Archaeological Testing at 40HA84, Audubon Acres, Chattanooga, Tennessee

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Abstract

During May and June of 1993 and 1994, a UTC field school conducted test excavations at 40HA84 in Chattanooga, Tennessee. Sixty square meters of surface area were screened using 1/4-inch mesh, resulting in the discovery of 40 prehistoric features extending below the plow zone. Several postholes and other features contained 13769 prehistoric artifacts, while the plow zone contained 21704 artifacts. The vast majority of these remains are associated with the late Mississippian period. Two historic glass beads and one clay bead were found in the plow zone, while a single clay bead was recovered from a shallow rectangular pit containing exclusively shell-tempered ceramics. According to Marvin Smith, these beads have 16th-century attributions, although they are also found in later contexts.

Features included a small clay hearth, 32 postholes, several miscellaneous pits, and three burials (one of which had been partially looted) that were filled primarily with large burned daub fragments and charcoal. One burial pit also contained two Madison projectile points, dating to the Dallas or Mouse Creek periods, while an apparent undisturbed burial pit produced several human deciduous teeth. These features are believed to represent infant/juvenile internments in the interior of a late prehistoric winter house, as they are enclosed by an incomplete line of post holes. Additional research is needed to determine the full size and shape of the structure formed by the postholes and daub concentrations, and to enlarge the systematically collected artifact sample from this site.

The discovery of extensive amounts of burned daub and the absence of a rebuilding phase for this structure indicate that it was abandoned after it burned. Together with the preponderance of late prehistoric ceramic and lithic artifact types and the four beads that probably date to the last half of the 16th century, this constitutes indirect support for Charles Hudson's (1988) identification of 40HA84 as the Napochie village that was attacked and burned by a combined force of Coosa warriors and a contingent of the Luna expedition in 1560.

Acknowledgments

I wish to thank the Chattanooga Audubon Society for providing the University of Tennessee at Chattanooga an opportunity to carry out research at one of the more important protohistoric sites in this region. I greatly valued the support and encouragement of Linda Harris, Ann Myers, and Dolores Wood during the first season and particularly that of Stacy Tilley during the 1994 season. It has been a delight to work with individuals who have such a sensitive appreciation of the significance of the archaeological resources under their care. I also acknowledge the support of the UTC Faculty Research Committee, which provided grant money to cover some of the expenses incurred. Lawrence Alexander provided useful information concerning the chequered history of excavations and looting at the site, and Marvin Smith graciously shared his expertise concerning the identification of historic beads in the Southeast. Kevin Smith (UT-Martin) and Richard Polhemus (UT-Knoxville) were instrumental in recognizing the features at this site for what they really were. I gratefully acknowledge their assistance in the interpretation of the structural remains at 40HA84.

I am especially indebted to the students who did the work at this site. During the first field season they included Amy Barnes (supervisor), Donna Harvey, Andrea Hebert, April Hurt, Samuel Lieser, Samantha Niemeyer, Joy Rucker, Debra Shulke, Jonathan Webber, Chuck Wilder, and Lisa Wright; Scott Smith and Fielding Freed also volunteered their labor during the summer. The crew during the second season consisted of David Agee, Carol Bird, John Chadwich, John Davis, Scott Dirl, Tonya Edwards, Brian Everhart, Jonathan Fickley, Fielding Freed, John Hare, Gene Long, Michael Millard, Samantha Niemeyer (supervisor), Maria Poppa, Wick Spears, and Virginia Stone. Samantha Niemeyer and Michael Millard assisted with laboratory analysis and computer inputting during the fall of 1994. Jonathan Webber produced all the hand-drawn artifact illustrations in this report. All involved approached this project with energy, cheerfulness, and a sense of patrimony toward Chattanooga's prehistoric past.

While acknowledging the combined efforts of those named above, I must also point out that any errors in fact or interpretation are, unfortunately, mine alone.

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Introduction

Audubon Acres is twice blessed: it is at the same time a beautiful as well as historically important place. The natural beauty of the wildlife sanctuary is obvious for all who visit there. The history of this place is less visible, and gaining an understanding of what Native Americans did there 500 years ago has been made all the more difficult by the mindless destruction of much of the archaeological record of a major protohistoric site known as Little Owl Village. Yet careful, systematic archaeology of small portions of the site where only unenthusiastic looting occurred is still possible, and promises to shed new light on some important questions concerning Indian-Spanish contact during the 16th century. This report summarizes the results of nine weeks of such research by the University of Tennessee at Chattanooga.

During the fall of 1992, the author was approached by Dolores Woods of Audubon Acres concerning the possibility of carrying out an archaeological research project at Little Owl Village, the popular (and probably incorrect) name given to 40HA84. Subsequent discussions with Audubon Acres Director Linda Harris indicated that a living history exhibit, consisting of a historically-accurate wattle and daub structure, was scheduled to be constructed on the north end of the site using volunteer labor. This structure would be an integral part of the educational program highlighting prehistoric and historic Native American lifestyles in the Chattanooga region. In view of the potential for uncovering significant archaeological remains at 40HA84 any time a hole is dug there, it was desirable to carry out a program of systematic archaeological testing in the area designated for the exhibit. The author submitted a successful grant proposal to the University of Tennessee at Chattanooga Research Committee to cover the primary expenses of the project, and a five week archaeological field school was carried out at the site during May and June of 1993. Approximately four weeks of fieldwork with a crew of eight full time and two part time students was undertaken, followed by four days of laboratory analysis. In 1994 the author returned to the site for an additional four and a half weeks with a crew of nine full time and six part time students. Expenses were "out-of-pocket" for this field season. Approximately six months of part time work was spent preparing the report.

As shown in Figure 1, the site is adjacent to South Chickamauga Creek approximately twenty miles from where it empties into the Tennessee River. This area is part of the South Chickamauga Creek Watershed in the Ridge and Valley Province. According to the *Soil Survey of Hamilton County, Tennessee* (Jackson 1982), the soils immediately adjacent to South Chickamauga Creek at 40HA84 consist of Newark silt loam and Whitwell loam. The former is a deep, poorly drained soil found on flood plains. It is medium in fertility and organic matter thanks to periodic flooding, and as such is well suited to farming. Whitwell loam is a deep, moderately well drained soil found on stream terraces. Although strongly acidic, it too is flooded on occasion and is suitable for agriculture. The northern portion of the site excavated by UTC conforms to Jackson's description of Fullerton cherty silt loam, which is well drained, gently sloping cherty soil. It is low in natural fertility and organic matter content, and is strongly acidic. The subsoil for this horizon is red cherty clay that in some areas contains more than 35% fragments of chert (1982:21-22).

Historical Background

Serious archaeological work at the site began in 1981, when a testing project was undertaken by Raymond Evans, Victor Hood, and Lauretta Lautzenheizer (Evans et al. 1981). At the request of Audubon Acres, the authors carried out an overview of the documentary data on the site, a summary of the degree of vandalism the site had suffered over the years, and archaeological testing that was aimed at determining the spatial and temporal parameters of the site in order to determine its significance. As outlined below, the first two goals of the project were successfully addressed, while the testing phase left much to be desired.

Written before much of the work on the 16th century Spanish presence in Tennessee was published by Charles Hudson and his colleagues, Evans et al. dismiss the possibility of a Soto or Pardo presence to account for Spanish artifacts in this region, and they were apparently unaware of

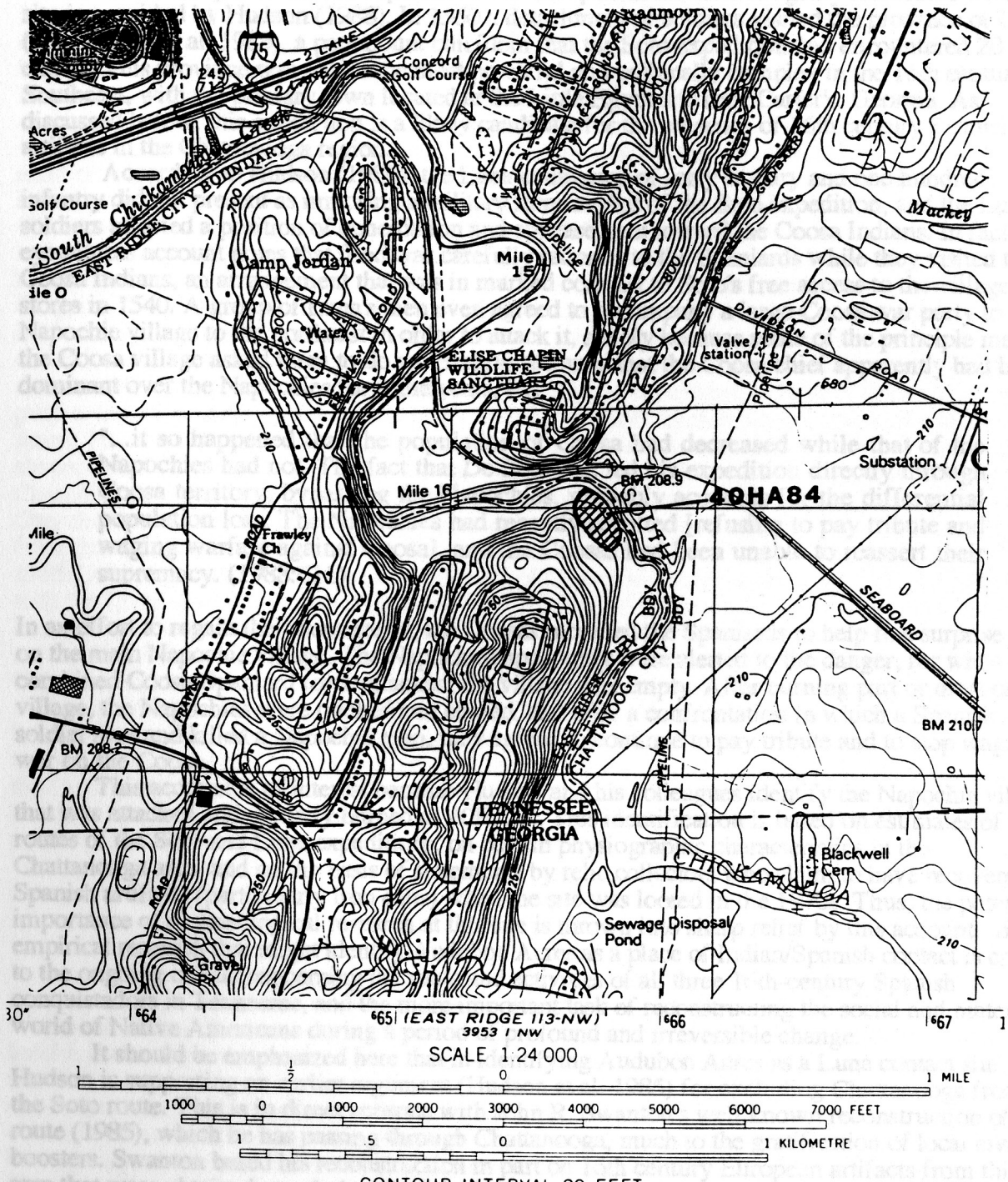


Figure 1. Vicinity Map, 40HA84. From 1982 USGS East Ridge (113-NW) Quadrangle.

the Tristan de Luna de Arellano *entrada* into east Tennessee during 1560. Curiously, they instead review admittedly weak evidence for French activities near Chattanooga, despite the fact that no early French artifacts are known for this region, and certainly none have been reported from 40HA84. A more parsimonious explanation for the Spanish material allegedly associated with the site is provided by Hudson (1988). In 1560 a detachment of soldiers visited the province of Coosa (see Hudson et al. 1985), a paramount chiefdom that the Soto expedition had encountered 20 years earlier. This province was one of the most powerful and politically complex in the 16th century Southeast, with the primary town located at the Little Egypt site near Carter's, Georgia. As discussed below, this expedition is a likely candidate for the presence of 16th century Spanish artifacts in the Chattanooga region.

According to Hudson (1988), the Luna contingent of forty cavalry and one hundred infantry did not present as imposing a military force as that of the Soto expedition, and the Luna soldiers adopted a position of conciliation and appeasement toward the Coosa Indians. In fact, one eyewitness account notes that food was carefully rationed to the Spaniards while they visited the Coosa Indians, an arrangement that was in marked contrast to Soto's free access to the village stores in 1540. A group of Luna's men even agreed to accompany a large Coosa war party to a Napochie village to the northeast in order to attack it, simply because some of the principle men of the Coosa village asked them to do so. Hudson recounts that the Coosa chief apparently had been dominant over the Napochies for some years, but

> "...it so happened that the population of Coosa had decreased while that of the Napochies had not. The fact that De Soto had led his expedition directly through Coosa territory, bypassing the Napochies, probably accounts for the differential population loss. The Napochies had recently revolted [refusing to pay tribute and waging warfare against Coosa], and the Coosas had been unable to reassert their supremacy. (1988:611)

In an effort to regain their dominance, the Coosas recruited the Spaniards to help in a surprise raid on the main Napochie village. The Napochies apparently were alerted to the danger, for when the combined Coosa-Spaniard force attacked, the village was empty. After burning part or most of the village, the Napochies were tracked and chased, and after a confrontation in which a Spanish soldier shot and killed a Napochie man, they agreed to continue to pay tribute and to stop waging war on the Coosa.

This account is of interest because Hudson and his colleagues identify the Napochie village that was attacked and partially burned as 40HA84. This identification is based on estimates of the routes of the Soto and Luna expeditions, on certain physiographic characteristics in the Chattanooga area, and on the basis of statements by relic collectors who claim to have recovered Spanish artifacts (particularly iron celts) when the site was looted in the 1970s. Thus, the potential importance of archaeological research at this site is thrown into sharp relief by this account. *Any* empirical research that might identify Audubon Acres as a place of Indian/Spanish contact is critical to the ongoing debate concerning the route and activities of all three 16th-century Spanish conquistadors in Tennessee, and the more important task of reconstructing the social and material world of Native Americans during a period of profound and irreversible change.

It should be emphasized here that in identifying Audubon Acres as a Luna contact site, Hudson is supporting an earlier argument (Hudson et al. 1985) for excluding Chattanooga from the Soto route. This is in direct contrast with John R. Swanton's well known reconstruction of the route (1985), which he has passing through Chattanooga, much to the gratification of local civic boosters. Swanton based his reconstruction in part on 16th century European artifacts from this area that were obtained mostly by looters, in addition to the presence of large, late prehistoric village sites in and around Chattanooga. The most impressive site is the Citico mound, 40HA65 (see Hatch 1976). That Soto would bypass a major mound center as well as the village sites on Moccasin Bend (40HA146) in 1540 is an indication of the relative lack of social and economic importance of this region four and a half centuries ago. According to Hudson et al. (1985), the central Coosa area was a much more vigorous center of Native American life, with a

correspondingly larger population and supply of food stores than Citico or Moccasin Bend. (Exactly when Citico waned as a ceremonial center, which is crucial to this argument, is problematic thanks to the almost willful destruction of this important site [Honerkamp 1990a]; several recent surveys indicate virtually nothing is left of the site today [Honerkamp et al. 1989; Honerkamp 1990b].) Since Soto had no line of supply supporting his *entrada*, he was totally dependent on the generosity of the local tribes he encountered--if food was not offered willingly, he resorted to looting and pillaging. At any rate, the *conquistador* made it his business to seek out those village centers that were the largest and most prosperous in every region he traveled through, and this apparently did not include Chattanooga.

Unfortunately, documentary records relating to the Audubon Acres site during the 17th and most of the 18th centuries--and to much of the interior Southeast for that matter--are nonexistent. Based on secondary sources, Evans et al. provide a brief overview of early white explorers and the Cherokee Indian presence in this area beginning in 1770. In that year the trader John McDonald and his Cherokee wife set up shop on South Chickamauga Creek near what is now the Eastgate Shopping Center. During the Revolutionary War pro-British Cherokees under the leadership of Dragging Canoe established four new towns along the creek, with the main one located near John McDonald's trading post, while Little Owl's Town was upstream from the main settlement. Local writer Robert Sparks Walker (1931), who lived at Audubon Acres as a child, has attempted to connect this latter town to 40HA84, and he apparently has succeeded, at least in the mind of the public: the site is identified as "Little Owl's Village" in most signs and brochures at Audubon Acres. However, Evans et al. point out that the Cherokee word for village or town refers not to a cluster of buildings but rather a civic or political entity (1981:25), and Wilms (1974) reports that Cherokee towns were typically arranged in a dispersed linear settlement pattern. In addition, the Cherokee houses at this time were quite similar in materials (logs) and floor plans (rectangular) from the houses of whites, and other items of material culture were similar as well (Chapman 1985:115-119). Suffice it to say that this image of Cherokee settlement is considerably at odds with the Little Owl Village envisioned by Walker over half a century ago, and as we shall see, there is nothing in the archaeological record to link Little Owl to 40HA84.

In 1779 the Chickamauga towns were attacked and destroyed by the colonial army under Colonel Evan Shelby, and another raid on a partially rebuilt town at the mouth of the Creek followed in 1782. Evans et al. state that the 1835 Cherokee census (no specific citation given) lists four Cherokee farmsteads on South Chickamauga Creek, one of which (Drowning Bear) may have been in the vicinity of Audubon Acres (1981:28-29). White farmers settled in the vicinity following the Cherokee Removal, and in 1872 the father of Robert Sparks Walker purchased a farm--possibly Drowning Bear's former farmstead--that the site is located on. In 1945 E.Y. Chapin purchased the property and donated it to the Chattanooga Audubon Society.

Previous Research

Actual archaeology at 40HA84 did not occur until the Evans et al. excavations during the summer of 1981. This was preceded by almost a century of casual arrowhead hunting (by the Walkers and their friends) and later intensive pothunting (by Chattanooga's legions of looters). A local collector reported to Evans that he had excavated an eroded burial on the eastern margin of the site that contained a small pot and greenstone celt. A student described the site as a "productive" one to Dr. Charles Faulkner at the University of Tennessee at Knoxville, who officially recorded 40HA84 on the state archaeological site file in 1964. It was not until the winter of 1973-74 that looting began in earnest, when serious professional relic collectors began to work the site. When Evans and Duane King visited the site in 1975 they found an area of approximately 150 by 80 feet in the central part of the field with a huge number of potholes interspersed with piles of back dirt. Thousands of pottery sherds, daub fragments and numerous human bones were also seen scattered about. No ceramic collection was made, but they concluded that 18th century and/or Cherokee ceramics were not present; instead, Dallas or Lamar types predominated (Evans et al. 1981: 33).

Citing numerous surveys conducted in the vicinity of the site by Jeffrey L. Brown and Evans, Evans et al. note that with the exception of 40HA84, Mississippian sites are virtually absent on South Chickamauga Creek. This is attributed to "the prevalence of disease" (1981:36), although why this creek was more disease-prone than any other is not explored. In retrospect it is also obvious that diseases generated in the "incubator" of South Chickamauga Creek would not stay put in the confines of the watershed. The region as a whole would be affected, not simply the margins of one of its creeks, thus rendering this hypothesis as unsatisfactory. The presumed lacuna of Mississippian sites may be due to environmental factors such as scarcity of soils suitable for prehistoric agricultural practices, or it may actually be due to small sample bias since the South Chickamauga Creek watershed has not been as intensively surveyed as other areas in and around Chattanooga. No data to support the disease hypothesis is found in the long, somewhat diffuse section of the report entitled "Physical Background," which presents only nonspecific geological and climatic descriptions of the Ridge and Valley Province, along with irrelevant trait lists of flora and fauna.

The explicit goals of the 1981 testing program were to determine (1) the size of the site, (2) the extent of vandalism, (3) the temporal and cultural components present at the site, and (4) the site's research potential. These ambitious objectives were supposedly addressed by the excavation of ten squares at various locations over the field that had come to be known as Little Owl's Village. Obviously such a limited testing approach would be hard pressed to meet the spatial goals, and despite claims to the contrary, they were not met, although useful information concerning the vertical extent of various sections of the site was obtained. Evans et al. also were able to accurately identify both cultural (looting and plowing) and natural (erosion and alluvial aggredation) site formation processes that had affected 40HA84, and to predict where some undisturbed portions of the site might be located. The "extent of vandalism" consists only of remarks on the obvious extant looting holes and estimates of the amount of destruction based on interviews with looters. While indications of the site's cultural/temporal parameters and research potential were generated, their observations are compromised by the absence of such basic information as pit dimensions, screening procedures (if any), or even where the test units were located: the site map is drawn by hand and is not tied into a permanent benchmark. Attempts to relocate these excavation units has not been successful. Adding to the locational confusion is the mention of eleven units (1981:38), while only ten are shown on the map and discussed in the report. Even more importantly, no suitable arrangements were made for secure curation of the artifact collection or field documentation (notes, feature forms, photographs, etc.), and *none* of these materials can be located today (Stacy Tilley, personal communication). According to the tables in the report (p. 50, 62), 287 lithic fragments and 516 ceramic sherds were recovered, with 97% of the latter being shell tempered wares. Numerous postholes, pits, and several burials were encountered, including an apparent log pit burial containing the remains of two infants or children (p. 41). The human remains were observed but not recovered during the fieldwork. No maps of posthole distributions, burials, or other features are presented in the report.

Based on artifacts recovered and interviews with collectors, Evans et al. conclude that the site is predominantly of late Dallas attribution. Claims of large numbers of looted whole pots (estimated as 100 to 200), along with shell beads and gorgets, indicate that the village area contained a considerable numbers of burials. Looted historic material "...clearly demonstrates that the chronological placement of the main occupation of the site is sixteenth century, and that the inhabitants of the site were in participation with the mainstream of early European (Spanish) contact..." (1981:67).

Finally, Major C. R. McCollough apparently engaged in fieldwork at Audubon Acres during the mid-1980s, but a report on this work has yet to be produced (Linda Harris, personal communication).

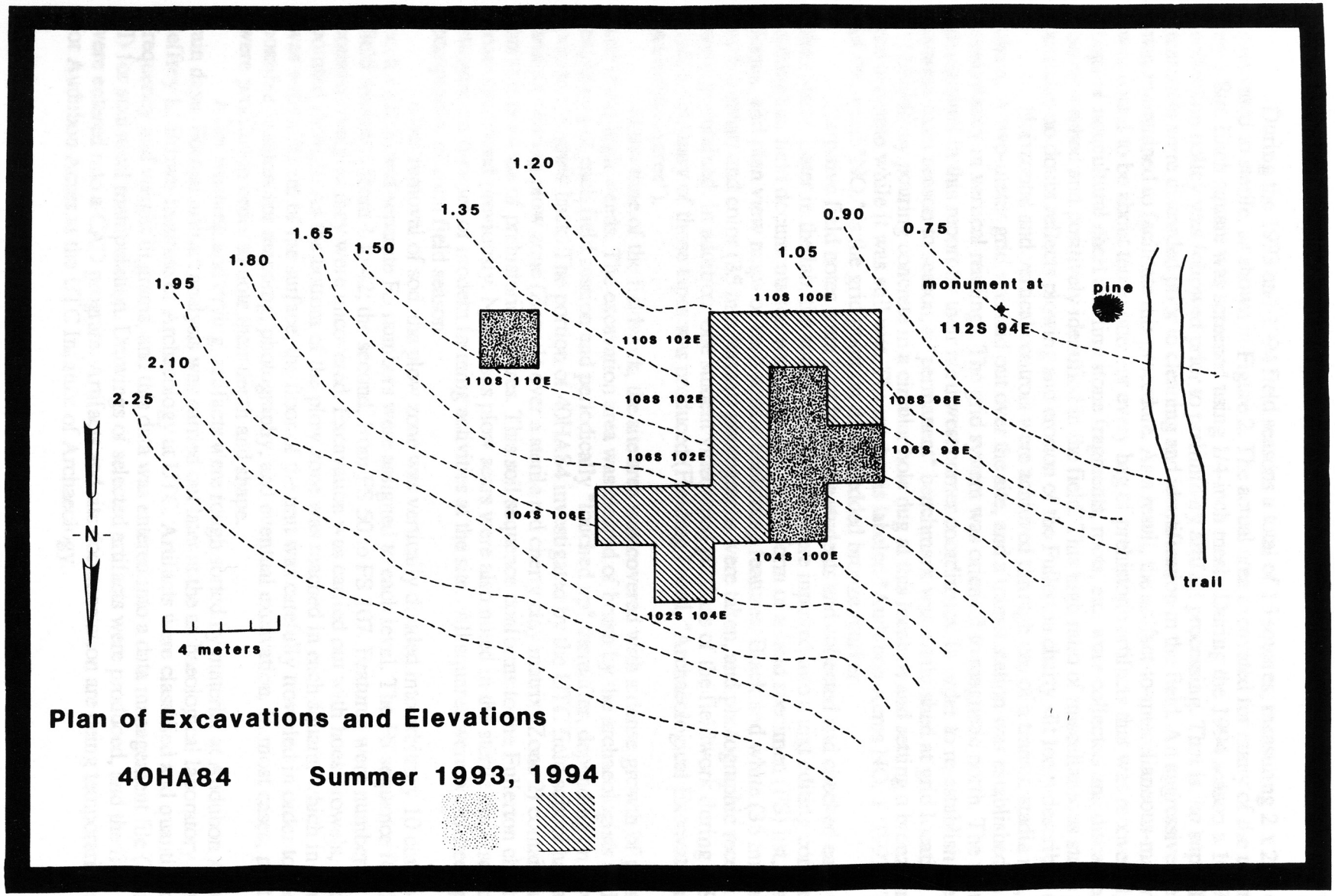


Figure 2. Plan of Excavations at 40HA84, 1993 and 1994 Field Seasons.

Fieldwork and Analysis

During the 1993 and 1994 field seasons a total of 15 squares, measuring 2 x 2 m each, was excavated to sterile, as shown in Figure 2. The actual area excavated for many of the units was 2m by 1.8m. Each square was screened using 1/4-inch mesh. During the 1994 season a 100% collection policy was followed prior to preliminary artifact processing. That is, *no* superfluous materials were discarded prior to cleaning and identification in the field. An aggressive field lab was maintained to facilitate this procedure. As a result, the artifact-to-miscellaneous-material ratio was found to be about ten to one: for every bag of prehistoric artifacts that was recovered, nine bags of noncultural chert and limestone fragments, roots, etc. were collected and discarded after being washed and positively identified in the field. This high ratio of miscellaneous stone to artifacts no doubt reflects plowing and erosion of the Fullerton cherty silt loam described earlier.

Horizontal and vertical controls were achieved through use of a transit, stadia rod, and chain. A two-meter grid was laid out over the site, and a transit station was established to ensure consistency in vertical readings. The grid system was oriented to magnetic north. The units are designated in this report by their northwest corner coordinates. In order to re-establish the grid system from season to season, a "permanent" benchmark was established at grid location 112S/94E by pouring concrete in a circular hole dug at this location and setting a bronze marker in the concrete while it was still wet. The marker is labeled "Audubon Acres NO. 1 1993". The "O" of the word "NO." is the grid point on the imbedded bronze marker.

Narrative field notes were kept by all the students and collected and checked each week by the author. Later in the lab, the author's field notes were inputted into a text editing computer file. Additional field documentation was generated in the form of a field specimen (FS) list, feature forms, and plan view maps of each square containing features. Black and white (35 mm and 2x2 inch format) and color (35 mm format) photographs were taken, and photographic record sheets were maintained. In addition, one student videotaped portions of the fieldwork during 1993, and a video summary of those tapes was produced (Fielding Freed, "Archaeological Excavations at Audubon Acres").

At the time of the fieldwork, the site area was covered with a dense growth of poison ivy and chest-high weeds. The excavation area was cleared of brush by the archaeologists at the beginning of each field session and periodically "touched up" thereafter, depending on how much poison ivy grew back. The portion of 40HA84 investigated by the UTC field school has a shallow, artifact bearing plow zone (Zone 1) over a sterile red cherty clay matrix (Zone 2) containing the bottom portions of prehistoric features. This soil sequence conforms to the Fullerton cherty silt loam described previously. Numerous plow scars were also noted in the sterile clay (see below), attesting to decades of modern farming activities at the site. All squares were backfilled upon completion of each field season.

After removal of sod, the plow zone was vertically divided into arbitrary 10 cm levels in each square, and separate FS numbers were assigned to each level. The FS sequence for the first field season is from 1 to 42; the second, from FS 50 to FS 107. Features were numbered consecutively as they were uncovered. Excavation was carried out with hoes, trowels, and square-pointed shovels. As the bottom of the plow zone was reached in each square, which in every case was within 20 cm of the surface, the floor of the unit was carefully troweled in order to identify possible features for mapping, photography, and eventual excavation. In most cases, postholes were profiled in order to note their depth and shape.

After washing and drying, artifacts were rough sorted by material at Audubon Acres during rain days. Formal artifact analysis was carried out later at the archaeological laboratory of the Jeffrey L. Brown Institute of Archaeology at UTC. Artifacts were classified and quantified by frequency and weight in grams, and this data was entered into a data management file (Panorama II) for statistical manipulation. Drawings of selected artifacts were produced, and the field maps were entered into a CAD program. Artifacts and site documentation are being temporarily curated for Audubon Acres at the UTC Institute of Archaeology.

Results

Site Formation Processes. Using the procedures described above, a total of 40 prehistoric features were recorded and 35,589 artifacts were recovered in the nearly 60 square meters of area excavated; 29,965 (84%) of the artifacts consisted of daub fragments. The archaeological record on the northern end of 40HA84 has been affected by several natural and cultural forces. Chief among these is plowing. In almost every square evidence of plow scars was observed. These took the form of irregular linear features extending a few centimeters into the Zone 2 reddish clay underlying the dark gray-brown plow zone (Zone 1). Unfortunately, the constant plowing in historic times had reduced the visibility of features to the vanishing point unless they extended into Zone 2. The only exception to this came in the form of looting pits dug after plowing had ceased; hence, these more modern features extended into Zone 1 (and sometimes Zone 2) from the ground surface. These were obvious as small depressions before the excavations began and were flagged as such. Nonhuman rodent burrows, as distinguished from those produced by the human types, were also encountered in the southernmost squares. Plowing also took its toll on the more fragile artifacts by reducing their size. This is illustrated by the progressively larger average weight per daub fragment that is roughly correlated with recovery depth: from all 15 units, combined Level 1 fragments weigh 0.53 g, Level 2 fragments are 0.77 g, while daub from the combined (relatively undisturbed) features weigh 1.43 g. Ceramics show similar breakage patterns, with average sherd weights at 1.85 g, 2.18 g, and 2.92 g, respectively.

Evans et al. (1981) report consistently thick midden deposits "in the plowzone," but do not specify the plowzone depth(s). The thick midden remains that are especially prevalent in the center of 40HA84 are considerably at odds with the stratigraphy on the north end of the site. This difference apparently reflects the presence of contrasting soil associations in combination with a much more intensive and/or longer prehistoric occupation in the epicenter of the site, producing at this location more aggredation from midden deposits.

Features. As shown in Figure 3, a total of 28 postholes and three possible postholes were defined at this site; a single posthole in 110S/110E is not shown. Artifacts were rare to absent in the posthole fills. Originally interpreted as a possible palisade line, these features are now considered to represent the outlines of a single house structure, although some of the aligned postholes are widely spaced for such a function. Shallower postholes that were destroyed by plowing may have been placed between these deeper holes. As a matter of fact, Richard Polhemus (personal communication) reports excavating several Mississippian structures with consistent "staggered depth" postholes. Thus, approximately half of the original postholes may be missing. Based on these assumptions, the structure is roughly rectangular in form, approximately seven meters long on the most complete wall, with some internal partitions and no evidence of rebuilding sequences. (The significance of the relatively "clean" appearance of the structure will be discussed in the Summary.) About two-thirds of the structure has now been excavated.

Contributing to the structural attribution is the presence of a central hearth and three large postholes believed to be associated with central supporting posts. These are labeled with "CP" in Figure 3. One of these central postholes, labeled as Feature 4 in the field, was 30 cm in diameter, with slightly sloping sides and a flat bottom. It probably represents the outline of the post itself rather than a larger hole in which a smaller post was placed. It extended 40 cm below the plow zone. The fill from this singular feature contained 350 g of daub and 421 g of charcoal. About 3.5 m northeast is a second large posthole with sloping sides that was 46 cm deep. It also contained daub (216 g) and charcoal (107 g) in the fill, along with a single shell tempered plain sherd and 8 flint debitage fragments. The artifact assemblages for these two features suggest that the posts burned in place. The presumed third post was heavily damaged by human and/or animal burrowing, hence its odd shape. Located about three meters from the first central post, the fill of this disturbed feature yielded one limestone-tempered incised sherd, two flint chips, and 89 g of daub. It is predicted that we will encounter evidence of the fourth central support post in the yet-to-be-excavated 108S/104E unit.

Other indirect indications of the presence of a house come in the form of 10.56 kg of daub fragments in the plowzone, with slightly more than half consisting of darkened fragments that were

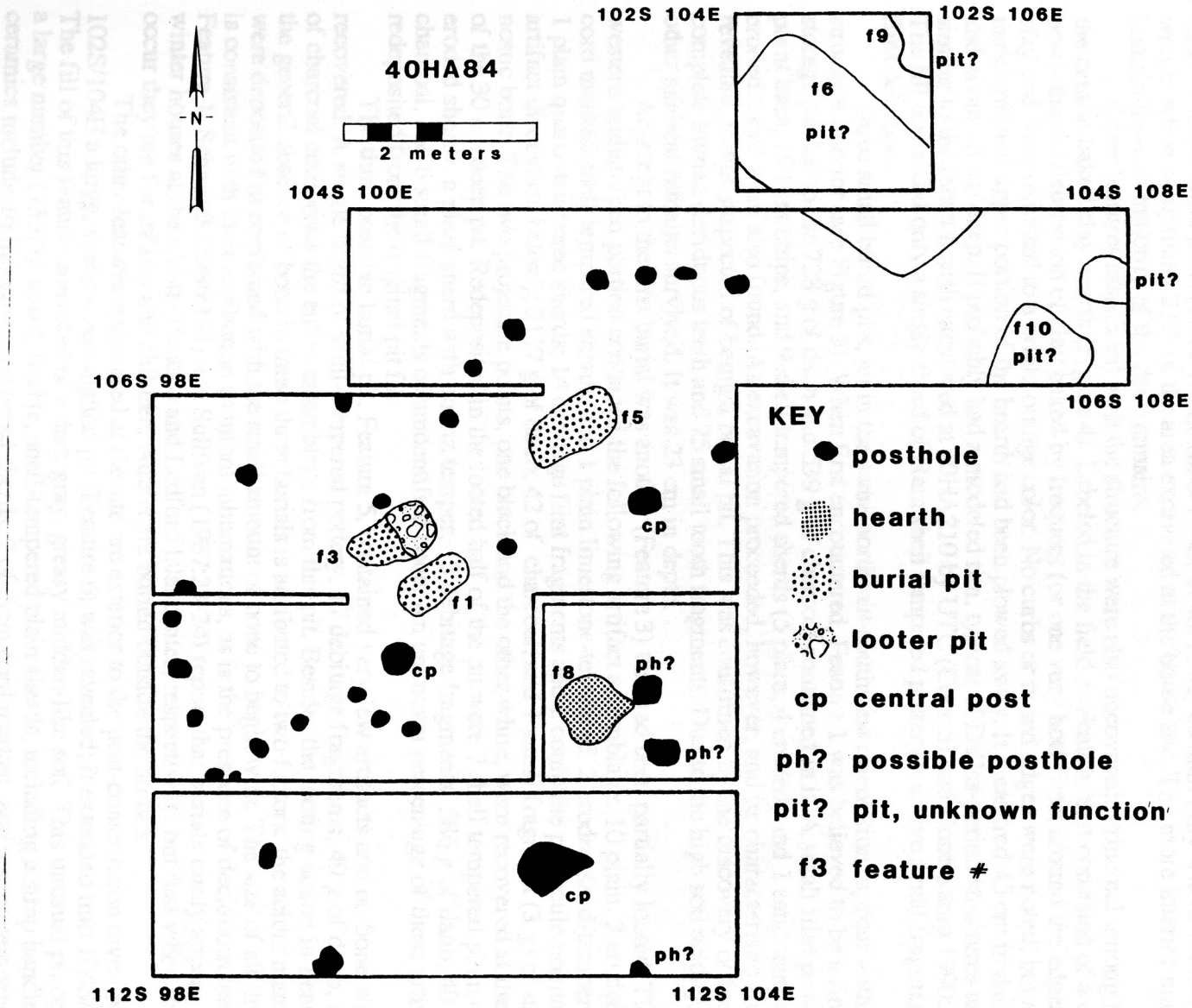


Figure 3. Composite Features at 40HA84, 1993 and 1994 Field Seasons.

fired in a highly reduced atmosphere. (Daub weight, which is less affected by plowing than daub frequency, will be used for comparison whenever possible.) Only 885 g of daub were found in the plowzone of 110S/110, which is believed to be well exterior of the structure, but possibly near another one; a single small posthole was noted in this unit.

Richard Polhemus (personal communication) reports that daub is more likely to be present in the interior portions of late prehistoric winter house structures than near the exterior walls. This probably reflects the presence of interior daub partitions with perhaps a wattle and thatch exterior. Such a house is at odds with the popular image of exterior wattle walls covered with daub. The distribution of plow zone daub supports the "interior-only" model: the three exterior or mostly exterior excavation units (104S/100E, 102S/104E, 104S/106E) contain only 4% of the daub by weight while comprising 21% of the area excavated at the house site. The more interior units contain the vast majority of the daub remains.

Other features associated with the structure were also uncovered. Principal among these is the central baked clay hearth (Figure 4). Labeled in the field as Feature 8, it consisted of a circular, bowl-shaped depression of clay baked by frequent (or one very hot) fires; around the edges, the clay had been oxidized to a bright orange color. No curbs or raised edges were noted, but an undetermined upper portion of the hearth had been plowed away. It measured 45 cm in diameter and about 12 cm deep. It probably had a modeled rim, typical of Dallas-period structures and similar to the intact hearth excavated at 40HA210 by UTC (Council and Honerkamp 1990:3-7). The fill contained only a single sherd of plain shell tempered pottery and five small fragments of flint debitage.

Three small burial pits, all in the same northeast-southwest orientation, appear within the structure interior (see Figure 3). When first encountered, Feature 1 was believed to be a fire or storage pit due to the 728 g of daub and 539 g of charcoal contained in it. A small flint projectile point base, 19 flint chips, and 9 shell tempered sherds (5 plain, 4 eroded) and 1 sand tempered eroded sherd were also found. As excavation proceeded, however, and its characteristic shape was revealed, it was suspected of being a burial pit. This was confirmed by the discovery of four complete human deciduous teeth and 25 small tooth fragments. Due to the high soil acidity, no other skeletal remains survived. It was 23 cm in depth.

Adjacent to the first burial was another (Feature 3) that had been partially looted. The western undisturbed portion contained the following artifact assemblage: 10 plain, 2 eroded, and 1 cord marked shell-tempered sherds, and 1 plain limestone-tempered, 2 eroded sand-tempered, and 1 plain quartz-tempered sherds; 14 debitage flint fragments and 2 complete projectile points (see artifact discussion below); 2117 g of daub; 42 of charcoal; and 1 small fragment (3 g) of undiagnostic bone. The two projectile points, one black and the other white, were recovered at the bottom of the 30 cm deep pit. Redeposited in the looted half of the pit were 7 shell tempered plain or eroded sherds, a plain sherd with quartz temper, 13 debitage fragments, 586 g of daub, 40 g of charcoal, and 6 small fragments of unidentified bone. An unknown percentage of these artifacts are redeposited from the original pit fill.

The third possible burial pit, Feature 5, contained very few artifacts and no bone was recovered. A single sherd of shell-tempered pottery, 17 debitage fragments, 49 g of daub, and 35 g of charcoal comprises the entire assemblage from this pit. Besides the looting action in Feature 3, the general absence of bone in these three burials is attributed to two factors: the acidic matrix they were deposited in combined with the small amount of bone to begin with. The size of all three pits is consistent with their attribution as infant inhumations, as is the presence of deciduous teeth in Feature 1. Schroedl (1986:191) and Sullivan (1987:23-24) report that burials rarely appear in winter houses at the Chota-Tanasee and Ledford Island sites, respectively, but that when they do occur they are for infants and children. Adults are buried outside the houses.

The other features uncovered at the site are exterior to the post-construction dwelling. In 102S/104E a large, shallow rectangular pit (Feature 6) was revealed; it extended into 104S/104E. The fill of this feature consisted of a dark gray, greasy midden-like soil. This unusual pit contained a large number (135) of small, friable, shell-tempered plain sherds, including a strap handle. Other ceramics include 16 limestone tempered sherds, 2 of them cord marked, and 9 sand tempered plain sherds. Also recovered were 82 fragments of flint debitage and two small greenstone celt

Figure 4. Central Baked Clay Hearth. Facing south (disturbance on the left is an animal burrow).

fragments, probably from the same implement; a few fragments of charcoal; 493 g of daub; 4 shell fragments; and a fragment of burned bone. Of special interest was discovery of a small clay bead, to be discussed later. The function of this enigmatic feature is unknown. Adjacent to it on the east was Feature 9, a shallow pit filled with fire-cracked rock and little else. In the easternmost square of the contiguous units two pits were uncovered. Feature 10 extended barely 8 cm below the level of definition and contained scant artifacts: 9 shell tempered plain sherds, 11 flint chips, 8 small bone fragments and just 1 g of daub. The dark fill indicates that it may have been a fire pit. Adjacent to it on the east was another small pit of unknown function. When screened the fill contained a trace of daub and charcoal, 4 flint chips and 3 shell tempered sherds, 1 of them cord marked. The temporal relationship of these features to the structure they are next to could not be determined since the stratigraphic record was destroyed by plowing.

Artifacts. Excluding the "open provenience" bag containing 120 artifacts, a total of 35,473 artifacts were recovered from 40HA84. Besides the nearly 30,000 fragments of daub, 1133 sherds of pottery were found, with 902 associated with the plow zone. As shown in Table 1, the vast majority of the ceramics (72%) were shell tempered, indicating heavy deposition during the Mississippian period (c. AD 900-1600). Features contained an even higher percentage (82%) of shell-tempered wares. Earlier ceramics in the Mississippian features are believed to be redeposited.

Since the majority of the ceramic artifacts were recovered from the plow zone, they were much reduced in size from the action of the plow. Decorated wares were rare; they comprise just 3% of the total assemblage. Plain and black burnished pottery predominates in the Late Dallas and Mouse Creek Phases of the Mississippian period, and according to Polhemus (1990:42-43) the presence of rectangular fine line incised decoration is found in the latter phase. Along with a fragment of limestone-tempered complicated stamped, such decorative treatment is seen on two of the sherds shown in Figure 5 (one also exhibits punctations). The burnished partial pot illustrated in Figure 6 was found at the intersection of Zones 1 and 2 in the northwest quadrant of 108S/98E. With reference to the postholes in this unit, it was adjacent to the interior wall of the structure, although it may not be *in situ*, thanks to the effects of plowing. Although it exhibits a Dallas form, it was of limestone and grit temper. Echoing earlier speculations about the north Georgia/southern Tennessee region as a transitional area, Lawrence Alexander (personal communication) refers to this as an example of "Dalamar," reflecting a hybrid Dallas/Lamar influence in pottery manufacture. Mississippian pottery deposition, as measured by shell-tempered wares appearing in the plow zone, shows a distinct pattern. The highest sherd count (152) is in 102S/104E, followed by 110S/110E (138); these exterior areas contain one half of the total from all 15 units. Plowing off the top of Feature 6 may account for the high frequency in 102S/104E. No other obvious patterns could be discerned from the low sherd counts (ranging from 4 to 39; μ=22) in the other units.

Unlike ceramics, flint debitage cannot easily be attributed to a particular period since it was generated as a by-product of tool making in all prehistoric periods. Distribution in the plowzone was fairly even, with frequencies ranging from 182 to 299 (μ=226), with one exception: outlying 110S/110E yielded 673 fragments. Besides the heavy concentrations of ceramics and debitage, this productive unit also contained three partial and two whole projectile points. Selected points are illustrated in Figure 7. Most of these examples fall under the category referred to in the literature as Late Mississippi Triangular (Kneberg 1956:85) and Dallas Excurvate Triangular (Lewis and Kneberg 1946:116). Also present is a Hamilton point (Lewis and Kneberg 1946:110-117), apparently with a reworked base. All of these types are attributed to the Late Mississippian period in East Tennessee, although the Hamilton Point is also found in Late Woodland contexts. The large, incomplete stemmed point (Figure 7, top left) is similar in shape to a Maples type (Cambron and Hulse 1983:87), but is smaller in length than the suggested range for this type; instead, it may by a MacIntire (1983:86). In either case, it dates to the late Archaic. An unidentified stemmed point that appears to be broken and/or reworked also has an Archaic origin.

All these points were recovered from plow zone contexts, with the exception of the two FS 36 specimens: they were found together at the bottom of the Feature 3 burial pit. Not reflected in the illustration is the fact that the one on the left is white while the one on the left is black.

Table 1. Artifact Frequencies and Weights, 40HA84.

Type	Plowzone Frequency	Plowzone Weight (in grams)	Features Frequency	Features Weight (in grams)
Ceramics				
limestone-tempered plain	115	602	17	40
limestone-tempered cord marked	1	12	2	22
limestone-tempered complicated stamped	2	6	-	-
limestone-tempered incised	2	14	-	-
limestone-tempered scraped/brushed	1	9	-	-
limestone-tempered eroded	4	6	-	-
quartz-tempered plain	16	100	1	18
quartz-tempered simple stamped	18	68	-	-
quartz-tempered eroded	2	4	-	-
sand-tempered plain	114	209	14	24
sand-tempered incised	2	3	-	-
sand-tempered eroded	3	2	4	5
shell-tempered plain	501	815	173	471
shell-tempered brushed/scraped	2	6	-	-
shell-tempered filleted (rim)	1	2	-	-
shell-tempered incised	4	10	2	4
shell-tempered eroded	114	67	13	10
shell-tempered cord marked	-	-	2	10
T =	902	1935	228	6031
Daub	16617	111242	13246	18396
Lithics				
flint debitage	4083	3732	260	376
quartz debitage	1	-	-	-
utilized flake	23	71	-	-
unidentified bifacial tool fragment	13	121	-	-
partial projectile point	17	57	1	3
whole projectile point	6	26	2	3
ground stone celt fragment	1	-	2	138
steatite fragment	1	-	-	-
stone disc	1	-	-	-

Table 1. Artifact Frequencies and Weights, 40HA84 (continued).

Type	Plowzone Frequency	Plowzone Weight (in grams)	Features Frequency	Features Weight (in grams)
Other				
clay bead	2	-	1	-
glass bead	2	-	-	-
lead shot (.39 caliber)	1	5	-	-
charcoal	-	274	-	1178
bone	34	30	-	-
teeth	-	-	4	2
tooth fragments	-	-	25	1

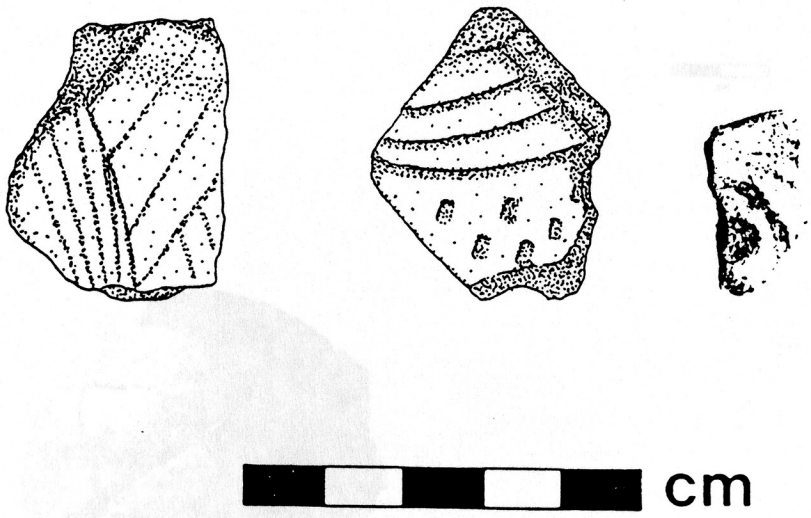
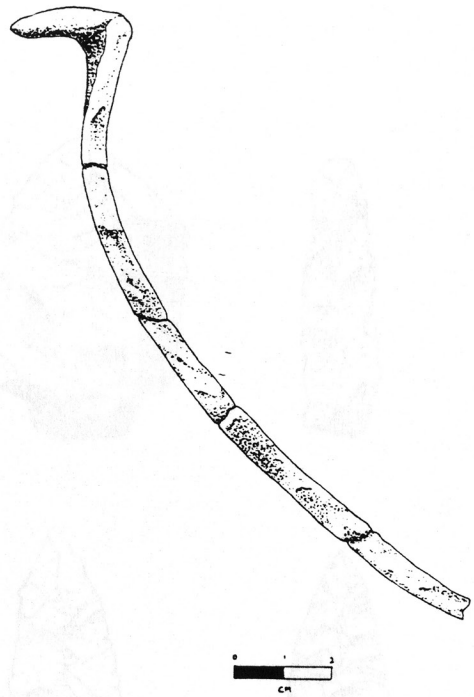


Figure 5. Decorated Pottery. Left to right: Shell tempered, fine line incised (FS 104); shell-tempered, incised and punctated (FS 82); limestone-tempered complicated stamped (FS 87).



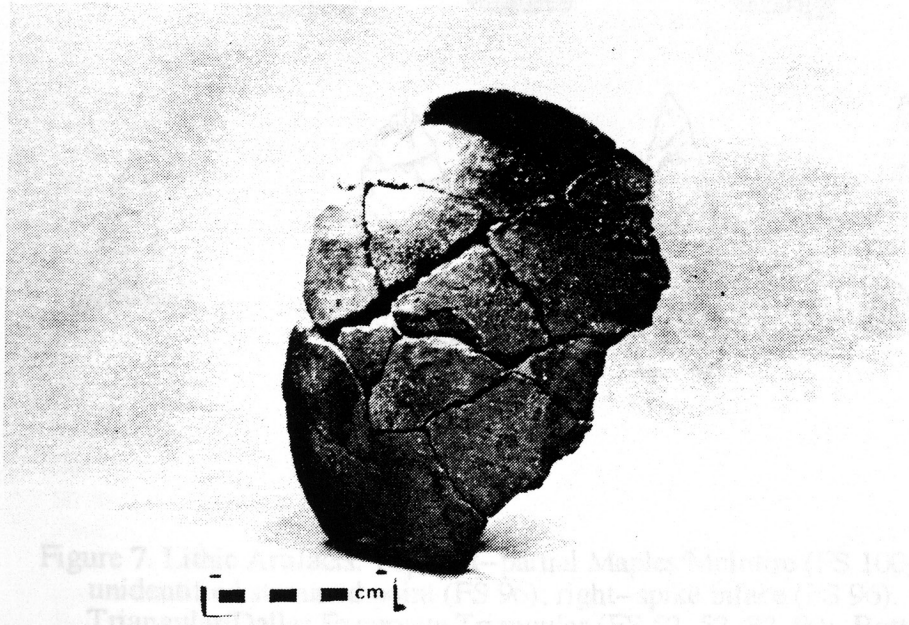


Figure 6. Lug Handled Partial Pot and Pot Profile from the Interior Wall of the Structure.

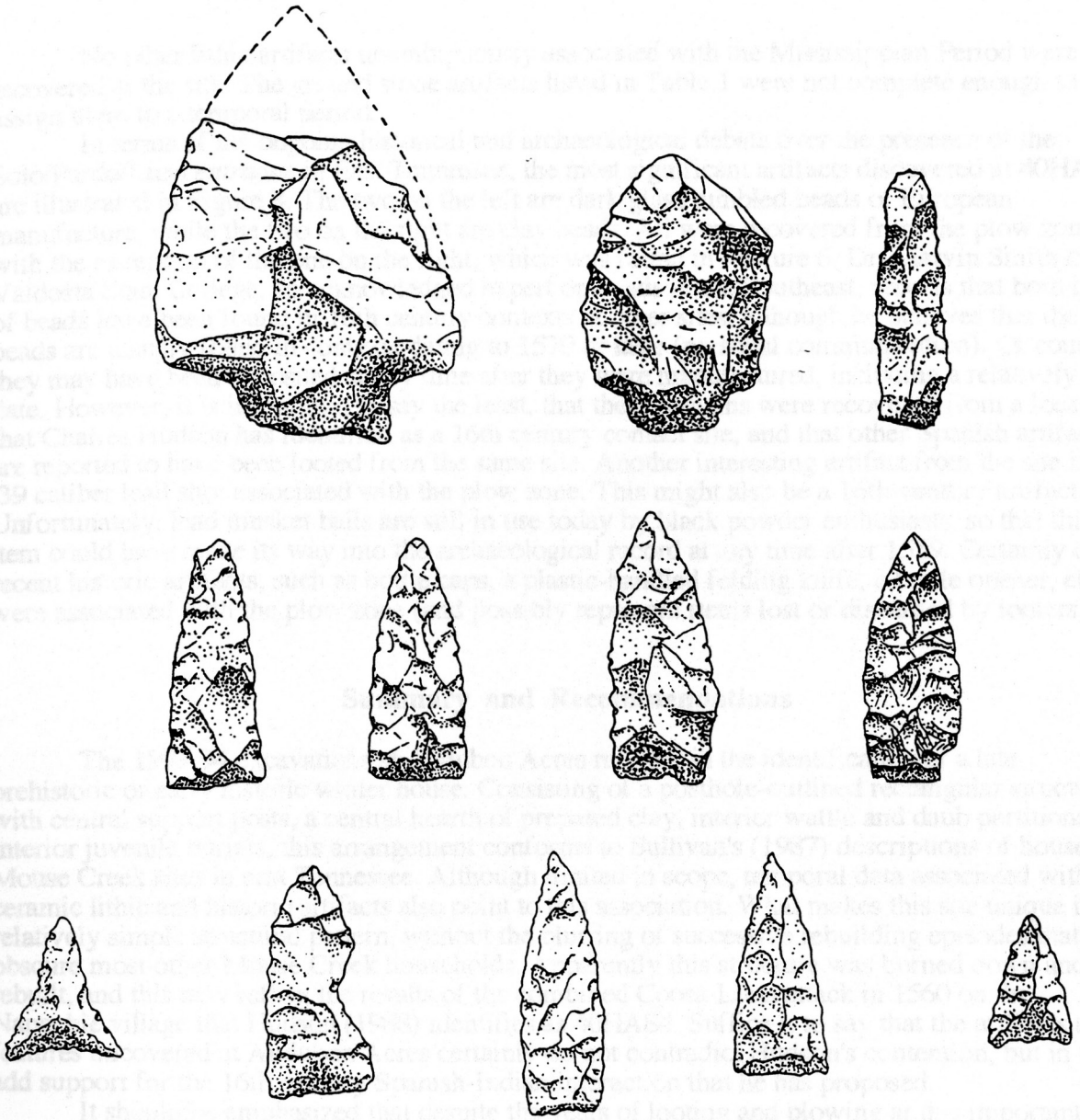


Figure 7. Lithic Artifacts. Top, left--partial Maples/McIntire (FS 100); middle--reworked unidentified stemmed point (FS 96); right--spike biface (FS 96). Center--Late Mississippi Triangular/Dallas Excurvate Triangular (FS 52, 52, 82, 90). Bottom, left to right--reworked Hamilton Incurvate (FS 2); Late Mississippi Triangular/Dallas Excurvate Triangular (FS 5, 36, 36); reworked unidentified point tip (FS 22).

No other lithic artifacts unambiguously associated with the Mississippian Period were recovered at the site. The ground stone artifacts listed in Table 1 were not complete enough to assign them to a temporal period.

In terms of the ongoing historical and archaeological debate over the presence of the Soto/Pardo/Luna *entradas* in East Tennessee, the most significant artifacts discovered at 40HA84 are illustrated in Figure 8. The two on the left are dark glass tumbled beads of European manufacture, while the two on the right are clay beads. All were recovered from the plow zone, with the exception of the one on the right, which was found in Feature 6. Dr. Marvin Smith of Valdosta State College, an acknowledged expert on beads in the Southeast, reports that both types of beads have been found in 16th century contexts at other sites, although he believes that the glass beads are usually found in contexts dating to 1570 or later (personal communication). Of course, they may have been deposited at *any* time after they were manufactured, including a relatively late date. However, it is intriguing, to say the least, that these remains were recovered from a location that Charles Hudson has identified as a 16th century contact site, and that other Spanish artifacts are reported to have been looted from the same site. Another interesting artifact from the site is a .39 caliber lead shot associated with the plow zone. This might also be a 16th-century artifact. Unfortunately, lead musket balls are still in use today by black powder enthusiasts, so that this item could have made its way into the archaeological record at any time after 1559. Certainly other recent historic artifacts, such as bottle caps, a plastic-handled folding knife, a bottle opener, etc. were associated with the plow zone (and possibly represent items lost or discarded by looters).

Summary and Recommendations

The 1993-94 excavations at Audubon Acres resulted in the identification of a late prehistoric or early historic winter house. Consisting of a posthole-outlined rectangular structure with central support posts, a central hearth of prepared clay, interior wattle and daub partitions and interior juvenile burials, this arrangement conforms to Sullivan's (1987) descriptions of houses at Mouse Creek sites in east Tennessee. Although limited in scope, temporal data associated with ceramic lithic and historic artifacts also point to this association. What makes this site unique is the relatively simple structural pattern, without the blurring of successive rebuilding episodes that obscure most other Mouse Creek households. Apparently this structure was burned down and not rebuilt, and this may reflect the results of the combined Coosa-Luna attack in 1560 on the Napochie village that Hudson (1988) identifies as 40HA84. Suffice it to say that the artifacts and features uncovered at Audubon Acres certainly do not contradict Hudson's contention, but in fact add support for the 16th century Spanish-Indian interaction that he has proposed.

It should be emphasized that despite the years of looting and plowing at this important site, it still holds considerable archaeological and historical potential. But only additional systematic archaeological research can ever hope to conclusively demonstrate that Audubon Acres is indeed the "Luna-Coosa-Napochie connection." As a minimum, the rest of the structure identified here should be completely excavated and the productive midden deposit on the east side of the site should be further tested. An even more valuable approach would be a long-term program of research designed to identify more conclusively those areas of the site that have been minimally impacted by vandalism, followed by systematic testing. Funding for radiocarbon dating, soils and faunal analysis, and human osteology would be a necessity for such an undertaking. *All* sub-surface survey and test units should be screened with 1/4-inch mesh (maximum) to ensure effective artifact recovery. Due to the presence of scattered human remains and the highly disturbed stratigraphic sequences, the central area of 40HA84 is not considered to be a viable focus of excavation.

While the minimally-funded field school approach of the last two years has been adequate for the limited goals of the present project, it is not appropriate for the future long-term research program suggested above. After years of abuse by artifact collectors and neglect by the archaeological community, "Little Owl Village" deserves better.

Figure 8. Beads From 40HA84. Left to right: black glass tumbled bead (FS 7); black glass tumbled bead (FS 40); tan clay bead (FS 33); dark clay bead (FS 85). All found in plow zone contexts except FS 85 (Feature 6).

References Cited

Cambron, James W. and David C. Hulse
1983 Handbook of Alabama Archaeology, Part I: Point Types. Huntsville: The Alabama Archaeological Society.

Chapman, Jeff
1985 Tellico Archaeology. Knoxville: University of Tennessee Press.

Council, R. Bruce
1989 The Tennessee Riverpark Excavations: Archaeological Testing at Sites 40HA102 and 40HA233, Chattanooga, Hamilton County, Tennessee. A report prepared for the RiverCity Company, on file, Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga..

Council, R. Bruce, and Nicholas Honerkamp
1990 Limited Excavation of a Mississippian Housesite at the Heritage Place Site, 40HA210, Chattanooga, Hamilton County, Tennessee. Research Contributions Number 4, Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga.

Evans, Raymond E., Victor P. Hood, and Lauretta Lautzenheiser
1981 Preliminary Excavations on the Audubon Acres Site (40HA84), Hamilton County, Tennessee. Report on file, Chattanooga Audubon Society.

Hatch, James W.
1976 The Citico Site (40HA65): A Synthesis. Tennessee Anthropologist 1(2):75-103.

Honerkamp, Nicholas
1990a Whatever Happened to the Citico Mound? Tennessee Anthropological Association Newsletter 15(5):1-6.
1990b Survey Archaeology at the Citico Site (40HA65), Chattanooga, Tennessee. A report prepared for the City of Chattanooga, on file, Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga.

Honerkamp, Nicholas, Beth Fowler, Tracy Little, and Robbie Mantooth
1989 An Archaeological Survey of the Citico Site (40HA65), Chattanooga, Tennessee. Research Contributions, Number 2, Jeffrey L. Brown Institute of Archaeology, Chattanooga, Tennessee.

Hudson, Charles
1988 A Spanish-Coosa Alliance in Sixteenth-Century North Georgia. Georgia Historical Quarterly, Vol. LXXII, No. 4:559-626.

Hudson, Charles, Marvin Smith, David Hally, Richard Polhemus, and Chester DePratter
1985 Coosa: A Chiefdom in the Sixteenth Century Southeastern United States. American Antiquity 50(4):723-737.

Jackson, Bedford W.
1982 Soil Survey of Hamilton County, Tennessee. Washington: United States Department of Agriculture.

Kneberg, Madeline
1956 Some Important Projectile Points Found in the Tennessee Area. Tennessee Archaeologist 12(1).

Lewis, T.M.N and Madeline Kneberg
1946 Hiwasee Island: An Archaeological Account of Four Tennessee Indian Peoples. Knoxville: University of Tennessee Press.

Polhemus, Richard R.
1990 Phase Characteristics: East Tennessee River. In Lamar Archaeology: Mississippian Chiefdoms in the Deep South, Mark Williams and Gary Shapiro eds., pp. 39-43. Tuscaloosa: University of Alabama Press.

Schroedl, Gerald F. (editor)
1986 Overhill Cherokee Archaeology at Chota-Tanasee. University of Tennessee, Department of Anthropology, Report of Investigations 38: Tennessee Valley Authority Publications in Anthropology 42.

Sullivan, Lynn P.
1987 The Mouse Creek Phase Household. Southeastern Archaeology 6(1):16-29.

Swanton, John R.
1985 Final Report of the United States de Soto Expedition Commission. Washington: Smithsonian Institution Press.

Walker, Robert S.
1931 Torchlight to the Cherokees. New York: McMilliam Company.

Wilms, Douglas C.
1974 Cherokee Settlement Patterns in 19th Century Georgia. Southeastern Geographer 14(1): 46-53.