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ARCHAEOLOGICAL INVESTIGATIONS
AT SITE 41WD468/41WD469
ALONG SH182 AT LAKE FORK CREEK
WOOD COUNTY, TEXAS

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and
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ABSTRACT

The Texas Department of Transportation (TxDOT) will replace two bridges on SH182; one at Lake Fork Creek and another at an unnamed tributary just west of Lake Fork Creek. Archaeological Site 41WD468 occurs between the two streams. Previous researchers designated two site numbers (41WD468 and 41WD469) for different portions of the site. The TxDOT investigations revealed no separation between the two areas, so the entire site is now designated under a single site number. The northeast part of the site (Area A) has shallow, disturbed deposits dating to the Late Archaic period. The southwest portion of the site (Area B, previously designated 41WD469) appears to have intact, deep deposits dating from the Late Paleoindian Period/Early Archaic (ca. 7000 B.C.) through the Caddo II Period (A.D. 1200 A.D. 1400). Because Area B has deep, intact deposits, and time-sensitive artifacts were recovered from these deposits, the site is considered eligible for nomination to the National Register of Historic Places for the archaeological information it may yield.

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INTRODUCTION

The Texas Department of Transportation (TxDOT) plans to replace two bridges on SH182; one at Lake Fork Creek and another at an unnamed tributary just west of Lake Fork Creek. Site 41WD468 is on both sides of SH182 and between the two streams (Fig. 1). During project construction, traffic will be routed along detours on the north side of the highway, and this will affect portions of site. Although the northern part of 41WD468 was destroyed when the Lake Fork Creek dam was built, the site is intact within the SH182 right-of-way and to the south of the right-of-way.

On the south side of the road there is a hardwood forest which is used for cattle grazing, although the forest is fairly dense in places. The property north of the road is now planted in grass, but was hardwood forest before the dam was built. The land outside the TxDOT right-of-way is managed by the Sabine River Authority.

The site was tested by TxDOT archaeologists in December 1992 and February 1993. In the 1970s, when archaeologists from Southern Methodist University first reported the site, 41WD468 was designated as two separate sites called 41WD468 and 41WD469. Based on the results of the 1992/93 testing, the sites were found to be continuous and both are now designated as a single site: 41WD468. The two areas which were originally labelled ***41WD468*** and ***41WD469*** will be referred to as ***Area A*** and ***Area B,*** respectively. Area A is the northeastern portion of the project, while Area B represents.the southwestern portion.

The soils on the two site areas are dissimilar. The soil of Area A is shallow sand extending only 20 to 60 cm below the surface and overlies a gleyed clay, and probably represents an older terrace than Area B. The culture-bearing deposits are shallow and disturbed.

The soil of Area B is sand to fine sandy loam to a depth of 1 to 2 meters and overlies a gleyed clay. Because of its soil profile and proximity to the unnamed tributary, Area B probably represents a cut-and-fill sequence. Area B was found to have deep cultural deposits extending to between 120 and 180 cm below the surface. Middle Archaic, Late/Transitional Archaic, and Caddo II components are present in Area B. Late Paleoindian and Early Archaic components may also be present, but no evidence was found during testing. However, a local collector showed the authors Dalton and Calf Creek points which he found at the site when the dam was built.

Although stratigraphy was very subtle within the cultural deposits, the vertical proveniences of diagnostic artifacts indicate that the deposits are moderately intact. No features were found in either Area A or Area B.

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ENVIRONMENTAL SETTING

Located in Northeast Texas, Wood County lies within the West Gulf Coastal Plain section of the Coastal Plain Physiographic Province (Sellards et al 1932). Tertiary geologic formations of the Claiborne Group in the Wood County area include the Sparta Formation, the Weches Formation, the Queen City Formation, the Reklaw Formation and the Carrizo Sand Formation. Quaternary alluvial deposits occur along the major drainages in the area (Bureau of Economic Geology, Tyler Sheet 1965). The topography of Wood County is characterized by hilly to gently rolling relief occasionally interrupted by broad, level flood plains.

Biogeographically, Wood County is situated at the extreme western edge of the Austroriparian Biotic Province (Blair 1950:98-100), which includes the Gulf Coastal Plain from the Atlantic to eastern Texas. Pine-oak forests predominate within this environmental zone.

The environmental setting of western Wood County, however, is more indicative of the Texan Biotic Province (Blair 1950: 100-102), a broad ecotone where the mesic wooded areas of the east gradually fade into the more xeric grasslands of the west. The Texan Biotic Province shares environmental traits with Austroriparian Province to the east and the Balconian Biotic Province to the west, resulting in the interdigitation of plant and animal species.

Arbingast (1973) includes Wood County in two vegetation regions. To the east, approximately two-thirds of the county lies within the Oak-Hickory-Pine Forest region, while to the west, approximately one-third of the county lies-within the Oak-Hickory vegetation region.

Wood County has a humid subtropical climate with hot summers and mild winters. Precipitation occurs throughout the year, with the heaviest accumulations occurring in the late spring and early fall. The mean annual rainfall is 44.30 inches (Pass 1982).

Wood County is situated in the upper Sabine River and Cypress Creek basins. The site under discussion, 41WD468, is located only a few meters from Lake Fork Creek, one of several south-southeastward flowing tributaries of the Sabine that drain the county. A portion of Lake Fork Creek was impounded in the late 1970s when the Sabine River Authority constructed Lake Fork Reservoir in Wood, Rains, and Hopkins counties.

LAKE FORK CREEK CHRONOLOGY

Several cultural chronologies for the Caddoan area of northeast Texas and adjacent areas of Oklahoma, Arkansas, and Louisiana have been proposed and refined over the past four decades. However, as Thurmond (1985:188) points out, due to a paucity of controlled radiocarbon dates, poor preservation, and well-stratified archeological sites, the chronology of the area remains ill-defined for much of the span of human occupation.

At the most basic level, cultural developments and patterns of prehistoric adaptations for east Texas as a whole have been summarized by Story (1981:142) in terms of four periods: Paleoindian (ca. 10,000 to 6000 B.C.); Archaic (ca. 6000 to 200 B.C.); Early Ceramic (ca. 200 B.C. to A.D. 700); and Late Prehistoric (ca. A.D. 700 to 1700). In Northeast Texas, Caddoan manifestations are apparent by the beginning of the Late Prehistoric. Further chronological delineation relevant to the study area has been provided by Davis (1970) and Thurmond (1981,

The term Paleoindian is generally applied to the Late Pleistocene-Early Holocene aboriginal cultures whose subsistence strategies were dominated by the exploitation of large game animals rather than more generalized, broad-based hunting and gathering economy. It has been suggested (Shafer 1977) that the big-game hunting model may not be applicable for Paleoindian populations living in east Texas. Instead, a mixed subsistence strategy is postulated for this period. Paleoindian groups were probably highly mobile, with concomitant low populations and territories that were not well-defined (Story 1981:143)

The most common early types of projectiles found in east Texas are Dalton, Meserve, San Patrice and Scottbluff; Angostura, Clovis, Folsom and Plainview have been reported less frequently. While a number of apparently early points have been recovered from East Texas, there are very few sites that contain intact Paleoindian Deposits.

The transition between Late Paleoindian and Early Archaic occupations is blurred. In general, the Archaic is viewed as a time of diversification--adaptation to changing post-Pleistocene environments, marked by increasing reliance on hunting and foraging. Diversification is reflected in the plethora of lithic projectiles and tools which become more distinctive from locale to locale (Story 1981:143).

Early Archaic (ca. 6000 to 4000 B.C) diagnostic dart points include Bulverde, Calf Creek, Carrollton, Dawson, Morrill, and Wells, as well as stemless triangular dart points. Diagnostics for the Middle Archaic (ca. 4000 to 2000 B.C) include Edgewood, Ellis, Lone Oak, Palmillas, Trinity, Yarbrough, as well as most other straight- or expanding-stem dart points. Ensor, Gary, and Kent dart points are considered diagnostic for the Late Archaic (ca. 2000 to 200 B.C.). Pottery is absent (Thurmond (1985:188-189).

Investigators at Lake Fork Reservoir used lithic analysis to divide the Archaic Period into three periods (Lithic Phases I-III based on projectile point styles. Bruseth and Perttula (1981:139-140) identified an Archaic cultural phase (ca. 6000 B.C. to 1 A.D) for the project area, defined upon locational patterning and lithic assemblages which contained large point forms, generalized multipurpose tools, large quantities of fire-cracked rock, a low frequency of non-local lithic materials (including Edwards Plateau material) and lithic debris.

Archaic sites at Lake Fork Reservoir are characterized as heavy density lithic scatters located primarily along Lake Fork Creek and light density lithic scatters located primarily along tributaries. Archaic occupations occurred throughout the Lake Fork project area, most often on landforms nearest creeks and positioned along the margins of the landforms, rather than on the highest portion of the terrain. The largest Archaic sites in the Reservoir area were most often located along Lake Fork Creek and on landforms directly associated with the creek. Accordingly, the location of the larger sites along creek proper points to "heavy reliance upon the biotic resources of the riverside-floodplain zone" (Bruseth and Perttula 1981:139).

Early Ceramic (Formative) sites have been more thoroughly documented in Oklahoma, Arkansas, and Louisiana than in East Texas. The Early Ceramic Period is characterized by the presence of Late Archaic dart point styles (Gary, Ensor, Kent) and grog-tempered or sandy paste pottery. Based on continuities with Late Archaic artifact assemblages and kinds of sites, the subsistence base of the Early Ceramic is assumed to be intensive foraging (Story 1981:146).

On the basis of investigations in the Lake Fork Reservoir area, the Early Ceramic Period was originally subsumed within the latter portion of tlie Archaic Cultural Phase (Lithic Phase III) and the Lone Oak Cultural Phase (Ceramic Phase I). However, as Pertulla et al (1986:54) indicate, reappraisal of the temporal placement of the Lone Oak Cultural Phase is warranted since it is now evident that the components of this phase overlap with both Early Ceramic and Early Caddoan Period I assemblages as defined elsewhere in Texas.

The Lone Oak Cultural Phase (ca. A.D. 1 to 850) is identified with the nascent Caddoan cultural tradition and incipient horticulture. Lone Oak diagnostic artifacts include ceramics with horizontal incisions, punctations, and diagonal incisions with punctuations (Bruseth and Pertulla 1981: 140-141).

Lone Oak occupations were apparently multi-seasonal, longer in duration and more permanent than Archaic occupations since middens and features (including storage pits, trash pits and hearths) occur for the first time. It is inferred from the small size and limited intra-site complexity of the Lone Oak Phase sites that these occupations represent single family homesteads occupied for one or two generations (Bruseth and Perttula 1981:141).

While the origin of the Caddoan cultural tradition is unresolved, it seems apparent that the Caddoan tradition was stimulated by tlie introduction of Southwestern varieties of maize and was primarily a local development that began to materialize at some point during the eighth century A.D. (Story 1981:149).

As defined for the Cypress Creek Basin by Thurmond(1981, 1990 Table 8), Early Caddoan (ca. A.D. 800 to 1300) occupations can be assigned to two intervals, Early Caddoan Period I (ca. A.D. 800-1100) and Early Caddoan Period II (ca. A.D. 1100-1300), roughly coeval with the Caddo I and Caddo II chronological units defined by Davis (1970) and Wyckoff (1971).

As Pertulla et al (1986:54) observe, while Early Caddoan components and sites are common throughout the Upper Sabine Basin on major streams and along minor tributaries, it is difficult to determine whether occupations fall into Early Caddoan Period I or Early Caddoan Period II because most of the known sites have not been dated by absolute means.

Early Caddoan body sherd collections are dominated by plain, incised, punctated and fingernail-impressed specimens; utility wares can often be graded by paste and thickness into Williams Plain and LeFlore Plain types; other pottery types include Hickory Fine Engraved, Carmel Engraved, Crockett Curvilinear Incised and Pennington Punctated-Incised. Diagnostic artifacts include Red River ceramic pipes, Alba, Bonham, Catahoula, Hayes and Scallorn arrow points, and Gahagan bifaces (Thurmond 1985:189).

Early Caddoan Period I occupations have been linked with the Alto focus, the principal manifestation of the earliest known Caddoan materials. Characteristics of the Alto focus include the construction and use of temple mounds and Davis Incised, Dunkin Incised, Crockett Incised, Holly Fine Engraved, Spiro Engraved and Weches Fingernail-Impressed vessels (Davis 1970:41-42). The Boxed Springs Mound (41UR30), not far from Lake Fork, has an Early Caddoan component with several mounds and large cemeteries.

Early Caddoan Period II occupations have been linked with the Sanders focus. Two types of sanders Focus sites are recognized--mound centers and nonmound habitation sites, evidently reflecting a community pattern of mound centers and dispersed habitation sites.

Early Caddoan Period II diagnostics include Canton Incised, Haley Engraved, Maxey Noded Redware, Sanders Engraved and Sanders Plain pottery (Thurmond 1981; 1990). However, since Early Caddoan Period II diagnostic ceramic types Maxey Noded Redware and Sanders Engraved were being manufactured on Lake Fork Creek some one hundred years earlier than the proposed onset of Period II (ca. 1000 A.D.), Perttula et al. (1986:54) indicate that the stylistic criteria used by Thurmond to divide the Early Caddoan period may not be completely applicable.

In the Lake Fork Reservoir area, the Pecan Grove Cultural Phase (Ceramic Phase II) extends from A.D. 850 to 1350. For ceramics, cross-hatched incisions and Sanders Engraved design elements are common stylistic devices. Lithic artifact assemblages exhibit a marked decrease in quantity and increased specialization in tool forms is evident. The existence of a well-developed and extensive trade network in the hinterlands outside of the mound centers is indicated by the use of unprecedented amounts of raw materials obtained from non-local sources (Bruseth and Perttula 1981:141).

Pecan Grove Phase sites occurred throughout the Reservoir, with both midden and non-midden sites present. Groups of two to three middens per site were common, and features such as hearths and storage pits were often located within the middens (Bruseth and Perttula 1981:141).

As a result of the need for suitable locations for houses and for maize production, the Pecan Grove Phase occupations tended to be situated away from the margins of landforms, often on the highest portion of the landscape. Minimal intra- and inter-site complexity during the Pecan Grove Phase suggests that the sites were farmsteads, representing the lowest level of regional Caddoan settlement (Bruseth and Perttula 1981:142).

Within the Cypress Creek Basin, Thurmond (1981) has proposed a relatively brief transitional period spanning the end of the Early Caddoan and the beginning of the Late Caddoan periods. Diagnostics of the Transitional Period (ca. A.D. 1400-1500) include ceramic assemblages representing a fusion of Early Caddoan Period II and Whelan phase concepts in association with Scallorn and Perdiz arrowpoints.

Following the Transitional Period, Thurmond proposes a Late Caddoan Period (ca. A.D 1500-1700), roughly coeval with the prehistoric Caddo III-IV and Protohistoric/Historic Caddo chronological units defined by Davis (1970).

Late Caddoan sites in the Lake Fork can be assigned to the Titus focus, a cultural manifestation known primarily from cemetery excavations during the 1930s (Bruseth et al. 1977:6).

Under the Midwestern Taxonomic System, the Titus focus is one of the prehistoric foci assigned to the Late Caddoan Fulton Aspect. Although following Krieger's original (1946) definition of the Titus focus, Thurmond (1990:40) has chosen to employ the term *phase* to refer to "chronological subdivisions of a tightly circumscribed local culture."

According to Thurmond's scheme, the *Cypress Cluster* is proposed as the replacement for the spatial element of Krieger's Titus focus. The Cypress cluster apparently represents a "third Caddoan confederacy, in addition to those of the Hasinai and Kadohadacho [that] existed in late prehistoric, protohistoric and early historic times, centered geographically on the Upper Cypress Creek, White Oak Bayou, and Lake Fork Creek basins (Thurmond 1990:232)."

Two chronological subdivisions are suggested for the Cypress cluster: the Whelan phase (A.D. 1500-1600) and the Titus phase (A.D. 1600-1700). Diagnostic pottery types for the Whelan Phase include Ripley Engraved, Pease Brushed-Incised, proto-Harleton Applique and McKinney Plain; tradeware includes Poynor Engraved; arrowpoint types Scallorn and Perdiz predominate (Thurmond 1985:189-191). Diagnostic pottery types for the Titus phase include Bailey Engraved, Harleton Applique, Johns Engraved, Karnack Brushed Incised, La Rue Neck Banded, McKinney Plain, Ripley Engraved, Taylor Engraved and Wilder Engraved; tradeware includes Avery Engraved, Simms Engraved, Cass Appliqued, Belcher Engraved, Belcher Ridged, Cowhide Stamped, Foster Trailed Incised, Glassell Engraved, Hodges Engraved, and Keno Trailed; arrowpoints include Bassett, Maud, Reed, and Talco; European glass beads and Wichita type Womack Engraved ceramics occasionally found as burial associations (Thurmond 1985: 189-191).

During the Titus phase, Cypress Cluster components occur along the eastern reaches of Lake Fork Reservoir but none are recorded in its western reaches. Furthermore, based on archaeological manifestations, Thurmond (1985: 193) identifies four distinct subclusters within the Cypress cluster during the Titus phase.

The Three Basins subcluster is associated with the eastern reaches of Lake Fork Creek. Ripley Engraved is the major engraved ware; trade vessels include Avery Engraved, Simms Engraved, and occasionally Womack Engraved. Utility ware is largely McKinney Plain, Maydelle Incised, and Harleton Applique. Brushed ware is quite common along Dry and Little Dry Creek, a few km east of Lake Fork.

In the Lake Fork Reservoir area, the Forest Hill Cultural Phase (Ceramic Phase III) extended from approximately A.D. 1350 to 1650. The curvilinear elements of Ripley Engraved and the appendages of McKinney Plain indicate a distinct decorative change over previous ceramics. Lithic artifacts are scarce and the use of non-local raw materials decreases in frequency (Bruseth and Perttula 1981: 142).

Within the Reservoir, Forest Hills Phase sites are located exclusively along Caney Creek and drainages. These sites are located on tlie crests of particular landforms and away from the margins; upland sites occur as well. No Forest Hill artifact clusters were identified in other parts of the Reservoir. It is suggested that environmental factors (i.e. an eastern expansion of the tall grass prairie) may have precipitated the change in settlement patterns (Bruseth and Perttula 1981:142-143).

Forest Hill Phase sites are small and consists of one to a few middens. There are apparently more single midden sites than the Pecan Grove Cultural Phase, suggesting that family units were smaller. Many middens contain internal features such as hearths and pits, indicating house locations. Trash middens are often located nearby. Small organized burial plots or cemeteries frequently occur in direct association with these sites (Bruseth and Perttula 1981: 143).

Native populations in East Texas during the Historic Period (ca.1650-1800) included both Caddoan (Caddo V) and southern Wichita-speaking groups (Norteño Phase). Historic Period sites often exhibit native materials associated with evidence of European or Euro-Americans, usually in the form of Venetian glass beads, gun parts, or other tnetal or ceramic artifacts (Davis 1970:54).

In the Lake Fork Creek area, possible Historic Caddoan occupations with evidence of European trade goods include the Woldert (41WD333), 41WD331 and 41WD206 sites (Perttula et al. 1986:59).

The Gilbert Site (41RA13), at the western end of the valley of Lake Fork Creek, has been interpreted as a Norteño Phase site (Jelks 1967), as has the Pearson Site at Lake Tawakoni

(Duffield and Jelks 1961). European trade goods, as well as materials of obvious native manufacture, were recovered from the sites. It has been pointed out, however, that none of the native materials necessarily indicate a Wichita presence and that the Gilbert and Pearson sites may represent remnant Caddoan populations in the Lake Fork area instead (Bruseth and Perttula 1981:6).

PREVIOUS INVESTIGATIONS IN THE REGION

J.E. Pearce of the University of Texas at Austin initiated the systematic study of the archeology of east Texas. Realizing the importance of the scientific study of archeological sites in Texas, Pearce contacted the Bureau of American Ethnology of the Smithsonian Institution and obtained the necessary funding for fieldwork. Archaeologists conducted reconnaissance surveys and excavations throughout Texas during a period from 1918 to 1932.

Pearce (1932:47) believed that the distinctive significance of East Texas "as compared with...other parts of the Moundbuilder area lies in the relations that may be worked out in Texas between the cultural practices that belong to the forested areas and those that belong to the prairies and plains."

From 1927 to 1936, the University of Texas annually conducted fieldwork in East Texas. Although these University of Texas field parties typically concentrated on the excavation of Caddoan cemeteries, trash middens and mounds were occasionally investigated (Perttula et al. 1986:36).

The University of Texas workers focused a considerable amount of attention on sites within the upper Sabine Basin. Wood County, particularly the area near Quitman in the Dry Creek and Lake Fork Creek basins, was investigated during this period by A.T. Jackson, M.M. Reese, and A.M. Wilson.

During a two week period in mid-August, 1930, Jackson and Wilson recorded 23 sites in Wood County. Seven of these sites were later excavated, five sites were minimally tested and eleven sites were visited (Wilson and Jackson n.d. 1930, cited in Skiles 1978). M.M. Reese (1931) also conducted investigations in Wood County. Skiles (1978) notes that Jackson later listed 63 sites in Wood County. In the 1970s, attempts to relocate many of the sites recorded by Jackson and his associates proved unsuccessful. More recent attempts have been rather successful in relocating these sites, since more land deed research has been done

A total of eleven sites were excavated in Wood County by the University of Texas during the period from 1930 to 1934. The period of occupation for four of the sites (41WD7, 41WD8, 41WD9, 41WD11) is uncertain, although 41WD7 and 41WD9 are perhaps Early Caddoan. An undifferentiated Early Caddoan occupation is ascribed to one site, 41WD1, while two sites, 41WD4 and 41WD5, are Early Caddoan, Sanders Phase. Four sites, 41WD2, 41WD3, 41WD6, and 41WD10 are Late Caddoan, Titus Phase (Perttula, et al. 1986:38).

In a series of articles for the Bulletin of the Texas Archaeological and Paleontological Society, A.T. Jackson reported on the kinds of artifacts recovered during these early investigations in Wood County, describing pipes (Jackson 1933:69-86); ceramics (Jackson 1934); and bone and shell ornaments (Jackson 1935:11-28).

The Works Progress Administration (WPA) funded research at several archaeological sites in east Texas in late 1930s and 1940s. With the advent of World War II, however, funding for archeological investigations ceased. Archaeologists were forced to grapple with all of the data amassed over the two previous decades. Utilizing data from throughout the Caddoan area (including evidence gathered during the University of Texas investigations of the 1930s) A.D. Kreiger (1946) produced Culture Complexes and Chronology in Northern Texas. In one form or another, many of the chronological schemes and artifact typologies introduced by Krieger continue to be used today.

Chronology and typology were among the major concerns of archaeologists in the 1950s (Suhm, Kreiger and Jelks 1954; Suhm and Jelks 1962).

During the 1950s and 1960s, most of the professional archeological investigations in east Texas were conducted in advance of reservoir construction. Many of these investigations were conducted under the auspices of the Smithsonian River Basin Surveys, and later the Texas Archeological Salvage Project (TASP).

The efforts of amateur archaeologists have contributed a significant amount of information concerning Caddoan settlement patterns in Wood County and elsewhere in the Upper Sabine basin. The results of various avocational investigations have been summarized in Skiles et al. 1980 (cf. Perttula et al. 1986:41-42).

An archeological survey was undertaken in portions of Woods, Rains and Van Zandt counties in 1971, prior to the construction of the proposed Mineola Reservoir (Lake Carl Estes). A total of 91 sites were recorded within the project area (Malone 1971).

Southern Methodist University conducted an archeological survey in portions of Camp, Titus, and Wood counties prior to the construction of Bob Sandlin Reservoir (Lake Bob Sandlin). This work was documented by Sullivan (1977).

Investigations by Southern Methodist University at Lake Fork Reservoir contributed much needed substantive information concerning Archaic and Caddoan settlement patterns in the area.

From 1975 through 1978, the Archeology Research Program of Southern Methodist University conducted fieldwork in the proposed Lake Fork Reservoir located on Lake Fork Creek and its tributaries in Wood, Rains, and Hopkins counties. A total of 130 sites were recorded during the survey phase of the project; 65 of these sites were subsequently tested.

Based on this work and in accordance with the mitigation plan submitted to the Sabine River Authority, subsequent fieldwork at Lake Fork Reservoir focused on eleven sites, nine of which (41WD73,41WD74., 41WD75, 41WD450, 41WD495, 41WD530, 41WD524, and 41WD538) are located in Wood County. SMU carried out additional fieldwork in early 1979 at 41WD108 and 41WD109 when these sites were scheduled for removal in connection with a Reservoir-related road relocation (Bruseth and Perttula 1981:1).

According to Perttula et al. (1986:44), Southern Methodist University also investigated several sites in the Lake Fork Creek basin (outside of the project area) which yielded "well-preserved Caddoan habitation features and floral and faunal remains."

Recent investigations in Wood County include the Texas Big Sandy Project in Wood and Upshur counties, a study of a proposed reservoir that would flood approximately 4,800 acres on Big Sandy Creek. In 1985, Prewitt and Associates surveyed 2,379 acres of the floodpool and the project boundaries. Thirty-five of 131 prehistoric and historic sites recorded in the project area are located in Wood County. Backhoe tests were later performed at 12 sites, 3 of which were in Wood County.

Under the auspices of the Texas Historical Commission and the U.S. Department of the Interior, National Park Service, the Institute of Applied Sciences, University of North Texas, conducted archeological, historical, and archival investigations in Wood County between September 1987 and March 1988. A 1500 acre area along Mill Race Creek and its tributaries was surveyed to locate and evaluate Protohistoric (ca. A.D. 1540-1685) and Early Historic (A.D. 1685-1821) sites relating to a possible French trading post and to 41WD333 (the Woldert Site), where large quantities of glass beads and European items have been found. A total of 89 sites were recorded: 38 prehistoric, 41 historic and 10 multicomponent (Perttula and Gilmore 1988).

Large-scale projects in the Wood County area have also focused on areas which have been proposed for lignite mining operations. In 1983, Heartfield, Price and Green surveyed portions of Wood and Hopkins County for the Phillips Coal Company. Fifty-seven sites were recorded as a result of this survey (Price et al. 1983).

INVESTIGATIONS AT 41WD468 BY TxDOT

Methodology

A total of 15 test units (TU) and one Gradall trench were excavated at 41WD468 (Fig. 2). Area A includes TU-10, TU-13, TU-14, and TU-15. Area B includes the units TU-1 through TU-9, TU-11, and TU-12. The Gradall trench (GT-1) was in Area B and was the only machine-excavation attempted because the soil was very wet at the time of our visit.

The test units were 1-meter-by-1-meter in horizontal area and were aligned with magnetic north. The units were excavated in 10-cm levels measured from the local surface. All the soil was passed through screens of 1/4-inch hardware cloth. All historic and prehistoric cultural material encountered during screening was collected. Gravel, hematite, and ferrous-magnesium (FeMg) nodules were not collected consistently, since they were occur naturally, but notes were made as to their appearance and relative abundance. Artifacts found in situ were plotted on standardized level forms. Notes, approximiate artifact counts, and other information was recorded on the same level forms at the end of each level.

All levels were scraped with a trowel in order to reveal features, krotovina, and other disturbances. Features were not found, but root disturbances and krotovina were abundant in many units. When roots and krotovina were apparent, they were plotted in plan view on the level forms.

Each test unit was excavated until sterile soil zones were reached, or until water in the unit became too deep for well-controlled excavation to continue. As each test unit was completed, a profile sketch was made of the stratigraphy of one wall the unit. Soil samples were collected from the test units when the profile sketches were made.

The Gradall trench was excavated in Area B and notes were made as to the stratigraphy in the trench. When an attempt was made to excavate a trench in area A, the Gradall became mired in the soft, wet soil and it was decided to forego further machine testing in order to avoid unnecessary damage to the upper deposits. In Area A, this proved to be a prudent decision since the culture-bearing deposits were found to be shallow.

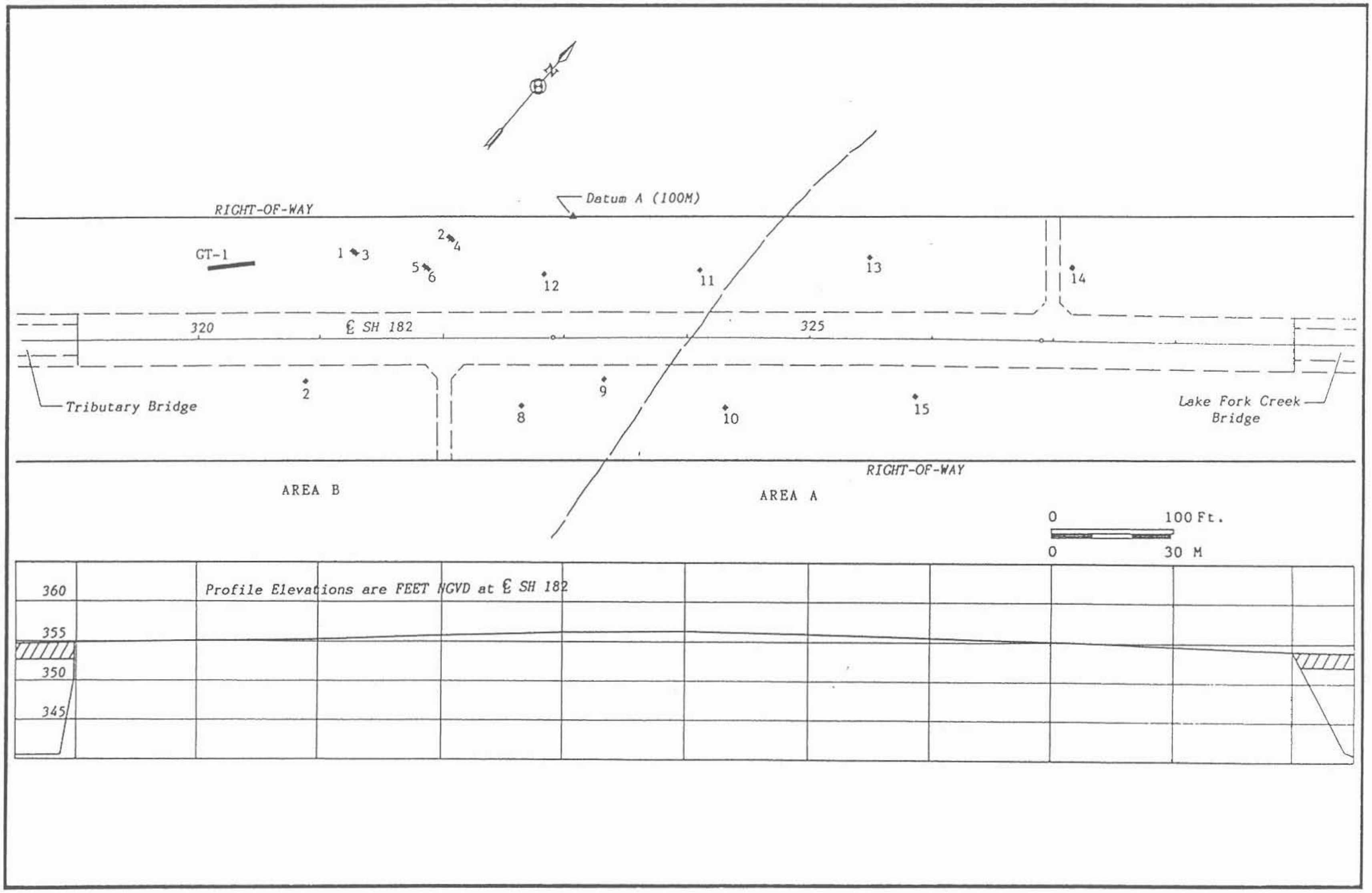

FIGURE 2. Locations of Test Units and the Gradall Trench.

Stratigraphy

Stratigraphic profiles typical of Area A are shown in Figure 3. The soils in this area are shallow, with sand in the upper 20 to 40 cm, and a mottled clay below the sand. Cultural Material is found only in the sandy, upper soil. Water was encountered about 10 cm above the clay. The sandy, upper soil zone is very uniform in color, with a thin A-horizon occurring within 5 to 10 cm of the surface. With depth, the texture of the soil changes to fine sand, then gradually to silt, then abruptly to red, mottled clay. Some units had abundant FeMg nodules and hematite beginning at the silt-clay contact.

Stratigraphic profiles from Area B are shown in Figure 4. The soils are deep, sandy, and very uniform in color throughout most of the profile. Subtle changes in soil texture occur with depth, and these changes can be felt while troweling. In most cases, the soil is very wet below 60 to 90 cm depth. In several units, excavation ceased because water filled the unit faster than it could removed. While this water may represent a high water table in front of the Lake Fork Creek dam, it seemed to follow the clay zone from Area A to Area B. Therefore, rather than a water table related to the lake, the wet soils are probably caused by the clay pan which underlies the sand and has low permeability.

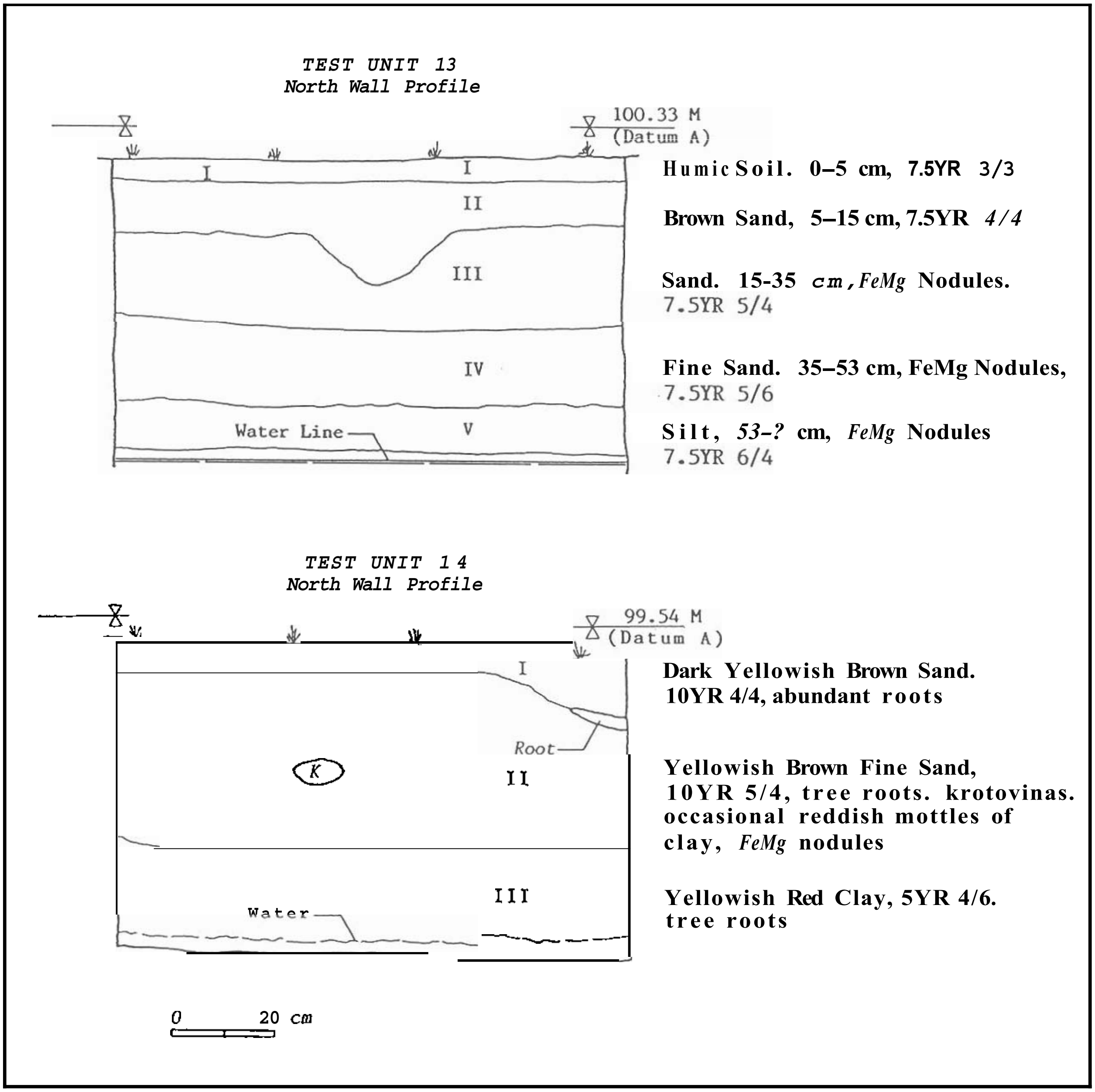

FIGURE 3. Typical stratigraphic profiles from Area A.

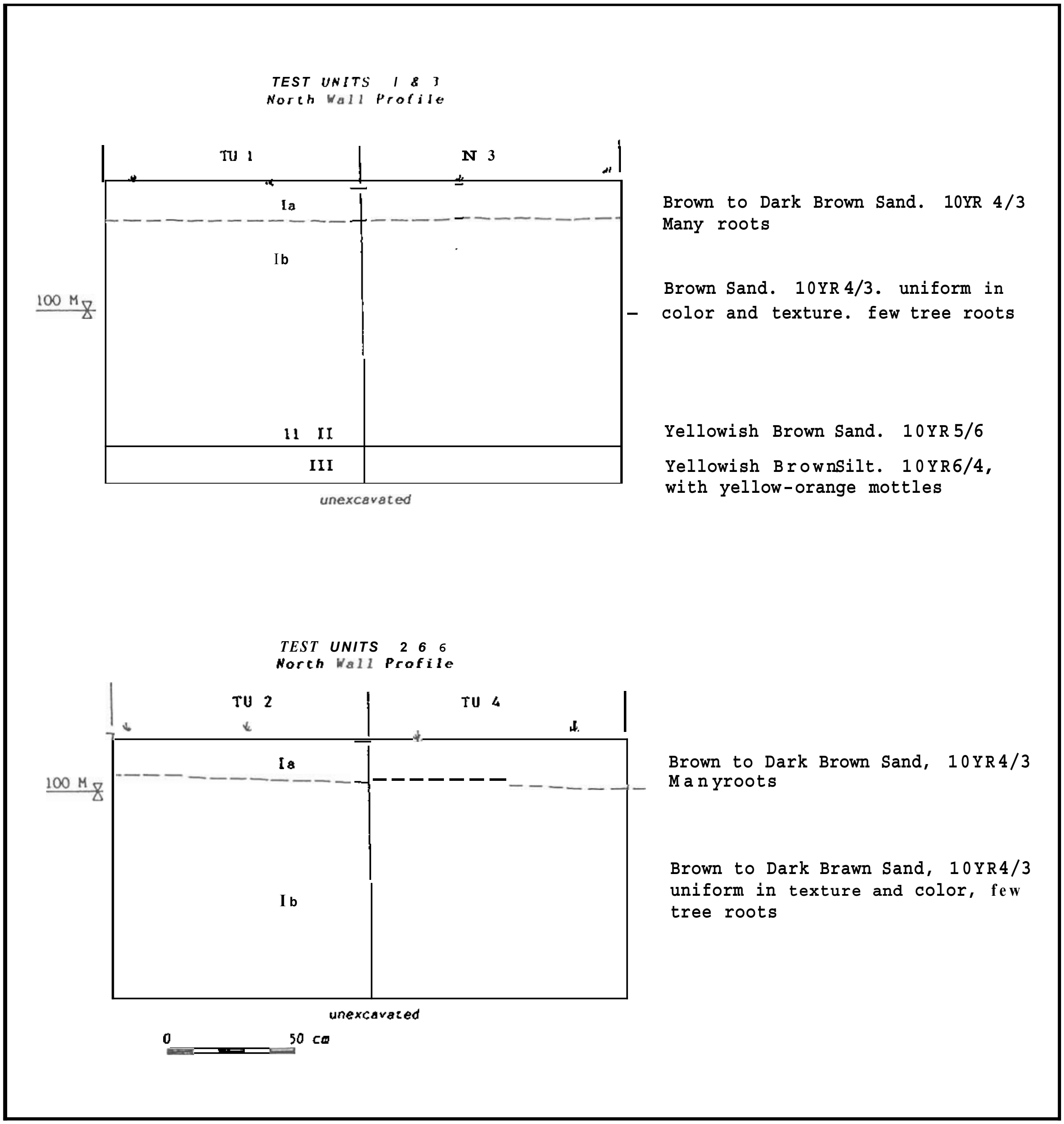

FIGURE 4. Typical stratigraphic profiles from **Area** B.

Artifact Descriptions

Burned Rock

Fragments of burned rock (Table 1) are found throughout the excavations, but mainly occur in TU-1/TU-3, TU-5, TU-7, and TU-9. Most of the fragments consist of small pieces of chert, quartzite, or sandstone. Where burned rock is more frequent, it is usually found in the middle or lower-middle excavation levels. For example, the highest counts from TU-3 were in Levels 9 and 10, and in TU-7, highest counts were in Levels 10 and 14. One exception is TU-I, where more than half the burned rocks found were from Levels 1 and 2.

The distribution of burned rocks corresponds with the presence of a buried Archaic component, representing a time period when "boiling stones" were frequently employed for cooking. Thus the presence of the burned rock probably indicates cooking activities, especially in levels associated with Archaic components.

Flakes

Flakes are summarized in Table 1. In Area A, flake counts occur mainly in the upper 40 cm of the units, but the units in this area are generally shallow. In Area B, flakes are common throughout the depth of cultural deposits, but occur mostly between 40 and 60 cm below the surface. In Test Units 1 through 6 the distribution of flakes was very similar from unit to unit.

In most levels, the flakes tended to be very small thinning and retouch flakes, indicating that tools were being reconditioned and that the final stages of flaking are represented. The lowest levels in Area B tend to have larger thinning flakes and perhaps a greater quantity of Frisco chert. This could indicate a highly mobile Archaic population who spent at least part of their time north of the Red River, where such lithic material is common. In later time periods, with perhaps a more sedentary population, or one which did not have access to abundant high-quality lithic material, there was a tendency to conserve lithics more, therefore flakes are smaller and tools are resharpened more often and discarded less readily.

Tested Cobbles

Tested cobbles are defined as pieces of stone from which only one or two flakes have been removed and their removal was not systematic. Distributions of tested cobbles are found in Table 1. Three tested cobbles were found. Two were in Test Unit 1, Level 4, and another was found in Test Unit 2, level 7. All three are of quartzite.

TABLE 1. Debitage, cores, and tested cobbles. All excavated levels are shown.

Unit	Level	Primary Flakes	Secondary Flakes	Tertiary Flakes	Shatter	Burned Rock	Core	Tested Cobble
TU-1	1	5	1	5	--	5	--	--
	2	3	9	44	12	2	--	--
	3	4	5	27	6	--	1	--
	4	6	13	41	7	--	--	2
	5	8	11	48	9	1	--	--
	6	12	10	42	5	1	1	
	7	5	15	37	9	4	--	--
	8	--	2	8	6	--	--	--
	9	--	8	7	13	--	--	--
	10	3	3	9	17	--	--	--
	11	--	1	--	3	--	--	--
	12	--	--	--	--	--	--	--
TU-2	1	2	3	9	--	--	--	--
	2	2	2	19	--	1	--	--
	3	--	1	16	--	--	--	--
	4	1	3	26	5	--	--	--
	5	--	1	16	2	--	--	--
	6	2	--	18	1	--	--	--
	7	1	1	11	1	1	--	1
	8	--	2	12	4	--	--	--
	9	--	--	7	2	--	--	--
TU-3	1	--	9	14	--	--	--	--
	2	6	6	28	2	2	--	--
	3	--	7	33	--	6	--	--
	4	2	7	33	6	--	--	--
	5	5	11	37	18	--	--	--
	6	3	5	20	8	--	--	--
	7	2	7	24	11	1	--	--
	8	4	1	18	17	--	--	--
	9	--	--	4	1	15	--	--
	10	--	4	8	--	14	--	--
	11	3	--	5	5	--	--	--
	12	--	--	--	1	--	--	--
TU-4	1	--	3	9	2	--	--	--
	2	--	6	12	5	--	--	--
	3	--	6	32	1	--	--	--
	4	2	5	12	8	--	--	--
	5	--	--	14	1	--	--	--
	6	--	6	28	--	--	--	--
	7	--	7	15	4	--	--	--
	8	1	1	11	5	--	--	--
	9	1	6	7	3	--	--	--
	10	--	--	--	--	--	--	--

Unit	Level	Primary Flakes	Secondary Flakes	Tertiary Flakes	Shatter	Burned Rock	Core	Tested Cobble
TU-5	1	2	1	9	--	--	--	--
	2	--	5	16	--	--	--	--
	3	2	5	11	--	--	--	--
	4	--	--	15	5	1	--	--
	5	--	4	16	--	--	--	--
	6	4	17	13	7	10	--	--
	7	--	3	18	9	--	--	--
	8	1	2	7	7	--	--	--
	9	1	1	8	8	--	--	--
	10	--	--	5	8	--	--	--
TU-6	1	1	1	6	2	--	--	--
	2	--	2	8	--	--	--	--
	3	3	3	5	4	--	--	--
	4	4	6	22	5	--	--	--
	5	--	2	14	--	--	--	--
	6	--	12	20	9	--	--	--
	7	--	7	11	14	--	--	--
	8	1	4	10	6	--	--	--
	9	--	--	5	9	--	--	--
	10	1	2	9	9	--	--	--
TU-7	1	--	3	1	--	2	--	--
	2	--	--	11	--	5	--	--
	3	1	4	10	11	3	--	--
	4	--	1	29	--	3	--	--
	5	2	4	7	8	4	--	--
	6	2	4	16	9	1	--	--
	7	1	4	9	8	--	--	--
	8	--	4	15	7	1	--	--
	9	--	2	10	6	--	--	--
	10	1	1	7	3	8	--	--
	11	1	--	2	1	3	--	--
	12	1	--	5	2	3	--	--
	13	--	--	5	1	2	--	--
	14	2	2	3	2	10	--	--
	15	--	1	1	1	6	--	--
	16	--	--	1	1	1	--	--
	17	--	--	1	--	--	--	--
	18	--	--	--	--	--	--	--
TU-8	1	--	--	3	4	--	--	--
	2	--	2	3	7	--	--	--
	3	1	1	12	5	1	--	--
	4	3	1	13	8	1	--	--
	5	--	1	7	3	1	--	--
	6	--	--	8	7	--	--	--
	7	1	1	3	3	--	--	--
	8	--	1	--	--	1	--	--
	9	--	1	2	2	--	--	--

Unit	Level	Primary Flakes	Secondary Flakes	Tertiary Flakes	Shatter	Burned Rock	Care	Tested Cobble
TU-9	1	--	--	I	I	--	--	--
	2	I	--	14	--	4	--	--
	3	I	--	9	--	7	--	--
	4	--	--	10	--	7	--	--
	5	--	--	--	--	3	--	--
	6	--	--	--	--	2	--	--
TU-10	1	--	1	--	--	--	--	--
	2	--	--	--	--	--	--	--
TU-11	1	--	1	7	5	--	--	--
	2	--	2	9	4	3	--	--
	3	--	1	6	6	--	--	--
	4	--	3	6	3	8	--	--
	5	1	3	5	8	2	--	--
	6	3	2	7	4	--	--	--
	7	--	1	14	5	--	--	--
	8	2	1	1	--	--	--	--
	9	--	--	--	--	--	--	--
	10	--	--	--	--	--	--	--
TU-12	1	--	--	--	--	--	--	--
	2	1	--	--	1	--	--	--
	3	--	--	4	--	--	--	--
	4	1	3	4	3	--	--	--
	5	--	--	4	9	--	--	--
	6	--	2	3	--	1	--	--
	7	--	3	7	1	--	--	--
	8	--	3	7	10	--	--	--
	9	--	2	5	--	1	--	--
TU-13	1	--	--	6	1	--	--	--
	2	--	--	5	--	2	--	--
	3	2	--	4	5	--	--	--
	4	1	2	4	--	--	--	--
	5	--	--	--	--	--	--	--
	6	--	--	--	--	--	--	--
TU-14	1	2	3	2	--	1	--	--
	2	--	--	4	6	1	--	--
	3	2	1	3	2	--	--	--
	4	3	7	9	2	4	--	--
	5	--	1	--	--	--	--	--
	6	--	--	1	--	--	--	--
TU-15	1	--	--	--	--	--	--	--
GT-I	--	--	--	1	I	--	1	--

Cores

Three cores were found during testing. Two of these came from Test Unit 1, while the third was found in Gradall Trench. The first core was found in Test Unit 1, Level 3. It is of quartzite and has three flakes struck from a flat, unprepared platform. In addition, one flake has been removed from each of two lateral edges, perpendicular to the flat platform. The core is 5.1 cm long, 3.1 cm wide, and 2.8 cm thick.

Tlie second core was found in Test Unit 1, Level 6. It is made of quartzite and appears to be an exhausted core, in that no useful platforms remain on its surface and the core would have had to be split in order to provide a platform from which to flake. At least eight flakes have been removed bifacially from one edge, and one flake was removed from another edge. No evidence of platform preparation is visible. The core is 4.2 cm long, 3.6 cm wide, and 2.3 cm thick.

The third core was found in the Gradall Trench. It is made of hematite and exhibits one unprepared platform from which at least five flakes have been removed. The core is 4.5 cm long, 4.5 cm wide, and 3.9 cm thick.

Modified Flakes

Modified flakes consist of waste flakes which have been used as makeshift tools. Many of the flakes were used briefly and then discarded. Those flakes which have been retouched, have been minimally altered and still retain most of their flake characteristics such as the platform, bulb of percussion, identifiable ventral and dorsal faces, lateral edges, and terminations

A total of 18 modified flakes were found (Table 2). Of these, one (5.6%) is a primary flake, five (27.8%) are secondary flakes, and the remaining 12 (66.7%) are tertiary flakes. Of the 18 flakes, nine (50.0%) are of chert, seven (38.9%) are of quartzite, and two (11.1%) are of petrified wood. Of the chert flakes, two are of Frisco and one is identified tentatively as Edwards. Flakes from the upper levels tend to be made out of quartzite, while those in the lower levels tend to be made out of chert. Since quartzite occurs in abundance locally and cherts are found in abundance mainly outside the region, this difference in material type may indicate that later populations at the site were less mobile than earlier ones. This fits a model of nomadic, Archaic gatherer-hunters being followed in time by more sedentary, Caddoan agriculturalists.

The working edges of almost all the modified flakes exhibit very acute edge angles and were used for cutting relatively soft material such as meat, hide, or soft vegetal material. A few have unifacial edge damage and steep edge angles (in excess of about 30 degrees) and were probably used for scraping.

TABLE 2. Modified, used, and retouched flakes.

Unit	Level	Type of Flake	Type of Material	Location of Damage	Probable Use
TU-1	4	tertiary	quartzite	bifacial, left lateral edges	cutting, soft material, minimal use
TU-1	5	tertiary	quartzite	bifacial, both lateral edges	cutting soft material, minimal use
TU-1	9	secondary	chert	unifacial, dorsal distal end	cutting or scraping soft material, minimal use
TU-1	10	tertiary	chert	bifacial, left lateral	cutting soft material, minimal use; possibly incidental damage
TU-1	10	primary	chert	unifacial, ventral distal	incidental damage, not cultural; possibly used to scrape soft material
TU-2	2	tertiary	quartzite	bifacial, left lateral edge	cutting soft material, minimal use; possibly incidental damage
TU-2	5	tertiary	chert	unifacial, dorsal, both lateral edges	cutting or scraping soft material
TU-3	3	tertiary	quartzite	bifacial, right lateral edge	cutting soft material
TU-5	3	tertiary	quartzite	unifacial, dorsal, both lateral edges	cutting soft material, minimal use; possibly incidental damage
TU-5	3	tertiary	quartzite	unifacial, dorsal, proximal end	scraping hard material, or scraping soft material with heavy use
TU-6	3	tertiary	quartzite	bifacial, right lateral edge	cutting soft material
TU-6	7	tertiary	Frisco chert	unifacial, dorsal, right lateral edge	cutting soft material
TU-7	11	tertiary	Frisco chert	bifacial, left lateral edge	cutting soft material
TU-7	15	secondary	Edwards chert	unifacial, dorsal, right lateral edge	cutting moderate to hard material
TU-11	4	tertiary	petrified wood	bifacial, right lateral edge	cutting soft material
TU-11	8	secondary	black chert	bifacial, distal half of right lateral edge	cutting soft to moderate to hard material
TU-13	2	secondary	chert	unifacial, dorsal, left lateral	scraping soft material
TU-14	1	secondary	petrified wood	bifacial, distal end	cutting soft material

Scrapers

Two scrapers were recovered during testing. The first was found in Test Unit 1, Level 10, and has been made on a flake of white chert. The specimen is worked unifacially, with flakes removed from the dorsal side of the distal and right lateral edge. These exhibit a steep edge angle. The left lateral edge has only minimal edge damage, which probably resulted from use-wear. The scraper is 3.7 cm long, 2.2 cm wide, and 0.7 cm thick.

The second scraper was found in Test Unit 11, Level 4, and is a thumbnail scraper, similar to those found in the Southern Plains and elsewhere. It is made on a flake of petrified wood, and has been worked along the dorsal face of both lateral edges and the distal end. The distal end of the scraper exhibits the smoothing typical of a tool used to scrape soft material such as hides. In contrast, the mid-portions of the lateral edges have crushing and compound hinge fractures, which may indicate that the tool was hafted. The scraper is 1.9 cm long (platform to middle of the distal edge), 2.1 cm wide (at the distal portion), and 0.5 cm thick.

Projectile Points (Fig. 5).

Projectile points were at various depths in most of the units at the site, especially in Area B. The points recovered during testing include specimens representative of the Middle Archaic, Late/Transitional Archaic, and Caddoan time periods.

Alba. One Alba point (Fig. 5, a) was found in Test Unit 8, Level 3. It is broken transversely and is missing one of the two barbs. The point is made of heated quartzite and is 2.2 cm long, 1.1 cm wide (incomplete), and 0.2 cm thick.

Gary Point Preforms. A total of three Gary preforms were found during testing. The first preform (Fig. 5, b) is from Test Unit 7, Level 1. It is made of heated quartzite and is 4.0 cm long, 2.8 cm wide, and 0.8 cm tliick.

The second preform (Fig. 5, c) is from Test Unit 6, Level 6. The preform is broken laterally. The stem and shoulders are visible, but they are roughly shaped. It is made of jasper and is 2.5 cm long (incomplete), 3.0 cm wide, and 0.7 cm thick.

The third preform (Fig. 5, d) is from Test Unit 6, Level 8. The preform is broken laterally. The stem and shoulders are well-formed, but cortex remains at the tip of one of the shoulders. It. is made of unheated Frisco chert and is 3.0 cm long (incomplete), 3.5 cm wide, and 0.7 cm thick.

Gary Points. A total of three Gary points and one Gary-like point were found. The first Gary point (Fig. 5, e) is from Test Unit 6, Level 4, and is broken laterally at the tip of the blade. However, the shoulders and stem are intact. The point is made of heated quartzite and is 2.6 cm long (incomplete), 2.0 cm wide, and 0.6 cm thick.

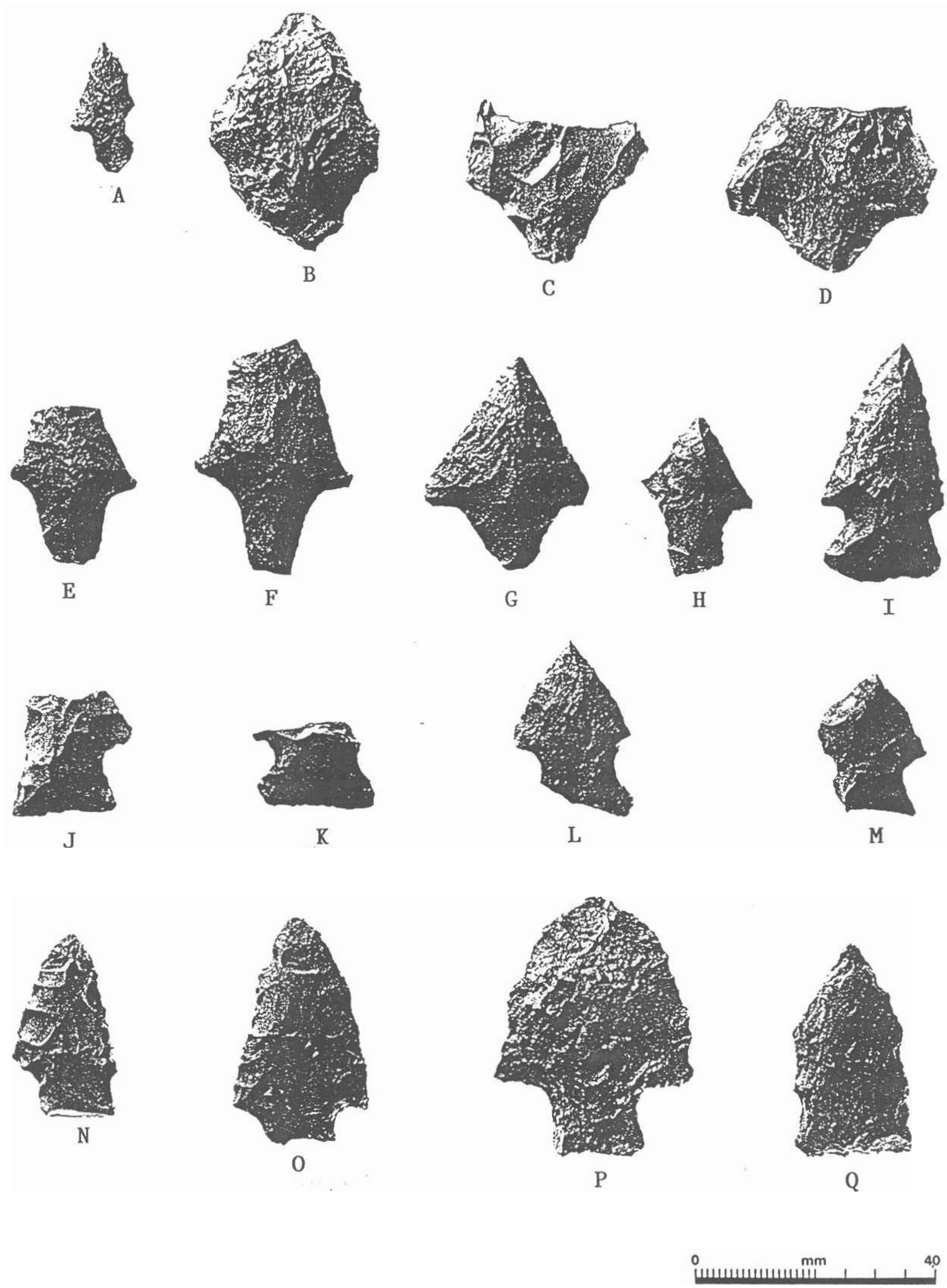

FIGURE 5. Projectile points recovered during test excavations. Alba, a; Gary, b-h; Neches River, i; Edgewood, j-m; unidentified types, n-q.

The second Gary point (Fig. 5, f) is from Test Unit 8, Level 5. It is broken laterally at the tip. The shoulders and stem are intact. The point has a long stem and is made of unheated, gray quartzite. It is 3.9 cm long (incomplete), 2.6 cm wide, and 0.6 cm thick.

The third Gary point (Fig. 5, g) is from Test Unit 3, Level 10. It has a wide blade and short stem, resulting in a diamond-shaped outline. It is made of unheated, gray quartzite and is 3.6 cm long, 2.8 wide, and 0.7 cm thick.

The Gary-like point (Fig. 5, h) is from Test Unit 7, Level 6. It appears to be a Gary point which has been reworked along one lateral side of stem and shoulder. This edge is steep and tends toward being unifacial. The point may have therefore been reused as a scraping tool after it was used as a dart point or knife. The specimen is made of unheated, brownish-yellow chert and is 2.7 cm long, 1.8 cm wide, and 0.5 cm thick.

Neches River Point. One Neches River point was found (Fig. 5, i). The base of the stem is convex and the blade is steep. The shallow finishing flakes along the blade indicate resharpening. The point was found in Test Unit 5, Level 6. It is complete and is of heated quartzite. It is 4.0 cm long, 2.0 cm wide, and 0.7 thick.

Edgewood Points. A total of four Edgewood points were found. The first specimen (Fig. 5, j) is from Test Unit 1, Level 2. The point broken laterally and is missing the tip and one barb. It is made of dark gray, somewhat translucent chert and is 2.1 cm long (incomplete), 2.0 cm wide (incomplete), and 0.5 cm thick.

The second (Fig. 5, k) is from Test Unit 3, Level 7. The point broken laterally and is missing the tip and one barb. It is made of brownish yellow quartzite and is 1.4 cm long (incomplete), 2.0 cm wide (incomplete), and 0.6 cm thick.

The third (Fig. 5, l) is from Test Unit 14, Level 5. The point is broken laterally and is missing a corner from its expanding stem. Even so, enough of the stem remains that an accurate length measurement could be obtained. The point is made of a light yellowish gray quartzite and is 2.9 cm long, 2.0 cm wide, and 0.5 cm thick.

The fourth (Fig. 5, m) is from Test Unit 11, Level 4. The point is broken in two places resulting in the tip of one barb and the tip on one side of its stem missing. The point is made of unheated Frisco chert and is 2.5 cm long, 1.9 cm wide (incomplete), and 0.5 cm thick.

Unidentified Point Types Four points were found which could not be placed into any particular projectile point category. The first of these points (Fig. 5, n) is Ellis-like and was found in Test Unit 11, Level 7. It has a convex base on a slightly extending stem. The shoulders are visible mainly on one edge, while the opposite edge had been reworked, perhaps after the point had been broken. The point is made of jasper of heat-reddened chert. It is 3.2 cm long, 2.6 cm wide, and 0.6 cm thick.

The second point (Fig. 5, o) was found in Test Unit 5, Level 8. It may represent an Ellis or Edgewood point with a reworked base and stem. However, the traits are not strong enough to classify the point as either an Ellis or Edgewood. The point is made from unheated Frisco chert or Chalcedony. It is 3.8 cm long, 2.2 cm wide, and 0.7 cm thick.

The third point (Fig. 5, p) was found in Test Unit 5, Level 4. It has a wide, straight stem and a wide blade, which has been reworked into a round cutting or scraping edge. Although the outline of the point is reininiscent of reworked Calf Creek points, the specimen is made from a very coarse heated quartzite, which would not be the material of choice for manufacturing such difficult-to-fashion points. It is more likely that the specimen was a large Gary-like point or hafted knife and that the blade was reworked after it broke laterally during use. The specimen is 4.3 cm long, 3.3 cm wide, and 1.0 cm thick.

The fourth point (Fig. 5, q) was found in Test Unit 3, Level 11. While it is a reworked, stemmed point, it cannot be identified with any particular type. The resharpening style is similar to that commonly seen at Late Paleoindian, Dalton Complex sites. However, the fact that the point is stemmed probably indicates that the time period is later than Paleoindian. The point is made of light gray, coarse-heated quartzite. It is 3.7 cm long, 2.0 cm wide, and 0.9 cm thick.

Projectile Point Fragments. Three fragments were found (not illustrated). The first fragment was found in Test Unit 3, Level 11 and represents a contracting stem from a projectile point. It is made of petrified wood.

The second fragment was found in Test Unit 5, Level 8 and may represent a contracting stem from a projectile point. The specimen is made from heated quartzite.

The third fragment was found in Test Unit 4, Level 8 and represents a blade fragment including part of one barb. However, the specimen is too incomplete for more detailed identification as a projectile point. The specimen is made of unheated quartzite.

Drill

One drill was found during testing and occurred in Test Unit 14, Level 4. The specimen is a small, narrow biface with a point at one end. The other end is rounded. It is made of heated quartzite, and exhibits reddening along the proximal portion of one lateral edge. The mid-portions of the lateral edges are smoothed and have step fractures and crushing typical of the damage found on hafted tools. The specimen is 4.6 cm long, 1.5 cm wide, and 1.0 cm thick.

Choppers

Two implements were found which may represent choppers. The first specimen was found in Test Unit 2, Level 5. It is a quartzite stream cobble with at least four flakes removed bifacially from one edge. The tool is 6.5 cm long, 4.9 cm wide, and 3.4 cm thick.

The second specimen was found in Test Unit 9, Level 3. It is a quartzite stream cobble with at least four flakes removed bifacially from one edge. The tool is 6.2 cm long, 5.3 cm wide, and 3.2 cm thick.

Untyped Bifaces and Biface Fragments

In addition to projectile points and drills, bifacial tools were found which could not be assigned to any specific functional category. These are summarized in Table 3. Only three of the bifaces are complete and these are from Test Unit 5, Level 6; Test Unit 7, Level 6; and Test Unit 14, Level 2. Most of the fragments appear to be bifaces that were abandoned during manufacture since few are very shaped or thinned. However, most of the tip fragments are shaped and well-thinned. The fact that well-made tip fragments occur with other uncompleted biface fragments indicates that when a finished bifacial tool was broken, the tip was discarded but the main body of the biface was reworked and not discarded. In areas such as northeast Texas, where good tool-making material was hard to come by, the Native Americans conserved their tools and rarely discarding finished, unbroken bifaces.

Almost all of the bifaces were found below Level 6, and this distribution fits that of the Edgewood and Gary dart points which were recovered during testing. Therefore, the bifaces are mainly associated with a buried Archaic component.

Mano Fragments

Two mano fragments were recovered and both are made of ferruginous sandstone. The first fragment is one end of a mano and was found in Test Unit 6, Level 6. It exhibits grinding on one face, and is 2.5 cm long (incomplete), 4.6 cm wide, and 1.7 cm thick.

The second fragment was found in Test Unit 6, Level 10 and is broken laterally. It originally had an ovoid outline and exhibits grinding and pecking over both faces, lateral edges, and remaining end. The fragment if 3.0 cm long (incomplete), 4.3 cm wide, and 2.4 cm thick.

Milling Slab Fragments

Two fragments of ground stone were recovered which probably represent portions of milling slabs. As with the manos, both are made of ferruginous sandstone. The first specimen was found in Test Unit 3, Level 7, and is ground on one face. It has a minimum thickness of 5.5 cm, but is too fragmentary to yield useful length or width measurements.

The second specimen was found in Test Unit 5, Level 2. It has been heated and represents a heat-fractured spall from a milling slab. The unfractured surface is very smooth from grinding and the fragment has a flat, plate-like appearance. The fragment is 7.7 cm long, 5.9 cm wide, and 1.1 cm thick.

TABLE 3. Bifaces and biface fragments.

Unit	Level	Type	Material	Comments
TU-1	8	blade fragment	ferrug sandst	heated, well-thinned & shaped
	9	tip fragment	quartzite	
	10	blade fragment	petrif wood	minimal shaping or thinning
TU-3	8	tip fragment	quartzite	
TU-5	3	blade fragment	gray chert	well-shaped, moderately thinned
	6	blade fragment	quartzite	heated, cortex over 50% of one face
	6	complete biface	quartzite	3.0 cm long, 2.1 cm wide, 1.1 cm thick
	6	tip fragment	quartzite	
	10	blade fragment	gray chert	well-shaped, thinned
TU-6	7	blade fragment	petrif wootl	minimal shaping or thinning
	8	tip fragment	quartzite	
TU-7	5	tip fragment	quartzite	
	6	complete biface	quartzite	2.7 cm long, 2.5 cm witle, 0.8 cm thick
	6	blade fragment	quartzite	spall from edge of biface, outre-passe?
	6	blade fragment	petrif wood	minimally worked, maybe natural fracture
	6	base fragment	quartzite	heated, pot lid spall on one face
	6	tip fragment	gray chert	
TU-8	7	blade fragment	quartzite	not well-shaped, but has been thinned
TU-9	3	blade fragment	quartzite	moderately shaped and thinned; cortex on one lateral edge
TU-11	4	blade fragment	quartzite	on a flake, only lateral edges are worked
	5	tip fragment	quartzite	
	7	tip fragment	quartzite	
	7	base fragment	quartzite	squared base, cortex on one lateral edge
TU-14	2	complete biface	hematite	1.9 cm long, 1.5 cm wide, 0.6 cm thick

Pitted "Nutting" Stones

Three pitted stones were found were found. These implements are usually made of sandstone and exhibit small, shallow depressions in the center of one or more faces. Although these are commonly referred to as "nutting" stones, they may have served as the anvils for grinding or pounding mineral pigments as well as floral material. Other uses might include service as fire starters or lamps. While their exact function (or functions) are not known, burning is not apparent in the pitted area of any of the specimens.

Specimen 1 was found in Test Unit 5, Level 3, and is irregular to slightly rectangular on cross-section and outline. It is made of ferruginous sandstone. One side has been ground flat and has a central depression exhibiting battering and grinding. The other faces are unmodified. The specimen is 10.7 cm long, 7.9 cm wide, and 2.9 cm thick. The central depresion is ovoid and is 3.6 cm along its major diameter, 3.0 cm in diameter perpendicular to the major axis, and 0.5 cm deep at the center.

Specimen 2 was found in Test Unit 9, Level 1, and is irregular in outline and rectangular in cross-section. It is made of ferruginous sandstone. The stone is battered along one edge and on two opposite, broad faces. Each of the broad faces exhibits a battered and ground central depression. The specimen is 8.9 cm long, 8.5 cm wide, and 4.9 cm thick. The depression on one side is circular and is 2.8 cm in diameter and 0.8 cm deep at the center. The depression on the opposite face is 3.1 cm in diameter and 0.8 cm deep at the center.

Specimen 3 was found in Test Unit 9, Level 2, and is roughly square in outline and rectangular to slightly biconvex in cross-section. It is made of ferruginous sandstone. The stone has two broad, opposite faces and each exhibits grinding and polish which may indicate that the tools was used as a mano as well as an anvil/"nutting" stone. One of the faces exhibits grinding and pounding at the center.

Hammerstones

Three hammerstones were recovered. All three came from the bottom part of the cultural deposits: Level 9 in Test Units 1 and 5, and Level 3 in Test Unit 14. This vertical distribution probably associates the hammerstones with an Archaic component at the site.

The first specimen was found in Test Unit 1, Level 9. The hammerstone is a quartzite stream cobble which has been battered at one end. It is 5.1 cm long, 4.1 cm wide, and 3.8 cm thick.

Specimen 2 was found in Test Unit 5, Level 9. The hammerstone is a quartzite stream cobble which has been battered at one end. It is 6.5 cm long, 5.0 cm wide, and 4.9 cm thick.

Specimen **3** was found in Test Unit 14, Level 3. The hammerstone is a quartzite stream cobble which has been battered at both ends and along one lateral edge. It is 5.0 cm long, 3.5 cm wide, and **3.3** cm thick.

Prehistoric Pottery

Pottery distributions are summarized in Table 4. Almost all of the pottery was found on the northeast side of the road in the upper levels of Test Units 1 through 6. Most of the specimens are plain, but decorated sherds of Pennington Punctate, Dunkin Incised, and Canton Incised have been tentatively identified (Fig. 6). The pottery is predominantly tempered with grog or grog-and-grit. Very few of the sherds have sand or bone temper. The pottery is indicative of a Caddo II component.

TABLE 4. Prehistoric pottery.

Unit	Level	Body Sherds		Rim Sherds	
		Plain	Decorated	Plain	Decorated
TU-I	I	2	I incised	--	--
	2	I	--	--	--
	3	4	--	--	--
	4	7	--	--	--
	5	7	--	--	--
	6	I	1 punctate	--	--
	7	1	--	--	1 engraved
	8	2	--	--	--
TU-2	3	1	1 Dunkin Incised	--	--
	4	1	--	--	--
	6	1	--	--	--
TU-3	1	1	--	--	--
	2	6	1 punctate	--	--
	3	1	--	--	--
	4	1	--	1	--
	5	10	I Canton Inc., I Dunkin Incised	--	1 fingernail punctate
	6	--	--	--	I Canton Incised
TU-4	1	1	--	--	--
	6	--	--	--	1 Pennington Punctate
TU-5	1	1	1 incised	--	--
	2	5	--	--	--
	3	6	--	--	1 incised
	4	8	I fingernail punctate	2	--
	5	5	--	--	--
	6	12	1 punctate, I brushed, I incised	1	I Canton Incised
	7	2	--	--	--
TU-6	1	5	2 incised	--	--
	2	8	1 incised	--	--
	3	10	1 Canton Incised	--	--
	4	10	1 incised, 3 engraved	--	1 Pennington Punctate
	5	7	--	--	--
	6	13	1 fingernail punct., 1 incised	--	--
	7	1	--	--	1 Canton incised
	8	2	--	--	--
	9	1	--	--	--
U-7	4	--	--	1	--
TU-11	1	2	--	--	--
	2	6	--	--	--
	3	1	--	--	--
	4	2	--	1	--
TU-13	3	--	--	--	1

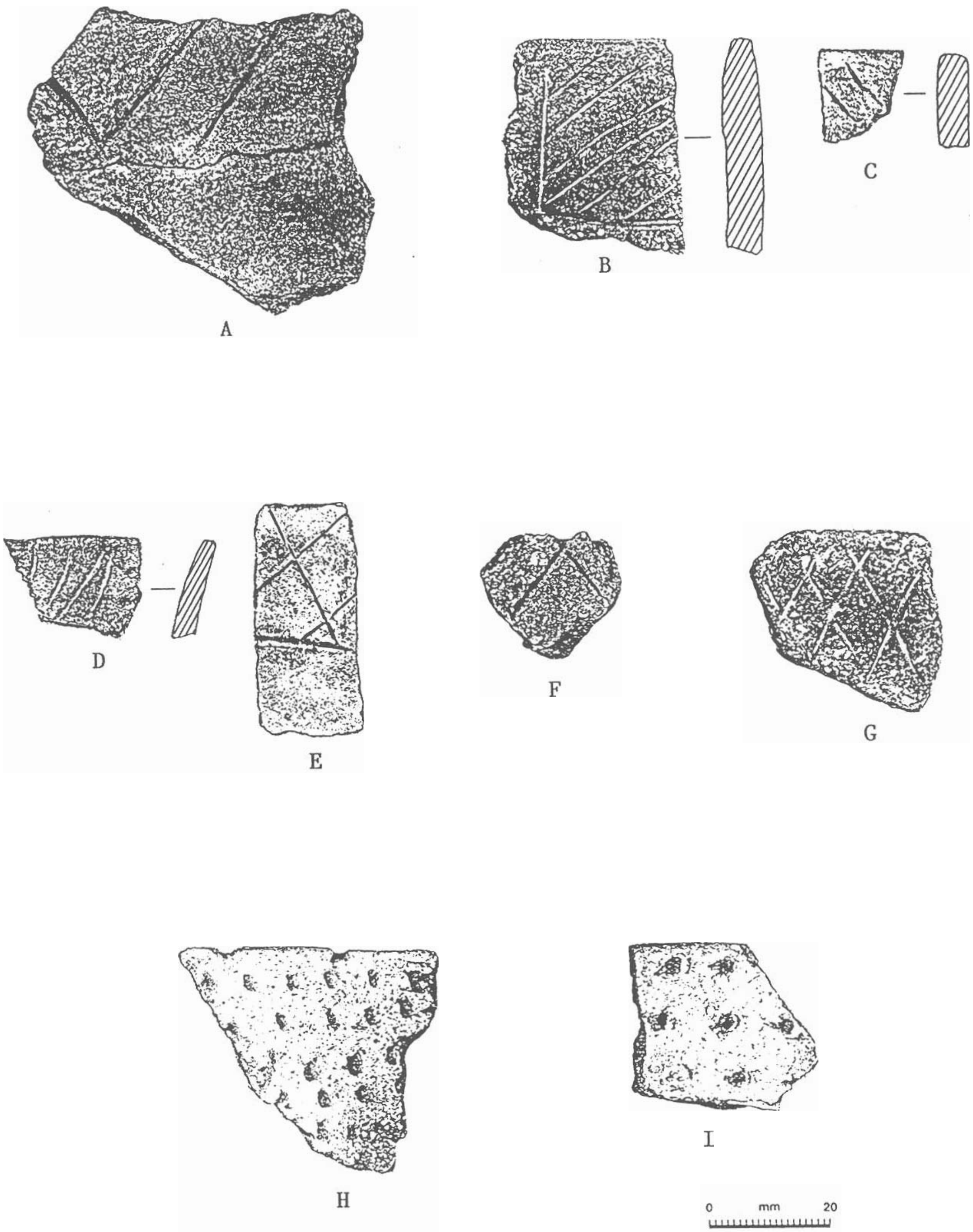

FIGURE 6. Examples of decorated, prehistoric pottery. Canton Incised, a; unidentified incised b-d; Dunkin Incised, e-g; Pennington Punctate, h-i.

Burned Clay and Daub

Burned clay fragments were common throughout Area B at 41WD468. Occasionally a piece of burned clay also exhibited indentations or grass impressions and these were identified as daub. Almost all of the burned clay and daub occurred in small pieces weighing between 0.5 and 2 gm, with 1 gm the most common size. Two pieces were notably larger than the others. One was found in Test Unit 4, Level 7. and weighed 27.0 grams. The other was in Test Unit 6, Level 7, and weighed 15.5 grams.

Burned clay fragments may represent either eroded pottery sherds or daub, but can also be associated with hearths in areas where the soil is clayey or where hearths are clay-lined. Since the soil at the site is sandy, the burned clay probably is not directly associated with hearths. Also, since the vertical distribution of burned clay does not follow the same distribution as pottery sherds, most of the burned clay does not represent eroded sherds.

On the other hand, the burned clay and daub distributions are complementary to one another, which strengthens the possibility that most of the burned clay fragments represent pieces of daub which simply lack grass impressions. It should be noted however that no hearths were found, so it is unknown if any were clay-lined.

Historic Debris

The distribution of historic debris is summarized in Table 6. Most of the historic material was found in the upper 30 cm of the deposits and represents recent roadside trash. All but one fragment of glass is recent bottle glass which is clear, green, or brown. All the nails are wire nails. No cut nails were found. The ironstone is white with a clear overglaze. Occasional fragments have blue decalcomania designs.

A 16-gauge shotgun cartridge head was found in Test Unit 8, Level 1. It has markings indicating that it is a "Peters Referee" and was manufactured by the Peters Cartridge Company (Peters Cartridge Division, Remington Arms Company, Inc.) The cartridge still has some of the original paper filling, and is therefore of recent origin.

A fragment of ironstone found in Test Unit 3, Level 2, bears a portion of a maker's mark which looks like a "W" over a "C" with a horizontal line between. This is similar to a mark used by the West End Pottery Company of East Liverpool, Ohio, between 1893 and ca. 1910 (Gates and Ormerod 1982:315-316). The full mark would look like the one below:

W. E. P. Co.
C H I N A

A fragment of violet, manganese glass was found in Test Unit 3, Level 2 (the same unit/level as the ironstone previously described). This type of glass was manufactured prior to about 1914, which coincides with the ironstone fragment found in the same level.

TABLE 5. Burned clay and daub.

Unit	Level	Burned Clay	Daub
TU-1	1	--	1 (2.0 g)
	4	1 (1.0 g)	--
	9	1 (1.0 g)	--
	10	1 (1.5 g)	--
TU-3	2	2 (2.0 g)	--
TU-4	7	1 (27.0 g)	--
TU-5	1	1 (1.5 g)	--
	3	1 (0.5 g)	--
	4	1 (1.0 g)	--
	5	4 (6.5 g)	--
	7	2 (1.0 g)	--
	8	2 (2.0 g)	--
	9	1 (0.5 g)	--
TU-6	2	1 (0.5 g)	--
	3	1 (1.0 g)	--
	4	2 (2.5 g)	--
	7	5 (23.0 g)	--
	8	1 (1.5 g)	--
TU-7	5	2 (2.0 g)	--
	6	4 (5.5 g)	--
	10	1 (2.0 g)	--
	11	--	1 (3.5 g)
	12	--	2 (6.0 g)
	14	--	1 (2.0 g)
	15	1 (0.5 g)	--
	16	1 (0.5 g)	--
TU-8	6	--	1 (0.5 g)
TU-11	2	1 (0.5 g)	--
	3	3 (2.0 g)	--
	4	2 (2.0 g)	--
Trench		1 (2.5 g)	--

TABLE *6*. Historic debris.

Unit	Level	Ironstone	Glass	Nails	Other Historic Debris
TU-1	1	1	6	13	I iron bolt, I barbed wire frag.. I fence staple
	2	--	10	5	I barbed wire frag., 2 frag. of sheet iron
	3	--	--	1	I frag. of sheet iron
	9	--	--	1	
TU-2	1	--	2	--	
	2	--	--	1	
	5	--	--	--	I chunk of roadway asphalt
TU-3	1	3	17	12	II tin can frag.. I hex nut, I frag, of iron strapping
	2	2	7	5	I fence staple, I frag. of iron strapping
TU-4	1	--	4	--	
	2	--	--	--	2 tin can frag.
	3	--	1	--	
TU-5	2	--	--	--	3 frag. of galvanized steel sheet metal
TU-6	6	--	--	--	I shot gun cartridge (16-gauge, Peters Referee)
TU-8	1	--	1	--	I lead bullet (.22 caliber long, hollow point, rim fire)
TU-9	2	--	2	--	
TU-12	1	--	1	--	
	2	--	1	2	
	3	--	--	--	I soda bottle cap
	8	--	1	--	
TU-14	1	--	3	1	
	2	1	3	--	
	3	--	1	--	
	4	1	3	--	
TU-15	1	--	20	--	

Faunal Remains

Distributions of animal bone are summarized in Table 7. Very few bone fragments were found during testing, and most were not identifiable. Bone which could be identified includes a bovid molar, which was found in Test Unit 6, Level 6. In addition, the proximal half of a lagomorph (squirrel or rabbit) femur was found in Test Unit 6, Level 8; and two rib fragments were found in Test Unit 11, Level 1, which are probably from a deer and of recent origin.

TABLE 7. Faunal remains.

Unit	Level	Bone	Comments
TU-1	1	1	
	2	1	
	5	3	
	6	1	
TU-2	3	1	
TU-3	1	2	
	2	4	
	3	5	
	5	1	
	6	1	
TU-4	2	1	
TU-5	2	1	
	6	1	
TU-6	1	1	
	3	1	
	4	2	
	6	3	includes 1 bovid tooth
	8	1	lagomorph femur
TU-11	1	2	rib fragments, probably deer

SUMMARY AND CONCLUSIONS

Two previously recorded sites, 41WD468 and 41WD469 are now both considered to be part of the same site, designated 41WD468. The portion which was previously known as 41WD468 proper, is referred to as ***Area A*** within this report. The portion previously known as 41WD469 is referred to as ***Area B***. A total of 15 test units and one Gradall trench were excavated. Area A. The test units extended to as deep as 60 cm in Area A, and 180 cm in Area B.

Historic material was found dating from the early 20th century to the present. The material was near the surface, and probably represents roadside trash. Some of the historic material may also be the result of dumping at the creeks.

Artifacts were found typical of the Caddo II period, including an Alba arrow point and pottery types such as Dunkin Incised, Pennington Punctate and Canton Incised. Untyped plain and incised pottery sherds with grog and grit temper were also found. Sand and bone were not commonly used as temper in the sherds found at this site. Daub and burned clay was found, and may be associated with the Caddoan component, indicating the presence of structures at the site in the Caddo II period. The Caddoan component probably represents a hamlet or farmstead, and possibly a village, depending on the extent of the site outside the TxDOT right-of-way.

Evidence of Late Archaic to Transitional Archaic, and possibly Middle Archaic, components were also found. Dart points such as Gary, Edgewood, and Edgewood/Ellis were found, and most occurred below the levels where pottery typically occurred; indicating some stratification of the cultural deposits. The Edgewood points may date as early as the Middle Archaic period, depending on whose chronology one wishes to follow. The Archaic component(s) at 41WD468 probably represent one or more camping episodes by nomadic gatherer-hunters

No direct evidence of Late Paleoindian or Early Archaic periods were found during testing. However, a local collector showed us Dalton and Calf Creek dart points which were found at the site when the Lake Fork Creek dam was built.

Locally-occurring quartzite and petrified wood were the most common materials for chipped-stone tools. However, one modified flake of Edwards chert, and several items of Frisco chert were found. Frisco chert comes from the Little River area in Oklahoma, while Edwards chert is common from the Balcones Escarpment westward. It is possible that much of the non-local material is traceable to the Archaic period(s) which were typified by a highly nomadic lifestyle.

Tools at the site included ground stone and hammerstones, which probably indicate plant food processing and tool manufacture or resharpening. Few of the bifaces appeared to be completed, and this probably indicates that the inhabitants of the site were conserving their lithic material and reusing tools as long as possible.

Area A has shallow, disturbed deposits and no further investigations are necessary in that portion of the site. Area B has deeper deposits, but no features were encountered. However, because the deposits are intact and exhibit some degree of stratification, Area B could yield information important to understanding Texas prehistory. Site 41WD468 is therefore considered eligible for the National Register of Historic Places and as a State Archeological Landmark.

REFERENCES CITED

Arbingast, Stanley A.
1973 Atlas of Texas. The University of Texas at Austin, Bureau of Business Research. Austin.

Blair, Frank W.
1950 The Biotic Provinces of Texas. Texas Journal of Science 2:93-117.

Bruseth, J.E., J.T. Bagot, K.M. Banks, and M.A. McKinney
1977 Archaeological Research at the Lake Fork Reservoir: Site Inventory and Assessment. Research Report 87. Archeology Research Program, Southern Methodist University, Dallas.

Bruseth, James E., and Timothy K. Perttula
1981 Prehistoric Settlement Patterns at Lake Fork Reservoir. Research Report 2. Texas Antiquities Permit Series, Texas Antiquities Committee, Austin, and Southern Methodist University, Dallas.

Bureau of Economic Geology
1965 Geologic Atlas of Texas. Tyler Sheet. Bureau of Economic Geology. The University of Texas. Austin.

Davis, E.M.
1970 Archaeological and Historical Assessment of the Red River Basin in Texas. In Hester A. Davis (ed.): Archaeological and Historical Assessment of the Red River Basin, pp. 27-65. Arkansas Archeological Survey, Research Series 1. Fayetteville.

Duffield, LathelF. and Edward B. Jelks
1961 The Pearson Site, a Historic Indian Site in Iron Bridge Reservoir, Rains County, Texas. University of Texas, Department of Anthropology, Archaeologv Series 4. Austin.

Gates, William C, Jr., and Dana E. Ormerod
1982 The East Liverpool Pottery District: Identification of Manufacturers and Makers. Historical Archeology 6:1-358.

Heartfield, Price and Greene, Inc.
1983 Cultural Resources Survey in the Yantis Lignite Project Area. Heartfield, Price and Greene, Inc. Monroe. Unpublished ms.

Jackson, A.T.
1933 Some pipes of Texas. The Texas Archeologicaland Paleontological Society, Bulletin 5:69-86. Abilene.

1934 Types of East Texas Pottery. The Texas Archeological and Paleontological Society, Bulletin 6:38-57. Abilene.

1935 Ornaments of East Texas Indians The Texas Archeological and Paleontological Society, Bulletin 7:11-28 Abilene.

Jelks, Edward B. (editor)
1967 The Gilbert Site. The Texas Archeological Society, Bulletin 37. Dallas.

Krieger, Alex D.
1946 Culture Complexes and Chronology in Northern Texas. University of Texas Publication. No. 4640. Austin.

Malone, James M.
1972 Archeological Reconnaissance at the Proposed Mineola Reservoir. Texas Historical Survey and Texas Water Development Board. Austin.

Pearce, J.E.
1932 The Present Status of Texas Archaeology. The Texas Archeological and Paleontological Society, Bulletin 4:44-54. Abilene.

Pass, Fred (editor)
1982 The Texas Almanac 1981-1982. A.H. Belo Corporation. Dallas.

Perttula, Timothy K., B.D. Skiles, Michael B. Collins, Margaret C. Trachte and Fred Valdez
1986 "This Everlasting Sand Bed": Cultural Resources Investigations at the Texas Big Sandy Project, Wood and Upshur Counties. Prewitt and Associates, Report of Investigations 52. Austin.

Perttula, Timothy K. and Kathleen Gilmore
1988 Archaeological Survey Along Mill Race Creek and Tributaries, Wood County: 1987-1988. Contributions in Archaeology No. 6, University of North Texas, Denton.

Reese, M.M.
1931 Report on Miscellaneous Sites In Wood County, Texas. Ms. on file, Texas Archeological Research Laboratory, Austin.

Sellards, E.H., W.S. Adkins and F.B. Plummer
1932 The Geology of Texas, Volume 1, Stratigraphy. University of Texas Bulletin No. 3232. Bureau of Economic Geology. The University of Texas. Austin.

Shafer, Harry J.
1977 Early Lithic Assemblages in Eastern Texas. The Museum Journal XVII: 187-97. Lubbock.

Skiles, B.D.
1978 Early Archeological Investigations In The Lake Fork Creek Reservoir Area. Ms. on file, Texas Archeological Research Laboratory, Austin.

Skiles, B.D., J.E. Bruseth and Timothy K. Perttulla
1980 A Synthesis of the Upper Sabine River Basin Culture History. The Record 36(1): 1-12. Dallas Archeological Society. Dallas.

Skinner, S. Alan
1975 A Preliminary Evaluation of the Archeological Resources at Lake Fork Creek Reservoir, Wood County, Texas. Report submitted to URS/Forest and Cotton by the Archeological Research Program, Southern Methodist University, Dallas.

Story, Dee Ann
1981 An Overview of the Archaeology of East Texas. Plains Anthropologist 26:139 156

Suhm, Dee Ann, Alex D. Kreiger and Edward B. Jelks
1954 An Introductory Handbook of Texas Archeology. The Texas Archeological Society, Bulletin 25. Austin

Sullivan, Timothy L.
1977 Archeological Investigations at Lake Bob Sandlin, Texas. Archeological Research Program, Research Report 99. Southern Methodist University. Dallas.

Thurmond, J. Peter
1985 Caddoan Social Groups. The Texas Archeological Society Bulletin 54:185-200.

1990 Archeology of the Cypress Creek Drainage Basin. Texas Archeological Research Laboratory, Studies in Archeologv 5. University of Texas, Austin.

Wyckoff, Don G.
1971 The Caddoan Cultural Area: Archeological Perspective. Oklahoma Archeological Survey. Norman.