

TENNESSEE ARCHAEOLOGY

Volume 2

Winter 2005

Number 1



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Tennessee Archaeology is published semi-annually in electronic print format by the Tennessee Council for Professional Archaeology.

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EDITORS CORNER

Welcome to the third issue of *Tennessee Archaeology*. Since posting of the first issue electronically (August 13, 2004), over 1800 visitors have tapped that issue. The second issue, posted on June 16, 2005 has also been of interest with over 600 “hits.” We hope this means that the articles are being tapped as useful resources by the interested public and scholars alike.

We are pleased to continue our reporting of recent preservation efforts in Tennessee. For the first time in over two decades, the State of Tennessee has purchased a major Mississippian site for conservation purposes. In July 2005, the Castalian Springs Mounds (40SU14) was acquired as part of a 132-acre purchase in Sumner County Tennessee. Although more systematic testing will be required, the purchase appears to include the entire palisaded portion of the mound site except for a small portion buried beneath the levy of U.S. Highway 25 (Figure 1).

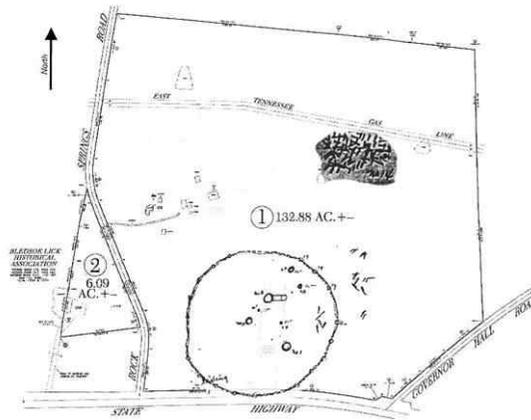


FIGURE 1. Overlay of Myer map on real estate map.

The excavation of an elite mortuary mound at the site by William Edward Myer in the 1890s yielded a set of over 30 marine shell gorgets some of which have been widely cited in discussions of gorget chronology and the Southeastern Ceremonial Complex (Phillips and Brown 1978, 1984; Brain and Phillips 1996). More recently, monitoring of a waterline replacement in the right-of-way of US 25 by staff of DuVall & Associates Inc., recorded intact prehistoric features and recovered yet another Cox style gorget from a disturbed midden context (Johnson et al 2005). This dark gray-black gorget (Figure 2) is manufactured on shale, and represents one of the rare depictions of Cox style motifs in a media other than marine shell.



FIGURE 2. Shale gorget recovered from waterline monitoring.

In summer 2005, The Middle Tennessee State University Archaeological Field School explored

portions of the southern periphery of the site as part of a planned multi-year examination of this important prehistoric Tennessee town (Smith and Beahm 2005). While only limited testing was conducted (probably immediately outside the main portion of the mound site), the first example of an Angel Negative Painted plate from professional excavations in Middle Tennessee was recovered (Figure 3). While the site is not yet open to the public, discussions on how best to make this important resource accessible to the public are on-going.



FIGURE 3. Angel Negative Painted sherd from 2005 excavations.

Once again, we extend our

thanks to the authors who have contributed articles and reports for the first three issues of the journal. We look forward to expanding our circle of contributors in future issues.

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ARCHAEOLOGICAL INVESTIGATION OF A MISSISSIPPIAN PERIOD STRUCTURE IN THE LOESS HILL BLUFFS OF SHELBY COUNTY, TENNESSEE

Gary Barker

Site 40SY488 is located on a loess ridge along Poplar Tree Creek in Meeman-Shelby State Park. Excavations in 1994 by the Tennessee Division of Archaeology unearthed the burned remains of a wattle and daub, wall trench house. A charred oak post from the structure floor yielded an uncorrected radiocarbon date of 810 +/- 70 B.P. Features and artifacts associated with this Mississippian period structure define a single-family dwelling occupied during the winter months.

Staff of the Tennessee Division of Archaeology (TDOA) conducted an archaeological survey of state-owned lands between 1982 and 1984. This survey identified 22 archaeological sites within Meeman-Shelby State Park in Shelby County (Froeschauer et al. 1986:3-4, 4-2). One of these sites, 40SY488, was recorded as a 19th century graveyard based on an informant interview. The survey located the cemetery directly adjacent to Poplar Tree Lake dam, a facility constructed in 1952 to form a recreational reservoir.

In 1993, the dam was determined unsound and plans were initiated to repair it. On March 17, 1994 TDOA staff (Nick Fielder and Bob Mainfort) visited site 40SY488 to determine if graves were present in the project construction zone. No historic graves were found within the project vicinity. However, daub and lithic debitage were eroding from an overturned tree stump. This observation suggested that the burned remains of a Mississippian structure were near the dam within an area to be physically altered by the proposed dam repairs. The Division of Archaeology initiated an investigation of the proposed construction zone in 1994 to evaluate the potential loss of intact cultural deposits. This excavation revealed the burned rubble of a late

prehistoric, wattle and daub structure and associated domestic artifacts. Woodland period ceramics were also recovered from the locality (Barker 1994:27).

Site Setting

Site 40SY488 occurs within a narrow belt of uplands geographically termed the Loess Hill Bluffs (Blythe et al. 1975:67). These uplands range in width from five to 15 miles, and extend from the confluence of the Ohio and Mississippi Rivers south to below Vickburg, Mississippi. They constitute the extreme western portion of the West Tennessee Plain. This vast expanse of low hills and relatively flat land slopes gently westward from the West Tennessee Uplands on the east to the Mississippi River floodplain on the west (Miller 1974:7). Tennessee's Loess Hill Bluffs are the prominent geographic feature of the region, and essentially divide it from the Central Mississippi Valley (Figure 1).

Site 40SY488 is situated on a narrow wooded ridge typical of the Loess Hill Bluffs. This ridge overlooks Poplar Tree Creek and Brinkley Bayou, a swampy floodplain of the Mississippi River (Figure 2). Topography of the bluff that forms the site setting extends east to west with northern and southern fascias that slope

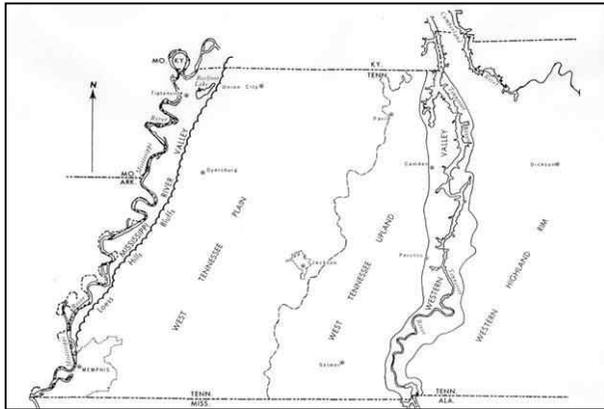


FIGURE 1. Physiographic map of general study area.

some 20 meters down to the Mississippi River floodplain below. The average elevation of the locality is 270 ft. (82 m)

AMSL. Area soils are classified as Memphis Series with two-five percent slopes. These deep, well-drained, and strongly acid loams were formed in loess and comprise some of the more fertile soils in the state (U.S.D.A. 1970:29).

Field Investigation Results

The 40SY488 boundaries incorporated an area of approximately 140 square meters, with roughly 70% (100 square meters) impacted by the proposed construction. This construction area was spatially restricted to the upper southeast side of the bluff directly adjacent to the dam. Fieldwork began on May 3, 1994, with a 38 square meter area investigated

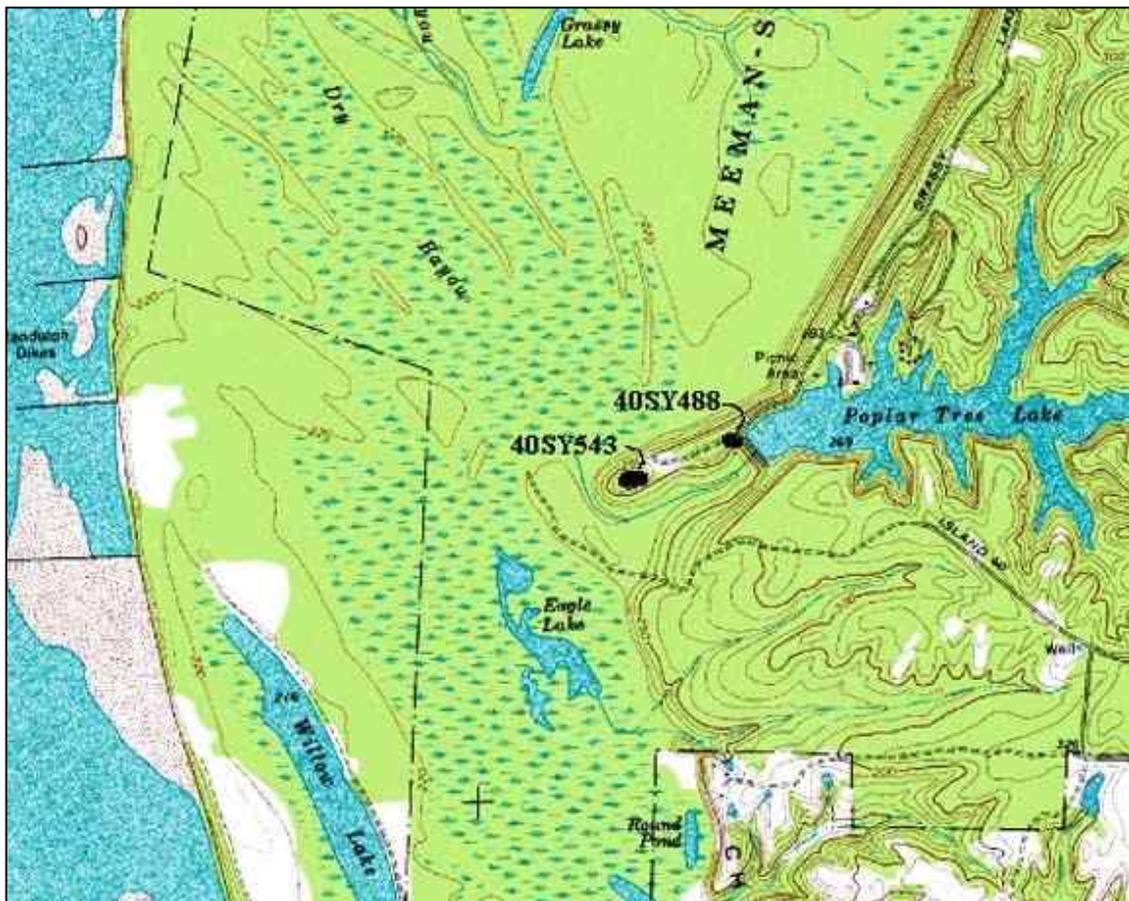


FIGURE 2. Location of site 40SY488 (USGS Locke 7.5' Quadrangle, 403SE).



FIGURE 3. Site excavation units.

over a six-week period.

Excavation units generally consisted of two-meter squares. Unit fill was removed in arbitrary 10 cm levels, with balks left between the squares for vertical control (Figure 3). Unit level fill was dry sieved on site through ¼-inch mesh. Feature fill samples and artifacts were bagged according to provenience and transported at the end of each week to the Division of Archaeology laboratory in Nashville for

processing and analysis.

Figure 4 illustrates a north-south profile of the excavated strata. As shown, a plowzone of light to medium-brown silt loam varied in depth. Foreign clay overburden was evident on the surface of this stratum along parts of the profile, indicating recent alteration likely associated with construction of the dam. Within the plowzone were small fragments of daub, prehistoric artifacts and modern

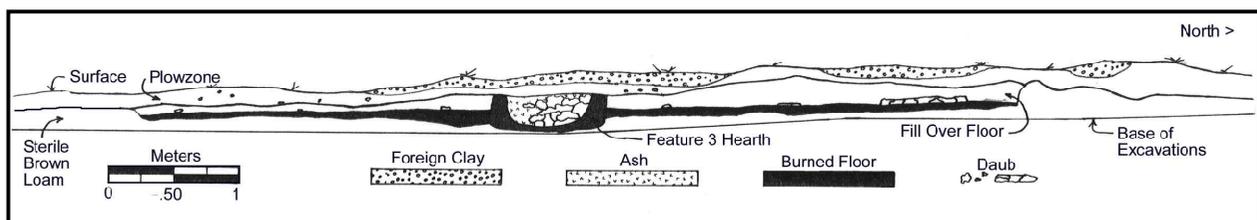


FIGURE 4. Stratigraphic profile (north to south).



FIGURE 5. Structural features exposed in excavation block.

debris. Below this stratum were unevenly distributed horizontal accumulations of daub ranging in color from light yellow to dark orange. Areas of ashy soil and a light scatter of prehistoric ceramics and lithics were also present.

Underlying the daub was a differentially fired, dark red (10R3/6) clay soil layer with a maximum thickness of 12 cm. In plan-view, this layer had a distinctive rectangular shape oriented lengthwise 15° west of north. The burned clay layer was approximately 6.5 m long, 3.8 m wide, and comprised an area of roughly 25 square meters (270 square feet). Structural features and domestic artifacts were recorded in contact with the soil strata (Figure 5). Field data and subsequent laboratory analysis revealed the fired lens to represent the burned floor of a Mississippian period house. The

south end of the profile in Figure 4 indicates that the house floor was dug into the surface before construction. Late prehistoric houses with semi-subterranean floors have been identified elsewhere in the Loess Hill Bluffs region.

At Chucalissa (40SY1), it was noted that “A great deal of cutting into earlier deposits was involved in preparing new house floors” (Lumb and McNutt 1988). In fact, the practice there was so prevalent that it is said to have “resulted in the destruction of many floor features of earlier houses” (Lumb and McNutt 1988:49). Structures built over shallow excavated basins are also present in the neighboring states of Arkansas (Buchner 1999; Childress et al. 1995; Perino 1966), Georgia (Poplin 1990) and Mississippi (Starr 1999).

Structure Description

Seven feature designations were assigned during the excavations. Six features (1, 3, 4, 5, 6, and 7) proved to be cultural and associated with the structure. These features consisted of two hearths, two ceramic concentrations representing

portions of single vessels, a daub accumulation, and a wall trench. As indicated in the house plan in Figure 6, four postmolds and an additional large daub accumulation were also found.

One hearth (Feature 3) originated at the base of plowzone in unit N98/E108 (Figure 7). This feature was located near the middle of the fired clay lens at the

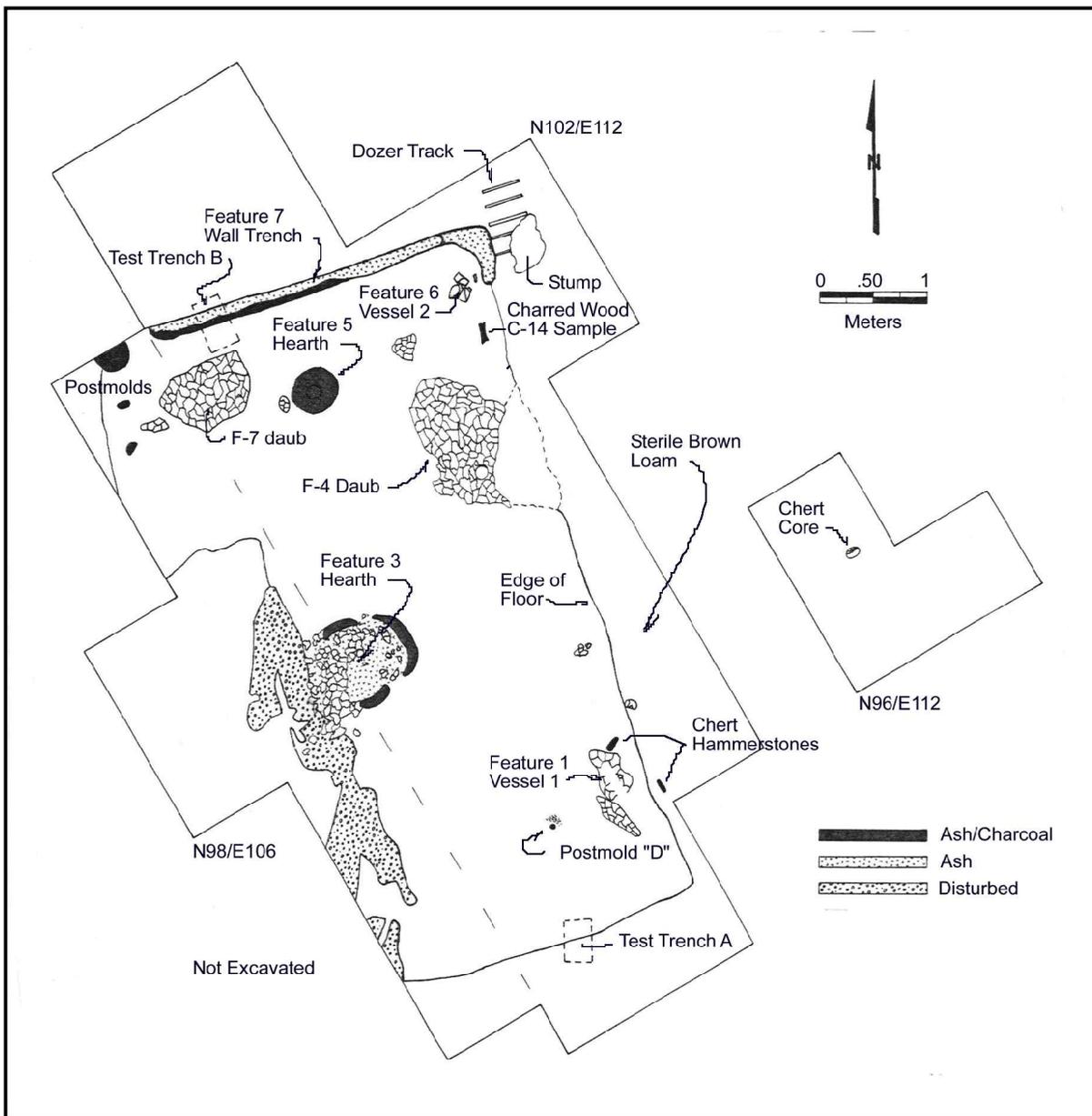


FIGURE 6. Plan view of structure features.



FIGURE 7. Feature 3 (hearth).

center of the structure (see Figures 5 and 6). The floor surface around the hearth was oxidized and exhibited a dark red appearance. Fire-cracked chert was present across the burned floor but not within the hearth. Feature 3 was basin-shaped in cross-section and had a maximum depth of 25 cm. This hearth also had an oval shaped plan-view with a maximum width of 87 cm. Its length could not be determined because of prior disturbance. The hearth had a dark orange, modeled clay rim or curb that was rounded and 10-15 cm wide. The hearth rim extended about 15 cm above the structure floor. Feature 3 was cross-sectioned with 50% of its fill removed (see Figure 7). Most of the hearth fill was daub. The remaining fill was a light grey, ashy soil. Flotation of the hearth fill yielded several fragments of ash (*Fraxinus* sp.) and cane (*Arundinaria* sp.).

The center of a second hearth (Feature 5) was very near the grid designation N101/E109. Feature 5 was located roughly one meter south of the north wall, and was centered between the east and west walls (see Figure 6). This feature differed from Feature 3 as it was circular in plan-view, lacked a curb, and had a flattened smoothed surface with a central depression (Figure 8). Feature 5 originated at the same depth as Feature 3, and had a maximum diameter of 46 cm and a maximum thickness of 3.75 cm. The hearth designated Feature 5 was heavily burned, ranged in color from black to dark orange, and was surrounded by a dark red burned area that contained an abundance of fire-cracked chert. No fill was recovered from the surface of this hearth. Variations in size, form, and location between Features 3 and 5 indicate these two hearths served



FIGURE 8. Feature 5 (hearth).

different functions. Feature 5 is suggested to be a secondary heating or cooking facility. Coals or heated stones were possibly removed from the central hearth (Feature 3) and placed upon the surface of Feature 5.

Feature 4 comprised an intact, irregular shaped, slab of daub that occurred predominantly in the two-meter squares N98/E108 and N100/E108. This daub slab extended over one meter in length, with a maximum width of 86 cm and a maximum thickness of six cm. Grass impressions were evident within the clay matrix. The upper side of the daub was smoothed (lacking impressions of any kind) while the underside had an irregular uneven surface. Two circular molded holes with near equal diameters of 12 to 14 cm extended through the feature (Figure 9). These holes were

approximately 40 cm apart with both containing charred wood (*Quercus* sp.) on the floor surface below them. The daub concentration is interpreted to be a wall portion that supported ceiling beams.

An additional daub accumulation was evident in the northwest corner of the structure (see Figure 6). This accumulation had a maximum length of 86 cm, was roughly 55 cm wide, and averaged four cm in thickness. Grass impressions were evident within the clay matrix. The upper side of the daub was smoothed and lacked impressions of any kind, while the opposing side had an irregular uneven surface with sharp, linear, grass blade-like imprints.

The wall trench designated Feature 7 was vaguely visible along the north edge of the structure as a faint line of root filled, grey-brown, ashy soil (see Figure 6). This



FIGURE 9. Feature 4 (daub slab).

trench was further distinguished by a visible end to the compact burned floor of the structure along its south edge and an abrupt change to sterile brown soil along its north edge (Figure 10). Feature 7 was 2.83 m long, about 15 cm wide, and extended roughly 20 cm below the structure floor. A cross-section of the trench revealed it had straight sides and a rounded bottom.

Feature 1, originating at the plowzone base in the southeast quadrant of unit N96/E108, comprised a concentration of heavily deteriorated Mississippi Plain shell tempered sherds. These sherds from a single loop-handled jar were above and in contact with a horizontal accumulation of burned daub. The daub, orientated in a southwest to northeast direction, likely fell from the east wall of the structure. Similar

sherds were recovered in adjacent units. The vertical placement of Feature 1 over the daub indicates it was not in the structure when it burned. Rather, it was deposited very shortly afterwards.

Feature 6 consisted of a concentration of Bell Plain ceramic sherds ($n=15$) discovered just inside the structure's northeast corner (see Figure 6). These sherds originated at the base of Level 2 in the two-meter square N100/E110. Twenty-two similar sherds were recovered from the excavation unit fill along with 25 like sherds from adjacent units across the structure floor (N96/E108 Level 2 [$n=10$], N98/E108 Level 2 [$n=15$]). The Feature 6 sherds were cross-mended to form approximately one-fifth of a notched flared rim bowl or platter. The other similar sherds did not connect to the vessel



FIGURE 10. Feature 7 (wall trench) and other structure features.

section. An examination of the Feature 6 sherds *in situ* indicate the vessel was not smashed in place, but rather the sherds were in a disarticulated pile (Figure 11).

In addition to six designated features, four postmolds (a-d) were recorded in the excavation block plan. Three of these posts formed a line at a 90° angle from the wall trench (see Figure 6). Postmold “a”, the largest with a maximum diameter of 32 cm, was a circular, grey, ashy stain containing oak (*Quercus* sp.) charcoal. This particular post, located at the northwest house corner, extended 32 cm below the house floor and had straight sides and a flat base.

Two smaller postmolds (“b” and “c”) were spaced roughly 30 cm apart forming a line with post “a”. These postmolds averaged 13 cm in width. Both displayed

semi-circular plan-views and contained oak charcoal. Their vertically contracting cross-sections and shallow depths below the floor level (19 cm and 17 cm, “b” and “c” respectively) suggest these posts were charred, whittled to points, and driven into the ground. Postmolds a-c form the northwest corner and a portion of the west wall of the structure (see Figure 6). Supporting evidence is the fact that the postmold line is parallel to the edge of the burned floor on the east side of the house.

A single postmold “d” was identified in the structure interior. With a maximum diameter of five cm, this postmold appeared as a black stain encircled by grey ash. The maximum depth of 9 cm below the floor level, along with its small size, suggests post “d” served a function other than structure support.



FIGURE 11. Feature 6 (concentration of Bell Plain sherds), center-right of photograph.

Artifact Descriptions

Ceramics

About 20% of the artifacts from 40SY488 are pottery sherds (n=212). The majority of sherds (n=160) derive from the two shell-tempered vessels (Features 1 and 6) associated with the Mississippian structure. The remaining sherd sample (n=59) has paste and/or surface treatments characteristic of earlier Woodland period ceramics.

Mississippian Ceramics

Mississippi Plain (n=98). Ninety-eight badly weathered sherds comprise part of a Mississippi Plain (Phillips 1970:130-134) jar designated as Vessel 1 (Feature 1).

These sherds display a moderately compact clay paste with crushed mussel shell as the primary tempering agent. Small quantities of grog are also present. The shell particles have leached away, but are denoted by platy voids in the paste that average three mm in length. Exterior surfaces of these sherds are smooth and lack decoration. Sherd cross-mending defined a loop-handled jar with a slightly out-flaring rim. No handles were found but one of the body sherds from the vessel shoulder has a (probable flattened) loop anchor. The anchor indicates the jar's handles were about 6 mm thick and about 16 mm wide. Vessel sherds range in thickness between 4.33 mm and 6.48 mm with a mean of 5.25 mm. The jar orifice is estimated to be 14 cm in diameter. The vessel neck is estimated to be 20 mm high.

Mississippi Plain standard jars have a broad geographic distribution. Those with loop handles are diagnostic of early and middle phases of the Mississippian period (Fowler 1978; Phillips 1970; Phillips et al. 1951; Smith 1992). Loop handles gradually phase out as straps become the predominant handle form during later phases of the Mississippian period. A general age of between A.D. 1000 and A.D. 1300 is suggested for Vessel 1 by the style of its handles (Wesler 2001).

Bell Plain (n=15). The ceramic concentration of 15 sherds and other sherds associated with it (designated Vessel 2 or Feature 6) are from a single Bell Plain bowl or platter. Figure 12 shows the cross-mended vessel sherds, with the vessel cross-section illustrated in Figure 13. Vessel 2 was molded from a clay paste tempered with finely crushed shell and clay. The shell particles are generally less than 1.0 mm in size and in some instances have been completely leached away. Interior and exterior vessel surfaces have been polished or rubbed with a hard object such as a pebble or stone. Presumably this was done after the vessel had been allowed to dry. This technique resulted in a harder surface finish and provided a luster or shine to the ware. In addition, the bowl rim is decorated with small notches or pinches that average nine mm in width. These notches are spaced around the orifice at 15 mm intervals. Vessel 2 stands about eight cm tall, with a flat base about 22 cm in diameter. The outward flaring rim



FIGURE 12. Partial Bell Plain vessel (Feature 6 sherds).

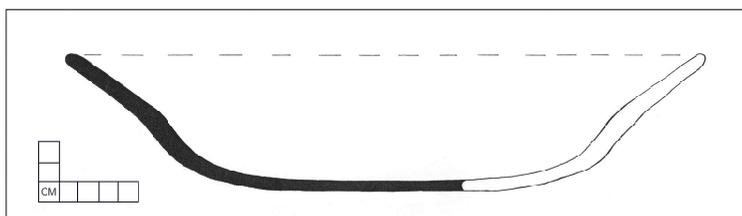


FIGURE 13. Profile drawing of partial Bell Plain vessel (Feature 6 sherds).

has an orifice diameter of about 34 cm. The base sherds average seven mm thick and the body sherds average 8.6 mm thick.

Vessel 2 is characteristic of Bell Plain wares described for the Yazoo Basin (Phillips 1970:58-61). Bell Plain pottery in west Tennessee is diagnostic of the Walls phase, a Late Mississippian cultural sequence with broad geographic distribution (Morse and Morse 1983:296-297; Phillips 1970:936-938). Two well-known Walls phase sites in the Loess Hill Bluffs region (Chucalissa and Desoto Mounds) are also in Shelby County. Bell Plain vessels also occur with Mississippi Plain vessels on earlier late prehistoric sites. A general date range of A.D. 1200 to A.D. 1450 subsumes the type.

Woodland Ceramics

Woodland ceramics included 59 sherds from a minimum of 12 vessels. A variety of Woodland pottery types were recovered from the investigations, including Forked Deer Series (n=37), Madison Series (n=8), Baldwin Series (n=2), Tishomingo Series (n=2), Madison Series, paste undefined (n=1), Baldwin Plain (n=1), Mulberry Creek Cord Marked, *variety Bells Road* (n=1), Mulberry Creek Cord Marked, *variety Westover* (n=1), Baytown Plain *variety Madison* (n=1), Baytown Plain, var. *Tishomingo* (n=1), Withers Fabric Marked, *variety Cypress Creek* (n=1), and undefined sherds (n=3),

Lithics

Of the 844 lithic artifacts recovered during the excavation, only two tools (chert hammerstones) could be confidently assigned to the Mississippian structure. A single (terminal Middle to early Late) Woodland point of dark red jasper, consistent with the Lowe Flared Base type (Justice 1987), was recovered from the plowzone in unit N98/E106. Jasper is available in local cobble deposits.

Both of the chert hammerstones from 40SY488 were found at the floor level along the east edge of the structure (see Figure 6). Although pecking and grinding is evident on both examples, neither specimen exhibits a high degree of workmanship. Specimen #1, recovered near Feature 1, has a maximum length of 109.3 mm and a maximum thickness of 65.9 mm. The striking edge of this modified cobble exhibits much battering. The other artifact has a maximum length of 140.1 mm and a maximum thickness of 59.1 mm. This hammerstone is heavily

burned along its lateral side and was situated with its burned surface facing down. The striking edge of this cobble also exhibits an irregular battered surface.

Faunal and Floral Remains

No bone, cultigens or plant food remains were found on the house floor at 40SY488. While this may be due to the high acidity of local soils, similar settings have produced good organic preservation (Nash 1972). The structure was likely free of these remains when it was razed. A small amount of charred floral material (n=28.2 grams) was obtained from flotation of Feature 3 fill and from several organic concentrations within the perimeter of the structure. Identified specimens consist entirely of wood, with the exception of 2.5 grams of charred cane (*Arundinaria* sp.). The largest sample (19.2 grams) consists of a portion of charred support beam identified as oak (*Quercus* sp.). An additional sample weighing 6.2 grams, obtained from the floor of the structure was identified as hickory (*Carya* sp.). The provenience of the charred support beam and other wood concentrations is shown in Figure 6. Posts in the northwest corner of the house were also oak. The remaining botanical material includes several fragments of ash (*Fraxinus* sp.) from the central hearth (Feature 3).

Radiocarbon Determination

A wood charcoal sample from the northeast corner of the house was submitted for radiocarbon analysis. This sample, obtained from a burned post (oak) found on the floor, yielded an uncorrected radiocarbon determination of 810 +/- 70 B.P. (Beta-74349) (Barker 1994:33). The assay suggests the

structure dates to the Middle Mississippian period. Vessel 1 tends to support this chronological placement. Vessel 2 (Bell Plain ware) is generally considered a latter Mississippian ceramic type (Phillips 1970:58-61), but the excavation data indicates this vessel is contemporaneous with the structure.

The radiocarbon determination of 810 +/- 70 B.P. was calibrated according to the University of Washington Quaternary Isotope Lab Radiocarbon Calibration Program Rev 3.0.3 (Stuiver and Reimer 1993:215-230). The calibrated age(s) are as follows:

cal AD 1224, 1227, 1245, 1257
 cal BP 726, 723, 705, 693
 One Sigma: cal AD 1162-1170 (788-780)
 1191-1283 (759-667)
 Two Sigma: cal AD 1037-1094 (913-856)
 1116-1141 (834-809)
 1149-1298 (801-652)

Interpretation

The vicinity of site 40SY488 was disturbed by construction of Poplar Tree Lake Dam in 1952. It is likely that additional features once existed at this locality but were destroyed by the facility. Extensive disturbance of the excavation area included dozer tracks, plow scars, historic rubbish in lower unit levels, and foreign soil on the surface. Two distinct cultural components were documented at 40SY488 in spite of these disturbances. Fifty-nine sherds representing a minimum of 12 vessels indicate first use of the site during the Woodland period, although no features from this earlier occupation were found. The rubble of a rectangular wattle and daub wall-trench house with associated pottery and lithics denotes a Mississippian component. Architectural characteristics of the structure and diagnostic ceramics are typical of the

Mississippian period. Radiocarbon dating of a portion of post from the dwelling and pottery associated with it narrow the span of occupation to the 13th century A.D.

The house at 40SY488 was built in a shallow basin. At least one of its walls (north) was anchored in a trench. It is suggested that the wall (south) opposing it was also in a trench. Three postmolds along the west wall of the house indicate it and the east wall were built with single posts. With the exception of a single small postmold no evidence of interior roof supports and partitions was found. These data suggest the ceiling was completely supported by the walls and that the house was a single room. Daub layers across the floor had an upper surface that was smooth and an under side that was rough and uneven indicating the structure was plastered from the outside.

Daub, charred wood, and ash across the excavation grid clearly indicate the house burned. Excavation data suggest the fire did not occur haphazardly. This is supported by the fact that no personal items, food remains or other items of value to the occupants of the structure were left behind. The lack of these types of artifacts and a complete structure post plan suggest the house may have been partially dismantled and purposefully burned. Mississippian structures that accidentally burn tend to contain quantities of food remains along with utilitarian and personal items that were abandoned due to quick evacuation (see Barker 2005; Poplin 1990). This is clearly not the case at 40SY488. With the exception of two broken vessels apparently discarded during or immediately after the razing of the structure and a couple of crudely shaped hammerstones, personal items and food remains were completely lacking.

The primary interior features of the

structure were two hearths. The larger one was centered in the house and the other was centered between the east and west walls in the north end of the structure. The former is a typical Mississippian type cooking facility. The latter served some other heat related function. Two hearths in a house of this size would seem to suggest winter use.

The use of mathematical formulae to estimate household occupancy rates have been developed to provide a basis for cross-cultural comparisons (Cook 1972; Hassen 1981). One such formula (Casselberry 1974) was employed to estimate the size of the household at 40SY488. Casselberry's method estimates household occupancy as a percentage of the floor area of a structure. The percentage is suggested to be one-sixth of this area in square meters. This calculation suggests the structure housed four individuals, a relatively average size for a single family dwelling of the period.

While no evidence of additional structures was found at 40SY488, very little of the surrounding landform was archaeologically investigated. The site is possibly related to a larger community center. This center may be situated only several hundred meters west of the site area overlooking the Mississippi River (site 40SY543). An abundance of Mississippian ceramics and lithic diagnostics have been previously surface collected there by local residents. One alternative idea is that the structure is part of a large town that occupied the entire ridge. The social and community relationship between the two sites is difficult to determine without archaeological data from the area between them.

The study region's rich diversity of flora, fauna and other natural resources explains why the Loess Hill Bluffs and

adjacent Mississippi River floodplain were a major focus of Mississippian habitation (Peterson 1979). Charred wood and lithics from the house indicate the Mississippian inhabitants of the locality focused on resources from both bottomland and upland settings. This diverse pattern of exploitation is not uncommon in the Mississippi Valley (Morse and Morse 1983), or in adjacent regions (Smith 1992).

Acknowledgements: Funding for this project was provided by the Tennessee Department of Finance and Administration through the Tennessee Division of Archaeology. The author appreciates the support of Mr. George Fielder for initiating the project, Dr. Robert C. Mainfort for analyzing Woodland ceramics from the site, and Mrs. Jackie Berg for her logistical support. The author is also grateful to Ms. Andrea (Shea) Bishop, then of the Environmental Services Division, for identifying the recovered botanical samples, and Dr. Charles McNutt of the University of Memphis for his observations at the site. The author would like to especially thank Mr. Andrew Saatkamp for assisting with the excavations, mapping, and laboratory duties of the project, and Mr. Jamie Brandon who also endured the heat and parasites to help with the field work. Sincere appreciation is extended to Park Manager Randy Smalley and the staff of Meeman Shelby State Park for their fine southern hospitality and assistance, as well as to Mr. Chuck Hart and other interested residents of the area.

Collections Information: All project artifacts are stored at Pinson Mounds State Archaeological Area (Accession Number 94-27).

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MIDDLE ARCHAIC THROUGH MISSISSIPPIAN OCCUPATIONS AT SITE 40DR226 ALONG THE TENNESSEE RIVER IN DECATUR COUNTY

Aaron Deter-Wolf and Josh Tuschl

The Nashville office of TRC, Inc. conducted archaeological excavations and geoarchaeological deep testing at prehistoric site 40DR226 during the summer of 2004. This site, located along the Tennessee River in Decatur County, yielded intact and deeply stratified midden deposits along the top bank of the Tennessee River. Radiocarbon dates and recovered artifacts indicate the site was occupied between the Middle Archaic and Mississippian periods (ca. 8000–400 B.P.). A sequence of ceramic sherds associated with the Late Gulf Formational, Copena, and Miller III ceramic traditions (spanning the period ca. 2250–950 B.P.) are of particular interest.

Prehistoric site 40DR226 is situated within a 40-acre tract of privately owned land along the Tennessee River that is slated for development in Decatur County, Tennessee (Figures 1-2). A reconnaissance survey and limited geoarchaeological testing of the property was conducted in 2002 (Matthews 2003). These initial investigations identified 40DR226 as a substantial buried midden within the project area. Additional testing in June and July of 2004 by staff of the Nashville office of TRC, Inc. (TRC) defined intact, deeply stratified midden deposits within a 16,459 square meter (4.06 acre) area along the crest and backslope of the Tennessee River natural levee. These deposits extended between 18.3 m and 41 m (60 and 135 feet) inland from the top bank, and date from the Middle Archaic through Mississippian periods (ca. 8000–400 years B.P.). The TRC excavations documented intact archaeological deposits beginning beneath the plow zone and extending to a maximum depth of 2.8 m (9.2 feet) below surface.

Previous Investigations

Site 40DR226 was initially recorded in 1971 as a shell midden extending for 15.2 m (50 feet) along the bank, just upstream

from the confluence of the Tennessee River and a deeply incised slough. According to the site form, shell deposits were present in the bank profile between approximately 1.8 m and 2.4 m (6 and 8 feet) below surface. No reference is made in the site record to any test excavations or what (if any) artifacts were collected. The shell midden reported in 1971 was not noted during the 2004 TRC investigations (with the exception of isolated mussel shells along the shoreline).

No additional investigations were undertaken at the site until 2002, when Greenhouse Consultants, Inc. (GCI) conducted an archaeological survey and geoarchaeological assessment of the 40-acre property pursuant to the current development project. A grid of shovel tests was excavated at 30-meter intervals across the entire property, along with a surface reconnaissance along the Tennessee River bank (Matthews 2003). According to the project map, only nine shovel tests within the project area were positive for prehistoric artifacts (Matthews 2003:24). Along the shoreline, GCI investigators observed debitage and a dark midden deposit along a series of erosional terraces (Matthews 2003). Investigators also noted evidence of severe erosion and undercutting, as well as digging by

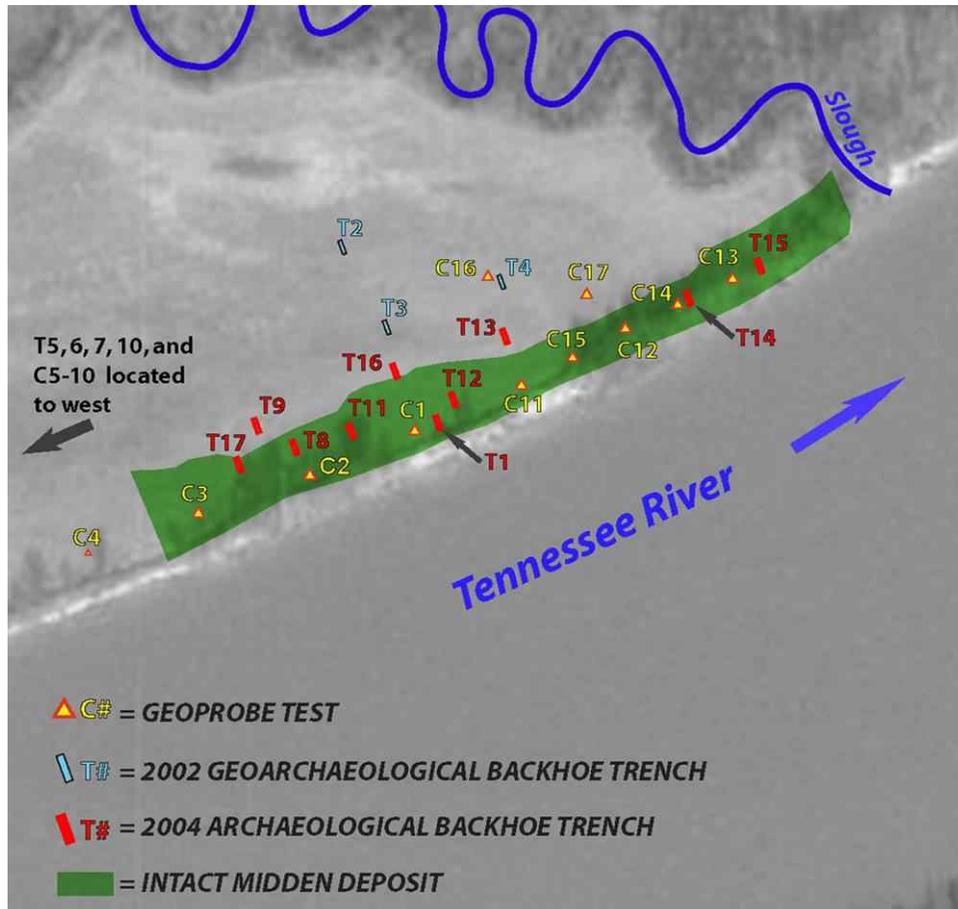


FIGURE 1. Map of archaeological investigations and midden extent.

artifact collectors. Artifacts recovered along the shoreline included sand tempered pottery, cores, hammerstones, and other stone tools.

Three identifiable projectile points were recovered from the site in 2002, consisting of Greenbrier, Kays, and Sublet Ferry types (Matthews 2003). These artifacts, representative of the Early Archaic, Middle to Late Archaic, and Early Woodland periods (Cambron and Hulse 1990), were recovered from unprovenienced contexts along the shoreline and in trench backfill.

The 2002 investigations included a geoarchaeological assessment of the project area through the excavation of five backhoe trenches. One of these trenches,

located along the highest point of the natural levee within the previously recorded boundaries of 40DR226, exposed an intact archaeological midden extending



FIGURE 2. Site setting.



FIGURE 3. Relic collector on shoreline.

to 2.2 m (7.21 feet) below surface (Sherwood 2002). Artifacts recovered from this trench included charcoal, burned clay, animal bone, and stone tools and debitage (Matthews 2003). In addition, intact cultural features were noted in the trench profile, including a prepared clay surface at the base of the midden (Sherwood 2002).

According to local informants, the midden exposed along the Tennessee River bank profile at 40DR226 has long been an attraction for artifact collectors. During the 2004 TRC investigations, collectors stopped by the site on foot or by boat as often as three times a day, especially following periods of heavy rainfall (Figure 3). Several large, unsystematic excavations into the bank profile were observed as a result of these visits, in some cases seriously undermining the upper ground surface.

Summary of Fieldwork

The 2004 investigations by TRC consisted of intensive archaeological and geoarchaeological testing designed to prospect for intact, deeply buried deposits throughout the project area, and to generally delineate their horizontal and vertical

extent. Geoprobe core tests were placed at either 30 m or 60 m (98.4 or 196.8 foot) intervals along a single transect set between 10 m and 15 m (32.8 and 49.2 feet) off the Tennessee River's top bank. A total of 17 cores were removed and examined during this portion of the investigations (Figure 4). Following the completion of probe testing, hand auger tests were excavated at intervals of 20 m (65.6 feet) along transects extending north from all Geoprobe tests showing positive signs of intact midden deposits. These tests served to better delineate the horizontal site boundaries and aid in the subsequent placement of backhoe trenches. Each auger test extended to at least 2.2 m (7.2 feet) below surface, or to the base of the midden deposit. The auger test soil was screened to ensure uniform artifact recovery.

The final stage of the 2004 fieldwork consisted of 12 mechanical trenches placed throughout the project area where core and auger tests had recorded extensive midden deposits (Figure 1). Hand-excavated control columns measuring 50 cm x 50 cm were then placed adjacent to the western wall of the backhoe trenches. These columns, excavated by natural lev-



FIGURE 4. Geoprobe core test.

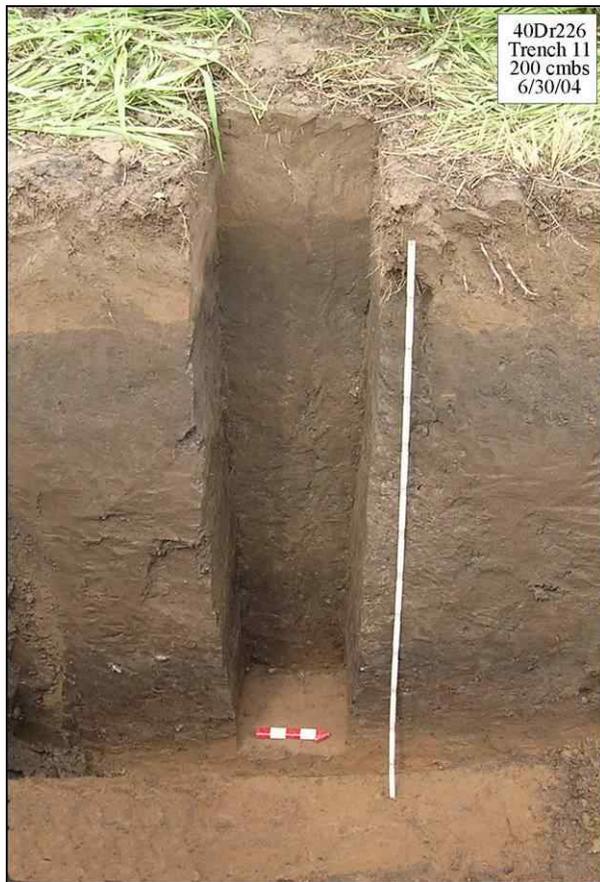


FIGURE 5. Levee midden in trench 11, depth 200 cm below surface

els, mapped the distribution and extent of subsurface features and artifacts. Control columns were terminated at varying depths in the trenches depending on such factors as artifact yield and safety concerns. Unfortunately, silty soils combined with periods of heavy rain during the investigations resulted in unstable walls within a number of trenches. Control columns were abandoned in these particular trenches.

Results of Testing and Site Chronology

The 2004 investigations by TRC confirmed that the 40DR226 midden is composed of stratified components indicative of a long-term and intense occupation of

the Tennessee River natural levee (Figure 5). Temporally diagnostic artifacts (including projectile points and ceramics) recovered during the 2004 investigations, along with three radiocarbon dates, denote habitation of the site area over a period of nearly 7000 years. Site occupation extended from at least the Middle Archaic through Mississippian periods. Pleistocene or Early Holocene use of the site is also possible.

Pleistocene/Early Holocene

The geoarchaeological analysis revealed a possibility that extremely ancient archaeological deposits are buried deep beneath the midden at 40DR226. In the central portion of the site, mechanical excavations revealed that the concentrated midden deposit extended to 1.6 m (5.2 feet) below surface. However, a Geoprobe core (Core 11) from this same area resulted in the recovery of burned clay fragments from the 5Ab3 paleosol located 5 m to 6 m (16.4 to 19.68 feet) below surface (Sherwood and Kocis 2004). Large scale excavations necessary to expose of the buried paleosol were outside the scope of this investigation.

Archaic

The Middle Archaic components were found in the west-central portion of 40DR226. From this area, wood charcoal from a possible cultural feature at the base of the midden was collected from Geoprobe Core 2 at a depth of 135–140 cm (4.43–4.6 feet) below surface (Figure 6). This sample yielded an uncalibrated radiocarbon AMS date of 7150 \pm 40 B.P. (Beta-193869), and calibrated age ranges of cal 6030–5990 B.C. (one sigma; $p=0.68$) and cal 6060–5980 B.C. (two



FIGURE 6. Wood charcoal from possible feature in Geoprobe Core 2.

sigma; $p=0.95$).

From this same portion of the site, another sample of wood charcoal was obtained from the Trench 11 control column at 163 cm (5.34 feet) below surface. This sample was derived from a midden containing a substantial quantity of lithic debitage, biface fragments, and fired earth. This particular sample returned an uncalibrated radiocarbon AMS date of 6170 ± 40 B.P. (Beta-193868), and calibrated age ranges of cal 5220–5040 B.C. (one sigma; $p=0.68$) and cal 5260–4990 B.C. (two sigma; $p=0.95$).

One additional Middle Archaic component was identified during stratigraphic excavation of the control column attached to Trench 1. This trench, originally exca-

vated by Sherwood in 2002, was re-opened in 2004 in order to collect a controlled sample of artifacts. In that unit, a heavily resharpened White Springs projectile point was recovered from 101–121 cm (3.3–3.9 feet) below surface (Figure 7A). White Springs points appear in the Middle Archaic beginning about 6000 B.P., overlapping in some cases with both the earlier Morrow Mountain and later Benton types (Cambron and Hulse 1990; Justice 1987). Two additional White Springs points were recovered from the Trench 1 and Trench 11 backfill piles but lack stratigraphic associations (Figure 7B and 7C).

Materials identifying Late Archaic occupation of the site unfortunately lack

specific stratigraphic context. Two Pickwick points (Figure 7D and 7E), one of which had been reworked into an end scraper (7D), were recovered from the Trench 11 backfill and the shoreline near Trench 1. These points are traditionally assigned to the Late Archaic period, ca. 4450–3000 B.P. (Cambron and Hulse 1990; Justice 1987).

Late Gulf Formational / Miller I

Small quantities of ceramics were recovered from Trenches 1 and 11 in the west-central portion of the midden deposit. However, following the introduction of ceramics, the major focus of occupation at 40DR226 appears at the eastern site area near the confluence of the Tennessee River and the meandering slough. Control column excavations in Trenches 14 and 15 provide an excellent stratigraphic progression of ceramics and one radiocarbon date beginning in the Late Gulf Formational period (ca. 500–200 B.C.; Figures 8 and 9).

In Trench 15, a small pit feature was identified in the control column immediately beneath Stratum III and the deepest pottery-bearing level (Figure 8). Wood charcoal was collected from this feature at 100–120 cm (3.28–3.9 feet) below surface. This sample returned an uncalibrated radiocarbon date of 2250+/-50 B.P. (Beta-193870), and calibrated age ranges of 390–350 B.C. (one sigma; $p=0.68$) and 400–190 B.C. (two sigma; $p=0.95$). The base of Stratum III in Trench 14 (Figure 9) yielded examples of sand-tempered Alexander Incised (Figure 10A and 10B), Alexander Pinched (Figure 10C), and

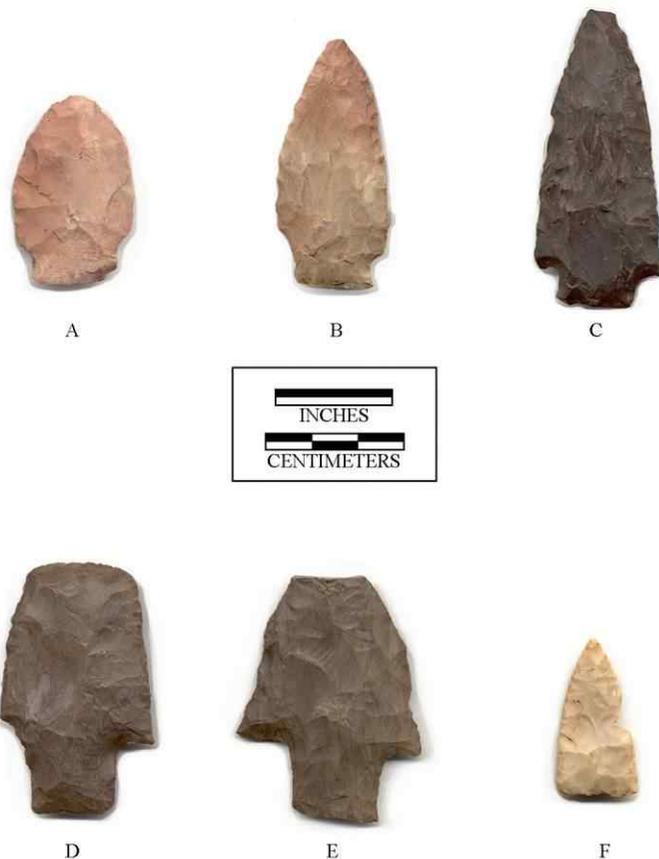


FIGURE 7. Projectile Points: (A-C) White Springs; (D-E) Pickwick; (F) Madison.

Alexander Punctated (Figure 10D) sherds.

The Late Gulf Formational in northern Alabama is marked by a decrease in fiber-tempered Wheeler ceramics and the appearance of the distinct Alexander series (Heimlich 1952; Jackson et al. 2002; Walthall 1980). Alexander ceramics are sand-tempered and often exhibit complicated decorative motifs including elaborately decorated incised, punctated, and noded vessels (Walthall 1973).

In the Middle Tennessee Valley, Dye (1973) delineated the Hardin phase of the Alexander culture, based on type-frequency variations and geography. According to this division, the Hardin I sub-phase was located near the Pickwick Basin in and around Hardin County, Tennessee. Hardin II encompassed the Pickwick,



FIGURE 8. Small pit feature with wood charcoal visible in trench 15.

Wilson, and lower Wheeler basins, while Hardin III included the upper Wheeler Basin and portions of the Guntersville Basin. It is unclear from the 40DR226 assemblage how the site relates to the Hardin subphases.

During excavation of the Trench 14 and 15 control columns, undecorated sand-tempered sherds were recovered from the upper portion of Stratum III (Figure 9). These artifacts may also be associated with the Alexander ceramic tradition (Webb and DeJarnette 1942). Alexander phase O'Neal Plain ceramics have been documented in close association with both Alexander Incised and Alexander Pinched ceramics at sites within the Guntersville Basin of Alabama (Heimlich 1952).

Unfortunately, without corroborating diagnostic artifacts it is impossible to dif-

ferentiate O'Neal Plain from sand-tempered, undecorated Baldwin Plain ceramics belonging to the subsequent Miller I phase (Jackson et al. 2002). The Miller I phase appears in the Upper Tombigbee from 2250–1850 B.P. and is associated with sand-tempered, fabric impressed ceramics predominately belonging to the Saltillo Fabric Impressed and Baldwin Plain types (Jennings 1941). The Alexander and Miller I phases overlap temporally, and some Miller I sites have yielded small numbers of Alexander type ceramics (Walthall 1980).

Woodland

Copena

Limestone-tempered pottery constitutes the largest temper variety in the 40DR226 ceramic assemblage. Surface decorations include plain, fabric-marked (Figure 10E), cordmarked (Figure 10F), and complicated stamp wares. All provenienced limestone-tempered sherds were recovered immediately above the Stratum II/Stratum III transition in Trenches 14 and 15 (Figure 9). This transition represents both a marked shift in ceramic technology at the site, and the appearance of the Copena culture.

Copena has been characterized as the most widespread Middle Woodland manifestation in the Southeast (Walthall et al. 1980), and was first described by Webb (1939) based on excavations in the Wheeler Basin. Subsequent Copena data comes from the Middle Tennessee Valley, where numerous mounds and habitation sites have been investigated over the past several decades. Throughout that area, Copena appears around 1800–1400 B.P.

Copena habitation sites contain high frequencies of plain, carved, and paddle stamped limestone-tempered ceramic

sherds (Walthall 1980). Fabric-impressed, cord-marked, brushed, and rocker-stamped ceramics also occur, but less often. Walthall (1980) indicates that by the Late Woodland period, plain and brushed ceramic varieties had become the primary surface treatment.

The limestone-tempered ceramics from above the Stratum II/III transition at 40DR226 include the Mulberry Creek Plain, Longbranch Fabric Marked (Figure 10E), Flint River Cord Marked (Figure 10F), and Pickwick Complicated Stamp types. Mulberry Creek Plain was initially based on work done in the Pickwick and Guntersville Basins in the Tennessee River Valley (Haag 1939, 1942; Heimlich 1952). This type is generally attributed to the Early and Middle Woodland periods but continues into the Late Woodland and Mississippian periods in some areas (Walthall 1980). Long Branch Fabric Marked was originally used to describe the fabric-impressed ceramics found within the Tennessee River Valley (Haag 1939, 1942; Heimlich 1952), and is dated primarily to the Early Woodland period (Walling et al. 2000). Flint River Cord Marked was originally defined for the Guntersville Basin of the Tennessee River (Heimlich 1952), and is analogous to Candy Creek Cord Marked, a type originally defined in East Tennessee (Lewis and Kneberg 1946, 1957). Flint River Cord Marked has been associated with Middle and Late Woodland occupations in Middle Tennessee as well as Northern Alabama (Walling et al. 2000; Walthall 1980).

Miller III

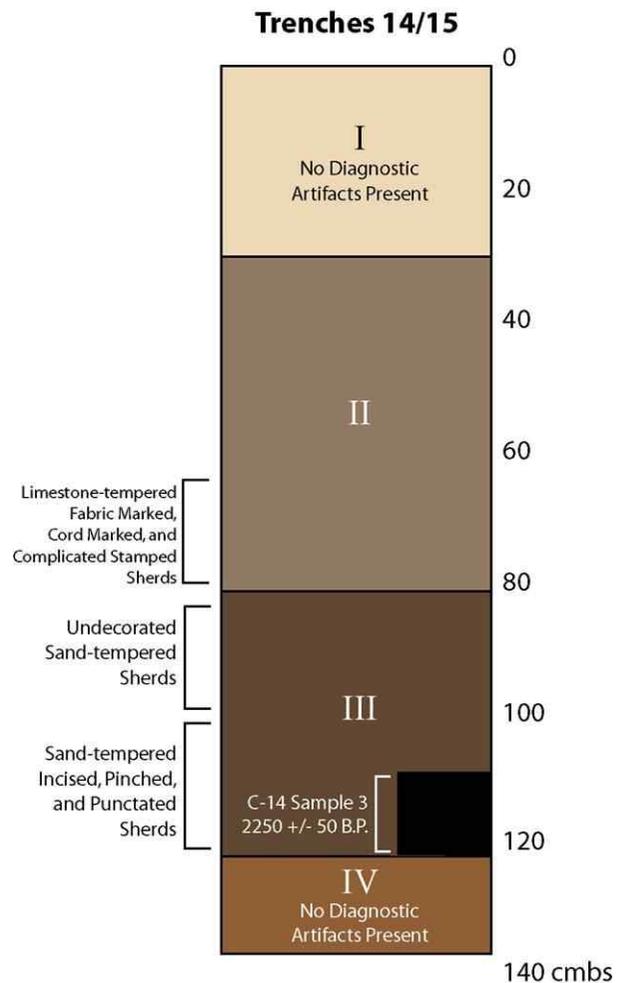


FIGURE 9. Stratigraphic profile with ceramic progression, trenches 14 and 15.

The addition of clay temper as a pottery technique began in the Mississippi River Valley and defused to groups in Mississippi, Tennessee, and Alabama during the Late Woodland period. A variety of clay-tempered sherds were recovered from along the Tennessee River bank in the vicinity of Trenches 14 and 15. These included examples of Wheeler Check Stamped (Figure 11A), Mulberry Creek Cordmarked (Figure 11B), and McKelvey Plain. All these types are traditionally associated with the Miller III and McKelvey Phase occupations of the Late Woodland in Northern Alabama (Walthall

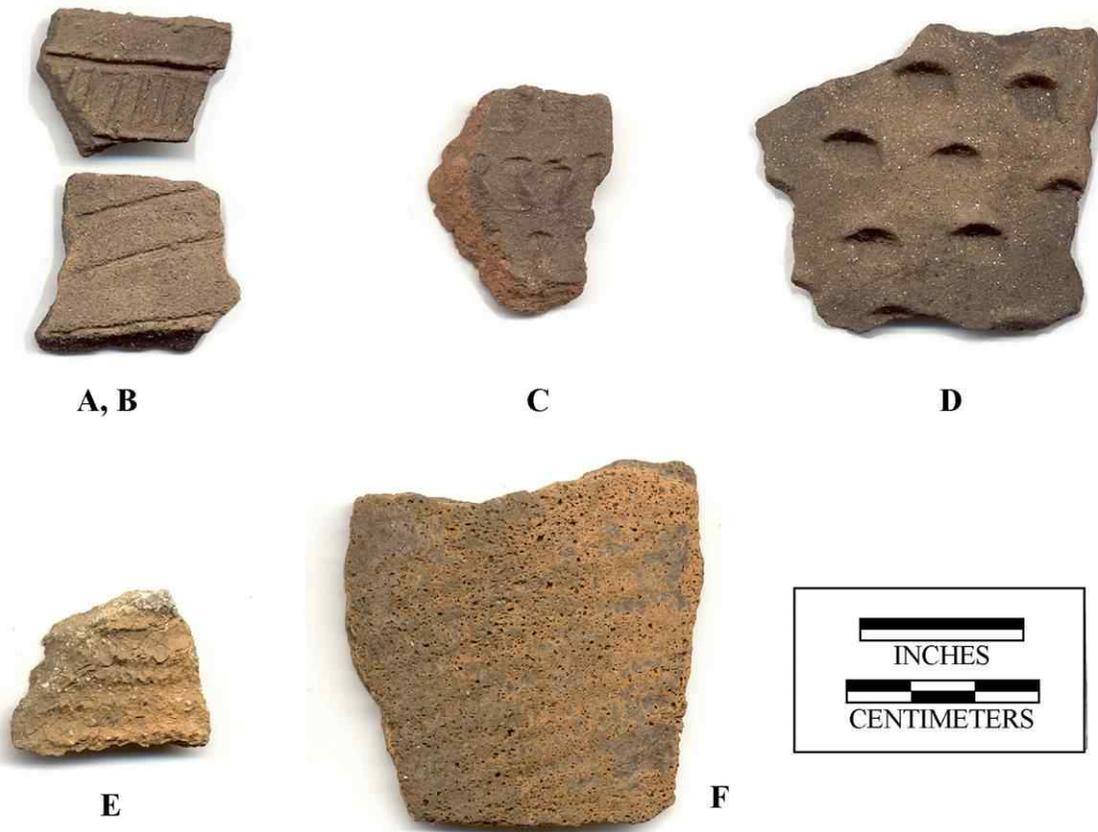


FIGURE 10. Ceramics: (A-B) Alexander Incised; (C) Alexander Pinched; (D) Alexander Punctated; (E) Long Branch Fabric Marked; (F) Flint River Cordmarked.

1980). As defined by Jennings (1941), the Miller III culture is the final manifestation of the Woodland period in the upper Tombigbee drainage, ca. 1450–950 B.P. According to Walthall (1980), Miller III peoples exhibit an artifactual resemblance to later Mississippian groups. The main indicators of the Miller III phase are clay-tempered pottery and Madison projectile points (Walthall 1980). The Madison point appears throughout eastern North America beginning around 1150 B.P., and continues until the advent of the historic period (Cambron and Hulse 1990; Justice 1987). A single Madison point was recovered from the Trench 11 backfill (Figure 7F). Plain and cordmarked surface treat-

ments dominate Miller III assemblages, although check-stamped, fabric impressed, incised, and brushed treatments are also present (Walthall 1980).

Mississippian

Shell-tempered pottery is common in the archaeological record of Tennessee at Mississippian period sites (Heimlich 1952; Walling et al. 2000). The 2004 investigation results indicate that the Mississippian occupation area has likely eroded into the Tennessee River. Shell-tempered ceramics including Bell Plain, Mississippi Plain, Langston Fabric Marked (Figure 11C), punctate (Figure 11D), and check-

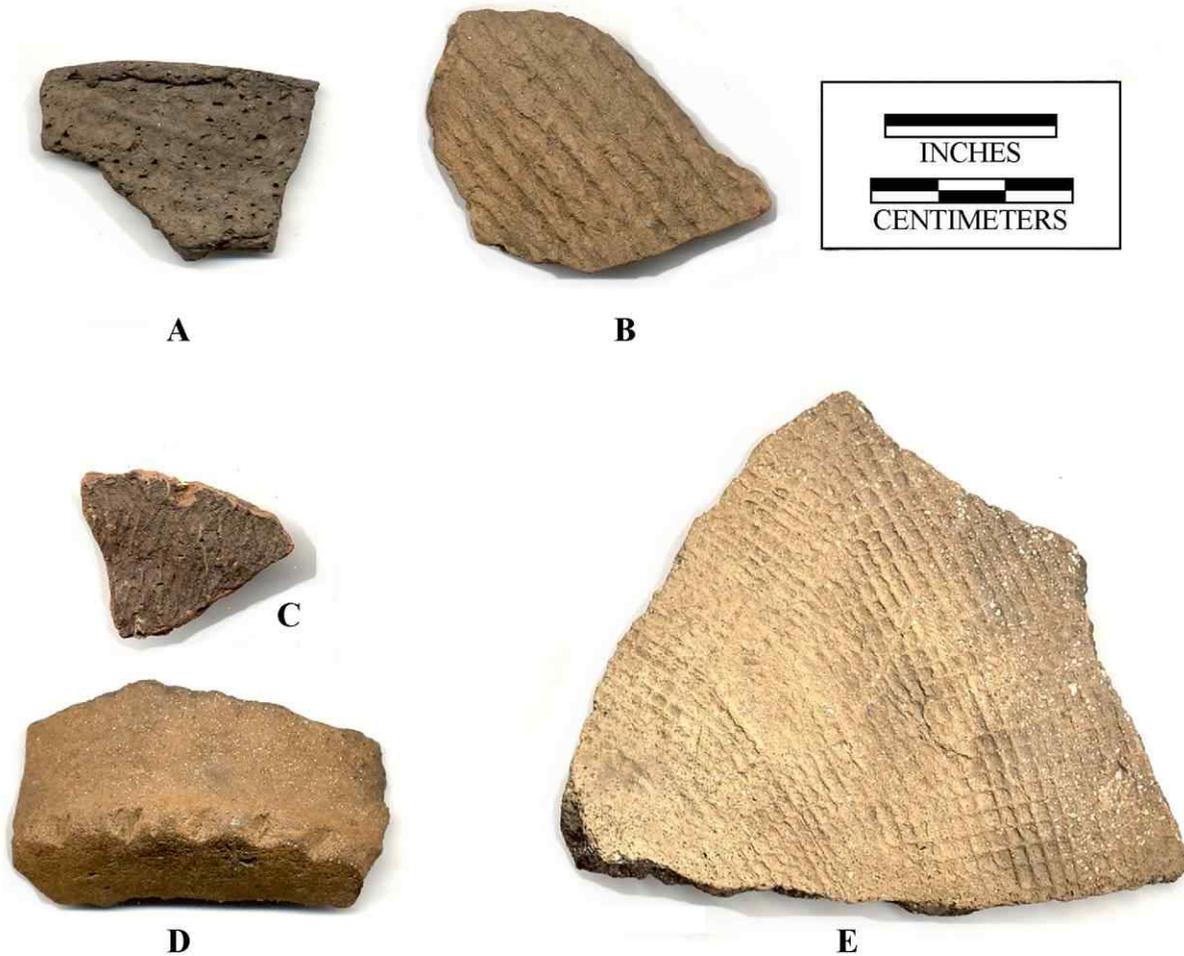


FIGURE 11. Ceramics: (A) Wheeler Check Stamped; (B) Mulberry Creek Cordmarked; (C) Langston Fabric Marked; (D) shell-temper punctuate; (E) shell-temper check stamped.

stamped (Figure 11E) sherds were recovered from the shoreline in the western site area. Based on comparisons to the 1972 USGS quadrangle, the Tennessee River floodplain throughout the project area has substantially eroded (Sherwood and Kocis 2004). This erosion has resulted from the destructive impact of variable lake levels, wave action from river traffic, and collector digging of exposed archaeological deposits along the riverbank.

Conclusions

The primary goals of the 2004 TRC in-

vestigations were to identify the density and spatial distribution of intact archaeological site deposits. Most of the excavation effort focused on evaluating the western and northern boundaries of the intact midden. The 40DR226 study results allowed investigators to conclude that the deeply stratified midden exhibits a high degree of integrity and potential to contribute substantially to our understanding of regional prehistory. The stratified midden deposits and potential features at 40DR226 exhibit great potential to answer a variety of research questions regarding cultural and technological change during

the Woodland period along the Lower Tennessee River. The site is located between several major centers of Woodland culture, including the Nashville Basin/Duck River/Elk River area, the cultures of the Middle Tennessee River in Northern Alabama, the cultures of the upper Tombigbee in Mississippi and Alabama, and those of the West Tennessee Coastal Plain. In addition, 40DR226 has the potential to enlighten our understanding of the transition between Late Woodland and Emergent Mississippian cultures. One possible clue to such clarity is the check stamped sherd with shell temper that may represent a transitional form of pottery linking these two periods.

Notes. The 2004 TRC geoarchaeological investigations were supervised by Dr. Sarah Sherwood and James Kocis of the ARL-UTK. This phase of the project utilized a Geoprobe 5400 and operators subcontracted from the Knoxville office of Mactec Engineering and Consulting Inc. The Geoprobe machine is a hydraulic truck-mounted push rig that uses hydraulic pressure to push 3- and 2-inch diameter macro-sample probes.

Calibrated age ranges reported for radiocarbon samples in this article were calculated by Beta Analytic using cubic spline fit mathematics as published by Talma and Vogel (1993), using the INTCAL 98 data set (Stuiver et al. 1998).

Acknowledgements: We would like to thank Mr. Ricky Wood of Wood Law Offices, P.C. in Parsons for his help and oversight in executing these investigations. Ms. Erin Pritchard of the Cultural Resources Program at the TVA also provided essential support to the project. Sarah C. Sherwood and James J. Kocis of the ARL-UTK conducted geoarchaeological investigations at the site, with the aid of archaeologists and Geoprobe operators Paul Avery and Josh Bailey from Mactec Engineering and Consulting, Inc. This article is based on TRC's original report on the Phase II investigations at 40DR226, which was submitted to the developer and to TVA Cultural Resources in September of 2004.

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A RADIOCARBON CHRONOLOGY FOR MOUND A [UNIT 5] AT CHUCALISSA IN MEMPHIS, TENNESSEE

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The University of Tennessee, Knoxville conducted the initial archaeological investigations at Chucalissa in 1940. Excavations at this Mississippian period community near Memphis, Tennessee were completed before the advent of radiometric dating, and virtually all of the field notes have been lost. Mound A is presumed to have been constructed late in prehistory, during the Walls phase (ca. A.D. 1425-1500), based largely on ceramic chronology. Recent excavations by the University of Memphis aimed to refine the chronology through the recovery and radiometric dating of charcoal samples from the various construction and destruction episodes revealed within the profile of Mound A. The analysis results reveal that Mound A was in fact initially constructed during the latter portion of the Boxtown phase (A.D. 1250-1400). We suggest the periodicity of both mound construction and use was relatively brief, and may represent a final attempt to maintain Chucalissa as a viable community.

This article focuses on Mound A at Chucalissa (40SY1), popularly referred to as the Chiefs' Mound and Unit 5. Although Mound A likely served as the residence of a chiefly elite, such use has never been firmly established. What has been clearly determined is that Mound A, the larger of the two mounds recorded at Chucalissa, served as a platform for two structures (Smith 1990, 1996).

Chucalissa is situated on the Chickasaw Bluffs approximately 10 km southwest of downtown Memphis, Tennessee (Figure 1). The bluff tops are some 30 m above the Horn Lake Cutoff and overlook the Mississippi River 3.2 km to the west. According to Nash (1972:1), the cutoff may have been the lower portion of Nonconnah Creek and an active Mississippi River channel during the centuries the site was inhabited. Chucalissa was most intensively occupied late in prehistory during the Mississippian period, ca. A.D. 900-1500.

The site plan centered around an open plaza encircled by an earthen residential ridge (Figure 2). The village also extended north-northeast beyond Mound A and south of the plaza (Lumb and McNutt

1988; Nash 1954, 1972; Smith 1996). Mound B is situated on the western edge of the plaza, and was apparently the first mound to be constructed at Chucalissa (Smith 1972:vi). This mound began as a platform mound in the Coles Creek style, and the recovery of Coles Creek pottery would seem to support this contention (Smith 1973:7). Mound B was later used in mortuary context. Mound A, apparently constructed after Mound B, is located on the north end of the plaza and measures approximately 38 m² at the base and approximately 5 m high.

The majority of the culture history for the eastern side of the Central Mississippi Valley for the Mississippian period is based in archaeological research at Chucalissa. That having been said, comparatively little Chucalissa research has been published (Mainfort 1996:174). Early researchers believed that Chucalissa was an important and thriving village for six centuries (Nash and Gates 1962:107). There have also been conflicting views on the late prehistoric phases at Chucalissa (see Lumb and McNutt 1988; Mainfort 1996; McNutt 1996; Smith 1972, 1990, 1996). Further, the existing body of ra-

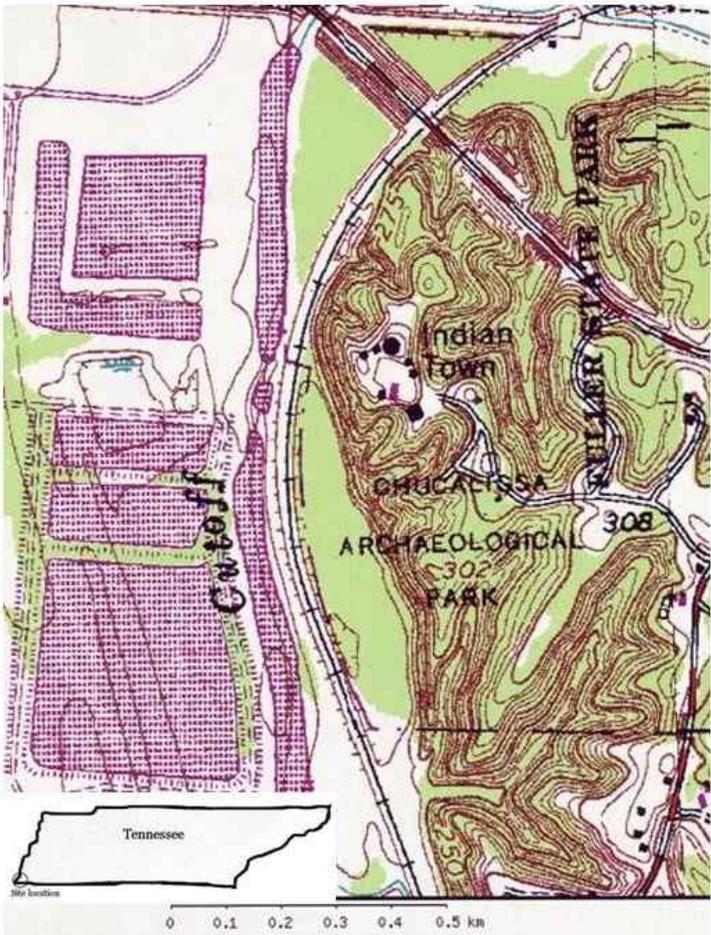


FIGURE 1. Site location of Chucalissa (“Indian Town” on the Fletcher Lake USGS 7.5’ Quadrangle).

diocarbon determinations from the site is less than satisfying in resolving chronology. Given these concerns, there were two related goals to our renewed research

into Mound A at Chucalissa. There is no existing documentation regarding the mound’s stratigraphy. We therefore wanted to refine our understanding of the mound’s construction through a detailed stratigraphic analysis. Second, we also wanted to evaluate a previous assumption that the mound construction was not begun before the final prehistoric Mississippian phase in this region, the Walls phase. We address that assumption with a new suite of radiometric dates from Mound A. The only way to accomplish both goals was to reopen excavations into the mound. Because we wanted to minimize disturbance of intact deposits, we chose to re-excavate the 1940 trench in the eastern rampart of Mound A.

Previous Mound A Research

Chucalissa was discovered during the late 1930s when Civilian Conservation Corps (CCC) crews were clearing the area for a proposed state park. Archaeological excavations were begun in March 1940 by The University of Tennessee, Knoxville



FIGURE 2. View of mound and plaza area of Chucalissa facing west. Photo: Jay Franklin.

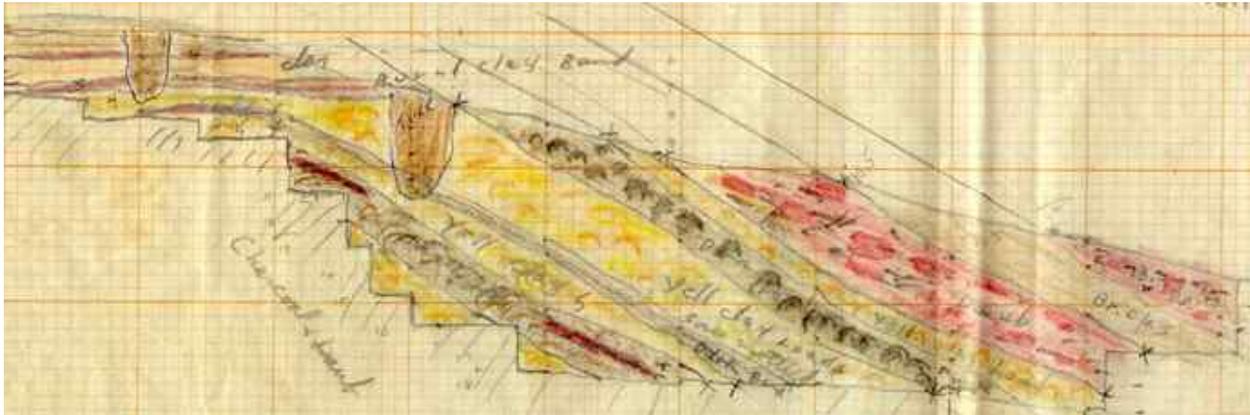


FIGURE 3. Undated, unsigned profile map of eastern rampart, Mound A showing Lewis' (1940) five construction phases.

(UTK) under the overall direction of T. M. N. Lewis. George Lidberg apparently supervised these excavations, perhaps assisted or accompanied by C. H. Nash. Plans were made to excavate trenches along all four cardinal axes of Mound A using the same methodology employed at Hiwassee Island (Lewis and Kneberg 1939, 1946). A five feet (1.5 m) wide by 45 feet (15 m) long trench was excavated east-west into the eastern rampart of Mound A. An excavation trench was opened on the western side (John Hesse, personal communication 2003). Test units may also have been excavated on the northern and southern sides (Lyon 1996:169; Gerald Smith, personal communication 2002).

The 1940 UTK excavations of Mound A began by clearing the mound of the plow zone. Excavations of the four coordinate trenches were begun next. According to Lewis (1940, ca. 1940s:5), the trench into the eastern rampart of Mound A exposed five "distinct" construction "ramps" which likely represented five construction phases. He believed that the two latest ramps had apparently been truncated by historic cultivation. Because all field notes from the original investigations were lost, it is unclear how Lewis

and company delineated the so-called ramps. It seems likely, however, that this interpretation was based in part on previous detailed mound excavations elsewhere in Tennessee (Lewis ca. 1940s:5). The profile schematic presented in Figure 3 may or may not represent Lewis's five construction ramps. Lidberg (1940:3) goes on to add, "This mound overlies part of a deep, rich village deposit and hence postdates that portion of the village beneath it."

Excavations were abruptly halted shortly thereafter due to differing views on the future of Chucalissa. Lewis and company wanted to construct a "wayside museum", while Arthur Kelly of the National Park Service (NPS) thought a state archaeological park would be more appropriate. In the end, the Works Progress Administration (WPA) rejected all proposals. Archaeological investigations at Chucalissa came to a stop (Lyon 1996:169). The onset of World War II did not help matters. Research at Chucalissa would not resume until 1955, again aided in part by UTK (Nash and Gates 1962:104). Unfortunately, all records of the 1940 UTK excavations were lost (Nash and Gates 1962:108). All that remain are 30 boxes of artifacts curated at the McClung Museum

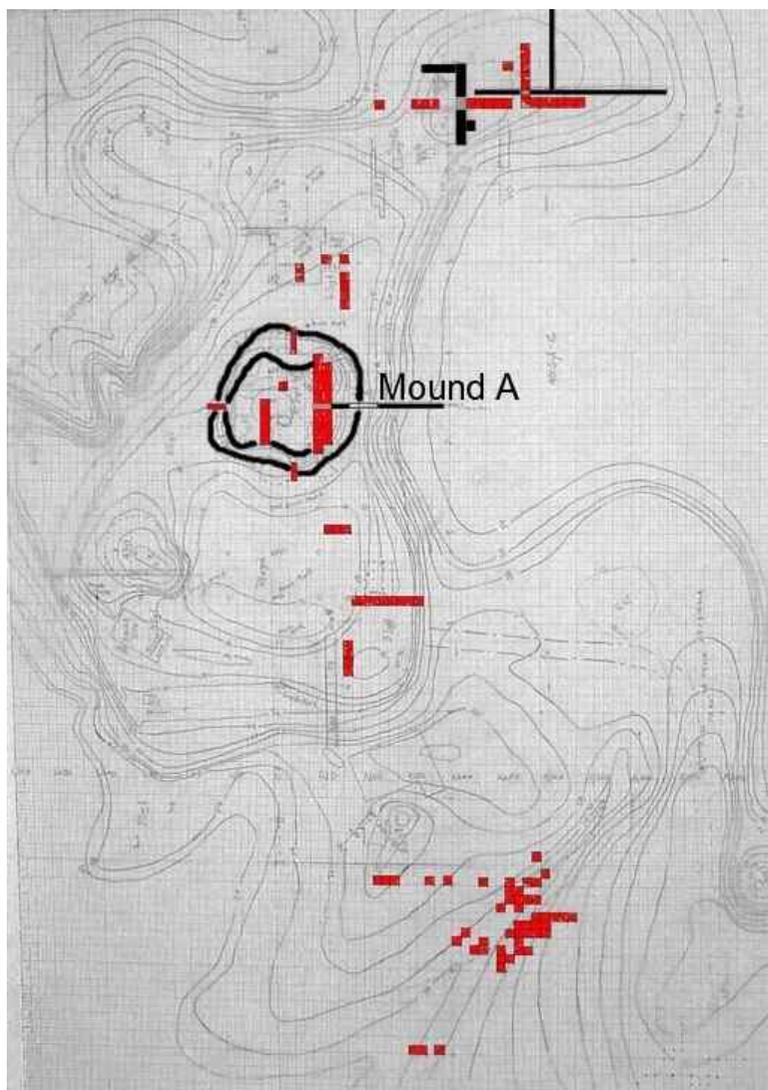


FIGURE 4. Plan view contour map of Chucalissa (test units shown in red are the newly provenienced units).

at the University of Tennessee, Knoxville. Along with the records, at least some of the excavated materials were either lost or misplaced (Gerald Smith and John Hesse, personal communications 2002). There is also an undated, unsigned, profile drawing (Figure 3) from the eastern rampart excavation as well as copies of some correspondence between Lewis, Lidberg, and the NPS at the C. H. Nash Museum at Chucalissa (Lewis ca. 1940s, 1940; Lidberg 1940). The profile appears to have been drawn (redrawn?) sometime

in the 1950s or 60s while C. H. Nash was the site director. Unfortunately, we cannot verify the drawing's original author (likely Nash).

In 2002, The McClung Museum generously agreed to lend the artifacts from the 1940 UTK excavations to the University of Memphis for analysis and inventory. We were under the assumption that the 1940 excavations were largely concentrated in Mound A, particularly the eastern trench, even though we knew that other areas of Chucalissa had been examined. For example, test trenches were excavated into the residential ridge [Unit 3] on the southwestern and eastern sides. Further, some test units were excavated into "village middens" some 100 m north of the main plaza in what is now referred to as Unit 8 (Lidberg 1940). Nevertheless, after conducting our initial analysis of the recovered artifacts, we realized that the UTK excavations were much more extensive than previously thought. In short, we were able to accurately provenience virtu-

ally all of the existing artifacts recovered by UTK in 1940. Subsequently, a new map was generated indicating the existence of no less than 75 additional (10 sq. ft.) excavation units from all across the site (Figure 4).

The results of the original archaeological investigations were never published. In point of fact, precious little in the way of a paper trail exists. Also, the excavated mound fill was probably not screened (screening of fill was rarely if ever done during this era). In their landmark survey

of the Lower Mississippi Valley, Phillips et al. (1951:48) visited and surface collected Chucalissa. Their survey likely recorded sherds from the UTK excavation spoil piles.

There have been numerous archaeological excavations of other loci at Chucalissa over the past six decades, including the summit of Mound A (Childress and Wharey 1996; Lumb and McNutt 1988; Nash 1972; Smith 1996). Nonetheless, our current understanding of the construction and duration of Mound A remains incomplete, particularly in regards to chronology. For example, the 1940 UTK excavations were conducted before the advent of radiocarbon dating. Several radiocarbon age assays from other areas of the site are beyond the scope of this article and the subject of ongoing research (Franklin et al. 2005; Sharp 2005; see Smith 1996:113). Three radiocarbon age assays and one archaeomagnetic date from the summit of Mound A (Table 1) will be examined later in this article (Mainfort 1996:176; Smith 1996:113).

TABLE 1. Radiocarbon Assays from Previous Mound A Excavations of "First Structure."*

Lab #	¹⁴ C Age Assay	Calibrated Date Range (2σ)	Calibrated Mean Date (2σ)
TX-6173	470 ± 50 BP	AD 1320-1630	AD 1335, 1455, 1610
TX-6174	490 ± 50 BP	AD 1300-1500	AD 1330, 1440
TX-6078‡	760 ± 60 BP	AD 1150-1390	AD 1240, 1370
Archaeo-magnetic date	AD 1450 + 35/-40	?	?

* after Mainfort 1996:176; Smith 1996:113

‡ outlier; does not meet χ^2 criterion

In short, the statistical error margins for many of the existing radiocarbon assays from Chucalissa are very large (Lumb and McNutt 1988; Smith 1996). The existing radiocarbon assays were ob-

tained using conventional radiometric methods, before the introduction of Accelerator Mass Spectrometry (AMS) dating, which is more precise. This is important because the late prehistoric period of occupation at Chucalissa lasted for more than 500 years. Some of the radiocarbon age assays have error margins of up to 400 years at the 95% confidence interval. Some of the previous assays intercept the calibration curve anywhere between A.D. 1000 and 1950. Clearly, a more refined chronology for the site is warranted (e. g., Lumb and McNutt 1988:117). And last, ceramic chronology is of little use in defining the periodicity of Mound A construction.

Chucalissa Culture History

The four late prehistoric cultural phases represented at Chucalissa were defined by ceramic analysis (Smith 1990). The earliest is the Ensley phase that may date prior to A.D. 1000. Ensley corresponds to Nash's "Woodland" phase (Smith 1972:v). Construction of Mound B was apparently begun during this phase. The residents of Chucalissa were still primarily hunter-gatherers. Maize agriculture was likely not introduced until this time. Ceramics are characterized almost entirely by Baytown Plain (Bundy and Gray 2002; Smith 1972).

The following Mitchell phase (ca. A.D. 1185-1250) represents a relatively short-lived occupation. Mound B was expanded during this phase. There was an increased use of crushed shell as a tempering agent in pottery, although grog continued to be used. Plain surfaced pottery dominates the Mitchell phase at Chucalissa. Ceramics are largely represented by Mississippi Plain (var. *Boxtown*) and Baytown Plain (var. *Baytown*).

An approximate date range for the



FIGURE 5. The University of Memphis 2003-2004 excavation trench, Mound A. *Photo: Jay Franklin.*

subsequent Boxtown phase is A.D. 1250-1400 (Smith 1990:147, 1996:112). Construction of Mound B was perhaps completed during this phase (Bundy and Gray 2002). There is more complete data for residential architecture for the Boxtown phase. Houses were on the order of 3-3.5 m² with central hearths (Smith 1972). Construction was open-cornered wall trench style with the trenches being just wide enough for pole insertion. Mississippi Plain (60-70%) and Bell Plain (20-25%) types characterize the ceramic assemblage. The Mississippi Plain sample contains roughly 10-20% crushed shell temper. Surface treatment is typically polished or burnished as opposed to smoothing. The Bell Plain type at Chucalissa is about 60% grog tempered and 40% crushed shell (Smith 1972).

The final prehistoric occupation at Chucalissa was the Walls phase, circa A.D. 1425-1500 (Smith 1996:115). Ceramics are mainly Bell Plain but also include significant amounts of Mississippi Plain. A diagnostic decorated type is Parkin Puctated (see Mainfort 1996, 1999, 2003 for more detailed perspectives on Walls phase ceramics). Prior research has suggested that the construction of Mound A did not begin until the Walls

phase (Gerald Smith, personal communication 2002). At least two structures were built on top of the mound, with the first covering approximately 15.4 m². A smaller second structure was positioned on the eastern portion of the mound. The highest percentages of decorated and trade pottery were recovered from presumed Walls phase levels in the mound (Smith 1972). Smith (1996) obtained radiometric age assays from the Mound A summit that are consistent with the Wall phase range. Another currently held position is that Chucalissa was abandoned between each of the defined cultural phases, including Boxtown and Walls (Smith 1973:7-8). As far as we can tell, these assumptions are largely centered on ceramic chronology and an early suite of unreliable radiocarbon determinations. In any case, the phase designations for Chucalissa appear based on ceramic analysis and to a certain extent, architectural styles (Phillips et al. 1951; Smith 1990).

Project Methods

A portable carport was assembled over the previously excavated area that was defined by a shallow depression in the eastern rampart of the mound (Figure 5). Excavation of an exploratory slot trench positioned perpendicular (N-S) to the original 1940 trench orientation confirmed the location. After expanding the slot trench horizontally, we excavated to a depth of 3.5 m below the ground surface, or approximately 4.9 m below the top of the mound.

Once the extent of the 1940 trench was relocated, the excavation continued south into the mound to expose intact sediments. The profile was redrawn and included detailed sediment descriptions. Our excavations revealed a much more complex stratigraphy than previous profile



FIGURE 6. South profile, Mound A Excavations. Photo: Jay Franklin.

drawings had indicated (e. g., Figure 3). There are clearly more than five construction ramps. At least 29 distinct strata and sub-strata were identified in the profile (Figures 6 and 7). Amid sterile basket loading and redeposited midden sediments, we identified three “destruction” episodes. We refer to these as such because periodically, presumably every generation or so, structures were deliberately burned because of rotting and insect infestation. The debris produced by this destruction would then be pushed down the sides of the mound, and new structures built. The resulting daub and charcoal filled layers represent the remnants of these past structures from atop the mound.

The earliest of these, Stratum 4, occurs at almost 3 m below the surface and

50 cm above the base of the mound. Below strata 1-4 is a 60 cm thick midden deposit, opposite the deep midden suggested by Lewis (1940). Coring has indicated the midden is situated on an intact A horizon. Thus, Mound A appears situated on a natural rise rather than cultural fill. This assumption may be corroborated by recent work at Chucalissa by Steven Sharp (2005). There is a definite separation between the mound deposits and the midden. Further, very few artifacts were recovered from the mound sediments. Conversely, the midden deposit was rich in artifacts.

There are 2.5 m of various basket loaded and sheet spread deposits separating Stratum 4 from destruction episodes Strata 15 and 17 (Figure 7). Sheet spread simply means that sediment was tossed out on top of the mound as opposed to dumping (e. g., basket loads). Strata 5-9 and 12 are redeposited midden construction episodes, while Strata 10, 11, 13, 14, and 16 represent sterile basket loading deposits. Strata 15 and 17 are separated by about 20 cm. Stratum 18 is historic plow zone.¹

Mound A Chronology

There were very few artifacts recovered from the excavations (seventy-seven ceramic sherds). The basket loaded strata contained no artifacts. The redeposited midden strata yielded a mix of ceramic wares, primarily Baytown Plain, Mississippi Plain, and Bell Plain varieties. These types span the Mississippian period, and, of course, have been redeposited from various locations around the site. Just the ceramics from the underlying midden are helpful regarding chronology beyond the simple designation of “Mississippian”, and comprise the only sherds discussed here. The recovered ceramics are most

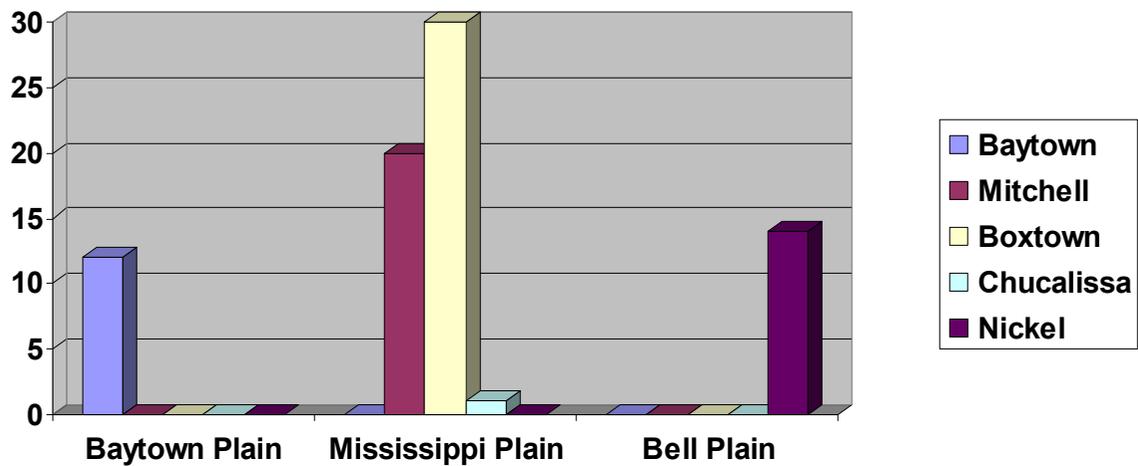


FIGURE 8. Ceramic types recovered from the intact midden under Mound A.

ceramics are also in the sample. In the end, though, we concede that we have a very small ceramic sample (n=77). The absence or presence of certain types and varieties should not be weighed heavily in refining site chronology. In short, ceramic typology does not help us sort out potential chronological changes in the history of the mound construction.

Several charcoal samples were taken from the different strata during the course of the excavations, the goal being to more accurately delineate the chronology of construction and destruction phases.

Twelve of these were submitted for AMS dating (Table 2). Single pieces of charcoal were used in an attempt to avoid the potential problem of mixed samples. AMS dating was used to get maximum accuracy and very small error margins. These provisions are critical because if the mound construction was restricted to the Walls phase (as some believe it may be), the best possible chronological resolution is mandatory.

Two samples from the underlying midden yielded calibrated means of cal A.D. 1345 and cal A.D. 1350, placing the mid-

TABLE 2. Radiocarbon Age Assays from Mound A Excavations, 2003-2004.

Lab #	¹⁴ C Age Assay	Calibrated Date Range (2σ)	Calibrated Mean Date (2σ)	Stratum
AA-57228	399 ± 30 BP	AD 1430-1630	AD 1480, 1600	17B
AA-57227	367 ± 30 BP	AD 1440-1640	AD 1485, 1595	17A
AA-57226	330 ± 30 BP	AD 1480-1650	AD 1565	15C
AA-57225	390 ± 30 BP	AD 1430-1630	AD 1480, 1595	15A
Beta 183826	400 ± 40 BP	AD 1430-1640	AD 1480, 1595	15
AA-57224	465 ± 30 BP	AD 1410-1480	AD 1445	12A
AA-57223	483 ± 30 BP	AD 1400-1470	AD 1435	8A
AA-57222	463 ± 30 BP	AD 1410-1480	AD 1445	4B
AA-57221	416 ± 31 BP	AD 1420-1630	AD 1470, 1610	4A
Beta 183825‡	550 ± 40 BP	AD 1300-1440	AD 1335, 1410	4
AA-57220	617 ± 31 BP	AD 1290-1410	AD 1350	1AB
AA-57219	640 ± 31 BP	AD 1290-1400	AD 1345	1AA

‡ outlier; does not meet χ^2 criterion

den well within the Boxtown phase. Three samples from Stratum 4 yielded calibrated means of cal A.D. 1335, 1410, 1445, and 1470. The earliest of these may be problematic as the statistical overlap of the latter three suggests that the first destruction episode occurred no later than the early-mid 15th century A.D. Two samples from Strata 8 and 12 gave calibrated means of cal A.D. 1435 and cal A.D. 1445. Three samples from Stratum 15 (a second destruction episode) yielded calibrated means of cal A.D. 1480, cal A.D. 1565, and cal A.D. 1595. The last of these may be anomalous but still statistically overlap the other two. Finally, two samples from Stratum 17, the third and perhaps last destruction episode, yielded calibrated means of cal A.D. 1480, 1485, 1595, and 1600.

With the addition of these new assays, we are perhaps left with more possibilities rather than fewer. However, there is no evidence to support a time of abandonment between the Boxtown and Walls phases; it is still a possibility, but statistically improbable. The dates from the underlying midden are restricted to the Boxtown phase. Construction of the mound began in earnest by sheet spreading of existing midden deposits toward the end of the Boxtown phase (late 14th or early 15th centuries). A structure was built upon the small mound and subsequently destroyed. Our dates for the first destruction episode, represented by Stratum 4, must correspond to previous dates that are associated with Smith's (1996:113) "next to last structure" and Mainfort's (1996:175) "penultimate structure." In other words, the "next to last structure" on Mound A was in fact the first structure built on Mound A. After this, mound construction resumed at a rapid pace, initially by sheet spreading of redeposited midden sediments and then by basket loading of cul-

turally sterile deposits. A second primary structure may have been built upon the now higher mound. In any case, the mound was razed again about A.D. 1480. Attempts to resume mound construction are evidence by the basket loaded Stratum 16. However, the mound was rather abruptly subjected to another destruction episode, Stratum 17, very shortly thereafter, ca. A.D. 1485. It may be that this daub layer represents the final destruction episode and the end of the occupation of Chucalissa. The first two destruction episodes, strata 4 and 15, probably represent intentional destruction by the community's inhabitants. Smith (1990:144) cited large scale insect damage to burned timbers and a general lack of artifacts as evidence for intentional destruction and rebuilding rather than damage as a result of conflict. However, this may not be the case for Stratum 17. If there were indeed only a few years separating the final two destruction episodes as indicated by our dates, conflict or cultural stress could well have been responsible for Chucalissa's demise. It could be that the residents destroyed the village as they abandoned it. There is also the distinct possibility that Chucalissa was destroyed by outsiders.

We reject those calibrated means from strata 15 and 17 that post-date the fifteenth century on both statistical and archaeological grounds. For example, Lab # AA-57228 yielded a measured assay of 399 ± 30 B.P. At the 95.4 % confidence interval, two calibrated means were obtained: cal A.D. 1480 (76.9%) and cal A.D. 1600 (18.5%). We argue the cal A.D. 1480 date is much more likely. Other assays with dual calibration plateaus (e. g., more than one calibrated mean) are similar. We also reject the later dates because there is no unequivocal evidence for protohistoric habitation at Chucalissa (McNutt 1996:248). Other sixteenth (and seven-

TABLE 3. Weighted Means for Radiocarbon Determinations by Stratum, Mound A.

Stratum	Weighted Mean	Calibrated Date Range (1 σ)	Calibrated Mean Date (1 σ)	χ^2 value
17	383 \pm 22 BP	AD 1451-1490	AD 1471	0.568
15	369 \pm 20 BP	AD 1457-1498	AD 1477	2.780
4	440 \pm 22 BP	AD 1435-1452	AD 1443	1.789
1	629 \pm 21 BP	AD 1352-1393	AD 1372	0.276

teenth) century radiocarbon age assays from Chucalissa have error margins far too large to accept as valid (see Smith 1996:113). We should emphasize that later dates and/or calibrated means cannot be summarily ruled out; they are simply much less probable.

In an effort to streamline the chronology of Mound A at Chucalissa, radiocarbon averages were calculated for Strata 1, 4, 15, and 17 (strata with more than one determination). By successfully averaging determinations from a single provenience, the error margin can be significantly reduced. The equation for obtaining weighted means follows that of Geyh and Schleicher (1990:16-17). A major assumption for calculating weighted means is that the (uncalibrated) radiocarbon determinations have the same normal distribution (Geyh and Schleicher 1990:16-17; Ward and Wilson 1978:20). A chi-square (χ^2) test is used to test this assumption (Geyh and Schleicher 1990:17). In the initial analysis, one determination was subsequently omitted (Beta-183825, 550 \pm 40 B.P.) because it did not pass the χ^2 test. The results of the subsequent analysis are presented in Table 3. Using weighted means at the 1 σ (68%) level, it appears that the underlying midden is restricted to the late 14th century and thus consistent with Unit 3, the residential ridge (Franklin et al. 2005; Sharp 2005). Construction of Mound A began around A.D. 1400. The first structure built and represented by

Stratum 4 (Smith's "next to last structure") was destroyed between A.D. 1435 and A.D. 1452. Construction was then greatly accelerated and dramatically increased the height and expanse of Mound A. Another structure was built between A.D. 1452 and A.D. 1457, and subsequently destroyed between A.D. 1457 and A.D. 1498 (Stratum 15). At this time, it is unclear whether construction of a third building was undertaken. In any case, Mound A ceased to be in use by the end of the fifteenth century (Stratum 17).

The construction and occupation of Mound A was relatively brief, lasting no more than 100 years. We suggest that there is not enough solid archaeological evidence to support more than an ephemeral Walls phase occupation at Chucalissa. Recent statistical reanalysis of ceramic sherds recovered from Unit 3 (residential ridge) indicate that Mississippi Plain, not Bell Plain, was the dominant paste type used at Chucalissa (Krull and Sharp 2003). Others have argued that paste type may not be important as a chronological marker (Mainfort 1999, 2003; O'Brien 1995:32). The reanalysis suggests that the Boxtown phase was the primary habitation period at Chucalissa rather the Walls phase (as they are currently defined). This contention is further supported by eleven new (yet unpublished) radiocarbon determinations (Franklin et al. 2005; Sharp 2005). These facts make the construction of Mound A

seem a curious venture. Could this construction have been a last ditch effort of a group of (elite?) individuals to retain a hold on power in the area, or was the mound built simply to maintain their community. Mound A construction was clearly begun toward the end of the Boxtown phase. Whether this time represents the zenith or decline of the Boxtown occupation is unknown, however, intense habitation of the residential ridge around the main plaza had declined (if not ceased). Chucalissa does not appear to have supported a large population during the Walls phase, unless that population was more dispersed. In point of fact, the Walls phase designation may have little meaning at Chucalissa (Mainfort 1999).

Although previous research has stated that more is known about Chucalissa than any other site in the Central Mississippi Valley (Ezell et al. 1997), additional work remains to be done (Bundy and Gray 2002). Indeed, most of the culture history on the east side of the Mississippi River for the Mississippian period is based on archaeological investigations at Chucalissa (Childress and Wharey 1996; Lumb and McNutt 1988; McNutt 1996; Nash 1972; Smith 1990, 1996). Chucalissa clearly holds great promise for a much more refined understanding of the late prehistory of the Central Mississippi Valley. However, this potential remains largely untapped. The recent Mound A archaeological investigations have shown that there are many research questions still to be resolved at Chucalissa.

Notes. Before submitting our proposal to reopen excavations at Chucalissa to the Tennessee Division of Archaeology, we presented our ideas to representatives of the Native American tribes who live in this region: the Chickasaw and Choctaw among others. They supported our research goals, and everyone involved in the project took part in a smoke purification ceremony conducted by members of these tribes. We continue to main-

tain a close relationship with these individuals and would not have proceeded without their consent.

¹ Sarah Sherwood at the University of Tennessee examined the excavated profile of Mound A. Much of what we know concerning depositional episodes we owe to her expertise. She is currently developing terminology for mound construction behavior through micro-morphological sediment analysis. This terminology is unpublished and thus our descriptions are limited. We look forward to the implementation of this terminology, and a paper on the Mound A sediments will be forthcoming.

Acknowledgments: We would like to thank David Dye for presenting the idea of reopening excavations into Mound A. David was also very helpful throughout the course of the project and helped us clarify certain points. Cubert Bell, Mississippi Band of the Choctaw, was instrumental in coordinating interactions with the regional Native American communities. Jim Reed of the Chickasaw Nation conducted the smoke ceremony before excavations were begun. We are grateful to these individuals for their blessing. The National Science Foundation/University of Arizona Mass Spectrometry Laboratory funded 10 AMS assays through a student grant to Todd McCurdy. Tennessee Division of Archaeology provided an archaeological permit to conduct the work at Chucalissa. We are extremely grateful to Jeff Chapman and Lynne Sullivan at the Frank H. McClung Museum, the University of Tennessee for lending the 1940 artifacts for study. We also appreciate the help and cogent suggestions of Charles H. McNutt, John Hesse, Gerald Smith, John Conaway, Sarah Sherwood, Paul Bundy, Diane Bundy, and Sean Chapman. Steven Sharp assisted in the excavations, particularly the mapping. Caitlin Buck and the late Mike Elam provided much needed and valuable help in the statistical manipulations of the radiocarbon determinations. David Anderson was kind enough to read and comment on an earlier draft of this manuscript. We also thank an anonymous reviewer for cogent comments. Any errors or shortcomings rest squarely on our shoulders. Finally, we thank Mike Moore and Kevin Smith for encouraging us to submit this paper and for shouldering the responsibility of making *Tennessee Archaeology* a viable journal.

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SOME REFLECTIONS ON THE LOWER MISSISSIPPI VALLEY 1948-1997¹

Stephen Williams

This paper provides the personal reflections of the author on nearly fifty years of involvement with the peoples and places important in the archaeology of the Lower Mississippi River Valley.

I've used this title previously², but here I am taking a longer view: from the first time I laid down footprints on Lower Valley soil to my most recent foray into the region in February 1997. I wish to dedicate this presentation to the trio of scholars who formed the nucleus of the Lower Mississippi Survey (LMS) in the fall of 1939: Philip Phillips, James A. Ford and James B. Griffin. Phillips and Ford have passed away; Griffin celebrated his 92nd birthday on January 12th, this year.³ The LMS continues today with its most recent leader with you tonight, and its current Director of Research being Professor T. R. Kidder at Tulane⁴; now to the heart of the matter.

I don't have to tell you that the "Lower Valley" to which I refer is that of the Mississippi - a river by which I was born some 70 years ago. That makes me sound rather restricted in my interests and experiences, but that is the case. On the contrary, in study, field work and visitation I have indeed experienced to some extent exposure to archaeology in the American Southwest -- especially Arizona and New Mexico, and the Grand Tetons; in the Southeast -- Georgia and South Carolina; in my natal state of Minnesota; and in the Northeast -- Massachusetts, Maine, and Connecticut. Even some travel to Central America in Mexico and Honduras, not to mention Europe, East Africa (Olduvai Gorge), and small parts of the Far East.

Finally, I've personally covered the archaeology of the Mississippi River from St. Louis to New Orleans - I like to boast

that I have driven on back roads from the Mississippi junction with the Missouri to the Gulf of Mexico, and from Texarkana to the Georgia Coast - no Interstates, thank you. I remember very well my trip, some years ago, to the Junction of the Ohio and Mississippi, south of Cairo, with my old mentor, James B. Griffin. Standing at that crossroads of Eastern Archaeology with its most influential practitioner was a strangely poignant moment.

Yes, I have been focused on the Lower Valley for the most part. Indeed I once checked and found that I had been in the Lower Valley for periods short and long 15 times between 1950 and 1967. In the next thirty years, my record has been very nearly that good, but I still do consider it very important to have a greater breadth of interest and example in archaeology.

When I taught "Introductory Archaeology" at Harvard, which I did off and on for many decades, my examples for that course were drawn in some detail from a world-wide perspective: Roman Britain, Polynesia and Australia, Africa and the Middle East, besides the New World. Why such scope? Well, archaeology is, after all, world-wide, and whether we like it or not, students come to those classes with more pre-concern for Egyptian or Mayan archaeology than that of Shelby County, Tennessee.

Also, all "archaeologies" are DIFFERENT, and yet many inform all archaeologists as to methods of excavation,



FIGURE 1. Stephen Williams, August 2005. (Courtesy, Charles H. McNutt)

techniques of analysis, and comparative cultural expressions. The Archaic cultures of Australia do resemble the much later Archaic cultures of the Southeastern U.S. in some important ways. So we will start with the conception that there is a value in breadth of coverage in archaeological knowledge: both in SPACE and TIME

In my own work in archaeology, I have, I believe, demonstrated a breadth of concern across Time. I have published papers on the very earliest time horizon like the Island 35 Mastodon and my joint chapter with Jim Stoltman on Paleoindian expressions in the Southeast as a whole.⁵ On the other edge of the time frame, I pioneered in the '60s with general papers on Historical Archaeology and on the Historic Taensa tribe in Louisiana⁶; even earlier I had written about the Historic Kadohadacho on the Red River.⁷ Work of the

Lower Mississippi Survey program which I headed from 1958 to 1993, also covered a wide spectrum from Jeff Brain's work on early Archaic in the Yazoo, and Kidder's work on Poverty Point sites in northeast Louisiana to our lengthy programs on Proto-historic and Historic remains of the Natchez and the Tunica, and everything in between.⁸

If I sound a little defensive on the subject, I guess I am; an old colleague of mine recently referred to me in print as a "Mississippian" archaeologist. Coming from the pen of the "Great Synthesizer" - that hurt, since although as I will soon relate, I did begin with "Mississippian" concerns - meaning the CULTURE, not the state, I feel that my outlook was always broader than that. [After all, it was I that enlightened Prof. Willey on the existence of the Dalton culture of Paleoindian times

for use in his huge two volume Western Hemisphere synthesis - check the footnotes].⁹

But on to other matters: Charles [McNutt] asked for a more personal view of the past - and that is what this is. I was born in Minneapolis, Minnesota, educated at Yale and Michigan, and then spent just 3 months short of 40 years in the Peabody Museum at Harvard, which is where I also found my wife. As to other more detailed biographical and professional information concerning your speaker tonight, I will, in good professorial manner, suggest that you consult my 1993 Festschrift volume: "Archaeology of Eastern North America" edited by Jim Stoltman and the first three chapters written by James B. Griffin, my twin brother Philip, and Cynthia Webber.¹⁰ Uncharacteristic modesty will not allow me to discuss those matters very much further.

Now as to my experiences in the Lower Valley - the topic alluded to in the title. I will focus mainly on people and places with some explication of the significance of what I believe I learned from these travels and sojourns;

I started my Lower Valley experience in December of 1948, while a senior at Yale, doing an Honors thesis on the Sandy Woods site near Diehlstadt, Mississippi County, Missouri. It was a Mississippian village and mound site. I made surface collections from the site with the aid of my father and twin brother who joined me in a trek from St. Louis where we were visiting. I had begun studying a huge collection of pottery excavated from the site in the 1870's which resided in the "Other" Peabody Museum in New Haven. My mentor and inspiration for that choice was Irving Rouse. In the following spring of 1949 I stopped off, by train (how quaint) in Ann Arbor to show Jimmy Griffin my finds at Rouse's suggestion. I have de-

scribed that encounter in my first "Lower Valley" Reflections given in 1975 at Ann Arbor at the time of Griffin's retirement.

Partly as a result of that first encounter with the Dean of Eastern Archaeology, known well by my colleague Prof. McNutt, I did a speedy one year MA at the University of Michigan under Griffin's watchful eye (1949-50). I then went back to Yale for my Ph.D. That foray to Ann Arbor was part of my already espoused "Breadth Hypothesis." My University of Michigan stay gave me access to different views and even different fields: Biological Anthropology, not then available at Yale, and also Anthropological Linguistics, not to forget the special cultural perspectives of Leslie White and Volney Jones. Different people and different perspectives on Anthropology. Yes, I was always trained in Anthropology. My undergraduate major in Anthropology included a lot of Sociology from which I certainly gained new views - That's when I read Gunnar Myrdahl's "An American Dilemma" for example.¹¹

But back to field work in the Lower Valley: my first professionally sponsored work was in the summer of 1950 under the watchful but long-distance eye of James B. Griffin, who was working with Al Spaulding and a group of students in the St. Louis area at Cahokia. It was a busy summer for me: I was sent to Southeast Missouri to do a variety of tasks: first site surveys with a fellow-grad student for some weeks & analysis of our findings, then photographing a museum collection [Beckwith] for another week, next back to field survey with Scully, and finally in late August some test pits (all by myself) at a couple of sites we'd located. An eye opening experience for a novice like me.

The next summer, 1951, a full season of field survey and the discovery, for me, of the site that I wanted to dig for my dissertation - the Crosno site. I was led to

that site by the work of an amateur Leo Anderson, who became a life-long friend. That's part of field work too -- the wonderful people met along the way. But I must press on: the climactic 1952 season when I dug at Crosno with the help of a student assistant and a crew of hired hands. Crosno was a mid-sized walled temple mound site of Mississippian age: 1200-1400 AD. Then on to lab analysis in 1953 and the writing up.

During these years I met amateurs: Leo Anderson, Greg Perino, James Hampson at Nodena Plantation, Kenneth Beaudoin, the poet of Memphis, interested in arrowheads and sherds. And one with knowledge of the local scene, at Marked Tree Arkansas on the St. Francis River - Opie Bird. Saw sites like the Angel Site in Indiana; Wickliffe, Kentucky; Shelby Park, Tennessee, as "Chucalissa" was then called; Moundville, Alabama. That was part of James B. Griffin's training too - see the sites and the stuff from them. I also began my virtual yearly trek to the Southeastern Archaeological Conference (SEAC) meetings beginning in 1950 with Phil Phillips. Go to the regional meetings in your area, even if, or perhaps because, you are living and working a long way from where the action is: the Lower Valley.

Of course, my move to Cambridge in January 1954 was transforming. I had completed my analysis of the Crosno site materials - all I had to do was finish up the writing. Rouse could not understand the move - I didn't have a job there; he was right, but I took a chance. Got the writing done, got my degree in June, got a short term job with the Justice Department working on Indian Land Claims via a suggestion by Gordon Willey - my study of the Kadohadacho came out of that work.

Then another break: a rare NSF Post-Doctoral Fellowship for two years (the

program stopped soon after that), and I did some more field work in Southeast Missouri. Later in the Spring of 1957 I would do a fill-in on a teaching job in the Department for Phil Phillips who was unable to do the course as a result of illness in his family. The summer of 1958 a junior position unexpectedly opened for the teaching of "Sophomore Tutorial" in the Department, and I got it.

From that start as an Assistant Professor to the Directorship of the Peabody and the Peabody Professorship was just a piece of cake. You see how carefully planned it all was. The rest is history, and I won't bore you with more personal incidents. But I will talk about more people met along the way:

People at Yale: Ben Rouse my thoughtful mentor from undergrad to PhD; Ralph Linton, the grizzled old Lion whose attic I lived in for three graduate years; Wendell Bennett: Chairman, Peruvianist, and friend; Cornelius Osgood, my "boss" at the Other Peabody; Floyd Lounsbury, the great Linguist; Pete Murdoch, the Social Structure guy, and others. A small department but there are those who loved it.

At Harvard, Phil Phillips, my friend for 40 years, but also Hal Movius the great European Paleolithic scholar; Gordon Willey who had come to Harvard in 1950 as the first Bowditch Professor of Middle American Archaeology; others too such as Doug Oliver, the great Oceanic scholar; Jo Brew, Peabody Director, whom I'd one day replace, and Clyde Kluckhohn, the Department Chairman when I was appointed in 1958, who would die much too early in 1960. And on and on.

Outside of Harvard I would meet and get to know professionals like Jim Ford, Stu Neitzel, Bill Haag, and John Goggin, more amateurs such as Tono Waring, and

guys that I had met during my brief year in Ann Arbor such as Bill Sears and Chuck Fairbanks, and also Joffre Coe and Scotty MacNeish, both who had ties to Ann Arbor and Griffin, and even a quick nod to Stu Struever.

As any of you who know Southeastern archaeology in the late 50s and 60s will recognize, these were the movers and the shakers. I was junior in age to all of them, except Struever. However, Bill Haag soon stuck me with the job of running SEAC, as "editor" - then we had no President, no Board, and no Treasurer. The Editor was all that and more - factotum of the annual meetings with a colleague in the town we were meeting in as "Local Arrangements" person. So simple. I got to know a lot of people that way, mostly in a good sense, but then there were a few "strange ones" - I must say that these regional conferences were generous at that time to local problems. For example, Harvard-trained Prof. A.R. Kelly at the University of Georgia always got a chance to speak, even when, as usual, he didn't have much to say; there were others like him too, but enough of that.

In 1958, with my first post at Harvard firmly set, Phil Phillips handed over to me the responsibility for running the field operations of the Lower Mississippi Survey the entity that had begun with the work of Phillips, Ford, and Griffin in the Lower Valley in 1940. The long-considered major excavations at the Lake George site could begin: I did three seasons, (1958-60) living in Holly Bluff with my group of students and a large crew of hired hands. Among those students, mainly undergraduates, were Jeff Brain and John Belmont, who have made important contributions to Lower Valley archaeology. Memories of Lake George again are filled with local folk, some just friends, like Joe Stoner that I have kept in touch with over

the years; others like the late L.B. Jones of Greenwood and the Cottonlandia Museum, an active amateur, would be an important data source, and close friend, for the LMS until his recent death.

After the Lake George excavations, the LMS did a major field survey across the river in Louisiana - the Tensas River Basin, and an important sequence came out of that field work (1963-64), as well as three undergraduate senior theses and David Hally's doctoral dissertation. My published work on that area included my first specific work on Historic Indian occupations by the Taensa.

The decade from 1967 to 1977 were my years as Director of the Peabody Museum; LMS field work did continue with work by Jeff Brain, who had as assistants two Harvard Undergraduates Vinnie Steponaitis and Ian Brown. They would both do their PhDs at other institutions - I am a firm believer in educational diversity as my own career documents. Ian would come back in the Sixties to work for the LMS at Peabody, first at Avery Island and then in the Natchez area. The important and somewhat controversial work by the LMS at the Trudeau and some other Tunica sites was done under Jeff Brain's supervision. I was able to visit these LMS programs during these busy days at Peabody, and kept up with them, but always at some distance unfortunately. Later in the 1980s the LMS would do one more piece of work adjacent in Louisiana adjacent to the Gulf at the Morgan mound - supervised by Ian Brown and carried out by Rick Fuller in the field.

By the 1980's things were changing again for me. I was ready to take on some new projects. In 1981 at the nagging of John Belmont, I did a brief (3 week) reconnaissance of the Boeuf Basin of Louisiana, west of our Tensas survey and of an area unknown to the LMS. I did it with

John's assistance and an undergraduate. It was a very interesting area, and we made our first contact with a interested local named Robert Barham, who would be of immense help in later years. Just by luck in 1983, it turned out that the state of Louisiana had "survey funds" available, and a four year program developed under the aegis of yet-another of my graduate students: T.R. Kidder. First we did general survey and testing and finally excavations at the Jordan site in 1986. Kidder's dissertation was on his Jordan findings.

I have continued to visit the Delta often in the last ten years (1986-96), even after moving from Cambridge to Santa Fe in the fall of 1993, following my retirement from Harvard. My research activities since 1991 have had that broader scope that I have mentioned above; the reason: a planned volume on the Yazoo Delta with long chronological exposure.

This in-progress synthesis of the Yazoo came out of discussions that Jimmy Griffin and I had with our mutual friend L.B. Jones, who wanted to find someone to do a book on the archaeology of the Yazoo area, especially using data at his Cottonlandia Museum. We tried to find some likely candidates, but to no avail. After some quite careful thought, I realized that it was something that I might like to do myself - "self selection" I think that is termed. I am calling the volume; "Yazoo Chronicles: The Mississippi Delta from Paleoindians to Plantations". The research and writing on this mighty task with a timeline from 15,000 BC to yesterday afternoon is progressing slowly but surely. I have tried not to undertake any major work that does not relate to THE BOOK. Indeed, many of the things I have used in this paper will pop up in that volume one way or the other.¹²

What are some new ideas that I am

working on now?

First, we have to be prepared to change our mind sets on things, such as the following:

1. *Heirlooming*: the handing-down of objects from generation to generation; seen often in sacred or ceremonial items. Even ceramics - they are NOT clumsy people - the data are very good that some rather fragile ceramic vessels in the Southeast were "curated" for several hundred years. Stone pipes and disks were easier and quite often kept for long times. I gave a presentation on that topic here at the University last June at the Mid-South Conference.¹³

2. *Traces, trails, and pathways*: they were there - we have the transported "hard goods" to prove it. Greg Waselkov and his 1730 skin maps¹⁴ - they were cartographers - no doubt about it. Natchez Trace - Natchitoches Trace, etc. An important and "real" link across the landscape that has been neglected.

3. *Time: and Space*: no reason to fill up all the squares [in a Time chart]; possibility of NO ONE THERE at some moment in time: both at the site and in the region. Same idea in Space: there were empty places, or at the very least areas not occupied by seeable debris (hunting areas). This is a huge country not more than 2.5 million prehistoric inhabitants - we've got one quarter of a billion, and there still are empty places.

Now a little review: What has happened in the field in the past 50 years that's important?

I grew older, and I trust a little wiser. Students grew younger and, every one says "brighter" - I guess I agree. But there were a lot of other more important

changes in the Field of Archaeology that I have been committed to since I did my first month of digging around the shores of Lake Minnetonka, west of Minneapolis in the summer of 1947, under the tutelage of Prof. Lloyd Wilford, a Harvard PhD, (but I didn't know that then). I will, for the sake of brevity focus entirely on the Lower Valley as my title suggests:

First, the Ground - GEOLOGY

In 1944, Harold N. Fisk published his great work of Lower Mississippi and suggested a detailed and chronologically aligned history of the land forms. For example, a numbered series [1-20] of channel movements for the last two thousand years, with lettered ones [A-J] reaching much further back in time.¹⁵

The Lower Mississippi Survey took note of these new data, and in 1951 Phillips attempted, with some modest success to show correlations between the Archaeological sequence and the Geological. There were some problems, and remember that even Geology was working without absolute dates. But even when radiocarbon dating (and more about that in a moment) came in, James A. Ford would attempt in 1964 to use Fisk's dated land-forms to help sort out his findings on the distribution of a very early projectile point known as "Dalton". Not with much success I must confess. But Fisk's work was basic, not specific.

But fifty years after Fisk, one of the field workers recruited at LSU in the 1960's by Ford for his Dalton Survey named Roger Saucier would complete a masterful follow-up on Fisk's work and provide us in 1994 with a whole new view of the geological chronology of the Lower Valley using radiocarbon dating.¹⁶ Saucier is an old friend of mine with whom I and other members of the LMS have con-

sulted a lot in the past 20 years. My colleague, T.R. Kidder specifically used Saucier's work in his own LMS work in the Boeuf Basin in Louisiana, and has recently co-authored with others an article in the journal SCIENCE on the redating of the Mississippi Delta's using a combination of geology & archaeology. Good work!¹⁷

Environment

I will paraphrase President Clinton to introduce my next topic whose study has changed over the past 50 years: "It's the Environment, Stupid!" It is the LANDSCAPE that we must understand, if we are going to be able to understand the ancient cultures whose remains we search for up and down this Great valley. In this area, I wish I could say that we have made as much progress as in Geology, but that is NOT the case. I look back at my early work in Southeast Missouri in the 1950's and now realize how little I knew. But I tried, give me credit for that.

The one known way at that time to look at the landscape occupied by the prehistoric cultures, in anything but just a geographical way, was by looking at the faunal remains from the garbage middens in a site. That's all we are: "garbage collectors with PhDs." The Crosno site had wonderful preservation of faunal remains, and as a result my dissertation contained the first faunal list for the whole Lower Valley.¹⁸ I could not make any great breakthroughs with these data, but they went in the record. A few years later I wrote an article on "Settlement Patterns in the Lower Valley" and made a great step forward (I jest, of course); I put forth the notion that in these alluvial areas one had to carefully note the amount of the landscape that was NOT wet under foot in the PAST.¹⁹ You see today these lands have

all been cut-over, drained and farmed for the most part. It looks like miles of open park-land. Believe me that is not the way it was in DeSoto's time (1540) and surely not at 1000 AD. We have to reconstruct the amount of usable land for each period. A colleague has credited me with the "Dry-Foot Hypothesis", and I thank him for that gift, in lieu of the Nobel Prize I expected.

But seriously, it is the Environment that counts, and it was ever changing over the last 15,000 years during which we have actors on the stage we call the Lower Valley. So what to do? - more faunal analysis with more questions of the data - but that can only take us so far. There is a well-developed study of plant pollen done with great success in Europe that gives us careful views of plant and tree systems via their buried bits of pollen; practically nothing has been done on this in the Lower Valley. My colleague, Bob Lafferty, he of the "Dry-Foot" nomenclature, has sponsored the most recent research in the Lower Valley in this field - hurrah for him!

People have used historical records to reconstruct the landscape with some modest success, but why is this so difficult? Well, take the Yazoo Delta, more than 8000 square miles of Lower Valley Landscape: NOT ONE ACRE of it now accurately reflects the environment of five hundred years ago. It has been cut over THREE times in the past two centuries: "clear cut" I mean. It has been drained, its natural streams turned into Corps of Engineers "Playthings," and the wild life decimated. Don't tell me you know of a beautiful age-old Cypress swamp. SHOW ME - those trees should be 150 feet tall, there should be Oaks that tall too. There aren't any of that size from the mouth of the Ohio to the Gulf of Mexico. What the Lower Valley was really like as a place to

live and hunt and raise crops and a family is long gone for ANY TIME PERSPECTIVE - not just 5000 B.C. -- The Environment is a Problem that begs for some solutions.

And that's not all: we can't SEE all the data we need to. There are really "No-See-Ums" in most archaeological reconstructions of the area's past. Most Europeans didn't see or report their use by the Indians either. What are these "no-see-ums"? My own term for hard-to-see things in the archaeological record.

They are: Shrimp, Crawfish, and Clams: all edible shellfish. Let's take the first pair (Shrimp & Crawfish) together - the Spanish referred to both of them as "Camarones" - they are closely related "critters".

You all know "Ocean or Marine Shrimp" - who has not eaten a shrimp cocktail or enjoyed "Shrimp Jambalaya"? But have you ever tasted "Fresh Water Shrimp": aka "River Shrimp"? A colleague of mine (not present here) with whom I was discussing this topic, looked at me and delivered a simple declarative sentence: *There is no such thing!* No Fresh Water Shrimp?

Well, wake up America, the *present* is *not* a good guide to the *past*. Yes, there are, and, more importantly for archaeology, *were* fresh water shrimp all through the Mississippi and Ohio Drainages. They are widely extinct now, but some of those losses are very recent - in the past twenty to thirty years. In the 1920's there was a canning plant for these shrimp at Chester, Illinois, just south of Cahokia. Never here - *nonsense*, I've eaten some from the Achafalya only a few years ago. And I don't mean those measly little "grass shrimp" often used for bait - I mean *medium* shrimp: the size that you get in any fish market. And "Freshwater Shrimp" are still found in a number of Eastern U. S.

refugia, no matter what my good friend thinks.

How about its cousin the Crayfish, Crawfish or Crawdad? - all the same. What's its distribution in the East? Just in Louisiana and Mississippi?? No, from Maine to Minnesota, and from Florida to the Great Lakes. They still exist in the millions; both wild and in the commercial crawfish ponds of the Lower Valley. I don't have to tell this audience about these beasts!

Do you think that Indians ever ate fresh water shrimp or ocean shrimp for that matter, or even the ever-present crawfish? Well, "dried" ocean shrimp are a mainstay all over Mexico - dry them and they are portable food of great value. And I am sure they were part of the Lower Valley Indians diet; can I prove it? Now, I have to admit that the outer portion of these shellfish is very perishable and will melt away *to nothing* in garbage pits or middens. Therefore these delectable bits of nutritious food *are* very difficult to detect archaeologically.

However, I have discovered a first-level method that works for crawfish, and crabs too. These critters have the natural habit of discarding their outer shell as they grow, spending a short period in a defenseless "soft" shell state. To help protect these vulnerable creatures, Nature has provided them with small calcareous concretions called "gastroliths" which help them "harden up" their shell exteriors. Also called "Crab's eye", the latter according to my Oxford English Dictionary - In the past these "eyes" were collected in Europe and "formerly used in powdered form as an absorbent or antiacid". Didn't think you'd ever know that, did you?

Well, upon learning about these gastroliths in Crawfish, I obtained some from a specialist at Louisiana State University and have given them to some Faunal labs

in the Southeast. Liz Wing's lab at University of Florida has identified some in a Louisiana midden. Gumbo is therefore an ancient dish! But for most scholars today shrimp and crawfish are no-see-ums, but not all: Irvy Quitmire, also out of Florida, has identified shrimp jaws (a fantastic piece of work) from some sites in Florida. So there is hope to turn some "no-see-ums" into happy little labels in the faunal lists. Then we'll know better how they really used the Landscape.

The other shellfish that I mentioned: *Clams* are much more visible in middens - there are huge piles of freshwater clams and marine clams like *Rangia* in many areas of the Southeast. Well, their nutritional value has been widely derided - it takes more energy to open them than that gained from consuming them, so some folks say. Actually most Louisiana and Gulf Coast scholars suggest that *Rangia* are virtually inedible - their source for that information [I know none who have tried to eat them] is that even the "Cajuns" don't eat them. Yet there are huge piles of them on Indian sites all through the region - what were they doing with them? Piling them up to keep their feet dry is one given explanation - but it doesn't hold water for me.

Now other fresh water clams are numerous all through the Mississippi drainage including the Ohio and Tennessee and many other rivers. In the Archaic time period [4000 - 2000 BC] throughout this area huge piles - shell heaps - were made of these "clam shells" 20 to 30 feet high, especially in the Tennessee River area, *not* in the Lower Valley. Did they eat them, yes, but the proof again is circumstantial - but one would have to think so.

However, the cuisine did change in the Lower Valley - we know not why. Look at the period around 500 AD in the Yazoo Delta [Deasonville] and there are many

small to medium-sized shell heaps all through the area. Gulf Coastal shell heaps also continue. We presume that the Deasonville folk were eating them, but we don't really know. In Mississippian times they were using crushed shell as part of the tempering of clay vessels. What do you suppose they did with the clam meat – “feed the dogs,” who knows? Too many questions and too few answers here.

Let's admit that these dietary problems seem *almost* unsolvable, but not quite. They require some new approaches, and some are available. Studies using isotopic analysis of our bones can tell us something about what we have been eating as a part of our regular diets. Corn in particular is fairly easy to monitor. There have been some hopeful signs in marine diets too - we need to work and do laboratory studies of animals that have eaten these diets, so that we can establish markers for their ingestion. Then these “no-see-ums” will be transformed as well into *known* parts of aboriginal diets.

But how about *progress* in other fields? Archaeology does not work alone in all these new views about the past; and there have been important developments in ancillary fields in these past 50 years that have aided us prehistoric archaeologists with our progress to know the past.

Let me cite first: *ethnohistory* - if the truth be known, this field was only born in the time frame we are considering: As a result in 1945 of Congressional action that established the “Indians Claims Commission,” there was a great increase in research into Tribal History because there was money to be had for the Indian Tribes that could prove that they had land taken from them, even by treaty, for which they were not properly remunerated. As I am sure you know, it was hard to find a tribe that did not have such a sad tribal history. Many lawyers were involved, so one must

admit that the members of that profession do have some redeeming value - you'll note I said “some”.

There began a cottage industry in working for the tribes; many anthropologists - especially ethnographers who had worked with specific tribes, worked to provide data for the review of the Claims Commission. Out of these research activities came renewed interest in their past and was soon termed “Ethnohistory” and a professional journal was founded to publish this work. This was a major development of the field.

If the truth be told, the 30's and 40's archaeologists had made very little use of the work of ethnographers - one can say that, with a few exceptions that I could count on the fingers of one hand. The living Indians of the Eastern US, east of the Plains that is, were considered almost to be NON-Indians unworthy of study. “Tarpaper-shack Indians”, with not a great many of them using or even knowing their native languages (or so THEY thought). Who are “they”? The sage “ethnography” professors in the Eastern centers of learning - Yale, Harvard, Columbia, and Penn - sure there were exceptions, but Boas at Columbia sent most of his Ethnographic students to the West: men to the Plains - the Crow, and women to the Southwest - the Pueblos & the Navahos. That is, except some few scholars, considered slightly odd, like Frank G. Speck, who *did* work on Eastern Indians, and a very few others who worked with the Iroquois.

Now things have changed in Ethnography with this focus on “Ethnohistory,” and so too in Archaeology, but in the latter field under quite different pressures. “Colonial” archaeology, begun at Jamestown and Williamsburg in the 1930's and 40's, began in the late 50's to encompass the post-1540 dateline [DeSoto's expedition to the Southeast]. Earlier, if you were dig-

ging an Indian site and ran into glass beads, you cursed softly under-your - breath, filled the hole back up and took off - too LATE to be of any interest. I exaggerate a bit, but not too much. So some people like Jim Deetz (1960) and Norm Barka (1965) at Harvard would do PhDs in Anthropology on Historical Archaeology.²⁰ I was a reader on both those dissertations. They were part of the growth and development of this new branch of archaeology.

Whatever the details of the larger history of that discipline, "Historic Archaeology" has made great strides in last 30 years - and the LMS, under my direction, has been committed to that field for years as I have mentioned above. Also I have personally become interested in the Choctaw and their history, and I have devoted a lot of research time to that effort. What we have seen is that "dirt" archaeology adds much to what can be learned from the written record - to put it mildly.

And there were very important changes in the area of "Chronology" too during this 50 year period. It is now much easier to go way back in time with a heretofore unknown kind of accuracy. What's the secret - well, you all know that answer: Carbon 14 or radiocarbon dating - now, I am NOT going to explain how it works. It does work for once-living materials (wood, bone, etc) and gives us good dates to perhaps as much as 40,000 years ago, well beyond any thing we would require in the New World. How accurate is it? Well, never trust a single date from a single lab - but in the main, depending on the scale of time, within a range of accuracy of 100 to 300 years.

What did this do to archaeology in the mid-1950s when I was in graduate school? It changed everything in the Eastern US in a quantum fashion that is hard for the young scholars of today to

understand. You'll note I specifically said the EAST. Why? Well, the Southwest, where all the important archaeologists worked [or so they felt] had had tree-ring dating since the late 1920s that enabled to date the last 2000 years very precisely. Everything in the East was LATE, LATE, LATE, or so they thought.

Boy, were they surprised when in 1952 Griffin published dates on Archaic Pre-ceramic sites in the East at 3000 BC, not years ago.²¹ Fact is they didn't believe it - wrong, wrong, wrong. But no, it was they, not the lab, that was wrong. The rest of the Eastern ceramic sequence had been squeezed into so little time (all after the time of Christ) that if one thinks about it now, it had made Eastern prehistory seem like one of those old-fashioned movies in high speed. But now with C14 dating there was Time in the Eastern cultures to begin, flourish, and fade; and the whole Mississippian climax did NOT take place AFTER 1540, but in the 500 years before that day.

So believe me there have been changes: "mind-bending changes," and I am ready to take them for better or worse. I'd have to say the greatest surprise in the past few years has been another set of revelations as to the age of monumental earthen mounds. Many of you have probably heard of the great site of Poverty Point, a bit north of due west from Vicksburg. There is a seventy-five foot mound with circular embankments. First published by Harvard-trained (I had to get that in) Clarence Bloomfield Moore in 1913, it became the focus of much attention in the 1950s and 60's, and the major constructions were dated, after some varying successes, to be back to about 1500 BC for its pre-ceramic Archaic culture. Wow, what a way to start off mound building in the eastern US.

But that wasn't to be the whole story

by a whole lot - in the 1960s some very early dates were obtained from a mound in Baton Rouge, also in sure pre-ceramic context, at almost 4000 BC. Jim Ford and Bill Haag could NOT believe those dates. Almost twenty years later, I was doing some reconnaissance in eastern Louisiana, aided by a local amateur [please don't think we PhD's have psychic powers, as I noted above, I have been led to many important sites by local people; I always acknowledge such help].

In the summer of 1981 I first saw the Watson Brake site. It was on the Ouachita River, south of Monroe, Louisiana. It had a conical mound about 25 feet tall and very steep sides as well as a low earthen embankment. It was surely preceramic and had some materials that related it to Poverty Point or earlier. Some years later a new young professor, Joe Saunders, came to the University in Monroe, and with advice from me and others tackled this mound and others like it in the area with great success. We now know that they date to nearly 3500 BC; what a breakthrough!! Moundbuilding thousands of years older than we had thought.²²

So, what I hope I have shown you is the amazing amount of change that has and is continuing to occur in the archaeology of the Lower Mississippi. I have had many good years in what I must now call "My" Valley - remember I was born on the banks of that great river, only many hundreds of miles north of where I now stand tonight - Thank you.

¹ This paper was originally offered as the inaugural presentation in the Advances in Anthropology Lecture Series at the Department of Anthropology, University of Memphis on February 21, 1997. Footnote annotations are by Charles McNutt and Kevin E. Smith, for which the author is most grateful.

² Originally presented in Ann Arbor, Michigan upon the retirement of James B. Griffin in 1975, a version was published as Stephen Williams (1976)

"Reflections from the Lower Mississippi Valley." *Midcontinental Journal of Archaeology* 1:101-103.

³ James B. Griffin passed away on May 31, 1997, only a few weeks after this presentation.

⁴ T.R Kidder is now at Washington University in St. Louis.

⁵ Stephen Williams (1957) "The Island 35 Mastodon: Its Bearing on the Age of Archaic Cultures in the East." *American Antiquity* 22:359-372; Stephen Williams and James B. Stoltzman (1965). An Outline of Southeastern United States Prehistory with Particular Emphasis on the Paleoindian Era. In *The Quaternary of the United States*, edited by H. E. Wright and D. G. Frey, pg. 669-83. Princeton University Press, Princeton, N.J.

⁶ Stephen Williams (1961) "Historic Sites of the Caddoan Area and Documents Thereon. Proceedings of the Fifth Caddoan Conference." *Texas Archaeological Society Bulletin* 31:122-130; (1962) "Historic Archaeology in the Lower Mississippi Valley." *Southeastern Archaeological Conference Newsletter* 9(1):53-63; (1966) "Historic Archaeology: Past and Present." *Annual Report of the School of American Research for 1966*, 23-25; Stephen Williams (1967) "On the Location of the Historic Taensa Villages." Conference on Historic Site Archaeology Papers, Vol. 1.

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⁸ The Lower Mississippi Survey archives, including bibliographic citations, are available online at <http://rla.unc.edu/archives/lms1/index.html> (accessed June 12, 2005).

⁹ Footnote 79 to Chapter 2: "I am indebted to Stephen Williams for calling my attention to the chronological and developmental importance of the Dalton point in the southeastern United States." In *An Introduction to American Archaeology: Volume 1 North and Middle America*, pg. 76 by Gordon R. Willey. Prentice-Hall, Inc. Englewood Cliffs, NJ. 1966.

¹⁰ Stoltzman, James B. (1993) editor. *Archaeology of Eastern North America: Papers in Honor of Stephen Williams*. Archaeological Report No. 25, Mississippi Department of Archives and History, Jackson, Mississippi.

¹¹ Myrdahl, Gunnar (1944) *An American Dilemma: The Negro Problem and Modern Democracy*. Harper and Row, New York.

¹² This volume is still in progress as of 2005.

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¹⁹ Stephen Williams (1956) "Settlement Patterns in the Lower Mississippi Valley." In *Prehistoric Settlement Patterns in the New World*, edited by G.R. Willey, Wenner-Gren Foundation Publications in Anthropology 23:52-62. New York.

²⁰ James Deetz (1960) *An Archaeological Approach to Kinship Change in Eighteenth-Century Arikara Culture*. Doctoral Dissertation, Department of Anthropology, Harvard University, Cambridge, MA.; Norman F. Barka (1965) *Historic Sites Archaeology at Portland Point, New Brunswick, Canada*. Doctoral dissertation, Harvard University, Cambridge.

²¹ Griffin, James B. (1952) "Culture Periods in Eastern United States Archeology." In *Archeology of the Eastern United States*, James B. Griffin, ed., pp. 352-364, Chicago.

²² Joe W. Saunders, Rolfe D. Mandel, C. Garth Sampson, Charles M. Allen, E. Thurman Allen, Daniel A. Bush, James K. Feathers, Kristen J. Gremillion, C. T. Hallmark, H. Edwin Jackson, Jay K. Johnson, Recca Jones, Roger T. Saucier, Gary L. Stringer, and Malcolm F. Vidrine (2005) "Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana" *American Antiquity* 7(4):631-668.

A NASHVILLE STYLE SHELL GORGET FROM THE JARMAN FARM SITE, WILLIAMSON COUNTY, TENNESSEE

Michael C. Moore

Among the artifacts found during F. W. Putnam's 1882 exploration of the Jarman Farm site was a Nashville style shell gorget. This marine shell item had been placed in an infant stone-box grave along with a human effigy hooded bottle and a notched-rim bowl. The shell gorget morphology falls within the Nashville II style as defined by Brain and Phillips (1996:171).

The intent of this brief report is to describe a marine shell gorget recovered by Frederic Ward Putnam during his 1882 excavations at the Jarman Farm site, a Mississippian town near Brentwood in Williamson County, Tennessee (40WM210). This investigation comprised just one of many site explorations in middle Tennessee sponsored by the Peabody Museum of Archaeology and Ethnology at Harvard University between 1877 and 1882 (Moore and Smith 2003; Smith and Moore 2001, 2005).

The shell gorget found by Putnam was inadvertently excluded from the recently printed report on archaeological work at the Jarman Farm site (also known as the Brentwood Library site) between 1882 and 1997 (Moore 2005). This specimen was included in the table that lists the artifacts recovered from the 1882 work, but was omitted from the section that describes these artifacts. Unfortunately, the table entry of the gorget as fenestrated is also in error. The gorget is not fenestrated.

Thus, presentation and description of this gorget is necessary for several reasons: (1) an accurate portrayal of this gorget is missing from the comprehensive site report; (2) this specimen represents the only marine shell gorget recorded from the site to date; and (3) the gorget is not included in the shell gorget volume by Brain and Phillips (1996). These facts render the Jarman Farm gorget virtually

unknown to the professional community at this time. To pass on an opportunity to acknowledge that this gorget exists would compound the previous reporting error.

Gorget Description

The Jarman Farm gorget (Figure 1) was retrieved from an infant stone-box grave (Grave 42) located on a gently sloping ridge overlooking the Little Harpeth River (see Moore 2005). This particular grave was one of 48 stone-boxes dug by Putnam in a garden south of the Jarman house. Additional artifacts recovered with the gorget include one human effigy hooded bottle, one notched-rim bowl, and eight marine shell beads.

Made of marine (whelk?) shell, the gorget measures 62 mm in diameter and 6 mm thick (measurements from Peabody Museum online collections data sheet). As shown in Figure 1, the Jarman Farm gorget reflects the style previously defined as Scalloped Triskele, Nashville Scalloped Triskele, or Nashville style (Kneberg 1959:14-17; Muller 1986:72-73, 1989:17, 22-23). This specimen displays a scalloped border with thirteen ovoids. Two large and irregular-shaped suspension holes were placed within the center of one ovoid. The ophidian band has five (somewhat concentric) circles and five pitted panels. There is a (rather broad) plain band around the central whorl, or triskele. Interestingly, the triskele exhibits three

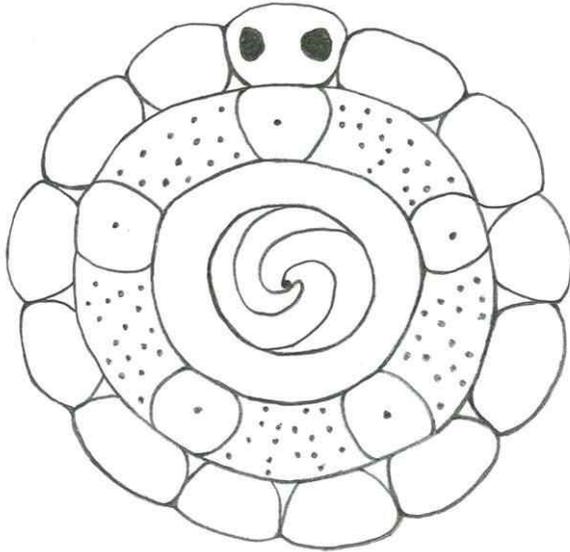


FIGURE 1. Author sketch of gorget.

volutes that flow in a clockwise manner around a small hole in the center of the gorget. Nashville style gorgets usually have a small concentric circle around the center hole, but the Jarman Farm specimen does not display this particular design element.

The Jarman Farm gorget is most similar to the Nashville II style following the style classifications presented in Brain and Phillips (1996:113-123). Nashville II style gorgets are described as generally cruder in design and execution than Nashville I style specimens, with rougher ovals along the scalloped border, fewer circles in the ophidian band, irregular spaced pits in the panels between the circles, and a more open triskele. The Nashville II style is interpreted as an imitation of the Nashville I style from outside the Nashville region (Brain and Phillips 1996:117). The validity of this interpretation for the Jarman Farm gorget is certainly open to discussion. This argument, however, falls outside the purpose of this report and is best left for another time.

Acknowledgement: No matter how many times a manuscript is reviewed, it seems that some mistakes find a way to lie low until the manuscript is printed. Although a number of people contributed to the substantial amount of information presented in the Brentwood Library report, the responsibility for the gorget omission is mine alone.

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