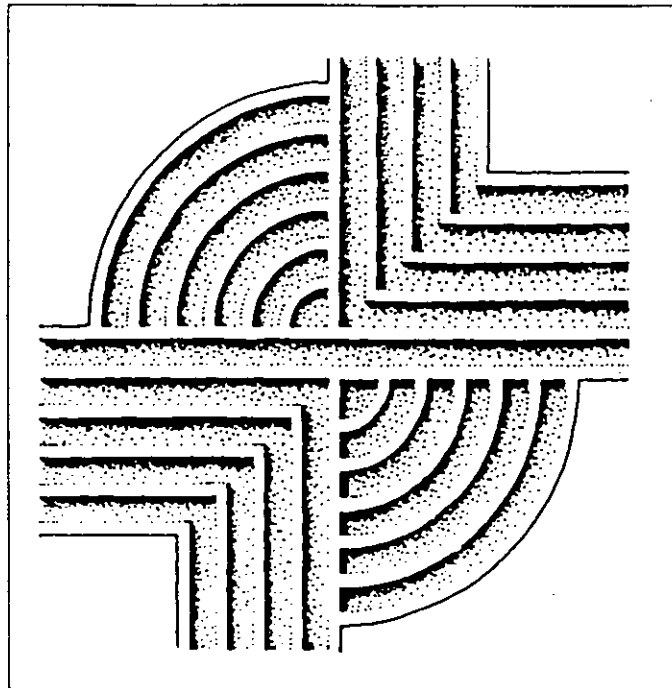


**ARCHAEOLOGICAL SURVEY OF A 4.1 ACRE
TRACT ON PARSONAGE ROAD,
CITY OF CHARLESTON, SOUTH CAROLINA**



CHICORA RESEARCH CONTRIBUTION 254

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**ARCHAEOLOGICAL SURVEY OF A 4.1 ACRE TRACT
ON PARSONAGE ROAD,
CITY OF CHARLESTON, SOUTH CAROLINA**

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CHICORA RESEARCH CONTRIBUTION 254

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ABSTRACT

This study represents an intensive archaeological survey of a 4.1 acre parcel, on the north side of Parsonage Road about 500 feet east of its junction with SC 61. The Housing Authority of the City of Charleston has proposed the construction of a small housing development on this land and this archaeological investigation was conducted because of federal funding involved in the project. The goal of this study was to identify and assess the archaeological sites present in the proposed project area.

One archaeological site, 38CH1707, has been previously recorded in the project area by the S.C. Institute of Archaeology and Anthropology. This is known to be the location of a small Civil War battery, intact through about 1990, but largely destroyed prior to about 1994. It is also reputed to be the location of a Revolutionary War fort and some have claimed that the site also includes a cemetery.

The S.C. Department of Archives and History reports that there are no National Register of Historic Places buildings, districts, structures, sites, or objects in the study area; nor are any historic structures or sites present, based on the results of previous structures surveys.

The historical research includes a search of Revolutionary and Civil War documents, primarily by Ms. Sarah Fick of Preservation Consultants, Inc.; a collection of oral history associated with the site, by both Preservation Consultants and Chicora Foundation; and an examination of aerial photographs and historic maps, primarily by Chicora Foundation. While limited, this provides a generally complete picture of the activities which have taken place in the project vicinity, especially when the results of this undertaking are compared to the archaeological investigation.

The field study consisted of the hand clearing of vegetation in the area of 38CH1707 so

that the site might be more effectively evaluated. This was coupled with the excavation of 26 2 by 2 foot units in the vicinity of the site 38CH1707 in order to better evaluate the remains that are present in that area. An additional 20 shovel tests were excavated at 50 and 100 foot intervals in order to explore the remainder of the tract.

As a final technique to examine the area of the earthworks, an area measuring about 10 by 80 feet was stripped to the subsoil. Situated in the area behind the earthwork, we anticipated that if military features were present they might be found in this area. None were identified. However, once the area was stripped, a metal detector was used to identify any non-ferrous items which might be present. The only item identified was a modern bullet. In addition, the soil compaction in the stripped area was evaluated as an additional precaution that no potential graves were overlooked.

The earthwork area, 38CH1707, is evaluated as not eligible for inclusion on the National Register of Historic Places, based on the extensive disturbance and the very limited data sets. As a result, no additional management activities are recommended for this area, pending the review and concurrence of the State Historic Preservation Office.

No additional cultural remains were identified in the project area and no further survey or historical research is recommended for the remainder of the tract, again pending the concurrence of the State Historic Preservation Office.

As always, it is possible that unrecognized archaeological remains may be identified during construction. If so, the contractor should suspend work and notify either Chicora or the State Historic Preservation Office.

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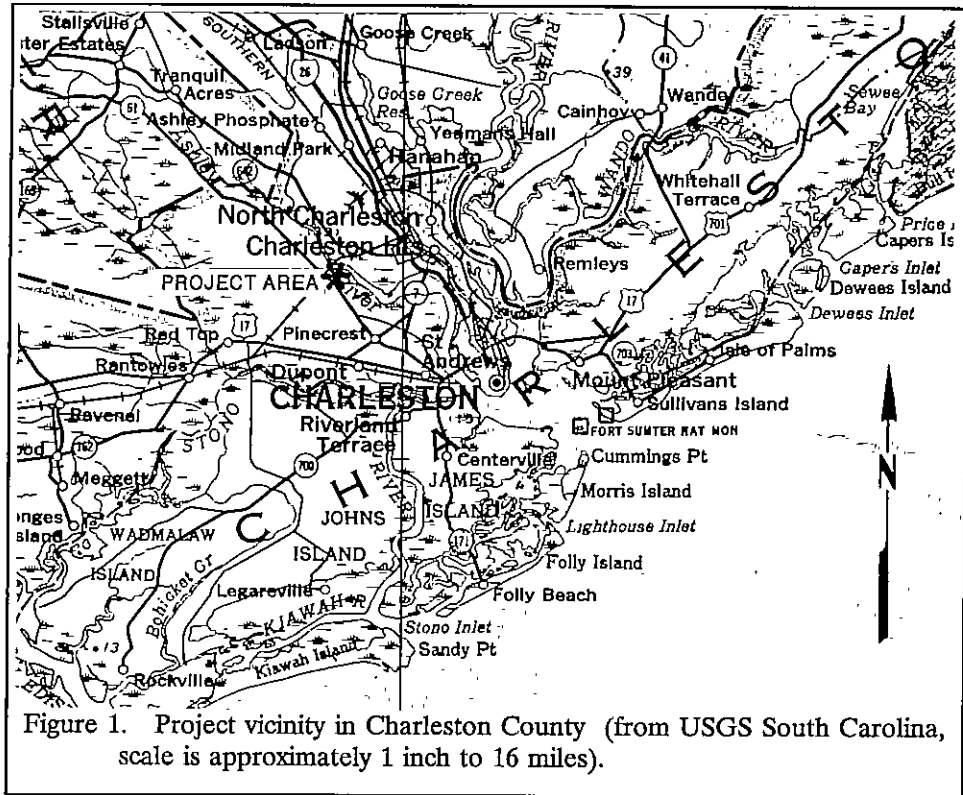
INTRODUCTION

This investigation of the proposed Housing Authority of the City of Charleston development tract in the St. Andrews area of Charleston was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Don Cameron of the Housing Authority. The survey tract is situated northwest of downtown Charleston, west of the Ashley River, east of SC 61, and just north of Parsonage Road (Figure 1). The tract, consisting of dense woods, is situated on the edge of the busy SC 61 commercial area and bordering on an older neighborhood. The proposed work is intended to provide both additional housing units and apartments for the Authority. As such the project will involve the clearing and grubbing of the tract, house or apartment unit construction, development of service roads, and the excavation for utility lines. Such work could damage or destroy any archaeological sites present on the parcel and that, of course, spurred this investigation.

The parcel has a roughly square shape, measuring about 420 feet north-south by 450 feet east-west and incorporates about 4.1 acres, only about 0.5 acres of which are marsh or wetlands. Wetlands or marsh of Church Creek are found on the northern edge of the tract, while a small slough or wetland area is also found in the northwest quadrant of the parcel (Figure 2). This tract is found entirely within a

wooded area with a dense understory. Surface visibility is extremely limited, and its survey necessitated the use of shovel testing.

Ms. Sarah Fick of Preservation Consultants, Inc. initially contacted Chicora about the property on the behalf of her client, The Housing Authority of the City of Charleston. Since federal funds were involved in the proposed development the need for an investigation was recognized prior to any ground disturbing activities. Initially a one-day study of the tract was conducted on May 13, 1998. Based on that assessment, a technical and budgetary proposal for the investigation was submitted on May 28, 1998, and was approved by the Housing Authority on June 5, 1998. The State Historic Preservation Office (SHPO) at the S.C. Department of Archives and



ARCHAEOLOGICAL SURVEY OF A 4.1 ACRE TRACT ON PARSONAGE ROAD

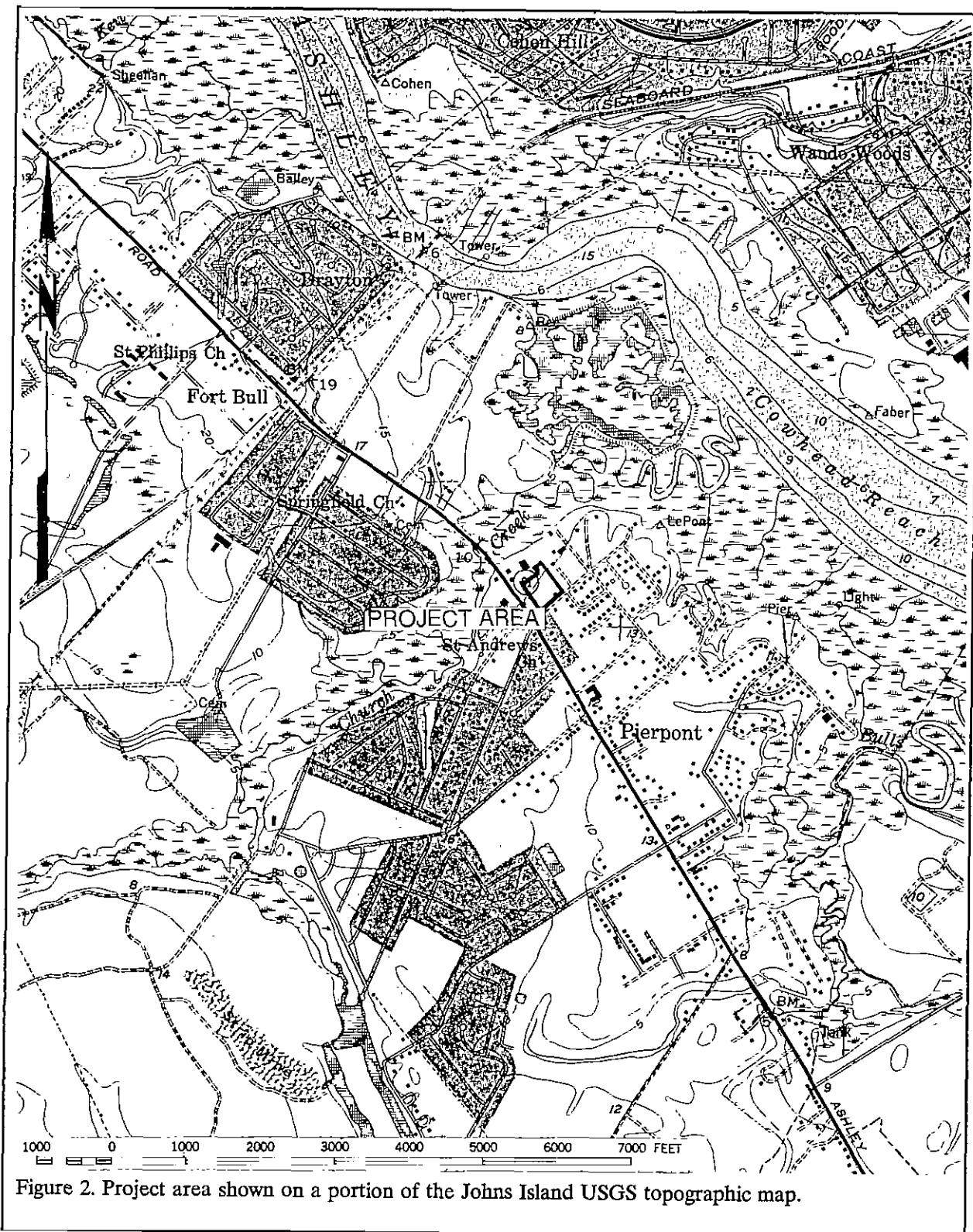


Figure 2. Project area shown on a portion of the Johns Island USGS topographic map.

INTRODUCTION

History asked to review the proposed survey strategy. While not required to submit survey proposals, Chicora Foundation was happy to have the SHPO review and comment on the strategy proposed. Consequently, a copy of our proposal was also submitted to the SHPO on June 1. The plan was approved on June 16, with the comment that it was:

excellent, and should allow for a thorough initial assessment of the areas under question. This will begin the process of determining eligibility for the National Register of Historic Places for any resources in the areas in question (letter from Ms. Valerie Marcil, Staff Archaeologist, SHPO to Mr. Donald J. Cameron, Housing Authority of the City of Charleston, dated June 16, 1998).

These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology by Ms. Suzanne Coyle on June 15, 1998. One previously reported site, 38CH1707, was recorded on the project site. This site was recorded by Dr. Jonathan Leader, Deputy State Archaeologist with the S.C. Institute of Archaeology and Anthropology on April 20, stemming from a meeting with concerned local citizens who felt that the project tract might contain significant archaeological or historical resources.

In addition, Dr. Tracy Power at the South Carolina Department of Archives and History was asked on June 15, 1998 to check the master topographic maps at his office to locate any NRHP buildings, districts, structures, sites, or objects in the study area. His office was also asked about the results of any structures surveys which might have been completed in the study area. On June 16, 1998 he informed us that no National Register sites existed in the immediate area, nor were there any recorded architectural or historical sites in the survey tract.

The survey, which was designed to identify

prehistoric or historic resources which may be within the project boundaries, was conducted between June 22 and June 26, 1998 by Dr. Michael Trinkley. The crew for this survey included Ms. Bonnie Frick and Ms. Heather Gray. A total of 120 person hours were required for this study. Prior to the survey the portion of the tract containing 38CH1707, thought to include about the southwestern third, was cleared using hand labor followed by bush hogging. This work required approximately 125 person hours — providing some indication of the exceptionally heavy vegetation present in the study area.

ARCHAEOLOGICAL SURVEY OF A 4.1 ACRE TRACT ON PARSONAGE ROAD

NATURAL SETTING

Physiography

Charleston County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the east by the Atlantic Ocean and a series of marsh, barrier, and sea islands (Mathews et al. 1980:133). Elevations in the County range from sea level to about 70 feet above mean sea level (AMSL).

In the project area elevations range from about 10 to 20 feet AMSL (see Figure 2). In general, the topography slopes to the northwest — toward Church Creek, which flows northeastward into the Ashley River. The project tract itself is characterized not only by the gradual slope from about 12 feet AMSL toward Church Creek, where elevations are about 8 feet AMSL, but also by a gentle slope to the east, where the ground is noticeably flat and less well drained. On the western edge of the parcel, extending onto an adjacent tract, there is a significant rise, up to about 14 feet AMSL, as well as a small wetland, where elevations fall to about 8 feet AMSL. These latter features, as discussed in the following sections, are both related to the earthwork once found on the tract and are artificial in origin.

The mainland topography consists of subtle ridge and bay undulations, characteristic of beach ridge plains. 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. Nearby portions of the Ashley marsh were historically used for the cultivation of rice by a number of plantations, many of which maintained upland reservoirs (typically in sloughs or freshwater marshes) as a back-up supply of water for their fields. The three drainages with significant freshwater flow are the Santee, forming the northern boundary of the County, the South Edisto, forming the southern boundary, and the Cooper, which bisects the County. Because of the

low topography, many broad, low-gradient interior drains are present as either extensions of the tidal rivers or as flooded bays and swales. Examples of these are present in the project area, although many have been extensively reworked or even filled in by modern development.

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 sediments are organized into topographically distinct, but lithologically similar, geomorphic units, or terraces, parallel to the coast. The project area is identified by Cooke (1936) as part of the Pamlico terrace, which includes the land between the recent shore and an abandoned shore line about 25 feet AMSL. Cooke (1936:7) notes that evidence of ancient beaches and swales can still be seen in the Pamlico formation and this likely contributed to the ridge and trough topography present in some areas of Johns Island.

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 in the study area is affected by this parent material (primarily sands and clays), the temperate climate, the various soil organisms, topography, and time.

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils of the sea and barrier islands. Sandy to loamy soils predominate in the level to gently sloping mainland areas. The island soils are less diverse and less well developed, frequently lacking a well-defined B horizon. Organic matter is low and the soils tend to be acidic. The Holocene deposits typical of

barrier islands and found as a fringe on some sea islands, consist almost entirely of quartz sand which exhibits little organic matter. Tidal marsh soils are Holocene in age and consist of fine sands, clay, and organic matter deposited over older Pleistocene sands. The soils are frequently covered by up to 2 feet of saltwater during high tides. Historically, marsh soils have been used as compost or fertilizer for a variety of crops, including cotton (Hammond 1884:510) and Allston mentions that the sandy soil of the coastal region, "bears well the admixture of salt and marsh mud with the compost" (Allston 1854:13).

According to Miller (1971:Map 42) three major soil series occur in the project area. Hockley loamy fine sands are found on the southwestern portion of the tract, Yonges loam fine sands are found on the eastern half of the tract, and Orangeburg loamy fine sands characterize the northwestern quadrant. In actual practice, it becomes clear that the tract exhibits considerably greater diversity, at least partially associated with previous cultural activities. Nevertheless, these small areas are not mapped at USDA investigation levels.

The Hockley soils are moderately well drained and usually exhibit an A or Ap horizon up to about 0.8 foot in depth of dark grayish-brown (10YR4/2) sand overlying a light yellowish-brown (10YR6/4) subsoil. The Orangeburg soils are also well drained and have a similar Ap horizon of dark brown (10YR4/3) sand to a depth of about 0.7 foot. This overlays a pale brown (10YR6/3) subsoil. The Hockley and Orangeburg soils have seasonal water tables from 3 to 5 feet below the surface.

In contrast, the Yonges soils are level and poorly drained. They typically have an Ap horizon of dark grayish-brown (10YR4/2) sand overlying a light brownish-gray (10YR6/2) subsoil. On these soils the seasonal water table may be within a foot the surface, limiting the types of activities which can take place.

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 in very hott" (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 subtropical climate typical of Florida, further south. 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 the 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).

In fact, during this current survey, Charleston was in the midst of a heat wave which broke records going back to the early 1950s.

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 "sufferr'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).

The annual rainfall in this portion of Charleston 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 9 times in the past 37 years. Likewise, periods of draught 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.

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

The area of the study tract exhibits three major ecosystems: the maritime forest ecosystem which consists of the upland forest areas, the estuarine ecosystem of deep water tidal habitats, and the palustrine ecosystems which consist of essentially fresh water, non-tidal wetlands (Sandifer et al. 1980:7-9).

The maritime forest ecosystem has been found to consist of five principal forest types, including the Oak-Pine forests, the Mixed Oak Hardwood forests, the Palmetto forests, the Oak thickets, and other miscellaneous wooded areas (such as salt marsh thickets and wax myrtle thickets).

Of these the Oak-Pine forests are most common, constituting large areas of Charleston's original forest community. In some areas palmetto becomes an important sub-dominant. Typically

these forests are dominated by the laurel oak with pine (primarily loblolly with minor amounts of longleaf pine) as the major canopy co-dominant. Hickory is present, although uncommon. Other trees found are the sweet gum and magnolia, with sassafras, red bay, American holly, wax myrtle and palmetto found in the understory.

Mills, in the early nineteenth century, remarked that:

South Carolina is rich in native and exotic productions; the varieties of its soil, climate, and geological positions, afford plants of rare, valuable, and medicinal qualities; fruits of a luscious, refreshing, and nourishing nature; vines and shrubs of exquisite beauty, fragrance, and luxuriance, and forest trees of noble growth, in great variety (Mills 1972:66).

The loblolly pine was called the "pitch or Frankincense Pine" and was used to produce tar and turpentine; the longleaf pine was "much used in building and for all other domestic purposes;" trees such as the red bay and red cedar were often used in furniture making and cedar was a favorite for posts; and live oaks were recognized as yielding "the best of timber for ship building;" (Mills 1972:66-85). Mills also observed that:

in former years cypress was much used in building, but the difficulty of obtaining it now, compared with the pine, occasions little of it to be cut for sale, except in the shape of shingles; the cypress is a most valuable wood for durability and lightness. Besides the two names we have cedar, poplar, beech, oak, and locust, which are or may be also used in building (Mills 1972:460).

The "Oak and hickory high lands" according to Mills were, "well suited for corn and provisions, also for indigo and cotton" (Mills 1972:443). The value of these lands in the mid-



Figure 3. Survey tract in mid-May prior to clearing. View of the "mound" area looking west.



Figure 4. Portion of the survey tract after clearing. View is from area of Parsonage Road looking north.

NATURAL SETTING

1820s was from \$10 to \$20 per acre, less expensive than the tidal swamp or inland swamp lands (where rice and, with drainage, cotton could be grown).

Today, virtually all of the project area's high ground evidences some form or another of disturbance. In fact, nearby commercial and residential activity has almost totally altered the original vegetation to the point where even remnants can no longer be identified. Prior to the clearing efforts on the survey tract it exhibited a very dense understory of vines and herbaceous vegetation (Figure 3). Almost all of this was the result of extensive tree loss during Hurricane Hugo in 1989, when a number of large (3-foot diameter) pines were lost. With the opening of the canopy, a thick understory quickly developed, making access to the tract difficult.

Upon clearing (Figure 4), we found that the pre-Hugo vegetation consisted almost entirely of pine and live oak on the western half of the tract, while the eastern half was originally cleared (being cultivated in the 1930s). Interspersed through the tract are the remains of various cultivars, primarily of camellias — remnants of the property's use as a nursery from the mid-1940s to the early-1970s. Relatively few of the pines survived Hugo and many of the live oaks have been severely stunted by the wind damage and failure to rehabilitate them afterwards. The new understory consists almost entirely of "trash" trees such as sweetgums, wisteria, and poison ivy.

The estuarine ecosystem in the vicinity (but off the survey tract) includes those areas of deep water tidal habitats and adjacent tidal wetlands, found exclusively at the southern edge of the project. Salinity in these areas may range from 0.5 parts per thousand (ppt) at the head of an estuary to 30 ppt where it comes into contact with the ocean. Estuarine systems are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind. The system may be subdivided into two major components: subtidal and intertidal (Sandifer et al. 1980:158-159). These estuarine systems are extremely important to our understanding of both prehistoric and historic occupations because they

naturally contain a high biomass. The estuarine area contributes vascular flora used for basket making, as well as mammals, birds, fish (over 107 species), and shellfish.

The last environment to be briefly discussed is the freshwater palustrine ecosystem, which includes all wetland ecosystems, such as the swamps, bays, savannas, poeicins, and creeks where the salinities measure less than 0.5 ppt — typical of the slough at the western edge of the survey tract. These palustrine ecosystems tend to be diverse, although not well studied (Sandifer et al. 1980:295). Many of these freshwater areas are likely associated with the various troughs scattered across the area. In the project area the wetland at the north boundary is associated with Church Creek, while the other wetland is likely a remnant of the earthwork ditch.

A number of forest types may be found in the palustrine areas which would attract a variety of terrestrial mammals. The typical vegetation might consist of red maple, swamp tupelo, sweet gum, red bay, cypress, and various hollies. Also expected in these areas would be wading birds and reptiles. It seems likely that these freshwater environs were of particular importance to the prehistoric occupants, but posed only a passing hinderance to the historic plantation owners.

ARCHAEOLOGICAL SURVEY OF 2.5 ACRE TRACT ON RIVER ROAD

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

There are, of course, a number of previously published archaeological studies available for the Charleston area to provide background (see Derting et al. 1991 for references to research in the Charleston area). Lynne Lewis (1978), for example, provides an overview of her investigations at Drayton Hall to the north of the project area, with Thomas Wheaton (1989) adding further details concerning the orangerie at that plantation. Excavations have also been undertaken at Middleton, first by Kenneth Lewis (Lewis and Hardestry 1979) and more recently by Trinkley (1993a and 1993b).

As stated earlier, an examination of the site files housed at the S.C. Institute of Archaeology and Anthropology revealed that one site had been recorded on the survey tract — 38CH1707. This form was the result of a site visit by the Deputy State Archaeologist, Dr. Jonathan Leader, on or about April 20, 1998, apparently at the behest of neighbors to the property who feared that the Housing Authority project might destroy a significant historical resource. The site visit was apparently brief (no "time spent collecting" was completed on the form) and almost certainly hindered by the very dense underbrush (listed on the site form as moderate to heavy).

The site form indicated that the site represented a Civil War battery and "arsenal mound." In spite of the vegetation, Leader noted that, "the outlines of the battery are discernable" and suggests that the site may encompass an area about 300 feet square. Accompanying the site form are a number of pages of notes, apparently collected from interviews with local residents and reflecting their understanding of the property's history. As will be seen, some aspects are quite accurate, while others are almost certainly distorted by time and an incomplete understanding of the site's history.

Based on his brief examination of the site, Leader noted only that the site required additional work for an evaluation. A few days later, however, the site began to take on additional significance as the controversy over the Housing Authority's plans hit the newspaper ("History may halt public housing plan," Charleston, S.C. *Post and Courier*, April 24, 1998). This article quotes not only Leader, but also a representative of the S. C. Department of Archives and History and even a local legislator.

Curiously, the newspaper article even makes a brief mention of possible graves on the site, although no further information was offered and no evidence concerning graves is provided in either the site form or the accompanying oral history notes. Apparently graves have also been mentioned by Dr. Jonathan Leader in conversations with Ms. Sarah Fick (Sarah Fick, personal communication 1998) and by local residents to employees of the Housing Authority (Benjamin Leggette, personal communication 1998 and Thomas Dennis, personal communication 1998).

Although there are no National Register sites situated on or adjacent to the survey tract, the boundary for the Ashley River Historic District is about 4,000 feet to the north-northwest, at the railroad trestle adjacent to Fort Bull (Tracy Power, personal communication 1998).

The Ashley River Historic District is found on both sides of the Ashley from Old Dorchester State Park southward to Fort Bull, encompassing 24 buildings, 24 sites, and five structures on about 7,000 acres. Developed as part of the Ashley River Special Area Management Plan, the District includes not only high ground with associated historic and archaeological sites, but also large quantities of marsh to provide vistas (Fick 1992:11).

Prehistoric Synopsis

Several previously published archaeological studies are available for the Charleston area that provide additional background, including those previously mentioned. 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 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 (Figure 5).

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 adjacent James Island, also in Charleston County on James Island, indicate that sedentary life was not only possible, but probable.

Although no shell ring sites are known from Johns Island, Edmund Ruffin, who was a careful and exacting observer, noted in 1843 the location of the Lighthouse Point shell ring on James Island and then commented, "there are two others, which have been described to me, one on John's Island, & the other on a small island in the marsh attached to Edisto" (Mathew 1992:113). The marsh ring, of course, must be the Fig Island shell ring. Unfortunately, the John's Island ring has never been identified.

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

PREHISTORIC AND HISTORIC OVERVIEW

Dates	Period	Sub-Period	Regional Phases		
			COASTAL	MIDDLE SAVANNAH VALLEY	CENTRAL CAROLINA PIEDMONT
1715	HIST.	EARLY	Altamaha		Caraway
1650		LATE	Irene / Pee Dee	Rembert Hollywood	Dan River
1100	MISS.	EARLY	Savannah	Lawton Savannah	
800		LATE	St. Catherines / Swift Creek		Uwharrie
A.D.	WOODLAND	MIDDLE	Wilmington	Sand Tempered Wilmington?	Yadkin
B.C.			Deptford	Deptford	
300		EARLY	Refuge		Badin
1000	ARCHAIC	LATE	Thom's Creek Stallings		
2000			Savannah River Halifax		
3000		MIDDLE	Gulford Morrow Mountain Stanly		
5000		EARLY	Kirk Palmer Hardaway		
8000	PALEOINDIAN		Hardaway - Dalton		
10,000			Cumberland	Clovis	Simpson
12,000					

Figure 5. Cultural periods for the South Carolina area.

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 Research

Just as there are a large number of sources recounting the prehistory of the project area, the history of Charleston County has been extensively reviewed, summarized, and critiqued. There should hardly be any need to do more than point the interested reader in one or two directions for additional information and details. Simple, and readily available, summaries include *A Short History of Charleston* (Rosen 1982) and *Charleston! Charleston!* (Fraser 1989). An excellent overview has been prepared by Fick and her colleagues as part of Charleston County's historical and architectural survey (Fick 1992). The information outlined below includes research by both Chicora Foundation as well as Sarah Fick of Preservation Consultants. Any errors or shortcomings, however, remain the responsibility of the author.

No detailed historic title search was completed for the survey tract since it seemed unlikely that such an effort would help address the major historical questions raised by the local community. Specifically, these included: Was a Revolutionary War fort located on this tract? Can the historic records provide more information concerning the Civil War earthwork? Is there any indication that a cemetery was present on the site? And finally, can the historic records, especially those focusing on land use, help clarify when the earthwork was damaged or destroyed? Our focus was to explore these questions.

H.A.M. Smith provides a synopsis of the property, noting that originally a tract of 510 acres was granted to George Bedon (also spelled Beadon) in February 1677 (based on derivation clauses in later transactions). Bedon held the

property for seven years, conveying it to George Hewes in 1683. Although Hewes' will is lost, Smith reports that his executor, John Stevens, sold the land in May 1694 to Henry Symonds (often spelled Symons).

Symonds died shortly after acquiring the plantation and his widow sold it in June 1695 to Benjamin Pierpont. Apparently to clear the title, Pierpont also obtained a grant for the property (Smith notes that no grant has been identified for the original owner, George Bedon).

Smith (1988:226) notes that Pierpont was a minister of the Presbyterian Church in Charleston and that he apparently arrived in Charleston from New England about 1691. He died in 1698, but apparently the property stayed in the family. Smith notes the longevity of the name and also that he was unable to find any evidence of a transfer. Yet in 1789 the tract is found again, now owned by Thomas Fuller, who devised it to his son, Christopher Fuller. At Christopher Fuller's death the property was sold, in 1824, to Simon Magwood. Afterward, Smith notes:

contrary to the usual course of country property in lower Carolina, [the tract] changed hands in quick successions. By Simon Magwood it was in 1827 given to his son James H. Magwood who in 1847 conveyed to Ralph IZARD Middleton, the elder, from whom in 1850 it passed to Dr. T.L. Ogier, who in 1853 conveyed it to Joseph Prevost, who in 1855 conveyed to Charles Kerrison who about 188- conveyed it to the late Robert N. Gourdin, Esq., of Charleston (Smith 1988:227).

An examination of the Combined Alphabetic Index at the S.C. Department of Archives and History reveals virtually nothing concerning these owners. There are no identified plats for the project area, nor do the available references add much to our knowledge of the various owners. While it is possible that a more

detailed search might begin to provide some clues regarding this property and its owners, nothing has been identified to date.

By 1933 the property had been conveyed to the Pierpont Corporation and was being platted for an early development along the Ashley River (Charleston County RMC, PB E, page 155). That plat, reveals that the study tract was platted as Lots 36 and 37 and that much of the area was being cultivated at that time.

The plat also reveals two "landings." One is at the current landing operated by Charleston County Parks and Recreation just east of the survey tract, while the other is at the eastern edge of the plantation, on Wappoo Creek (today Bulls Creek) at the end of a road identified as "Pierpont Avenue," which leads to the 7 acre Lot 23. It is on this lot that H.A.M. Smith shows the Pierpont settlement.

It seems that the proposed development was only modestly successful, but in 1938 the corporation sold Lots 36 and 37 to G. Philip Higdon (Charleston County RMC, DB O-40, page 17). Higdon was the superintendent of the Magnolia Gardens ground crew for a number of years and about this time began his own farming operations in this area. His wife, Margaret Flood Higdon, grew up in the Pierpont area and her father farmed the tract. She was a noted horticulturist who specialized in camellias and azaleas. She had a local television show and developed several new cultivars (Margaret Higdon, personal communication 1998; Philip Higdon, personal communication 1998).

Margaret and G.P. Higdon opened what was called "Old Fort Nursery" on at least Lots 36 and 37 (although it may have included Lots 34 and 35, which was acquired in 1946). Old Fort Nursery was named, appropriately enough, for the old fort which was found on their property. Their entrance to the nursery was off SC 61 (not Parsonage Road, which at that time was called Jessamine Road), and they erected two brick columns upon which were mounted cannon balls (not obtained from their property) (Philip Higdon, personal communication 1998).

The Higdon family initially lived southeast of the nursery tract, constructing a house on the south edge of the nursery lot initially to serve as a warehouse and office. About 1954 they moved into this building as their home, constructing greenhouses to the east in the open fields (Philip Higdon, personal communication 1998). This house, which stood until destroyed by Hugo, was notable primarily for its full basement — a rarity in the low country. Their water supply was a well on the rear of the property, about 200 feet north of the house.

Very little has been found concerning this nursery. The 1940 city directory lists G. Philip Higdon and his Margaret F. Higdon as the owners of a home at "Pierpont on the Ashley," although he was still a superintendent at Magnolia Gardens at this time. There is no listing for either Higdon or Old Fort Nursery in the 1944, 1950, or 1955 directories. By 1971 the city directory reveals that Philip Higdon was the owner of Stacy Mobile Court at Folly Beach, although their home was still at 2215 Parsonage Road.

The only mention of Old Fort Nursery we identified was in the 1955 Southern Bell Telephone Directory, which listed "Old Fort Camellia Nursery" at Pierpont in both the yellow and white pages. By 1965 there was no listing for Old Fort, although a residence for G. Philip Higdon was listed at Pierpont with a work number at an undisclosed location on Brownwood Road.

Throughout their ownership the Higdon family guarded the earthworks — not only because they were the focal point of their business, but also because they recognized the value and importance of the remains. The only known photograph of the fort was taken during this period. It shows Mr. Higdon sitting on the edge of a portion of the ditch on the north side of the earthwork. In the background is the earthwork, which by this time had taken a slightly mounded appearance (Figure 6).

Philip Higdon, Jr. remembers the earthwork from his childhood, noting that it was "semi-circular" and upwards of 10 feet in height. As

discussed below, it is likely that the fort was a modified lunette with pan coupe and flanks, but this would have weathered and eroded into what certainly would have seemed like a semi-circular face.

There were identifiable terraplain behind the parapet, although there is no mention of a banquette. Based on descriptions it appears that there may have been embrasures (although on such a simple earthwork it would have made more sense to mount the guns en barbette) and there is a suggestion that there may have been positions for upwards of six guns to be mounted behind the parapet.

To the north was the ditch, which he always remembered as a clearly defined wetland area. To the south he recalled a large mound — what Leader has referred to as the "arsenal mount." This "mount" may have been either a traverse (although it is difficult to understand what function it would have served) or it might have been a bombproof (although its height and location seem inappropriate). Yet another suggestion is that the "mount" served simply as an elevated observation point, although even this is difficult to understand given the tendency to use wooden platforms for this purpose.

Regardless, all of the descriptions, from both Mrs. Higdon and her son, Philip Higdon, offer relatively consistent observations. These seem largely supported by the photograph.

In 1974 Margaret Higdon sold the study tract to Marvin E. Dennis (Charleston County RMC, DB W-103, page 64). Dennis was a noted developer in the 1960s and early 1970s, although relatively little is known concerning his use of the property, although he held the property through Hugo. In February 1993 he sold the tract to his wife, Jane L. Dennis (Charleston County RMC, DB S-223, page 424).

In 1997 Dennis' wife sold the study tract to Emanuel D. Craven (Charleston County RMC, DB X-282, page 760), the individual who sold the parcel to the Housing Authority earlier this year.



Figure 6. Photograph of the earthworks at Old Fort Nursery about 1970 (courtesy Mrs. G. Philip Higdon).

Our research has identified that the earthworks were intact as late as January 10, 1990, the date of a false infrared photograph which reveals intact hardwood vegetative cover, as well as the semi-circular ditch filled with water (Figure 7). The lot is fully wooded — there is little evidence of Hugo damage.

Four years later, a flight on February 14, 1994 reveals very different conditions (Figure 8). By that time, shortly after Marvin Dennis sold the property to his wife, there is evidence that the ditch wetlands have been filled. Moreover, there is a large, semi-circular area — in the area where the earthworks were identified archaeologically — that is shown as bare, graded earth.

It appears that shortly before the 1994 aerial photograph the earthworks were leveled, with the spoil being used to fill the wetlands and the remainder pushed over the general area. While the photograph cannot suggest a motive, the level of effort indicates that the work was purposeful and designed to accomplish the filling of the wetlands and elimination of the topography on the lot.

Consequently, this overview has answered one of the most significant questions concerning the property — the date when the fort was largely destroyed.

The question concerning the use of the site as a Revolutionary War fort is more difficult to address.

Having failed to take Charleston once, in 1776, the British held back until New York was secured and their attention could again be directed southward. With the fall of Savannah, the British under Sir Henry Clinton made plans to take Charleston. This time, however, they intended to land on Johns Island and from there work inland to Charleston. There are several accounts of this strategy.

Clinton himself offers relatively little insight, recounting only the major moves and lines of strategy. His discussions of the moves across

Johns and James islands to Drayton Hall provide little detail until he crosses over to the Charleston neck on March 29, 1780. From that point on Clinton is preoccupied with the construction of the works and batteries across the Charleston Neck as they moved on Charleston (Bulger 1965).

Another perspective is offered by Lt. John Wilson, a British soldier involved in the siege. His diary recounts the construction of a battery on Fenwick's Point, overlooking the Wappoo Creek, then describing the movements to Drayton's plantation. From there he describes the crossing of the Ashley and then the march southward to Ashley River Ferry. After this his description is focused, like Clinton's, on the construction of various earthworks and lines during the siege of the city (Waring 1965).

Of all the accounts perhaps the most detailed is that offered by Captain Johann Hinrichs — a Hessian soldier. On March 10, 1780 his command was camped at the crossroads of Ashley Ferry and Fenwick's Point roads — four miles south of Church Creek (Uhlendorf 1938:203). Hinrichs noted that Major Vernier (American) "was about again," but withdrew over Church Creek, fording the marsh and creek, since the bridge over it had been burned.

He noted that the British light infantry marched to Bull's plantation, also south of Church Creek on March 12, while on March 15 the troops were foraging, advancing as far north as Church Creek again. They noted the bridge was demolished, but that an American picket was stationed on the north side of the creek (Uhlendorf 1938:205).

Hinrichs details the construction of a battery at the mouth of the Wappoo — likely the same fort mentioned by Wilson — and a day later mentioned another battery constructed on the Ashley, as well as magazines being built near the British stronghold on James Island, and a series of redoubts built along the Wappoo as far as the Stono. He also explained the construction of a *rondeaus* for small arms to protect the two British batteries at Fenwick's Point (Uhlendorf 1938:207-

PREHISTORIC AND HISTORIC OVERVIEW



Figure 7. False color infrared aerial of the project area taken on January 10, 1990 at a scale of 1 inch to 833 feet (S.C. Department of Natural Resources, image 1368-47).



Figure 8. False color infrared aerial of the project area taken on February 14, 1994 at a scale of 1 inch to 833 feet (S.C. Department of Natural Resources, image 7445-12).

209).

By March 19, he comments that Americans were entrenched on the east side of the Ashley at Ashley Ferry in a *tete-du-pont* built by Prevost to cover his earlier retreat from Charleston. On March 22 the Ashley was considered in British hands and Hinrichs was ordered to advance with his troops in order to cross over to the Charleston Neck. He made it as far as Church Creek without finding evidence of American troops. At Church Creek, however, he discovered a detachment of cavalry in the vicinity of St. Andrews Church. Three companies of Hessian infantry forded the creek, routing the Americans and taking up a post in the church. Both sides being secured, efforts were made to rebuild the destroyed bridge.

A Hessian scouting party identified a second bridge over Church Creek, about a half-mile up stream, that was intact, apparently having been used by the American cavalry (Uhlendorf 1938:215-217). For the next six days Hinrichs explains how his troops repaired the Church Creek bridge, guarded the second bridge found further upstream, patrolled, and scouted as far north as Middleton's plantation. On March 29, however, he moved south to the Ashley River ferry, crossing over to the Charleston Neck (Uhlendorf 1938:219-224).

Nowhere in this discussion is there even a brief mention of an earthwork at Church Creek — and clearly Hinrichs was very careful to note the position of every fortification or entrenched position he found, even those built by Prevost the year before. Moreover, he crossed Church Creek several times, providing multiple opportunities to mention an earthwork — had it existed. Although this is negative evidence, it is compelling considering the other detail that he provides.

This is further supported by the ca. 1780 *A Sketch of the Environs of Charlestown in South Carolina*. This map shows the various British positions on Seabrook and Johns islands, including the fortifications at the mouth of Wappoo and on James Island. There are, however, no forts in the

vicinity of Church Creek (Figure 9).

It seems likely that the local legend of the Revolutionary fort sprang from the Hessian camp, which was certainly nearby. There is, however, a significant difference between a camp and a major fortification. As far as the camp is concerned, it is likely that it was somewhat nearer the actual crossing — perhaps under the sewage treatment plant or in the low woods to the west of SC 61.

This leaves us with only one significant additional question — the role of the fort during the Civil War. Even a rather detailed examination of the role played by Charleston during the Civil War is certain to focus on the sea islands surrounding the peninsula and the efforts to protect the city from a sea attack. There is little information concerning the efforts to protect the city from an attack from the rear.

Between the firing on Fort Sumter in April 1861 and early August, the efforts that were devoted to coastal defences were headed by General P.G.T. Beauregard and it is likely that in addition to the numerous coastal forts he began, at least some of the interior lines were also of his design. As Rosen notes, "Beauregard was not a great general, at least when it came to offensive strategy. He was, however, strong in the art of fortifications" (Rosen 1994:54).

This dual focus on both the coast and the interior likely continued when the command was transferred to General Roswell S. Ripley in August 1861. In fact, Burton notes that, "Beauregard had planned most of the defences in and around Charleston, and since his departure for Virginia, General Ripley had gone a long way toward completing them, or at least toward getting them ready for fighting" (Burton 1970:90).

There is no indication that the efforts saw any major revision with the arrival of General Robert E. Lee in November just after the fall of Hilton Head Island. Lee focused primarily on the defense of Savannah. Lee was also critical of the Confederacy's ability to hold the large number of forts that had been constructed — but often not



Figure 9. Portion of *A Sketch of the Environs of Charlestown in South Carolina*, ca. 1780, at a scale of about 1 inch to 2 miles (National Archives, RG 77, Map I-14).

garrisoned or armed. By February 1862 Secretary of War Judah P. Benjamin instructed Lee to withdraw forces from the islands and concentrate on the defense of Charleston. This represented a significant change of strategy which likely also hindered the completion of interior fortifications such as those in the St. Andrews area.

This change of strategy caught many by surprise, but it was the appointment of General John C. Pemberton as Lee's replacement which eventually caused even more furor. Pemberton, in quick succession ordered the abandonment of works on Coles Island and in Georgetown. He remarked that he was "decidedly of [the] opinion that the most effectual defense of the city of Charleston can and should be made from and around the city itself," and that, "the [remote] forts should not only be dismounted but destroyed" (quoted in Burton 1970:93-94). This caused one observer to note, "This is another example of weakness and vacillation in our military leaders; one erects a fortification at enormous expense and another destroys it" (quoted in Burton 1970:93). Governor Pickens of South Carolina, who never liked the northern-born Pemberton, was outraged and brought enough political pressure to bear that eventually Pemberton was replaced. After the Civil War Gillmore commented that:

the enemy relinquished a great advantage when he evacuated the strong position of Cole's Island, for this step abandoned to us the undisputed occupation of Folly Island, and the control of Stono Inlet, and gave us a secure base, easily held, from which to threaten the defence of Charleston (Gillmore 1865:125).

In September 1862 General Beauregard was made commander of the Department of the South Carolina and Georgia and he quickly acquired Ripely as his assistant. Beauregard once again turned his attention to "digging in," creating a "circle of fire" around Charleston (Fraser 1989:260). In fact, there is evidence that even while elsewhere, Beauregard never lost his interest in the defense of Charleston. In July 1862, nearly two

months before being re-appointed to the city, he wrote General Gustavus W. Smith concerning the construction of a *tete-de-pont*¹ at the Ashley River bridge and an advance defensive line (*OR*, Series 1, Vol. 14, page 588)

By March 1863 Ripley was clearly examining his command, attempting to determine its strengths and weaknesses. In a report from General S.R. Gist he learned about "the armament and estimates of force necessary to hold" the "approaches and defenses of Saint Andrew's Parish." An accompanying chart revealed that the 12 positions in the area were intended to have a total of 77 guns, yet only eight were in place. Holding these 12 positions would also require over a thousand artillery troops and 7,000 infantry (*OR*, Series 1, Vol. 14, Part I, page 805). This points out the problem that continued to plague the Confederacy — long lines that required far more arms and troops than were available.

Just a month later General James H. Trapier, commander of forces on Sullivan's Island, wrote Beauregard concerning the state of defences in the Charleston area. His letter outlines what seemed to be the three most likely avenues of Union attack, "one from North Edisto via Church flats and Rantowles; one from Stono through James Island, and one through Christ Church Parish" and he goes on to observe:

the possession of Saint Andrew's Parish would give him no such enormous advantages, and he would be kept in a constant state of anxiety and alarm for the safety of his flanks and rear; nor would he be very much nearer his objective point. The Ashley would in either case still be between it and him (*OR*, Series 1, Vol. 14, page 880).

By this time there seems to be no serious

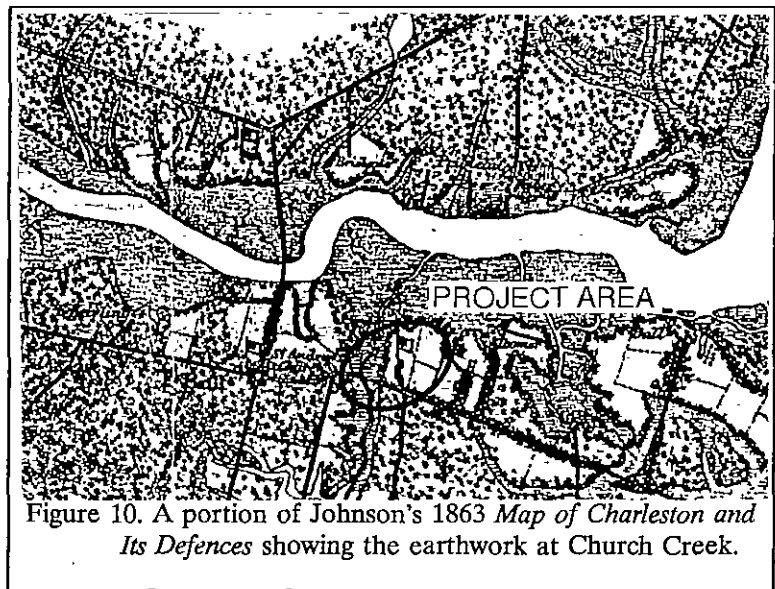
¹ A *tete-du-pont* is a fortification, usually a redan (a work composed of two faces that form a salient or outward projecting angle) built to cover a bridge.

consideration that forces would assault Charleston from the interior. By this time, however, several maps had been produced showing the various batteries. The most common is the *Map of Charleston and its Defences*, produced by Lieutenant John Johnson (Figure 10). It reveals a Confederate fort south of Church Creek. Providing more detail, however, is the *Map of the Defences of Charleston City and Harbor*, dating about 1864 (Figure 11). This map not only reveals the fort at Church Creek, but suggests that it consisted of a modified lunette lacking flanks but including a pan coupe. This is not unlike a "half moon" battery and considerable weight is given the map since it reveals some effort to accurately portray the various earthworks. For example, to the southeast, on the mid-section of Church Creek is a classic lunette battery, while south of this position are two additional modified lunettes and at the Charleston and Savannah Railway there are two additional lunettes with additional devices at the gorge.

In early 1865 Major A. Burnet Rhett detailed his inspection of various batteries in the general area, including Geddes, Hayne (which is also known as Haig), Wilkes, Overflow Battery No. 1, Overflow Battery No. 2, Maywood (more often called Magwood), Gaillard, Miles, Toomer, and Bull. The report provides some indication of the sorry state of these interior defences. Some lacked garrisons or guns, most lacked embrasures² or traverses³, several were compromised by close woods and inadequate sight lines, and many of those with arms and garrisons

were inadequately supplied. With so many forts lacking either the equipment necessary to fire their guns or the powder and shot to shoot, it is difficult to understand the reason that the forts were even manned (OR, Series 1, Vol. 47, Part II, page 1010).

Five of these named batteries are illustrated by Johnson (1890) on his map, although none are discussed in his text. The order of those named follows exactly Rhett's inspection: Geddes, Haig, Wilkes, Magwood, and Gaillard (Figure 12). In addition, the Overflow batteries appear to be called the Inundation Batteries by Johnson. Gillmore, in discussing the Saint Andrew defences,



explains:

The approach between Ashley and Stono Rivers is defended by a line of nine detached batteries, the right resting behind a marshy creek about one mile south of Ashley, and the left near the elbow of the Stono next above Fort Pemberton. This is a strong line, as the marshes in its front are almost impassable, and mounted twenty-two guns when captured.

² An embrasure is an opening in the parapet that allows cannons to fire through it. This device provided additional protection to the gun and its crew.

³ A traverse is an embankment or parapet perpendicular to the rampart to prevent enfilading fire and ricochets. It might also be thrown up to protect the parapet from reverse fire, or to protect the outlet or gorge of a work.

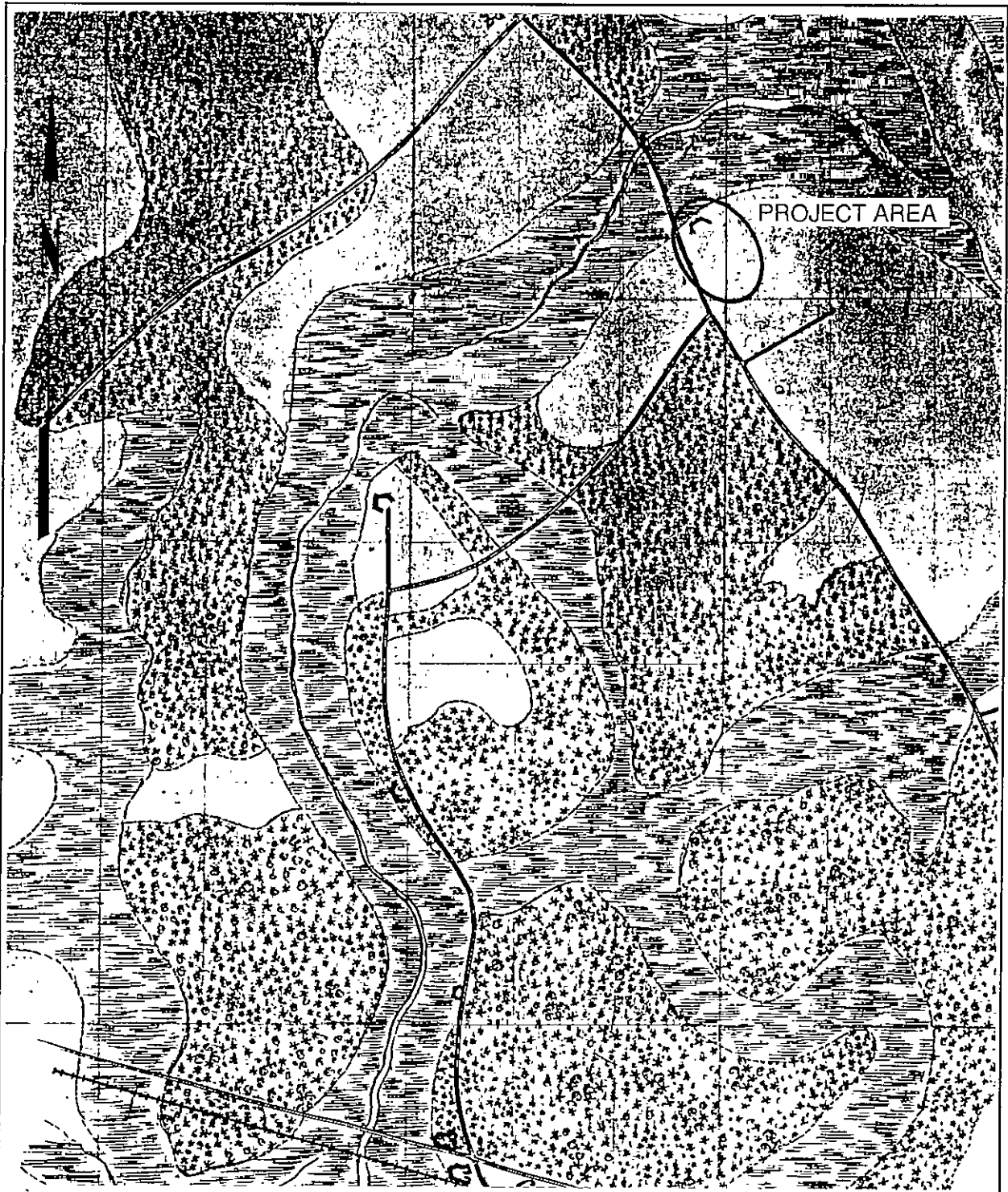


Figure 11. A portion of the ca. 1864 *Map of the Defences of Charleston City and Harbor* (National Archives, RG 77, Map I-58-1).

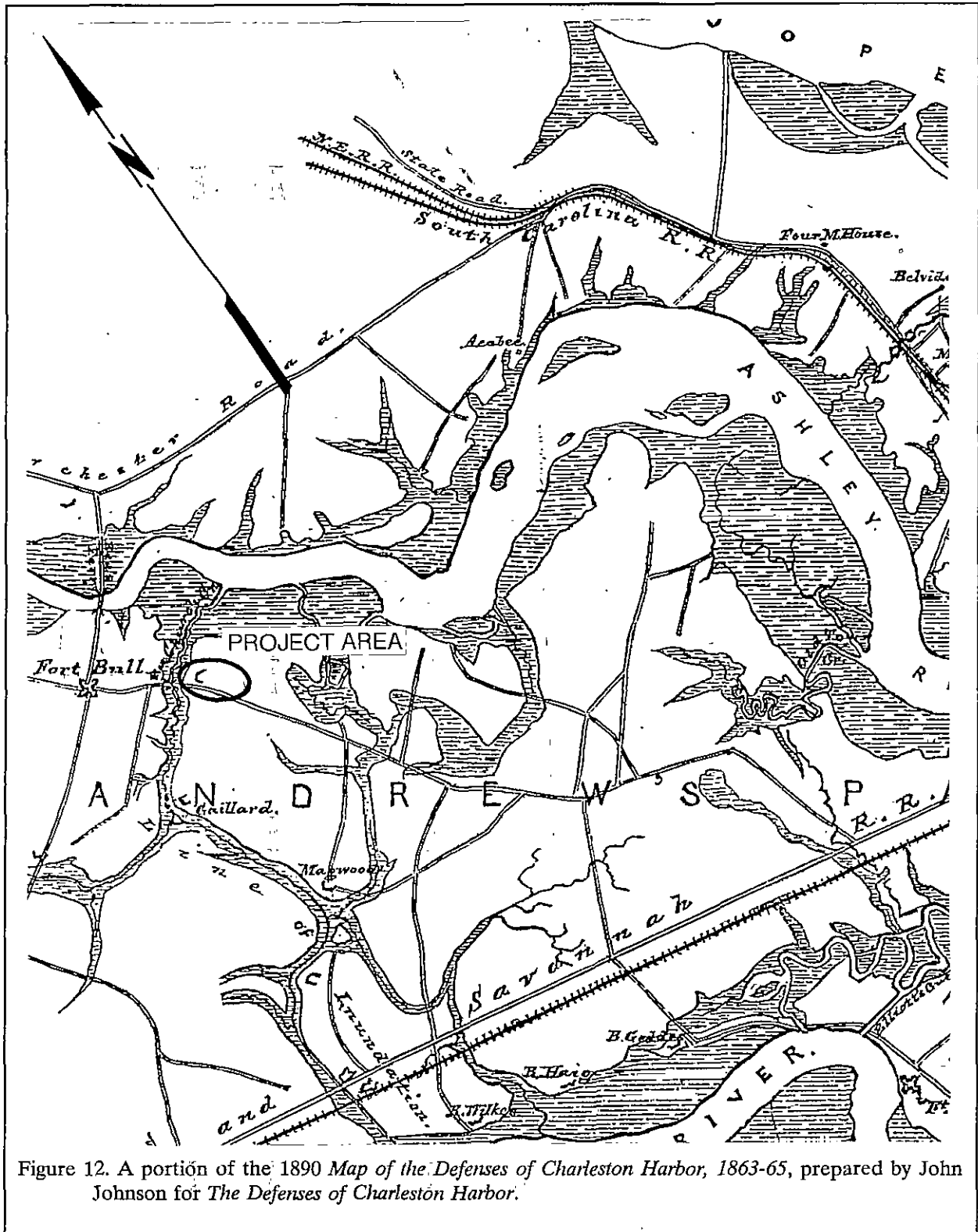


Figure 12. A portion of the 1890 Map of the Defenses of Charleston Harbor, 1863-65, prepared by John Johnson for *The Defenses of Charleston Harbor*.

The works near the railroad are enclosed.

The approach to Ashley Ferry on the right front is closed by a four-bastioned work located about one thousand yards southwest of the ferry, proposed for sixteen guns, and provided with a magazine and bomb-proof.

In from of Ashley River Bridge two square redoubts are located, one for six and the other for seven guns, to command the railroad and county road and the bridges over Wappoo Creek. The works are covered in front by a line of rifle pits.

Of this line, only the two enclosed works on the railroad, about five miles from the city, were permanently garrisoned (Gillmore 1868:17-18).

Although sketchy, this helps to identify the various earthworks in Saint Andrew's Parish. Gillmore's nine batteries are identical to those illustrated by Johnson: Geddes, Haig, Wilkes, Inundation 1 and 2, Magwood, Gaillard, and the unnamed battery at Church Creek. The order, in turn, is also identical to Rhett, up to the point of Battery Gaillard, which should be the eighth of nine forts. But in Rhett there are two remaining: Miles and Toomer. It seems likely that one of these two represents the battery at Church Creek, leaving one additional battery being so small and inconsequential that it has almost entirely faded from history.

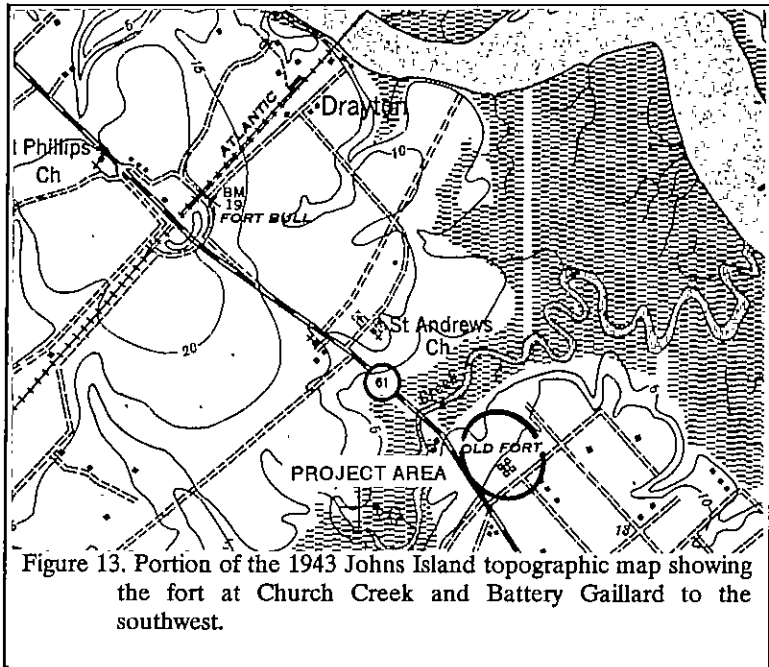


Figure 13. Portion of the 1943 Johns Island topographic map showing the fort at Church Creek and Battery Gaillard to the southwest.

Unlike the discussion of Revolutionary War activity in the Church Creek area, there is clear cartographic evidence of an earthwork in the project area. Further, it is possible to identify the general form of the earthwork. We have even been able to narrow down that the battery was likely named either Miles or Toomer.

Beyond this, however, we must again rely on negative evidence. That neither Gillmore nor Johnson identified the battery by name suggests that it was relatively inconsequential. Certainly if I am correct, Rhett recounts that both were without garrison and guns.

The earthworks continued to be shown on the USGS *Charleston Harbor and Approaches* charts and appears on the first edition of the USGS Johns Island topographic map (dated 1943) (Figure 13).

FIELD METHODS AND RESULTS

Fields Methods

Our initial field visit revealed very dense vegetation (see Figure 3) that largely precluded any cost-effective examination of the site area. As a result, the first activity on-site was clearing. Tractor Works, from Johns Island, was retained to clear the site area. Initially we anticipated that simple bush hogging would be possible, but after beginning the work, it became clear that this was not feasible. Not only was the lot far too overgrown, but there were large quantities of concrete, chain link fencing, iron fence posts, and other obstacles hidden in the vegetation.

One option, most commonly used for lot clearing on the coast, would be to simply bulldoze the vegetation, trees, rubble, and debris into piles. This approach, however, was likely to cause additional damage to the known site, even with close monitoring. It therefore was rejected.

The only other option, of course, was to clear the lot by hand, significantly increasing the time and cost of the work. As a result, we opted to begin the clearing in the vicinity of 38CH1707 and work outward, eventually opening an area of about 270 feet east-west by 210 feet north-south, or about 1.3 acres. This appeared to encompass the site area.

In the process of clearing we identified the original Higdon home site, although virtually nothing remains today. The few standing elements noted on the tree and topo survey reflect a shed or carport area added after the Higdon's sold the property. The main house area has been bulldozed and the basement filled with concrete debris apparently trucked in to the site. Remains of a chain link fence, also added after the Higdon's sale were found heavily damaged by either Hugo or the bulldozing which occurred on the site.

The clearing also allowed us to recognize

that a small portion of the tract, perhaps a strip about 25 to 50 feet in width had been cleared during grading by Mr. Emanuel Craven on the adjoining lot to the west.

The field investigations focused on two complementary goals. The first was to identify sites that might be on the 4.1 acre tract but not yet identified. The second was to assess the eligibility of the one site already known to exist, 38CH1707. The work, therefore, involved a level of effort somewhat above what might normally be anticipated for the survey of a small parcel.

Initially we proposed to examine the entire 4.1 acres using 2-foot test units excavated at 50 foot intervals. This decision was based both on the dense vegetation (which required some form of subsurface testing) and on the original site form, completed by Dr. Jonathan Leader, which indicated that 38CH1707 was thought to encompass an area measuring 100 meters square, or about 2.5 acres. We, found, however, that the site was smaller than anticipated and that the majority of the tests were producing only very modern (i.e., 1930 to 1990 era) artifacts.

As a result, we opted to reduce the level of effort in the northwestern, northeastern, and southeastern quadrants of the property, replacing 2-foot units with 1-foot shovel tests. In addition, we opted to change the testing interval. Although the S.C. Department of Archives and History's *Guidelines and Standards for Archaeological Investigations* would allow at least some portions of the survey tract, based on their low, wet soils, to have been shovel tested at an interval of 200 feet, we opted for a more intensive investigation.

Shovel tests were excavated at 100 foot intervals north-south, while maintaining 50 foot spacing east-west (Figure 14). All of the shovel tests were about 1-foot square and the fill, excavated by natural soil levels, was screened

FIELD METHODS AND RESULTS

through ¼-inch mesh to recover any artifacts which might be present. Soil profiles were noted for all units, although the profiles were not drawn.

The 2-foot units were also excavated by natural soil zones with the fill screened through ¼-inch mesh. For these units soil profiles were drawn with the soil colors described using the Munsel system (Figure 15).

Both shovel tests and 2-foot test units were excavated on a grid oriented N15°W. The slight difference in the grid and lot orientation was caused by our effort to identify grid lines that would minimize the need to clear vegetation. Lines were laid out with individual grid points identified using pin flags. To designate the units we used a modified Chicago grid system with each 2-foot unit or shovel test designated by its southeast corner from a 0R0 point situated off the site to the southwest. Unit 100R200, was situated 100 feet north and 200 feet right (or east) of the 0R0 point.

Vertical control of the 2-foot units was maintained through the use of an elevation datum previously established on the south side of Parsonage Road. A spike had been set in power pole 282659 at an elevation of 15.68 feet AMSL. This is the same datum upon which the topographic map of the site was based.

As a result of this work a series of 26 2-foot units were excavated, covering an area encompassing about 1.7 acres. The remaining 2.4 acres were examined through the excavation of 20 shovel tests.

As part of the site's investigation, we anticipated three additional activities: metal detecting, examination of soil compaction using a penetrometer, and the mechanical stripping a small portion of the site. This additional work was largely predicated on our concern that the vicinity of 38CH1707 be thoroughly explored, especially for any human remains. The metal detecting was proposed in an effort to explore any possible Civil War features, such as latrines or wells.

During the initial phases of the project,

metal detecting was conducted along the N250 line. We used a Tesoro Bandido II™ with an 8-inch concentric coil (electromagnetic type operating at 10 KHz). The instrument has the capability to operate in either an all metal mode or discriminate mode (which eliminates ferrous metal response). The all metal mode is the industry standard VLF type which does not require motion of the search coil for the proper operation. The discriminate mode is based on motion of the search coil, but allows control over the detector's response to ferrous metals.

Initially the detector was used in the discriminate mode, with eight possible hits. All were modern trash. Subsequently, the same path was examined using the all metal mode, with similar results. Of the four hits, all were modern iron.

These unimpressive finds were later found to be the result of the extensive ground disturbance which took place in the site area. The search line was found to have upwards of 1.5 feet of clay covering the original humic soil. As a result, the metal detector was able to only identify recent trash — any earlier materials were sealed too deeply to be identified.

The initial penetrometer study, as previously mentioned, was designed to identify any evidence of burials in the area on the western edge of the tract, pointed out as the probable grave site.

A hand penetrometer measures soil compaction in pounds per square inch (psi). Areas of posited graves will have lower psi readings than those areas where there has been no digging. Penetrometers are routinely used by forensic anthropologists, including the Federal Bureau of Investigation. The device is used at set intervals along grid lines established perpendicular to the suspected grave orientations. The readings may be recorded and used to develop a map of probable grave locations, or the graves may be flagged in the field as the work is on-going.

We have found from past studies at coastal, coastal plain, and piedmont sites that there



Figure 15. Excavation of 2-foot test units by Bonnie Frick and Heather Gray.



Figure 16. Remnant earthwork (to the left edge of the photograph) and wetland (to the right edge of the photograph), looking to the west.

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are consistently clear differences between grave and non-grave areas. Graves typically will have soil compaction readings of from 50 to 150 psi, while non-grave areas will exhibit readings of 200 to 275 psi.

At 38CH1707 the initial penetrometer study, conducted before the excavation of the 2-foot units, followed the R50 line along the western edge of the property. Tests began at 250R50 and were taken at 3 foot intervals southward. We were immediately perplexed that the soil compaction readings ranged from 300 to 375+ psi — well above what would be expected for the coastal region. Once we reached the vicinity of about 175R50 the readings reduced to 200 to 300 psi, closer to what might be expected, but still high.

The final activity proposed for the site was the use of a bulldozer to mechanically strip an area to determine if features such as latrines or wells might be present, reflecting the use of the site by garrisoned troops. This work was done at the conclusion of all other work and involved opening an area measuring about 10 feet in width by 80 feet in length.

Results of the 2-Foot Tests at 38CH1707

The 26 2-foot tests excavated at the site cover the southwest quadrant of the property. These units provided information on both the artifacts present in this portion of the tract, as well as on the stratigraphy (Figure 17).

Those units near Parsonage Road, on the southern edge of the property, revealed a relatively consistent soil profile. The Ap horizon was a dark gray (10YR4/1) sand, characteristic of the Hockley loamy fine sands in this area of Charleston. Underlying the Ap horizon was a subsoil of yellowish-brown (10YR5/4) to light yellowish-brown (10YR6/4) sands. The profiles also reveal that the property naturally falls or drains to the east and west.

The N150 line of units reveals primarily the extensive disturbance in the area caused by the nursery operations. For example, 150R100 and 150R150 both reveal a large manure pile deposit,

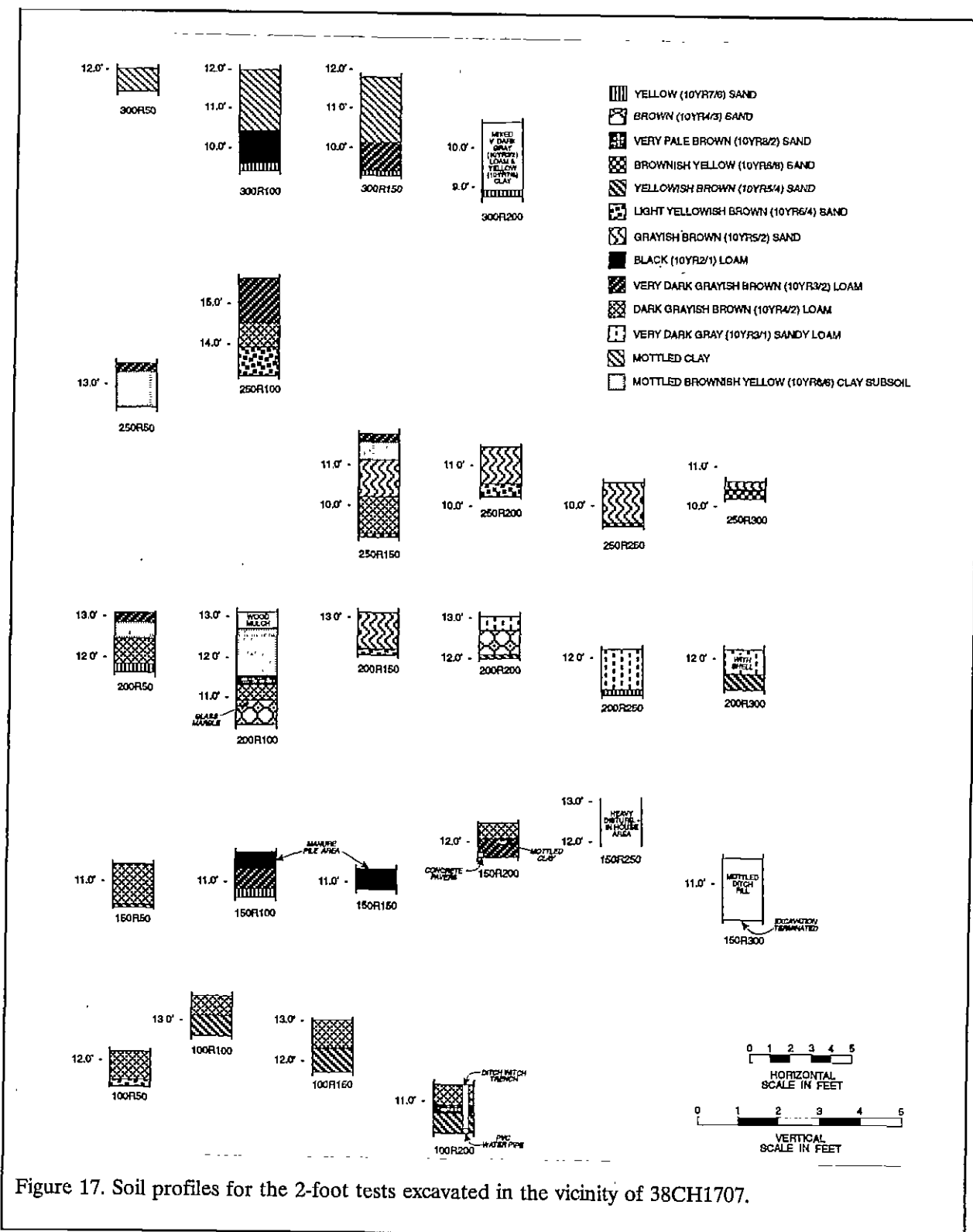
with the underlying soils affected by nearly 50 years of leaching. Further to the east, both 150R250 and 150R300 reveal disturbance from either the house construction and demolition or from the drainage line buried on the property. The only profile which is relatively intact is 150R50, on the western edge of the tract. In this area a fairly "normal" profile of dark gray (10YR4/1) sand is found overlying a yellowish-brown (10YR5/4) clay.

Beginning with the N200 line we began to see unusual soil profiles, typically consisting of a lens of clay or sandy clay overlying what elsewhere was recognized as the A or Ap horizon. Typical is the profile of 200R100, where we found about 0.4 foot of wood mulch overlying a mottled brownish-yellow (10YR6/6) clay that was about 1.2 feet in depth. Within this clay we found pine bark and other organic material. Below the clay lens we found about 0.2 foot of very pale brown (10YR8/2) sand over 0.6 foot of dark grayish-brown (10YR4/2) loam. This represents the original A horizon soils. Below was a brown (10YR4/3) sand, within which we recovered a modern glass toy marble. This brown sand appears to reflect disturbed soils, perhaps from the nursery operations. Above it, the clay "cap" appears to represent the remains of the earthworks that had been bulldozed over the site area, sealing the original A horizon soils.

It is also in this line that elevations begin to noticeably increase — further evidence of that the earthwork has been spread over a relatively large area. The profiles on the N200 line also reveal that the topography is relatively level, at least from 200R50 eastward to 200R200.

The spread earthwork appears to be confined to the western half of the study area. To the east on the N200 line we found more typical dark grayish-brown A horizon soils overlying yellow or yellowish-brown subsoils. At the very eastern edge, in 200R300, we discovered a small quantity of oyster shell incorporated in the Ap horizon. This was in the area reported to have been used by greenhouses, so the shell may be related to horticultural activities. Since we failed to identify any associated prehistoric cultural remains, and the shell appears relatively isolated, we do not believe

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that it represents pre-twentieth century activities.

The N250 line reveals considerable variation in topography, which appears associated with the distribution of the earthwork. In addition, the profiles also suggest extensive mixing of both original A horizon soils, soils which built up over the earthworks, and the earthworks themselves. Distinctly undisturbed profiles are not encountered until 250R250-300, where dark grayish-brown (10YR5/2) sand is found overlying the brownish-yellow (10YR6/8) sand subsoil.

The bulk of the N250 lines defy simple interpretation. The profiles are consistent with what might best be described as a cataclysmic earthmoving event that creates a number of false levels. While it is not certain, it appears that at least some of these levels represent bulldozer activity, while others *may* represent the basal layer of what has been described as a "mount" behind the earthworks.

The N300 line again represents a range of events. The profile at 300R50 appears to represent redeposited earthwork. Unit 300R100 reveals redeposited earthwork overlying a black (10YR2/1) loam, which appears to be a portion of the original ditch — filled in with the bulldozed earthwork.

The only clearly intact profile of the earthwork was identified at 300R150, where about 1.7 feet of mottled clay, representing basket loaded soil, was found overlying the original A horizon of very dark (10YR3/2) sand. Below this was a yellow sand subsoil.

Further to the east, at 300R200, situated in the roadway for the nursery leading toward the marsh, we found heavily disturbed soils to a depth of 1.7 feet, overlying subsoil. These mixed soils appear to represent localized mixing (probably in the course of road construction, use, and maintenance) of the original humic soils, soils from the earthwork, and perhaps soils brought in.

These 2-foot tests help identify the activities which took place at the earthwork — revealing areas of intact earthwork, areas where

the earthwork has been spread back (south) over A horizon soils, and areas where the earthwork has been pushed forward (north) into the ditch or wetland. They also reveal evidence of very modest disturbance during the period of nursery activities. They also help explain the inability to identify any pre-twentieth century metal — the overburden of the bulldozed earthwork is simply too thick to allow accurate penetration by metal detectors. Moreover, the penetrometer readings were consistently very high because of the extensive disturbance and recent compaction by heavy equipment.

If one were to estimate the dimensions of 38CH1707 based on the current (artificial) spread of the earthwork soils, then it appears to extend from about N180 northward to about N330 and from R250 westward onto the adjacent lot not owned by the Housing Authority. In fact, it appears that perhaps 50% of the original earthwork may actually be on the property currently owned by Emanuel Craven. Regardless, the site dimensions on the survey tract appear to be about 150 feet north-south by about 250 feet east-west, or about 0.9 acre.

The 2-foot test units also provided information on the dispersion of artifacts over the project area. Table 1 itemizes the recovered materials, but in general it is clear that the collection consists almost entirely of modern debris, dating from either the time period of the nursery operations or from when the site was largely abandoned. Particularly common is clear glass, almost universally reflecting modern container. The flower pot fragments are the most identifiable remains from the nursery operations.

Materials which are likely not modern and which may date to the construction of the Civil War earthwork on the site include one fragment of black glass, probably representing a nineteenth century ale or wine bottle; three fragments of undecorated whiteware; 15 fragments of iron which appear to represent heavily corroded barrel bands; and one wrought nail. Of course items such as the whiteware are questionable since their use extends into the postbellum and even the early twentieth century. Likewise, the barrel bands have a very

Table 1.
Artifacts Recovered from 2-foot Test Units and Shovel Tests

Test Units	container glass			window glass	ww	flower pot	plastic	industrial		iron	wire frags	brick	coal/slag		other
	clear	brown	green					manganese black	nails				porc	glass	
100R50	4														
100R150	1			1								1			
100R200	16			1			1				2			2	
100R250	7	1	1		1						1				
150R50	6	9					8								
150R150															
150R200	6				3										
150R300		13			4			2	2	16					
200R100	1				1										
200R150					2										1
200R200	5	2			5					4					1
200R250	1				1				2						1
200R300	2		1		1				1						
250R100	1				2										
250R150	3	2	2			16				9					
250R200															
300R200		1				1									
300R150															1
Shovel Tests															
200R350	2														
250R400												2			
Metal Detecting															
Hit 1															1

ww = whiteware, porc = porcelain

Other: 200R100 — toy glass marble; 200R150 — magnet fragment; 200R200 — slate fragment; 300R150 — 1 prehistoric sherd

Metal Detector Hit 1 — lead bullet (diameter ≈ 7.5mm)

long use period and their recovery from one of the disturbed zones makes their dating impossible. Nevertheless, if we accept that all 20 items date from the Civil War use of the site, they represent only 9% of the total collection.

Results of the Shovel Tests

Of the 20 shovel tests only two — 200R300 and 250R400 — were positive. These are both situated east of the main nursery activity area, probably within the general vicinity of the nursery greenhouses. The remains found in the units consist entirely of modern debris — container glass, window glass, flower pot, and brick fragments (see Table 1). In addition, these tests revealed a "normal" stratigraphy, meaning an A or Ap horizon overlying subsoil.

As a result, these tests provide no additional information on previously recorded site 38CH1707 and suggest that the remainder of the tract contains no evidence of archaeological or historic sites.

Results of the Mechanical Stripping

As previously discussed, once the excavations were complete we used a bulldozer to open an area about 10 feet in width and about 80 feet in length situated between the R50 and R150 lines (Figures 14 and 18). Based on our work up to that point, we felt this area was most likely just off the earthwork.

The stripped area revealed a discontinuous zone of clay fill, representing the spread out earthwork, all of which was removed. Below this was another discontinuous zone of dark grayish-brown to grayish-brown sandy soil representing the old site humus. In many areas we found that the old humus was either not present or was evidenced only by a very mixed and mottled zone of soils which appeared to be a homogenization of all of the different profiles. At the base of the stripping in some areas we were able to identify what appeared to be intact subsoil, although in other areas we found only swirling, suggesting that previous disturbances had intruded into the subsoil

(Figure 19).

These profiles support our findings based on the 2-foot units: It appears that some type of mechanical equipment — we suppose a bulldozer — was used to demolish the earthwork, displacing the soil both to the north and south. In the southern area, where we examined, there is evidence that the mechanical work was aggressive, intruding into the subsoil in some areas and thoroughly mixing soils in other areas. This is consistent with bulldozing activities I have observed at other archaeological sites while serving as the senior archaeologist with the S.C. Department of Highways and Public Transportation.

No features were identified in the stripping, except for one tree stain — a very large and amorphous dark stain with included charcoal and wood fragments. This may have been a tree removed as part of the heavy equipment operations which also leveled the earthworks, or it may pre-date that episode. Regardless, no cultural features were found.

No artifacts were identified during the stripping operations. At the conclusion of the work a metal detector survey was conducted of the subsoil to determine if there might be buried artifacts, perhaps relating to the earthwork, still present in spite of the extensive disturbance. A single hit was encountered — a modern lead bullet with a diameter of about 7.5 mm.

In addition, a penetrometer survey was also conducted in the base of the stripped area. Although any grave stains should have been immediately identifiable, this study was conducted as an additional safeguard. We found that the soil compaction was considerably lower than previously encountered at the surface, with levels ranging from about 150 to 200 psi. Outside of the identifiable tree stain, no areas were encountered with lower soil compaction and we found no indication of burial pits in the stripped area.



Figure 18. Bulldozer stripping off an area south of the posited earthwork, view to the north.

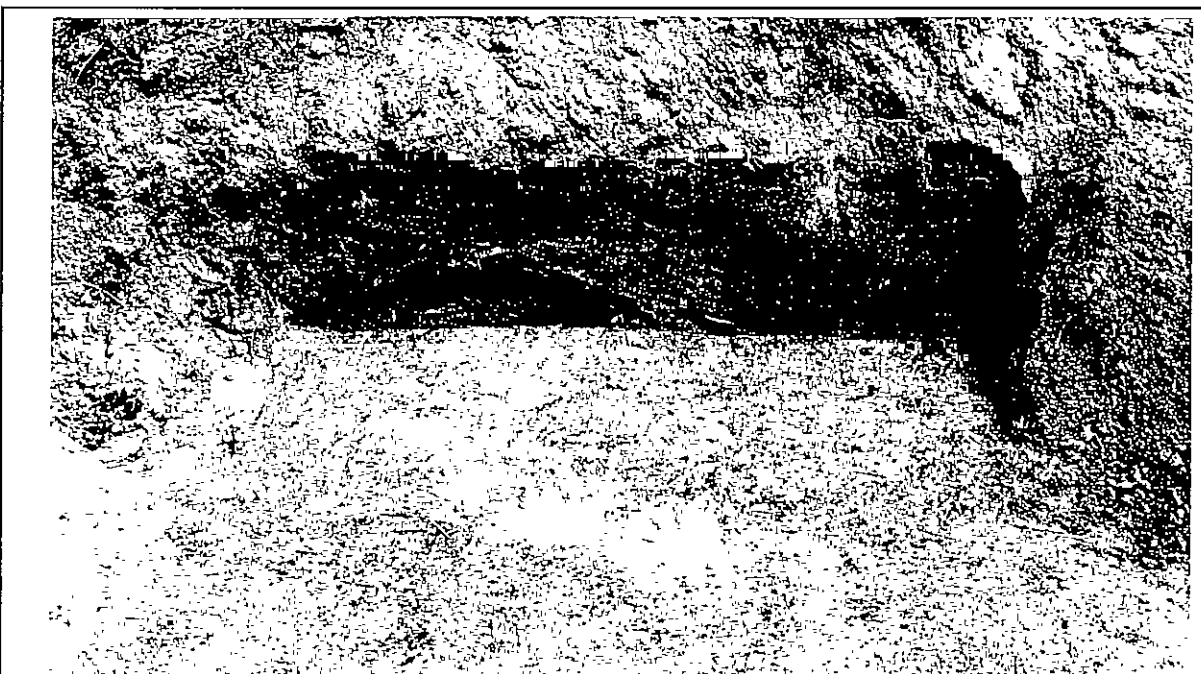


Figure 19. Profile and plan of a section of the stripped area showing extensive mottling and swirling of soils.

CONCLUSIONS

Identified Sites

Only one site was identified on the survey tract — 38CH1707. This site had been previously recorded and was identified as a possible Revolutionary War and Civil War earthwork. While not indicated on the site form for the site, there was some local concern that there may also be graves associated with the earthwork.

Before discussing 38CH1707 in any detail, it is important to note that no additional sites were encountered on the property. The remains of both the Higdon house and a barn or shed closer to the marsh (and shown on Figure 14) are considered modern and have not been assigned site numbers. Although a large quantity of material was found scattered around the Higdon house, all represents modern (i.e., very recent twentieth century) trash. No materials were found in the shovel testing around the collapsed shed on the marsh edge. In addition, since both structures are in total and complete ruins, neither has been recorded as a standing architectural site with the S.C. Department of Archives and History.

Nor did the study reveal any evidence of a cemetery or formal burials. Our focus was directed to the area of the property on the west edge, which had been pointed out to staff of the Charleston Housing Authority as the probable location. In this area we conducted a penetrometer study and also stripped an area of soil. No graves were revealed. In addition, the historical research is entirely negative. No cemetery appears on any of the maps. There is no mention of a cemetery or burials in any of the Revolutionary War or Civil War documents examined. Nor have we been able to identify the source for this report of burials. Although the Higdons carefully guarded and protected the site for a number of years, they are unaware of any burials, or the source for such a belief. While it remains *possible* that burials are located in the general area, our research suggests

that burials are *improbable*.

38CH1707

The historical research for site 38CH1707 failed to reveal any evidence that a revolutionary war fort was ever built in this location. While we are relying on negative information (i.e., the failure to find a mention of the location in historic documents), at least one — the Hinrichs' diary — is exceptionally detailed for discussions of this time period. Hinrichs spent some time in this area, mentioned a number of other earthworks, but fails to mention any efforts to defend Church Creek. Consequently, the evidence is fairly strong that this site does not represent a Revolutionary War fortification.

This is supported by the archaeological evidence — no revolutionary war era artifacts were identified in the collection. In fact, the earliest item is a hand wrought nail. While certainly used in the Colonial Period, this type of nail continued to be used well into the antebellum and cannot be considered temporally diagnostic. All of the ceramics, which tend to be more temporally sensitive, date from the nineteenth century.

In contrast, the historical evidence — especially cartographic — for a Civil War fortification is overwhelming. The fort appears on a number of maps. It also appears to be one of the nine forts mentioned several times in the period literature forming a ring around St. Andrews Parish from the Stono to the Ashley. There is also some indication that it may have been called either Battery Toomer (a Toomer settlement, in fact, is shown nearby on at least map) or Battery Miles. While collectively these forts represent an important engineering feat and a significant part of the Charleston defenses, they were apparently rarely garrisoned and many never had guns mounted. Both Battery Toomer and Miles fall into this category. This suggests that remains would

likely be sparse at the sites.

The archaeological evidence is similarly overwhelming. There is some evidence of an earthwork, along with its associated ditch. There is no question that the fort existed. The archaeological work has even suggested the general location of the fort, with about half on the current study tract owned by the Housing Authority and the remainder on the adjacent tract to the west. Material evidence of fort (beyond the earthwork itself) is rather sparse. There is a small collection of about 20 artifacts which *may* date from the site's construction. All are domestic or architectural — none are specifically military related. This, of course, is consistent with a site built and then rarely, if ever, garrisoned.

The work which has been conducted also helps document the modern history of the fort. A photograph owned by the Higdon's reveals the fort in generally good condition as late as the 1970s. Examination of aerial photographs reveals that even after Hurricane Hugo, in 1990, the fort's ditch was intact as was the vegetation on the earthwork. By 1994, however, the earthwork had been extensively bulldozed, with spoil being used to fill the ditch or wetland to the north, as well as being spread back out to the south. The aerial photograph suggests that there was an intention to grade the topography, if not actually eliminate the site and fill the wetland. It seems well documented that the earthwork, for all intents, ceased to exist by February 1994.

This grading has been well documented by the archaeological research, which has found earthwork fill spread southward over intact A horizon soil, earthwork fill mixed with A horizon soil, and earthwork soil used to fill in the ditch.

The archaeological research has also found relatively few areas (based on the use of a 50-foot grid) where there is any intact earthwork. Most of the topographic elevation seen on the lot today is a relic of the ca. 1994 grading. The only truly "intact" portion of the earthwork is the 25-foot in diameter "mound," which would have been at the eastern edge of the earthwork, and the small area of extant wetlands representing the earthwork

ditch. In spite of the 2-foot test units and the mechanical stripping, no archaeological features — such as latrines or wells — were identified. Again, this is negative evidence, but it may indicate that little activity took place at the site during the Civil War.

Determining site boundaries for 38CH1707 is difficult, since the site has been extensively redistributed and resculptured. Today the remains are smeared over an area about 150 feet north south by 250 feet east-west, not including the spread westward onto the adjoining lot.

Site Assessment

As previously explained, the primary goals of this survey were to identify, record, and assess the significance of archaeological sites within the survey tract. The latter aspect involves the sites' eligibility for inclusion on the National Register of Historic Places, although Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead compliance agency, in this case the U.S. Department of Housing and Urban Development, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

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

[t]he 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

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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.

It is generally accepted that "the significance of an archaeological site is based on the potential of the site to contribute to the scientific or humanistic understanding of the past" (Bense et al. 1986:60). Butler suggests that the only valid measurement of significance must be based on what he calls the "theoretical and substantive knowledge of the discipline" at any particular moment in time (Butler 1987:821). While the use of this approach over that developed by Glassow¹ (1977) has been suggested, Butler himself

¹ Glassow's (1977) approach to evaluating site eligibility is through the use of five properties: site integrity, site clarity, artifactual variety, artifactual quantity, and site environmental context. These qualities stress properties of the archaeological record. *Integrity* refers to the degree of preservation or amount of in situ remains present at a site. It relates to the condition and amount of archaeological artifacts, ecofacts, and features found at a site. *Clarity* indicates how well the strata or subsurface features may be distinguished. *Variety* refers to the qualitative variability in the archaeological remains found at a particular site. *Quantity* refers to the frequency or density of the artifacts or subsurface remains and it is in many ways one of the easiest properties to evaluate (although it is certainly not the most important). The last criterion, *environmental context*, refers to unusual environmental features or zonation which might be important in distinguishing sites or site types.

acknowledges, "we cannot foresee future research questions, and we may not possess the theory to interpret and understand all that is present" (Butler 1987:822). At this point in time it seems essential to recognize the importance of asking the right questions at the right sites, not limiting the number of sites at which questions are asked, or what questions are posed. Clearly, asking "right questions" at the "right sites" can be difficult and requires an understanding of the "theoretical and substantive knowledge of the discipline" (Trinkley 1990:30-31).

National Register Bulletin 36 (Townsend et al. 1993) 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. Nevertheless, it does offer a sound basis for evaluation and this process has been mandated by the State Historic Preservation Office.

Data Sets

The site's data sets are very limited. In fact, the only data sets which can be attributed to the site with any certainty are the earthwork and ditch features. Even if the artifacts are also all assumed to be from the Civil War construction or use of the site, they represent a very impoverished collection. Furthermore, no features were encountered, so there is little likelihood of there being buried, and well preserved, collections. The testing failed to reveal any faunal remains that might have been associated with those building or manning the earthwork. There is no indication of soldier's huts at the site. Even the historical record is scant and offers few data sets to be included in the evaluation.

Context

A historic context for the site is provided by previous researchers. At a general level, Fick (1992) offers a historic context for the project area during the Civil War. The research by Trinkley and Hacker (1997) at the Confederate Secessionville works offers additional context, especially relevant to the examination of the soldiers that may have garrisoned the post.

Research Questions

The contexts generate a number of research questions:

- when, exactly, was the fort constructed and was it reworked at later times?
- who built the fort — slaves or Confederate soldiers?
- was the fort garrisoned and if so with what regularity?

- is there any evidence of soldier housing on the site?

- is there any evidence of troop lifeways, especially evidence of how free time was spent?

- can subsistence remains provide more information concerning diet and food preparation, in particular is there evidence of the quality of meat rations?

- what can the fort tell us about this ring of defenses from the Stono to the Ashley — is it consistent with the theories and practices proposed by Mahan (1862; see also Trinkley and Hacker 1997:35-40)?

Evaluation of Integrity

Of course, it is relatively easy to come up with interesting and worthwhile questions. It is far more difficult to translate them into research designs and to do this the site must be able to address the questions. Consequently, the next phase of the assessment is to determine the integrity of 38CH1707 — can it, in fact, answer the questions just posed with the data sets present.

For archaeological sites the important aspects of integrity include location, design, materials, and association (Townsend et al. 1993:17).

Integrity of location involves the place where the historic property was constructed or the historic event occurred. But, it is far more than this, since it also involves that place, or location, being intact. While 38CH1707 is still situated in Charleston, on Church Creek — where the events took place — it is no longer intact. In fact, the earthwork has been spread over 0.9 acre on the Housing Authority property along, and likely an area about that large on the adjoining tract. It no longer represents a discrete loci of events and there is little discernable patterning remaining.

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Consequently, the site lacks integrity of location.

Integrity of design involves the range of elements that create the form, plan, space, structure, and style of a property. While these concerns are often associated with standing architectural sites, at least some portion of the earthwork must be evaluated under these same criteria, since it represents military architecture. In addition, however, archaeological sites exhibit integrity of design in the patterning of discrete activity areas or patterning of remains. At 38CH1707, there is virtually no integrity of design remaining. It is impossible to look at the remnant above ground remains and see any patterning or intent of the original architects. It is, in fact, even impossible for the layperson to recognize the site as an earthwork. In addition, the archaeological study suggests that the bulldozing has totally destroyed any subsurface patterning which may originally have been present. Consequently, the site lacks integrity of design.

Integrity of materials is usually described in terms of the presence of artifacts or features associated with the site. If the assemblage is intact and well preserved, if there are features associated with the site, if there are clearly defined activity areas, then the site is said to have integrity of materials. At 38CH1707 none of these conditions are met. The assemblage is very sparse — there are very few data sets present which are necessary to address the questions posed. There were no features recovered during either the 2-foot tests or the stripping. Consequently, the site lacks integrity of materials.

Finally, we consider integrity of association. According to National Register Bulletin 15, "a property retains association if its is the place where the event or activity occurred and if sufficient intact to convey that relationship to an observer." Clearly, the site itself has not moved, yet it is also clear that the site can no longer convey any clear meaning or understanding to an observer. Consisting of only a slight topographic rise, a remnant "mound," and small area of wetlands, there is no real impression of an earthwork. Surrounded by development to the west, housing to the south and southeast, a sewage treatment

plant to the north, and dense woods to the northeast and east, the site no longer conveys even a semblance of its original setting. In addition, the integrity of association at archaeological sites is often based on the strength of the relationship between the site's data sets and the proposed research questions. Clearly, the data sets are simply unable to provide the details necessary to allow the research questions to be explored. Consequently, the site lacks integrity of association.

Assessment Under Criterion D

Based on this review, 38CH1707 is recommended as not eligible for inclusion on the National Register under Criterion D. In sum, it lacks the integrity necessary to address the research questions which have been proposed.

Assessment Under Criterion A

It is also appropriate to evaluate the earthwork under Criterion A — association with significant historical events. Certainly the St. Andrews earthworks are a significant aspect of the defense of Charleston during the Civil War.

Eligibility under Criterion A is based on integrity of location, design, materials, and association (Townsend et al. 1993:17). These have been previously evaluated for Criterion D and all are found inadequate to support eligibility. Regrettably, there is no difference when Criterion A is considered.

While the location has not changed, the bulldozing the earthwork in the early 1990s altered its patterning and dispersed the location. In terms of design, the original plan is no longer recognizable. Townsend et al. offer a succinct discussion of integrity of materials, using as their example a Confederate battery built during the Civil War. They observe that:

if the battery's earthen berms and depressions are indistinct because of erosion or other factors, then the site does not have integrity of materials under Criterion A (Townsend et al. 1993:19).

Clearly then, 38CH1707 also lacks integrity of materials. Finally, integrity of association under Criterion A is almost identical to that for Criterion D. Would a period observer be able to recognize the site? This is highly unlikely given how dramatically the site area has changed.

As a result, we recommend 38CH1707 as not eligible under Criterion A.

Green Spacing of the Remaining Earthwork

I am ambivalent regarding any effort to preserve the small portion of the earthwork still extant. It lacks any reasonable context and provides absolutely no public interpretative value. It would tend to confuse more than educate. In addition, earthworks require extensive efforts to prevent erosion. Appropriate ground cover must be used and maintained, and efforts must be taken to keep people off the slopes. In this case, there is really nothing left but slopes. Finally, they tend to also represent liabilities, especially in today's litigious climate.

Moreover, if the site is found not eligible, then there is no requirement that green spacing be done.

If, however, the Housing Authority does decide to green space the earthwork, perhaps in conjunction with the small associated wetland, Chicora Foundation will be happy to provide additional guidance regarding appropriate preservation measures that will be necessary.

Recommendations

As mentioned earlier, we understand that the federal funding involved in this project is derived from the U.S. Department of Housing and Urban Development. As such they are the lead federal agency and are responsible for determining the eligibility of the involved site, 38CH1707, in consultation with the State Historic Preservation Office. Our recommendation is that the site is not eligible for inclusion on the National Register of Historic Places and that the site, under the Section 106 process, deserves no further management activities.

Although unlikely, it is always possible that previously unrecognized archaeological remains, such as concentrations of bricks, bottles, bones, ceramics, or pottery, may be encountered during construction. If this occurs, construction activities should be halted while the newly discovered site is evaluated.

Beyond the evaluation of eligibility, we do offer several additional recommendations for the study tract. We remind the Housing Authority, however, that these actions are not required nor will their acceptance or rejection affect the eligibility determination. They are offered only as our professional recommendations.

Marking of the Site

The first recommendation is that the Civil War site should be commemorated through the erection of a State Historical Marker. These markers, found along roadsides throughout South Carolina, provide "capsules of the past," helping South Carolinians better understand their history. The program is administered by the S.C. Department of Archives and History, although regrettably the South Carolina Legislature has never appropriated money to pay for honoring the state's heritage. As a result, it would be the responsibility of the Housing Authority to fund the \$1375 required to cast the aluminum sign.

Although the site is not eligible for inclusion on the National Register, this is largely the result of bulldozing just a few years ago. It is still appropriate to note that the earthwork was present and to comment on its place in the defense of South Carolina. Chicora Foundation is willing to donate the time necessary to prepare an application and shepherd it through the review process. Suggested text might be:

[Side One]
Confederate Battery
at Church Creek

Near this location are the remains of a Confederate battery erected as part of the defensive ring from the Stono to the Ashley. Intended

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to protect Charleston during the Civil War the Church Creek battery never saw action because Union forces did not attempt a landward invasion of the city.

[Side Two] Confederate Batteries

Under the direction of Confederate General P.G.T. Beauregard a series of nine detached, or individual, earthworks were built about 1862 from the Stono River north and east to the Ashley River. Given the names Geddes, Haig, Wilkes, Overflow Battery 1 and 2, Magwood, Gaillard, Miles, and Toomer, they were built facing the marsh and presented what was described as a "strong line" by Union contemporaries.

Integration of Camellia Plantings

The second recommendation focuses on the place of the Old Fort Nursery in camellia horticulture. Although the Old Fort Nursery was not a major commercial venture, there is little doubt that the Higdon's played a significant role in the development of modern camellia cultivars in the Charleston area. There remain on the Housing Authority property a number of camellias, many of which appear to represent very old plants.

I strongly recommend that the Housing Authority work with its landscape architect to integrate these plants into the overall design of the planned facilities. While outside my expertise, I understand that it is possible to transplant camellias and an effort should be made to salvage these plants, rather than simply cut them down. In this way, the property will maintain some aspect of its original ties to Old Fort Nursery.

Should this not be possible, I recommend that the Housing Authority contact the Riverbanks Botanical Gardens in Columbia, SC. They are currently seeking "old" plants from across South

Carolina for their gardens as part of a program to help preserve these old cultivars from extinction. This would be a good way for the Higdon's efforts in camellia cultivation to live on and would be gift to future generations of South Carolinians.

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