CULTURAL RESOURCES SURVEY OF A PORTION OF MURPHY AND CEDAR ISLANDS, CHARLESTON AND GEORGETOWN COUNTIES, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 455

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ABSTRACT

This study reports on an intensive cultural resources survey of a small portion of Murphy Island in Charleston County and an equally limited area of Cedar Island in Georgetown County, both on the Santee River. The work was conducted to assist Jim Westerhold and the S.C. Department of Natural Resources (SCDNR) comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The work on Murphy Island would involve the extension of an existing dike from the west onto the island to the maintained road, which runs approximately northeast-southwest on the island. The work on Cedar Island involves the construction of an approximately 30-foot wide spillway that would connect two ponds on the north and south sides of the island.

The proposed undertaking will require the clearing of the areas, followed by construction of the dike or spillway. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites that may be in the project area. We were also requested by the SCDNR to fill out site forms for some previously identified remains on Murphy Island. This was done, but these areas were not subjected to an intensive survey.

An investigation of the archaeological site files at the South Carolina Institute of Archaeology and Anthropology identified one previously recorded site (38CH233) on Murphy Island. The site, whose location is uncertain, was identified during an underwater survey in 1975 by SCIAA. The site form (recorded by R. Wilbanks in 1975) states that nineteenth century ceramics and bottles were identified and that the site was probably a wharf. Three previously recorded sites (38GE83, 38GE86, and 38GE88) were found around Cedar Island. 38GE83 and 86 were recorded during the same underwater survey as 38CH233. Site 38GE83 is described as three separate brick or ballast piles, but has since been classified as nonlocatable. Site 38GE86 had both prehistoric and historic pottery fragments represented. We were unable to find any information about 38GE88 because the site form was missing from the SCIAA site files. Keith Derting (personal communication 2006), the site files manager, suggested the site might have been recorded during the same underwater survey.

The maps at the S.C. Department of Archives and History were also consulted to see if any National Register of Historic Places sites were in the vicinity of the project area. None were identified. A county-wide architectural survey was performed for Charleston County in 1992 (Fick 1992), however, none of the small sea islands were included. A comprehensive survey for Georgetown County has not been completed, but with no standing structures on Cedar Island, it is unlikely that it will be included in the survey.

The archaeological survey on Murphy Island incorporated shovel testing at 50-foot intervals on transects which were placed at 50-foot intervals along the marsh at the northern portion of the island. All shovel test fill was screened through ¼-inch mesh and the remains were recorded. A total of 18 shovel tests were excavated along 6 transect lines. Testing at Cedar Island incorporated a mixture of 50-foot and 100-foot tests to located an area of no remains for the construction of the spillway. A total of 11 shovel tests were excavated on the western end of the island, just east of a dike.

As a result of these investigations one site (38GE616**)** was recorded at Cedar Island. This is a dike and associated causeway that is shown on

maps at least as early as 1873. Additional work is needed to fully assess this feature. Five sites (38CH2111-2115) were recorded on Murphy Island. Site 38CH2111 is a nineteenth century structure next to a canal. While its function is unknown, it may be connected to the production of rice on the island. Site 38CH2112 is the nineteenth century brick storm shelter; site 38CH2113 is a nineteenth century slave settlement; site 38CH2114 consists of the remains of a steam mill; and 38CH2115 is a brick pier of unknown function. No testing was performed to determine eligibility for each of these sites, so additional work will be needed to fully assess these resources. None of these sites, however, were identified within the two survey areas.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing or construction activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Jim Westerhold of the S.C. Department of Natural Resources in McClelanville, South Carolina. The work was conducted to assist the SCDNR with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of portions of two island by the Santee River – Murphy and Cedar (Figure 1). Murphy Island is to have a dike extended onto the island while Cedar Island is proposed to have a spillway cut through it to connect two ponds. The islands are separated by the Santee River with Murphy Island to the west and Cedar Island to the east (Figure 2).

Although the areas surveyed are considered high ground, the elevations are only about three feet AMSL. Since the islands are not managed, they have been allowed to grow into a dense pine and hardwood forest with a thick understory. Tidal influenced salt marsh is located around these "upland" areas.

This study, however, does not consider any future secondary impact of the project, including construction of water management systems elsewhere on the islands that have not had an archaeological survey.

We provided a proposal for the survey of the two tracts on July 10, 2006. The proposal was accepted on July 28. The survey was conducted on August 16, 2006.

Initial background investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work one previously recorded site (38CH233) was identified on Murphy Island. The site, whose location is uncertain, was located during an underwater survey in 1975 by SCIAA. The site form (recorded by R. Wilbanks in 1975) stated that nineteenth century ceramics and bottles were identified and that the site was probably a wharf. Three previously recorded sites (38GE83, 38GE86, and 38GE88) were found around Cedar Island. 38GE83 and 38GE86 were recorded during the same underwater survey as 38CH233. Site 38GE83 is described as three separate brick or ballast piles, but has since been nonlocatable. Site 38GE86 included both prehistoric and historic pottery fragments. We were unable to find any information about 38GE88 because the site form was missing from the SCIAA site files. Keith Derting (personal communication 2006), the site files manager, suggested the site might have been recorded during the same underwater survey.

Examination of architectural site files at the South Carolina Department of Archives and History failed to identify any previously recorded sites. The 1992 architectural survey of Charleston County (Fick 1992) did not assess Murphy Island. The Georgetown County architectural survey, which has not been completed, will probably not assess Cedar Island since no standing structures remain.

Archival and historical research included the examination of various plats of the islands. Additional information was compiled concerning the history of the islands.

The archaeological survey was conducted on August 16, 2006 by Ms. Nicole Southerland, Ms. Julie Poppell, and Ms. Kim Igou under the direction of Dr. Michael Trinkley.

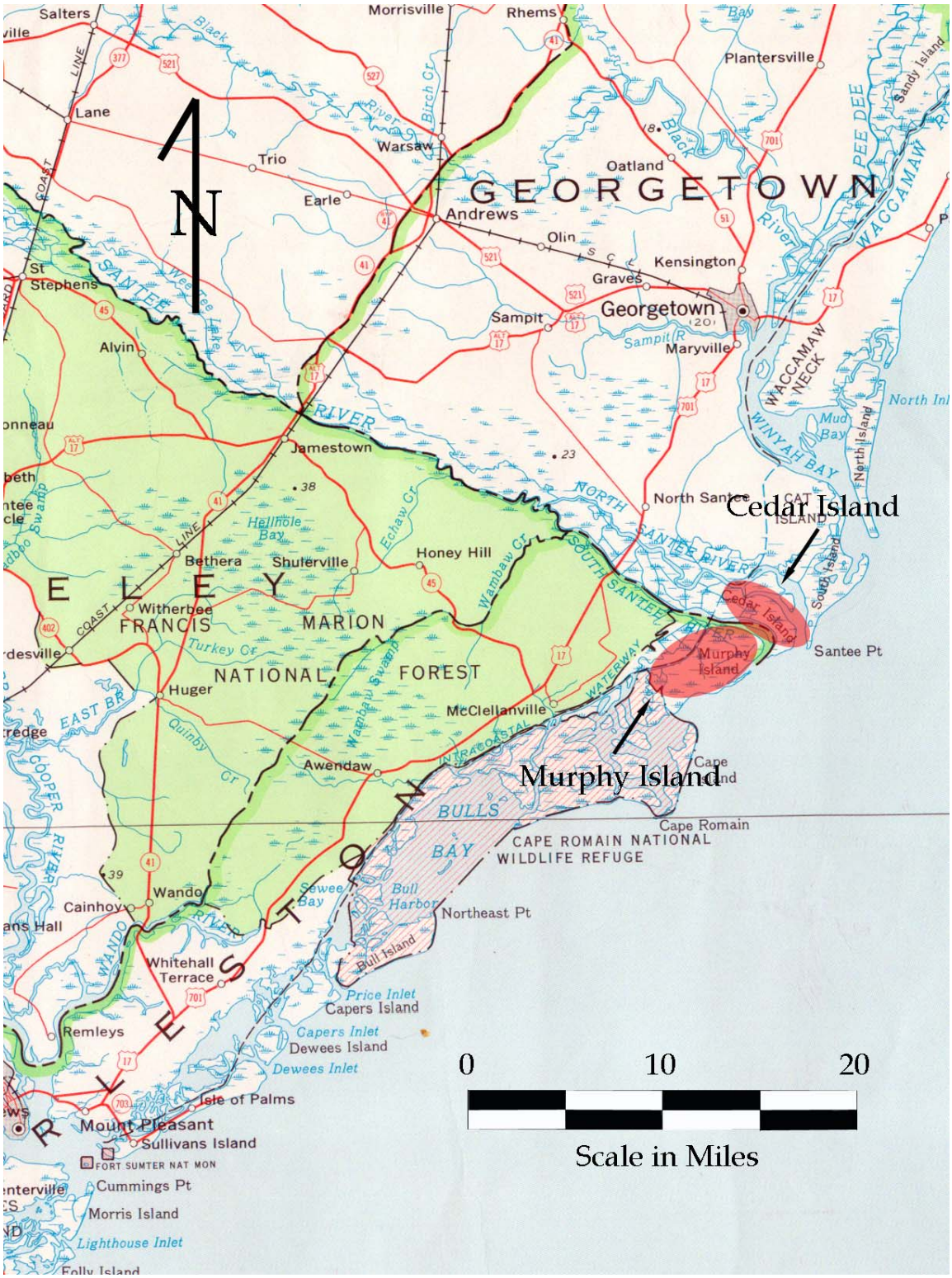

Figure 1. Project vicinity in Charleston and Georgetown Counties (basemap is USGS South Carolina 1:500,000).

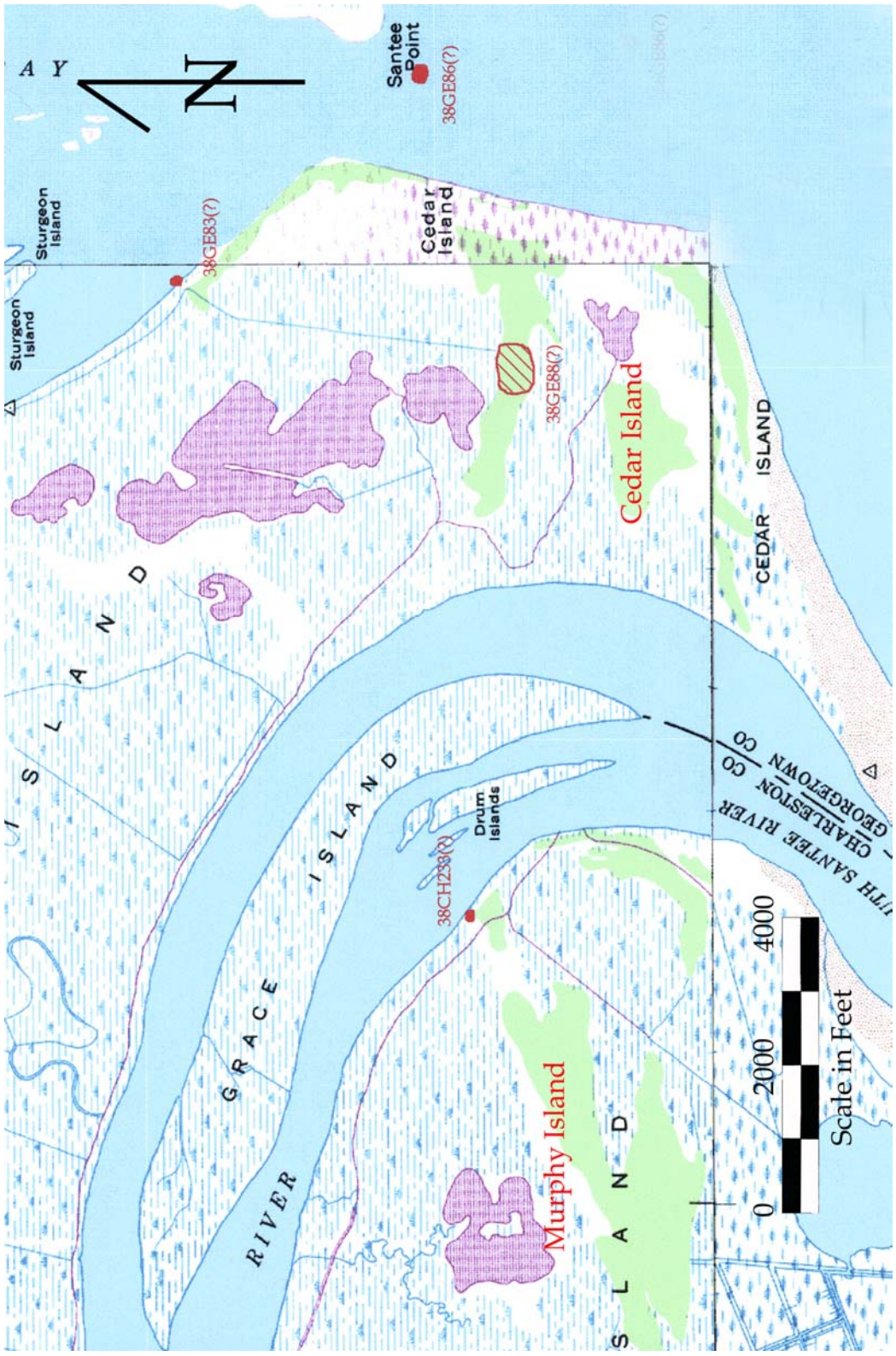

Figure 2. Murphy and Cedar islands shown with previously recorded archaeological sites (basemap is USGS Minim Island 7.5').

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

NATURAL ENVIRONMENT

Physiography

The project is situated on Murphy Island in northeastern Charleston County and on Cedar Island in southern Georgetown County. Charleston and Georgetown counties are located in the lower Atlantic Coastal Plain of South Carolina and are bounded to the east by the Atlantic Ocean and a series of marsh, barrier, and sea islands (Mathews et al. 1980:133). Colleton and Dorchester counties bound the southwestern portion of Charleston County while Berkeley and Georgetown border the north and northwestern edge of the county. To the northwest of Georgetown County are Horry and Marion counties while to the south are Berkeley and Charleston counties. Williamsburg County is the western boundary.

Elevations in Charleston County range from sea level to about 70 feet above mean sea level (AMSL), while elevations in Georgetown County can be slightly higher to about 75 feet AMSL (Mathews et al. 1980). Elevations on both Murphy and Cedar islands range from sea level to 16 feet AMSL (Mathews et al. 1980:141-142).

Seven major drainages are found in Charleston County. Four of these, the Wando, Ashley, Stono, and North Edisto, are dominated by tidal flows and are saline. The Wando forms a portion of the County's interior boundary northeast of Charleston, while the Ashley flows west of the peninsular city of Charleston. The three with significant freshwater flow are the Santee, which forms the northern boundary of the County and separates Murphy and Cedar islands; the South Edisto, which forms the southern boundary; and the Cooper, which bisects the County.

Only one river in Georgetown County is dominated by tidal action – the Sampit River, however the other four river systems in the county have significant freshwater discharge. These include the Waccamaw, Black and Pee Dee rivers as well as the previously mentioned Santee River.

Geology and Soils

Coastal Plain geological formations are unconsolidated sedimentary deposits of very recent age (Pleistocene and Holocene) lying unconformably on ancient crystalline rocks (Cooke 1936; Miller 1971:74). The Pleistocene

Figure 3. View of dense vegetation found on the islands.

sediments are organized into topographically distinct, but lithologically similar, geomorphic units, or terraces, parallel to the coast. While Cooke (1936) identifies the various abandoned shore lines along the coastal plain of South Carolina, both Murphy and Cedar islands are described as part of the recent terrace, which is the shore line at the present sea level.

Within the coastal zone the soils are Holocene and Pleistocene in age and were formed from materials that were deposited during the various stages of coastal submergence. The formation of soils is affected by this parent material (primarily sands and clays), the temperate climate, the various soil organisms, topography, and time.

Murphy Island, while encompassing an area of 13,530 acres, has only 690 acres of high ground (Mathews et al. 1980:142). Generally this soil consists of the Crevasse-Dawhoo Complex (Miller 1971). The excessively drained Crevasse soils have an A horizon of grayish brown (10YR5/2) fine sand to a depth of 0.5 foot over a brownish yellow (10YR6/6) fine sand that can occur to 3.0 feet in depth. Dawhoo soils, however, are very poorly drained and have an A horizon of black (10YR2/1) loamy fine sand to 0.9 foot in depth over a very dark grayish brown (10YR3/2) loamy fine sand to 1.5 feet in depth.

Soft Tidal Marsh encompasses most of the island. During high tide salt water can reach depths from 0.5 to 2.0 feet. Historic rice fields are also found on the island, which generally consist of Capers soils. These soils have an A horizon of dark gray (5Y4/1) silty clay loam to a depth of 0.4 foot over a dark grayish brown (2.5Y4/2) silty clay to 1.5 feet in depth. As much as 0.5 foot of sea water will cover these areas one or more times each month (Miller 1971).

Coastal beaches and dunes are found along the Atlantic while a small area of Kiawah loamy fine sand is found near Alligator Creek in the northwestern portion of the island. These soils have an Ap horizon of very dark grayish brown (10YR3/2) loamy fine sand to 0.7 foot over a dark grayish brown (10YR4/2) loamy fine sand to 1.3 feet in depth.

Cedar Island, while significantly smaller than Murphy, having only 4,050 acres of land, does have about the same proportion of high land (Mathews et al. 1980:142). About 5% of Murphy Island is high inhabitable land while 7% of Cedar Island is classified as high ground. This high land on Cedar Island is the moderately well drained Chipley fine sand that has an A horizon of dark grayish brown (10YR4/2) fine sand to 0.3 foot in depth over a yellowish brown (10YR5/4) fine sand to 0.7 foot in depth (Stuckey 1982).

The tidal flats of Cedar Island are described as Bohicket silty clay loam, which has an A horizon of dark greenish gray (5GY4/1) silty clay loam to 1.0 foot in depth over a dark greenish gray (5GY4/1) clay loam to 2.4 feet in depth. Coastal beaches border the Atlantic Ocean and small strips of Newhan soils are found between the beach landscape and the high lands. Newhan soils are excessively drained with an A horizon of grayish brown (10YR5/2) sand to 0.1 foot in depth over a light gray (10YR7/1) sand to 0.8 foot in depth.

Climate

John Lawson described South Carolina in 1700 as having, "a sweet Air, moderate Climate, and fertile Soil" (Lefler 1967:86). Of course, Lawson tended to romanticize Carolina. In December 1740, Robert Pringle remarked that Charleston was having "hard frosts & Snow" characterized as "a great Detriment to the Negroes" (Edgar 1972:282), while in May 1744 Pringle states, "the weather having already Come is very hot" (Edgar 1972:685).

The major climatic controls of the area are latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. Charleston's latitude of 32°37'N places it on the edge of the balmy subtopical climate typical of Florida, further south.

Figure 4. View of the marsh surrounding the islands, note the high land to the rear.

As a result, there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a marine climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains, about 220 miles to the northwest, block the shallow cold air masses from the northwest, moderating them before they reach the sea islands (Mathews et al. 1980:46).

The average high temperature in Charleston in July is 81°F, although temperatures are frequently in the 90s during much of July (Kjerfve 1975:C-4). Mills noted:

> in the months of June, July, and August, 1752, the weather in Charleston was warmer than any of the inhabitants before had ever experienced. The mercury in the shade often rose above 90°, and for nearly twenty successive days varied between that and 101° (Mills 1972:444).

The area normally experiences a high relative humidity, adding greatly to the discomfort. Kjerfve (1975:C-5) found an annual mean value of 73.5% RH, with the highest levels occurring during the summer. Pringle remarked in 1742 that guns "suffer'd with the Rust by Lying so Long here, & which affects any Kind of Iron Ware, much more in this Climate than in Europe" (Edgar 1972:465).

Georgetown County has similar temperatures with a summer temperature averaging 88°F and a winter temperature of 49°F.

The annual rainfall in this portion of Charleston and Georgetown is about 49 inches, fairly evenly spaced over the year. While adequate for most crops, there may be periods of both excessive rain and drought. The Charleston area has recorded up to 20 inches of rain in a single month and the rainfall over a three month period has exceeded 30 inches no less than nine times in the past 37 years (similar precipitation has been recorded for Georgetown County). The abundant supply of warm, moist and relatively unstable air produces frequent scattered showers and thunderstorms in the summer. Severe weather usually means violent thunderstorms, tornadoes, and hurricanes. The tropical storm season is in late summer and early fall, although storms may occur as early as May or as late as October (Baldwin 1973). Heavy rains and high winds occur with tropical storms about once every six years. Storms of hurricane intensity are much more infrequent.

Likewise, periods of drought can occur and cause considerable damage to crops and livestock. Mills remarks that the "Summer of 1728 was uncommonly hot; the face of the earth was

completely parched; the pools of standing water dried up, and the field reduced to the greatest distress" (Mills 1972:447-448). Another significant historical drought occurred in 1845, affecting both the Low and Up Country. Notable droughts have also occurred twice in modern times – in 1925 and 1954. Typically a serious drought may occur once every fifty years. Less severe dry periods have occurred more often, normally in late spring or in autumn (Pitts 1974:109).

The annual growing season is 295 days, one of the longest in South Carolina. This mild climate, adequate rainfall, and long growing season, as Hilliard (1984:13) notes, is largely responsible for the presence of many southern crops, such as cotton and sugar cane.

Floristics

Vegetation on the two islands generally is represented by the upland species, typically a maritime forest ecosystem, and water species, including fresh, salt, and brackish water species.

Both Murphy and Cedar islands support a maritime forest of live oaks, loblolly pines, wax myrtles, southern red cedars, palmettos, and hollies (Mathews et al. 1980:142). The islands have been allowed to grow in a manner to create an extremely dense forest with underbrush that is nearly impossible to penetrate in some areas.

The remnant rice fields on each island have been overgrown by such plants as widgeon grass, dwarf spikerush, smooth cordgrass, salt grass, and sea ox-eye (Mathews et al. 1980:142).

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

While many people are reported to have visited Murphy and Cedar islands, very little research has been completed. Mr. Richard Porcher visited the island in 2005 in an attempt to "document artifacts related to rice cultivation" (Porcher 2005), however his results were not recorded with the S.C. Institute of Archaeology and Anthropology with site forms. Even his manuscript is not widely distributed to the research community.

Other than Porcher's brief discussion, very little research has been conducted on Murphy, Cedar, and other coastal islands along the Santee River.

In 1993 Chicora Foundation conducted a detailed cartographic survey of Georgetown County which included a significant portion of Cedar Island. That study (Hacker and Trinkley 1993) identified no fewer than 11 probable sites south and east of Pleasant Creek. These appear, using period maps, as individual structures or clusters of structures that are likely slave settlements, various mills, or other processing points. Virtually all are today in high marsh, although prior to rising sea levels they were likely on somewhat higher ground. All have the potential to be affected by wetland management activities. Unfortunately, no survey has been conducted to identify or assess these potential resources.

In addition to the study of historic resources, this area has also been shown to contain prehistoric sites of exceptional importance. As early as 1984 research revealed the significance of the nearby Minim Island site (Drucker and Jackson 1984). Subsequently, data recovery excavations were conducted (Espenshade and Brockington 1989).

Prehistoric Synopsis

Several previously published archaeological studies are available for the Charleston and Georgetown area that provide additional background. A considerable amount of archaeology has been conducted in the Charleston area and these works should be consulted for broad overviews.

The Paleoindian period, lasting from 12,000 to perhaps 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

The Archaic period, which dates from 8000 to about 1000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with relatively little modification to the South Carolina coast. Archaic period assemblages, characterized by corner-notched and broad stemmed projectile points, are rare in the Sea Island region, although the sea level is anticipated to have been within 13 feet of its present stand by the beginning of the succeeding Woodland period (Lepionka et al. 1983:10).

To some the Woodland period begins, by

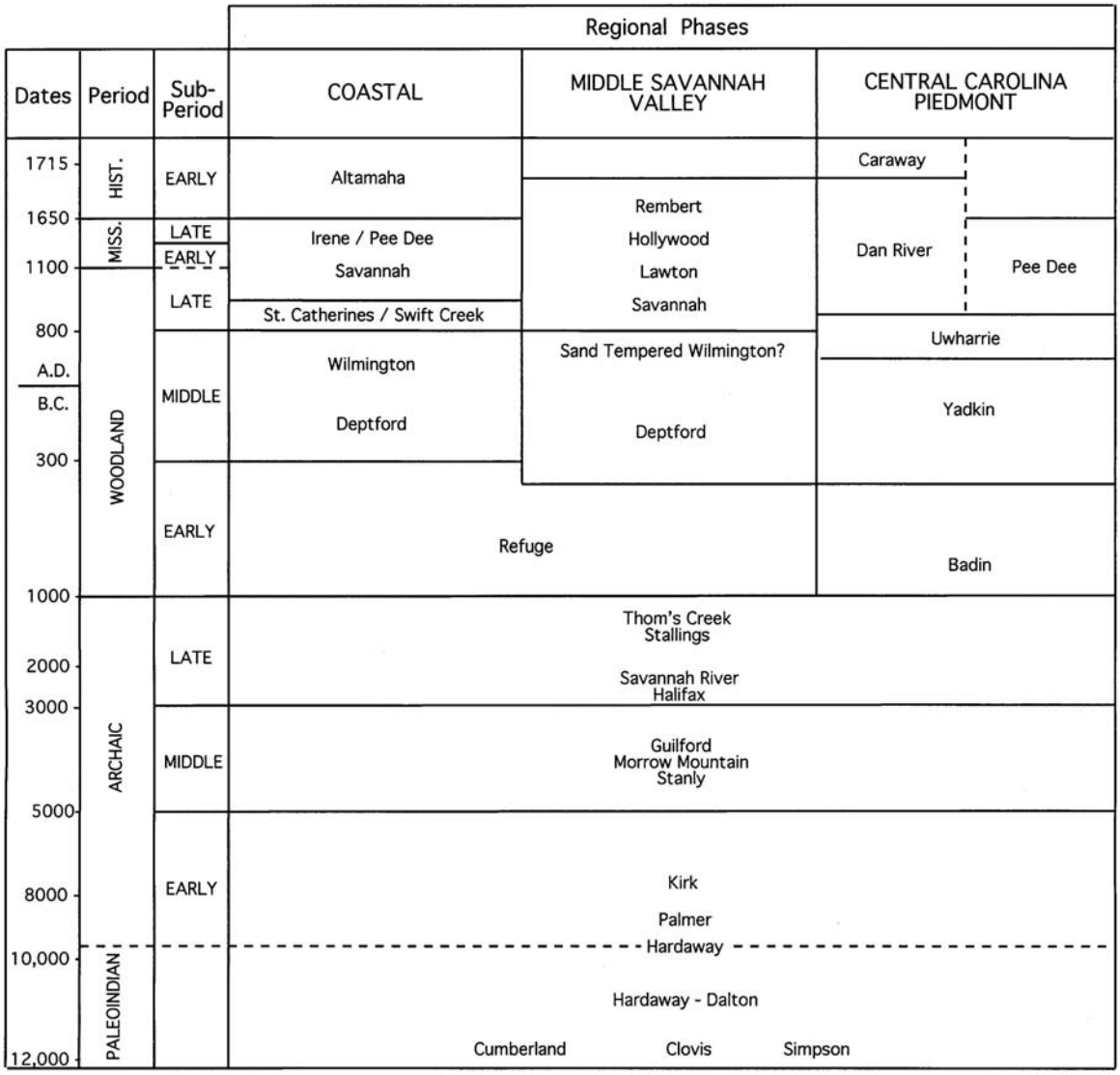

Figure 5. Generalized cultural sequence for South Carolina.

definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast. To others, the period from about 2500 to 1000 B.C. falls into the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of the terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) and Thom's Creek (sand or non-tempered) series pottery.

The subsistence economy during this early period on the coast of South Carolina was based primarily on deer hunting, fishing, and shellfish collection, with supplemental inclusions of small mammals, birds, and reptiles. Various calculations of the probable yield of deer, fish, and other food sources identified from shell ring sites such as Lighthouse Point on James Island to the west, also in Charleston County on James Island, indicate that sedentary life was not only possible, but probable.

Toward the end of the Thom's Creek phase there is evidence of sea level change, and a number of small, non-shell midden sites are found along the coast. Apparently the rising sea level inundated the tide marshes on which the Thom's Creek people relied.

The succeeding Refuge phase, which dates from about 1100 to 500 B.C., suggests fragmentation caused by the environmental changes (Lepionka et al. 1983; Williams 1968). Sites are generally small and some coastal sites evidence no shellfish collection at all (Trinkley 1982). Peterson (1971:153) characterizes Refuge as a degeneration of the preceding Thom's Creek series and a bridge to the succeeding Deptford culture.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. Also present are quantities of cord marked, simple stamped, and occasional fabric impressed pottery. During this period there is a blending of the Deptford ceramic tradition of the lower Savannah with the Deep Creek tradition found further north along the South Carolina coast and extending into North Carolina (Trinkley 1983).

The Middle Woodland period (ca. 300 B.C. to A.D. 1000) is characterized by the use of sand burial mounds and ossuaries along the Georgia, South Carolina, and North Carolina coasts (Brooks et al. 1982; Thomas and Larsen 1979; Wilson 1982). Middle Woodland coastal plain sites continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the fall line, sites are characterized by sparse shell and few artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. In many respects the South Carolina Late Woodland period (ca. A.D. 1000 to 1650 in some areas of the coast) may be characterized as a continuum of the previous Middle Woodland cultural assemblage.

The Middle and Late Woodland occupations in South Carolina are characterized by a pattern of settlement mobility and short-term occupations. On the southern coast they are associated with the Wilmington and St. Catherines phases, which date from about A.D. 500 to at least A.D. 1150, although there is evidence that the St. Catherines pottery continued to be produced much later in time (Trinkley 1981). On the northern coast there are very similar ceramics called Hanover and Santee.

The South Appalachian Mississippian period (ca. A.D. 1100 to 1640) is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named Savannah and Irene (A.D. 1200 to 1550). Sometime after the arrival of Europeans on the Georgia coast in A.D. 1519, the Irene phase is replaced by the Altamaha phase. Altamaha pottery tends to be heavily grit tempered, the complicated stamped motifs tend to be rectilinear and poorly applied, and check stamping occurs as a minority ware. Further north, in the Charleston area, the Pee Dee or Irene ware is replaced by pottery with bolder designs, thought to be representative of the protohistoric and historic periods (South 1971).

Although there has been very little archaeological exploration of historic period Native American groups in the Charleston area, South has compiled a detailed overview of the ethnohistoric sources (South 1972).

Historic Background

The first white settlers were drawn to the Waccamaw Neck area around Winyah Bay by the lure of lucrative Indian trade. The English, Scots, and French acquired land through proprietary and royal land grants, beginning as early as 1705. However, the majority of lands were granted in the 1730s (Rogers 1970:12, 20, 26). Access to water was an important factor in land development. The

earliest policy was to grant narrow river frontage in order to give more settlers river access. Among the first grantees was Percival Pawley, who, through a series of land grants, obtained 24,000 acres on the Pee Dee, Sampit, and Waccamaw rivers in 1711 (Rogers 1970: 16-21).

Indigo was one of the area's first major crops, but had a relatively short life of less than 50 years. Production, which began in the 1740s and reached its peak from 1754-1760, was artificially stimulated by an English bounty and King George's War (1739-1749) which cut off England's supplies in the French and Spanish West Indies. The crop grew particularly well along the Pee Dee, Black, and lower Waccamaw rivers. The processing of indigo required settling through a series of vats which drew flies and mosquitos rendering it a fairly offensive labor (Kovacik and Winberry 1987:75). One 1755 acount mentions:

> indigo has a very disagreeable smell, while making and curing; and the foeces, when taken out of the steeper, if not immediately buried in the ground (for which it is excellent manure), breeds incredible swarms of flies (Carman 1939:281-290).

Indigo required a fairly major initial investment, estimated at slightly over £2,024 (Gray 1933:I:541). A major benefit, however, was that its production could be integrated with rice on the same plantation. James Governor Glen remarked:

> I cannot leave this Subject without observing how conveniently and profitably, as to the Charge of Labor, both Indigo and Rice may be managed by the same Persons; for the labor attending Indigo being over in the Summer Months those who were employed in its may afterwards manufacture Rice in the ensuing Part of the Year, when it becomes most laborious; and after doing all this, they may have some time to spare for sawing Lumber and making Hogshead and other Staves to supply the Sugar Colonies (quoted in Carman 1939:289).

Unfortunately, indigo was "one of those rank weeds like tobacco, which not only exhaust the substance of the earth, but require the very best and richest lands" (Carman 1939:281-290).

In 1753 the Winyah Indigo Society in Georgetown County was officially organized and named Thomas Lynch, Sr. their first president. This group established a free school, a library, and functioned as a business and social club for members. By the end of the eighteenth century most planters had abandoned indigo due to a market surplus and a devastation of caterpillars (Winberry 1979:92, 98; Lawson 1972;3-4; see also Huneycutt 1949).

The early economy in Georgetown also depended on navel stores, and to a lesser extent, on salt processing. In 1733 exports from the port of Georgetown included 7,361 barrels of pitch, 1,092 barrels of tar, and 1,926 barrels of turpentine (Bridwell 1982:12; Rogers 1970;46-47). In the mid-1700s shipbuilding was an important Georgetown industry. Bridwell notes that there is evidence of shipbuilding as early as 1738 and that by the late 1740s an active industry flourished in the Winyah Bay area (Bridwell 1982:14). By the mid-1750s this industry began to decline as other enterprises developed and the supply of shipwrights declined (Bridwell 1982:16).

Another crop was to have a more enduring and extensive effect on the economic and cultural life of Georgetown County. Tidal rice culture began here in the 1730s and became the lifeblood of the region until the slave system upon which it depended was ended by the Civil War.

George C. Rogers, in his study, *The History of Georgetown County*, attributes the rise of rice production in the area to four factors: rice

cultivation had already been successfully developed in the province, a stable slave labor supply existed, land titles were stable and allowed for the accumulation of large tracts of property, and there were men who were ready to exploit this potential.

Georgetown District was the nation's major rice-growing area. In 1826 Robert Mills observed that in Georgetown:

> everything is fed on rice, horses and cattle eat the straw and hogs, fowls, etc. are sustained by the refuse, and man subsists upon the marrow of the grain. . . . The most valuable lands in the district are those called the tide lands . . . . The yield of these lands is immense . . . they average three barrels or 2000 pounds to the acre (Mills 1972 [1826]:558).

The early history of rice is discussed by Clowse (1971:125-132) and Doar (1936). Although the records of rice exportation are vague, they do indicate that production increased dramatically after 1705 (see Clowse 1971:167-168 for additional discussion). In the late Colonial period rice profitability also increased. Perkins observes that:

> yields were from 2 to 4 barrels per acre, and most plantations had 2 or 3 acres under cultivation for each field hand. Based on an average price of £2.3 ($150) per barrel from 1768 to 1772, slaves generated revenues annually of from £9.2 up to £27.6 ($600-$1,800), with around £15 ($975) probably the average figure (Perkins 1980:58).

Although most of the rice production figures are developed from shipping out of Charleston, Bridwell mentions that 322 barrels of rice were shipped out of Georgetown itself in 1733 (Bridwell 1982:12). In 1731, the closest year for comparison, 48,238 barrels of rice were shipped from Charleston (Clowse 1971:Table III). The low figure for the Georgetown port is probably the result of rice being shipped from Georgetown to Charleston by small coasting vessels, with the information not included in the official shipping totals.

In 1840 Georgetown District produced 45% of the national rice crop. Between 1850 and 1860, production peaked. In 1850, 46,765,040 pounds of rice were produced in Georgetown County. By 1860, South Carolina produced nearly 64% of the total United States rice crop and one-half of the state's crop was grown in Georgetown District. The average yield on Georgetown plantations in 1860 was 1,568 lbs. per acre. Prices ranged from 2.0 to 4.3 cents per pound in the 1850s (Easterby 1945:36; Kovacik 1979:49).

Profits on rice plantations during the nineteenth century were variable. Governor Robert Francis Withers Allston reported in 1854 that "the profits of a rice plantation of good size and locality are about 8 percent per annum, independent of the privileges and perquisites of the plantation residence" (Easterby 1945:37). Peter Coclanis (1989:134-141) argues that while the annual net rate of return on rice cultivation was around 25% in the 1760s, it fell to an astounding -28% by 1859. Regardless, the plantation system was run almost entirely on credit, paying off each past year's indebtedness with the sale of the new crop. Although the Georgetown rice economy was in a healthy, expanding condition in the antebellum years, the planter's capital was constantly being invested in land and slaves (Sellers 1934:55-56). R.F.W. Allston was one of the district's leading slave owners with nine plantations totaling over 6,000 acres. However, in 1859, he replied to the Blue Ridge Railroad Commission that he was unable to invest in the railroad:

> I have no funds to invest. All that I am worth lies in South Carolina and is invested in land and negroes; the annual income from

> which is pledged before it is realized (Easterby 1941:162).

Large plantations were the rule. The demand for the limited prime coastal lands forced up land values and pushed out marginal planters. By the early 1800s a hierarchy had developed based upon distance from the sea. By 1850, 99 large planters (planters who harvested more than 100,000 pounds each) produced 98% of the District's total rice crop (Rogers 1970:253; Lawson 1972:8).

Because of this reliance on slave labor, Georgetown District had the highest percentage of slaves in South Carolina. From 1810 to 1850, slaves made up 88% of the District's total population and accounted for 85% of the population in 1860 (Rogers 1970: 328, 343).

The Georgetown rice planters were a small aristocratic group, closely knit by ties of blood as well as common interest. They were rich, even by standards of most of South Carolina's planters, and lived in a luxurious style. In 1839 planters along the Waccamaw, the Pee Dee, the Black, the Sampit, and Winyah Bay formed the Planters Club on the Pee Dee. In 1845 the men foremd another organization, the Hot and Hot Fish Club, for "convivial and social intercourse" (Rogers 1970:228, 196).

The Civil War devastated Georgetown's economy. One popular journal stated, "no other part of the United States knows so well as the Rice Coast what defeat in war can mean, for nowhere else in this country has a full-blown and highly developed civilization perished so completely" (Saas 1941:108).

The blockade and occupation of Georgetown in 1862 threatened the plantation system. Union troops seized rice and contraband and set fire to rice fields as they went up the Waccamaw. Some planters continued trying to grow crops, but an estimated 75% of the county's plantation families moved to the interior of the state. The war was followed by successive crop failures in 1865, 1866, and 1867. Between 1860 and 1870, South Carolina's rice production fell nearly 73%. In Georgetown County, the 1879 crop was approximately 10% of the 1860 crop (Kovacik 1979:55). Financing next year's crop became a critical concern for planters who had traditionally depended on their factors for this service.

During this period, a number of things happened to land ownership: bankruptcies were common, the Freedmen's Bureau confiscated some lands and resettled former slaves on them, and other lands were sold at auction for nonpayment of loans or taxes. Companies such as Lachicotte and Sons and the Guendalos Company tried to profitably combine planting and rice milling to reduce operational costs. Efforts such as these managed to keep the rice industry alive until the turn of the century.

Minimal documentation is available concerning the activities of the area's freedmen following the war. There were some cases of looting and pillaging of the plantation homes, the "buckra houses." At first, some freedmen stayed on the confiscated plantations and worked under supervision of the Freedmen's Bureau. After restoration of the plantations, they signed work agreements with their former masters or other plantation owners whereby they were paid a set fee at the end of the planting season. Others turned from the rice fields to the burgeoning Georgetown timber industry for work. The majority of former slaves, it appears, remained on Waccamaw Neck. Here they could find ready food in the river and sea, and were among old friends and family. Too, the geographic isolation of the Neck may have reduced the travel incentive. Elsewhere small villages of freedmen apparently were formed, with the Moyd settlement on Pennyroyal Road perhaps one example. Travel to Charleston, difficult and somewhat dangerous, required a boat and/or several ferry crossings (Lawson 1972:23; Genevieve Chandler Peterkin, personal communication, 1987; R.F.W. Allston Family Papers, South Caroliniana Library; see also the Freedmen's Bureau Reports for Georgetown County, South Carolina Department of Archives

and History).

By the late nineteenth century Northern investors were buying up the old rice plantations of Georgetown. Having little, if any, interest in rice cultivation, many of these buyers used the plantations as game preserves for sport hunting. The loss of a stable and experienced work force, the competition from western rice lands, and finally the hurricanes of 1893, 1894, 1989, 1906, 1910, and 1911 that wrecked the dike system, ended the long history of rice production on the Georgetown rivers (Devereaux 1976:254-255; Lawson 1972:22-23, 409; Smith 1913:80). Elizabeth Allston Pringle of Chicora Wood wrote in 1906:

> I fear the storm drops a dramatic, I may say tragic, curtain on my career as a rice planter. The rice plantation, which for years gave me the exhilaration of making a good income myself, is a thing of the past now – the banks and trunks have been washed away, and there is no money to replace them (quoted in Rogers 1970:488-489).

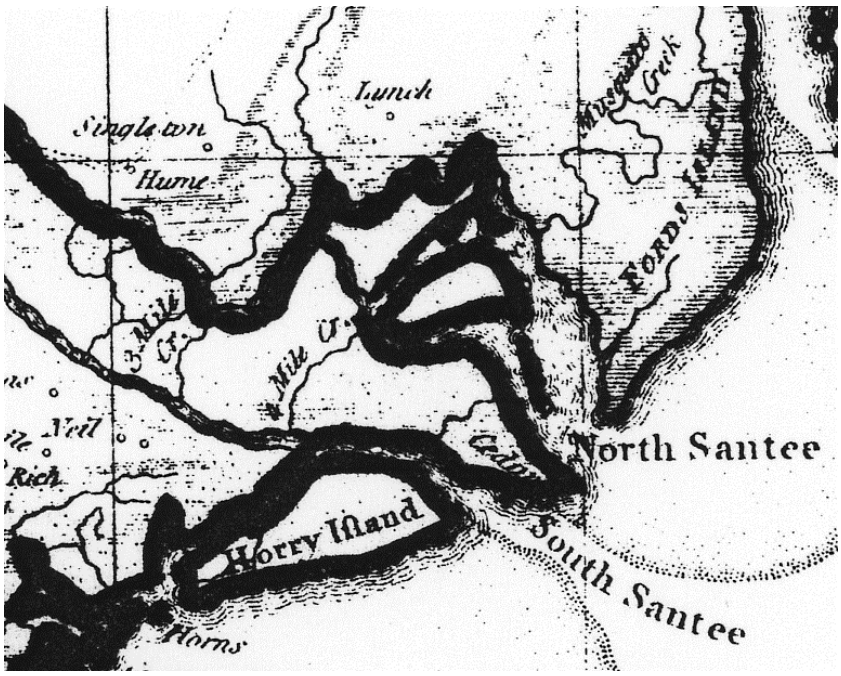

Figure 6. Portion of the 1780 John Stuart *Map of South Carolina and Georgia* showing the vicinity of Cedar and Murphy's islands.

Tract Specific History

The available time, coupled with the very small areas subject to study, precluded the ability of this project to provide a detailed historical overview. There is also surprisingly little secondary information available concerning the Murphy's and Cedar island owners. Linder and Thacker (2001) who might be thought to be a perfect starting point for information on at least the nineteenth century rice cultivation that took place on the two islands, provide almost no information. Cedar Island is entirely ignored and Murphy Island is discussed only vaguely and primarily in the context of twentieth century hunting activities. Both earlier and very recent authors such as Bridges and Williams (1997) or Bonner (2002) provide only vague and often contradictory observations. Even the Kollock property map from the early twentieth century, often relied on researchers to provide a quick indication of antebellum ownership, provides no clues for Murphy's Island.

As early as 1755 Henry Daniel had the 150 acre Cedar Island surveyed for his plantation (SCDAH, Colonial Plats, v. 6, pg. 367). Although the plat fails to illustrate any structures, this provides perhaps the earliest record of the island's ownership.

By 1780 the John Stuart *Map of South Carolina and Georgia* illustrates both Cedar and Murphy's islands, although the latter is called Horry Island, likely for an early owner. Stuart also

reveals several Horry settlements, much further inland in Charleston County (Figure 6). The French Huguenot Horry family consisted of numerous Santee River rice planters, but the island may have been named for the patriarch, Daniel Horry (d. 1763) – at least this would be a good point of initial research since he is known to have acquired over 2,300 acres along the Santee and Pee Dee rivers (Edgar and Bailey 1977:328).

It is clear, however, that a Harriot Horry acquired two significant tracts of land on Murphy's Island. Each was 1,000 acres and together they account for all of the north and western portions (SCDAH, State Plats, v. 38, pg 78 and 79). The portion not granted to Horry was owned by an Arnaud Bruno Dechabusheire. Additional genealogical research would be necessary to know if this Harriot Horry was the second wife of Daniel Horry, Jr., m. 1768, or their daughter, who married Frederick Rutledge in 1797. Regardless, neither plat shows any structures on the parcels. We have also been unsuccessful in identifying a Dechabusheire in the SCDAH Combined Alphabetic Index.

Although the area is best known for its tidal rice during the antebellum, there is a suggestion that Murphy Island was a producer of Sea Island cotton (Bonner 2002:90).

For the early antebellum the primary cartographic record is Mills *Atlas*. Cedar Island is shown in Georgetown District and Murphy Island is shown in Charleston, although no settlements are shown on either island. In fact, Mills illustrates no subscribers anywhere near either island to provide clues on adjacent owners (Figure 7).

Little is known concerning either island until the late antebellum, when there is general agreement that Murphy Island was owned by Alexander Hume Lucas (Bridges and Williams 1997:302; Rogers 1970:313). Rogers, however, also suggests that at least part of Murphy might have been owned by Elias Doar (1811-1851), noting that his crop of 300,000 pounds of rice "must have been obtained from Doar lands on Cedar and Murphy's Islands (Rogers 1970:299).

There is perhaps some support for this assumption since the November 12, 1851 *Winyah Observer* reported that Josiah Doar died on Murphy's Island on November 2, 1851 (Holcomb 1979:173).

What virtually all of the sources are in agreement about is that the area's rice planter's created summer homes on these islands. For example, Rogers notes that,

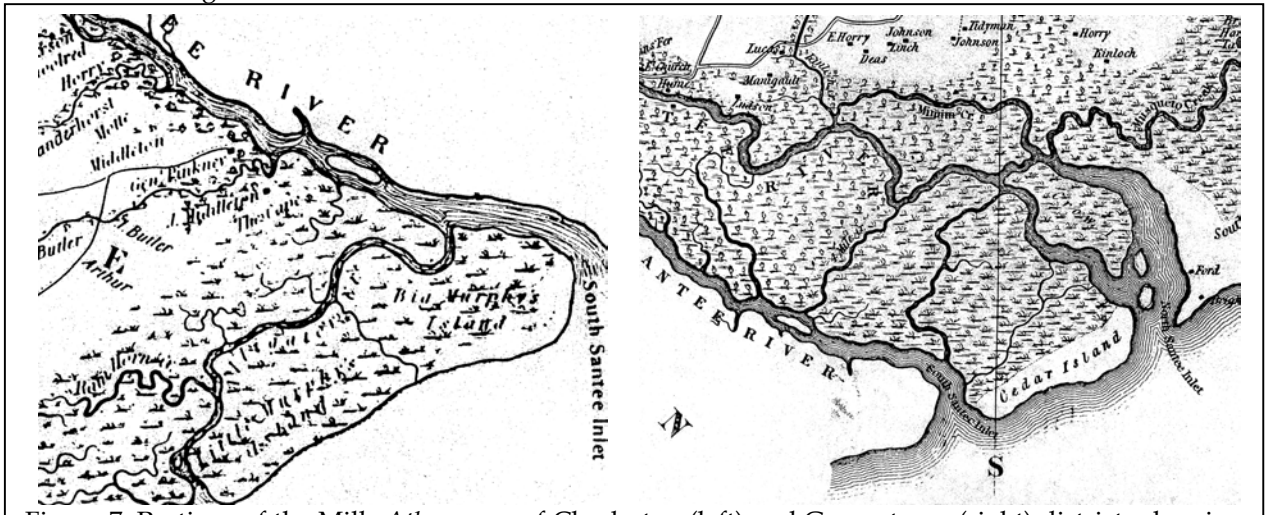

Figure 7. Portions of the Mills *Atlas* maps of Charleston (left) and Georgetown (right) districts showing Murphy's and Cedar islands and nearby settlements.

> The Sea Islands were the nearest place of refuge. The Santee planters built summer homes on Murphy's Island, Cedar Island, and South Island, all situated at the mouth of the delta . . . . David Doar, whose family lived on Murphy's Island and Cedar Island, in his book on the rice planters has given sketches of summer life on these islands. At Cedar Island there was a little village (Rogers 1970:313).

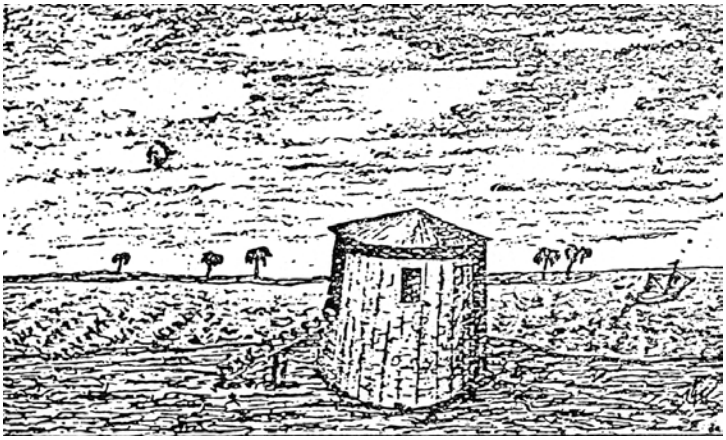

Figure 8. Storm tower on the Santee Delta, from *Monthly Weather Review*, May 1896, pg. 155 (adapted from Bull 1980:101).

Actually Doar's "sketches" are barely a few sentences (Doar 1936) that contribute little to our understanding of these settlements or life there (see, for example, Doar 1936:39). Even Doar's much earlier discussions provide only a brief mention – apparently the settlements were so well known that they did not deserve any detailed discussion (Doar 1907:16). Other authors, such as Bridges and Williams (1997:191) note that Cedar Island was used by such families as the Shoolbreds, Humes, and Edward N. Smith, at least until McClellanville was begun. In fact, at least some of the antebellum planters' houses were still standing on Cedar Island as late as 1902 when the club records record an excursion:

> Mr. Dupree came aboard early with his hounds and we roamed over Cedar Island – saw some deer tracks. Enjoyed a most delightful walk through the live oak road by the old summer houses, now in decay, to the sand duns against which dashed the ever restless waves of the broad Atlantic (Carter 1904:16-17).

We also know that the hurricane of 1822 changed life in the Santee delta, with many planters deserting Cedar Island and moving their families to more inland locations, such as Honey Hill (Bridges and Williams 1997:166). The late September 1822 hurricane has not been thoroughly researched, but Bull recounts at least one newspaper story (the storm itself is discussed in Ludlam 1963:114-116):

> Letters from St. James', [Santee], state, that on Murphy's Island, at the entrance of the Santee, the devastation by the storm is great beyond conception – whole plantations have been nearly swept away; and melancholy to relate, 50 Negroes have been lost by being drowned or crushed to death by the falling of houses, on Mrs. Horry's plantation. Mr. Johnson, the overseer, was the only person saved in his family. Miss Sarah Bochet was likewise lost; her body was found next morning on the beach. Mr. John Middleton's dwelling house and both mills are much injured, and nearly all of the negro houses blown down; his overseer's wife and 3 negroes were drowned on Cedar Island – the overseer was picked up alive in the marsh. Mr. Shoolbred's mill has also been destroyed, and every house is more or less injured.

> A letter from Mr. Hume's Overseer, on South-Santee, states, that 23 negroes out of 90 were lost – only 3 of the bodies had been found – several of negro houses blown down. It was also reported that Gen. Thos. Pinckney's plantation has received great injury, and many of his negroes lost. Messrs. Charles & Thomas Huggins, (between the Santees) lost all their slaves, and crop, with the exception of 5 hands. Mrs. Horry lost 39 slaves and the Overseer. The dwelling house, out-houses, &c. of Wm. Mathews, Esq. on the sea-shore, at Santee were literally destroyed; and his crop very seriously injured. His loss is estimated at about $7000 (Bull1980:95; Charleston, S.C. *Courier*, October 1, 1822, pg. 2).

The account lets us know that on Cedar Island, in 1822, John Middleton had at least some plantation activities, while on Murphy's Island Mrs. Horry (perhaps Harriott Horry) had an active plantation. We know, too, that whatever plantation activities there might have been, the 1822 storm caused extensive loss – perhaps a loss that can be seen archaeological and architecturally.

The reference to John Middleton suggests that it is possible that Middleton at some point owned Murphy's Island, although Linder and Thacker (2001:763-764) mention Middleton only in the context of Blake's Plantation on the Charleston side of the Santee River (they do, briefly, mention Cedar Island in the context of the hurricane, although never clearly defining what lands Middleton may have owned).

Bull (1980) provides a brief history of the storm towers that resulted from the 1822 hurricane, including scale drawings of one. In his typical fashion, however, he carefully guards against allowing any clear statement of what tower he visited, although it is clear that it was owned by the State. He provides an illustration of one tower in the Santee Delta dating from 1896 (Figure 8). Doar provides a brief account as well, observing that,

> the planters of those places had built what were called storm towers. These were of brick, round, with conical roofs and were 20 or 30 feet in diameter and 20 feet high. About ten feet from the ground was an entrance to the floor at this height from below, and they were fitted with heavy doors and windows. Upon the approach of threatening weather all the hands were taken into them until the danger was over. Until a few years ago these towers could be seen, like sentinels standing amid abandoned houses and fields. Now they have all been pulled down for the bricks, and only one was standing on the Moorland Plantation a few years ago, and even this may be gone like its fellows by now (Doar 1936:22).

In fact Bull reports the approximate location of only five – two on State property, one on Minim Island, and two others on unspecified tracts (Bull 1980:101).

Prior to the Civil War we know that in addition to the death of Josiah Doar on Murphy's Island in November 1861, Elias M. Doar died on Cedar Island in August of the same year (Holcomb 1979:172) and that earlier, in June 1849, Josiah Doar married Catherine E. Davis on Cedar Island (Holcomb 1979:162).

Cedar and Murphy's islands are not mentioned in the Official Records (OR), but are briefly discussed in the Naval OR. Between April 10 and June 16, 1862 the U.S. bark *Gem of the Sea* was posted off the

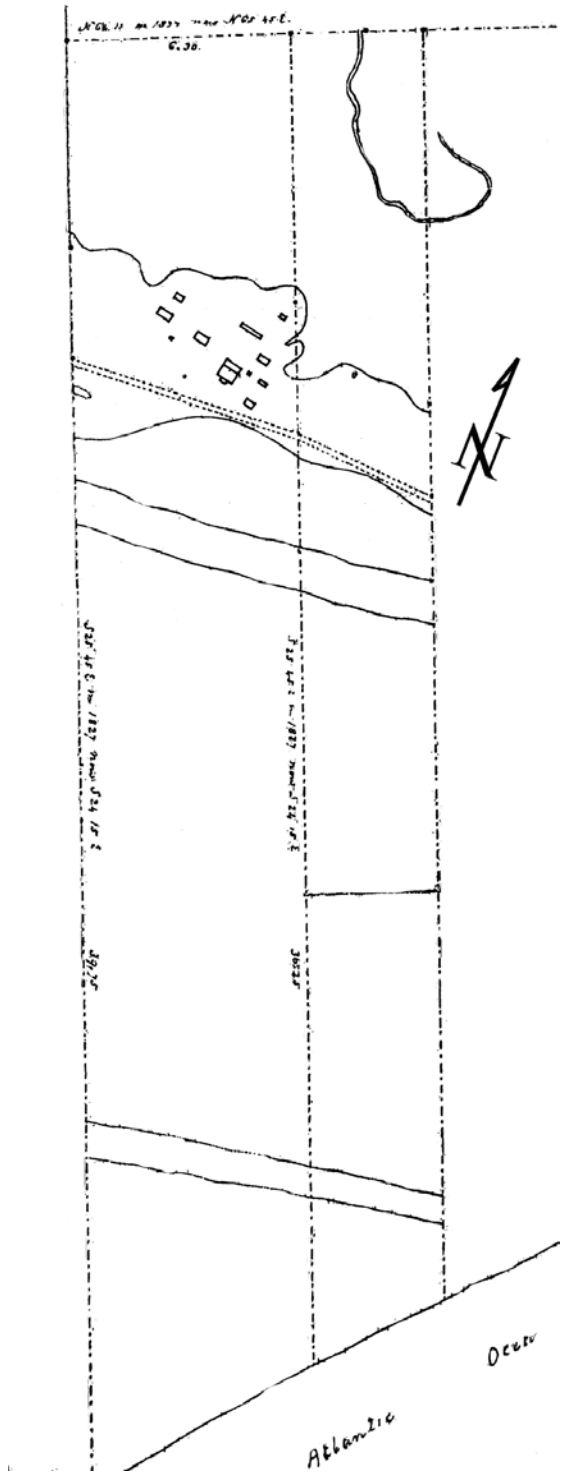

Figure 9. Settlement on Cedar Island in 1863 (McCrady Plat 5463).

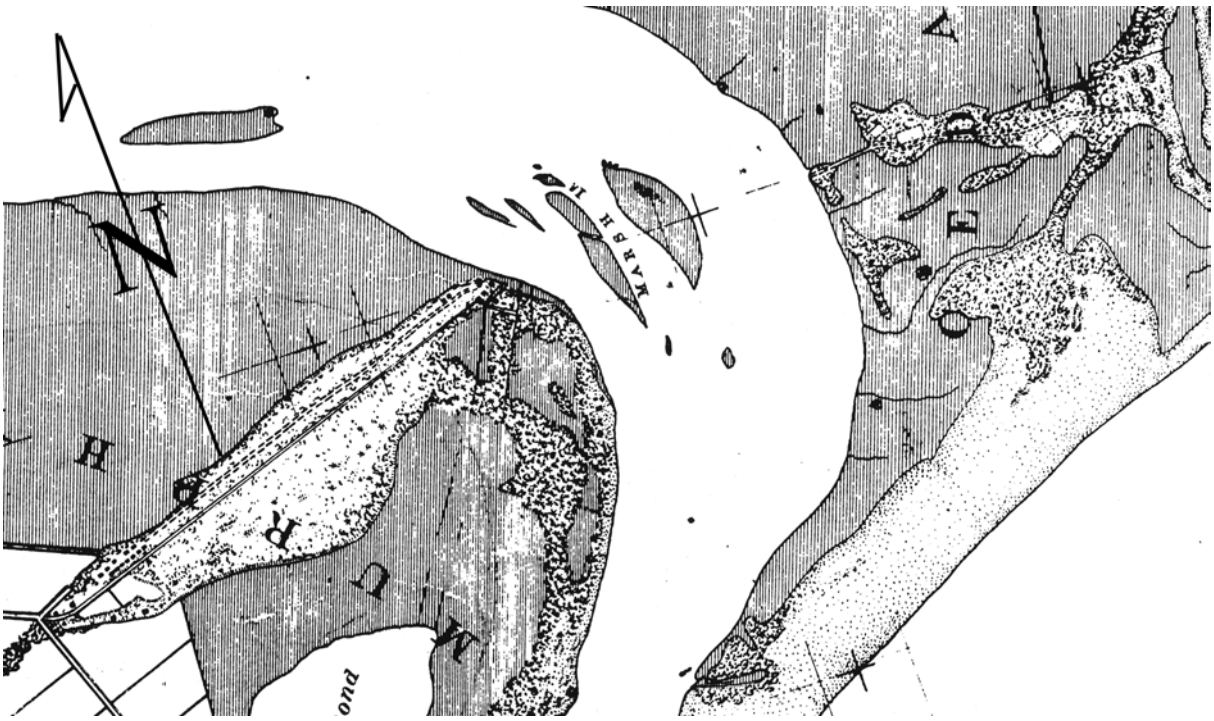

Figure 10. Portions of Murphy and Cedar islands in 1873 (U.S. Coast Survey, *Map of Part of the Santee Rivers and Vicinity, South Carolina*).

Santee delta and on June 5 a small party,

> went ashore . . . on the north end of Cedar Island . . . . We entered some ten or fifteen houses on Cedar Island and found them deserted of inhabitants, with no furniture or anything whatsoever in them. We also visited a large stable on the same island, which had the appearance of having been lately used by cavalry. The only things we saw of note on that island were six colts (NOR 12:735).

On June 9 a party,

> went into the South Santee to Mr. William Lucas's rice mills, situated on the north end of Murphy's Island. They found there an old mulatto and his family and two old negroes in charge of the mill. The old mulatto informed Mr. Molloy, master's mate, that he was free, and was employed by Mr. Lucas to run the mill, receiving a yearly salary (NOR 12:735; Doar [1936:38] reports that Lucas's pounding mill had collapsed by the early twentieth century).

These appear to be the only Civil War activities taking place on these tracts (see also Rogers 1970). A plat was prepared in 1863 showing a portion of Cedar Island (Figure 9). This appears to be a strip of land running from the Atlantic Ocean inland for about 1,940 feet. On the property is a small settlement, consisting of a main house and at least 10 outbuildings. Whether this is one of the summer houses is uncertain since the plat contains no information other than that the property was owned by Charles Parker (McCrady Plat 5463).

There are several plans that show the extensive late antebellum development on the two

islands still extant in the last half of the nineteenth century. Figure 10 illustrates a portion of the two islands in 1873. On Murphy Island there is a substantial double slave row of 12 structures, plus an additional five structures scattered to the west and south. Running parallel to the sand ridge is a dike and, to the north, a road. At the east end of the ridge are at least five structures. To the west and north are the vast rice fields in which the African American slaves living in these settlements would have labored prior to the Civil War. Nearby to the south is a "salt pond." Although no specific research has been conducted, this name may be a reference to this land-locked pond being used to produce salt – an exceptionally valuable commodity that was manufactured through evaporation at a number of low country sites.

On adjacent Cedar Island there is a landing and causeway that connects the deep water access of the Santee with a sand ridge. There the map reveals five structures and three fenced areas, with a road running east-west along the relic dune ridge. To the south of this area is the vicinity of the plat shown in Figure 9, although no structures are shown.

As late as 1897 the Murphy's Island settlement appears unchanged (McCrady Plat 1112), with 12 structures shown in a double row along with a small cluster on the Santee River.

The late history of the area, however, is dominated by the Santee Club – a group of both Southern and Northern wealthy northern investors organized by Hugh R. Garden in 1898, who purchased Blake's Plantation, Ormond Hall, and Little Murphy Island in the waning years of the nineteenth century. They eventually also leased both Big Murphy and Cedar islands, controlling over 23,000 acres (Linder and Thacker 2001:767; see also Tibbetts 2001).

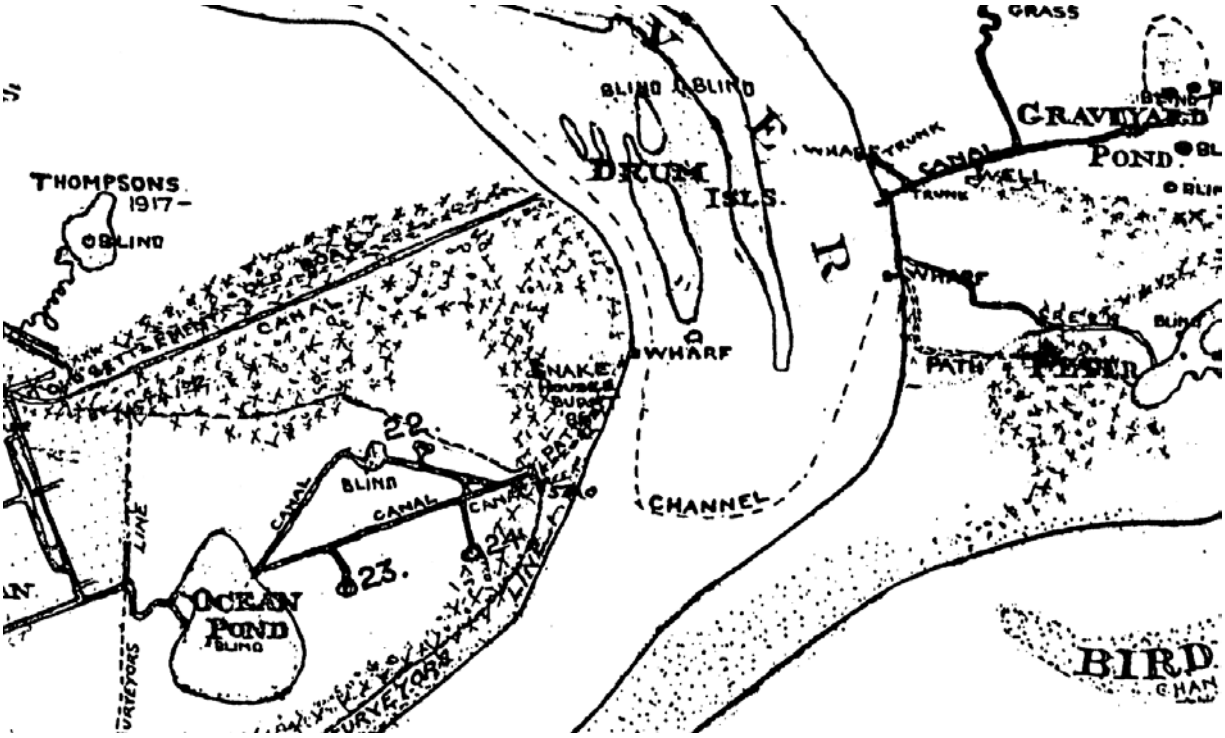

Figure 11. Portion of the "Plan of the Shooting Preserve of the Santee Club" (adapted from Carter 1909).

One of the club's members, E.D. Jordan, purchased Big Murphy Island from its owner,

Alexander Hume Lucas, using its donation as leverage to require changes in the Santee Club (Bridges and Williams 1997:302; Linder and Thacker 2001:767-769). In the 1970s the property was acquired by the Nature Conservancy and the State of South Carolina.

Figure 11 shows the sketch map of the club's lands in 1909, focusing on Big Murphy and Cedar islands. On Murphy Island the "Old Settlement" is shown, as is the "Old Road" leading through the settlement to the Santee River. Not shown are the various structures that existed at either end of this road. Salt Pond is shown as "Ocean Pond," and the various canals are clearly shown. On Cedar Island the club members note no remains of the summer village (although we know that some structures remains, even if in ruins). What are shown, however, are two wharfs, as well as several trunks. Also shown on the map is a well – in the vicinity of the structures and pens shown on the earlier map (Figure 10). At the end of the road (shown as a canal on the map) is "Graveyard Pond." The origin of the name, while tantalizing, is unknown.

This brief synthesis reveals the need for far more detailed historical research in order to determine a title for the two properties and reconstruct past lifeways. Once eighteenth and nineteenth century ownership is determined, it may be possible to identify additional plats or plantation records. It should be possible to obtain a clearer idea of the lives of the enslaved African Americans who lived on the two islands – and whom we also know died and likely were buried there.

Nevertheless, the current research reveals that the two islands have a significant potential for archaeological remains. Some remains will be readily visible, such as the slave dwellings, pounding mill, and hurricane tower. Others, such as the African American cemetery thought to exist and the summer settlement, however, will be nearly invisible. Others, such as original trunks, construction features associated with the dikes and canals, and wharves, will require extensive investigation at low-tide. Some, such as canals, causeways, and roads, may be easy to overlook since they so readily blend with the landscape.

METHODS

Archaeological Field Methods

The initially proposed field techniques on Murphy Island involved the placement of shovel tests at 50-foot intervals along transects placed at 50-foot intervals along the northern marsh edge. Shovel testing at Cedar Island would involve shovel testing at 100-foot intervals east onto the island. Figure 12 shows the approximate area where the SCDNR proposed to extend their dike and create a spillway respectively.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure 1 foot square and would normally be taken to a depth of 0.8 to 2.0 feet or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

The information required for completion of South Carolina Institute of Archaeology and Anthropology revisit site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

For Murphy Island, a series of six transects were set up from west to east along the marsh edge (Figure 13). In order to try to avoid portions of the known slave settlement, the first transect was place to the east of the last known chimney. A total of 18 shovel tests were excavated in this area. For Cedar Island, the approach was somewhat different (Figure 14). Due to the extremely dense vegetation, a series of four transects were set up north-south at 50-foot

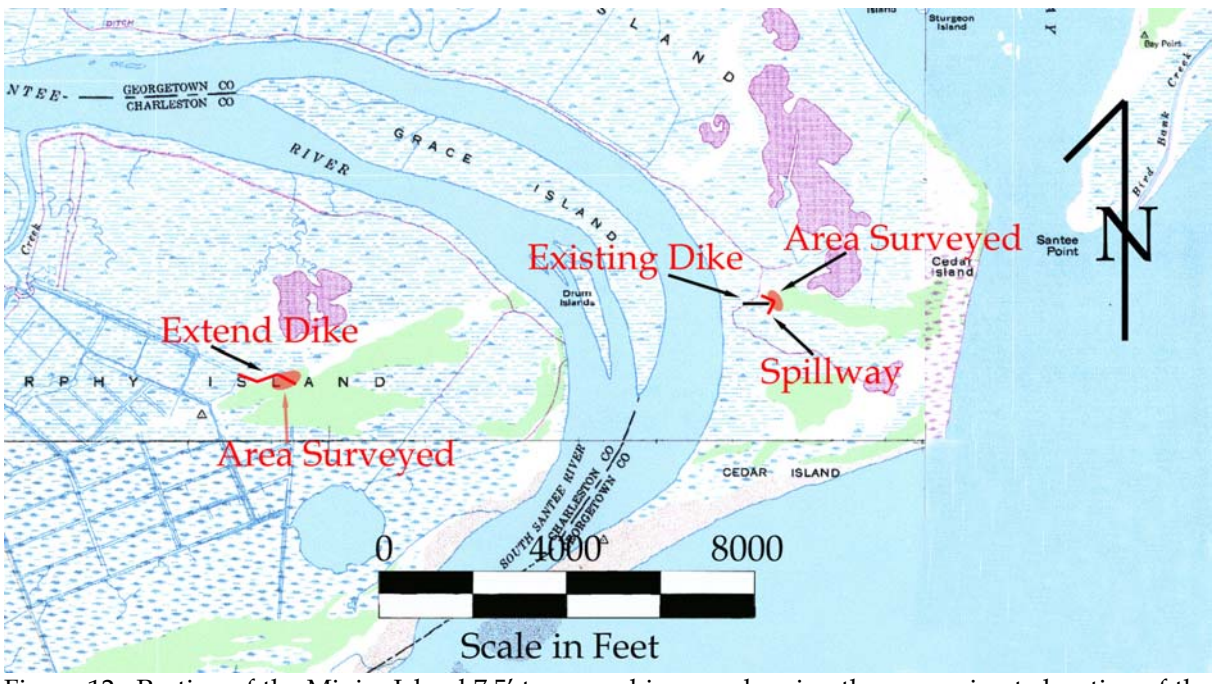

Figure 12. Portion of the Minim Island 7.5′ topographic map showing the approximate location of the proposed work (extend dike and spillway) by the SCDNR and location of shovel testing.

intervals with the intention of shovel testing at 100-foot intervals to the east until marsh or remains were encountered. Some tests were performed at 50-foot intervals. A total of 11 shovel tests were excavated on Cedar Island, but no remains were found in any of the shovel tests. Since the spillway was to measure only 30 feet wide, we felt that the testing was sufficient.

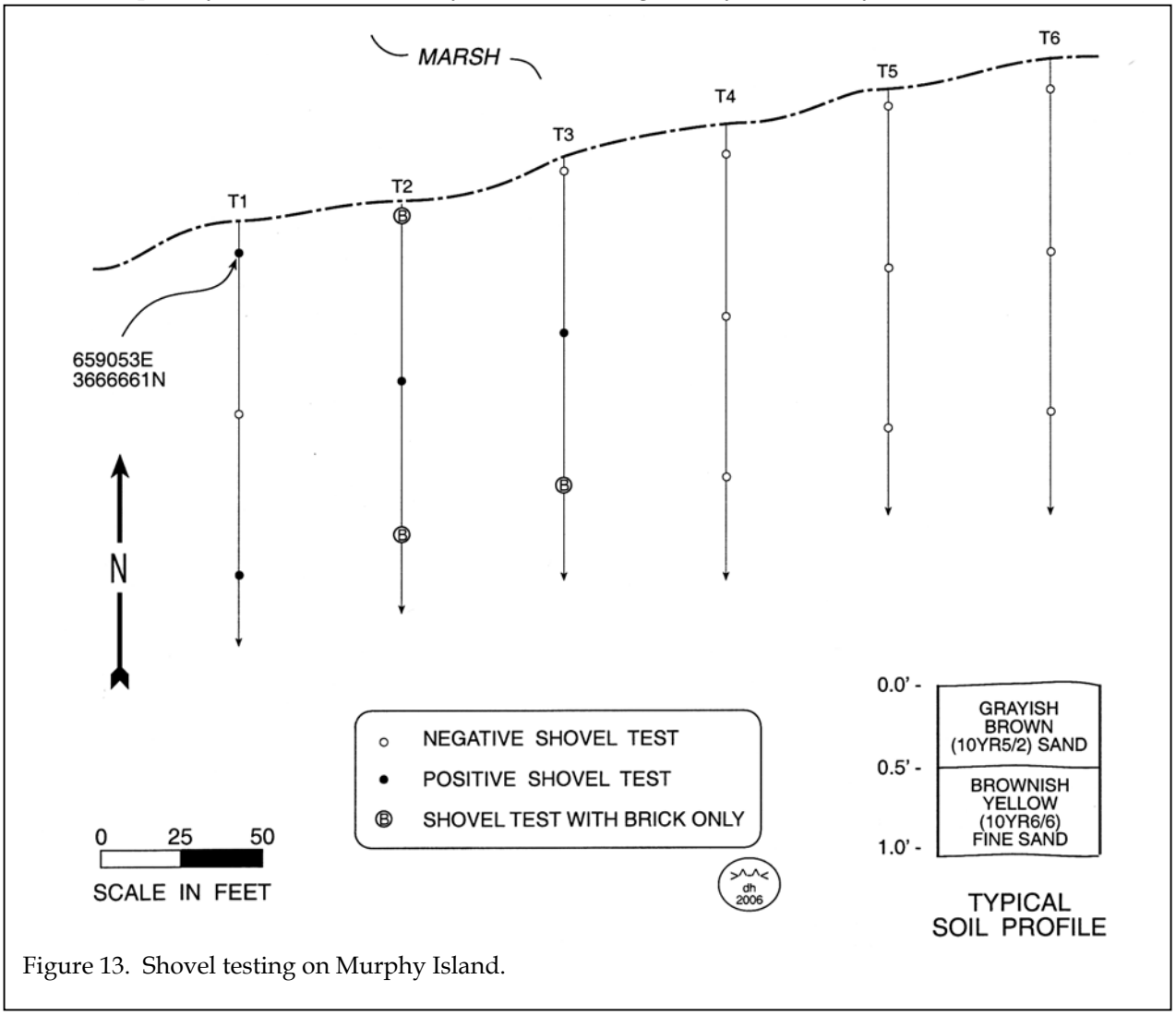

Figure 13. Shovel testing on Murphy Island.

The GPS positions were taken with a WAAS enabled Garmin 76 rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. WAAS or Wide Area Augmentation System, is a system of satellites and ground stations that provide GPS signal corrections, yielding higher position accuracy – generally an accuracy of 10 feet or better 95% of the time. The dense forest was a vital concern for the project area.

Architectural Survey

Since the closest standing structure is over 5.0 miles from the project area, no architectural survey was performed. Generally, the

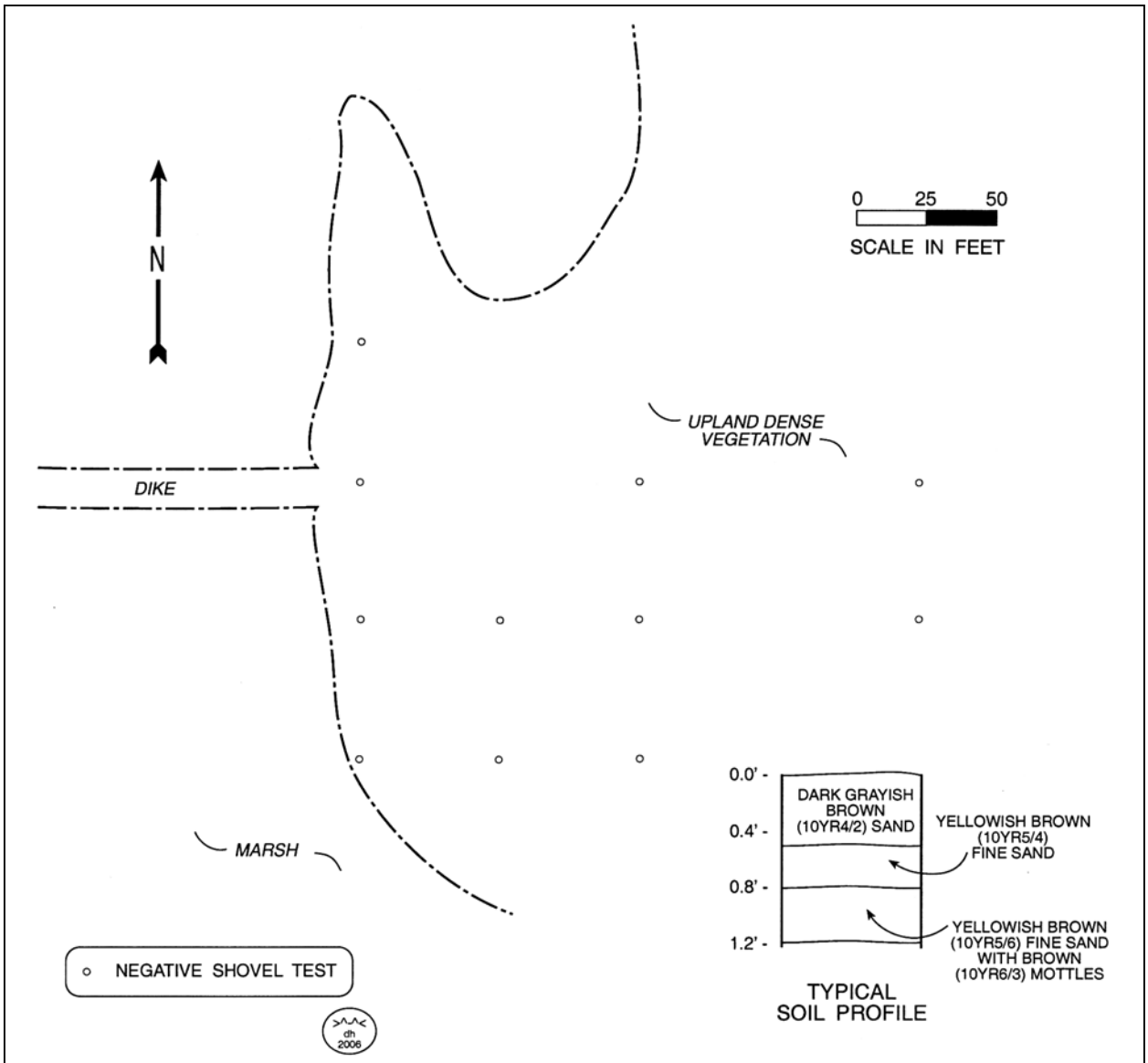

Figure 14. Shovel testing on Cedar Island.

architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before 1950. Typical of such projects, this survey recorded only those which have retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource, we would have completed a Statewide Survey Site form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff and the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during the study would be submitted to the S.C. Department of Archives and History.

Site Evaluation

Identified archaeological sites would be

evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1991) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts were conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. A site form for each of the identified archaeological sites has been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic materials were defined by such authors as Price (1979) and South (1977).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey one archaeological site (38GE616) was recorded on Cedar Island (Figure 15). The site is a historic dike and causeway that needs additional investigation before eligibility can be determined. On Murphy Island, five sites (38CH2111-2115) were recorded (Figure 15). Site 38CH2111 is a nineteenth century structure next to a canal. While its function is unknown, it may be connected to the production of rice on the island. Site 38CH2112 is the nineteenth century brick storm shelter; site 38CH2113 is a nineteenth century slave settlement; site 38CH2114 consists of the remains of a steam mill; and 38CH2115 is a brick pier of unknown function. No testing was performed to determine eligibility for each of these sites, so additional work will be needed to fully assess these resources. None of these sites, however, were identified on the two study areas surveyed for Jim Westerhold and the SCDNR.

Archaeological Resources

38GE616

Site 38GE616 (Figure 16) consists of a 700 foot long dike connecting two areas of high land on Cedar Island. A central UTM for the site is 662119E 3667212N (NAD27 datum). Tidal marsh is located to the north and south of the dike.

Although the earliest construction date is unknown, the dike is shown on the 1873 map of part of the Santee River and vicinity by the U.S.

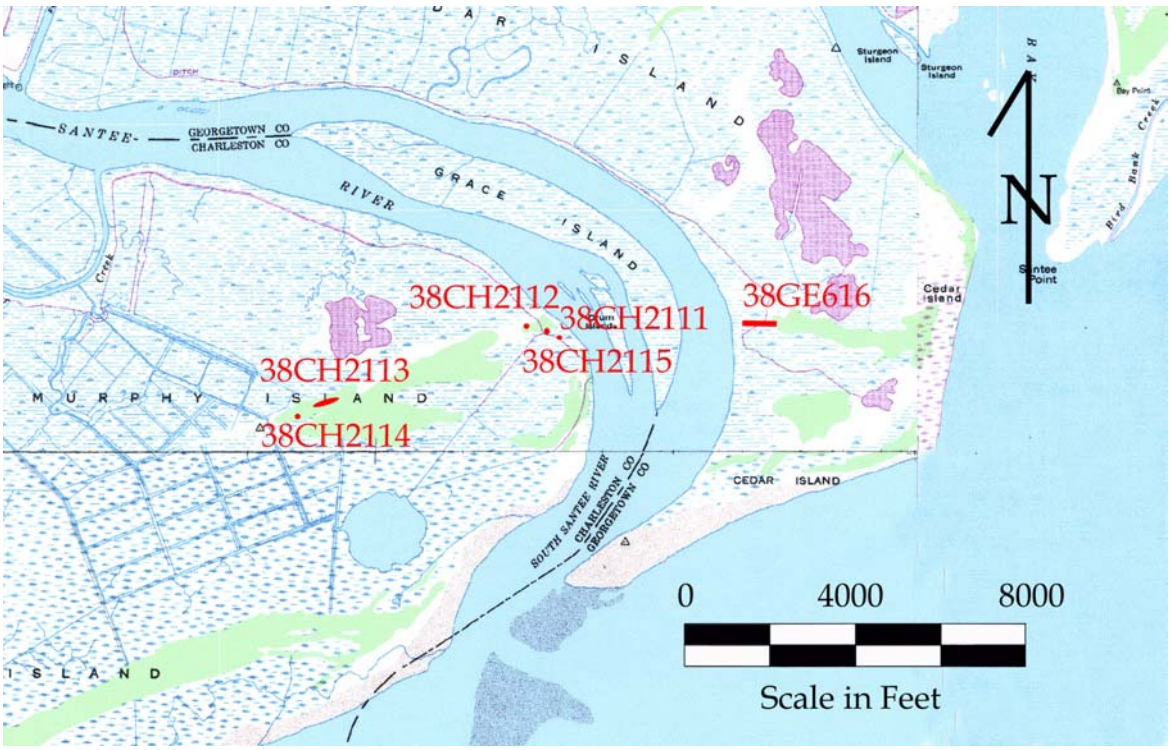

Figure 15. Sites recorded on Murphy and Cedar Islands (basemap is USGS Minim Island 7.5').

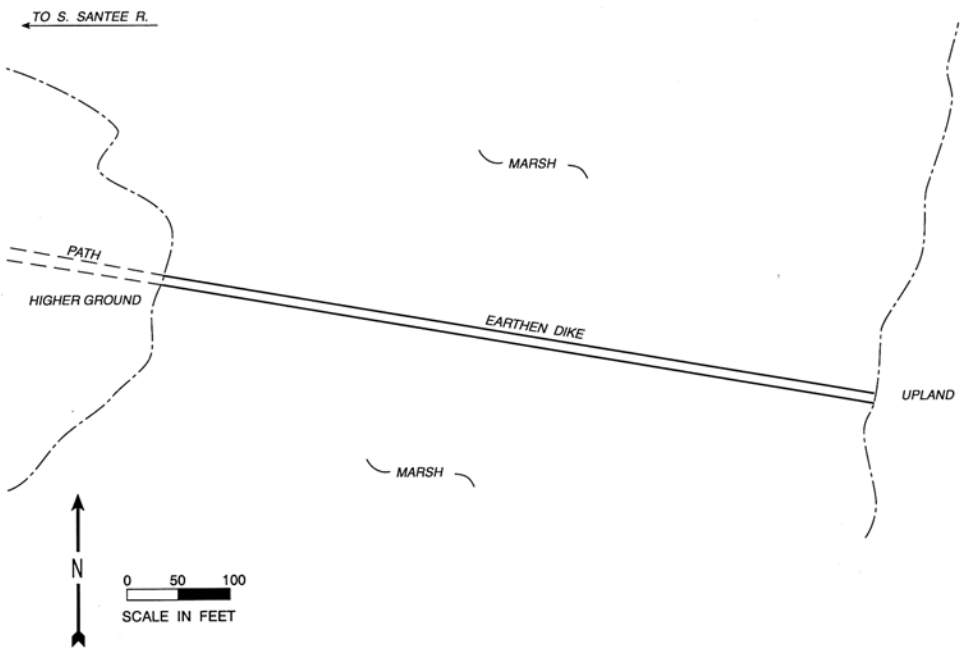

Figure 16. Sketch map of 38GE616, the earthen dike on Cedar Island.

Coastal Survey (Figure 17). Historic research has identified Cedar Island as being used as a summer retreat during the nineteenth century, so the dike was likely constructed to connect a boat landing and wharf on the Santee River to high land in which the structures were located.

No shovel testing was performed along the dike, so the actual soil profile is not known, but the *Soil Survey of Georgetown County* (Stuckey 1982) shows the area surrounding the dike as being Bohicket silty clay loam (tidal flats). While covered in water at high tide, the soil profile is a dark greenish gray (5GY4/1) silty clay loam to 1.0 foot in depth over a dark greenish gray (5GY4/1) clay loam to 2.4 feet in depth.

The property is now owned by the South Carolina Department of Natural Resources (SCDNR) who maintains the causeway. We were told that part of maintaining the dike has been adding soil to the

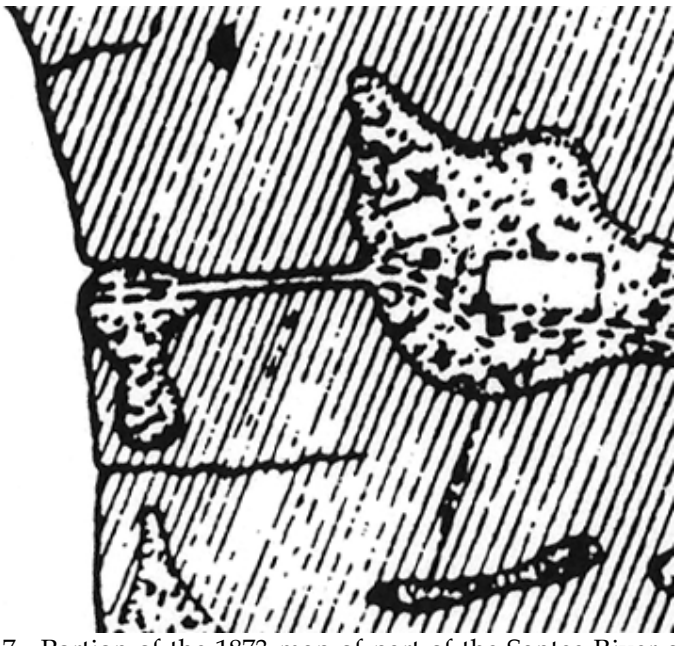

Figure 17. Portion of the 1873 map of part of the Santee River and vicinity showing the dike (38GE616).

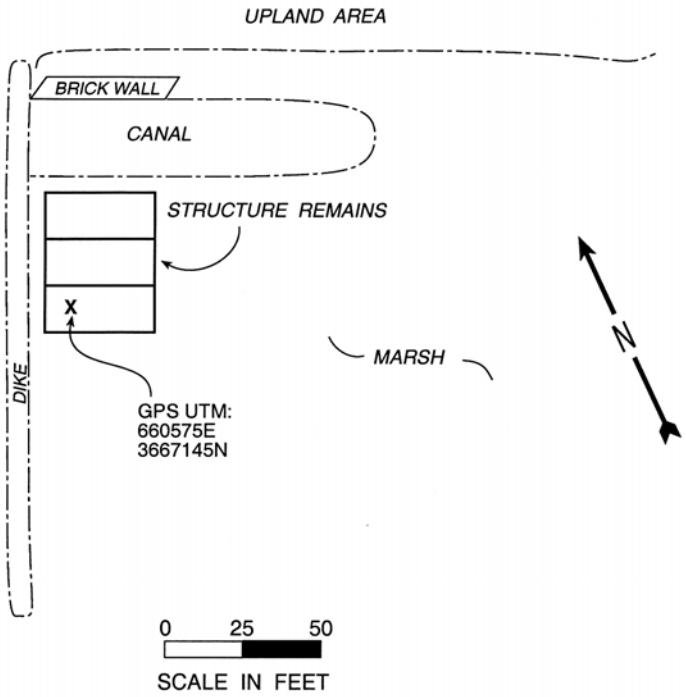

Figure 18. Sketch map showing 38CH2111.

surface (Mr. Jim Westerhold, personal communication 2006), so it may require coring to identify how much of the original dike remains.

Eligibility determination is difficult for a resource such as this since the amount of alteration to the dike is unknown. It may be possible that the dike alone will not retain enough integrity to be eligible for the National Register. However, since Cedar Island has numerous unrecorded resources, the dike may be eligible as part of a district. Additional work, including an in-depth title search and an archaeological investigation of the island, will be necessary to make a final eligibility.

We have been informed by the SCDNR that the dike would be avoided in the construction of the spillway (Jim Westerhold, personal communication 2006). The spillway will connect the two ponds on the northern and southern sides of the dike, however, construction of the spillway will be performed on the high land just east of the dike where shovel testing failed to produce any artifacts.

38CH2111

Site 38CH2111 (Figure 18) consists of a brick foundation next to a canal in the marsh of the eastern portion of Murphy Island. A central GPS UTM for the site is 660575E 3667145N (NAD27 datum).

No shovel testing was performed in the area, however the site is situated in tidal marsh, which is under water at high tide. The 1873 map of the Santee River and vicinity shows the


Figure 19. View of the canal and brick remains, 38CH2111.

approximate location of the structure and the surrounding area on high ground. Mathews et al. (1980:142-143) explain that Murphy Island goes through cycles of significant erosion and deposition. Between 1941 and 1973, more than 1,000 feet of shoreline was lost in some areas (Mathews et al. 1980:143), so in the more than 100 years between habitation of the island and present conditions, Murphy Island has undoubtedly seen significant change.

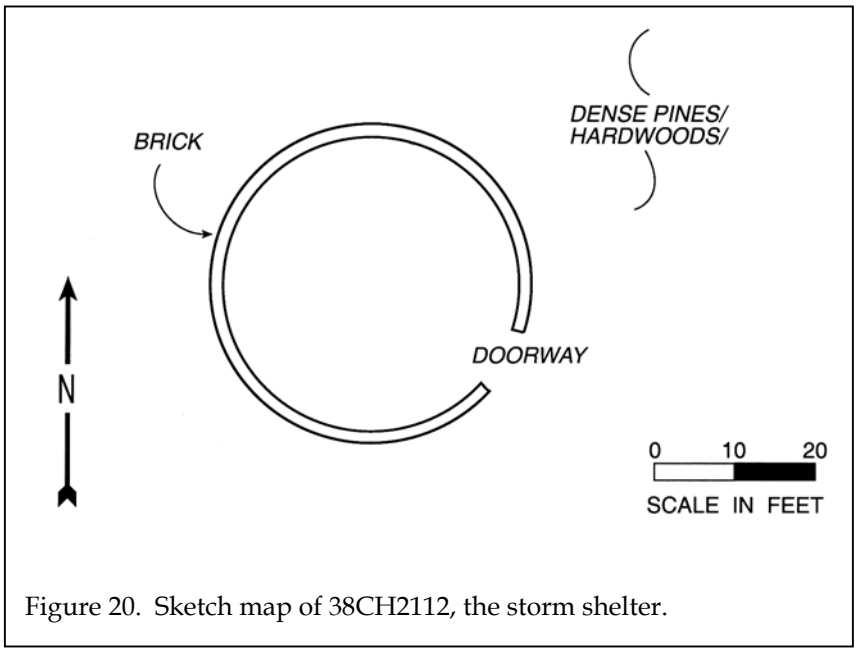

Figure 20. Sketch map of 38CH2112, the storm shelter.

As previously mentioned, a canal (with intact brick remains on the north side) is associated with the structure, as well as a dike to the west (Figure 19). The proximity to water suggests the possible association with rice production (for a discussion of a historic rice plantation, see Trinkley et al. 2002). The site incorporates an area of about 100 feet by 50 feet.

Figure 21. View of 38CH2112 in 1980 (taken by W. J. Keith in McKenzie et al. 1980).

Additional research is needed to determine the function of the site and its connection to Murphy Island. The level of investigation during the current survey is not adequate to make an eligibility determination. However, the proposed work by the SCDNR (the extension of a dike at the western end of the high land) will not affect this site.

38CH2112

Site 38CH2112 (Figure 20) is a nineteenth century storm shelter located on the eastern portion of Murphy Island. A central UTM coordinate for the site is 660461E 3667183N (NAD27 datum).

No shovel testing was performed in this

Figure 22. View of missing brick from the storm shelter.

area, but the *Soil Survey of Charleston County* (Miller 1971) describes the soil as being part of the Crevasse-Dawhoo Complex. Crevasse soils are excessively drained with an A horizon grayish brown (10YR5/2) fine sand to 0.5 foot in depth over a brownish yellow (10YR6/6) fine sand to 3.0 feet in depth. Dawhoo soils are very poorly drained with an A horizon of black (10YR2/1) loamy fine sand to a depth of 0.9 foot over a very dark grayish brown (10YR3/2) loamy fine sand to 1.5 feet in depth. It may be more likely that the storm shelter is situated more on the Crevasse soils, since the intention was to keep away from storms and flooding.

Storm towers are reported to have been constructed after the 1822 hurricane ravaged the Charleston area (Bull 1980). These shelters were round with diameters about 20 to 30 feet.[1] The entrance would have been several feet off the ground with the floor built of wood beams also several feet above the ground surface. These structures are rare, with only five reported by Bull (1980).

Located on Murphy Island, this specific shelter would probably have been used by the slaves who lived and worked on the island. Although more information is needed pertaining to the entire plantation operations on the island, this storm shelter is architecturally unique to this area. It may be possible to obtain more information on these types of shelters

Figure 23. View of current condition of storm shelter.

[1] Although vegetation prevented an accurate measurement of this storm shelter, we estimated the diameter to about 20 feet. McKenzie et al. (1980) estimated the diameter to be 25 feet while

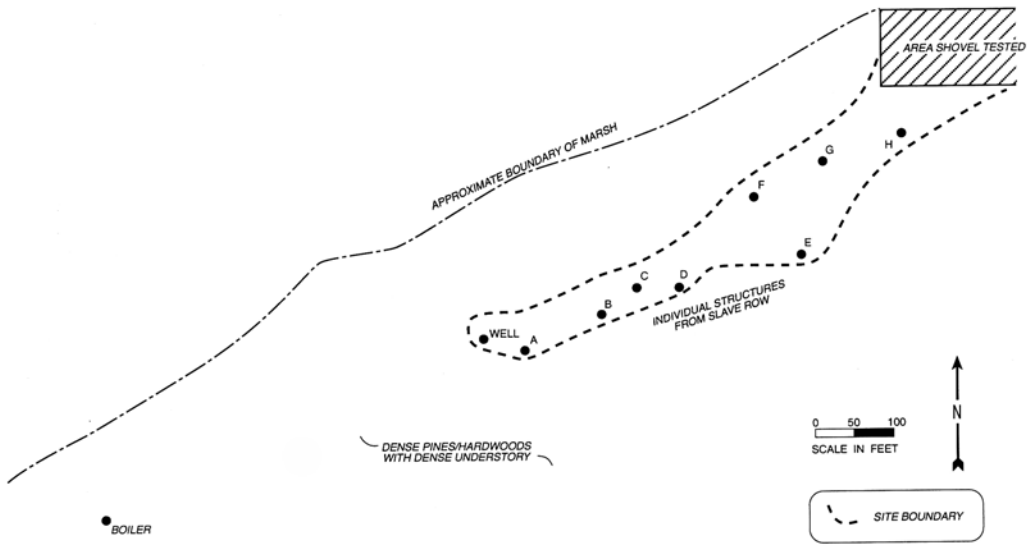

Figure 24. Sketch map of 38CH2113, the slave settlement.

including from where the design evolved and similarities of other known shelters; their intent, however, is certain.

Site 38CH2112 is recommended eligible for the National Register under Criteria C – distinctive design. It is possible that additional research on the workings of Murphy Island may also create a district in which to include the shelter. A photograph taken by W. J. Keith in McKenzie et al. (1980) shows the Murphy Island storm shelter (Figure 21). The condition has worsened since that photo, including the reported robbing of brick by looters (Figure 22) and the destruction by dense vegetation (Figure 23). If these problems persist, the shelter will not survive. The vegetation should be removed and monitored to prevent further devastation. The photographs reveal a variety of conservation issues. Bricks are clearly powdering, a result of the crystallization of soluble salts. Salt may be deposited through the action of wind-blown moisture or from rising damp – additional study is necessary to determine the specific source and movement process. In either case, the salts are deposited through evaporation. The brick is damaged through crystallization pressure. The process is likely exacerbated by poor, low fired brick. Given the value of this resource immediate intervention is necessary to prevent what is called "demolition through neglect." The State has a custodial responsibility to ensure that historic resources under its protection are not damaged through both direction action, as well as a failure to act. In this case, it is critical that this structure receive a thorough conservation assessment, coupled with immediate stabilization.

As for the work proposed by the SCDNR, it is located almost a mile to the southwest of the shelter. There should be no impact for the storm shelter.

38CH2113

Site 38CH2113 (Figure 24) is the nineteenth century slave settlement on Murphy Island. This area is in a forest of pines and hardwoods with a dense underbrush. The western-most GPS coordinate, taken at a well is 658911E 3666559N while the eastern-most coordinate, taken at chimney remains, is 659060E 3666643N (NAD27 datum).

Shovel testing was performed to the northeast of the settlement in hopes of finding an

Bull (1980) said the tower was 32 feet in diameter.

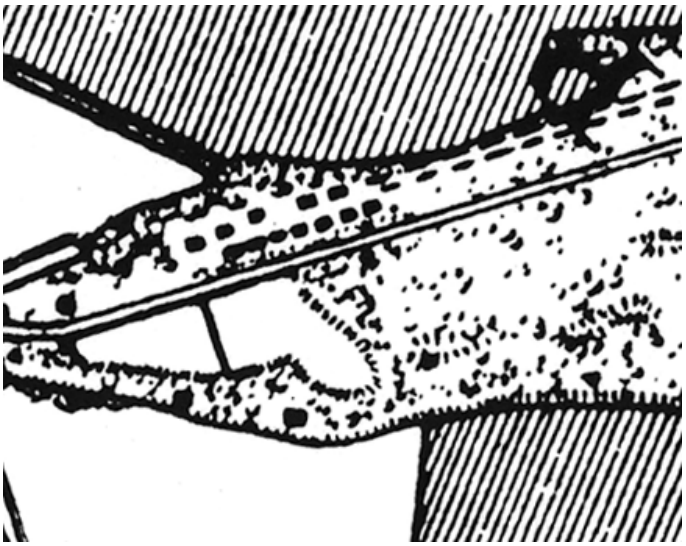

Figure 25. Portion of the 1873 map of the Santee River and vicinity showing 38CH2113.

area with no archaeological remains (see Figure 13). This area would be used to extend a dike from wetlands to the northwest onto the highland east of the slave settlement to a road that runs northeast-southwest along this highland.

A total of eighteen shovel tests were excavated starting to the east of the last known structure remains. Transects were placed at 50-foot intervals along the marsh edge with shovel tests running south at 50-foot intervals to the road. A total of six transects were set up along the marsh with 18 shovel tests excavated.

Four tests were positive (22%) with an additional three producing only a small amount of brick. Transects 4 through 6 contained no positive tests, leaving a 100 foot square area with no archaeological remains. The four positive tests contained only one artifact each including a piece of blue edged pearlware (Transect 1, Shovel Test 1), an aqua glass bottle neck (Transect 1, Shovel Test 3), an unidentified nail fragment (Transect 2, Shovel Test 2), and an unidentified nail (Transect 3, Shovel Test 2).

Shovel tests in the area are classified according to the *Soil Survey of Charleston County* (Miller 1971) as the Crevasse-Dawhoo Series. In this area of high lands on Murphy Island, Crevasse soils were identified more than the Dawhoo soils. The excessively drained Crevasse soils have an A horizon of grayish brown (10YR5/2) fine sand to a depth of 0.5 foot over a brownish yellow (10YR6/6) fine sand that can occur to 3.0 feet in depth.

As previously mentioned, this site is a slave settlement associated with a cotton or rice plantation. The settlement is shown on the 1873 map of the Santee River and vicinity with 12

Figure 26. View of the well at 38CH2113.

Figure 27. View of an arched hearth at a chimney in 38CH2113.

structures (Figure 25). The current survey, which did not perform any shovel tests within the known settlement area, identified a well (Figure 26) and at least eight double-sided chimneys – two of which had arched supports below the fire box (Figure 27). The estimated site dimensions, based on the structure remains and the shovel testing to the northeast, is about 750 feet by 100 feet.

Additional testing should be performed to accurately map the settlement. Since the purpose of this survey was to find an area with no remains, additional research should also be completed to assess site eligibility. However, with the number of chimney remains (some portraying interesting architectural designs) and a well, which is a good source for cultural information given its ability to preserve materials such as wood, leather, and other ethnobotanical remains, we have a relatively untouched context that is likely eligible for the National Register for its information potential (Criteria D).

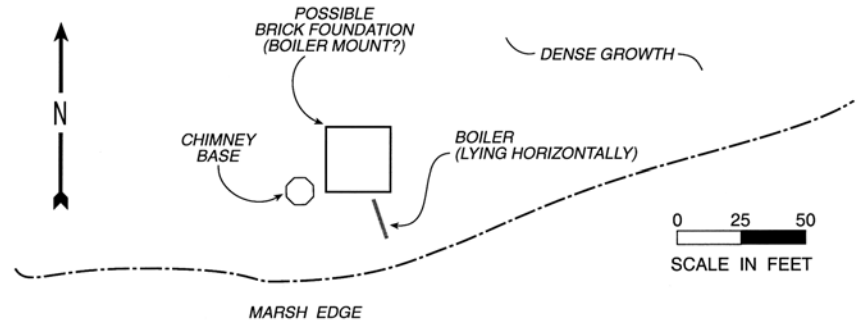

Figure 28. Sketch map of 38CH2114, the mill remains.

While shovel testing did produce an area void of settlement remains, steps need to be taken to ensure that the construction of a dike will not have a negative impact on the nearby site. For example, will the dike cause flooding in the settlement that in a normal circumstance is able to drain naturally off the island? Is there a potential for other secondary impacts not recognized at this time?

In addition, it is recommended that the vegetation be controlled in a way as to prevent the further deterioration of the brick remains. It is understandable that the vegetation has a positive impact in that it shields the island from potential looting; however, the thick vegetation has a detrimental impact on the architectural features. For example, tree roots erode mortar joints and

Figure 29. View of the boiler associated with 38CH2114.

displace bricks. During storms, trees can cause significant damage when left to fall on the chimneys or uproot nearby foundations. We understand that it is not practical to completely clear the island of its vegetative state, however the vegetation should be removed from the features themselves and dead or diseased trees should be monitored or removed so as to prevent further damage.

As in the case of the hurricane tower (38CH2112), the State has a responsibility to properly care for and protect this resource, ensuring that operations on the island do not affect the long-term preservation of the resource without consideration and review by the State Historic Preservation Office. Failure to provide reasonable care, integration of the resource into management decisions, and preparation of disaster recovery plans, seems to represent "demolition through neglect."

38CH2114

Site 38CH2114 (Figure 28) is the location of the remains of a steam mill associated with rice production on Murphy Island. It is located on the edge of a mixed pine and hardwood second growth forest and marsh land next to a canal. A central GPS UTM is 658746E 3666492N (NAD27 datum).

No shovel testing was performed in this area, however the *Soil Survey of Charleston County* (Miller 1971) shows this area to be part of the Crevasse-Dawhoo Series. The excessively drained Crevasse soils have an A horizon of grayish brown (10YR5/2) fine sand to a depth of 0.5 foot over a brownish yellow (10YR6/6) fine sand that can occur to 3.0 feet in depth. Dawhoo soils, however, are very poorly drained and have an A horizon of black

Figure 30. View of the octagonal chimney base at 38CH2114.

Figure 31. View of 38CH2115, the brick pillar.

(10YR2/1) loamy fine sand to 0.9 foot in depth over a very dark grayish brown (10YR3/2) loamy fine sand to 1.5 feet in depth.

The site consists of a cast iron boiler (Figure 29), measuring approximately 10 feet long, a brick foundation of about 25 feet square, and an octagonal chimney base (Figure 30) with each site measuring about 2.75 feet. It encompasses an area of about 45 feet square, although the dense vegetation prevented accurate measurements.

Additional research is needed to determine eligibility for this site. The dense vegetation has made it difficult to map the mill. Research may be able to give information on other mills that may have the same design and how it was used on the plantation. While we do not have sufficient information to determine individual eligibility, 38CH2114 may be eligible as part of a district for the entire island or further research may indicate individual eligibility.

However, the proposed work by the SCDNR is almost 2,000 feet away and should not have an impact on this archaeological resource.

38CH2115

Site 38CH2115 (Figure 31) consists of a brick pillar located in tidal marsh at Murphy Island. A UTM coordinate for the pillar is 660694E 3667113N (NAD27 datum).

No shovel testing was performed in this area, however, the location in tidal marsh would prevent the location of remains if any were to be found (Figure 32).

The purpose of this pillar is unknown. It is curved, measuring 15.5 inches wide by about 34 inches long on the inside arch. No other pillars or brick piles were found in the vicinity, suggesting the possibility of structure remains. The 1873 map

Figure 32. View of the pillar in tidal marsh.

of the Santee River and vicinity shows this area in what may have been high ground at the time, so it is possible that these are structure remains.

The pillar is also close to site 38CH2111, suggesting a rice processing or shipping function. At any rate, additional work is needed to identify the purpose of the pillar. Only then can an accurate determination be made on eligibility for the National Register of Historic Places. The proposed work by the SCDNR will have no effect on this site, since the work will take place about 1.0 mile away.

Architectural Resources

No historic architectural surveys have been performed that identify resources on Murphy or Cedar Islands. Certainly the storm shelter (38CH2112) shows interesting architectural features. However, the resources on the islands are in ruinous conditions by architectural standards and should be considered archaeological sites.

There are a multitude of causeways and canals associated with the historic rice fields. These fields are maintained by the SCDNR, but have been overgrown by a wild reed that alters the marsh ecosystem. Very little of the original rice environment remains, except for the gridded plan reflecting the dominate task system.

CONCLUSIONS

This study involved the examination of portions of Murphy Island in Charleston County and Cedar Island in Georgetown County. The work on Murphy Island consists of the extension of a dike to connect to a road that runs the length of the high land while a spillway is intended to be constructed on Cedar Island to connect two ponds. This work, conducted for Mr. Jim Westerhold of the S.C. Department of Natural Resources, examined archaeological sites and cultural resources found on the proposed project area and is intended to assist SCDNR in complying with their historic preservation responsibilities.

We were requested to perform a survey on only a small portion of each island (an area of 200 feet by 100 feet was surveyed on Murphy Island while an area of about 150 feet by 200 feet was examined on Cedar Island). We were also asked to prepare site forms for various resources located in 2005 by Mr. Richard Porcher during a visit to the islands. No shovel testing was performed in these areas, so no eligibility determinations have been made. However, this island provides a relatively undisturbed look at a nineteenth century Santee rice plantation. It is likely that some of the individual sites (such as the storm shelter, 38CH2112) would be eligible for the National Register. It is also probable that Murphy Island would be eligible as part of a historic district. Remains of the summer village on Cedar Island would likely also be eligible.

The 1873 map of the Santee River and vicinity shows approximately 30 separate structures on Murphy Island of which our investigations noted only half. Similarly, Cedar Island shows at least nine structures, none of which have been recorded. In addition, one of the ponds on Cedar Island is labeled as "Graveyard Pond" (see Figure 11 – adapted from Carter 1904). It is not uncommon for these features to be named from nearby resources, and the fact that slaves lived on the two islands make it likely that a cemetery would be located on the two islands. There is a significant need to record the resources on the islands with an intensive archaeological study.

As a result, we recommend that the SCDNR fund an intensive survey of their holdings on both islands as a very high priority. Clearly these areas are affected by management issues; they are subject to seasonal hurricane threats; there are reports of looting; fires occur occasionally and have the potential to significantly affect the resources; and erosion is actively damaging river fronted resources. Over two decades ago Elias Bull (1980) warned that resources such as the hurricane towers were being damaged by the inaction of the State to preserve and protect the sites under their custody. There should be no further delay in ensuring these resources receive the protection they require.

However, the purpose of this study was primarily to survey a small area each on Murphy and Cedar islands for proposed SCDNR work. The work on Murphy Island consists of the extension of a dike from the northwest to a road that runs the length of highland. Shovel testing isolated an area of 100 feet square in which no cultural remains were found. We have been informed that this is more than enough area to complete the work, however, SCDNR should be aware that the construction of a dike might alter the drainage of water that could have a negative impact on the nearby slave settlement (38CH2113).

The work on Cedar Island failed to produce any remains up to 200 feet inland from the man-made dike (38GE616). We have been informed by SCDNR that the spillway being

constructed to connect two ponds will be no wider than 30 feet and could be routed inland as to avoid the dike.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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Archaeological Investigations

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