On the River's Edge:
Prehistoric Occupations on the Heritage Place Tract,
Chattanooga, Tennessee

A Final Report on an Archaeological Survey
Prepared for The Stone Fort Land Company, Inc.
Chattanooga, Tennessee

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The fieldwork and analysis were completed only through the combined efforts of a number of individuals. Much of the fieldwork was carried out under unbelievably bad weather conditions, and the site itself produced a number of difficult challenges. The field crew who braved the frequent freezing rains and managed to excavate perfectly square half meter pits in some of the hardest soil horizons in Hamilton County consisted of Supervisors Beth Temple and Charmaine Yount; Student Aides Beth Gaines, Greg Ritchie, Pat Royal, and Tim Young; and volunteers Peter Bis, Mike Cunningham, Cathy Holt, and Jim Poston. At the Institute, laboratory analysis was supervised by Beth Temple; Beth Gaines, JoAnn Griffith, Greg Ritchie, and Kay Thompson assisted. R. Bruce Council, a Research Instructor at the Institute, produced all the graphic material presented in this report as well as freely dispensing his usual quota of comments, questions, criticisms, and suggestions—most of them helpful. Adjunct Assistant Professor Robin L. Smith provided a great deal of essential instruction in the use of the OYERVUE data management program, as did Laboratory Supervisor Sheron L. Yount. Sandra Ziltkus ably managed the bookkeeping chores for the duration of the project. I also acknowledge my appreciation to Mrs. Adele Hampton, one of the former landowners of Heritage Place, who was a constant source of encouragement and support.

As the author of this report, I reserve for myself the responsibility for any errors of fact or interpretation contained herein.

NH
December, 1984
Introduction

Overview

The history of human habitation in the Tennessee River Valley is characterized by a tremendous temporal span and by a remarkable variety. Archaeologists and historians have established a more or less continuous occupation in this area over several millennia. This continuity is not by chance; several environmental factors have made the valley attractive to both prehistoric and historic occupants. However, a common thread that links the diverse populations and cultural traditions together, from the hunting and gathering adaptations of six to seven thousand years ago, to the industrial adaptations of today, is the Tennessee River. Although its importance to the modern occupants of the valley may have waned in recent years, there has been a renewal of interest that promises to result, once again, in a river orientation of sustained human habitation and use.

One manifestation of the emerging river focus is the development of housing projects directly adjacent to the river. An ambitious development proposed by the Stone Fort Land company of Chattanooga is currently underway on the north bank of the Tennessee River which will transform 93 acres of farmland into a large condominium complex. Known as "Heritage Place," this privately-financed project should considerably enhance the area's economic development as well as contributing to the revitalization of downtown Chattanooga. But, as this report documents, there are also unanticipated costs associated with this development. These costs cannot be measured in a monetary sense, because they consist of prehistoric remains present in the archaeological record at Heritage Place. Nevertheless, these costs are real, and they directly concern all of us who live and work in the Chattanooga community. It is hoped that, at the very least, this report will stimulate consideration and discussion of the costs as well as the benefits of future developments along the river's edge.

Project Location and Background

Heritage Place consists of 93.3 acres (37 ha) of land situated on the north bank of the Tennessee River in Chattanooga, Tennessee. This tract is bounded on the east by the Chattanooga Golf and Country Club, on the west by the Girls Preparatory School, and on the north by several residential subdivisions (Figure 1). Approximately 90% of the tract is in cleared fields, which have been extensively farmed for several decades. Most of the site is covered with an association of alluvial Lindsie-Melvin-Philo soils, with the higher, northern portion containing Etowah-Nolichucky-Waynesboro soils (Jackson 1982). This latter association consists of high terrace soils along the Tennessee River underlain by residual subsoils. Two relict river terraces are present, one directly adjacent to the river at ca. 655 feet above mean sea level (AMSL), and an older, higher terrace (660 AMSL) in the northeastern section of the property. Heavily wooded hills, extending to 740 AMSL, appear in the northwest portion of the tract. Between the two terraces the gently rolling fields have been altered by several subsurface sewer and
Figure 1. Vicinity map for the Heritage Place Site. The project area consists of cleared fields adjacent to the Mile 465 mark and extends approximately from benchmarks 649 to 654. Map source: 1969 USGS Chattanooga Quadrangle (105 SE), 7.5’ series.
water lines, including one large (24 inch), undocumented line that at one time apparently discharged directly into the Tennessee River. A raised dirt road, running north-south, is also present, as is a TVA power line with two towers located on the eastern edge of the property. Heritage Place is divided by a north-south fence and tree line which marks the boundary between two parcels which were combined to form the present 93-acre tract. Named after the most recent landowners, the Hampton tract is composed of the western 56.6 acres (14.5 ha), while the eastern 56.7 acres (22.4 ha) is known as the Marsh tract.

The Stone Fort Land Company, developer of Heritage Place, plans to construct a large number of single-story and multi-story condominium units on the parcel, along with a 300-slip marina. Since much of Heritage Place lies below the 100-year flood level, the developer proposes to raise the elevation of the condominium locations above the 100-year mark by transporting fill from the planned marina and from several artificial lakes that will be created within the project area. Accessibility to the river required the developer to apply for a permit from the U.S. Army Corps of Engineers. In accordance with federal regulations and legislation dealing with archaeological resources, specifically 33 CFR 325 (Appendix C, 5-6), the Corps required that an archaeological survey of the project area be conducted to identify, and to assess the proposed development's impact on, any National Register of Historic Places eligible properties prior to final action on the developer's permit application. Accordingly, Mr. Thomas A. Lupton, President of the Stone Fort Land Company, contacted the Jeffery L. Brown Institute of Archaeology, University of Tennessee at Chattanooga (UTC), and a contractual agreement was reached on November 6, 1984, whereby the Institute would perform the required survey and assessment. Principal Investigator (PI) for the project was Dr. Nicholas Honerkamp, Director of the Institute and an Assistant Professor in the Department of Sociology-Anthropology at UTC.

Fieldwork began on November 6 and was completed by November 24, 1984. A total of 400 person-hours were devoted to the survey, which was directed by the PI. Analysis of the archaeological materials recovered during the fieldwork was carried out at the Institute's laboratory during a two-week period which followed the survey; excluding secretarial work, 250 person hours were expended during this phase of the project. The PI supervised the laboratory work and wrote and produced the final report. R. Bruce Council, a Research Instructor at the Institute, produced the maps and photographs included in this report.
Project Methodology

Research Design

The research design developed for Heritage Place was based on several factors. First, the fieldwork was specifically oriented to the discovery level of research. That is, the fieldwork was carried out to determine if any archaeological sites were present in the project area and, as much as possible, to define the areal extent of the sites. Full-scale excavation is precluded under this format. Instead, the survey depends upon a sampling scheme that is designed simply to reveal the presence of significant archaeological remains, should any exist. Once the presence of archaeological remains is established, it would then be possible to carry out additional testing and mitigation using a systematic, problem-oriented approach. This phasing of survey, testing, and mitigation has been found to be an efficient method of research that meets cultural resource management objectives at the least cost to the sponsor.

Although no professional research had previously been carried out on the Heritage Place parcel, several indirect lines of evidence indicated that prehistoric occupations were likely to have occurred there. In an October 17, 1984, letter concerning the permit application, the Tennessee Historical Commission informed the Corps that the Heritage Place tract was located in an area of rich archaeological resources. According to the Division of Archaeology State Site File, three prehistoric sites are recorded in an area directly across the river, and more than 31 sites are located along the river within four miles of the project area. The Institute's own in-house site file for Hamilton County recorded several prehistoric sites and one Civil War-period site for the project area, although supporting documentation on the exact location, size, and content of these sites was lacking. Finally, a local Chattanooga relic collector and several residents of adjacent subdivisions had alerted the PI to the possibility of the presence of a prehistoric site in the project area when the Stone Fort Land Company publicly announced its development plans. Thus, there was a high probability that archaeological resources were present at Heritage Place and, given the nature of the extensive pre-construction earth moving activities that were planned, that these resources would be severely disturbed or totally destroyed.

Based on the PI's previous survey and excavation experience at Moccasin Bend and Maclellan's Island, it was proposed that a systematic survey of the Heritage Place be performed using hand-dug 50 cm² test pits and deep testing with backhoe trenches. The 50 cm survey tests were screened using one-half inch mesh (Figure 2). This screen size was felt to be sufficient for survey purposes since prehistoric pottery fragments smaller than one-half inch are often difficult to identify. At the same time, it was recognized that some flint debitage and other small artifacts would be excluded from our sample. This drawback was considered to be outweighed by the advantage of relatively "fast" screening when compared to the semi-standard quarter-inch sample. The survey tests were all dug to a maximum depth of 55 cm, and the stratigraphic sequences present in each was recorded in the field notes. The sample derived from each test was bagged and marked according to location.
Figure 2. Excavation of 50 x 50 cm survey test pit, Heritage Place Site. The Tennessee River and Lookout Mountain appear in the background. Crew members are (left to right) Jim Poston, Greg Ritchie, and K. Beth Temple. View is to the southwest.
Testing for deeply buried deposits was carried out through the use of a backhoe. Backhoe trenches measured approximately 3.5 m long, 1.5 m wide, and 2.0 m deep, except for trenches that were located in areas of known archaeological deposits. In these areas the backhoe was used to remove the disturbed plow zone in order to discern any underlying cultural features; the depth of these search trenches was fairly shallow, extending only to the bottom of the plow zone (ca. 18–25 cm). The fill of each trench was examined for the presence of artifacts, and the trench floors and walls were troweled in order to reveal features and stratigraphy. Other sample units consisted of judgmentally placed, screened 1 m x 1 m or 50 x 50 cm test pits that were located within the backhoe trenches (Figure 3). Artifacts collected during the backhoe excavation and later troweling of each trench were bagged and labeled with appropriate provenience information. A total of 51 survey tests, 2 test pits of 1 x 1 m, 5 test pits of 50 cm, and 26 backhoe trenches (9 deep test trenches and 17 shallow search trenches) were completed during the fieldwork. All these units were backfilled upon completion of the project.

Horizontal control was achieved through the use of a metric grid established with a transit and chain. All survey tests, test pits, and backhoe trenches were located within 1 m of the grid point used to identify the position of each unit. The grid was oriented to magnetic north and was tied in to a TVA benchmark labeled "U.S.E.D. C 43." Vertical measurements were all recorded in terms of meters below ground surface (BGS). Besides recording the locations of all excavation units, the grid was used to tie in the locations of such features as manhole covers and telephone poles that appeared in the Heritage Place parcel. A composite map of the project area and survey plan is shown in Figure 4.

Although surface reconnaissance techniques are commonly used at the discovery level of research, a systematic surface survey was not attempted at the Heritage Place, despite the presence of cleared farmland that offered what are often considered to be "ideal" conditions for such an approach. Our research program has established what we already suspected: that surface reconnaissance is a highly imperfect if not a completely inadequate discovery-level technique in areas of extensive river-born deposits. While it may be true that plowing and disturbances such as pipe trenches can enhance the effectiveness of surface surveys, it is equally true that in many cases archaeological materials will remain undetected, even by the most astute fieldworker. Extensive aggradation resulting from alluvial processes along the Tennessee River requires subsurface testing in order to adequately locate and define the presence of prehistoric sites. "Preliminary walkovers" may be adequate for discovering sites in the southwestern United States, but in the Southeast this technique is likely to produce an unacceptable number of "false negatives" (i.e., sites exist but are not detected), especially in a riverine environment. At the Heritage Place tract, surface inspections were limited to highly disturbed areas (e.g., sewer line trenches) within the flood plain and, above the alluvial deposits, to areas of extensive erosion and/or plowing.
Figure 3. Archaeologists Pat Royal and K. Beth Temple excavate a 1 x 1 m test pit within a backhoe test trench. View is to the northwest.
Figure 4. Composite map of Heritage Place Site. Shown are contour lines, sewer right-of-ways, and locations of survey units.
Laboratory analysis consisted first of washing and drying the complete artifact collection, followed by cataloging the collection according to material (flint, ceramics, daub, shell, bone, etc.). Material groups were then divided into functional classes, and these classes were further divided into artifact types when possible. The ceramics group was analyzed first according to paste characteristics (inclusions of limestone, shell, sand, etc.), followed by decoration (fabric marked, simple stamped, complicated stamped, etc.). Reference is made in this report to the commonly recognized types for the Tennessee River Valley, although it is the present author's belief that several type designations are in need of revision. The provenience information and artifact attributes were recorded and manipulated using the OVERVUE data management program on the Institute's microcomputer. All artifacts, notes, maps, photographs, and other materials associated with this project are being curated on a temporary basis at the Institute of Archaeology.
Survey Results

Summary

A large, multicomponent assemblage of prehistoric artifacts was generated from the survey of Heritage Place. The total site assemblage, derived from excavated test pits and backhoe trenches, consists of 642 ceramics, 611 lithic artifacts, and a small amount of bone and shell. Most of this material is attributed to the Late Woodland period, although small Late Archaic/Early Woodland, Middle Woodland, and Mississippian components are also present. In addition to the above artifact groups, 556 fragments of baked clay daub were recovered, of which 75.1% (n=418) came from a single 1 x 1m test pit. The daub concentration in this test pit represents the remains of a Late Woodland structure that was found to contain a sub-floor human burial.

The distribution of most of the Heritage Place artifacts is distinctly linear, with all of the daub, all but a single ceramic fragment, and 91% of the lithic artifacts recovered from test units located on the terrace adjacent to the river. Both the density of cultural material along this 40 to 50 m-wide strip and the types of materials that occur serve to demonstrate the presence of a significant prehistoric midden within the project area. Based on the combination of data derived from the backhoe tests, survey test pits, and surface inspections, the approximate location and extent of the midden are shown in Figure 5. The specific results of each phase of the survey are presented below.

Backhoe Testing

Two types of backhoe tests were dug during the survey. In the Marsh tract, nine test trenches, measuring ca. 3.5 m by 1.5 m and 2.0 m in depth, were placed between the two relict river terraces and on the northern terrace, as shown in Figure 4. A single fragment of flint comprises the total artifact assemblage associated with these tests, and the only cultural feature noted was a pipe trench for an undocumented, 24-inch sewer that at one time had discharged directly into the Tennessee River but was no longer in use. Stratigraphic sequences in these trenches showed a great deal of variety. At the lower contours the basic sequence consisted of two distinct horizons. Zone 1 was composed of gray silty loam extending to ca. 50 cm BGS. Interestingly, a clearly defined plow zone was not visible within this stratum, although the Marsh tract was plowed within the last year. The possibility exists that Zone 1 itself constitutes the plow zone, but this is considered unlikely due to its depth. Zone 2, extending to the limit of the trench excavations (1.6 - 2.0 m BGS), consisted of brown silt loam and clay. Bedrock was not encountered in any of the units. Test units in higher elevations approaching and on the northern rise exhibited progressively thinner A horizons, probably as a result of erosion: Zone 1 in the two northernmost tests was only 25-30 cm thick. The second terrace sequences were also marked by the appearance of a zone of tan-brown clay and loam mottled with dark gray concretions. Lensing that could be attributed to alluvial aggradation was not noted in any of the backhoe units, although it is possible that Zone 1 is alluvial in origin and underlain by residual soil zones. A careful inspection of the
Figure 5. Location of prehistoric midden at Heritage Place Site. Shaded area indicates approximate midden boundaries.
profiles of these units failed to reveal any features, and only a single fragment of flint was recovered from the backfill of one of them. However, a small amount of lithic material was obtained from screened 50 cm tests placed on the upper terrace, as discussed in a following section.

Backhoe tests on the lower terrace produced altogether different results. In the Marsh tract, the first trench dug uncovered fire cracked rock and several fragments of complicated stamped pottery at ca. 20-25 cm BGS. Subsequent units were also productive. In all, the 17 shallow backhoe tests adjacent to the river accounted for 141 sherds, 194 lithics, and 21 daub fragments. Only two units, one located in the bottom southeast corner of the site and the other 50 m to the north of the southeast test, proved to be sterile. While this apparent 50 m horizontal limit to the midden is not based on screened tests (note the discrepancy between screened and unscreened artifact samples discussed below), it is at least thought to be accurate for high-density artifact occurrences. All the shallow backhoe units were carefully cleaned to reveal the presence of features, but none were apparent in the ca. 95 m² area of backhoe trenches inspected adjacent to the river.

In order to derive a stratigraphic sequence for the midden and submidden, a portion of one of the trenches was dug to a depth of 1.80 m. The sequence recorded for this unit, which was located on the eastern boundary of the Marsh tract, consisted of the following:

Zone 1 - brown silty loam, 0 - 23 cm BGS
Zone 2 - gray, hard-packed clay and loam, 23 - 97 cm BGS
Zone 3 - dark brown-hard packed clay and loam, 97 - 180 cm BGS

As was found to be true of subsequent units, the greatest density of cultural material occurred in the bottom 10 cm of Zone 1, with a lesser amount in the top 5 cm of Zone 2. Except when features were encountered, artifact frequencies dropped off rapidly both above and especially below this 15 cm midden zone. Zone 1 is believed to be the result of both natural and cultural formation processes, consisting in part of a modern plow zone; a clear stratigraphic distinction between the two types of processes was not visible. An undetermined amount of truncationation to the prehistoric midden is apparent from the testing results, although it is emphasized that intact remains are still present within this zone.

Submidden Samples

An attempt was made to sample the archaeological record underlying the primary midden zone. This was accomplished by excavating and screening standard size test pits within the shallow backhoe trenches. From the six backhoe units tested in this manner, a total of 36 ceramics, 126 lithics, and 5 daub fragments were recovered. In order to make standardized comparisons with other specific provenience collections, these artifact frequencies can be expressed as a function of the area excavated...
When compared with the density figures derived from tests in the midden itself, the submidden figures are low. A ceramics-to-lithics ratio of 1 to 3.5 is another characteristic that contrasts sharply with the midden artifact data. Direct comparisons of the midden versus the submidden samples can be made from the information presented in Table 1.

<table>
<thead>
<tr>
<th>Provenience</th>
<th>Total Area Excavated</th>
<th># Total Ceramics</th>
<th># Lithics</th>
<th># Daub</th>
<th>Ceramics to Lithics Ratio</th>
<th>Total Artifacts/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midden, Marsh Tract</td>
<td>4.75 m</td>
<td>177</td>
<td>101</td>
<td>439</td>
<td>1:0.57</td>
<td>191.2</td>
</tr>
<tr>
<td>Midden, Hampton Tract</td>
<td>2.5 m</td>
<td>240</td>
<td>118</td>
<td>42</td>
<td>1:0.49</td>
<td>160.0</td>
</tr>
<tr>
<td>Midden, combined tracts</td>
<td>7.25 m</td>
<td>417</td>
<td>219</td>
<td>481</td>
<td>1:0.52</td>
<td>154.1</td>
</tr>
<tr>
<td>Submidden, Marsh Tract</td>
<td>2.25 m</td>
<td>36</td>
<td>126</td>
<td>5</td>
<td>1:3.50</td>
<td>74.2</td>
</tr>
<tr>
<td>Nonmidden area, Marsh Tract</td>
<td>13.0 m</td>
<td>1</td>
<td>50</td>
<td>0</td>
<td>1:50.0</td>
<td>3.9</td>
</tr>
</tbody>
</table>

⁶ Figures are derived from excavated test pits only.

These data indicate that a submidden component is present at the site, and that this component is composed primarily of lithic artifacts. That this component represents, at least in part, a Late Archaic or early Woodland occupation is suggested by the recovery of the base of a stemmed projectile point at 77 cm BGS. This base is similar in form to the Cota Creek point defined by Cambron and Hulse (1975:33). Small amounts of flint chips and fire-cracked rock were also present in the artifact collection from this unit. This partial point is illustrated in Figure 10 (A). No other diagnostic artifacts were recovered that are clearly Archaic in origin. In summary, the submidden testing results suggest the possible presence of an underlying Late Archaic component, although the extent of this early occupation could not be determined.

**Survey Test Pits**

A total of 51 test pits measuring 50 x 50 cm were excavated and screened at Heritage Place; the locations of these units are indicated in Figure 4. In addition, a 1 x 1 m unit was excavated to test for the presence of a suspected prehistoric structure and will also be discussed in this section. Most of the survey tests were placed according to a systematic interval sampling design that was aimed at establishing the presence of the midden along the southern terrace. Only one unit was found to contain no prehistoric artifacts whatsoever. Varying from the systematic design somewhat was the excavation of six test pits.
oriented around the 1 x 1 m unit shown in Figure 4. No survey test pits were placed in the two sewer or water line right of ways that cut through the midden in the Marsh tract. A large quantity of prehistoric artifacts was noted on the surface of the western right of way, indicating that approximately 30 - 40 feet of the midden was destroyed in this area. The eastern right of way was covered by fill brought in to create a well-drained access road through the field, and no artifacts were seen on this modern surface.

A substantial artifact collection was derived from the survey tests, as indicated in Table 1. A clear distinction is seen between the southern terrace assemblage and the artifact assemblage from the rest of the site. The differences between these two cultural and geological strata are especially apparent from a comparison of the total artifacts per square meter excavated, 147.8 and 3.9, respectively. The virtual absence of ceramic artifacts in the nonmiddlen areas, along with the presence of a small quantity of lithic material, again suggests an Archaic attribution. Most of the nonmiddlen lithic artifacts came from the northern terrace, which showed evidence of truncation due to erosion (e.g., the shallow A horizon).

Hence, older materials would be expected from this eroded area. If it is representative, the amount of material recovered indicates that the possible Archaic occupation was not extensive. Complicating this analysis, however, is the collector factor: long-term "arrowhead hunting" activities at this easily accessible site could have a significant negative bias on the presence of recognizable Archaic-period artifacts. This serves to underscore the harm that seemingly innocent relic collecting can have on the interpretation of the archaeological record.

While the midden present on the southern terrace is described as being continuous, there is a good deal of variability in artifact density and content from sample to sample. Although the data presented in Table 1 indicate a relatively high artifact density for the Marsh tract, this includes the material from the 1 x 1 m excavation, which was purposively placed on a prehistoric feature. If this latter artifact assemblage (i.e., 23 ceramics, 30 lithics, and a whopping 418 fragments of daub) is not included with the Marsh tract 50 cm survey test data, the adjusted total artifacts per square meter excavated drops to 65.6. Leaving the Hampton tract, particularly the western one-third of the parcel, as the area of the midden with the highest artifact frequencies. The presence of 42 daub fragments, including 35 from a single survey test pit, suggests the occurrence of one or more wattle and daub structures on the western edge of the midden.

A small sample size, along with wide test intervals (generally 25 or 50 meters) limits the reliability of any definitive statement concerning intrasite settlement patterning. It is obvious that a good deal of variability exists, but a more accurate picture of the structure and content of the prehistoric occupations at Heritage Place will only be forthcoming through additional fieldwork and analysis beyond the survey level.

One of the survey tests is of particular interest due to the presence of a partial prehistoric pot that was found in it. Shown in Figure 6, this vessel was uncovered in situ, protruding from the south wall of the most southeastern 50 cm test in the Marsh tract. The unit was extended 15 cm to the south in order to
Figure 6. Partial ceramic vessel from the Heritage Place Site. This undecorated, sand and limestone tempered pot base was recovered from a survey test pit located in the midden area of the Marsh tract. It probably dates to the Middle or Late Woodland period.
recover as much of the pot as possible. The base of the vessel was at 50 cm BGS, while the top portion
was at 34 cm BGS. This latter figure provides indirect evidence of the approximate maximum depth of the
plow zone in this portion of the site; an apparent plow zone depth of 20 cm was noted on the wall of the
test unit. No outline of a feature was visible in this profile, but the depth of the base of the pot suggests
that it was contained within a submidden pit of some sort. This vessel is composed of a sand and limestone
tempered paste and is undecorated. The concoidal base and the tempering agent is characteristic of the
Woodland period, probably the Middle or Late Woodland (Lewis and Kneberg 1970: 82–83, 103).

Due to the presence of a small amount of baked clay daub at a single location on the surface of the Marsh
tract midden, the systematic interval survey format was modified to allow more intensive testing in this
area. Originally, a 50 cm² test pit was placed directly on the daub concentration, but after encountering
a solid mass of daub at ca. 20 cm BGS, the unit was expanded to a 1 x 1 m dimension. The location of this
test pit, which was situated 5.65 m north of the survey transect line established in this portion of the
site, is indicated in Figure 4. Excavation of the 1 x 1 m pit proceeded in the following arbitrary levels:

- Level 1: 1 - 25 cm BGS
- Level 2: 25 - 40 cm BGS
- Level 3: 40 - 50 cm BGS
- Level 4: 50 - 86 cm BGS

Due to time constraints, the 1 x 1 m square was reduced to 50 cm² during the excavation of the lowest
level.

The heaviest concentration of baked clay daub was present between 23 - 45 cm BGS, indicating a
maximum plow depth of 23 cm. Most of the daub bore impressions of wattle or cane matting. The small
size of the test pit made it impossible to determine if the daub was associated with a roof or wall fall. In
either case, the bottom of the concentration defines the floor level of the structure. Beneath the floor was
a dark zone of redeposited fill that contained relatively numerous artifacts, including small, scattered
fragments of highly burned daub; flakes of charcoal and bone; 11 flint debitage fragments; and 12
undecorated sherds. This last group of artifacts provides a rough temporal estimate for the feature. 10 of
the sherds are limestone tempered, one is shell tempered, and one is sand tempered with numerous
inclusions of a ferrous-like material. A Late Woodland/Early Mississippian association is suggested
by this assemblage. The ceramics recovered from higher elevations in the unit are consistent with this
temporal period. Found in and above the primary daub concentration were 10 limestone tempered plain
sherd and a single undecorated shell tempered sherd.

The fill present below the floor of the structure was discovered to be part of an extremely important
feature. At 85 cm BGS (ca. 40 cm below the floor) a human skull was encountered. Facing south by
southwest, this individual was found to be lying on its left side, as shown in Figure 7. The bone was in a
Figure 7. Remains of human burial beneath baked clay daub deposit. The frontal bone of the skull is toward the top of the photograph, with the maxilla and teeth below it. The skull was uncovered in the southeast 50 cm quadrant of the 1 x 1 m test pit. View is to the east.
poor state of preservation and was extremely fragile. Examination of a first incisor that was
inadvertently dislodged from the maxilla when the burial was first encountered revealed a moderate
amount of wear. The tooth was clearly shovel-shaped in outline. No artifacts were found in direct
association with the burial, but only 50 cm$^2$ of the subfloor feature was sampled, and other material (as
well as the post-cranial portion of the skeleton) is probably present. Unfortunately, further excavation
of the burial was neither desirable nor appropriate under the survey-level limitations of the project,
and after lining the walls of the excavation unit with plastic, the pit was completely backfilled.

As shown in Figure 4, six 50 cm$^2$ test pits were excavated at 10 m intervals from the 1 x 1 m unit in
an attempt to define the content and structure of the midden around the remains of the known daub
structure. Both the southernmost test pit (located 20 m away from the 1 x 1 m unit) and the
northernmost test pit (10 m away) produced very low artifact densities (n=4 and n=3, respectively).
By way of contrast, the four other test pits produced 57 sherds, 29 fragments of flint, and 16 fragments
of daub. This difference in artifact frequencies supports the basic east-west linear configuration
proposed for the Heritage Place midden. Most of the daub (n=10) from these supplementary survey test
pits was recovered from the unit located 20 m to the west of the 1 x 1 m test, suggesting that an additional
wattle and daub structure may be present in this area. This possibility certainly deserves investigation
through additional survey and/or testing.

No significant historic archaeological resources were recovered at the site, although a Civil War period
minie' ball was collected from the surface of the Marsh tract. A Civil War "camp" of some kind is
rumored to have been present at Heritage Place, which may account for the intense use of metal detectors
there by local looters. If any artifacts from this possible occupation were present, they have long since
been removed by this destructive collection process.

In summary, the purposive survey procedure carried out in the Marsh tract revealed the presence of
substantial remains of a Late Woodland (Hamilton phase) house structure containing a subfloor burial.
An additional structure or structures may be present to the west of this feature. The systematic interval
survey procedure demonstrated the more or less continuous nature and linear configuration of the Lupton
Site midden along a relict river terrace on the south edge of the project area. This midden has been
extensively disturbed in two locations by deeply buried sewer and water lines, but is relatively intact in
the other areas surveyed, despite extensive plowing. A heavy midden deposit occurs along a ca. 100 m
linear section in the westernmost portion of the midden, and this area may also contain additional
prehistoric house structures. It is likely that the midden extends west beyond the confines of the project
area onto land owned by the Girls Preparatory School and east onto land owned by the Chattanooga Golf and
Country Club.

18
Artifact Analysis

Introduction

An estimate of the occupation time periods represented at the Heritage Place Site can be obtained from an examination of temporally-sensitive artifacts, particularly ceramics. In defining the general temporal parameters for this site the entire artifact assemblage will be used, rather than an analysis of discrete proveniences, most of which contained limited artifact samples. Again, the overall project goals, which reflect the discovery level of research, condition the types of methodologies that are selected and used on a project, including the analytical approach that is employed.

Ceramics

Combining all the screened and unscreened proveniences excavated at the site produces a total ceramic collection of 642 sherds. When grouped according to temper, the following percentages are derived:

- Limestone: 545 (84.8%)
- Grit: 42 (6.5%)
- Ferrous: 32 (4.9%)
- Shell: 15 (2.3%)
- Sand: 8 (1.2%)

The presence of such a large number of limestone-tempered ceramics clearly indicates a Woodland period occupation at the site. A Woodland component has also been identified at two recently surveyed prehistoric sites that are in close proximity to the Heritage Place Site. At the site of the proposed Hamilton County Industrial Park/River Port, located on the left bank less than a mile upriver from the Heritage Place parcel, several small Woodland components were apparently found, although the heaviest concentration of materials recovered is associated with Archaic occupations (Resource Analysts, Inc. 1984). On Maclellans Island, just adjacent to the Heritage Place Site, the 1983 UTC Archaeological Field School recovered ceramic artifacts that were almost entirely attributable to the Woodland period. This stands in distinct contrast to such other river-oriented sites as Williams Island and the Moccasin Bend area, both of which exhibit evidence of intensive Mississippian occupations (McCollough and Bess 1984).

Additional pottery attributes can also be examined to further refine the temporal estimates. Table 2 lists the ceramic assemblage according to a combination of temper and surface attributes; probable type designations are also listed. Type descriptions follow those found in Haag (1939), Lewis and Kneburg (1957, 1970), and Phillips (1970).
Table 2. Ceramic Types and Frequencies From the Heritage Place Site.

<table>
<thead>
<tr>
<th>Temper</th>
<th>Surface Decoration</th>
<th>Frequency %</th>
<th>Probable Type Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>Plain</td>
<td>418 / 65.1</td>
<td>Hamilton plain</td>
</tr>
<tr>
<td>Limestone</td>
<td>Check stamped</td>
<td>3 / 0.5</td>
<td>Wright check stamped</td>
</tr>
<tr>
<td>Limestone</td>
<td>Cord marked</td>
<td>19 / 2.9</td>
<td>Hamilton cord marked</td>
</tr>
<tr>
<td>Limestone</td>
<td>Fabric marked</td>
<td>19 / 2.9</td>
<td>Long Branch fabric impressed</td>
</tr>
<tr>
<td>Limestone</td>
<td>Complicated stamped</td>
<td>27 / 4.2</td>
<td>Pickwick complicated stamped</td>
</tr>
<tr>
<td>Limestone</td>
<td>Unidentified stamped</td>
<td>53 / 8.2</td>
<td>Unknown</td>
</tr>
<tr>
<td>Limestone</td>
<td>Miscellaneous (brushed, incised, etc)</td>
<td>6 / 0.9</td>
<td>Unknown</td>
</tr>
<tr>
<td>Grit (quartz)</td>
<td>Plain</td>
<td>31 / 4.8</td>
<td>Unknown</td>
</tr>
<tr>
<td>Grit (quartz)</td>
<td>Fabric marked</td>
<td>5 / 0.7</td>
<td>Watts Bar fabric impressed</td>
</tr>
<tr>
<td>Grit (quartz)</td>
<td>Cord marked</td>
<td>1 / 0.1</td>
<td>Watts Bar cord marked (?)</td>
</tr>
<tr>
<td>Grit (quartz)</td>
<td>Unidentified stamped</td>
<td>5 / 0.7</td>
<td>Unknown</td>
</tr>
<tr>
<td>Shell</td>
<td>Plain</td>
<td>13 / 2.0</td>
<td>Mississippian plain</td>
</tr>
<tr>
<td>Shell</td>
<td>Fabric marked</td>
<td>2 / 0.3</td>
<td>Salt pan (?)</td>
</tr>
<tr>
<td>Sand</td>
<td>Plain</td>
<td>8 / 1.2</td>
<td>Unknown</td>
</tr>
<tr>
<td>Ferrous</td>
<td>Plain</td>
<td>29 / 4.5</td>
<td>Unknown</td>
</tr>
<tr>
<td>Ferrous</td>
<td>Check stamped</td>
<td>3 / 0.5</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Several of these types are illustrated in Figure 8. Two sherds of shell tempered pottery exhibited notched rims that are quite similar to a Dallas example illustrated by Lewis and Kneberg (1970: Plate 62, 6). Another shell tempered ware is illustrated in Figure 9. These three sherds, which are probably from a single vessel, superficially resemble the Hiwassee Island Red on Buff type defined by Lewis and Kneberg (1970: 104), but rather than being a painted decoration, this color scheme results from different amounts of oxidation to the paste during firing of the pot. The incurvate rim indicates a cazuela form. One of the rim fragments also shows evidence of an upflaring top end of a strap handle, but unlike most Dallas examples, the top of this one terminates below the vessel rim.

Based on percentages of the known ceramic types presented in Table 1, Early Woodland ceramics account for 0.8% (the Watts Bar series); Middle Woodland for 7.5% (Wright check stamped, Long branch fabric impressed, Pickwick complicated stamped); Late Woodland for 68.0% (the Hamilton series); and the Mississippian ceramics for 2.3% (shell tempered types). Thus, according to the ceramic data, the most intensive occupation at the Heritage Place Site occurs during the Hamilton phase of the Late Woodland period (ca. 500-900 AD).
Figure 6. Ceramic artifacts from the Heritage Place Site. Key: A-E, Pickwick complicated stamped; F, Bluff Creek simple stamped; G, Wright check stamped; H, Hamilton cord marked; I, Long Branch fabric impressed.
Figure 9. Shell tempered ceramics from the Heritage Place Site. This close-up view of two rims (top left and bottom) and the node shown at the right illustrates the leached-out shell tempering characteristic of Mississippian ceramics. Appearing on the lower rim is the top of a strap handle. All three sherds are believed to be part of the same vessel.
Lithics

With the exception of a single projectile point blank made of slate, the lithic artifact assemblage is composed entirely of flint. Of the 611 artifacts recovered, 96.5% (n=590) are chips and flakes of debitage. Most of this material is probably the by-product of tool manufacturing or modification activities. A small number of flakes showing use wear are also subsumed under the debitage category. Under whole and partial tools there are 2 complete and 14 incomplete projectile points present in the assemblage; several are illustrated in Figure 10. The complete points consist of an unusual “two-tone” spike of indeterminate age (Figure 10: C) and a small Mississippian triangular point (Figure 10: K). The temporal range represented by the recognizable types spans the Late Archaic/Early Woodland (a possible Catoco Creek straight stemmed base, Figure 10: A) through the Middle Mississippian (the Madison triangular points, Figure 10: J, K). Two scrapers, a scraper/knife, and a drill or perforator were also recovered. This last artifact was found in association with the Hamilton burial pit (Figure 10: P).

Unlike the ceramic assemblage, the lithic artifacts do not show a strong correspondence to the Late Woodland period. They do, however, serve to underscore the long-term use of the Heritage Place Site by a number of prehistoric groups. In one respect, the ceramic and lithic data are complementary: that 91% of the lithic artifacts and 99% of the ceramic artifacts were recovered from the middlen area next to the river confirms the importance of this ecotone to human habitation in the Tennessee River Valley. It is still important today. From an anthropological perspective, the intensive use of the site planned for the near future is seen simply as the latest manifestation of an occupation continuum that spans at least a thousand years.
Figure 10. Lithic artifacts from the Heritage Place Site. Key: A, probable Calaco Creek type (Cambron and Hulse 1975: 33); B, unidentified corner notched base; C, rounded base spike of two colors of flint; D, probable Copana type (Cambron and Hulse 1975: 31); E, possible Rheems Creek type (Cambron and Hulse 1975: 110); F, unidentified point with snapped stem; G, slate blank; H, unidentified triangular point, missing base; I, L-M, Hamilton triangular points (Kneberg 1957); J-K, Madison triangular points (Cambron and Hulse 1975: 84); N, knife or scraper fragment; O, side scraper; P, drill/perforator, found in Hamilton burial pit.
Figure 10. Lithic artifacts from the Heritage Place Site.
Management Summary

Results and Recommendations

As documented in this report, the archaeological survey of the Heritage Place Site resulted in the discovery of extensive prehistoric remains dating from the Late Archaic/Early Woodland to the Mississippian periods. The most intensive occupation occurred during the Hamilton phase of the Late Woodland period. This component is characterized at the site by a dense linear midden located on the southern edge of the property. At least one and probably more structures of wattle and daub construction, including the remains of a house with a subfloor human burial, are present within the midden. Bone preservation is moderate to poor. Despite extensive plowing and looting activities occurring at the site in recent years, much of the midden remains undisturbed. Probably more than any other factor, the extreme difficulty of digging in the site's hard-packed soil has protected most of the prehistoric features from the destructive activities of relic collectors. Other sections of the site appear to be devoid of significant archaeological remains.

In the opinion of the author, the Heritage Place Site is potentially eligible for inclusion in the National Register of Historic Places. As presently planned, the earth moving activities proposed by the developer will have an adverse effect on the archaeological resources demonstrated to be present at the site. Specifically, these activities and effects include: (a) excavation of artificial lakes and/or a marina, which is likely to destroy portions of the northern edge of the midden; and (b) extensive filling (up to 5 feet in most areas) over the entire midden using the fill dirt collected from the lake or marina excavations. While the specific effects that this type of aggradation can have on underlying in situ archaeological materials is a subject of debate, one effect is unambiguous: the research potential of the site will be virtually destroyed since the archaeological record will be inaccessible to archaeologists. In this sense both aggradation and truncation of the midden have equally adverse effects.

In view of the site's potential National Register eligibility, it is recommended that the developer avoid all construction activities that would impact the midden area. Since this is probably not economically feasible, it is recommended that secondary testing by a qualified archaeologist be carried out in the midden area prior to any earth moving activities. Based on the survey results, a testing program should be developed that will generate data on the structure and content of the site that can be used in a determination of eligibility. Since the site is characterized by soils that are exceedingly difficult to excavate, it will not be possible to test the entire midden. Accordingly, three areas within the midden should be targeted for testing. These include:

(a) a 50 m area in the easternmost quadrant of the midden (west of the TVA power line right of way). A number of Middle Woodland artifacts were present in this section, as was the intact partial pot shown in Figure 7 and the Mississippian sherds shown in Figure 9. A larger
sample of these poorly represented periods could be obtained through secondary testing.
(b) a 50 m area centered on the Hamilton house and burial. The areal extent and associated
features in the house should be investigated, as well as the burial itself.
(c) a 50 m area in the western third of the Hampton tract. Additional survey-level work should
be carried out in this section to better define the limits of the midden, followed by testing of
areas suspected to contain wattle and daub structures. Even if the structures are not located,
this portion of the midden exhibited an extremely rich archaeological record that under a
secondary testing format is likely to provide significant new data on Woodland adaptations.

It is further recommended that the developer immediately restrict access to Heritage Place as much as
possible. Despite the presence of a locked gate on the western edge of the Girls Preparatory School
property, a number of relic collectors are still carrying out their illegal, destructive activities on the
site using probes, metal detectors, and shovels. Prosecution for trespassing would provide a strong
deterrent for most of these individuals. Without such measures, the looting will continue. As this author
pointed out over three years ago in a discussion of vandalism at Moccasin Bend, archaeology is fast
becoming a "science without a subject" as the overt and covert destruction of sites accelerates
(Honerkamp 1981:3).

Site Significance

The ultimate significance of the Heritage Place Site lies in its potential to inform upon a large number
of questions concerning prehistoric adaptations in the Tennessee River Valley. The multicomponent
nature of the site provides anthropologists with a diachronic perspective from which to view change and
continuity in settlement patterning, burial ritual, and, to a limited extent, subsistence practices. In
essence, the Heritage Place Site acts as laboratory for social scientists, who are able to control two
critical variables in human behavior, that of place and time. Of particular value is the presence of the
relatively undisturbed remains of a Hamilton-phase house or houses. Much of the research on the
Hamilton phase has focused on burial mounds. Future research at Heritage Place can provide unique
information on an incompletely understood aspect of this terminal Woodland adaptation. In addition, the
presence of a small Mississippian component promises to yield data applicable to testing hypotheses
concerning the shift to a fully agricultural way of life. A basic question that data from the Heritage Place
Site can help answer is what were the demographic, environmental, technological, and sociopolitical
conditions in the Tennessee River Valley that led to a Late Woodland focus here and at other sites.
Systematic site-specific data generated from a number of important sites, including Heritage Place, is
essential if an accurate synthesis of the prehistory of our region is ever going to be achieved.

Of possible interest to urban planners as well as to archaeologists is the correlation of certain
environmental variables with the presence of prehistoric sites along the riverfront. Heritage Place, Amnicola Farm, Maclellans Island, Moccasin Bend, and Williams Island all share similar alluvial soil associations along with similar topographic characteristics (i.e., a relict river terrace above the 650 foot contour). Based on this admittedly small data base, it is predicted that other locations along the riverfront that possess these same natural attributes will also possess Woodland and/or Mississippian archaeological remains. This hypothesis has the advantage of being testable since its parameters are explicitly defined: alluvial soils of the Lindside-Melvin-Philo association occurring on terraces at approximate elevations of 650 - 660 feet AMSL. It has the additional advantage of being immediately testable without resorting to expensive archaeological fieldwork on an unlimited number of riverfront parcels. An initial test of this hypothesis would be simply to consult the Tennessee State Site Files for documented sites in Hamilton County that occur adjacent to the Tennessee River, and to note the soil associations and contour intervals that are usually recorded on all Division of Archaeology Site Forms. Of course, any future surveys that are undertaken along the riverfront will also provide independent tests of the predictive value of this "model" of prehistoric settlement. It is likely that this model, like all other models past and present, will be considerably refined or even discarded as additional conditioning factors are discovered and taken into account. However, its usefulness for guiding future archaeological research in a focused, problem oriented, and cost effective direction considerably outweighs the present alternative approaches, which at one extreme seems to be to survey every square foot of 40 linear miles of publicly and privately owned land at a horrendous cost and with no funding source in sight, and at the other is simply (and much more cheaply) to ignore archaeological resources altogether, whatever the considerable loss this might entail to the scientific world and to the citizens of our community.

Afterword

A move toward the development of the riverfront has already begun in Chattanooga. Heritage Place is on the cutting edge of this movement, and the development there serves to bring into sharp relief some of the difficult questions concerning the conflict in the priorities of economic development and cultural resource management. Similar questions will have to be faced—and ultimately answered—at dozens of other sites in Chattanooga as the riverfront development intensifies. It is hoped that, for the sake of scientific research needs and the general public's appreciation of the unique and valuable cultural heritage of this region, our community's future will not have to expand at the expense of its past.
Notes

1 The developer subsequently withdrew the permit application for the marina.

2 The use of archaeological information provided by relic collectors presents a major dilemma for archaeologists. From a scientific standpoint such information is unreliable since it lacks any documentation and can be verified only through word-of-mouth. An ethical question is also raised when an archaeologist pays attention to the work of pothunters. By doing so, the archaeologist lends a sense of credibility to the destructive behavior of collectors that may actually encourage further looting activities. On the other hand, ignoring this data source, however imperfect it may be, dooms prehistoric materials to the realm of "curios," to be bought, sold, or traded in living rooms, swap shops, and flea markets.

3 The Marsh tract ceramic frequencies given in Table 1 do not include this material.

4 This material was present in the paste of 42.2% (n=271) of the total Heritage Place Site ceramic assemblage. Whether or not it was an intentional tempering agent, it may be an indication of a local prehistoric clay source. Since this is the first time that this type of temper has been described, its occurrence in pottery from other sites in the Tennessee River Valley is unknown.

5 The astute reader will have noted that the underlying causes for these apparent correlations have not been specified. That is because the author does not know what they are. To transform a descriptive model of prehistoric settlement patterns into an explanatory one requires a great deal more data than is available at the present time.
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