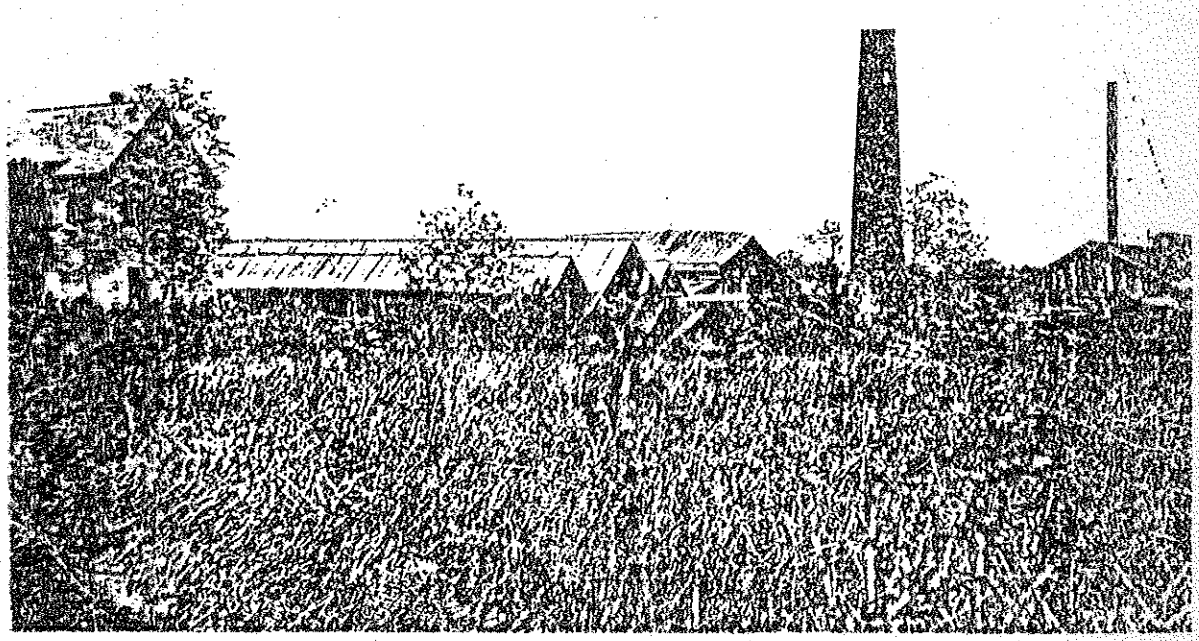
ARCHAEOLOGICAL SURVEY OF THE BRICKYARD PLANTATION TRACT, CHARLESTON COUNTY, SOUTH CAROLINA



BROCKINGTON AND ASSOCIATES, INC.

1991

ARCHAEOLOGICAL SURVEY OF THE BRICKYARD PLANTATION TRACT, CHARLESTON COUNTY, SOUTH CAROLINA

Prepared for

Miller Development Company
Mt. Pleasant, South Carolina

Christopher T. Espenshade
Christopher T. Espenshade
Principal Investigator and Author

Ramona Grunden
Historian and Author

With Historic Data Provided By
John S. Horlbeck and Barbara Brundage

Brockington and Associates, Inc.
September, 1990

ABSTRACT

An archaeological survey was undertaken of the 517 acre Brickyard Plantation tract, Charleston County, South Carolina. The survey methods included preliminary archival research, a review of the State Site Files, and field survey through screened shovel testing on a 40 m interval. Discovered sites were evaluated through excavation of shovel tests on reduced intervals.

No previously recorded sites were present in the tract. The historic research indicated that the tract was historically a portion of Boone Hall Plantation, and that the major economic activity on the tract was brick production. A brick yard was established on the tract in the early nineteenth century, and continued as a successful commercial operation through the early twentieth century. Twentieth century use of the tract was extremely limited.

Six archaeological sites (38CH1074 through 38CH1079) and two modern still loci were discovered during the survey. Site 38CH1074 was a light scatter of prehistoric sherds, while postbellum scatters were present at 38CH1076, 38CH1077, and 38CH1079. 38CH1075 is the former brickyard locus which contains a standing house/commissary, a standing boiler chimney, the ruins of a 1936 water powered generator, and multiple kiln floors and wells. 38CH1078 is an apparent slave row with several chimney falls, an apparently industrial foundation, and areas of intact antebellum midden. Sites 38CH1075 and 38CH1078 are recommended as eligible for the National Register of Historic Places; avoidance or data recovery research is recommended. The other four sites are recommended ineligible for the National Register of Historic Places, and no further work is recommended at those sites.

ACKNOWLEDGEMENTS

The reported research was sponsored by Miller Development Corporation, and they are thanked for their support. The staff of Seamon Whitesides & Associates, Inc. is also thanked for their logistical assistance.

The historical research was greatly aided by Mr. John Horlbeck and Ms. Barbara Brundage, who are compiling a history of Boone Hall Plantation. These researchers willingly shared their data, some of which is included in this report. Their assistance was greatly appreciated.

The field crew consisted of Ms. Jane Brown, Ms. Mona Grunden, Mr. Keith Hemphill, Mr. John O'Donnell, Ms. Liz Pinckney, and Mr. Ron Schoettmer. The crew did an excellent job despite conditions which varied from almost inpenetrable underbrush to deep wetlands. Their effort was much appreciated. Ms. Ruthanne Mitchell did her usual fine job of preparing the graphics for this report.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter 1. INTRODUCTION

An archaeological survey of the 517 acre Brickyard Plantation tract, Charleston County, was conducted in April of 1989. The wooded tract is bordered by US Highway 17 on the south, Highway 41 to the east, Horlbeck Creek to the north, and Boone Hall Plantation to the west (Figure 1). Both single family and multi-family housing are proposed for the property.

The methods utilized included examination of the State Site Files, a review of select historic records pertaining to the property, screened shovel testing on a 40 m interval over the entire tract, and close interval testing to delineate discovered sites. The field work required a total of 30 persondays, while the historic research required five persondays.

No previously recorded archaeological sites were present in the tract. The historic use of the tract was demonstrated to be related to Boone Hall Plantation, more specifically the extensive brick industry of the plantation. The six sites discovered (38CH1074 through 38CH1079) included logging/plow zone scatters of prehistoric sherds (one site) and postbellum historic material (three sites); a brickyard complex with a standing structure and standing boiler chimney, as well as kiln loci; and an apparent slave house cluster associated with an industrial foundation of undetermined function. The last two of the above sites (38CH1075 and 38CH1078) exhibit intact architectural features and dense artifact middens, and can contribute significant data to addressing nineteenth century plantation industry on the Wando Neck. The brickyard complex and slave house cluster are recommended as eligible for the National Register of Historic Places. Preservation in place, data recovery excavations, or a combination of both approaches are recommended for these sites.

This report begins with a review of the environmental and cultural settings of the study tract in Chapter 2. Chapter 2 also includes tract-specific historic data. Chapter 3 reviews the methods of investigation, while Chapter 4 presents the results. Chapter 5 offers conclusions and management recommendations. Appendix A consists of the artifact inventories for each site, and the resume of the Principal Investigator is presented in Appendix B.

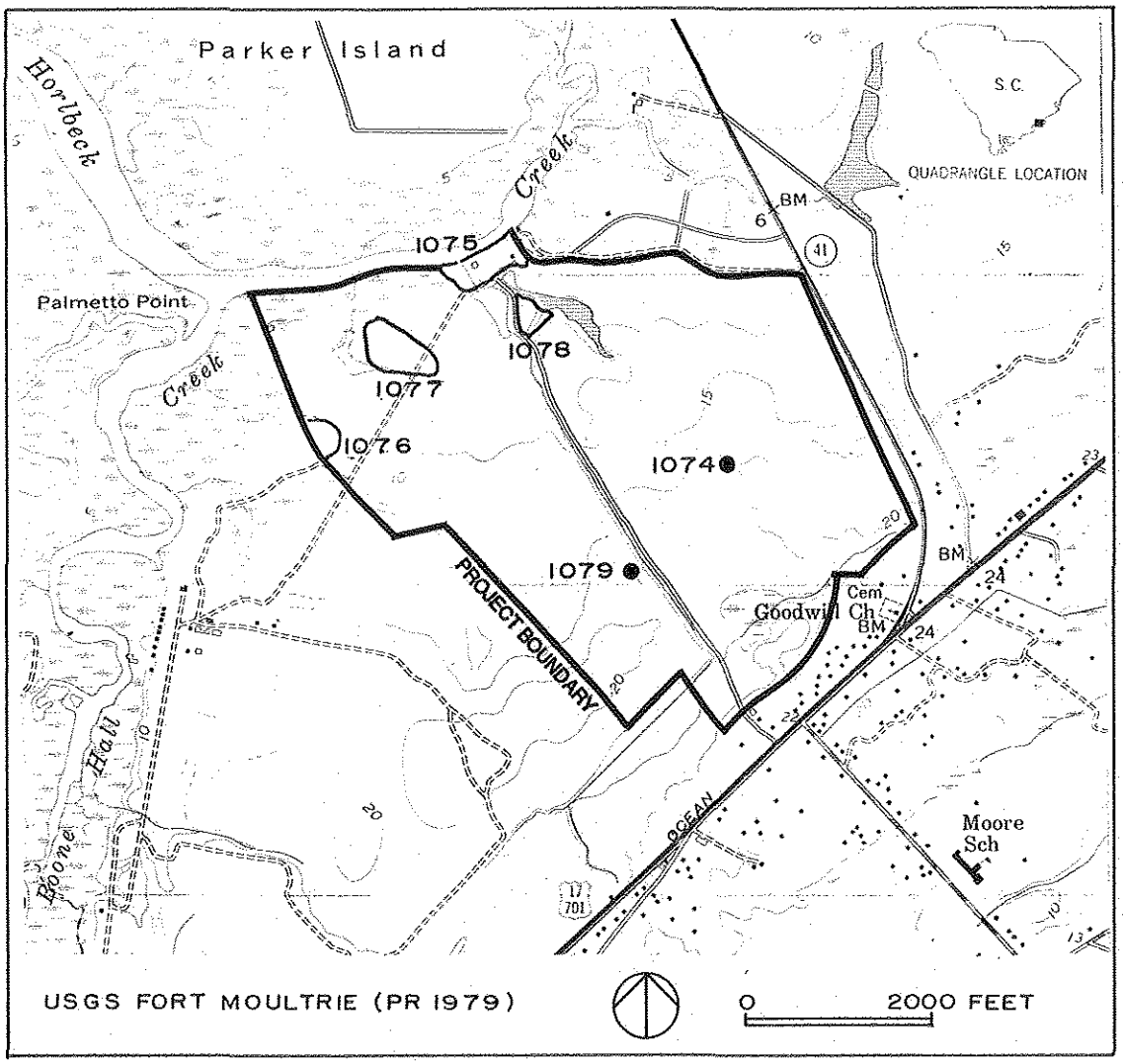


Figure 1. Study Tract Showing Site Locations.

Chapter 2. NATURAL AND CULTURAL SETTING

NATURAL ENVIRONMENT

The Wando Neck is the portion of the mainland between the Wando River to the west and the tidal marsh to the east. While elevations in Charleston County range from sea level to 70 feet above mean sea level (amsl), elevations in the study tract fall between 5 to 25 feet amsl. The study area is situated on Horlbeck Creek, 3000 m from its confluence with the Wando River. The study tract is presently a mixture of woodlands, pasture, fresh water wetlands, and salt water marsh (in decreasing order of frequency).

Climate

The climate of Charleston County is temperate. The region receives an average of 48 to 50 inches of rainfall annually, ranging from an average monthly low of 2.1 inches in November to a high of 7.7 inches in July. Rainfall is evenly distributed throughout the year, and supports an average growing season of 280 days. The average daily temperatures range from a high of 89 degrees Fahrenheit in July and August to a low of 39 degrees Fahrenheit in December and January (Miller 1971).

Daily weather is controlled largely by the movement of pressure systems across the country, although the Atlantic Ocean has a moderating influence on the climate of areas near the coast. The only severe weather hazards of the region are hurricanes, which are most common during the late summer and early fall. From 1670 to 1860 ten major hurricanes have been reported in the Charleston vicinity (Kovacik and Winberry 1987; Miller 1971). Major hurricanes in 1893, 1911, 1954, 1959, and 1979 all passed within 100 miles of the study tract (Kovacik and Winberry 1987; Mathews et al. 1980:54).

Paleoenvironment

Little direct information is available concerning the paleoenvironmental conditions of the South Carolina Coastal Plain. However, data gathered from adjacent regions can be used to infer that significant environmental changes took place after the late glacial period, approximately 15,000 - 10,000 years before present (Whitehead 1965:430). Data from Florida, Georgia, North Carolina, and Virginia, indicate that the Late Pleistocene was a time of transition from full glacial to Holocene environmental conditions (Whitehead 1965, 1973; Watts 1980; Gardner 1976). Pollen studies show that a milder climate prevailed during the Late Pleistocene (Cain 1944). Forests of

this period along the upper Coastal Plain were dominated by oak, hickory, beech, and ironwood (Watts 1980:192). This deciduous forest would have occured in a cooler, moister climate than that existing in the region today (Braun 1950; Barry 1980).

As drier and still warmer conditions became prevalent during the early Holocene, pines and other species suited to more xeric conditions increased, so that southern forests of approximately 7,000 years B. P. began to resemble those of modern times (Watts 1980:194). Although recent episodes of climatic variation are generally considered insignificant, archaeological evidence suggests that these shifts did play a part in the variation noted in prehistoric settlement patterns (DePratter and Howard 1980; Brooks and Colquhoun 1985; Brooks et al. 1983, 1985).

Vegetation and Wildlife

The environment of the project area includes three plant communities of the Maritime Strand: the Lower High Marsh; Upper High Marsh; and Maritime Forest. The Lower High Marsh represents areas near the river edge and is defined by daily tidal inundation. The dominant glasswort, saltgrass, and smooth cordgrass vegetative community of the Lower High Marsh supports assorted shellfish, crab, fish, and bird populations (Barry 1980). The Lower High Marsh is not suited for cultivation or pasture (Miller 1971).

The Upper High Marsh is represented by a dominance of marsh elder, groundsel, and marshhay cordgrass. It is flooded on the average of less than one hour per day and has a relatively low salt concentration. This zone does not contain many key economic resources. However, it can serve as range for wild game and cattle, and the grasses may have been extensively utilized during prehistoric and historic times for basketry (Barry 1980; Miller 1971). The Upper High Marsh includes the former rice fields within the study tract.

The majority of the high ground in the study tract is dominated by Maritime Forest plant communities. The dominant vegetation is palmetto, dwarf palmetto, and slash pine. Laurel oak, live oak, and yaupon holly are significant minority plants in this zone. Red cedars and spanish bayonets are common in areas of dense shell deposits (Barry 1980). The Maritime Forest supports a moderate to high wild game population, produces a moderate mast, and can be developed for silviculture and truck crop agriculture (Miller 1971).

Multiple use of faunal and botanical resources by prehistoric populations was documented by early explorers in the Carolinas (Lawson 1714; Bartram 1792 [Harper 1958]). Most of these heavily utilized coastal plain resources were associated with the mesic and ecotonal environments of the riverine and interriverine Coastal Plain, while some were specific to

marshlands and freshwater habitats (Kuchler 1964; Barry 1980). The prehistoric settlement patterns for this area of the coast have been closely linked to changes in the location and productivity of shellfish producing marsh (Brooks and Colquhoun 1985; Brooks et al. 1985; Colquhoun et al. 1981). The extensive shell middens of the Wando Neck are evidence of the reliance of prehistoric groups on oysters and clams as staples of their diet. Acre for acre, the production of seed oysters in the Wando River greatly exceeds that of the world famous seed oyster beds of the James River in Virginia (SCWRC 1973).

Soils

A major emphasis of this survey was to delineate the effect of soils on historic land use. Beyond the obvious tenet that clays or clayey loams are necessary for brick production, the varius soils of the Wando Neck vary in suitability for farming, logging, game land, and settlement. In this section, the soil series mapped by the Soil Conservation Service (Miller 1971) are discussed, with the acknowledgement that such soil survey classes tend to downplay the variability within a given classification.

Three major soil areas are present within the tract: (1) the Tidal Marsh association, limited to the areas bordering Horlbeck Creek and including relict rice fields; (2) the Yonges and Orangeburg series from the edge of the marsh to approximately 900 m inland; and (3) a patchwork of small exposures of the Hockley, Stono, Lakeland, Edisto, Chipley, and Charleston series over the southern 50 percent of the tract. The Tidal Marsh association is represented by tidally inundated soils; it provides forage for large and small mammals and aquatic birds. In addition, the Tidal Marsh of the Horlbeck Creek/Wando River supports populations of oysters and other shellfish.

The soils of the northern section of the study tract are dominated by Yonges Loamy Fine Sand. Beneath a typical sandy surface layer of approximately 14 inches thickness, Miller (1971:31) reports "the subsoil, which is about 46 inches in thickness, is gray fine sandy clay loam and fine sandy clay." The Yonges exposures includes two small areas of Orangeburg Loamy Fine Sand. The deposits of Yonges Loamy Fine Sand were extensively quarried for brick clay in the study tract. Brick production did not require a "pure" clay, and sandy clays often required little or no added temper. The Yonges and Orangeburg soils naturally have moderate to low permeability and high water tables; drainage is necessary for these soils to be agriculturally productive.

The soils of the southern one-half of the tract include Hockley Loamy Fine Sand, Stono Fine Sandy Loam, Lakeland Sand, Edisto Loamy Fine Sand, Chipley Loamy Fine Sand, and Charleston Loamy Fine Sand. This portion of the tract is characterized by deeper sandy soils (e.g., Hockley, Lakeland, Chipley, and

Charleston soils) on small ridges, and more clayey soils (e.g., Stono and Edisto soils) beneath the intermittent wetlands between ridges. The Lakeland Sands of the tract were noted to correspond with the more mature hardwood stands, and also contained the two modern agricultural fields.

PREHISTORIC CULTURAL SETTING

The prehistory of coastal South Carolina has received much attention from archaeologists, and the present interpretations of that prehistory are presented in this section. Readers are directed to Anderson (1977) and Anderson and Logan (1981) for detailed overviews of previous research in the region. The following summary discussion is divided into periods which represent distinct cultural adaptations in the region; environmental changes that occurred in each period also are delineated.

Paleo-Indian Period (10,000-8,000 B.C.)

The earliest presence of man in the Coastal Plain of South Carolina occurred in the Paleo-Indian Period. This cultural period corresponds with the terminal Pleistocene, when the climate was generally much colder than today, and when the sea level was over 200 ft below present levels. Although the project tract was in the Coastal Plain during the Paleo-Indian Period, the distance to the ocean was certainly much greater than at present. Another notable feature of the terminal Pleistocene was the presence of large mammalian species (i.e., megafauna).

The pattern of human adaptation for this period has been reconstructed from data from other areas of the country and from distributional data on the diagnostic fluted projectile points within the Southeast. Very few Paleo-Indian sites have been excavated in the Southeast (cf. Claggett and Cable 1982; Brockington 1971), and only recently have South Carolina sites received attention. However, the data from surface finds of Paleo-Indian points seems to indicate that cultures of this period were focused along major river drainages, especially in terrace locations (Michie 1977; Goodyear 1979; Anderson and Logan 1981:Figure 9). If the pattern from other areas of the country holds true in South Carolina, then the adaptation was one of broad range, high mobility, hunting and gathering with a possible focus on megafauna exploitation (Gardner 1974).

Paleo-Indian points have been recovered in the Wando Neck (Michie 1977), but no intact sites have been documented. Minimal Paleo-Indian use of the project tract probably occurred, since populations were probably centered more on the coast (farther east at that time) and major river drainages such as the Santee. The project area also lacks the cryptocrystalline raw material favored by the Paleo-Indian knappers (Goodyear 1979).

Early Archaic Period (8,000-6,000 B.C.)

The Early Archaic corresponds to the adaptation of native groups to Holocene conditions. The environment in coastal South Carolina during this period was still colder and moister than present, and an oak-hickory forest was establishing itself on the Coastal Plain (Whitehead 1965, 1973; Watts 1970, 1980). The megafauna of the Pleistocene had disappeared, and a more typical woodland flora and fauna were established. The Early Archaic adaptation in the South Carolina lower Coastal Plain is not clear, as Anderson and Logan (1981:13) report:

> At the present, very little is known about Early Archaic site distribution, although there is some suggestion that sites tend to occur along river terraces, with a decrease in occurrence away from this zone.

Early Archaic finds in the lower Coastal Plain are most typically corner- or side-notched projectile points, which have been determined to be Early Archaic through excavation of sites in other areas of the Southeast (Coe 1964; Claggett and Cable 1982). Early Archaic sites generally are small, indicating a high degree of mobility.

Middle Archaic and Preceramic Late Archaic Period (6,000-2,000 B.C.)

The trends initiated in the Early Archaic -- increased population and adaptation to local environments -- continued through the Middle Archaic and Preceramic Late Archaic. Climatically, the study area was still warming, and an oak-hickory forest dominated the coast until circa 2000 B.C., when pines became more prevalent (Watts 1970, 1980). Stemmed projectile points and ground stone artifacts characterize this period, and sites increased in size and density through the period. Koob (1976) reported several sites from this period on the Wando Neck, generally represented by surface scatters of projectile points and flakes in plowed fields.

Ceramic Late Archaic Period (2,000-500 B.C.)

By the end of the Late Archaic Period, two developments had occurred which changed the lifeways of the South Carolina Coastal Plain. First, the sea level had risen to within one meter of present levels, and the extensive estuaries now present were in place (Colquhoun et al. 1981). These estuaries were a reliable source of shellfish, and the Ceramic Late Archaic period saw the first emphasis on shellfish exploitation. It was also during this time that the first pottery appeared on the South Carolina coast. In the Charleston area, this pottery is the sand tempered or untempered Thom's Creek series, with decorations including

punctation, incising, finger pinching, and possibly simple stamping and dentate stamping.

The best known Ceramic Late Archaic Period sites are the shell rings, which are relatively frequent along the tidal marsh between Charleston and Georgetown. These rings are usually round or oval rings of shell and other artifacts, with a relatively sterile area in the center. Many of these rings are currently in tidal marsh waters, and they have been interpreted as actual habitation loci adjacent to or within productive shellfish beds. These sites attest to a high degree of sedentism, at least on a seasonal basis.

Coastal Thom's Creek sites without shell have only recently been examined. The work of Trinkley (1976) and others has documented the presence of numerous mainland sites characterized by Thom's Creek pottery and a lack of oyster middens. It is unclear at this time what is the relationship between the shell rings and the apparently contemporaneous non-shell sites.

Early Woodland Period (500 B.C.-A.D. 200)

It should be noted that some researchers choose to consider Thom's Creek an Early Woodland manifestation. Because of the close association in some areas between Thom's Creek and fiber tempered ceramics, here Thom's Creek is considered Ceramic Late Archaic. The first Woodland manifestations on the Wando Neck are characterized by a significant increase in stamp decorated pottery, an abandonment of shell ring sites, and the establishment of mainland shell midden sites.

Typologically, there is presently a debate as to whether or not the Refuge series exists on the South Carolina coast, or whether all the supposed Refuge material can be subsumed by the Thom's Creek series and the later Deptford series. To avoid confronting this debate without new data, definitve markers of the Early Woodland are considered here to be Deptford Check Stamped (linear and bold), Deptford Simple Stamped (including possible Refuge Simple Stamped), and coarse tempered fabric impressed pottery. In the Early Woodland, the region apparently represented an area of interaction between widespread ceramic traditions, with the paddle stamped tradition dominant to the south, and the fabric impressed and cord marked tradition dominant to the north and west (Caldwell 1958; Espenshade 1986; Blanton et al. 1986).

The subsistence and settlement pattern of the Early Woodland Period suggests population expansion, and the movement of groups into areas minimally used in earlier periods. The Early and Middle Woodland sites are the most common on the South Carolina coast, and generally consist of shell middens near tidal marshes, and ceramic and lithic scatters in a variety of other environmental zones. It appears that group organization during

this period was based on the semi-permanent occupation of shell midden sites, with the short-term use of interior Coastal Strand sites.

Middle and Late Woodland Period (A.D. 200-1000)

The typological manifestations of the Middle and Late Woodland periods on the South Carolina coast are somewhat unclear. The check stamped tradition of the Early Woodland Deptford series continues through most of the Middle Woodland, and check stamping reappears late in the Late Woodland period. Cord marked and fabric impressed ceramics continue to be produced through the Middle and Late Woodland periods, as do simple stamped wares. There is no single decorative mode which can be associated with this period, and recent research has only begun to sort out the confusion (Trinkley 1983; Anderson et al. 1982; Blanton et al. 1986). Shell midden sites continue to be common in this period, although the overall site frequency appears to be lower than for the Early Woodland.

Mississippian Period (A.D. 1000-1543)

In one of the earliest archeological surveys of Christ Church Parish, Gregorie (1925) found and illustrated numerous examples of Mississippian Period ceramics. The diagnostic complicated stamped ceramics and small triangular projectile points of this period mark the transition of area groups into a complex system of social organization which lasted until first European contact. In most areas of the Southeast, the Mississippi Period is characterized by an emphasis on agriculture and by the development of complex public works and ceremonial centers. While some mounds are known on the South Carolina Coastal Plain (Ferguson 1971, 1975), it appears that the limited agricultural potential of this area did not allow the development of a full fledged Mississippian society.

In their overview of the Francis Marion National Forest (north of the study area), Anderson and Logan (1981:22) report that "virtually no Mississippian sites are known from the inter-riverine zone in the interior of the Forest, a pattern that appears to hold throughout the coastal plain [sic]." Mississippian groups were apparently aligned along major drainages (i.e., extensive flood plains) and the coastal strand (i.e., esturary resources).

HISTORIC OVERVIEW OF THE WANDO NECK

The Wando Neck region has a rich history, yet no comprehensive regional review has been produced. The following overview draws from the works of Gregorie (1961), Rogers (1984), and others.

The Carolina Coast was first permanently settled by Europeans in 1670. The earlier Spanish attempt to settle at San Miguel de Gualdape (1526) to the north and the successful Spanish settlement at Santa Elena (1566-1587) to the south apparently had limited impact on the study area. The establishment of Charles Towne Landing by the British in 1670, however, sparked a period of intensive fur trade with the Indians of the region and provided a base from which settlers spread quickly up the Wando Neck. Charles Towne was settled under the proprietory system, and did not become a royal colony until 1719.

The early economic development in the Wando Neck region focused upon Indian trade and naval stores production. Trade with the Indians was aggressively pursued through the beginning of the eighteenth century, but by 1716 conflicts with the Europeans and disease had drastically reduced or displaced the native population. Naval stores production likewise flourished for a short period with the encouragement of bounties provided by the Crown. However, England failed to recognize the extensive supplies of the pinelands on the Carolina coastal strand, and the production of naval stores quickly surpassed demand.

The new colony was organized with the parish as the local unit of government. The present study tract, as well as the majority of Wando Neck, was within the Christ Church Parish, created by the Church Act of 1706. The church building itself was to serve both religious and political purposes. As Gregorie (1961:5) explains "the parish church as a public building was to be the center for the administration of some local government in each parish, for at that time there was not a courthouse in the province, not even in Charleston." The boundaries of the Christ Church Parish were established in 1708 as the Wando River, Awendaw Creek, and the Atlantic Ocean.

After 1720, the economy of the Wando Neck shifted to farming and stock husbandry. As early as 1720, rice accounted for half the colony's profits, and the importance of rice grew over the next 140 years. It was complemented by the introduction of indigo as a cash crop in the middle to late eighteenth century. While rice production was restricted to the river marshes, indigo grew best in well drained soils. Although notable early plantations such as Boone Hall and Snee Farm developed in Christ Church Parish, these were consistently located along the Wando River and its tributaries. The majority of the 700 slaves present in the parish in 1724 were probably concentrated on the Wando River plantations, and Gregorie (1961:20) offers the following comment on the rest of the parish in the 1720s:

> Most of the Christ Church parishioners seem to have been small farmers and mechanics. Their free-ranging stock and the abundant wild game supplied meat, and they sent some hides and deer skins to Charleston whence they were shipped overseas. From the great

> heaps of shells left from immemorial feasts by the Indians along the creeks they burned tons of lime and made mortar, whitewash, and crude bricks for their own use, but some lime was sent to on periaugers to the growing town of Charleston. They also made bricks from the scattered deposits of clay. The forest products, turpentine, rosin, tar, and lumber, were also marketable. But there was very little money in circulation.

In 1751, the last recorded Indian skirmish of Christ Church Parish occurred. The location of the encounter between raiding northern Indians and the parish militia is described as "near the seaside, about two miles from the parish-church" (Drayton 1802, as cited in Gregorie 1961:44). This last encounter was significant for removing any final fears of the settlers and for prompting greater movement of people into the lowcountry.

The study area was not directly involved in any battles of the Revolutionary War, and South Carolina saw little action between the failed British attempt to take Charleston in 1776, and their successful occupation of Charleston in 1780. The British left Charleston in 1782. An important outcome of the Revolutionary War was the removal of Royal trade protection, which caused a drastic reduction in rice profitabilty. As a result, many of the planters of Christ Church Parish and surrounding areas began to supplement their rice plantings with cotton agriculture. Unfortunately, the Christ Church Parish soils were not as productive as those of the sea islands.

By 1860, Christ Church Parish accounted for 1.7 percent of the cotton production in the Charleston District, despite containing 10.1 percent of the improved land in that district. Furthermore, the rice production of the parish had decreased drastically from 1850 to 1860. Brockington et al. (1985:41) report:

> Moreover, the heretofore principal economic base of the parish was lost in the 1850s as production of rice during that decade fell from 964,000 to 180,000 pounds, a precipitous drop of 81.3%. The Christ Church rice planters relied on the Wando River for cultivation of the crop, an estuary not ideally suited for the more efficient and productive method of tidal rice agriculture. The higher saline content of the Wando restricted the amount of freshwater tidal agriculture that could be conducted along the river. As a result, the rice planters in the parish could neither effectively compete with the tidal rice plantations in the other parishes of the Charleston District nor

> withstand the pressures of oversupply and outside competition (see various census data presented by Lees 1980:48).

Brockington et al. (1985:41) further argue that the solution to the rice and cotton noncompetitiveness was for the parish to shift its emphasis to ranching and truck farming. Thus, as the Civil War approached, the economy of Christ Church Parish had already begun to change from the old plantation system associated with rice agriculture.

Although the Civil War brought extensive battles to Charleston, Christ Church Parish saw relatively little action. Confederate defensive works were constructed early in the war to prevent Union land forces from advancing on Charleston, but the Union strategy bypassed the Wando Neck and the earthworks did not see battle.

During Reconstruction, there was a drastic increase in the number of farms and a drastic decrease in average farm size as predominately white landowners began selling and or renting portions of their holdings. Brockington et al. (1985:49) summarize the census data and report an increase in Christ Church Parish farms from 61 in 1860 to 517 in 1870, with 77 percent of the later farms being 10 acres or less. A diversified land use was common within single farms in the parish, with corn, cotton, and cattle being major products. In 1880, 55 percent of the farms in Charleston County were tenant operated.

In addition to corn, cotton, and cattle, truck farming was a major element of postbellum agriculture in Christ Church Parish. Truck crops accounted for 24 percent of the agricultural value for Charleston County by 1900. The importance of truck cropping in Charleston County grew significantly, and in 1930 truck crops represented 79 percent of all crops grown in Charleston County (Brockington et al. 1985:49). This level of importance has remained relatively stable through the present.

PREVIOUS RESEARCH IN THE VICINTIY

While no previously recorded sites were present in the study tract, other tracts in the vicinity have been investigated. The previous research includes survey and data recovery investigations at Long Point (just west of the study tract) and survey of Parker's Island (just north, across Horlbeck Creek from the study tract).

The 275 acre Longpoint tract was surveyed in 1987 by Dr. Michael Trinkley of the Chicora Foundation. Trinkley (1987) discovered 12 sites, including a prehistoric shell locus and a brick kiln which both warranted data recovery excavations. Trinkley concluded from his survey that the site locations in the region correlated well with well drained soils.

The brick kiln and shell locus which Trinkley recommended for data recovery were excavated in 1988 by Dr. Paul Brockington and Mr. James Legg of Brockington and Associates. The shell locus proved upon extensive excavation to be a secondary deposit related to historic road filling. The brick yard location was demonstrated to include an intact kiln floor dating to the early nineteenth century, as well as several wells or cisterns. The data recovery at the shell locus was reported in Brockington and Legg (1988), while the brick kiln report is still in preparation.

The 840 acre Parker Island tract was surveyed in 1988 by Dr. Brockington and Mr. Bobby Southerlin of Brockington and Associates. One previously recorded site and 17 new sites were documented. The most common type of site was the Early to Middle Woodland shell midden, with antebellum house sites also common. Two apparently antebellum brick yards were encountered (both on Yonges soil), including one with a standing kiln and intact kiln foundations. This brick yard is located across Horlbeck Creek from the brick yard in the present study tract. Southerlin et al. (1988) suggest that the historic use of Parker Island was focused on brick production.

Finally, it should be noted that the brick mill site within the study tract was recorded in the Cultural Resource Survey, Mt. Pleasant, South Carolina by Preservation Consultants, Inc. The report includes the following passage (Preservation Consultants, Inc. 1988:22):

> Wampancheone Brick Mill Site: Site of 19th century brick mill complex established by the Horlbeck family when this site was owned as part of the larger Boone Hall Plantation tract. Surviving resources include: a tall brick chimney, a brick commissary building, the ruins of a 20th century generating station, and three ponds created by clay excavation. The commissary was reportedly converted for use as a temporary residence c. 1936 by Thomas Stone during the construction of the present Boone Hall manor house. Bricks from the destroyed kilns were also reported to have been used for construction of the Boone Hall house. The power station was built by Stone to provide electricity for the property. It was a small brick structure with a steeply pitched roof and a waterwheel. The site is on private land that has great potential for development.

TRACT SPECIFIC HISTORY

It must be noted from the outset that very detailed historic records exist concerning the tract and its historic use. Many of these records have already been compiled by Ms. Barbara Brundage and Mr. John Horlbeck for a history of Boone Hall Plantation, which they intend to publish. Only a sampling of the

available information is presented here. This brief overview is not intended to be comprehensive, but instead to present an outline of tract history and to indicate the resources available for future research.

Chain of Title

Until recent times, the study tract has always been a portion of the Boone Hall Plantation holdings. Boone Hall was the name given to an extensive plantation originally granted to Major John Boone in 1681. It remained in the Boone family until 1811, when Sarah Boone (widow of John [Jr.]) sold it under mortgage to Thomas A. Vardell (Deed Book S-8:203).

Vardell was apparently foreclosed in 1817, and Sheriff Nathaniel Cleary sold Boone Hall to Samuel Robertson. Six months later in 1817, Thomas Vardell sold the tract to John Johnson et al.; Vardell described the tract as that bought by Robertson in trust for Vardell. The 1817 deed clearly mentions a brickyard at Boone Hall. According to John Horlbeck (personal communication 1989), the Horlbecks first purchased Boone Hall in 1817.

The first Horlbecks to own Boone Hall were the brothers, John and Henry. Their father was a Charleston builder of high repute. Because both John and Henry Horlbeck died intestate between 1839 and 1842, the Boone Hall tract went through a series of efforts to consolidate or clear the title.

In 1839, John Horlbeck and the heirs of Henry Horlbeck were granted equal shares of the property, including the land and "bricks in the yard." John Horlbeck, Jr., Henry Horlbeck, Daniel Horlbeck, and Edward Horlbeck received Boone Hall Plantation in 1842, apparently as heirs of John Horlbeck, Sr. The description of the holdings includes information on the development of the brick yard, listing "Also boat and stock of cattle, machinery &c. used at Brick Yard."

John S. Horlbeck (the younger John) obtained sole ownershio of the Boone Hall tract at some point between 1842 and 1926. In 1926, the estate of John S. Horlbeck (Frederick H. Horlbeck and Elizabeth H. Wulbern, executors) sold Boone Hall to William J. Stober for $170,000 (Deed Book Z-33:313). The next year, Stober sold to Boone Hall Plantation, Inc., for $121,000 (Deed Book N-34:376). The year 1927 also saw the sale from Boone Hall Plantation, Inc., to Carolina Plantation, Inc., for $215,000 (Deed Book N-34:693).

In 1935, the executors of the John S. Horlbeck estate took action against Carolina Plantation, Inc. for failure to pay the mortgage held by the estate or the taxes due on the property. In a sale held in result of that action, the estate regained the Boone Hall tract for $50,000 (Deed Book Y-36:207).

Frederick H. Horlbeck and Elizabeth Horlbeck Wulbern, as executors of the John S. Horlbeck estate, sold the tract in 1935 to Thomas A. Stone and Alexandra E. Stone for $55,000 (Deed Book C-38:151). The Stones developed Boone Hall Plantation as a tourist attraction; it is unclear when they sold the 517 acre brickyard Plantation tract.

Brick Yard History

The Boone Hall brick yard apparently came into existence between 1811 and 1817. By 1819, the Horlbecks (new owners of Boone Hall) were selling brick in Charleston. An 1819 letter of protest describes the expansion of the brick yard and the need of the Horlbecks to expand their landing on Boundary Street.

The brick yard was apparently developed into a major commercial endeavor. The link of the Horlbecks with the local construction industry undoubtedly helped them in judging demand and in marketing their product. The portion of the 1847 account books (Table 1) indicates that approximately 10,000 to 50,000 bricks were being shipped from Boone Hall daily. It should be noted that an extensive set of account books for 1828 through 1868 is present in the collections of the South Carolina Historical Society. The 1847 account book also reflects that the bricks were being delivered directly to private wharves, in some cases to be sold by middlemen.

The productivity of the brick yard suggests that machinization had occurred by the 1840s. An 1842 deed for Boone Hall, as mentioned above, includes reference to "boat and stock of cattle, machinery &c. used at Brick Yard." It is likely that the Horlbecks had installed steam powered brick making machines at their works; steam technology was spreading rapidly through the United States in the 1830s and 1840s.

The 1850 Industrial Census provides more information on the Horlbeck brick yard. The census reports an investment of $75,000 in a facility which produced 4,000,000 bricks annually, providing a yearly profit of $28,000. Fifty male slaves and 35 female slaves worked at the yard, and the labor costs ($350 male, $45 female) suggest that paid supervisors or overseers were utilized. The yard expended 3,500 cords of wood and 200 tons of coal in the year of 1849. These fuels support a contention of steam power, although both wood and coal were probably also utilized in the firing process.

Table 2 presents the twelve month totals for bricks produced and income for 1850 through 1860; monthly records are available but are not present here. Both production and income dropped over the ten year period. The monthly data indicate yearround production with a slow down during the April through June period.

TABLE 1. PAGE OF AN 1847 ACCOUNT BOOK FOR BOONE HALL BRICK YARD.

1847	Sloop Load	Grey	Brown	Red	Landing Place	Remarks
		71,269	480,261	134,320	BROUGHT FORWARD	
Dec 17	107			10,000	Geiger wf	
Dec 18	108		14,500		Fairfield wf	to be sold by him
Dec 19	109		13,000		"	" " "
Dec 20	110		13,000		"	" " "
Dec 20	111	13,200			Howards wf	by Sureef boat
Dec 22	112		10,250		Geigers wf	
Dec 22	113	25,500	21,050		Fitsimmons wf	by Buena Vista
Dec 24	114	13,350			Geigers wf	
Dec 28	115	9,800			Geigers wf	

SOURCE: Horlbeck Account Book in Collections of the South Carolina Historical Society.

TABLE 2. YEARLY PRODUCTION AND INCOME TOTALS, 1850-1860.

YEAR	BRICKS PRODUCED	INCOME	INCOME/1000
1850	3,127,930	$18,701.01	
1851	3,505,968	$17,905.40	
1852	3,278,069	$22,558.44	
1853	3,451,696	$26,210.53	
1854	2,693,675	$21,855.75	
1855	1,573,014	$11,313.40	
1856	1,832,810	$12,856.22	
1857	1,812,520	$12,505.71	
1858	439,545	$3,151.52	
1859	1,557,715	$11,009.91	
1860	1,659,123	$13,076.05	

SOURCE: Horlbeck Account Book in Collections of the South Carolina Historical Society.

The brick yard continued operation through the Civil War. An 1864 advertisement offered a reduced price of $100 per 1,000 bricks, in consideration of the economic state of the region. The 1863 Confederate Map of Charleston Defenses labels the Brick Yard and illustrates six structures (Figure 2). No other brick yards are illustrated on this map.

Among the Horlbeck papers are two documents dated 1875. The first is a "recipe" for burning a kiln full of bricks. It includes hourly tasks, and indicates that both wood and coal were utilized as fuel. The second document is a plan drawing for a two-horse, beam-style clay or pug mill for mixing clay, temper, and water.

The brick yard continued in operation through the end of nineteenth century. In its later years it was known as the Horlbeck Brick and Tile Company, and drain tile became an important product. John S. Horlbeck was an advocate of field drainage to increase productivity and decrease mosquito infested wetlands. Receipts from the late nineteenth century illustrate a variety of bricks as well as three different sizes of drain tiles/pipes.

A late nineteenth century photograph of the brick yard in operation (Figure 3) shows the steam boiler chimney (standing today), the overseer's house/commissary (standing today), and several low flat building with open sides, apparently representing the workshops and drying areas. No kilns can be identified in the picture. A man who assisted in the disassembly of one of the brick kilns in the 1930s recalls the structure as a 20 ft wide by 40 ft long rectangle (Barbara Brundage, personal communication 1989).

The brick yard apparently remained an important landmark to the Horlbeck family even after the operations ceased. In the 1926 and subsequent deeds, the Horlbecks reserved right of first refusal for a 9.4 acre tract containing the standing brick house and the brick yard. This tract corresponds to the area north of the two lakes within the study tract.

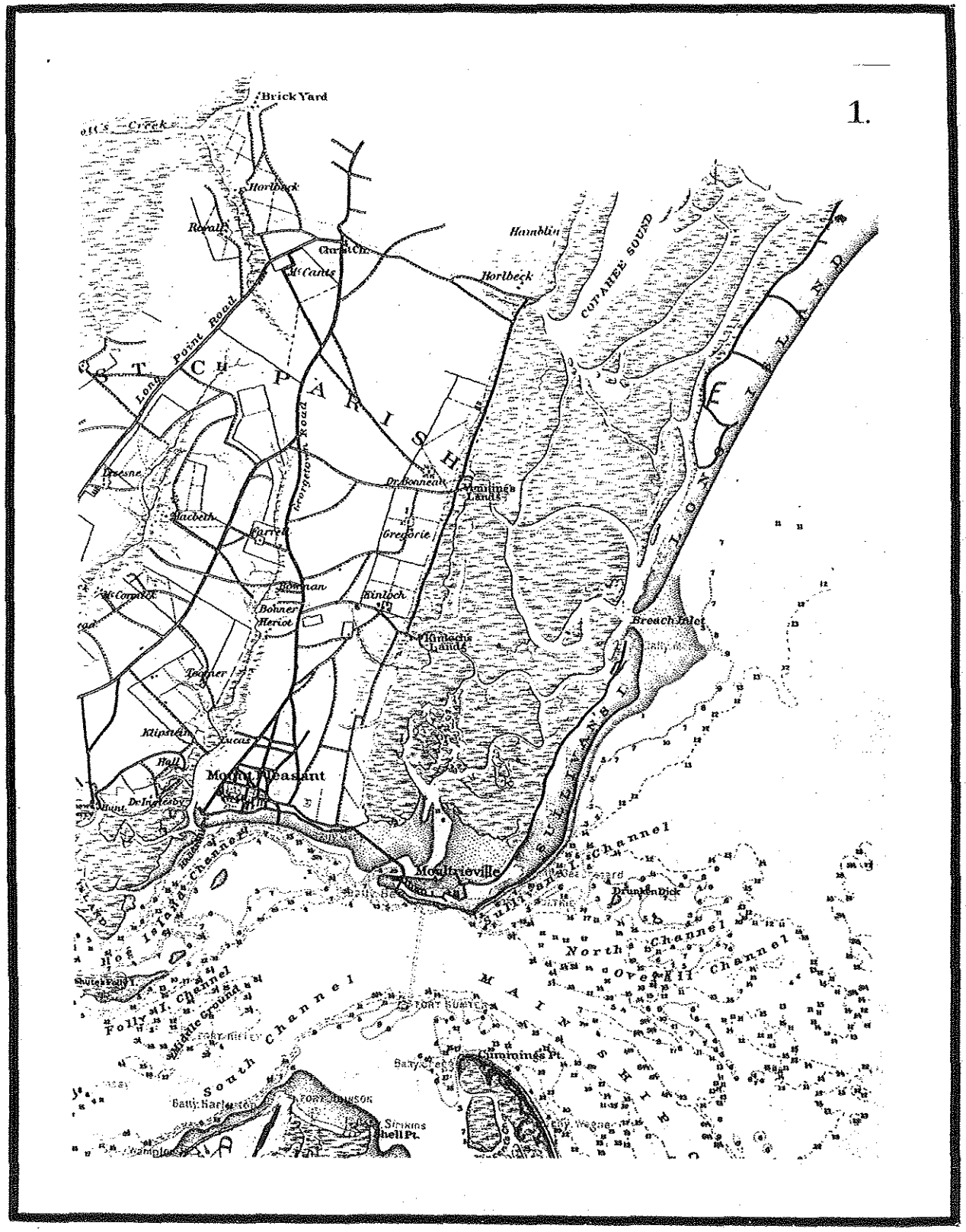


Figure 2. 1863 Map of Charleston and Its Defences. Brickyard is shown in upper left corner.

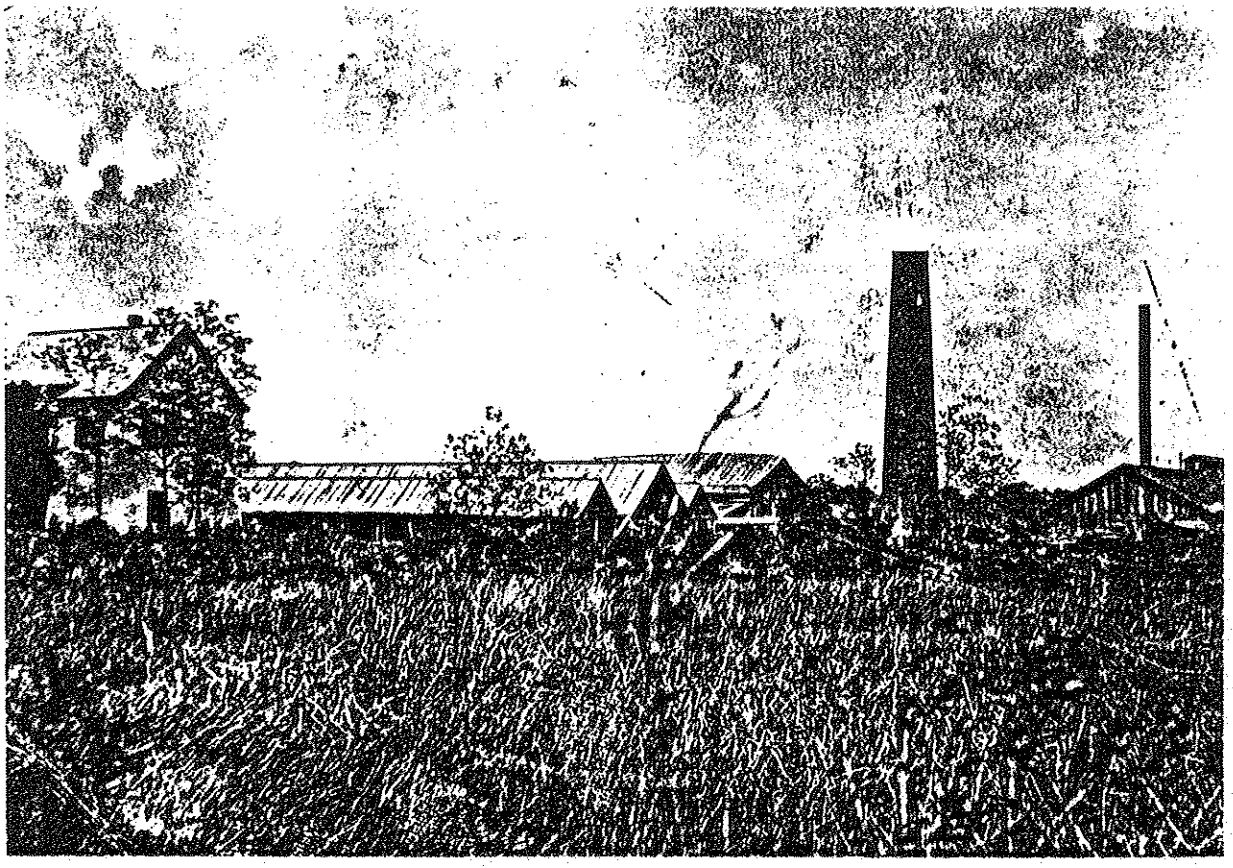


Figure 3. Circa 1900 Photograph of Brick Yard.

Chapter 3. METHODS OF INVESTIGATION

RESEARCH QUESTIONS

Familiarity with the project vicinity and some of the resources probably present within the tract allowed for the development of five general research questions prior to the survey. Several of these questions were pursued through the archival research, while others were addressed with the data from the field survey.

The first question concerned the scope and use span of the brick yard. Map research undertaken during the Parker Island survey had indicated the presence of a large brick yard on the 1863 map of Confederate defenses of Charleston. Furthermore, it was known before the survey that the tract probably was owned by the Horlbeck family through most of the nineteenth century; the Horlbecks were major builders at this time in the Charleston area. The research was undertaken to determine the scope of the brick yard relative to other area yards. Furthermore, while references to eighteenth and early nineteenth century brick production loci are relatively common, postbellum brick yards in the Charleston area are poorly represented in the archaeological literature. Therefore, it was important to determine the use span of the brick yard to facilitate evaluation of its significance.

The relationship of the industrial locus to the main plantation, in terms of economics, scheduling, and work force was also to be adressed. It was suspected that the brick yard played a major part in the economy of Boone Hall Plantation, and the present research sought to generate a preliminary statement on the relationship of the yard and main house complex. Specific issues within this research question included work force settlement, seasonality vs. yearround production, and plantation supply vs. commercial marketing.

The relationship of soils to prehistoric site selection was also investigated. Specifically, the works of Trinkley (1987) and Southerlin et al. (1988) were used as a model to be examined. These works suggested that the limited areas of well drained soils in the region were heavily utilized in prehistory, while areas of clay subsoil were generally not selected for settlement. Since the entire study tract was covered on a 40 m interval, sufficient positive and negative data were obtained to evaluate this model.

Postbellum settlement patterns were also addressed with the survey data. Throughout the South, two basic patterns (with many variations) occurred in postbellum, rural settlement:

reoccupation of clustered slave houses or dispersal of the freedman plantation over the countryside. Given the suspected lack of fields in the clayey soil areas of the study tract, it was anticipated that numerous, relatively isolated tenant loci would be encountered, rather than continued clustered habitation.

The final research topic was the possible use of tidal water power for rice milling. It was known that Boone Hall was a large rice producer, and the USGS quadrangle map showed two large artificial lakes with apparent tidal inflow within the tract. The early rice mills of the region often utilized tidal waters, trapping the waters during high tide and then generating power through controlled release past a waterwheel. The setting in the study tract was optimal for such an operation, and this possibility was addressed through archival research and field survey.

SITE FILE REVIEW

The State Site Files were examined to determine if previously recorded sites were present in the tract. No archaeological sites were on record for the tract. The brick yard was published in the Cultural Resource Survey, Mt. Pleasant, South Carolina, but a state site number apparently was not assigned at that time (Preservation Consultants, Inc. 1988).

ARCHIVAL RESEARCH

The archival research represented a preliminary effort to delineate patterns of historic land ownership and use for the tract. Special attention was paid to the history of Boone Hall and the development of the brick industry. The archival research was greatly aided by Ms. Barbara Brundage and Mr. John Horlbeck, who provided copies of pertinent Horlbeck family papers, title abstracts, and photographs. Because Ms. Brundage and Mr. Horlbeck are planning to publish their research into the history of Boone Hall at a later date, only a sampling of the available data is presented in this report.

FIELD SURVEY

The major method of site discovery utilized during the survey was screened shovel testing on a 40 m interval. The entire tract (excepting the brickyard area which was covered on a 30 m interval) was covered on such an interval, using pacing and compass bearings to maintain orientation and location. The shovel tests measured 30 by 30 cm, and were excavated to sterile subsoil. Figure 4 illustrates the location of the survey transects.

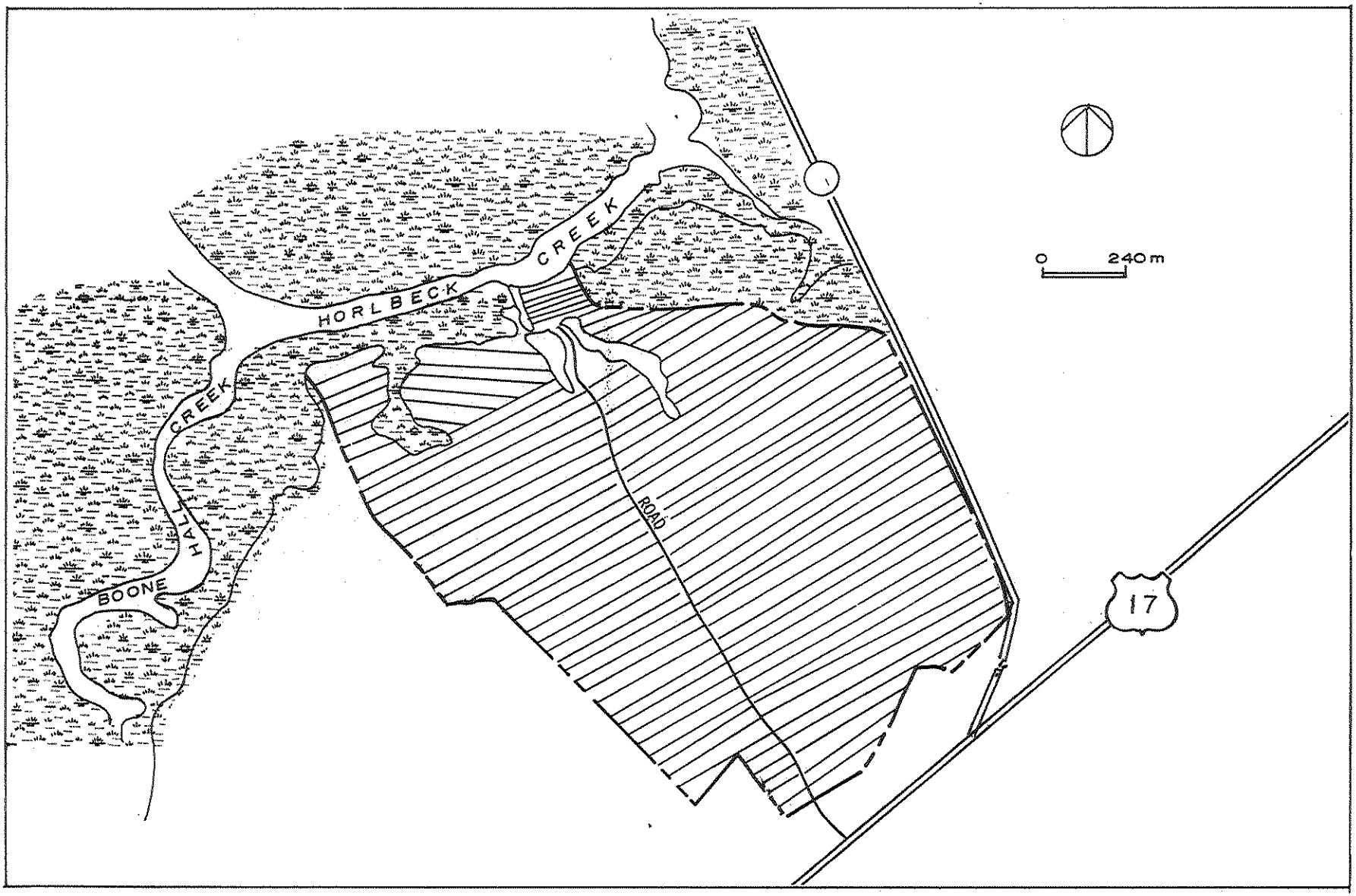


Figure 4. Study Tract Showing Transect Locations.

All fill was screened through Ø.25 inch mesh hardware cloth. Artifacts were bagged by distinct transect and shovel test number. Surface artifacts were sampled, and their location was recorded relative to the nearest transect and shovel test. All positive shovel tests and surface finds were flagged in the field. Each crew member kept a field notebook including information on all positive shovel tests. Transect and positive shovel test locations were plotted on a one inch=4ØØ ft project map and the Fort Moultrie USGS quadrangle map.

Loci which were represented by one or two positive shovel tests during the original discovery phase were revisited, and close interval (5 or 1Ø m) shovel testing was undertaken to determine if the occurrences represented isolated finds or archaeological sites.

Standing structures, chimney falls, possible kiln loci, and wells were mapped through reference to the nearest shovel test. The standing house/commissary and boiler chimney were photographed.

ANALYSIS

All artifacts were accessioned by distinct provenience within a site. The artifact analysis focused upon providing typological and temporal labels to the recovered artifacts. The prehistoric ceramic collection was too small to allow reliable typological assignment, and these materials were described by temper and surface treatment. Historic ceramics were assigned type names and date ranges, while glass and nails were described by temporally diagnostic manufacturing traits. Overall, the artifact frequencies from the discovered sites were quite low, limiting the analytical possibilities.

CURATION

The artifacts and field notes are presently curated at the Atlanta facility of Brockington and Associates. Final curation will be at the South Carolina Institute of Archaeology and Anthropology, following acceptance of the Final Report.

Chapter 4. RESULTS

New previously recorded archaeological sites were present in the tract. A total of six archaeological sites were discovered during the survey. In addition, eight isolated finds and two modern still loci were recorded. Table 3 presents a summary of the sites, and their locations are shown in Figure 1. Detailed artifact inventories are included as Appendix A.

38CH1074

38CH1074 was a 20 by 25 m sparse scatter of prehistoric ceramics from logging disturbed contexts (Figure 5). Five of 18 shovel tests yielded artifacts; only six sherds were recovered. All decorated sherds were simple stamped on fine and coarse sand tempered pastes. A Middle Woodland affiliation is suspected.

38CH1074 has low artifact frequency and density. In addition, the material was all recovered from logging disturbed contexts to 30 cm below surface. The research potential of this site is considered low, and 38CH1074 is recommended as ineligible for the NRHP. No further work is warranted.

38CH1075

38CH1075 is a large (320 by 150 m), complex historic site which includes a standing structure dating to the 1860s, a contemporaneous boiler chimney, extensive remains and features from a nineteenth century brick yard, and the ruins of a 1930s water powered electric generator. The site is located north of the two large lakes on the tract, and south of Horlbeck Creek. It includes the small island northwest of the lake discharge channel.

As indicated in Figure 6, the site has many intact or apparently intact features including: the house/commissary, chimney, wells, house foundation rises, kiln loci, landing, and small power plant.

The house/commissary was originally a 26 by 20 ft, two story brick structure, and a porch/wing was added to the first story of the west facade in the 1930s. Mr. John Horlbeck of Mt. Pleasant has provided a list of alterations undertaken in the 1930s. The structure is identified in oral history as the overseer's house with a commissary downstairs; an 1860s construction date is suggested. A brick lined well or cistern is located near the house.

TABLE 3. BRICKYARD PLANTATION SURVEY RESULTS.

SITE	DESCRIPTION	NRHP RECOMMENDATION/ MANAGEMENT RECOMMENDATION
38CH1074	Prehistoric sherd scatter	Ineligible/No Further Work
38CH1075	Horlbeck Brickyard	Eligible/ Preservation and Integrated Data Recovery
38CH1076	Postbellum scatter	Ineligible/No Further Work
38CH1077	Postbellum scatter	Ineligible/No Further Work
38CH1078	Slave Row and Industrial Foundation	Eligible/Avoidance or Data Recovery Research
38CH1079	Historic scatter	Ineligible/No Further Work
Site 1	Modern still locus	Ineligible/No Further Work
Site 2	Modern still locus	Ineligible/No Further Work
ISOALTED FINDS		Ineligible/No Further Work

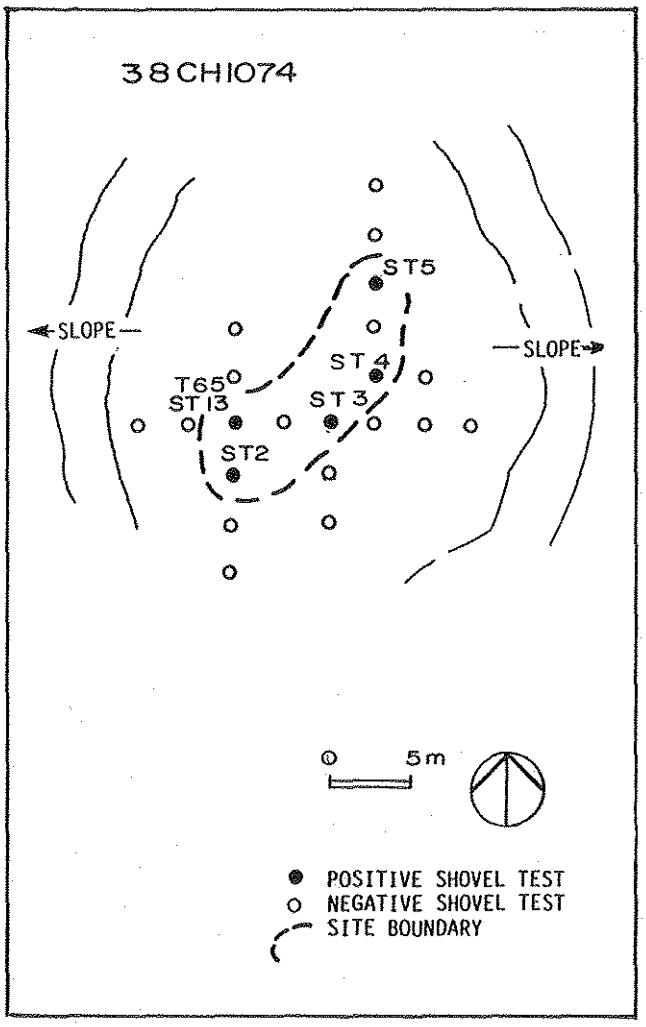


Figure 5. 38CH1074 Site Map.

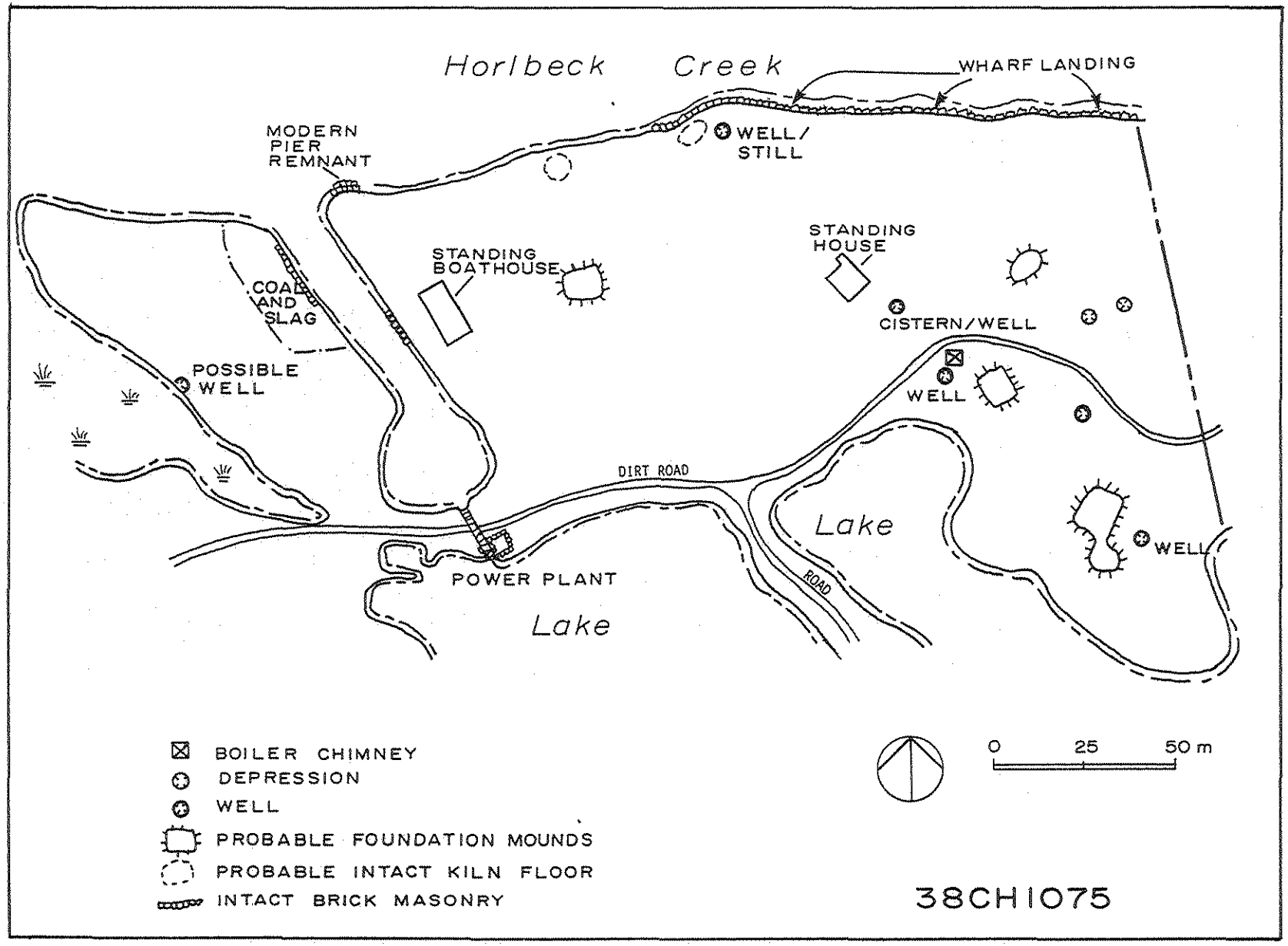


Figure 6. 38CH1075 Site Map.

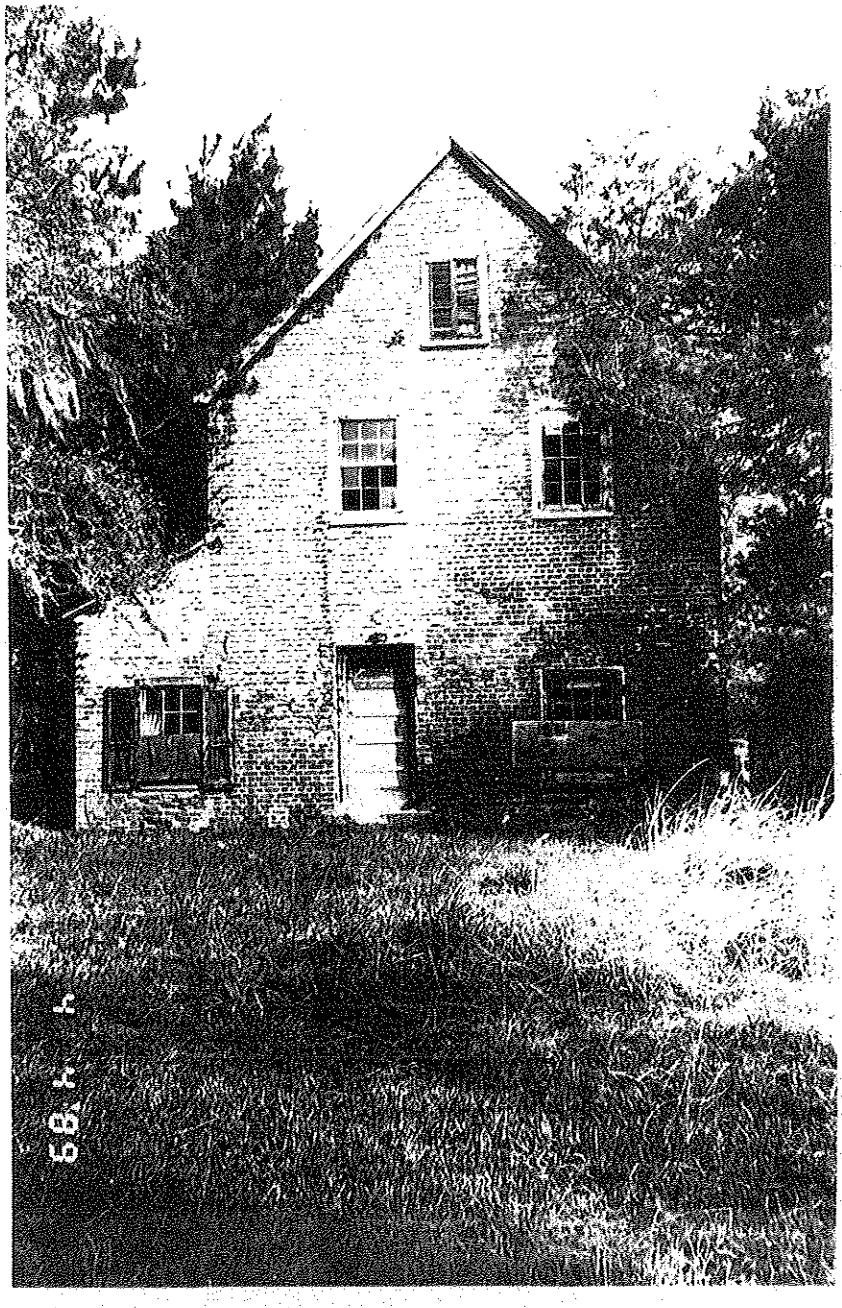


Figure 7. 38CH1075 Standing House/Commissary

The standing brick chimney from a steam boiler is also present on the site (Figure 8). The approximately 30 ft tall chimney was first suspected to be an element of a rice mill, but further research suggests it drove the extensive machinery involved with the brick and drain tile production. The chimney appears structurally sound. A brick lined well or cistern is closely associated with the chimney.

Four possible foundation mounds were documented during the survey. They appeared as rectangular rises with common surface brick. Also plotted were three areas of intact laid brick, apparently representing brick kiln floors, and an extensive landing (Figure 9). The other obvious features of the brick production locus were the two large borrow areas, which are today lakes.

At the north end of the western (brackish water) lake is the former location of a water powered electric generating plant. This structure includes a flume which apparently dates to antebellum times, and the partially standing walls of a small power house known to have been constructed in 1936. A photograph in the possession of Mr. John Horlbeck illustrates the undershot water wheel which reportedly generated electricity for the entire Boone Hall operation in the late 1930s. The water wheel rests are still in place, and the spindle of the water wheel (less the wooden blades) is present within the tract. It is unclear at this time if an antebellum rice mill existed in this flume, but such mills were relatively common on the Wando Neck. This site element is interesting as an example of twentieth century vernacular use of earlier established facilities (i.e., the lakes and sluice).

In addition to plentiful brick, drain tile fragments, anthracite coal, and cinder/slag, the artifacts included whiteware, clear flat glass, and brown bottle glass. A heat glazed arch brick, recovered from the western end of the island, suggests a formal kiln in that location. The low frequency of diagnostic artifacts reflects both the low intensity of shovel testing and the general lack of non-industrial artifacts at brick operations. The few artifacts recovered conform to the expected assemblage from a brick yard in operation from the early nineteenth century through the early twentieth century.

38CH1075 is a relatively well preserved example of a nineteenth century brick yard. In addition, the twentieth century power house is of significance. The Boone Hall brick yard is noteworthy for its longevity and productivity, and the associated documentary records add to its research potential. In addition, the standing house has only been minimally altered in the past 130 years, and those alterations were carefully documented in the 1930s. Overall, the site has a great potential to document a major plantation industry of the nineteenth century. 38CH1075 can provide data on a relatively unknown portion of Boone Hall Plantation, and can help fill out the

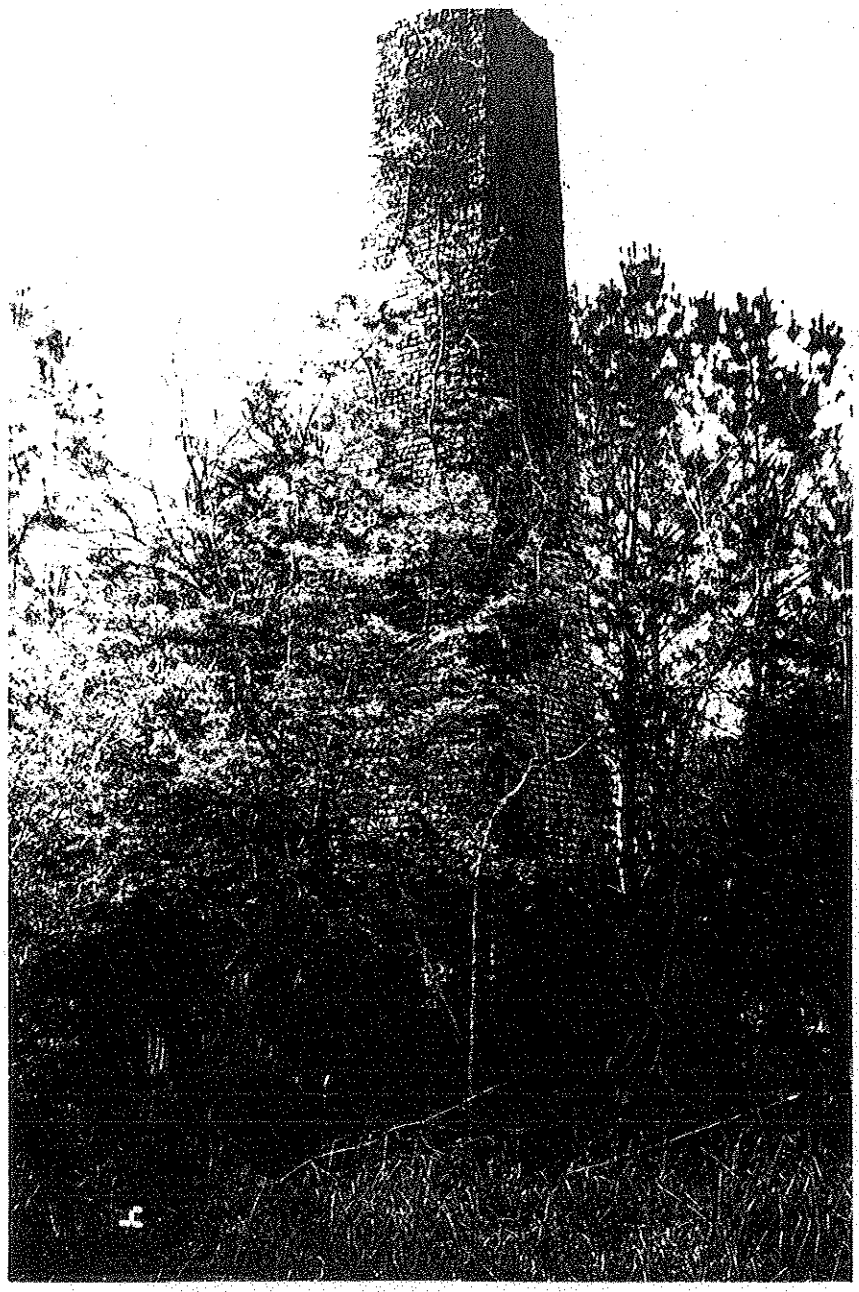


Figure 8. 38CH1075 Standing Boiler Chimney.

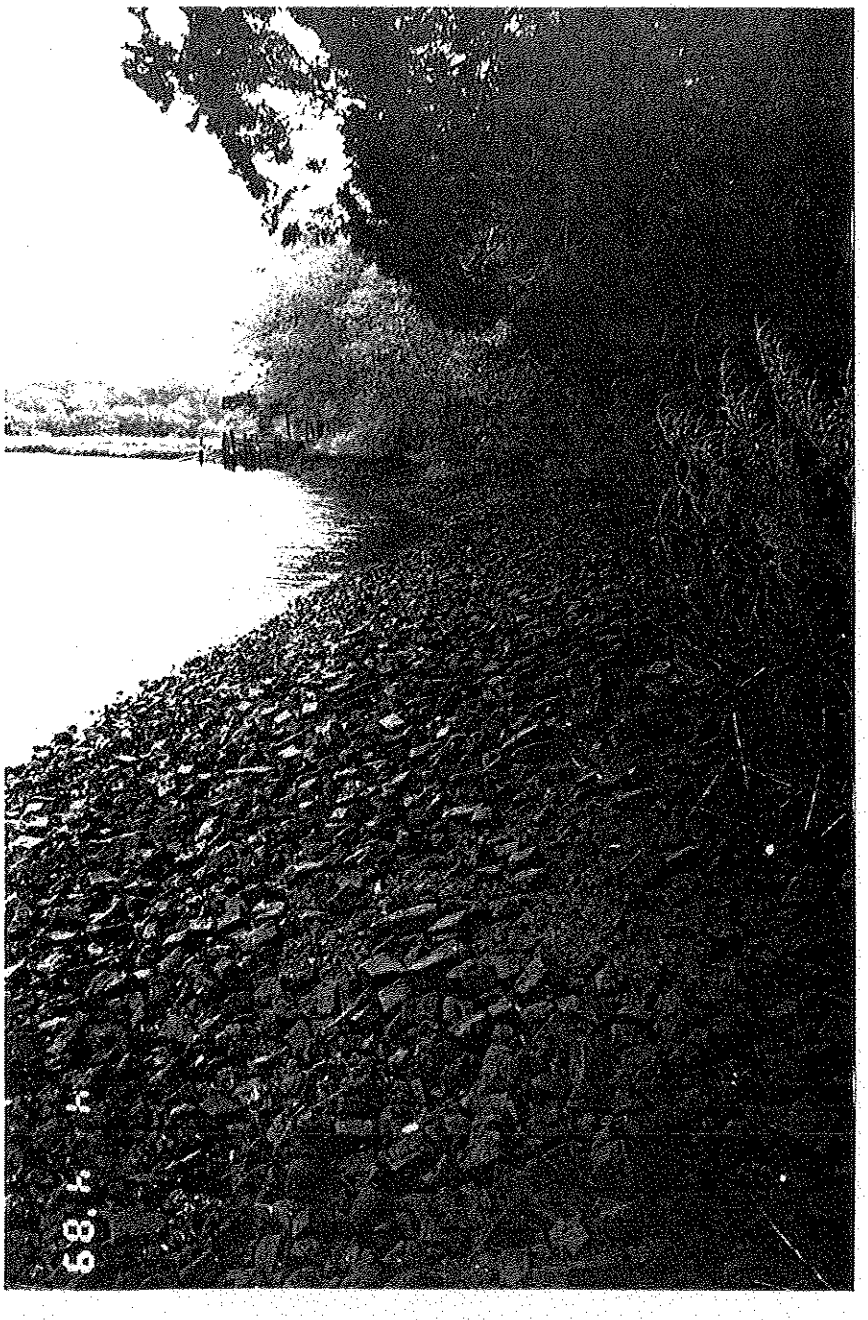


Figure 9. 38CH1075 Brick Yard Landing on Horlbeck Creek.

picture of total plantation activities. In addition, the site is important as a major extractive/supply site for construction in Charleston and region plantations. It is recommended eligible for the NRHP. The present master plan for development calls for greenspace preservation of a portion of the site, and a combined strategy of preservation, archival research, and data recovery excavation is recommended. In addition, it would be prudent to record the standing house, standing boiler chimney, landing, and power house ruins through measured drawings and large format photography.

38CH1076

38CH1076 was represented by a low density of historic artifacts dispersed over a 160 by 160 m area (Figure 10). Thirteen of 53 shovel tests yielded artifacts, all from plow zone contexts. The material recovered included whiteware, ironstone, dark green and clear bottle glass, glazed redware, brick, slag, coal, and miscellaneous metal fragments. Although the vegetation suggests that a house site was formerly present within the site, it appears that plowing has significantly disturbed all the remains.

38CH1076 is a poorly preserved example of a common site type in the region. There is no evidence for intact features or cultural deposits. 38CH1076 is recommended as ineligible for the NRHP, and no further work is recommended.

38CH1077

38CH1077 is another site characterized by a broad, low density scatter of historic artifacts in plow disturbed contexts (Figure 11). The 240 m NW-SE by 320 m NE-SW site was evidenced by surface artifacts and 25 positive shovel tests of 60 excavated. All material was recovered from logging/plow disturbed contexts, 0 to 25 cm bs; no features or intact midden was found. The recovered artifacts include alkaline glazed stoneware; glass from dark green and dark brown bottles; whiteware; burned ceramics with annular, transfer printed, and hand painted decoration; and coal and brick. A postbellum date is inferred.

The highly disturbed nature of this low density scatter indicates a low research potential. 38CH1077 is recommended as ineligible for the NRHP, and no further work is recommended.

38CH1078

38CH1078 is an antebellum site including several house loci and an apparently industrial foundation (Figure 12). The 90 m NS by 90 m EW site includes five chimney falls, an intact

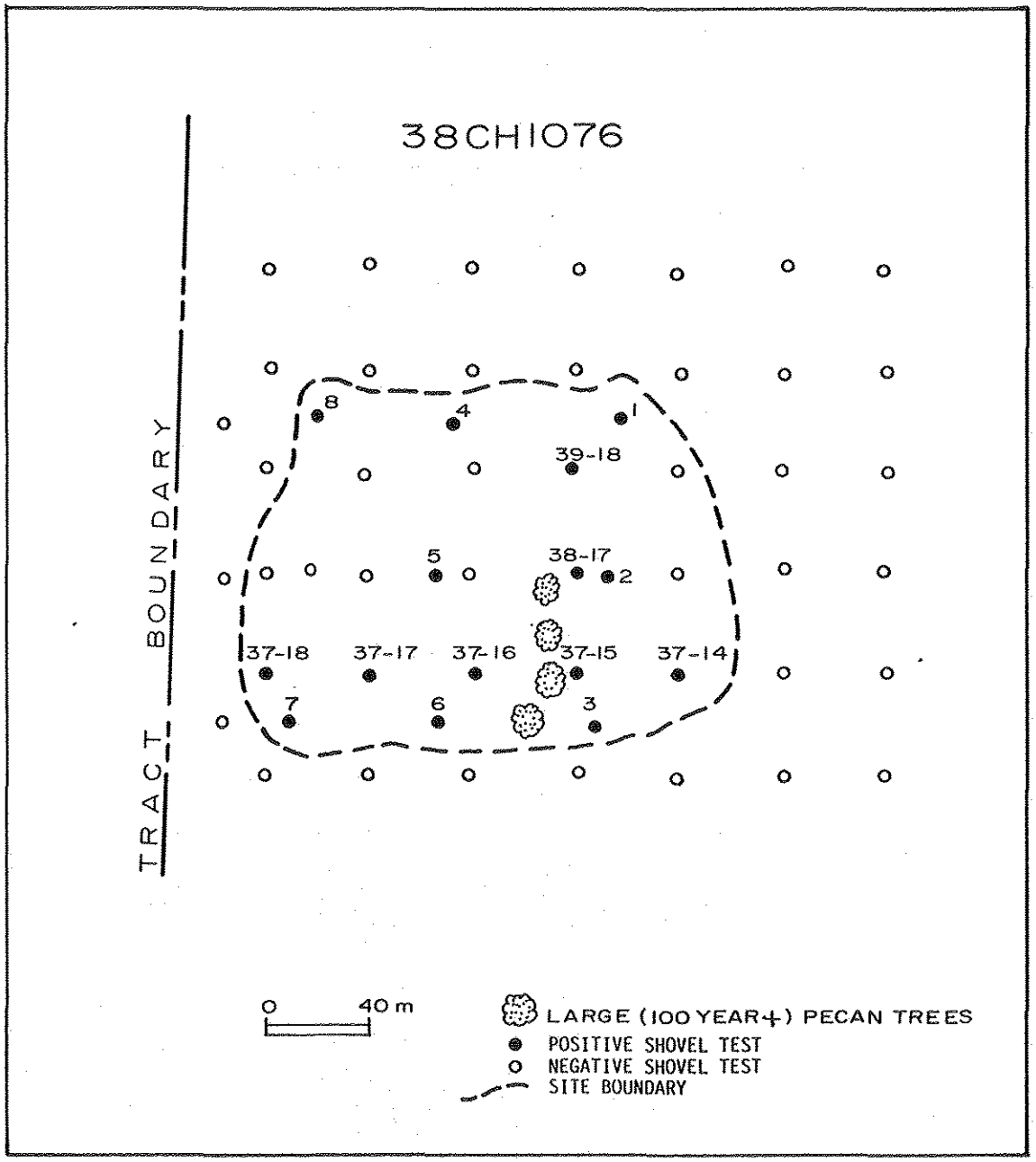


Figure 10. 38CH1076 Site Map.

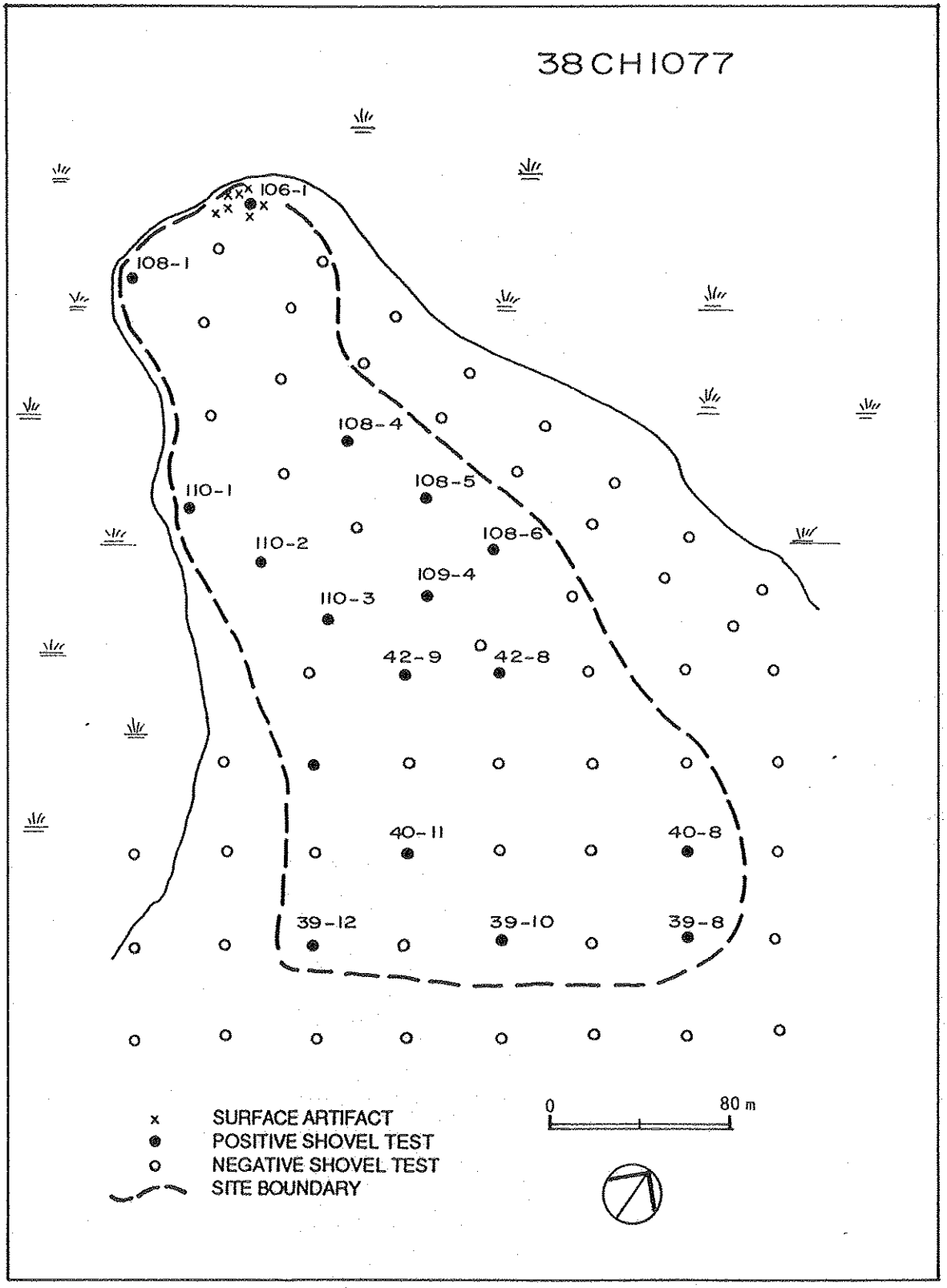


Figure 11. 38CH1077 Site Map.

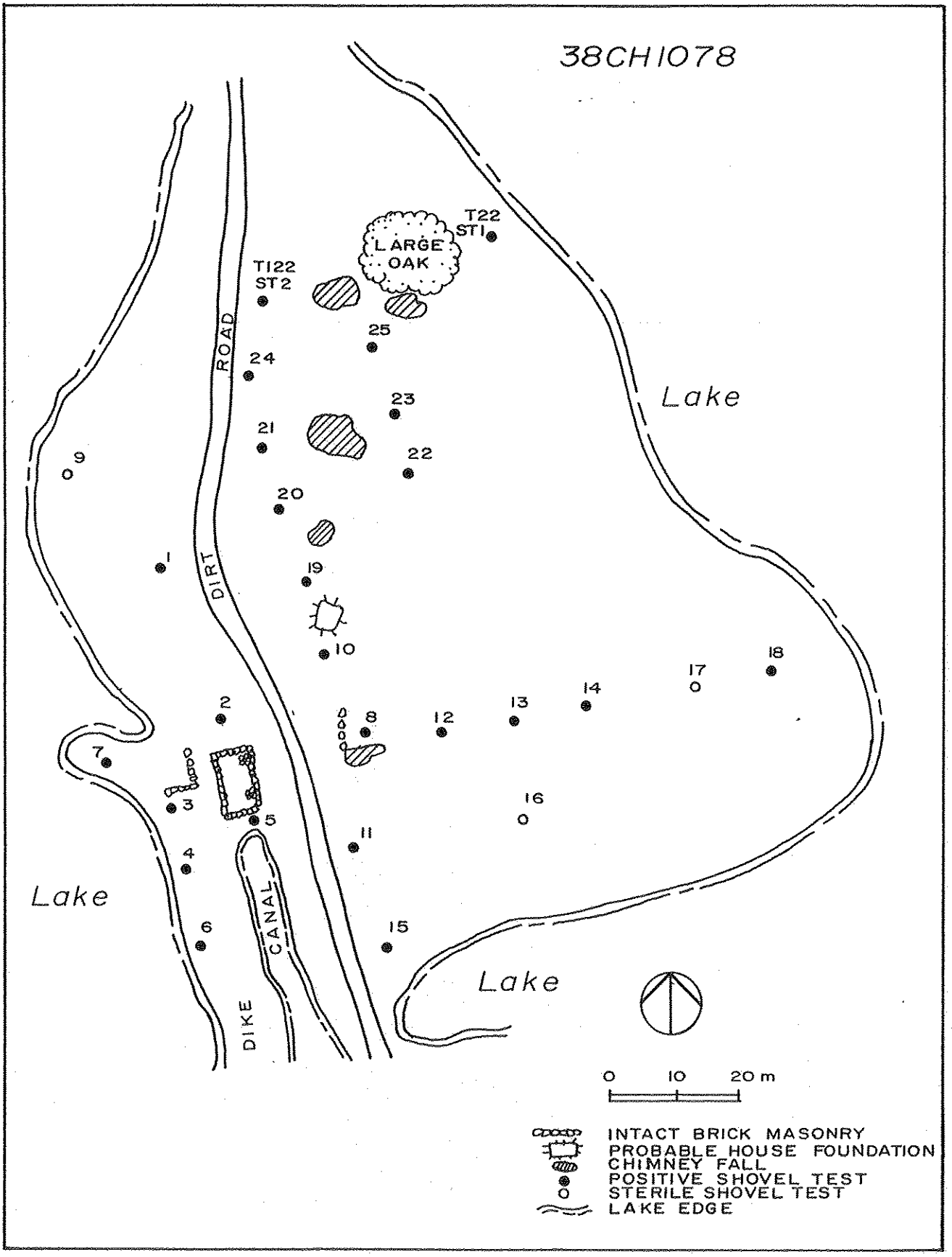


Figure 12. 38CH1078 Site Map.

foundation, an intact house pad, and a dense artifact and shell midden. The site is interpreted as a slave row or village related to the antebellum operation of the Horlbeck (i.e., Boone Hall) brickyard, located 100 m to the north.

The site features include a 4.8 by 9.6 m (16 by 32 ft) brick foundation located in a former canal between the two lakes (Figure 13). The foundation is at least 1.3 m tall (4.0 ft), with the bottom 0.6 m (2.0 ft) presently under water. At least two interior walls were evidenced in the rectangular foundation. The function of this structure is presently unclear, but possibilities include flow management gates, water powered mill, tannery vat, and clay soaking pit.

The site also contains at least five chimney falls and three loci with apparently intact house mounds. Historic shell midden deposits are up 30 cm thick in some portions of the site, and the midden also contains preserved animal bone.

The artifacts recovered include: plain, molded, annular, and blue shell edged whiteware; underglaze decorated porcelain; ironstone; slip ware; glass from green, very dark green, and gold bottles; clear flat glass; oyster shell, bone, and teeth; wrought nails; cut nails and spikes; and brick, mortar, and coal. An antebellum nineteenth century occupation span is indicated, corresponding to the period of antebellum production at the nearby brickyard.

38CH1078 displays both horizontal and vertical integrity. The site includes well preserved architectural features and extensive midden deposits. The site can provide data on slave subsistence, material culture, and site structure in a nineteenth century, rural industrial setting. 38CH1078 is recommended as eligible for the NRHP at the local level of significance, and avoidance or data recovery research is recommended.

38CH1079

38CH1079, an ephemeral historic scatter, was first recognized as a nail and a brick fragment from a shovel test (this bag was misplaced in the field, but its contents had been recorded). Subsequent shovel testing on a 5 m interval recovered only two square nails and two small oyster shell fragments from three of thirteen shovel tests (Figure 14). All material was recovered from logging/plow disturbed contexts, 0 to 25 cm bs. No evidence of intact midden or features was encountered. It should be noted that the site is located immediately adjacent to the edge of an old field, and may represent either a short term activity or dumping area related to that field.

38CH1079 lacks good artifact frequency, density, and context; its research potential is extremely low. The site is

Figure 13. 38CH1078 Industrial Foundation.

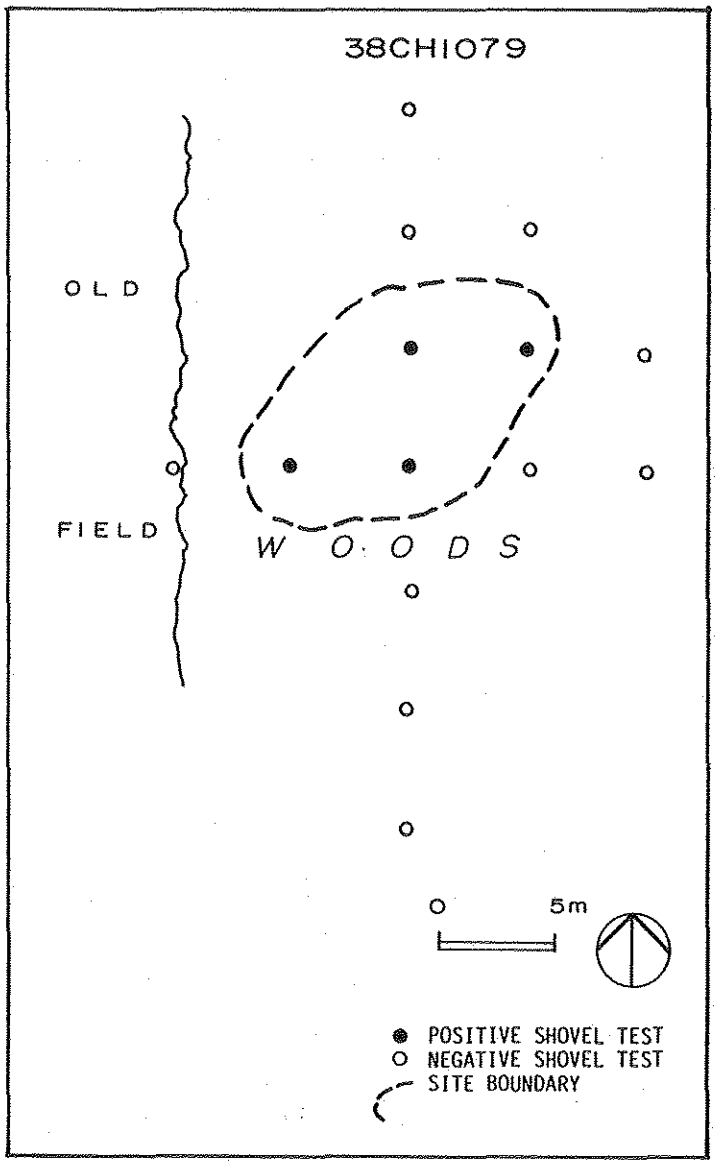


Figure 14. 38CH1Ø79 Site Map.

recommended ineligible for the NRHP, and no further work is recommended.

SURVEY SITE 1

Survey Site 1 was a modern still site, and was not assigned a permanent site number in accordance with the policies of the South Carolina Institute of Archaeology and Anthropology. This site, as well as Survey Site 2, are noted only as indicators of the limited land use of the tract in recent years. Survey Site 1 consisted of a surface scatter of mason-type canning jars and barrel hoops; an axed 55 gallon drum with a welded pipe extension; and an unlined well. The still was located within 50 m of an extant fresh water wetland, and only a shallow well was necessary to reach the water table. There was no evidence at this site of the still or furnace. The jars recorded but not collected included Tropical Canners one quart variety, with 538-84 embossed on its base. The jars and metal drum indicate a probable 1960s or more recent use of the site. Survey Site 1 is of anthropological interest, at best, and is recommended ineligible for the NRHP due to its recent origin and lack of significant research potential. No further work is recommended.

SURVEY SITE 2

Survey Site 2 was located approximately 100 m from Survey Site 1, and also represented a recent still site. Survey Site 2 exhibited a sheet midden of canning jars, barrel hoops, a chopped still element, and a shallow, unlined well. No evidence of the furnace base was found, although a few loose bricks were noted. The chopped still element consisted of a cylinder of wood and sheet metal, with roughly triangular cross-section; it measured approximately 1.5 by 3.0 ft. The jars discovered included clear Ball Perfect Mason (Made in USA) and Tropical Canners with 5-38-64 on base styles, again suggesting a 1960s era use of the site. It should be noted that the axed still element and the lack of an intact furnace base suggest a raided still.

Survey Site 2 is recommended as ineligible for the NRHP due to its use date and limited data potential. No further work is recommended.

ISOLATED FINDS

The Isolated Finds were limited to two small prehistoric sherds, five brick fragments, and one dark green bottle glass fragment. Since the entire road and dike system in the study tract evidences fill episodes utilizing historic period refuse, it is not surprising to find isolate examples of this refuse. The prehistoric sherds probably indicate the very light, nonregimented use of the area during the Woodland Period.

Chapter 5. RECOMMENDATIONS AND CONCLUSIONS

RECOMMENDATIONS

38CH1074, 38CH1076, 38CH1077, and 38CH1079

These sites have limited artifact inventories restricted to disturbed contexts. Their low research potential equates with a recommendation as ineligible for the NRHP. No further work is warranted for these sites.

38CH1075

This site has intact remains of high research potential related to the brick industry at Boone Hall Plantation; 38CH1075 is recommended eligible for the NRHP at the local level of significance. There are numerous management options for such a complex site, which includes standing structures and which occupies key development tracts. One possible management plan is presented here as an example of the options, with the understanding that the developer wishes to incorporate the heritage of the tract into his development plans. The first step will be extensive archival research into site structure and function. That research would be greatly aided by the work currently underway by Mr. John Horlbeck and Ms. Barbara Brundage. The research would seek data on the location, function, and use span of the various site elements. In addition, it would examine the relationship of the brickyard to the overall Boone Hall Plantation. Lastly, the research would also seek maps and period photographs which are well suited for interpretive displays.

The house/commissary and boiler chimney would be documented through measured drawings and photographs, as well as archival research. These site elements would be preserved in a green space setting, and only minimal structurally necessitated alterations would be undertaken on the house/commissary. Within a 3.0 acre greenspace -- in addition to the house and boiler chimney -- the possible house and kiln foundations would be minimally excavated to document their nature, and then would be left in the partially cleared state as interpretive exhibits. Wells and cisterns would be left extant, but filled for safety reasons. The landing would be documented through detailed mapping and photography, and the portion within the 3.0 acre greenspace would be passively preserved in place.

Suspected brick yard features outside the proposed greenspace would be documented through machine assisted excavation. These features include at least one kiln base on the island and three suspected kiln bases on the main portion of the

site. The excavation strategy would be to utilize a backhoe to remove brick overburden, then to produced detailed maps, drawings, and photographs of the kiln bases. Because other kiln bases will be preserved within the green space, this expedient excavation approach is recommended for those kilns outside the green space. The landing beyond the green space would be mapped and photographed, but would not be preserved.

The sluice system and generating power house would be recorded through photographs and drawings. Close attention would be paid to the various construction materials used in the different elements of the power house. The water wheel spindle would be drawn and photographed also. Upon completion of the documentation, this element could either be destroyed/modified or reconstructed to its 1935 condition as an interpretive element of the development. Given the known archival resources and the presence of the wheel rests and wheel spindle, it would not be difficult to partially reconstruct the power house.

38CH1078

38CH1078 is antebellum site with an industrial foundation and at least five apparent slave structure loci. If avoidance is not feasible, then data recovery should include extensive archival research, excavation and documentation of the industrial foundation locus, complete excavation of two household loci and their related midden deposits, and controlled stripping and feature mapping of the additional structural loci. Drainage of the standing water and fill removal will be necessary in the industrial foundation; a 10 by 10 ft excavation will also be necessary to investigate the adjacent feature of intact brick. The house loci will require at least a 20 by 20 ft excavation each to expose architectural features, in addition to several five by five ft units to sample the midden deposits. A detailed transit map of the site, lakes, and canals should also be produced.

The research direction of this data recovery should include: subsistence (in contrast with agricultural or household slaves); house proxemics; material culture/status; ethnicity and acculturation (relative to slaves in main house or agricultural settings) and community composition. If at all possible, the archival and archaeological research should be conducted in conjunction with the propsed work at 38CH1075, since the sites are complementary elements of the industrial sector of Boone Hall Plantation.

Survey Site 1, Survey Site 2, and Isolated Finds

These cultural occurrences have been demonstrated to have extremely low research potential, and all are recommended as ineligible for the NRHP. No further work is recommended.

CONCLUSIONS

The project tract, depending upon point of view, was either blessed or cursed with extremely clayey subsoil. While the soil conditions resulted in widespread, shallow wetland resources, they also precluded significant areas for prehistoric settlement. The few prehistoric artifacts discovered were limited to slight rises (of limited extent) with sandy soils. The lack of major prehistoric sites is viewed as a direct result of the tract soils.

The clayey soils, however, provided a vital raw material during the antebellum and early postbellum periods. While limited farming occurred on the better drained portions of the tract, the major economic activity of the historic period was the production of brick and drain tile. The archival and archaeological evidence indicates that the brick production was intensive, full time, and mechanized. Boone Hall Plantation was able to utilize the clay soil areas of its holdings in the profitable production of brick for direct sales. The operation went far beyond the more typical pattern of limited production for plantation use, and included distribution at both the tract landing and a Charleston landing. Both of the significant archaeological resources of the Brickyard Plantation tract -- the brickyard complex and associated workers' village -- were directly related to the rural industry of brick production during the Horlbeck ownership of Boone Hall.

As a final thought, it appears that the development of the Horlbeck brick works occurred in a time when many of the other plantation brickyards were declining in production. It is hypothesized here that the significant capital investment necessary to compete with the Horlbecks' operation could not be justified on tracts with more restricted clay deposits. Nonmechanized brick yards probably were unable to compete on price or quality with the Horlbecks, and therefore, the expansion of the Horlbeck works may have prompted the demise of other area yards.

REFERENCES CITED

Anderson, David G.
1977 A History of Prehistoric Archaeological Investigations in the Coastal Plain of South Carolina. South Carolina Antiquities 9(2).

Anderson, David G., and Patricia A. Logan
1981 Francis Marion National Forest Cultural Resources Overview. United States Forest Service, Columbia, South Carolina.

Anderson, David G., Charles E. Cantley and A. Lee Novick
1982 The Mattassee Lake sites: archaeological investigations along the lower Santee River in the Coastal Plain of South Carolina. U.S. Department of the Interior, National Park Service, Southeast Regional Office, Atlanta.

Barry, John M.
1980 Natural Vegetation of South Carolina. University of South Carolina Press, Columbia.

Blanton, Dennis B, Christopher T. Espenshade, and Paul E. Brockington, Jr.
1986 An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina. Garrow & Associates, Inc., Atlanta.

Braun, E. Lucy
1950 Deciduous Forests of Eastern North America. Hafner Publishing Company, New York.

Brockington, Paul E., Jr.
1971 A Preliminary Investigation of an Early Knapping Site in Southeast Georgia. The University of South Carolina Institute of Archaeology and Anthropology Notebook 3(2):23-46. Columbia.

Brockington, Paul E., Jr., and James B. Legg
1988 Archaeological Excavations at 38CH884, Longpoint Development, Charleston County, South Carolina. Brockington and Associates, Atlanta.

Brockington, Paul, Michael Scardaville, Patrick H. Garrow, David Singer, Linda France, and Cheryl Holt
1985 Rural Settlement in the Charleston Bay Area: Eighteenth and Nineteenth Century Sites in the Mark Clark Expressway Corridor. Garrow & Associates, Inc., Atlanta.

Brooks, Mark J., and Donald J. Colquhoun
1985 Prehistoric Adaptations Along the South Carolina Coast: A Summary of Geoarchaeological Investigations and a Prospectus for Future Research. Paper presented at the Annual Meeting of the Geological Society of America, Orlando, Florida.

Brooks, Mark J., Peter A. Stone, Janice G. Brown, Kathy B. Steele, and Donald J. Colquhoun
1985 Current Geoarchaeological Research in the Coastal Plain Portion of the Savannah River Valley. Paper presented at the 42nd Annual Meeting of the Southeastern Archaeological Conference, Birmingham, Alabama.

Cain, S. A.
1944 Pollen Analysis of Some Buried Soils, Spartanburg County, South Carolina. Torrey Botanical Club Bulletin 71:11-22.

Caldwell, Joseph R.
1958 Trend and tradition in the prehistory of the eastern United States. American Anthropological Association, Memoir 88.

Claggett, Stephen R., and John S. Cable (compilers)
1982 The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont. Gilbert Commonwealth Associates, Inc., Jackson, Michigan.

Coe, Joffre L.
1964 The formative cultures of the Carolina Piedmont. Transactions of the American Philosophical Society 54.

Colquhoun, Donald R., Mark J. Brooks, James L. Michie, William B. Abbott, Frank W. Stapor, Walter H. Newman, and Richard R. Pardi
1981 Location of archeological sites with respect to sea level in the Southeastern United States. In Striae, Florilegiem Florinis Dedicatum 14, edited by L. K. Kenigsson and K. Paabo, pp. 144-150.

DePratter, Chester B., and J. D. Howard
1980 Indian Occupation and Geological History of the Georgia Coast: A 5,000 Year Summary. In Excursions in Southeastern Geology: The Archaeology-Geology of the Georgia Coast, edited by J. D. Howard, C. B. DePratter, and R. W. Frey. Geological Society of America, Guidebook 20:1-65.

Espenshade, Christopher T.
1986 Climbing on the Macro Band Wagon. Paper presented at the Twelfth Annual Meeting of the Archaeological Society for South Carolina, Columbia.

Espenshade, Christopher T., and Paul E. Brockington, Jr.
1987 Archaeological Survey of the Arcadia Tract, Georgetown County, South Carolina. Brockington and Associates, Atlanta.

Espenshade, Christopher T., and Eric C. Poplin
1988 Archaeological Survey and testing, Palmetto Fort Tract, Charleston County, South Carolina. Brockington and Associates, Atlanta.

Ferguson, Leland G.
1971 South Appalachian Mississippian. Ph.D. Dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

1975 Mississippian Artifacts and Geography. Paper presented at the 1975 meeting of the Southern Anthropology Society, Clearwater Beach, Florida.

Gardner, William H.
1974 The Flint Run Paleo Indian Complex: A Preliminary Report 1971 through 1973 Seasons. Catholic University of America, Archaeology Laboratory, Occassional Paper No. 1. Washington, D.C.

Goodyear, Albert C.
1979 A Hypothesis for the Use of Cryptocrystalline Raw Materials Among Paleo-Indian Groups of North America. The University of South Carolina Institute of Archaeology and Anthropology Research Manuscript Series 156. Columbia.

Gregorie, Anne K.
1925 Notes on Sewee Indians and Indian Remains of Christ Church Parish, Charleston County, South Carolina. Contributions from the Charleston Museum V.

1961 Christ Church 1706-1959: A Plantation Parish of the South Carolina Establishment. The Dalcho Historical Society, Charleston.

Koob, William L.
1976 The Anne King Gregorie Collection. South Carolina Antiquities 8(2):19-24.

Kovacik, Charles F., and John J. Winberry
1987 South Carolina: A Geography. Westview Press, Boulder.

Kuchler, A. W.
1964 Potential Natural Vegetation of the Coterminous United States. American Geographic Society, Special Publication, no. 36.

Mathews, T. D., F. W. Stapor, Jr., C. R. Richter, J. V. Miglarese, M. D. McKenzie, and L. R. Barclay
1980 Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia. Fish and Wildlife Service Washington, D.C.

Michie, James L.
1977 Late Pleistocene human occupation of South Carolina. Senior Honors Thesis, Department of Anthropology, University of South Carolina.

Miller, E. N.
1971 Soil Survey of Charleston County, South Carolina. United States Department of Agriculture, Washington, D.C.

Milling, Chapman J.
1969 Red Carolinians. University of South Carolina Press, Columbia.

Noel Hume, Ivor
1969 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.

Preservation Consultants, Inc.
1988 Cultural Resource Survey, Mt. Pleasant, South Carolina. Preservation Consultants, Inc., Charleston.

Rogers, George C. Jr.
1984 Charleston in the Age of the Pinckneys. University of South Carolina Press, Columbia.

South, Stanley A.
1977 Method and Theory in Historical Archaeology. Academic Press, New York.

Southerlin, B.G., Christopher T. Espenshade, and Paul E. Brockington, Jr.
1988 Archaeological Survey of Parker Island, Charleston County, South Carolina. Brockington and Associates, Atlanta.

Trinkley, Michael
1980 Investigation of the Woodland Period along the South Carolina coast. Ph.D. Dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

1983 Ceramics of the Central South Carolina Coast. South Carolina Antiquities 12:1-35.

1987 An Archaeological Survey of Longpoint Development, Charleston County, South Carolina: Palmetto Grove Plantation. Chicora Foundation, Inc., Columbia.

Watts, W. A.
1970 The full glacial vegetatin of northern Georgia. Ecology 51:17-33.

1980 Late quaternary vegetation history at White Pond on the inner Coastal Plain of South Carolina. Quaternary Research 10.

Whitehead, Donald R.
1965 Palynology and Pleistocene phytogeography of unglaciated eastern North America. In The Quaternary of the United States, edited by H.E. Wright, Jr. and D.G. Frey. Princeton University Press.

1973 Late Wisconsin vegetational changes in unglaciated eastern North America. Quaternary Research 3:621-631.

APPENDIX A

ARTIFACT INVENTORIES

Site: Isolate #1

Provenience: Shovel test 2

Catalog	Quan.	Description
1	1	residual sherd

Provenience: Shovel test 4

Catalog	Quan.	Description
2	1	brick fragment

Provenience: Shovel test 10

Catalog	Quan.	Description
3	2	brick fragments

Site: Isolate 2

Provenience: Transect 41, shovel test 12

Catalog	Quan.	Description
1	1	dark green bottle glass

Site: Isolate 3

Provenience: Transect 58, shovel test 21

Catalog	Quan.	Description
1	1	plain body sherd

Site: Isolate 4

Provenience: Shovel test 1

Catalog	Quan.	Description
1	1	brick fragment

Site: Isolate 5

Provenience: Transect 50, shovel test 10

Catalog	Quan.	Description
1	1	brick fragment

Site: Isolate 6 - Still site

Provenience: 1 - Transect 56, shovel test 14

Catalog	Quan.	Description
1	1	jar, "Ball Perfect Mason" marked 13D on bottom

Site: 38CH1Ø74

Provenience: 1 - Shovel test 4

Catalog	Quan.	Description
1	1	plain body sherd

Provenience: 2 - Shovel test 5

Catalog	Quan.	Description
1	1	residual sherd

Provenience: 3 - Transect 65, shovel test 13

Catalog	Quan.	Description
1	1	simple stamped rim sherd
2	1	linear simple stamped body sherd

Provenience: 4 - Transect 65, shovel test 13-D

Catalog	Quan.	Description
1	1	plain body sherd

Provenience: 5 - 5m at 55 from transect 65, shovel test 13

Catalog	Quan.	Description
1	2	linear simple stamped body sherd

Site: 38CH1Ø75

Provenience: 1 - Shovel test on NW point

Catalog	Quan.	Description
1	8.2g	shell
2	2	iron fragments

Provenience: 2 - Shovel test 2

Catalog	Quan.	Description
1	Ø.5g	shell
2	3.3g	coal

Provenience: 3 - Shovel test 3

Catalog	Quan.	Description
1	1	coal

Provenience: 4 - Shovel test 4

Catalog	Quan.	Description
1	12.2g	brick
2	3.5g	coal
3	9	undecorated whiteware
4	1	unidentifiable historic object

Provenience: 5 - Shovel test 5

Catalog	Quan.	Description
1	127.8g	coal
2	3.7g	shell
3	3	slate
4	1	clear flat glass
5	1	whiteware fragment
6	1	pebble
7	5.7g	mortar

Provenience: 6 - Transect 88, shovel test 1

Catalog	Quan.	Description
1	111.8g	brick
2	4.3g	coal
3	1	curved metal fragment

Provenience: 7 - Transect 88, shovel test 2

Catalog	Quan.	Description
1	20.7g	brick

Provenience: 8 - Transect 88, shovel test 3

Catalog	Quan.	Description
1	239.5g	brick

Provenience: 9 - Transect 90, shovel test 1

Catalog	Quan.	Description
1	8.3g	asphalt

Provenience: 10 - Transect 91, shovel test 3

Catalog	Quan.	Description
1	1	brown bottle glass
2	1	clear flat glass
3	2	unidentifiable metal fragments

Provenience: 11 - Transect 92, shovel test 2

Catalog	Quan.	Description
1	3.7g	shell

Provenience: 12 - Transect 93, shovel test 3

Catalog	Quan.	Description
1	1	slate

Provenience: 13 - Transect 94, shovel test 3

Catalog	Quan.	Description
1	1	brown bottle glass

Provenience: 14 - Surface

Catalog	Quan.	Description
1	1	drainage tile
2	1	arch brick

Site: 38CH1Ø76

Provenience: 1 - Transect 37, shovel test 1

Catalog	Quan.	Description
1	12.2g	coal
2	1	metal fragment
3	1	clear bottle glass
4	1	whiteware
5	1	slate

Provenience: 2 - Transect 37, shovel test 4

Catalog	Quan.	Description
1	2.7g	brick
2	Ø.8g	coal

Provenience: 3 - Transect 37, shovel test 14

Catalog	Quan.	Description
1	6.4g	brick
2	2.1g	coal
3	3.6g	slag
4	1	metal fragment
5	1	dark green bottle glass
6	1	clear flat glass

Provenience: 4 - Transect 37, shovel test 15

Catalog	Quan.	Description
1	14.7g	coal
2	2	metal fragments
3	1	whiteware
4	2	rocks

Provenience: 5 - Transect 37, shovel test 16

Catalog	Quan.	Description
1	2	metal fragments

Provenience: 6 - Transect 37, shovel test 17

Catalog	Quan.	Description
1	12.3g	coal
2	Ø.8g	brick

Provenience: 7 - Transect 37, shovel test 18

Catalog	Quan.	Description
1	2.8g	brick
2	Ø.1g	coal

Provenience: 8 - Transect 38, shovel test 17

Catalog	Quan.	Description
1	6.2g	coal
2	2.7g	brick

Provenience: 9 - Transect 39, shovel test 1Ø

Catalog	Quan.	Description
1	6.5g	coal
2	Ø.5g	brick
3	Ø.6g	slag

Provenience: 1Ø - Transect 39, shovel test 18

Catalog	Quan.	Description
1	1Ø.9g	coal

Provenience: 11 - Shovel test 2

Catalog	Quan.	Description
1	6.9g	coal
2	1	metal fragment
3	1	whiteware
4	1	ironstone
5	1	handpainted molded whiteware
6	1	annular whiteware
7	1	clear bottle glass

Provenience: 12 - Shovel test 3

Catalog	Quan.	Description
1	1.4g	coal
2	1.2g	brick

Provenience: 13 - Shovel test 5

Catalog	Quan.	Description
1	1	light green flat glass

Provenience: 14 - Shovel test 6

Catalog	Quan.	Description
1	Ø.5g	coal
2	Ø.5g	brick
3	1	light blue flat glass

Provenience: 15 - Shovel test 7

Catalog	Quan.	Description
1	Ø.2g	coal
2	Ø.5g	charred wood
3	1	whiteware

Provenience: 16 - Shovel test 8

Catalog	Quan.	Description
1	1.6g	brick
2	1	medium green bottle glass
3	1	clear glazed redware
4	Ø.3g	badly eroded shell

Provenience: 17 - Intuitive shovel test

Catalog	Quan.	Description
1	16.4g	coal
2	Ø.2g	charcoal
3	Ø.8g	brick

Site: 38CH1Ø77

Provenience: 1 - Transect 4Ø, shovel test 8

Catalog	Quan.	Description
1	1	alkaline glazed stoneware

Provenience: 2 - Transect 4Ø, shovel test 11

Catalog	Quan.	Description
1	1	small cobble

Provenience: 3 - Transect 42, shovel test 7

Catalog	Quan.	Description
1	1	whiteware

Provenience: 4 - Transect 1Ø4, shovel test 8

Catalog	Quan.	Description
1	1	amber-green bottle glass

Provenience: 5 - 5m beyond transect 1Ø4, shovel test 8

Catalog	Quan.	Description
1	48.9g	brick

Provenience: 6 - Transect 1Ø5, shovel test 5

Catalog	Quan.	Description
1	4.1g	brick
2	1	whiteware

Provenience: 7 - Surface collection, transect 1Ø6, shovel test 1

Catalog	Quan.	Description
1	1	ironstone
2	2	whiteware
3	2	annular burnt white-bodied ceramic
4	1	transfer printed burnt white-bodied ceramic
5	1	hand painted burnt white-bodied ceramic

6	1	dark green bottle glass
7	1	light blue bottle glass
8	1	very light green flat glass
9	2	white rocks

Provenience: 8 - Transect 106, shovel test 1

Catalog	Quan.	Description
1	1	rock

Provenience: 9 - 10 m east of transect 106, shovel test 1

Catalog	Quan.	Description
1	6.6g	coal
2	1	green flat glass

Provenience: 10 - Transect 106, shovel test 2

Catalog	Quan.	Description
1	3.8g	coal
2	1	plain body sherd

Provenience: 11 - Transect 108, shovel test 1

Catalog	Quan.	Description
1	1	dark green bottle glass

Provenience: 12 - Transect 108, shovel test 4

Catalog	Quan.	Description
1	1	clear flat glass

Provenience: 13 - Transect 108, shovel test 5

Catalog	Quan.	Description
1	1	green bottle glass

Provenience: 14 - Transect 108, shovel test 6

Catalog	Quan.	Description
1	5.9g	brick

Provenience: 15 - Transect 109, shovel test 4

Catalog	Quan.	Description
1	3.2g	coal

Provenience: 16 - Transect 110, shovel test 1

Catalog	Quan.	Description
1	1	very light green flat glass

Provenience: 17 - Transect 110, shovel test 2

Catalog	Quan.	Description
1	7.9g	coal

Provenience: 18 - Transect 110, 10m south of shovel test 2

Catalog	Quan.	Description
1	5.3g	coal

Provenience: 19 - Transect 110, 10m west of shovel test 2

Catalog	Quan.	Description
1	1.4g	coal

Provenience: 20 - Transect 110, 10m east of shovel test 2

Catalog	Quan.	Description
1	1.6g	coal

Provenience: 21 - Transect 11Ø, shovel test 3

Catalog	Quan.	Description
1	7.4g	coal
2	35.9g	brick

Provenience: 22 - on hump between transect 41 & 42

Catalog	Quan.	Description
1	8.3g	coal
2	47.1g	brick

Provenience: 23 - on hump between transect 41 & 42

Catalog	Quan.	Description
1	1	green bottle glass

Provenience: 24 - 15m NW from hump

Catalog	Quan.	Description
1	1	dark brown bottle glass

Provenience: 25 - Shovel test 2, 1Øm south of hump

Catalog	Quan.	Description
1	5.Øg	coal

Provenience: 26 - South on hump between transect 41 & 42

Catalog	Quan.	Description
1	1.7g	charred wood
2	24.Øg	mortar

Site: 38CH1078

Provenience: 1 - Transect 122, shovel test 1

Catalog	Quan.	Description
1	0.8g	brick
2	3	unidentifiable metal fragment
3	1	whiteware

Provenience: 2 - Transect 122, shovel test 2

Catalog	Quan.	Description
1	18.9g	red brick
2	98.9g	grey brick
3	44.8g	shell
4	2	unidentifiable metal fragments
5	1	hand painted underglazed porcelain
6	1	blue shell-edged whiteware
7	1	annular whiteware

Provenience: 3 - Shovel test 2

Catalog	Quan.	Description
1	105.9g	shell

Provenience: 4 - Shovel test 3

Catalog	Quan.	Description
1	6.6g	shell

Provenience: 5 - Shovel test 4

Catalog	Quan.	Description
1	4.1g	brick
2	4.3g	shell
3	1	yellow slipware

Provenience: 6 - Shovel test 5

Catalog	Quan.	Description
1	7.6g	brick
2	181.9g	shell
3	48.8g	mortar
4	1	large tooth

Provenience: 7 - Shovel test 7

Catalog	Quan.	Description
1	16.5g	shell

Provenience: 8 - Shovel test 8

Catalog	Quan.	Description
1	66.9g	shell
2	1	tooth fragment
3	1	square cut nail
4	1	square cut spike
5	2	unidentifiable square nails
6	15	unidentifiable metal fragments
7	1	whiteware
8	1	cut polished bone
9	1	4 hole glass button
10	1	green bottle glass
11	1	prehsitoric residual sherd

Provenience: 9 - Shovel test 10

Catalog	Quan.	Description
1	267.0g	shell
2	29.5g	brick
3	8.9g	mortar
4	1	rock
5	3	wrought nails
6	1	square cut nail
7	3	unidentifiable square nails
8	1	ironstone

Provenience: 10 - Shovel test 14

Catalog	Quan.	Description
1	4	unidentifiable square nails
2	1	green bottle glass

Provenience: 11 - Shovel test 18

Catalog	Quan.	Description
1	0.9g	shell

Provenience: 12 - Shovel test 19

Catalog	Quan.	Description
1	1	grey chert flake

Provenience: 13 - Shovel test 20

Catalog	Quan.	Description
1	89.9g	shell
2	0.3g	coal
3	56.2g	brick
4	21.0g	bone
5	4	unidentifiable metal
6	1	wrought nails
7	2	square cut nails
8	6	unidentifiable square nails
9	1	clear flat glass
10	3	green bottle glass
11	2	very dark green bottle glass

Provenience: 14 - Shovel test 21

Catalog	Quan.	Description
1	22.0g	shell
2	13.2g	mortar
3	2	unidentifiable flat metal
4	4	unidentifiable square nails
5	1	dark green bottle glass
6	1	molded whiteware
7	1	jaw bone with three teeth

Provenience: 15 - shovel test 22

Catalog	Quan.	Description
1	18.6g	shell
2	1	gold bottle glass
3	2	whiteware

Provenience: 16 - Shovel test 23

Catalog	Quan.	Description
1	2	square cut nails
2	4.2g	mortar
3	1	unidentifiable iron hook

Provenience: 17 - Shovel test 24

Catalog	Quan.	Description
1	29.4g	brick
2	80.6g	shell

Provenience: 18 - Shovel test 25

Catalog	Quan.	Description
1	35.9g	shell
2	1	snail shell
3	0.1g	bone

Site: 38CH1Ø79

Provenience: 1 - Shovel test 1

Catalog	Quan.	Description
1	2	unidentifiable square cut nails

Provenience: 2 - shovel test 2

Catalog	Quan.	Description
1	Ø.4g	shell

Provenience: 3 - Shovel test 3

Catalog	Quan.	Description
1	2.Øg	shell

APPENDIX B

RESUME OF PRINCIPAL INVESTIGATOR

CHRISTOPHER T. ESPENSHADE

Brockington and Associates
2853 Henderson Mill Road
Atlanta, Georgia 30341
(404) 491-7171

EDUCATION

B.A. in Anthropology, Wake Forest University, May 21, 1979.
M.A. in Anthropology, University of Florida, December 17, 1983.

FIELD SCHOOL

Wake Forest University Field School at the Pettit Site, a Pueblo-III ruin, Ramah, New Mexico; July 6 to August 16, 1976; under Dr. J. Ned Woodall.

AREAS OF SPECIALIZATION

Ceramic Technology, Southeastern Prehistory.

PROFESSIONAL SOCIETIES

Member, Society for American Archaeology
Member, Southeastern Archaeological Conference
Certified, Society of Professional Archeologists

EMPLOYMENT HISTORY: ARCHAEOLOGICAL SURVEY

April-May 1989; Principal Investigator, 770 acre Palmetto Headlands Survey, Hilton Head, SC, with Brockington and Associates (B and A).

April 1989; Principal Investigator, 517 acre Brickyard Plantation Survey, Charleston County, SC, B and A.

February 1989; Principal Investigator, Resource Inventory II, SCS/DOE Experiment Project, Plant Yates, Coweta County, GA.

August 1988; Principal Investigator, Baker Creek State Park Road Survey, McCormick County, SC, B and A.

March 1988; Project Archaeologist, survey of the Jocassee-Tuckaseegee Corridor, NC-SC Mountains, for Duke Power Company, B and A.

January-February 1988; Principal Investigator, survey of A-1 Recreation Area, for Georgia Power Company, B and A.

October 1987; Principal Investigator, survey of C-5 Recreation Area, for Georgia Power Company, B and A.

September 1987; Principal Investigator, survey of Dewees Island, South Carolina, for Newkirk Environmental Consultants, B and A.

August, November 1987; Project Archaeologist, survey and testing of the proposed Little River Neck Golf Course, SC. B and A.

August 1987; Principal Investigator, survey of the proposed Prestwicke Development, Myrtle Beach, SC. B and A.

June-July 1987; Project Archaeologist, survey of proposed Coley Creek Facility, NC/SC Mountains, for Duke Power Company, B and A.

June 1987; Principal Investigator, survey of 302 acre proposed reservoir, Henry County, Georgia, for Clayton County, B and A.

May 1987; Principal Investigator, survey of 160 acre Palmetto Fort Tract, Coastal South Carolina, for Newkirk Environmental Consultants, B and A.

April 1987; Project Archaeologist, survey of 2,000 acre Arcadia Tract, Coastal South Carolina, for North Inlet Corp., B and A.

July-August 1985; Project Archaeologist, survey of the Vogtle - South Carolina Transimission Line, for Georgia Power Company, with Garrow & Associates (G & A).

December 1984; Principal Investigator, survey of the Canton Cherokee County Business and Industrial Park (Georgia), G & A.

October 1984; survey work on the Laona-Goodman (Wisconsin) Pipeline Project for American Natural Resources, G & A.

June-August 1980; survey chief on surface survey for the U.S.A.F. M.X. Missile Project (Nevada), with Gilbert-Commonwealth Associates and Basin Research Associates.

May 1979; survey work for the Greater Alamance Creek (N.C.) Project, with Wake Forest.

May-August 1978; survey and excavation for the Shenandoah National Park Cultural Resource Survey, with the University of Virginia.

May-June 1977; survey work on the Varina Farms (Va.) Project, for Virginia Commonwealth University.

EMPLOYMENT HISTORY: TESTING AND DATA RECOVERY EXCAVATION

October 1988-June 1989; Principal Investigator, Documnetation of Young's Mill, Troup Co,. GA., for USCOE-Mobile, B and A.

August 1988; Principal Investigator, Site Specific Survey and Evaluation of Four Sites at MCB Camp Lejeune, NC, for the USCOE-Wilmington District, B and A.

April-May 1988; Project Archaeologist, Data Recovery at Minim Island, SC, for the USCOE-Charleston District, B and A.

February-March 1987; Field Director on the data recovery controlled stripping of two sites, for ANR Pipeline, Inc., Northeastern Louisiana, B and A.

January 1987; Field Director on the testing of seven prehistoric sites, for ANR Pipeline, Inc., Northeastern Louisiana, B and A.

December 1986; Principal Investigator on the controlled stripping of Area II, 8Da411, Dade County Florida, for Capeletti Bros., Inc., G & A.

August-September 1986; Field Director on the data recovery excavations of an early Ostionoid village site, Cerrillos River, Puerto Rico, for the USCOE, G & A.

June-July 1986; Principal Investigator on the archaeological survey of six sites in the Voice of America Radio Relay Station Tract, Cabo Rojo, Puerto Rico, for the USCOE, G & A.

September 1985; project archaeologist for preliminary survey and testing at the Oxon Hill Site, Maryland, for the PortAmerica Development, G & A.

April 1985; project archaeologist on the survey and testing of the Honey Hill Archaeological Zone, Dade County, Florida, for the Miami Dolphins, G & A.

January 1985; field director on the testing of Ri 4 and Ri 3, Richmond County, Georgia, for the Vogtle-Goshen Transmission Line (Georgia Power), G & A.

November 1984; field director on the testing of GP-LI-Ø1, Liberty County, Georgia, for the Thalman-Liberty-Bryant Transmission Line (Georgia Power), G & A.

August-December 1979; excavation on a stratified terrace site, for the B. Everett Jordan Reservoir (N.C.) Project, with Gilbert-Commonwealth Associates.

July-August 1979; field assistant and osteologist on the excavation of a Miller III burial site, for the Tennessee-Tombigbee Waterway Project, with the University of Southern Mississippi.

December 1977; phase II survey work for the Greensboro (N.C.) Airport Project, with Wake Forest University.

July-August 1977; survey and salvage excavation for the Illinois Department of Transportation, with Western Illinois University.

EMPLOYMENT HISTORY: LABORATORY

June-December 1988; ceramicist for the Minim Island (S.C.) Data Recovery for the USCOE Charleston District, B and A.

January-February 1986; ceramicist for the Sumter (S.C.) Project, for the S.C. Dept. of Highways and Public Trans., G & A.

December 1982 to July 1983; ceramicist for the Jacksonville (Fla.) Electrical Authority Mitigation Project, with the University of West Florida.

June 1981 to September 1982; ceramicist for the Kings Bay Naval Support Base (Ga.) Mitigation Project, with the University of Florida.

January-March 1980; lab analysis of the lithics and ceramics from the B. Everett Jordan Reservoir Project, with Gilbert-Commonwealth Associates, Jackson, Michigan.

PUBLICATIONS AND PAPERS

1989 Christopher T. Espenshade and Ramona Grunden
Archaeological Survey of the Brickyard Plantation Tract, Charleston County, South Carolina. B and A.

1989 Christopher T. Espenshade and Jeffrey W. Gardner
The Meal Tastes Sweeter: Documentation of Young's Grist and Saw Mills, West Point Lake, Troup County, Georgia. B and A.

1989 Christopher T. Espenshade, Jeffrey Gardner, and Marian Roberts
CRM:Resource Inventory II: SCS/DOE Experiment Project, Plant Yates, Coweta County, Georgia. B and A.

1989 Christopher T. Espenshade and Paul E. Brockington, Jr. (compilers)
An Archaeological Study of the Minim Island Site: Early Woodland Dynamics in Coastal South Carolina. B and A.

1988 Christopher T. Espenshade
An Archaeological Survey of the Proposed 329/43 Connector, McCormick County, South Carolina. B and A.

1988 Christopher T. Espenshade
Site Specific Survey of 31ON3Ø8, 31ON3Ø9, 31ON386, and 31ON391, Camp LeJeune, North Carolina. B and A.

1988 Christopher T. Espenshade, B. G. Southerlin, and Ruthanne Mitchell
Archaeological Survey of the North Carolina Portion of the Jocasee to Tuckaseegee Transmission Corridor, Transylvania and Jackson Counties, North Carolina. B and A.

1988 B. G. Southerlin and Christopher T. Espenshade
Archaeological Survey of Parker Island, Charleston County, South Carolina. B and A.

1988 James B. Legg, Christopher T. Espenshade, and Paul E. Brockington, Jr.
Historical Background for Georgia Pacific's Wando Tract, Charleston County, South Carolina. B and A.

1988 Christopher T. Espenshade and B. G. Southerlin
Limited Data Recovery Excavations at 16MO1Ø3 and 16MO6Ø, Morehouse Parish, Louisiana. B and A.

1988 Christopher T. Espenshade, B. G. Southerlin, and Ruthanne Mitchell
Archaeological Survey of the South Carolina Portion of the Jocassee to Tuckaseegee Transmission Corridor, Pickens and Oconee Counties, South Carolina. B and A.

1988 Christopher T. Espenshade and Ruthanne L. Mitchell
CRM Wallace Dam Project, Greene County, Georgia: Recreation Area A-1, Resource Inventory II: Final Report. B and A.

1988 Christopher T. Espenshade, Ruthanne L. Mitchell, and Bobby G. Southerlin
Archaeological Survey and Testing, Coley Creek Project, Oconee County, South Carolina and Transylvania County, North Carolina. B and A.

1987 Christopher T. Espenshade and Ruthanne L. Mitchell
CRM Wallace Dam Project, Greene County, Georgia: Recreation Area C-5, Resource Inventory II: Final Report. B and A.

1987 Christopher T. Espenshade, Paul E. Brockington, Jr., Joseph L. Tippett, and B. G. Southerlin
Archaeological Survey of Dewees Island, Charleston County, South Carolina. B and A.

1987 Christopher T. Espenshade and Ruthanne Mitchell
Archaeological Survey of the Proposed Prestwicke Development, Horry County, South Carolina. B and A.

1987 Paul E. Brockington, Bobby G. Southerlin, and Christopher T. Espenshade
Archaeological Reconnaissance of Proposed Borrow Areas in Horry County, South Carolina. B and A.

1987 Paul E. Brockington, Christopher T. Espenshade, Linda F. Stine, and Roy S. Stine
Archaeological Survey of the Morgan's Pointe Tract, Charleston County, South Carolina. B and A.

1987 Christopher T. Espenshade and Ruthanne L. Mitchell
Archaeological Survey of a Proposed Reservoir, Henry County, Georgia. B and A.

1987 Christopher T. Espenshade
Archaeological Survey of the Palmetto Fort Tract, Charleston County, South Carolina. B and A.

1987 Christopher T. Espenshade and Paul Brockington
Archaeological Survey of the Arcadia Tract, Georgetown County, South Carolina. B and A.

1987 Christopher T. Espenshade and Paul Brockington
Archaeological Survey and Testing of the Proposed ANR Pipeline: Ouachita, Morehouse, and Richland Parishes, Louisiana. B and A.

1987 Blanton, Dennis, Chris Espenshade, and Mary Beth Reed
Archaeological and Historical Investigations of Sligh Pottery: Stoneware Production in a Rural Industrial Complex. 20th Annual Meeting, Society for Historical Archaeology, Savannah, Georgia.

1986 Chrsitopher T. Espenshade
Archaeologically Controlled Stripping of Area II, 8Da411, Honey Hill Archaeological Zone, Dade County, Florida. Garrow & Associates, Inc (G & A).

1986 Christopher Espenshade
Data Recovery Excavations at Site PO-21, Cerrillos River Valley, Puerto Rico. G & A.

1986 Dennis B. Blanton and Christopher T. Espenshade
CRM: Vogtle-Effingham-Thalmann 500 KV Electric Transmission Line, GP-SN-05 Data Recovery. G & A.

1986 Christopher Espenshade, Dennis Blanton, David Lorne McWatters, and J.W. Joseph
Site-Specific Archaeological Survey and Additional Reconnaissance of Selected Portions of the Proposed Voice of America Relay Station, Cabo Rojo, Puerto Rico. G & A.

1986 Christopher Espenshade
Climbing on the Macro Band Wagon. Twelfth Annual Conference on South Carolina Archaeology, Columbia.

1986 Christopher Espenshade
CRM: Vogtle-Effingham-Thalmann 500 KV Electric Transmission Line, GP-SN-13 Data Recovery. G & A.

1986 Christopher T. Espenshade
Chapter 5: The Late Formative Stage, and Chapter 10: Ceramic Analysis; Typology and Classification. In Aboriginal Subsistence and Settlement Archaeology of the Kings Bay Locale, edited by William H. Adams. University of Florida.

1986 Dennis B. Blanton, Chris Espenshade, and Paul E. Brockington
An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina. G & A.

1985 Christopher T. Espenshade
Archaeological Survey of a Portion of the Oxon Hill Site, Oxon Hill, Maryland. G & A.

1985 Christopher T. Espenshade
Test Excavations at the Mausoleum, Oxon Hill Manor Site, Oxon Hill, Maryland. G & A.

1985 Christopher T. Espenshade
Cultural Resource Management: Resource Inventory I and II: Vogtle - South Carolina Transmission Line, Burke County, Georgia. G & A.

1985 Christopher T. Espenshade
Preliminary Investigations at the Site of the Addison Family Cemetery, Oxon Hill, Maryland. G & A.

1985 Lisa O'Steen and Christopher Espenshade
Archaeological Testing of Two Cultural Properties, GP-SN-03 and GP-SN-05, Screven County, Georgia, within the Proposed Vogtle - Effingham - Thalmann Electric Transmission Line. G & A.

1985 Christopher T. Espenshade
Archaeological Survey and Testing in the Honey Hill Archaeological Zone, Dade County, Florida. G & A.

1985 Christopher T. Espenshade
Archaeological Survey of the Proposed Canton Cherokee County Business and Industrial Park, Etowah River, Georgia. G & A.

1985 Christopher Espenshade and Ruthanne Mitchell
Archaeological Testing of Three Cultural Properties, (T) 9 Ri C.P.#3, (T) 9 Ri C.P.#4, and (T) 9 Bur C.P.#29, in Richmond and Burke Counties, Georgia, within the Proposed Vogtle to Goshen Electric Transmission Line. G & A.

1984 Christopher T. Espenshade and Daniel T. Elliott
Archaeological Survey of the Proposed Laona-Goodman Lateral Pipeline in Forest and Marinette Counties, Wisconsin. G & A.

1984 Christopher T. Espenshade and Paul E. Brockington, Jr.
Archaeological Testing of GP-LI-Ø1, Liberty County, GA. G & A.

1984 Christopher T. Espenshade
Aboriginal Household Pottery Production at the Gauthier Site, Florida. 41st Annual Meeting of the Southeastern Archaeological Conference, Pensacola.

1984 Chung Ho Lee, Christopher Espenshade, Irvy Quitmyer, and Robert Johnson
Estuarine Adaptations During the Late Prehistoric Period: Archaeology of Two Shell Midden Sites on the St. Johns River. The University of West Florida.

1983 Christopher T. Espenshade
Savannah Problems and Alachuan Interpretations: Ceramic Evidence from the Northeast Florida Coast. 4Øth Annual Meeting of the Southeastern Archaeological Conference, Columbia.

1983 Christopher T. Espenshade
Ceramic Ecology and Aboriginal Household Pottery Production at the Gauthier Site, Florida. Unpublished Masters Thesis, University of Florida.

1983 Christopher T. Espenshade
Book Review: Archaeological Ceramics. The Florida Journal of Anthropology 8(1): 54-58.

1982 Teresia R. Lamb, Christopher T. Espenshade, and Robert C. Wilson
Ceramic Technology and the Typing of Undecorated Pottery from Southern Louisiana. 39th Annual Meeting of the Southeastern Archaeological Conference, Memphis.

1981 Christopher Espenshade
The Lack of a Wilmington/Savannah Distinction at Kings Bay, Georgia. Early Georgia 9:25-32.

1977 Charles Troup, Christopher Espenshade, Christopher Hays, and Marcie Bergman
An Evaluation of the Cultural Resources of Tracts I, II, and III, Madison and Green Counties, Shenandoah National Park, Virginia. University of Virginia.