way of life, altered social systems, and destroyed the self-sufficiency of the East Texas Indians.

Ethnographic data for the Atakapan-speakers are sparse. All groups living between the Caddo and the Gulf Coast are considered to have been of the Atakapan linguistic stock (Shafer et al. 1975:22). Groups inhabiting the area near the Sam Houston National Forest were the Bidai, Deadose, and Patiri (Newcomb 1986). The Bidai spoke the Caddo language and interacted closely with the Hasinai Caddo in trade (Griffith 1954:142). The Bidai and Deadose are believed to have farmed in addition to hunting and gathering (Shafer et al. 1975:22-23; Sjoberg 1951:54-55).

No historic sites of these groups have been recorded in Walker County. A possible exception is 41WA53. This site is situated on a terrace above the Trinity River in a location very close to an historic Indian village mentioned in a thesis by John W. Baldwin (1957) entitled *An Early History of Walker County, Texas*. This site was shovel tested by William E. Moore in the late 1960s but no historic or contact period artifacts were found. Virtually the entire site area had been destroyed by pothunters. The site is now inundated by Lake Livingston.

The remainder of this period is well documented in history books. When the Spanish lost their hold over the state, the area began to be settled by Americans from the United States who entered from the Louisiana Territory. After Texas became a Republic, a period of frontier development ensued (Gadus 1988). Farming, hunting, and fishing were the main economic activities (Bond and Moore 1980:40). By the end of the 19th Century, timber was exploited throughout most of East Texas. This resource created the need for sawmills and railroads that was accompanied by a rapid increase in the population (Bement et al. 1987:6-8).

FIELD METHODS

Prior to entering the field the Principal Investigator checked the site records at the Texas Archeological Research Laboratory (TARL) on the campus of The University of Texas at Austin for previously recorded sites in the project area and vicinity. It was determined that, although no sites had been recorded in the area to be investigated, the proximity of several creeks to the project area and the possibility of sandy soils might have combined to form a suitable setting for prehistoric or historic utilization. The area was examined in two stages. First, the Principal Investigator walked over the entire 12.82 acres at 30 meter intervals in an attempt to locate and surface exposures that might contain exposed cultural materials. The entire area, except the western end that contains the existing jail facility, was covered with grass, and the surface visibility was rated at zero. There was good surface visibility in the area around the jail building and road, and this was closely examined for cultural materials. During the initial surface examination the Principal Investigator dug six shovel probes in the center of the project area and at each corner (Figure 3). These were not screened or otherwise examined except to determine the presence of clay.

Next, the entire 12.82 acres was examined through shovel testing. Each test was dug with a "sharp-shooter" through the surface clay and into the subsurface to a depth of at least 30 centimeters at each test. In all, 29 tests were excavated, an average of 2.26 tests per acre. The shovel tests averaged 50 centimeters in diameter. A screen (1/4 inch hardware cloth) was utilized; however, it was impossible to screen the thick clay. Instead, samples of clay from each test was placed in the screen and broken apart by hand. The results of the shovel testing was recorded on a shovel test log, and a map depicting the approximate location of the 29 tests was prepared using a tape and compass. Shovel testing was concentrated on the highest part of the ridge that runs east west across the project area. A few tests were excavated on the slopes, but most of the tests were dug on top of this ridge. No photographs were taken, and no artifacts were observed or collected.

RESULTS AND CONCLUSIONS

This study documents a Phase I Pedestrian Survey of a 12.82 acre tract in central Walker County, Texas. Twenty-nine shovel tests were dug across the project area; however, not one test produced cultural materials. It is concluded that no prehistoric or historic sites are present in the 12.82 acre tract, and the area is defined as low probability for site occurrence. Although the soil survey of Walker County indicated that the entire project area was composed of clay, the presence of a small area of sandy soil in the area to be investigated was considered a possibility. One previous survey in the area serves as an example. In 1990, Moore Archeological Consulting located a prehistoric site (41WA99) in a 45 acre tract approximately 1100 meters to the southeast (Moore and Moore 1990). The site was found on a convex upland consisting primarily of local clays. However, at the apex of this upland hill was a small area of deep, sandy soils in which cultural materials were found. The nearest permanent source of water, Town Branch, is 700 meters from the site, and an intermittent, unnamed tributary of Town Branch is 450 meters distant. Town Branch drains into Parker Creek, one of the streams in the vicinity of the current project area.

Based on the comparative data collected by Moore Archeological Consulting, the presence of a prehistoric site in the current project area seemed to be a possibility. However, not one of the 29 shovel tests encountered sandy soil, and all were sterile in terms of cultural materials. It is concluded that, although sites may be present in the area, the 12.82 acre project area was not utilized in prehistoric times. According to William Powell, the area may have been used for cotton production in the past. There is no other evidence of other historic activities on this tract. Other, nearby sites are located on sandy hills or ridges in close proximity to a dependable water source. The absence of sandy soils in the current project area adds to the conclusion that this area should be classified as low probability for prehistoric site occurrence.

RECOMMENDATIONS

No evidence of prehistoric or historic utilization of the project area was found as a result of this Phase I survey. It is, therefore, recommended that the Walker County Commissioners Court be allowed to proceed in the future with construction as planned. The presence of an archaeologist to monitor construction is not necessary. It is always possible that cultural materials may be overlooked during any cultural resources survey. Should evidence of a prehistoric or historic site be encountered at any time during construction all work must cease until the situation can be evaluated by the Division of Antiquities Protection in consultation with the Walker County Commissioners Court and Brazos Valley Research Associates.

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