CADDOAN ARCHEOLOGY

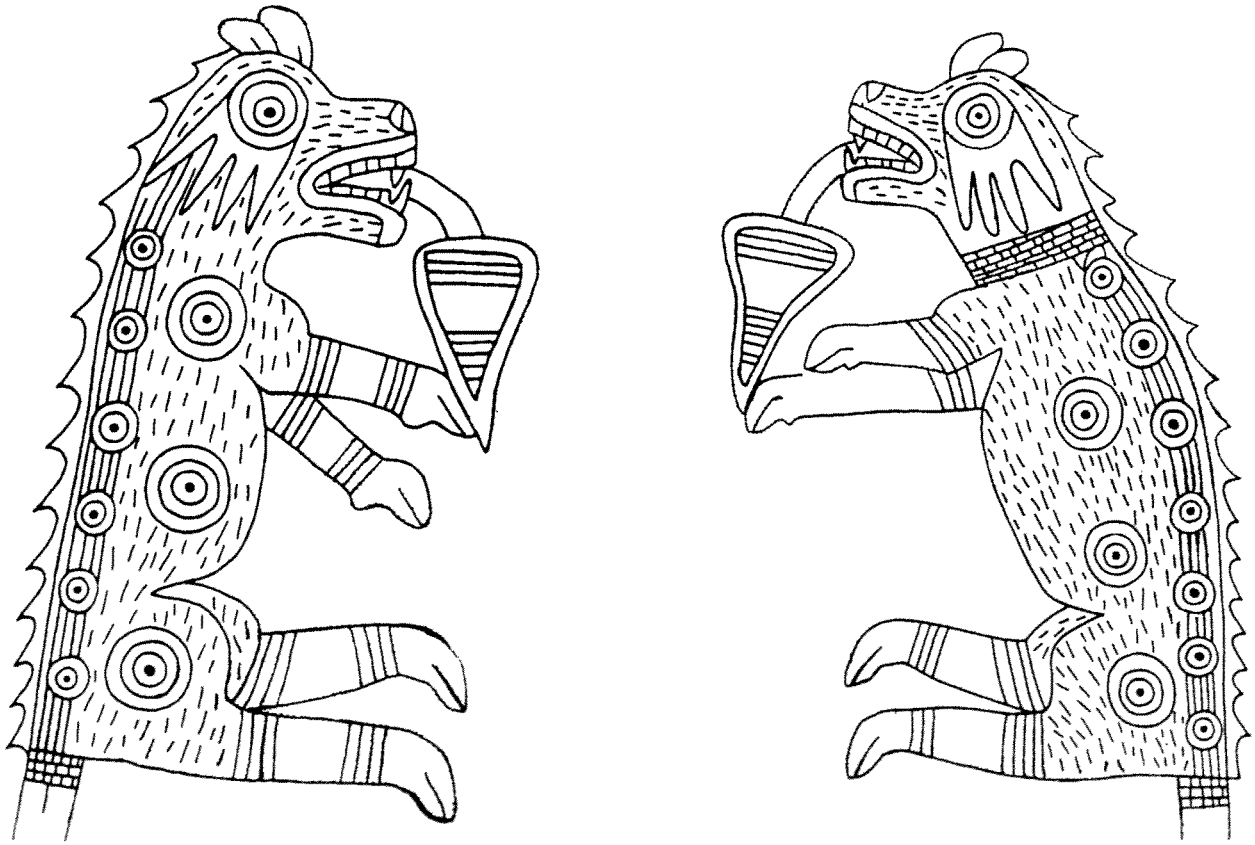

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TABLE OF CONTENTS

EDITOR'S PAGE

With this issue, I end my term as editor of *Caddoan Archeology*. After nine years, it is time for someone with a new vision to take over the reins. I also need the time to work on updating some handbooks for the Oklahoma Anthropological Society and on preparing some research for publication.

The editorial "offices" of this journal will move to Austin, Texas under the guidance of Tim Perttula, with assistance from UT graduate students Chet Walker and T. Clay Schultz. We are now in the process of transferring the funds and files to Austin. Please ease this transition by sending your manuscripts to them at the address listed on the next page.

When you renew your subscriptions, please make your checks to "Caddoan Archeology" and send them to the new address. One of us will send out renewal notices soon.

Without further fanfare, adieu.

Lois E. Albert
Oklahoma Archeological Survey

IMPORTANT ANNOUNCEMENT

CADDOAN ARCHEOLOGY TO BE UNDER NEW EDITORSHIP BEGINNING WITH VOL. 13

Timothy K. Perttula, Chet Walker, and T. Clay Schultz

The journal *Caddoan Archeology* will be under our new editorship beginning with Volume 13, No. 1. Lois Albert has done an excellent job of producing and editing *Caddoan Archeology* for the last nine years, and we all owe her a debt of gratitude for her hard work in transforming the *Caddoan Archeology Newsletter* into the journal that we enjoy reading, and we also owe her for her efforts in keeping the journal going in fine form.

We begin our editorship of Vol. 13 of *Caddoan Archeology* with the next issue of the journal, and we look forward to beginning the editing and producing of that volume, and volumes to come. We will need the help and support of all those interested in the archeology and native history of the Caddo, and we will depend upon the subscribers, readers, and other interested folks to contribute articles, news, and other publishable information about Caddo archeology.

For those of you that do not know us, we'll introduce ourselves. First off, we're all from Austin, Texas. Dr. Timothy K. Perttula has been involved in Caddo archeological research since the mid-1970s, works closely with the Caddo Nation's Historic Preservation Office, and is the director of Archeological & Environmental Consultants. He started the *Caddoan Archeological Newsletter* in 1989, and is ready to take up the editing reins on *Caddoan Archeology*. Chet Walker is in the Ph.D. program at The University of Texas at Austin, and his primary Caddo research focus is the archeology in the Red River valley of Northeast Texas. He is also interested in the Southeastern Ceremonial Complex, and completed his M.A. at the University of Memphis on the study of engraved "tattoos" on Mississippian head vessels. T. Clay Schultz also received his M.A. from the University of Memphis, and is in the Ph.D. program at The University of Texas at Austin (UT), where he is focusing primarily on Caddo archeology. Together, along with Dr. Sam Wilson at UT, all three of us have recently been involved in the development of a website on Caddo archeology (http://www.caddoarchaeology.com).

Elsewhere in this issue, Lois will provide information to subscribers and potential subscribers about where and when to send subscription monies for Vol. 13 of *Caddoan Archeology*. Those of you that would like to submit articles and manuscripts for future publication in the journal, please mail them to the following address:

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If anyone has any questions about *Caddoan Archeology*, including the direction of the journal, or would like to discuss the content of future issues, and the submittal of manuscripts, please do not hesitate to contact us by e-mail or snail mail. Our e-mail addresses are:

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PHELPS LAKE AND JIM BURT: TWO MIDDLE WOODLAND PERIOD MOUNDS IN NORTHWESTERN LOUISIANA

Jeffrey S. Girard
Northwestern State University of Louisiana

Introduction

Clarence Webb (Fulton and Webb 1953; Webb 1984) defined the pre-Caddoan Bellevue focus on the basis of investigations at several isolated mounds located in upland settings in northwestern Louisiana (Figure 1). With the exception of the Bellevue Site (16BO4), little detailed information is available about these mounds. Most were excavated many years ago and few notes, photographs, or other records exist. This paper describes the results of recent cleaning of an old excavation trench through one of the Bellevue focus sites – the Phelps Lake Mound (16BO24). The work has provided a relatively detailed look at the mound strata. A radiocarbon assay on a sample of charcoal underlying the mound constitutes one of the few chronometric dates from a Bellevue focus context. Also discussed briefly is the Jim Burt Site (16BO23), where a radiocarbon assay was obtained on charcoal recovered near the mound.

The Phelps Lake Site (16BO24)

Introduction

The Phelps Lake Site initially was recorded by Webb and described in his summary of the Bellevue focus (Webb1984). He reported that the mound had been partially excavated by Boy Scouts in 1960 under the direction of Robert Fulton and Michael Beckman. Webb visited while the work was being carried out. He noted that the mound – was constructed of mixed fill and showed no evidence of construction phases or of sub-mound midden. No burials, cremations, hearths, or other features were found. The few pottery sherds seemed consistent with Bellevue ceramics, mostly plain, clay-grit or bone tempered, and slightly

> thick, with one or two indefinitely incised sherds. The lithics were also scarce, but Gary and Ellis type points were found (Webb 1984:265).

In the 1980s, Louis Baker of the Louisiana Archaeological Society found a small mound in the same vicinity, but it was not clear that it was the site described by Webb. Baker and I visited the site in February 2001 with Wilton Corley of Benton, Louisiana. Corley had participated in the scout excavations and confirmed that Baker's site was the Phelps Lake Mound. Shortly thereafter, I found notes and a sketch map in the files at Northwestern State University describing a mound near the town of Plain Dealing, Louisiana. The notes were written in April 1967 by Cynthia Kittler, a former student at Northwestern State University of Louisiana. Kittler stated that:

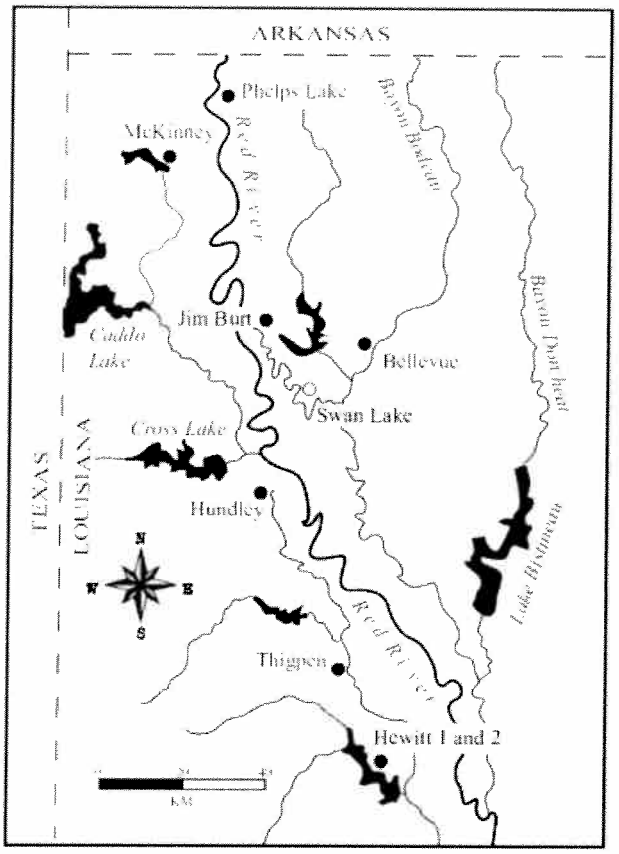

Figure 1. Locations of recorded Bellevue focus mounds and the Swan lake site.

> The Plains Dealing site was found by Mr. Ardis Manry, Justice of the Peace in Plain Dealing, about 1955. He enlisted the aid of Dr. Clarence Webb and two geologists and a scout troop who excavated the site. Only three pieces of pottery were found and one fish vertebra. The mound also yielded three bundle burials, each on a different level. Some projectile points were found in the area near the mound. Disposal of the artifacts and bodies is unknown. Dr. Webb might be able to supply this information. All I found was a piece of charcoal and it is doubtful that much remains at the mound.

Her sketch map of the mound and its setting made it clear that this was the same site recorded by Baker and described by Webb as the Phelps Lake Mound. Her report of the burials does not concord with Webb, but it is possible that they were discovered after Webb visited the site. On Kittler's sketch map, a burial is plotted on

the east side of the excavation trench, near the center of the mound.

When we returned to the site in 2001, the area was covered with small trees and dense underbrush. The mound appeared much as Kittler drew and described it in 1967; no additional damage was evident. The trench profiles were slumped and covered with moss and other vegetation. The base of the trench was covered with a thick layer of humus and leaf litter. We decided that this was a rare opportunity to obtain much needed information about the structure of a Bellevue focus mound, and to recover charcoal for a radiocarbon date as well.

Description of the Site

The Phelps Lake mound was constructed in an unusual topographic setting. It is situated near the base of a slope to a high ridge overlooking the Red River floodplain (Figure 2). The top of the ridge is approximately 122 m above sea level. The slope drops steeply about 46 m, then levels to the floodplain, the margins of which are approximately 61 m above sea level. The mound is on the lower, more level portion of the slope at an elevation of about 70 m above sea level. Early nineteenth century maps indicate that a large lake, known as Phelps Lake, was present along the edge of the floodplain in this area. Phelps Lake is one of many marginal floodplain lakes in the Red River floodplain. These often are called "raft lakes" because they were at least partially formed from blockages of the main channel due to bank slumping and fallen trees. Large historically documented lakes such as Caddo or Ferry Lake and Sodo Lake are probably less than 500 years old (Albertson and Dunbar 1993:40-41). However, it is possible that rafts of varying size and location formed and dispersed throughout late prehistoric times in the Red River floodplain. Unfortunately, we have no geomorphic data regarding the history of Phelps Lake.

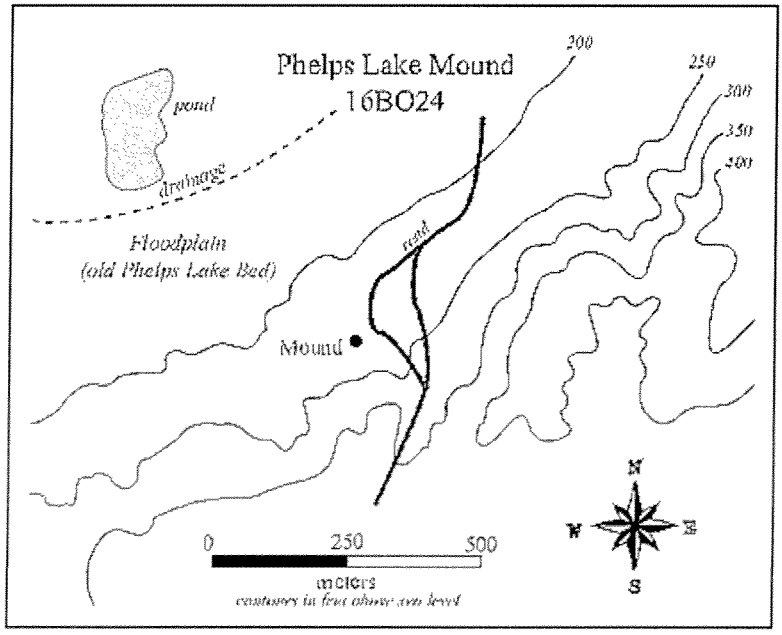

Figure 2. Topographic setting of the Phelps Lake Mound.

Because the Phelps Lake mound was built on a slope,

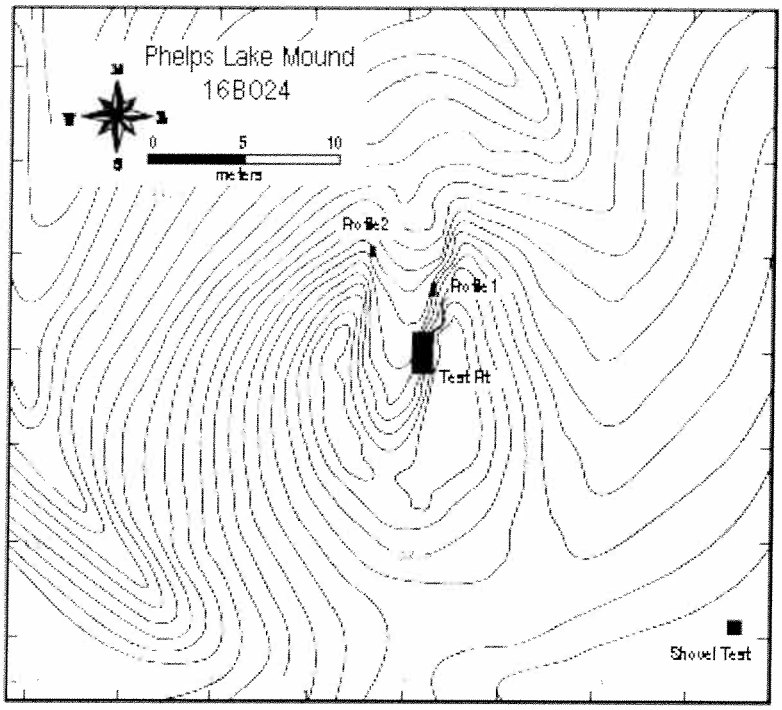

Figure 3. Contour map of the Phelps Lake Mound.

it is only about 80 cm tall on the southeast side, but almost 2.5 m high on the northwest (Figures 3 and 4). The mound is a little over 20 m long on the north-south axis, and 12 to 15 m wide, making it smaller than the Bellevue Mound (16BO4), but of comparable size to the other Bellevue focus mounds reported by Webb. As much as 40 cm of backdirt from the trench excavation is present on top of the mound making it seem slightly taller than its original height.

The trench is approximately 4 m wide. It begins downslope on the north side and extends south into the mound, but not completely through it. There is no record regarding the number of excavators involved in digging the trench, nor how long it took to complete.

Methods of Investigation

We concentrated our investigations on the upper portion of the eastern profile of the trench near the center of the mound where Kittler showed a burial on her sketch map. We first cleaned the top of the profile and then excavated a 1-x-2 m test pit on the lower portion of the edge of the trench. The trench went through the slumped deposits, some remaining intact

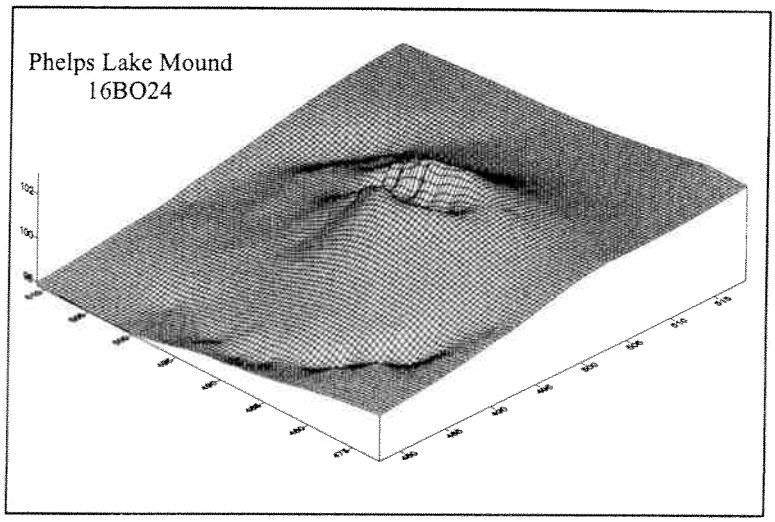

Figure 4. Wire-frame model of the Phelps Lake Mound.

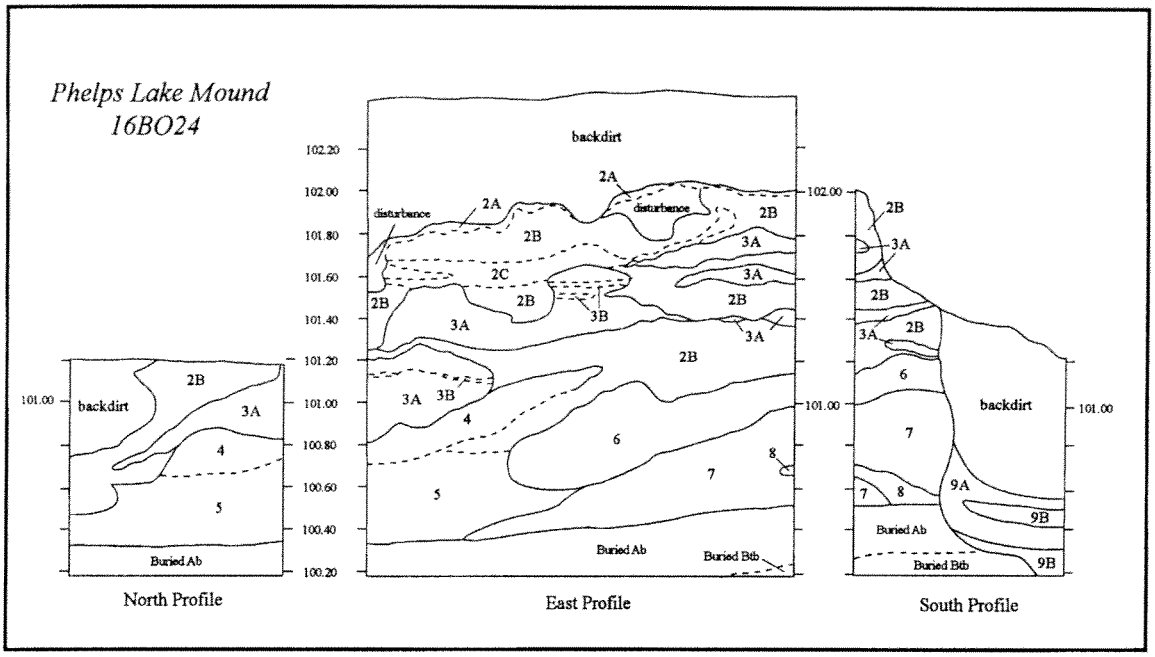

Figure 5. Profiles of the test pit, Phelps Lake Mound.

mound fill, and into the submound deposits. We cleaned a 50 cm wide portion of the exposed profile 2 m north of the trench where the loading sequence was not as complex (Profile 1; Figure 3). Thurman Allen, soil scientist with the Natural Resource Conservation Service, made a detailed description of this profile. We also exposed a 50 cm wide profile (Profile 2) at the north end of the mound, on the west side of the trench. Finally, we attempted to locate habitation debris in the area that might relate to use of the mound. Baker dug approximately 20 bucket auger tests in areas downslope from the mound, but none of the tests yielded artifacts or other signs of occupation. We excavated one 50-x-50 cm shovel test in a relatively level area east of the mound and recovered a single chert flake.

Description of the Mound and Natural Deposits

Figure 5 is a drawing of three profiles the 1-x-2 m trench in the center of the mound (the west profile contained only slumped deposits from the trench excavation). Tables 1 and 2 are descriptions of the sequence of deposits in Profiles 1 and 2.

Variations in the deposits relate both to different parent materials used for mound construction, and the subsequent weathering of these materials. The basic depositional sequence visible in the profile from top to bottom is: (1) the submound natural soil; (2) an inner clay loam mound present only in the excavation unit; (3) an outer mound consisting of multiple lenses and strata of fine sandy loam; and (4) backdirt from the trench.

Table 1. Description by Thurman Allen of deposits in Profile 1, Phelps Lake Mound.

Horizon	Level	Description
Overburden	101.58-100.98	mixed fine sandy loam; backdirt from trench
A	100.98-100.82	dark grayish brown (10YR4/2) fine sandy loam; weak medium subangular blocky structure, very friable
E	100.82-100.61	pale brown (10YR6/3) fine sandy loam; weak medium subangular blocky structure; very friable; few fine to medium size 'B' bodies in the lower part of the E horizon; thin, clayey lamella on lower sideslope
Bw or Bt	100.61-100.38	yellowish red (5YR4/6) loam; weak medium subangular blocky structure; friable
BC or C	100.38-100.01	strong brown (7.5YR4/6) fine sandy loam; weak medium structure; very friable
C1	100.01-99.80	red (2.5YR4/6) loam; weak medium subangular blocky structure; friable
C2	99.80-99.70	brown (7.5YR5/4) fine sandy loam; weak medium subangular blocky structure; very friable
2Ab	99.70-99.55	brown (7.5YR4/3) fine sandy loam; weak medium subangular blocky structure; very friable
2Eb	99.55-99.46	brown (7.5YR5/4) fine sandy loam; weak medium subangular blocky structure; very friable
2Btb	99.46-99.33	yellowish red (5YR4/6) sandy clay loam; moderate medium subangular structure; friable

Table 2. Description of deposits in Profile 2, Phelps Lake Mound.

Horizon	Level	Description
Mixed	100.90-100.48	strong brown (7.5YR4/6) fine sandy loam with complex mottling of redder sediments
A	100.48-100.39	brown (7.5YR4/4) fine sandy loam, very friable
E	100.39-100.07	brown (7.5YR4/6) fine sandy loam, very friable
Bw or Bt	100.07-99.93	yellowish red (5YR4/6) loam, weak blocky structure, friable
2Aeb	99.93-99.65	brown (7.5YR4/6) fine sandy loam, very friable
2Btb	99.65-99.58	dark red (2.5YR4/8) sandy clay loam, moderate blocky structure; friable

Beneath the backdirt from the trench excavation, Allen noted substantial soil development in the upper mound deposit (Table 1). The presence of E and Bw or Bt horizons indicates considerable age for the mound. However, these horizons are not as well developed as those present in Archaic period mound sites in north-eastern Louisiana (Thurman Allen and Joe Saunders, personal communication). The parent material for these horizons was probably similar to the strong brown loam identified as the BC or C horizon in the profile. This sediment probably was simply taken from the upper soil horizons on the surrounding slope. Underlying this was a redder, finer-grained deposit that might be borrowed from B horizon sediments in the surrounding areas. Because of high erosion on the slope, B

horizons are at, or near, the surface in many areas. Beneath this deposit is another loading episode apparently acquired from upper soil horizon sediments.

Similar soil development is present in Profile 2. The upper part of the profile appears to represent a mixture of slumped and washed in sediments from backdirt and trench fill from upslope. An A horizon, somewhat thinner than that identified in Profile 1, is present below the mixed fill. The A horizon is underlain by E and Bw or Bt horizons. No mound deposits beneath the B horizon were identified (this profile is near the base of the mound). The buried A horizon looked much like the mound deposits, but was identifiable by the very sharp break with the overlying B horizon of the mound fill.

Soil horizons are not detectable in the test unit (Figure 5). It appears that sediments from two different sources were used for the upper mound fill. Most widespread is a yellowish red (5YR4/6) (Zone 2B) to red (2.5YR4/6) (Zone 2C) fine sandy loam that seems to correspond to the Bt or Bw horizon noted by Allen in Profile 1. The overlying A and E horizons are not visible suggesting that the upper part of the mound has been removed. An intermittent, thin, wavy organic zone (Zone 2A) is present beneath the backdirt overburden. Several disturbances are visible, probably from trees or old treasure hunter's pits.

Interspersed within the upper mound sediments are loadings of a brown to light brown (7.5YR5/2 to 7.5YR6/4) very friable fine sandy loam (Zone 3A). It is not clear where this material was acquired, but soils on the surrounding ridge slope are very complex due to variation in slope and erosion. One auger test west of the mound area encountered similar sediments. The lamellae noted by Allen in the E horizon of the trench profile also are present within the Zone 4 sediments. The lamellae are finer grained and redder (2.5YR4/6) than the surrounding sediments and appear to be pedogenic in origin – they consist of fine-grained sediments leached from the overlying deposits.

In the lower portion of the mound, subtle variation in colors and textures (Deposits 4, 5, and 6) appear to represent distinct depositional episodes. The sediments likely are varying mixtures of upper and lower soil horizons from the immediately surrounding slope deposits.

Underlying these deposits was an inner mound consisting of dark red (2.5YR4/6) clay loam with scattered, small (1-2 cm) mottles of gray fine sand or silt. Numerous ferruginous concretions and small chunks of ferruginous sandstone were present throughout the fill. A lens of brown (7.5YR4/4) fine sandy loam (Zone 8), intrudes into the inner mound in the southeast corner of the unit. No artifacts were recovered from Zones 7 or 8. It is possible that the parent material for the inner mound was Bt horizon sediments from the surrounding soils, perhaps with some mixture of the upper soil horizons.

The inner mound was present in the excavation unit, but not in the profile to the north. It began 45 cm south of the

north edge of the unit and gradually thickened to the south. In the south profile of the excavation unit, it was approximately 40 cm thick. It appears to have leveled off to the west, toward the mound center and thus may have formed a platform. Unfortunately, the Boy Scout trench destroyed the central portion of the mound and so we cannot be sure. No organic layer was present along the top of the inner mound suggesting that it was not left exposed on the surface for a significant period of time prior to being covered by the outer mound.

The buried soil in the excavation trench was similar to that in Profiles 1 and 2. However, near the center of the mound, the Ab horizon was slightly thicker and darker. No artifacts were recovered from the deposit. However, flecks of scattered charcoal were collected and submitted for radiocarbon analysis to the Center for Isotope Studies at the University of Georgia. An age of 1950 ± 40 B.P. (UGA-9765; charcoal;$\delta^{13}C$=-27.52%) was obtained. Although we cannot attribute the charcoal to cultural activity with certainty, it seems likely to have resulted from land clearing or other activities associated with initial construction of the mound.

Sediments backfilled or slumped into the trench are visible in the upper portion of the south profile on the west side (Figure 5). Underlying this fill is a series of lenses that were deposited in a different manner. Four bands of fine sandy loam can be distinguished by color — alternating yellowish red (5YR4/6) and brown (7.5YR5/4) (Zones 9A and 9B). The brown deposits contain fine lenses of redder material. In the field, I interpreted these deposits as representing sediments washed into the base of the Boy Scout trench. However, they clearly differ from the overlying material that characterizes the trench fill elsewhere and an alternative explanation is possible.

The sediments might be fill for a pit dug through the inner mound and into the submound deposits by the site inhabitants. Other Woodland period mounds contain shallow submound pits usually with human cremations or burials. Kittler noted that three burials were recovered from the site "each on a different level". It is possible that one of these was within such a pit. If so, the pit must have been dug from the surface of the inner mound or higher. It also is possible that the Boy Scouts did not completely excavate the fill from this pit and it extends south of our excavation unit.

The lens of sandy loam (Zone 8) within the inner mound also is curious. It is possible that it represents the covering of something — perhaps a human burial or cremation as well. In this instance, the burial would have been simply placed on the pre-mound surface, then covered by the sandy loam and remaining sediments of the inner mound. This situation would be similar to that at the Bellevue site where burials were present both on an inner platform and in a pit underlying the mound (Fulton and Webb 1953; Webb 1984).

Artifacts

Artifacts recovered during the investiga-

tions were limited to two chert flakes from the excavation trench, and two sherds during exposure of Profile 2 at the north end of the trench. One of the sherds is typical of Williams Plain pottery that is generally associated with this period. It is thick (8 mm) and has coarse grog and grit temper. The second sherd appears to represent a vessel appendage or perhaps a pipe fragment. It also has coarse grog and grit temper.

The Jim Burt Mound (16BO23)

Webb (1984:264-5) also initially described the Jim Burt Mound. He reported that a trench was excavated in the mound by Robert Fulton, Robert Scott, and Mike Beckman. The excavations were stopped when recent burials were encountered. The mound deposits were described as a single homogeneous zone of "sand-clay". Webb reported that a few sherds were found at the site. The sherds had clay, clay-grit, and bone temper. Most were plain, but a few had irregularly incised lines.

The Jim Burt mound is situated on a Pleistocene terrace remnant, directly overlooking the Red River floodplain near the town of Benton (Figure 6). During the nineteenth century, several houses were located along the bluff edge in the area. Scatters of nineteenth century ceramics and other artifacts, as well as several small cemeteries, remain from those occupations. Presently, the mound site is in pasture and the surface is covered by thick grass. The mound has been badly eroded and trampled by cows. The trench excavated in the 1960s remains

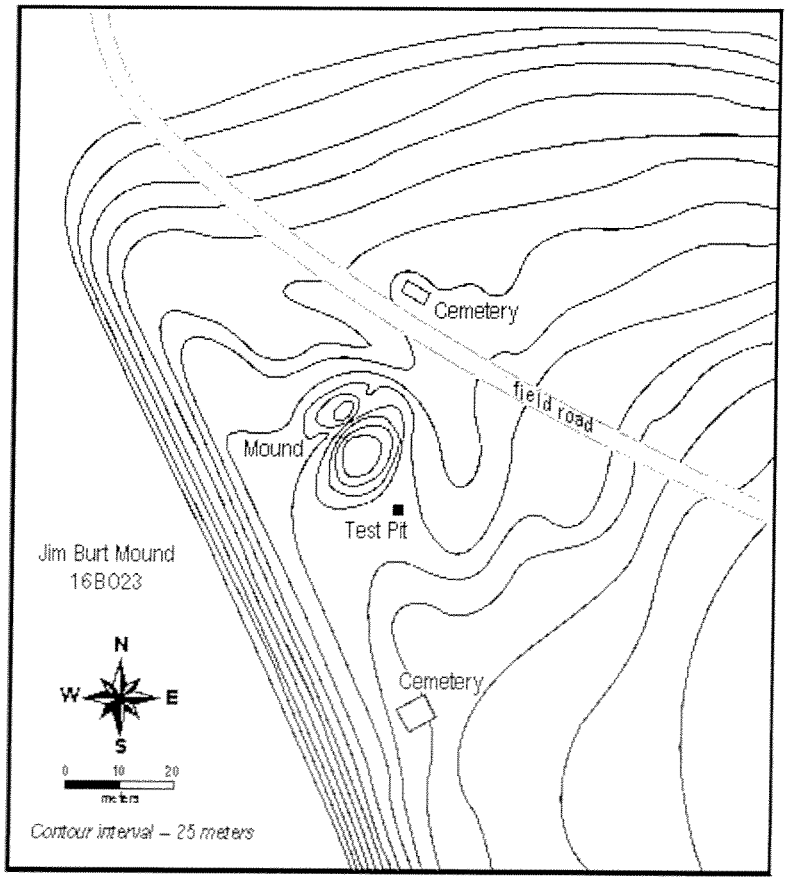

Figure 6. Contour map of the Jim Burt Mound.

visible. Fragments of nineteenth century head-stones are present around the mound. The mound now is about 1 m high and 20 to 25 m in diameter, similar in size to the Phelps Lake mound.

Louis Baker and I visited the site in 1995 and found a Keithville point on the eroded mound surface, and a small stemmed point on the terrace slope north of the mound. We excavated a 1-x-1 m test unit approximately 8 m southeast of the mound. The upper deposits were approximately 40 cm thick and consisted of a brown sandy loam. Beneath was reddish-brown sandy loam to a depth of at least 60 cm. Six sherds, 14 flakes, seven chunks of fire-cracked rock, and four fragments of iron were recovered in the test unit. The iron fragments were recovered in the upper 40 cm of the deposits. Two of the sherds were recovered between 20 cm and 40 cm below the surface. Both are grog-tempered and one has a single incised line. The remaining four sherds were recovered between 40 and 60 cm below the surface. All have a friable, laminated paste, similar to Tchefuncte pottery from the Lower Mississippi Valley. However, two appear to have clay or grog temper.

Also encountered in the test unit was a large lump of charcoal at approximately 50 cm below the surface. Although the charcoal was not associated with a pit or other feature, because of its depth and apparent association with early pottery, it was collected for radiocarbon analysis. An age of 2200+/-70 BP was obtained (Beta-8280; charcoal; $\delta^{13}C = 25.5\%$).

Six small sherds along with 14 flakes were recovered in the test unit. Four of the sherds have distinctly laminated paste and are friable. Two of these have clay inclusions that are distinct from the surrounding paste. The other two lack inclusions. These sherds also have surface striations that appear to be impressions of vegetal matter. The remaining two sherds have harder pastes and are grog tempered. One has a single incised line on the exterior surface.

Comments

Calibrations of the radiocarbon ages from the Phelps Lake and Jim Burt sites are presented in Table 3 and Figure 7. Figure 7 also contains calibrated ages from charcoal at the McKinney Mound (Webb 1984:262-264) and from a deep pit feature at the Swan Lake site (Girard 1995:6-11). All of the radiocarbon ages obtained so far indicate that the Bellevue focus mounds date prior to AD 200 and are roughly contemporary with the Marksville period in the Lower Mississippi Valley. Unfortunately, dates are not available for the Bellevue site (16BO4) located along Bodcau Bayou. The few decorated sherds recovered from the site suggest that occupation might have taken place later than at the other Bellevue focus mounds. However, Schambach (1996) argues that mortuary traits suggest that the mound was constructed early in the Fourche Maline sequence. No dates are available

Table 3. Calibrations of radiocarbon age from the Phelps Lake and Jim Burt Mounds using CALIB 4.3 (Stuiver et al. 1998)

Site	Lab No.	Radiocarbon Age (BP)	Calibrated Age	One-sigma Age Range	Two-sigma Age Range
Phelps Lake	UGA9765	1910+/-40	cal AD 82	cal AD 34-36 cal AD 58-130	cal AD 4-10 cal AD 19-221
Jim Burt	Beta-8280	2190+/-70	cal BC 199	cal BC 369-156 cal BC138-125	cal BC 394-40

from the Hundley Mound (16CD161), the Hewitt Mounds (16DS7 and 16DS270), or the Thigpen Mound (16DS12). At this point, it appears that a lengthy temporal hiatus occurred in mound construction between about AD 200 and the tenth century AD when construction of the first Caddoan mounds began. Additional investigations of these sites are necessary to ensure that this apparent pattern is not merely a result of the limited nature of our investigations.

Schambach (1982) noted similarities to mounds of apparently similar age found in southwestern Arkansas, and suggested incorporating the Bellevue focus into the Fourche Maline sequence. Extant radio-carbon dates place all of the Bellevue sites within Fourche Maline Periods 2 and 3 which Schambach brackets between 400 BC and AD 200 (Schambach 2001:Table 1). The interval also roughly corresponds to early Marksville sites to the south and east. In a recent summary McGimsey et al. (2000:196) place the period between approximately 200 BC and AD 400.

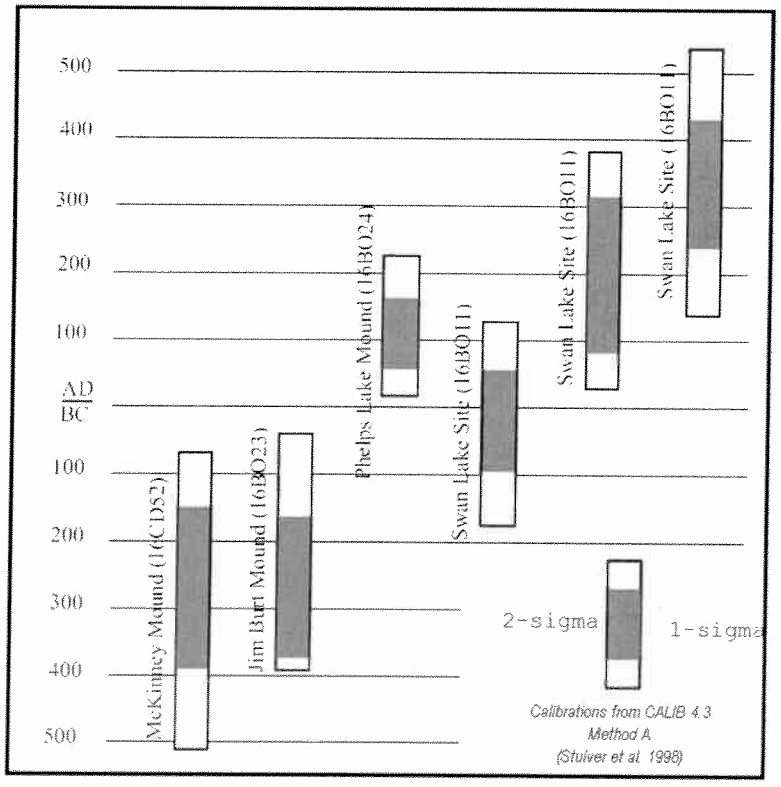

Figure 7. Calibrated radiocarbon ages from Middle Woodland period sites.

In Louisiana, we have not found many habitation sites associated with these mounds. One contemporaneous occupation appears to be represented by a large pit feature found at the Swan Lake site (16BO11), located near Willow Chute Bayou in Bossier Parish (Figure 1;Girard 1995). Many others undoubtedly exist, but may be buried in floodplain deposits or mixed with later materials and difficult to isolate.

In summary, recent investigations at the Phelps Lake Mound in Bossier Parish, Louisiana have provided a relatively detailed look at deposits in a pre-Caddoan Bellevue focus mound. The investigations also produced a radiocarbon date suggesting that the mound was constructed between AD 50 and AD 150. A date on charcoal recovered near the Jim Burt Mound was considerably earlier, and corresponds with one reported by Webb from the McKinney Mound. These dates indicate that the Bellevue sites fall in Periods 2 and 3 of the Fourche Maline sequence as defined by Schambach (1982; 2001), and are contemporary with Early Marksville period sites of the Lower Mississippi Valley and Avoyelles Plateau.

Acknowledgments

Louis Baker assisted in all aspects of the field investigations at both sites. Thanks to Thurman Allen and Joe Saunders for examining the profiles at the Phelps Lake Mound. These projects were conducted through the State of Louisiana's Regional Archaeology Program, based at Northwestern State University of Louisiana. The projects have been financed with state funds and with federal funds from the National Park Service, U.S. Department of the Interior.

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ARCHEOLOGICAL INVESTIGATIONS AT THE FRANK BENSON SITE (41TT310), TITUS COUNTY, TEXAS

Timothy K. Perttula and Bo Nelson

Introduction

The Frank Benson site (41TT310) is an extensive and significant prehistoric Caddo and historic 19th century archeological site on a broad upland landform (352-372 feet amsl) overlooking the Big Cypress Creek Valley in Titus County, Texas. In this paper we discuss recent archeological investigations at the site, which identified extensive and well-preserved Middle and Late Caddo components associated with a clay mound and extensive daub deposits from at least one burned Caddo structure.

Setting

The Frank Benson site is located primarily in a well-maintained field near a day-use area at Lake Bob Sandlin State Park, on the north side of Lake Bob Sandlin. The northeasternmost parts of the site are in woods, and surface visibility across the site is less than 10%.

Based on archeological work done here in 1983 by Texas Parks and Wildlife (TPW) and Prewitt and Associates, Inc. (Prikryl et al. 1984), and 2001 investigations by Archeological and Environmental Consultants (Perttula and Nelson 2002), the Frank Benson site is extensive, covering approximately 32,000 square meters (about 8 acres) (Figure 1). It is by far the largest prehistoric or historic site at the state park.

The site has Bernaldo fine sandy loam sediments that range from about 10-110 cm in thickness (Prikryl et al. 1984:21). According to Jasinski (2001:52), there is an artesian spring on the property where the Frank Benson site is located. The spring may be located along the small intermittent tributary on the north side of the site (Figure 1), and the tributary drains north-northeast to Bell Branch.

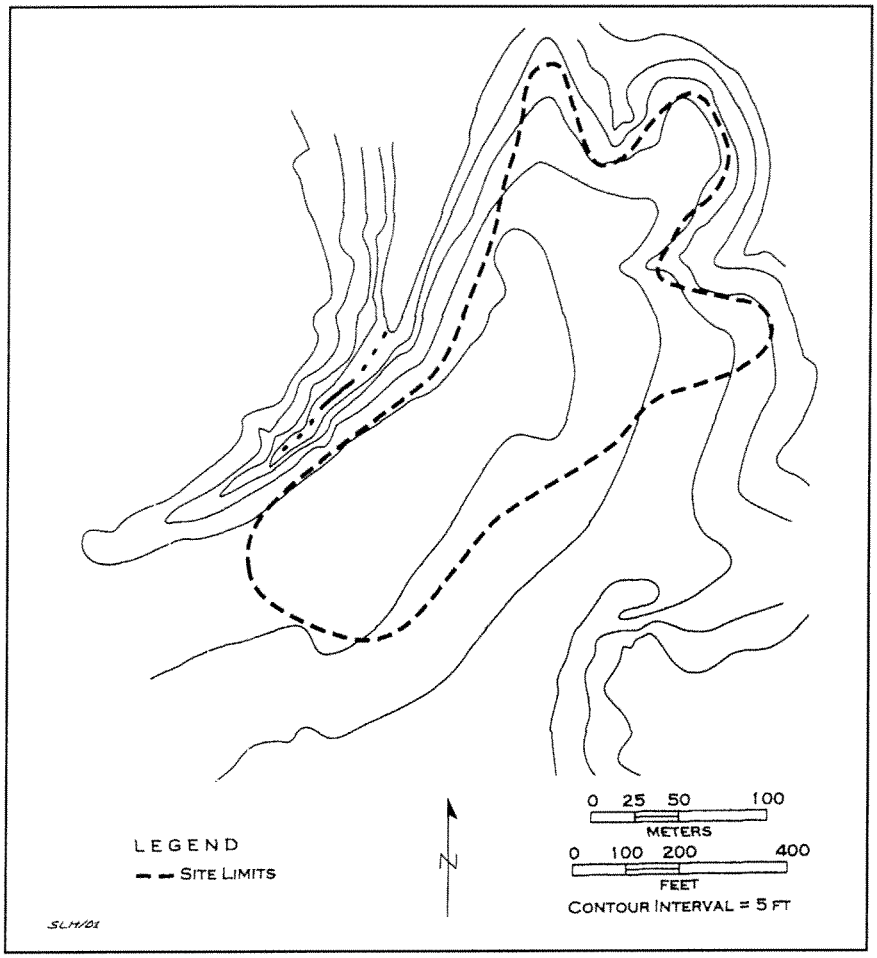

Figure 1. Overall map of the Frank Benson site (41TT310).

determine if the historic archeological component may be associated with the Republic of Texas-era Fort Sherman, TPW hired Prewitt and Associates, Inc. (PAI) to complete archeological and archival investigations here. During this work, they excavated 21 1 x 1 m units across the site (Prikryl et al. 1984:Figure 4); TPW work consisted of four machine grader trenches, two in the central part of the site (see below) and one in the northeastern part of the site.

Synthesis of 1980s Investigations

The Frank Benson site was recorded by Ron Ralph of TPW in August 1983 (Texas Parks and Wildlife Department 1984). Ralph excavated several motor grader trenches about 200-300 m northwest of previously recorded site 41TT205 and uncovered archeological materials from a mid-to late 19th century component as well as prehistoric Caddoan pottery sherds (Prikryl et al. 1984:1). To further evaluate the archeological potential of the site, and

The investigations conducted by PAI warrant a detailed review because of the significance of the archeological deposits at the Frank Benson site. As previously mentioned, PAI established that the site covers about eight acres, and there are significant and unique archeological resources of prehistoric and/or historic age in three different areas within the site boundaries: northeast (NE), southeast (SE), and central or center areas (Figure 2a).

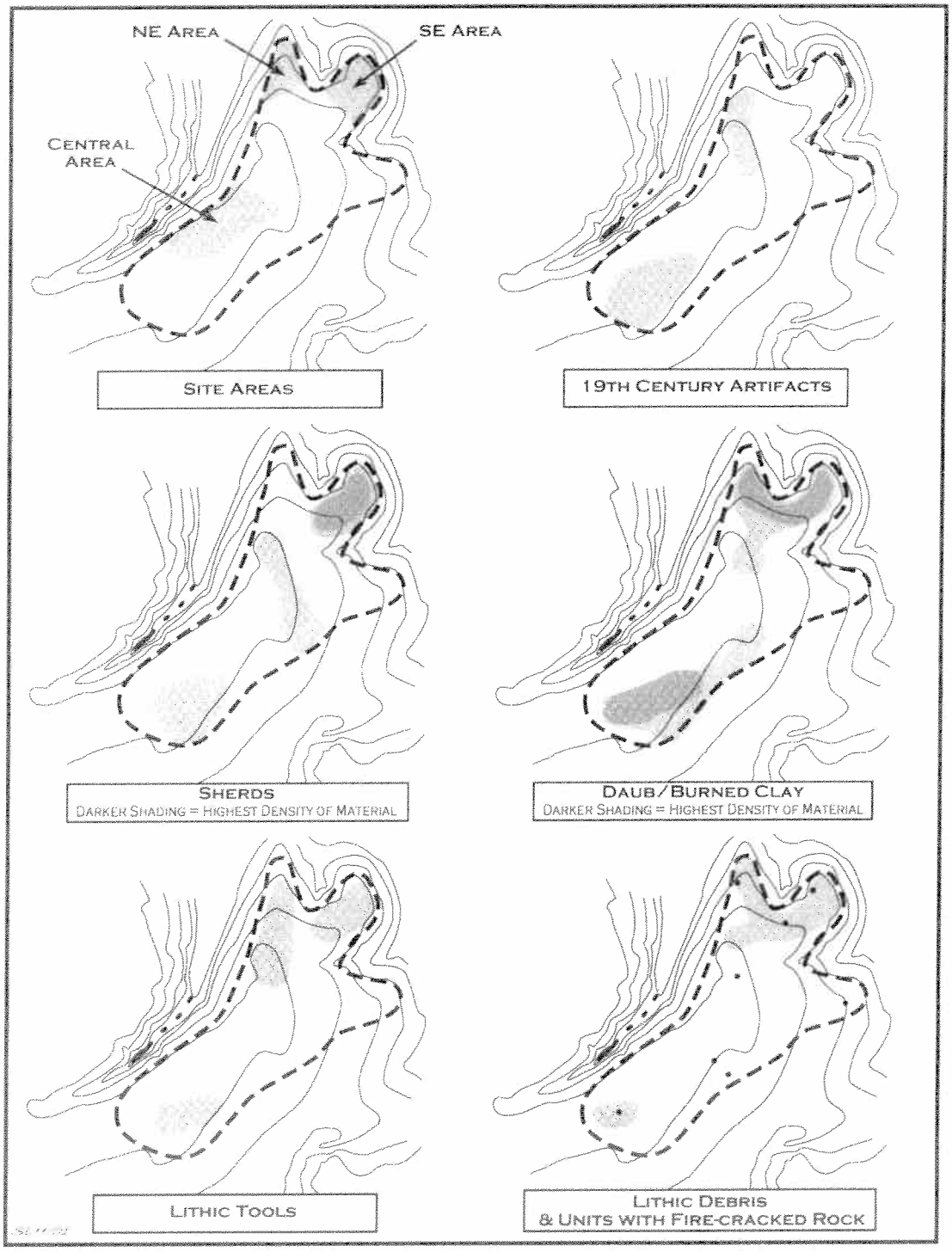

Figure 2. Spatial characteristics of the Frank Benson site: a, Intra-site areas; b, distribution of 19th century historic artifacts; c, distribution of prehistoric Caddoan ceramics sherds; d, distribution of daub and burned clay; e, distribution of stone tools; f, distribution of lithic debris.

The NE area is on a toe slope that drains to the north into the small Bell Branch valley. PAI work here documented both historic 19th century and prehistoric archeological deposits, and the Archeological and Environmental Consultants work to be discussed below also identified a probable small clay-capped mound near the crest of the toe slope. The principal 19th century archeological component is in the central or center area (Figure 2b). Hand excavations and machine grading work recovered cut nails, olive green bottle glass, shell-edged whiteware, hand-painted whiteware, and stoneware sherds from a mid-19th century occupation. Archeological and archival investigations suggest that this area is likely the farmstead of the Frank Benson family; no structural remains or features were identified in this area, however, but we believe it is likely that such features (including pits, privy pits, and the remains of a brick or mud cat clay chimney) are still preserved here. At least some of the daub/burned clay found in the upper 20 cm of the archeological deposit in the central area is probably associated with a structure belonging to the historic farmstead. A small amount of similar mid-19th century artifacts were also recovered in the NE area (Figure 2b), including shell-edged pearlware, and these may be the remnants of a second historic archeological component at the Frank Benson site.

PAI documented that there was an extensive prehistoric Caddoan occupation of the Frank Benson site. The distribution of Caddoan sherds (Figure 2c) indicate that there are concentrations of Caddoan sherds in the three separate areas, with the highest densities in what we have called the SE area (Figures 2a and 2c). Based on differences in the proportion of brushed sherds in the three intrasite areas which is a reliable temporal measure for prehistoric Caddoan sites in the Big Cypress Creek basin (Perttula 2001b) and the different plain/decorated sherd ratios, the prehistoric Caddoan sherds are from two temporally distinct occupations.

In the central and NE areas, only 10.5% of the 19 decorated sherds are brushed, and the plain/decorated sherd ratio is 2.63. These numbers are consistent with a Middle Caddoan period occupation, one dating probably in the 13th century, and the recovery of red-slipped sherds here also points to a Middle Caddoan age for the prehistoric component (cf. Nelson and Turner 1997). The amount of daub and burned clay in the central area (Figure 2d), found between 30-60 cm bs, suggests that a buried and burned Caddoan structure is present in this part of the site, and that this area has residential Caddoan archeological deposits.

In the SE area, by contrast, 32.4% of the decorated sherds are brushed, and the plain/decorated sherd ratio is 1.29. These values indicate that the SE area was occupied in the Late Caddoan period, sometime after ca. A.D. 1400-1450. Daub and burned clay were also found in PAI work, and as such suggest that at least one Late Caddoan burned structure is present in that area.

The density of daub and ceramics, and the spatial extent of the archeological deposits here, do not support the assertion

made by Prikryl et al. (1984:59) that the use of the Frank Benson site was likely nonresidential and perhaps involved short-term encampments by small social or task groups focusing on the procurement or processing of specific resources. Prikryl et al. (1984:59) conclusion is based primarily on a perceived limited range of activities that took place in the SE area, in particular a remarkable scarcity of cores and stone tools and the fact that most of the ceramics found here are from jars.

Based on a broader consideration of the nature of Late Caddoan archeology in the Northeast Texas Pineywoods generally, and the Big Cypress Creek area specifically (Perttula 1998, 2001a), these characteristics are not at all unusual in permanently occupied farmsteads, hamlets, and small villages of that age. Stone tools are generally limited to arrow points, celts, and flake tools, with an apparent considerable use of wood and bone tools, and little stone tool manufacture took place at such sites. For example, at the Pilgrim's Pride site (41CP304), a large Late Caddoan Titus phase village (about 10 acres in size), less than 20 stone tools were recovered in the hand and machine-excavation of about 8 acres of the settlement and in more than 500 features (Perttula 2001b). Like other Late Caddoan farming groups, the ceramics are dominated by large utility ware jars for cooking and storage functions. Fineware bowls and bottles commonly comprise less than 10-15% of the vessel sherds in Late Caddoan sites in the Big Cypress Creek basin, and the dominance of jar forms in the SE area at the Frank Benson is neither remarkable or uncharacteristic of other nearby Late Caddoan settlements.

The stone tools that were recovered in the PAI work appear to relate to earlier Archaic and Woodland period use of the Frank Benson site, except perhaps for the polished celt from the SE area. Chipped stone tools were found in the central, NE, and SE areas, and included a Neches River dart point in the central area, a Gary point (probably a *var. Camden* form made between ca. A.D. 200-700 [Schambach 1998], based on its stem width and thickness) from the SE area, several biface fragments, and a retouched flake tool.

Groundstone tools were also found in the three intrasite areas (Figure 2e). These included the previously mentioned ferruginous sandstone celt in the SE area, along with an abraded stone; a pigment stone in the central area, and a grinding stone in the NE area. The latter grinding stone tool was associated with a burned rock feature (Fea. 1) documented in one of the 1 x 1 m units in that part of the site.

Lithic debris was concentrated in the NE and SE areas, with a smaller distribution in the central part of the site (Figure 2f). Fire-cracked rock occurred in low densities across much of the Frank Benson site, and there was a burned rock feature in the NE area. The lithic debris was dominated by locally-available raw materials, including quartzite (67%), petrified wood (15%), and ferruginous sandstone (3%), and much of the chert lithic debris appeared to have been collected from local gravels. A few pieces of chert lithic debris were identified by Prikryl et al. (1984:42) as being Edwards

chert, a non-local lithic raw material source.

Prikryl et al. (1984:62) considered the Frank Benson site, particularly the prehistoric archeological deposits, to be eligible for State Archeological Landmark nomination and potentially eligible for nomination to the National Register of Historic Places under Criterion D (i.e., research potential). It was their opinion that the site had the potential to yield significant information towards understanding the prehistory of the Cypress Creek drainage. More recent investigations have clearly shown that their assessment of the research character of the Frank Benson site was accurate.

2000 and 2001 Archeological Investigations

The next round of archeological investigations at the Frank Benson site took place in August 2000. A single shovel test (ST 14) was excavated by Cultural Resource Consultants of Houston, Texas (CRC) at the Frank Benson site, apparently in the central part of the site (which we refer to as the Central Area, below). This is one of the areas previously investigated by TPW and Prikryl et al. (1984), where substantial mid-19th century and some prehistoric Caddoan artifacts were recovered in test excavations (Figures 2a-2d). The one CRC shovel test had a square nail and a few pieces of charcoal (the latter not collected). Several other shovel tests were excavated by CRC to apparently delimit the boundaries of the site, but none of them contained any artifacts, and their exact locations are not known. Archeological and Environmental Consultants returned to the Frank Benson site in 2001, and the discussion below summarizes our findings in three different areas of the site (Figure 2a).

Northeast Area

In our 2001 investigations, 10 shovel tests were excavated in the Northeast area of the Frank Benson site, a long narrow upland ridge and toe slope (352-370 feet amsl) that covers approximately 5100 square meters (Figure 3; see also Figure 2a). The Bernaldo fine sandy loam sediments range from only ca. 13-50 cm in thickness here, and have abundant gravels and natural concretions. Surface visibility was less than 10% across the landform, and there was a large modern trash dump at the southeastern edge of the NE area (Figure 3).

Three different shovel tests in the Northeast area at the Frank Benson site have prehistoric artifacts found between 0-40 cm bs (Figure 3). The artifact density is 1.00 per positive shovel test.

The most significant archeological discovery in this area is a possible clay-capped mound in the southern and flatter

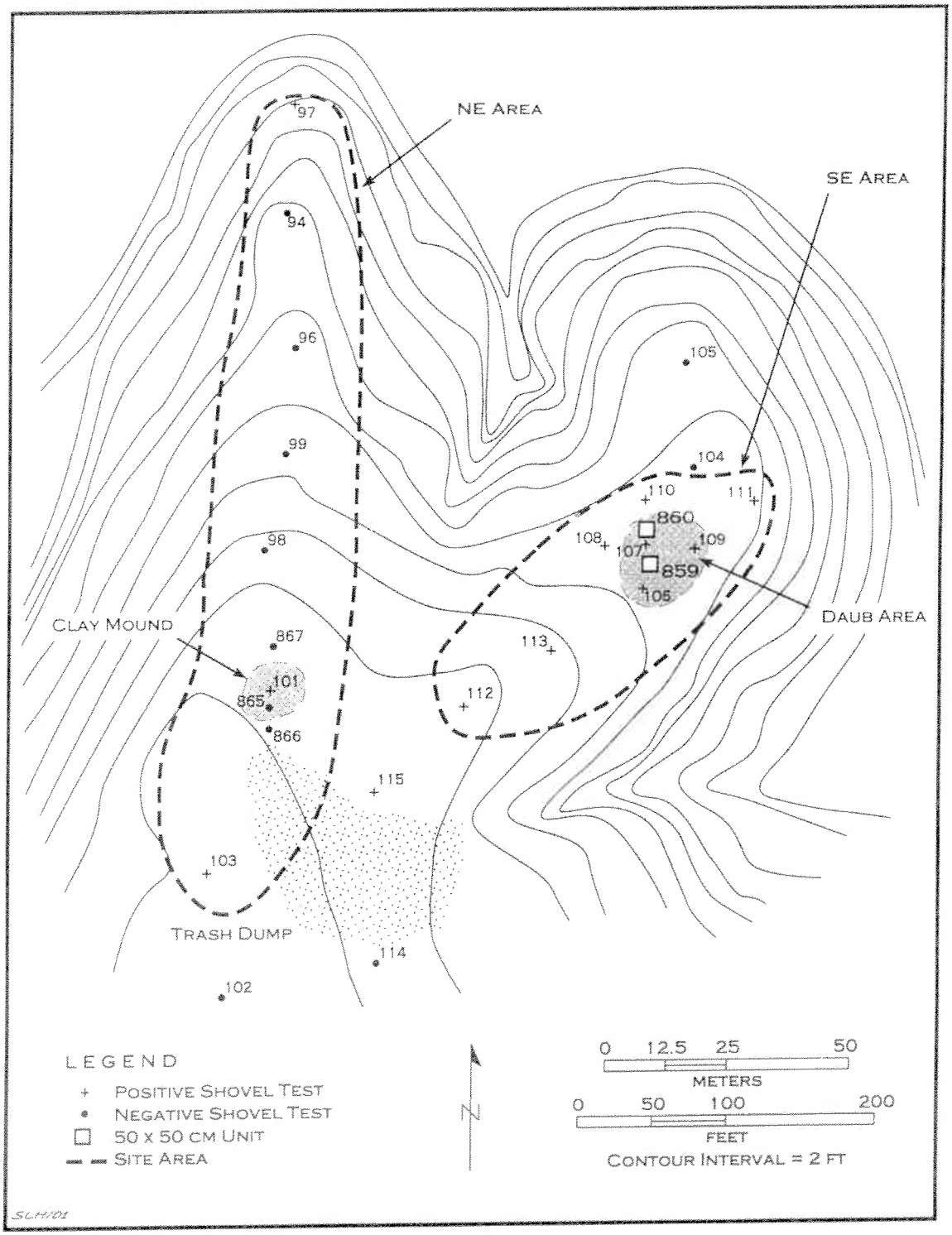

Figure 3. Map of the Northeast (NE) and Southeast (SE) areas at the Frank Benson site (41TT310).

part of the upland ridge and toe slope (Figure 3). Two or three shovel tests (ST 101, ST 865, and ST 867) encountered an orange clay fill or cap about 23-28 cm in thickness over an area approximately 11.9 x 10.7 m in size. The clay fill or cap overlies the A-horizon of a buried dark brown to yellowish-brown sandy loam as well as a buried B-horizon clay subsoil, and is definitely not a natural pedogenic deposit. Only a single piece of lithic debris was found in the three shovel tests, but the absence of prehistoric artifacts does not preclude the clay fill or cap being a prehistoric mound deposit. Clay caps over prehistoric Caddo structures have been documented at other Caddo sites in Northeast Texas from the Red River to the Sabine River and in the absence of further information, it is our interpretation that this clay fill or capped area represents a small prehistoric Caddoan mound. The ceramic sherds found in this general area during the earlier work by Prikryl et al. (1984) (Figure 2c, as well as the discussion above) suggests that the mound may have been built in the earlier part of the Middle Caddoan period.

The artifacts found most recently in the NE area include one plain ceramic body sherd (ST 103) (Figure 3) and two pieces of lithic debris. The sherd is grog-tempered (7.0 mm thick), and is from a vessel fired in a reducing environment. It likely is from a post-A.D. 800 Caddo Indian vessel, based on vessel wall thickness and firing conditions. The lithic debris is Ogallala quartzite (n = 1) and quartzite (n = 1). Both are non-cortical pieces, and the quartzite soft hammer flake is from a heat-treated core or tool.

Central Area

Because of the previous archeological work completed by Prikryl et al. (1984:Figure 4) and TPW in the central area, our work here consisted only of the excavation of a few shovel tests in one part (covering about 4000 square meters) of the upland landform (370 feet amsl) that had not been previously examined (Figure 4). This area is in the broad, and well-maintained field north of the day-use area at Lake Bob Sandlin State Park.

Three shovel tests in the Central area contain prehistoric ceramic and lithic artifacts between 20-80 cm bs (Figure 4). These consist of six ceramic sherds and two pieces of lithic debris. The prehistoric artifact density is 2.67 per positive shovel test, and most of the artifacts are from ST 833.

All six of the sherds are grog-tempered (mean thickness = 8.1 mm), and two also have crushed hematite temper inclusions. Half of the sherds are from vessels fired in an oxidizing environment, and the others were fired in a reducing environment, but cooled in the open air. About 33% have been smoothed on the interior vessel surface, and are probably from cooking jars.

Three body sherds, all from ST 833 (20-60 cm bs) are decorated. One has parallel

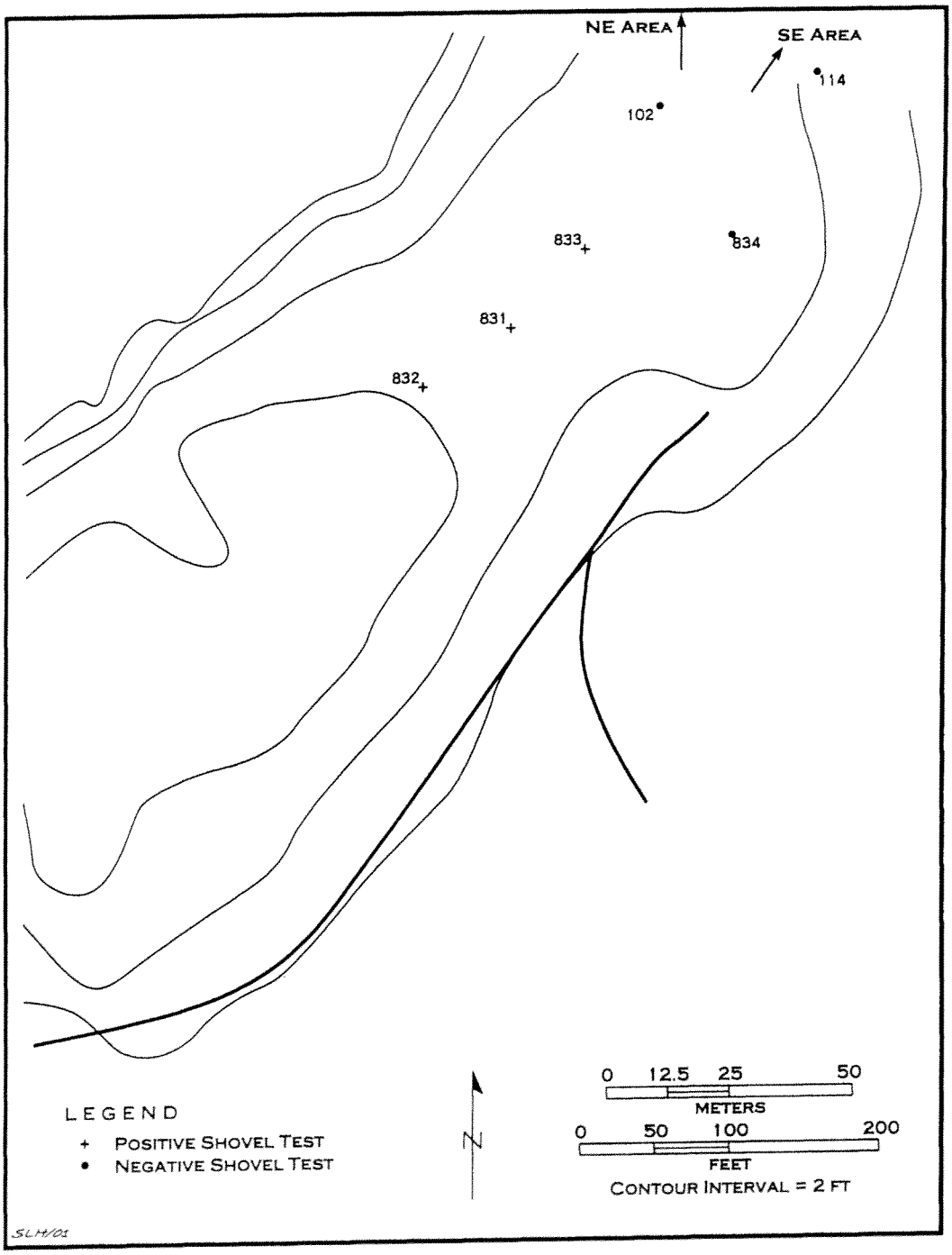

Figure 4. Map of the center area of the Frank Benson site (41TT310).

brushing, a second has parallel brushed-incised lines, and the third has a row of fingernail punctations. Without a larger collection of decorated sherds, the temporal placement of the small sample of decorated sherds is problematic, other than to note that brushed and brushed-incised sherds are common in Middle and Late Caddoan (ca. A.D. 1200-1680) sites in the Big Cypress Creek basin.

The lithic debris is comprised of quartzite (n = 1) and petrified wood (n = 1) raw materials, both locally available in gravel sources. The quartzite piece is a non-cortical soft hammer flake.

A single large burned mammal bone was recovered in the archeological investigations (ST 831, 20-40 cm) in this part of the Frank Benson site.

Southeast Area

The Southeast (SE) area of the Frank Benson site is located on an upland slope and toe slope (362-368 feet amsl) overlooking the small Bell Branch valley. Archeological deposits here cover approximately 2900 square meters (Figure 3). The Bernaldo fine sandy loam sediments in the SE area range from 48-110+ cm in thickness, with the shallower deposits found in both higher (i.e., ST 112 and ST 113) and lower (i.e., ST 104, ST 105, and ST 111) parts of the landform. In the main part of the SE area, the fine sandy loam sediments are at least 100-110 cm in thickness (Figure 5).

Our investigations in the SE area identified a ca. 19 x 16.7 m area with a significant concentration of daub pieces (Figure 3). The daub represents the burned and fired remains of clay daub and thatching (wattle) from at least one prehistoric Caddoan structure. If the overall extent of the daub concentration accurately reflects the size of the burned and buried structure in the SE area, the structure may be much larger than a typical Late Caddoan residential structure (ca. 6-8 m in diameter; Perttula 1998), and may be a special purpose or public structure.

As we discuss below in more detail, the daub is principally found between 20-80 cm bs, with the exception of the daub in Unit 860, with the larger pieces recovered from 50-90 cm bs. Also, in the case of ST 107, the densest daub deposit was between 40-50 cm bs. Given the landform setting of the daub area near the crest of the upland slope, it is possible that the greater depth of the daub in those two units suggests that the burned Caddoan structure may have been buried by either the natural or cultural accumulation of a substantial amount of fine sandy loam sediments.

Although no evidence of basket loading was noted, and the floor of the Caddoan structure could not be identified in the small excavation units, we consider it likely that the burned Late Caddoan structure was deliberately buried by Caddoan peoples after the structure had been left to completely burn out. Only the

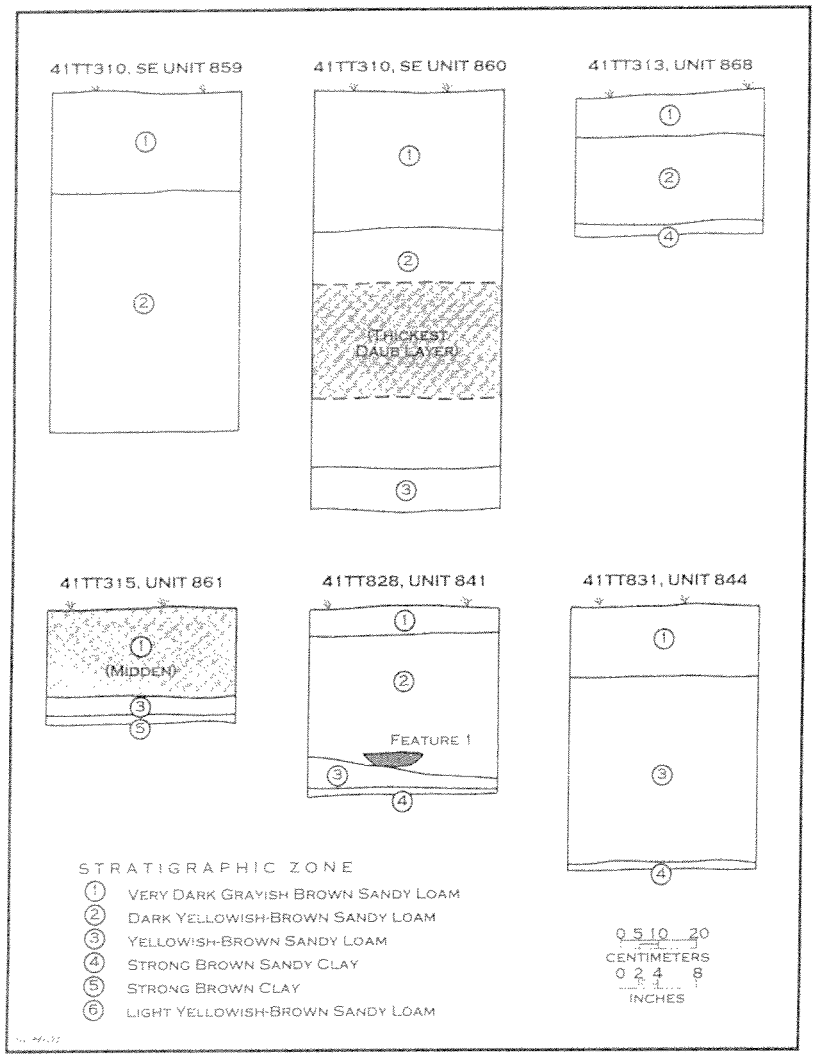

Figure 5. Selected profiles of 50 x 50 cm units at Lake Bob Sandling State Park: 41TT310, SE area (units 859 and 860); 41TT313 (unit 868); 41TT315 (unit 861); 41TT828 (unit 841); and 41TT831 (unit 844).

rapid and relatively deep (ca. 40-50 cm) burial of the daub would have insured that the massive and well-preserved daub deposit in the SE area would have remained as well preserved as it now is, more than 400-500 years later. Furthermore, small mounds covering massive daub accumulations from burned Late Caddoan structures are not uncommon in the Big Cypress Creek basin. Similar daub-mound deposits have been identified at the Pilgrim's Pride site (Perttula 2001b), Red Honeysuckle (41CP335, Perttula et al. 1999), Camp Joy Mound (41UR144, Perttula and Nelson 2001a); the Tracy site (41CP71); the Harroun site (41UR10, Jelks and Tunnell 1959); Dalton (41UR11); Sam Roberts (41CP8, Thurmond 1990), and possibly the R. A. Watts No. 2 site (41CP14, Thurmond 1990), and there are probably others.

Oxidizable carbon ratio (OCR) dates were obtained by Archaeology Consulting Team, Inc. (Essex, Vermont) from sediments collected in Unit 860 (Figure 3) in the SE area. Frink (1992, 1994, 1995, and 1999) discusses the OCR dating procedure in detail, and the OCR analyses include the identification of pedogenic markers in the soil column here, and at three other Lake Bob Sandlin State Park sites (41TT828, 41TT831, and 41TT837, see below). According to Frink, pedogenic markers are indicative of soils where pedogenic

processes are ongoing. Such markers are evidenced by a patterning of OCR data from a column sample in the sequencing of fine particles underlying coarse soil particles; underlying elevated organic carbon content; and are mirrored by descending values of the OCR ratio and manganese and ascending pH values (Perttula and Nelson 2001b:29; see Perttula and Nelson 2002: Appendix 5). In general, these pedogenic markers represent turbations in the soil profile, and these turbations may be the result of cultural and/or natural processes (Frink and Dorn 2002).

The OCR dates from unit 860 are provided in Table 1. Several pedogenic markers were identified in the unit 860 column, in soil zones 1, 2, and 3 (Table 1); Zone 2 contains significant amounts of daub, and Zone 3 underlies the significant archeological deposits in this part of the SE area. The pedogenic markers suggest that the archeological deposits associated with the accumulation of the massive daub layer date from about A.D. 1431-1595. Radiocarbon and OCR dates from 16 other well-dated Late Caddoan Titus phase sites in the Big Cypress Creek basin, including seven Titus phase sites within 5-10 miles

Table 1. OCR Dates from the Frank Benson Site (41TT310), Unit 860.

Provenience	Soil Zone	ACT #	Calculated OCR Date (A.D.)
8-10 cm bs	Zone 1	5299	A.D. 1623-1641
18-20 cm bs	Zone 1	5300	A.D. 1589-1609
28-30 cm bs	Zone 1	5301	**A.D. 1575-1595**
38-40 cm bs	Zone 2	5302	A.D. 1552-1574
48-50 cm bs	Zone 2	5303	A.D. 1524-1548
58-60 cm bs	Zone 2	5304	**A.D. 1494-1520**
68-70 cm bs	Zone 2	5305	**A.D. 1481-1507**
78-80 cm bs	Zone 2	5306	A.D. 1449-1477
88-90 cm bs	Zone 2	5307	**A.D. 1431-1461**
98-100 cm bs	Zone 3	5308	**A.D. 1411-1441**
108-110 cm bs	Zone 3	5309	A.D. 1396-1428

Note: underlined and bolded OCR Dates are from specific pedogenic markers in the soil column

of Lake Bob Sandlin State Park, indicate that the Titus phase dates from ca. A.D. 1430-1640 (Perttula and Nelson 2001a: Figure 11). The prehistoric Caddoan occupation in the SE area at the Frank Benson site appears to have been by Titus phase Caddoan peoples.

An impressive range of prehistoric archeological materials were recovered in the most recent survey investigations at the Frank Benson site, including faunal remains and charred plant remains. Eight shovel tests and 2 50 x 50 cm units (#859 and 860) contain prehistoric artifacts from 0-110 cm bs (Figure 3), with much of the materials concentrated from 20-80 cm bs. With respect to the ceramic artifacts, not including the daub (see below) or the sherdlets, about 70% of the plain and decorated sherds were found between 20-80 cm bs, and 55% of the lithic artifacts were found from the same depths. About 31% of the lithic artifacts, however, were recovered from 80-110 cm bs, compared to only 10% of the sherds, suggesting that an earlier component (perhaps Woodland period in age, based on the recovery of a Gary dart point by Prikryl et al. [1984]) with few sherds may be deeply buried at the site.

The artifact density is 8.63 per positive shovel test and 200.0 artifacts per square meter in the 50 x 50 cm units. The highest densities of ceramic sherds are in unit 860, ST 108, ST 107, ST 106, and unit 859 (Figure 3), in that order, with densities ranging between ca. 48-156 sherds per square meter, respectively. The higher lithic artifact densities are found in unit 860, unit 859, and ST 106, ST 108, ST 109, and ST 110, in that order, with densities ranging between 45-120 lithics per square meter.

There are 61 sherds and 34 sherdlets in the Frank Benson ceramic assemblage. The 61 sherds include 32 plain sherds (including two rims from ST 109) and 29 decorated sherds. The plain/decorated sherd ratio is 1.10, which suggests that the prehistoric Caddoan occupation took place after ca. A.D. 1400/1450 (Perttula 2001c); this is consistent with the OCR dates from the unit 860 column (Table 1). Other dated Late Caddoan sites in the middle Sabine River basin, the Cypress Creek basin, and the Neches-Angelina basins in Northeast Texas have plain/decorated sherd ratios that range between 1.30-0.50. About 95% of the sherds have grog temper, either as the sole temper inclusion or in combination with hematite (43%) or bone (23%). One sherd has only crushed bone temper, another has hematite temper, and a third sherd has both bone and hematite pieces. Almost 20% of the sherds are from vessels made with a naturally sandy clay. Analysis of firing conditions (cf. Teltser 1993) indicate that about 69% of the sherds are from vessels fired in a reducing environment, and these are roughly equally split between those cooled in the open air versus those left to cool in the fire. The remainder of the sherds are from vessels fired in an oxidizing environment (8.6%) or incompletely oxidized during firing (22.3%).

The 29 decorated sherds include four rims and 25 body sherds. Ten body sherds

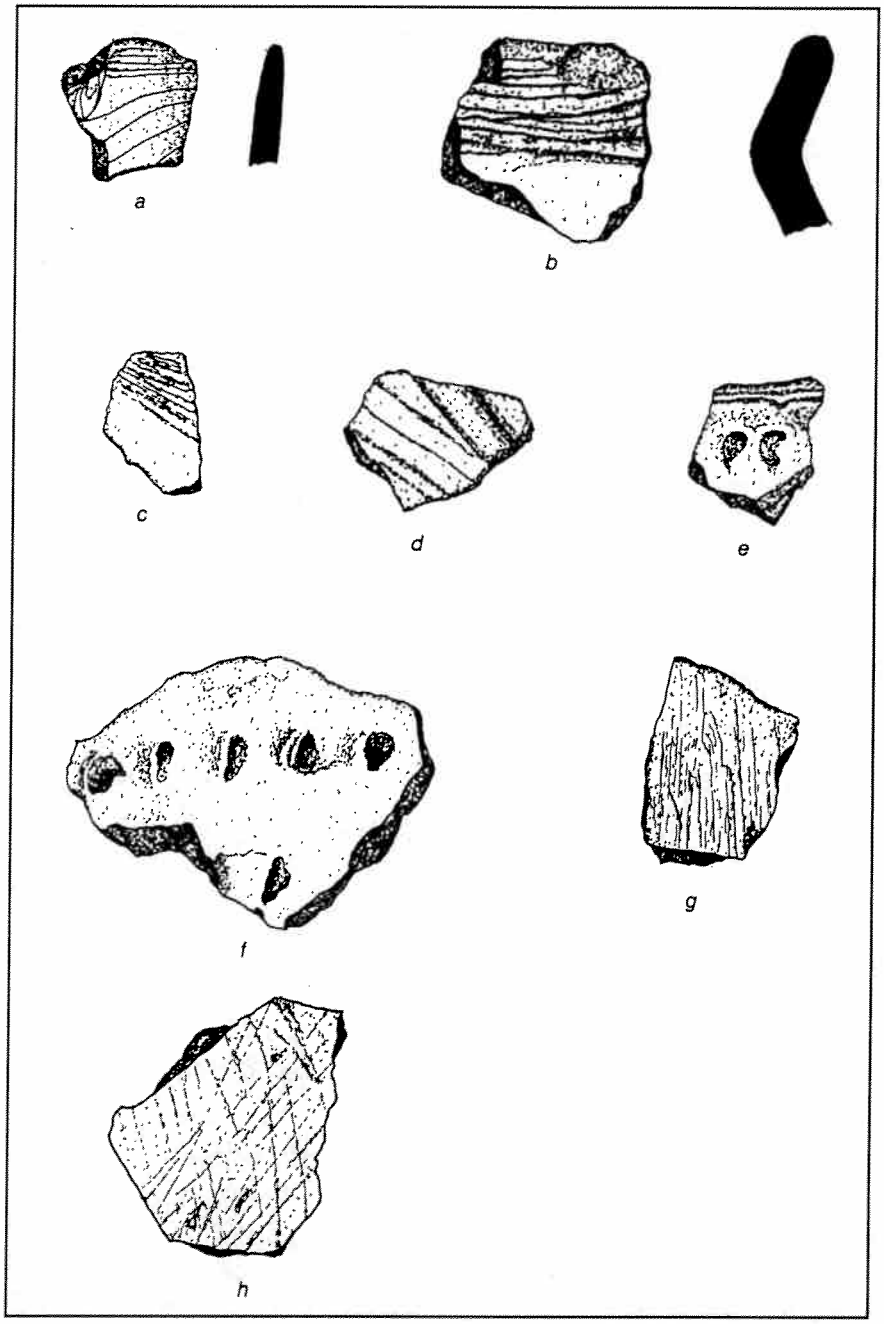

Figure 6. Decorated sherds from the Frank Benson site: a) diagonal incised with a rim peak (unit 860, 20-30 cm); b) horizontal incised rim (unit 860, 70-80 cm); c) engraved body sherd (unit 860, 70-80 cm); d) parallel incised (ST 108, 40-60 cm); 3) incised-tool punctated (ST 112, 20-40 cm); f, fingernail punctated (ST 109, 0-20 cm); g), parallel brushed (unit 860, 90-100 cm); h, overlapping brushed (ST 109, 40-60 cm).

have parallel brushed decorations (Figure 6g), and two others have overlapping brushed decorations (Figure 6h). Including one other sherd that has a parallel brushed-incised decoration, 44.8% of the decorated sherds from the Frank Benson site have brushing. The proportion of brushed sherds is consistent with a Late Caddoan ceramic assemblage. For instance, at the nearby Pilgrim's Pride site (41CP304), with a Titus phase occupation that dates between ca. A.D. 1430-1600, 49% of the 3952 decorated sherds have brushing (Perttula 2001b).

Also common are fingernail punctated (n = 5) and tool punctated (n = 1) body and rim sherds (Figure 6f), with the punctates arranged in rows or lines

along the rim or up and down the vessel body. Another sherd has an incised-punctated decoration (Figure 6e). This particular sherd has a broad incised line next to a row of tool punctations; the orientation of the incised line is uncertain, but it may have been horizontal, with the punctations at the rim-body juncture, or diagonal, with the punctations in rows within a triangular incised zone. Other incised sherds include body sherds with parallel and broadly spaced incised lines (n=3) (Figure 6d), two rims with sets of horizontal incised lines (Figure 6b), another rim with finely executed diagonal lines (Figure 6a), and one body sherd with a single incised line from an indeterminate decorative element. The diagonal incised rim also has a small rim peak (Figure 6a), suggesting it is from a bowl.

There are two engraved sherds, one from a carinated bowl and the other from a bottle. The carinated bowl sherd has a set of opposed lines, probably part of a triangular decorative element (Figure 6c), and a red hematite-rich pigment has been smeared in the engraved lines. The vessel sherd has also been smoothed on its exterior surface, which is a common surface treatment on bowls and other fine wares (i.e., bottles and red-slipped vessels). The engraved bottle sherd (ST 108, 80-100 cm bs) has broadly-spaced parallel engraved lines on the vessel body. This vessel is grog-tempered, fired in a reducing environment, and well smoothed on its exterior surface.

The two plain rims have rounded, but exterior folded lips, and are probably from the same vessel (ST 109, 60-80 and 80-100 cm bs). The vessel was tempered with grog and fired in a reducing environment; the rim is only 4.6-4.7 mm thick, suggesting the vessel is a bowl or serving vessel rather than a cooking vessel, as the latter have thicker vessel walls.

As previously mentioned, substantial amounts of daub were recovered from six shovel tests and two 50 x 50 cm units in the Southeast area, all concentrated in a ca. 320 square meter locale (Figure 3). The abundance of daub, and many large pieces, indicate that a burned Caddo Indian house structure stood in this part of the site.

There are 2803 pieces of daub, weighing 4576.0 g (Table 2). On average, each piece of daub weighs 1.63 grams, but many daub pieces, particularly from the deeper parts of the archeological deposit, weigh more than 20-50 g each and are hand and fist-sized (Figure 7). In ST 107, the daub is concentrated between 20-80 cm bs, with the largest pieces in the 20-60 cm levels (Table 2). Here, the density of daub is approximately 22 kg per square meter and more than 14,800 pieces of daub per square meter, and the daub was concentrated in a distinct and compact lens, as if the Caddo structure fell over and collapsed. In unit 860, the daub is concentrated between 20-100 cm bs, with the densest and largest pieces between 50-90 cm bs (Table 2). Daub densities are not as high as detected in ST 107, with approximately 9 kg per square meter and more than 5000 pieces of daub per square meter.

Table 2. Distribution of Daub at the Frank Benson Site (41TT310), SE Area.

Provenience	# of daub	Weight of daub (g)	Mean weight of daub (g)
ST106, 0-20 cm	14	13.3	0.95
20-40 cm	10	11.5	1.15
40-60 cm	4	4.0	1.00
ST107, 0-20 cm	27	30.7	1.14
20-40 cm	361	612.0	1.69
40-60 cm	543	948.6	1.73
60-80 cm	421	456.4	1.08
ST108, 20-40 cm	1	2.5	2.50
40-60 cm	1	4.8	4.80
ST109, 0-20 cm	3	4.8	1.60
20-40 cm	6	5.8	0.97
40-60 cm	4	8.5	2.13
60-80 cm	3	3.6	1.20
ST110, 0-20 cm	5	5.3	1.06
20-40 cm	3	10.9	3.63
40-60 cm	2	8.1	4.05
ST111, 0-20 cm	1	0.60	0.60
Unit 859, 0-10 cm	13	9.1	0.70
10-20 cm	10	7.6	0.76
20-30 cm	31	33.3	1.07
30-40 cm	30	45.8	1.53
40-50 cm	11	15.2	1.38
50-60 cm	7	20.1	2.86
60-70 cm	6	7.7	1.28
70-80 cm	0	-	-
80-90 cm	4	9.8	2.45
Unit 860, 0-10 cm	20	15.5	0.78
10-20 cm	40	30.6	0.77
20-30 cm	85	94.5	1.11
30-40 cm	184	114.3	0.62
40-50 cm	119	147.2	1.24
50-60 cm	111	327.9	2.95
60-70 cm	255	605.7	2.37
70-80 cm	189	450.6	2.38
80-90 cm	164	383.8	2.34
90-100 cm	65	104.6	1.61
100-110 cm	49	19.8	0.40

Figure 7. Daub from the SE area at the Frank Benson site (41TT310).

The lithic artifact assemblage includes four tools, four pieces of fire-cracked rock, and 65 pieces of lithic debris. The four tools were found between 40-110 cm bs in ST 109 and units 859 and 860 (Figure 3). Two are flake tools, a third is the tip to an arrow point, and the last appears to be an arrow point preform. The first flake tool (ST 109, 40-60 cm bs) has bilateral use-wear (totaling 35 mm in length) on a non-cortical soft hammer flake of reddish-yellow chert; the tool is 21.5 x 19 x 4.0 mm in length, width, and thickness. The other flake tool (unit 859, 50-60 cm bs) is a small fragment of a quartzite flake (heat-treated) with unilateral use-wear; the remnant of use-wear extends 8.5 mm along one edge of the flake fragment. The arrow point tip (ST 109, 60-80 cm bs) is unifacially worked and only 1.9 mm thick. It has been made on a heat-pocked flake of gray chert. The ovoid preform (unit 860, 100-110 cm) of Ogallala quartzite (heat-treated) was shaped by soft hammer flaking, but has a thick knot of material on one face that could not be removed, and the piece was apparently discarded. It is 26 x 21 x 6.5

mm in length, width, and thickness.

The lithic debris is represented by a high diversity in raw materials, including the more abundant quartzite (n = 23, 35.4% cortical), petrified wood (n = 10, 80% cortical), gray chert (n = 10, 20% cortical), Ogallala quartzite (n = 8, 13% cortical), light gray chert (n = 4, 25% cortical), and novaculite (n = 3). Raw materials with one or two pieces of lithic debris are a dark gray chert (n = 2, 50% cortical), yellowish-gray chert (n = 1, 100% cortical), ferruginous sandstone (n = 1, 100% cortical), dark reddish-gray chert (n = 1), claystone/siltstone (n = 1), and quartzitic sandstone (n = 1). The only clearly non-local raw materials in the lithic debris are novaculite, claystone/siltstone, and the quartzitic sandstone, all available in Red River gravels (Banks 1990). These account for 7.7% of the lithic debris. No Edwards chert was identified in the present lithic debris sample. The remainder of the lithic debris is likely from local gravel sources, either in upland gravel deposits or along Big Cypress Creek.

A total of 35.4% of the lithic debris has cortical remnants (proportionally, the highest cortical frequencies are 80% of the petrified wood flakes and 35.4% of the quartzite flakes), and 41.5% are heat-treated; this includes 82.6% of the coarse-grained quartzite, 88% of the Ogallala quartzite, and 33% of the novaculite. Sixty percent of the identifiable flakes are of the soft hammer type, and soft hammer flakes are prevalent in the quartzite, Ogallala quartzite, and gray chert lithic debris, while the light gray chert flakes are hard hammer flakes. Clearly all stages of lithic reduction occurred at the Frank Benson site, including cortex removal (especially the quartzite and petrified wood materials, but also some of the small cobbles/pebbles of local chert), heat treatment of the coarser quartzites to improve their knappability, reduction activities to produce usable flakes for tools, and billet flaking to shape and finish lithic tools.

The one quartzitic sandstone flake (unit 859, 40-50 cm bs) has remnants of polishing on its obverse face, and is probably a celt resharpening flake. The ferruginous sandstone flake fragment (unit 860, 80-90 cm bs) may be the product of shaping or reshaping a groundstone tool, since this raw material was preferred by the Caddo and other aboriginal inhabitants of Northeast Texas for grinding slabs, pitted stones, and metates/mortars.

The fire-cracked rock was found in ST 106, ST 111, and unit 859, all at shallow depths (0-40 cm bs). The pieces of ferruginous sandstone and quartzite weigh 570 g. They may be the remnants of hearths or cooking features, or based on their shallow depth, they may be unrelated to much of the prehistoric occupation and could have been collected in the sandy sediments that appear to have been dumped atop the burned Caddo house structure after the fire had died out there.

Investigations here found 32 pieces of animal bone - mammal, large mammal, and medium-sized artiodactyl - in the SE area of the Frank Benson site (Perttula and Nelson 2002:Appendix 6). These were

concentrated in Unit 859 and Unit 860 excavated in the area of the burned prehistoric Caddo Indian house structure (Figure 3).

Charred plant remains were recovered from seven shovel tests and both 50 x 50 cm units in the Southeast area of the Frank Benson site (Perttula and Nelson 2002: Appendix 7). This includes pine wood charcoal (2.2 g), oak wood charcoal (0.8 g), hickory wood charcoal (0.3 g), yaupon (*Ilex* sp.) wood charcoal (0.1 g), willow/ cottonwood wood charcoal (Salicaceae) (0.1 g), walnut nut shell (0.3 g), and hickory nutshells and nut meat (2.0 g).

Concluding Comments

The Frank Benson site (41TT310) has important and well-preserved residential and civic-ceremonial archeological deposits of Middle (ca. A.D. 1200-1400) and Late Caddoan (ca. A.D. 1400-1680) age. Identified to date in these deposits are several impressive concentrations of daub that appear to mark the locations of burned clay and thatch-lined prehistoric Caddo Indian structures, a clay mound (that may cap another structure), and a diverse assemblage of ceramic, lithic, animal, and plant remains that represent the discarded products of everyday life from several generations of Caddo farmers that settled in the Pineywoods along Big Cypress Creek in present-day Northeast Texas. During Late Caddoan times, the Frank Benson settlement was part of a closely-associated series of Titus phase communities that lived across more than 11,000 km^2 in the region, and farmed and hunted in the Big Cypress Creek valley and along its principal tributaries. Some 250 years after the site was abandoned by the Caddo, Frank Benson settled here and farmed for a few years before the Civil War and built a log cabin.

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ABSTRACTS, 24TH ANNUAL FLINT HILLS ARCHAEOLOGICAL CONFERENCE
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KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS

Abu Daquah, H.C. (Wichita State University) – **Locating the Absent Evidence: A View from the Basement**

One of the central tenets in archaeology: "absence of evidence is not evidence of absence" serves as a reminder that just because the evidence isn't there, does not mean that people were not. Recent research in Neodesha, Kansas has illustrated the extent of local artifact 'hunting' and the impact this has had on the archaeological record. Evidence of past human activity has been obliterated not only by the local topography, climate, and intensive farming, but perhaps most dramatically by this cultural tradition. In order to establish a local chronology, in an attempt to better understand continuity and change in the past, it is necessary to do some 'hunting' of our own: in the basements, closets, and attics of local artifact collectors. Typological analysis of artifacts collected from the surface has obvious limitations, but has yielded valuable information about who was in the area and when. Two sites are examined here, one previously recorded site, 14MY2328, and one as yet unrecorded site, which not only establish a more accurate local chronology, but may also help to more adequately define three local cultural complexes.

Adair, Mary J. (University of Kansas, Museum of Anthropology) – **A 20 Year Perspective on Plains Paleoethobotany**

Years ago I was asked to present a paper at the 6th Flint Hills Conference, which was chaired by Pat O'Brien at Kansas State University. While the circumstances of that request, and the subsequent presentation, are a story unto themselves, the topic of the paper guided my research for the years that followed. This paper reviews my research in Plains paleoethnobotany with attention given to current projects. Recognition of those time periods or regions where data are insufficient or lacking are presented as future research projects.

Banks, William E. (Kansas State Historical Society) – **Use-wear Analysis of Stone Tool Recovered from 14D)417**

A side-notched biface and a chipped stone drill were recovered in association with human bone in an eroded context immediately downslope from the in-situ human remains at 14DO417, and it is assumed that they were originally in direct association with the burial. These tools were subjected to a use-wear analysis at intermediate range magnifications (100X - 400X) in an effort to determine if they were unused ceremonial items or utilitarian items with discernible use histories. The results indicate that both items were intensively used hafted tools.

Bevitt, C. Tod (Kansas State Historical Society) – **The Sangster Collection: Insight into the Pratt Complex**

During the Kansas State Historical Society U.S. Highway 54 fieldwork, KSHS archeologists wre able to visit and document the collection of a long time collector in the area. The vast majority of his artifacts come from one site in particular (14BA401) and reflect the Middle Ceramic Pratt complex, a poorly understood complex that has long been considered an antecedent to Little River focus of the Great Bend aspect. The collection is viewed in this light and serves as the focal point of a summary discussion of Pratt complex traits and research problems that need to be addressed in the future through fieldwork in the area.

Blakeslee, Donald J. (Wichita State University) – **Toward a Definition of the Lindsborg Subdivision of the Great Bend Aspect**

When Waldo Wedel first defined the Great Bend Aspect, he defined two subunits, the Little River and Lower Walnut foci on the basis of village clusters in two regions of Kansas. Subsequent work in the vicinity of Marion, Kansas, established the presence of a third village cluster there.

Differences between the three village clusters in terms of lithic sources used have been recognized for several decades. Jon Zehnder, in his Master's thesis, compared two Little River focus sites in terms of lithic sources and concluded that the differences were so great as to suggest the need for a subdivision of Little River and the establishment of a Lindsborg focus to accommodate the site in the vicinity of the Smoky Hill River. This paper reports work in progress at WSU that follows up on Zehnder's suggestion. Results to date suggest that the Smoky Hill sites differ from those in the Arkansas River drainage, not only in terms of lithic sources but also in ceramics and chipped stone tool forms.

Brosowske, Scott D. (University of Oklahoma) – **Evidence for Specialized Production: An Example from the Late Prehistoric Period on the Southern Plains**

Geologically restricted to small area in the Texas panhandle, the Alibates silicified dolomite quarries represent the primary source of high quality lithic material available to occupants of the Southern High Plains. Prior to A.D. 1200, access to Alibates was unrestricted and occurred as part of an embedded strategy by mobile foragers. Following A.D. 1200, sedentary Antelope Creek phase populations intensively occupied the area near the quarries and established control of this valuable resource. High frequencies of debitage, implements related to lithic production, manufacturing failures, and finished tools recovered from settlements near the quarries point to extensive mining and production of Alibates. Other Antelope Creek sites located at greater distances from the quarries do not exhibit similar patterns. While not commonly applied to the Plains model, a model of specialized production is proposed to best explain the observed data.

Campbell, Joshua S., William C. Johnson, and Brad Logan (University of Kansas) – **Modeling Archaeological Site Distributions on the High Plains of Kansas: A Geographical Information Science Perspective**

A Geographical Information System (GIS) is employed to model the locations of archaeological sites on the High Plains of western Kansas. Relationships between known archaeological site locations and environmental factors (elevation, distance to water, etc.) are determined through statistical analysis, and an empirical model describing the potential locations of unknown archaeological sites is created. Application of the empirical model occurs within the GIS, resulting in the creation of a probability map. Each 30 m^2 pixel is assigned a probability for containing archaeological material based on its position on the landscape and the relationship between known sites and the environment. The model is developed using archaeological samples from the Cimarron National Grassland, Morton County, Kansas and is applied to the entire High Plains region of western Kansas. The model is validated using the existing database of reported archaeological sites from the Kansas State Historical Society.

Estes, Mark B. (Kansas State University) – **Leary Site Features Described**

The purpose of this paper is to describe the features found during the 1965 excavation of the Leary site (25RH1) in form and dimensions. This is significant because no formal publication has ever been done pertaining to this data. The Leary site is associated with the Oneota peoples and was first excavated in 1935 by A.T. Hill and Waldo R. Wedel. John Garrett and Wendell Frantz again excavated a different portion of the site in 1965. During the 1965 excavations, 41 features were found, most being pits. These pits do not match up very well with the pits found in 1935. They do match up well with the OT and Tremain sites in the La Cross Locality, Wisconsin in form but not in their dimensions. I will be focusing on the house feature (F-14) found in 1965 and the features found in and around it.

Feagins, Jim D. (Archaeological Consultant, Belton MO) – **A Coat of Many Colors or Gilt Buttons and Metal Lace: Evidence from a Kansa Burial at the Blue Earth Village**

In 1991, the Nebraska Historical Society donated to the Kansas Historical Society a small collection of artifacts and skeletal material from a site originally numbered "KPo1". The records from Nebraska further indicate that this material was obtained in 1937 from the "Kaw Village,

Manhattan, Kans." This site undoubtedly represented the Blue Earth Village, 14PO24, a Kansa site occupied between 1800 to 1830. Reexamination of these artifacts, managed by the Kansas Unmarked Burial Sites Board, is part of the NAGPRA compliance and enhance-ment study funded by the Kansas legislature.

The artifacts consisted of five gilt buttons (dating to the early 1800s) and a number of segments of metal lace, some of which were still attached to pieces of red and blue cloth. Various attributes strongly support the identification of a trade coat with this burial. For many years these military style "chief's coats" were often presented by French, Spanish, British, and later American officials and traders to chiefs and other important tribal members. Later they could also be obtained by purchase. These colorful, high status coats are seldom found in archaeological contexts or in ethnographic collections; however, they were an important part of the Native American trade.

Feagins, Jim D. (Archaeological Consultant, Belton MO) – **New Light on a Copper Shield from a Native American Burial in Central Kansas: An Example of Merchandising Failure in the Indian Trade**

In February 1991, a (then thought to be one-of-a-kind) copper shield was found associated with a Native American burial near Sylvan Grove, Lincoln County, Kansas. This burial (14LC307) was exposed during routine gravel quarry operations. While the burial was greatly disturbed and the shield was badly mauled by power equipment, the site supplied Randy Thies, Kansas State Historical Society, with much useful information. The collection from this site, managed by the Kansas Unmarked Burial Sites Board, has been recently reexamined and documented in order to comply with requirements set forth by NAGPRA.

Since its discovery, the copper shield has generated much speculation concerning the purpose for which it was manufactured and how it may have come into the possession of a nineteenth century Native American. A recent study of some of the Indian trade literature has supplied new insight for the solution of these two problems. This research clearly shows that traders of old, as well as modern merchants, *must understand their buyers.*

Giesen, Myra J. (Office of Policy, Bureau of Reclamation) – **Recent Trends in Reparation**

Federal reparation legislation, now approaching its twelfth year of enactment, has fundamentally and forever altered the treatment of Native American human remains and objects held by museums and federal agencies. In fact, these mandates are slowly, but significantly, changing the way that museums, federal agencies, Native Americans, and anthropologists are doing business in this country. This paper will discuss some recent trends, such as regional cultural affiliation solutions and reburial prohibitions, resulting from the implementation of the Native American Graves Protection and Repatriation Act. It also will provide an overview of repatriation within Kansas.

Hoard, Robert J. (KSHS), *William E. Banks* (KSHS), *Rolfe D. Mandel* (KU), *Michael Finnegan* (KSU), and *Jennifer E. Epperson* (KSHS) – **14DO417: An Archaic Burial from East Central Kansas**

Investigators excavated a human burial in Douglas County, Kansas, in the late fall of 2001. A cursory analysis of the fragmented human elements indicates the interment of a single adult individual, possibly in a bundle. Included with the burial were a limestone slab, deer bone, a chipped-stone drill, and a projectile point. The point is similar to Archaic-age points in the Midwest and Central Plains. Geomorphology and soil stratigraphy suggests the burial may be 8000 to 9000 years old. If this early date is verified, the burial from 14DO417 is among the few recovered from this time period in North America.

Johnson, William C., and Karen L. Willey (Department of Geography, University of Kansas) – **Landscape Evolution and the Potential for Preservation of the Cultural Record on Fort Riley, Kansas**

The goal of a multi-year study at Fort Riley, Kansas, was to develop a model of landscape evolution for the late Pleistocene and Holocene in

order to assess the potential for preservation of buried archaeological deposits. Investigations on the loess-mantled uplands included coring and trenching to ascertain the distribution, stratigraphy, and age of the deposits. Major buried soils included the middle-Wisconsinan, interstadial Gilman Canyon soil (c. 33 - 20 K), the Pleistocene-Holocene transition Brady soil (c. 10 - 9 K), and some weakly developed Holocene-age soils. Valley-fill deposits (alluvial fans, colluvium, terrace fills and floodplain fills) from selected stream systems were mapped and then systematically cored and trenched to determine stratigraphy and age. Ubiquitous buried soil surfaces were identified, often with cultural material (e.g., hearths, shell middens) in situ. This comprehensive database was compiled, managed and analyzed in a GIS environment. Using these data, the various landscape elements were assigned ages and associated potentialities for archaeological deposits of different cultural periods.

Logan, Brad (University of Kansas, Museum of Anthropology) – **Serendipity, Thy Name is Scott: A Steed-Kisker Phase House in Stranger Creek Valley, Leavenworth County, Kansas**

In June 2001, severe flooding of Stranger Creek exposed the fill of a Late Prehistoric (Steed-Kisker phase) house near Tonganoxie, Kansas. The site was discovered by Scott DeMaranville, who brought it to the attention of the author and for whom the site is named. Previously buried by flood deposits, the site was suddenly vulnerable to future plowing and flood-scouring. For that reason, a salvage excavation was done under the author's direction with the aid of volunteers from the Association of South Central Kansas, Kansas Anthropological Association, Kansas City Archaeological Society, Kansas City District U.S. Army Corps of Engineers, Kansas State University, Natural Resources Conservation Service, and the University of Kansas. The structural remains, associated artifacts, and features of the house are described. Their value for increasing our understanding of regional adaptations and relations during the Late Prehistoric period and of the variability of the Steed-Kisker phase is discussed.

McLean, Janice (University of Kansas) – **Archaeologists as Detectives - Fact or Fiction? A Paleoindian Case Study from Wallace and Logan Counties, Kansas**

In fiction, archaeologists often lead double lives as amateur detectives, and introductory textbooks are rife with analogies between detective work and archaeological research. In the real world, archaeologists often have to employ their sleuthing skills to unravel everyday mysteries about the material they are studying. Take, for instance, the following question: based on published distribution studies, how many Paleoindian projectile points have been documented in Wallace and Logan counties, Kansas? At face value, it sounds like a question anyone could reasonably expect to answer with access to the right information, and it certainly doesn't involve anything even remotely mysterious . . . or does it? Stick around ..... the mysteries of Paleoindian projectile point distribution studies are about to be revealed!

Padilla, Matt (Kanasas State University) – **A Lithic Analysis of the White Rock Site**

The White Rock site (14JW1) is located in Jewell County, Kansas, near the Kansas-Nebraska border. The purpose of this analysis is to describe the variety of lithic tools recovered during the 1930s from this site. The chipped stone lithic artifacts recovered show the trait of using informal tools like those of Oneota tradition sites. The data collected backs up the current view that the inhabitants relied heavily on bison for subsistence, as seen by noting the high amount of scrapers recovered.

Ritterbush, Lauren W. (Kansas State University) – **Migration and Adaptation: Late Prehistoric Development of Bison Hunting in the Central Plains**

Contrasting Late Prehistoric archaeological remains in the Central Plains indicated the migration of an eastern population into this region around AD 1250 - 1450. These immigrants, recognized archaeologically as the Oneota tradition, appear to have influenced change in the region in a variety of ways. Greater movement of indigenous Central Plains tradition populations

appears to coincide with the arrival of Oneota peoples suggesting possible displacement by the more socially cohesive migrants. In the Plains, the western Oneota developed a pattern of bison hunting that supplemented their more "traditional" gardening, gathering, and hunting. Bison products likely gave these Oneota an economic and social advantage within their own system of social interactions, namely through exchange with more eastern relatives. Bison hunting may have served as an impetus for western migration. In turn, western Oneota adaptation of large-scale hunting combined with gardening set the stage for later populations of the eastern Plains.

Roper, Donna C. (Kansas State University) – **Changing Perceptions of the Structure of the Salina Burial Pit**

The Salina Burial Pit was announced to the public within 10 days of its discovery. By the time of the announcement, the excavators had already developed a standard storyline about its structure. This storyline was repeated in newspaper articles, publications, a highway marker, and other venues. The excavators also compiled a catalog of the cemetery's contents. I will analyze this catalog and compare the results to the standard storyline. I will then analyze the data compiled by Waldo Wedel in 1940, data compiled by William Bass in 1959, and some of the data compiled by the Kansas State Historical Society in 1990 and compare these results with both the standard storyline and each of the previous studies. The analysis will show how our perceptions of this cemetery have changed over the decades as techniques of analysis and the expertise brought to the task has improved.

Rosario, Aimee (Bureau of Reclamation) – **Public Archaeology: Why Should We Care? What Can We Do? And How To Do It**

The public is fascinated with archaeology, but often they do not have accurate information. We explain almost every time we step into the public that we do not dig dinosaurs. Often times collectors see no difference between their method of preserving the past and the archaeologists method of preserving the past, yet the archaeologist records, documents and followed the scientific method to answer questions about the past. This presentation will look at why as professionals we need to do public outreach, what we can do, and some of what I have done to address these issues.

Smith, Kirk (Wichita State University) – **From Quarry to Quarry: The Life and Times of a Chert Nodule**

Projectile points are commonly recovered artifacts from prehistoric sites. While these tools can do provide valuable information in and of themselves, they are part of a larger dynamic system. The use of projectile points is dependent on two larger tool kits: the flint-knapping tool kit and the bow and arrow production and maintenance tool kit. Evidence of these tool kits is often incomplete or lacking altogether in the archaeological record due to the poor preservation of some of the individual tools in the kits. Problems also arise in the identification of these tools because of other tools which may look similar. This paper will discuss the flint-knapping and bow and arrow production and maintenance tools that have been identified from Paint Creek (14MP1), a Great Bend aspect site.

Thies, Randall M. (Kansas State Historical Society) – **Connie's Cache and the Hetzell Biface: Jasper in Northeast Kansas**

Connie's Cache (14DP431) was an isolated cache of six large bifaces with an aggregate weight of over 16 pounds. Located in extreme northeastern Kansas, the site is particularly notable in that the bifaces are made of Jasper, a non-local material originating some 200 - 300 miles away in western Kansas or Nebraska. The bifaces were found on a high upland ridgetop overlooking a small creek valley, in a seemingly unremarkable location lacking any apparent landmarks that might have served to relocate the cache. The neatly trimmed oval bifaces are reminiscent of an even larger Jasper biface known as the Hetzell biface. Weighting over seven pounds, the Hetzell biface was donated to the State Historical Society in 1883 after reportedly being found on a farm in northwest Shawnee County.

Vehik, Susan (University of Oklahoma) – **Smoky Hill Variant and the Origins of the Uncas Site Community**

Extensive similarities between ceramics of the Uncas site in north-central Oklahoma and the Smoky Hill variant of north-central Kansas have been noted. This paper provides a more detailed compari-son between Uncas and Smoky Hill and assesses the likelihood that Uncas reflects a movement of some Smoky Hill variant people to north-central Oklahoma.

Weston, Timothy (Kansas State Historical Society) – **Archeological Survey along the U.S. Highway 54 Corridor Between Kingman and Pratt in South-Central Kansas**

As part of the planning process for upgrading U.S. Highway 54 between Kingman and Pratt, archeological survey was undertaken for KDOT by the Kansas State Historical Society. Survey of high and moderate potential areas, and a sample of low potential areas yielded a low density of archeological sites through-out. This was surprising, especially in the Pratt vicinity where numerous Pratt Complex sites are situated, including the type site (14PT1). Implications of this distribution, particularly for Pratt Complex site, will be discussed.

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