

**THE SECOND PHASE OF ARCHAEOLOGICAL SURVEY
ON SPRING ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA:**

**INVESTIGATION OF PREHISTORIC AND HISTORIC
SETTLEMENT PATTERNS ON AN ISOLATED SEA ISLAND**



THE SECOND PHASE OF ARCHAEOLOGICAL SURVEY ON
SPRING ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA:
INVESTIGATION OF PREHISTORIC AND HISTORIC SETTLEMENT
PATTERNS ON AN ISOLATED SEA ISLAND

RESEARCH SERIES 20

Michael Trinkley, Editor

Contributors:

Colin Brooker
Debi Hacker
David Lawrence
Michael Trinkley

Chicora Foundation, Inc.
P.O. Box 8664
Columbia, South Carolina 29202

June 1990

ISSN 0882-2042

Library of Congress Cataloging-in-Publication Data

The Second phase of archaeological survey on Spring Island, Beaufort County, South Carolina : investigation of prehistoric and historic settlement patterns on an isolated sea island / Michael Trinkley, editor ; contributors, Colin Brooker ... [et al.].

p. cm. -- (Research series, ISSN 0882-2042 : 20 cm.)

"June 1990."

Includes bibliographical references.

\$15.00

1. Spring Island (S.C.)--Antiquities. 2. Indians of North America--South Carolina--Spring Island--Antiquities. 3. Excavations (Archaeology)--South Carolina--Spring Island. I. Trinkley, Michael. II. Brooker, Colin. III. Series: Research series (Chicora Foundation) ; 20.

F277.B3S43 1990

975.7'99--dc20

90-2380

CIP

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences - Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

[The historian] must be alive to the existence of many different paths leading to the present in no predeterminable succession, much less progression. The points must make a line, but the line may be of any conceivable curve.

-- William S. Ferguson

ABSTRACT

This study represents the completion of an archaeological and historical survey of Spring Island begun by Chicora Foundation in November 1989, part of which has been previously published (Trinkley 1989a). A South Carolina Sea Island, Spring Island is situated in Beaufort County, east of Callawassie Island and north of the Colleton River. The primary purpose of these investigations was to identify and assess the archaeological remains present on the island, which is currently being developed by Callawassie Development Corporation. Secondary goals included a further examination of the relationship between prehistoric settlement patterns and soil types, begun in an earlier phase of the work, and an investigation of spatial settlement patterns for the large number of prehistoric shell middens known to exist on the island. In addition, these studies were designed to provide a preliminary reconstruction of the changing landscape and land use patterns on the island during the historic period.

As a result of these latest investigations, 74 sites within the second and final survey phase were identified. Twenty-nine of these sites are recommended as eligible for inclusion on the National Register of Historic Sites. This increased the total number of sites on Spring Island to 88, 35 of which are recommended as eligible for the National Register. These sites include shell middens dating from the Early Woodland Stallings phase to the Mississippian Irene phase, interior prehistoric sites, colonial and antebellum plantation complexes, evidence of postbellum tenancy, and an early twentieth century plantation revival.

The examination of soils and prehistoric site locations reveals significant information on site patterning on an isolated South Carolina sea island. The nineteenth century historic sites provide evidence of a successful and very wealthy antebellum cotton plantation gradually evolving from a more modest eighteenth century plantation outpost. A careful examination of the twentieth century plantation developments reveal major changes in land use, but a social order which changed little from that of the nineteenth century.

The preferred alternative for the mitigation of damage to the archaeological sites on Spring Island is avoidance of the remains and long-term preservation through green spacing. In some cases, however, this approach is unfeasible and data recovery may be the only alternative. Several sites require complete architectural recordation and one site, consisting of standing tabby ruins, is seriously impaired and requires immediate preservation.

TABLE OF CONTENTS

List of Figuresvi

List of Tables.vii

Acknowledgements. viii

Introduction. . Michael Trinkley. 1
 Background
 Goals
 Curation

Natural Setting . . Michael Trinkley. 7
 Climate
 Geology and Soils
 Florestics

Prehistoric and Historic Overview . . Michael Trinkley. 14
 Prehistoric Archaeology
 Historical Synopsis

Research Strategy and Methods . . Michael Trinkley. 46
 Introduction
 Archival Research
 Field Survey and Test Excavations
 Laboratory Methods and Analysis

Archaeological Investigations at 38BU747. . Michael Trinkley. . 53
 Introduction
 Archaeological Findings
 Shellfish Studies (David Lawrence)
 Conclusions

Identified Sites and Recommendations. . Michael Trinkley
 and Debi Hacker 70

Tabby Structures on Spring Island . . Colin Brooker 129
 Introduction
 The Edwards House
 Outbuildings
 Site Planning and Organization
 Summary and Conclusions

Vernacular Structures on Spring Island. . Colin Brooker152
 38BU793 and 38BU1212
 38BU803/1213

Conclusions . . Michael Trinkley. 158
 Prehistoric Sites
 Historic Sites
 Green Spacing and Other Development Concerns

Sources Cited 173

Appendix 1. Site Descriptions from the Phase 1 Survey 186

LIST OF FIGURES

Figure

1. Spring Island vicinity	2
2. Chronology of the Woodland and Protohistoric . . . . .	.16
3. Location of Yemassee towns . . . . .	.23
4. 1782 plan showing Spring Island. . . . .	.31
5. 1812 plan of Spring Island . . . . .	.33
6. Spring Island in 1872. . . . .	.39
7. Spring Island in 1943. . . . .	.41
8. Location of 38BU747 on Spring Island . . . . .	.54
9. Plan view of excavations at 38BU747. . . . .	.58
10. Pottery recovered from 38BU747 . . . . .	.61
11. Sites on Spring Island . . . . .	.71
12. 38BU1 site plan. . . . .	.72
13. Computer density map of historic artifacts at 38BU1. . . . .	.74
14. Computer density map of brick and tabby rubble at 38BU1. . . . .	.75
15. Copp House, ca. 1932 . . . . .	.83
16. Copp House, ca. 1968 . . . . .	.83
17. Copp House, ca. 1968 . . . . .	.84
18. 38BU3 in 1968. . . . .	.84
19. 38BU6 site plan. . . . .	.91
20. Structures at 38BU1.	132
21. Plan of the Edwards House.	134
22. Isometric view of the Edwards House.	135
23. Rosehill-on-the-Combahee	140
24. Plan of the Sams House on Dataw Island	141
25. Plan and section of the South Pavilion	142
26. Plan of the Service Building	145
27. Plan of 38BU793 and 38BU1212	153
28. 38BU793 elevations	154
29. 38BU1212 elevations.	155
30. View of 38BU803/1213	157

LIST OF TABLES

Table

1. Soils on Spring Island	11
2. Pottery recovered from 38BU747	60
3. Oyster data for 38BU747.	64
4. Clam data for 38BU747.	64
5. Mean ceramic date for 38BU1 using Lepionka's data.	73
6. Mean ceramic date for 38BU1 using auger test data.	76
7. Mean ceramic date for 38BU1 using excavated data	79
8. Collections from 38BU5	83
9. Mean ceramic date for the inland area of 38BU5	89
10. Mean ceramic date for the beach area of 38BU5.	89
11. Mean ceramic date for 38BU740.	100
12. Mean ceramic date for 38BU773.	112
13. Mean ceramic date for 38BU791.	120
14. Sites identified on Spring Island.	159
15. Research priorities of prehistoric sites	164

ACKNOWLEDGEMENTS

This work was funded by the Callawassie Development Corporation of Ridgeland, South Carolina in the amount of \$44,385. While the work was conducted under the requirements of the South Carolina Coastal Council and the South Carolina Department of Archives and History, I wish to thank Mr. Glen McCaskey, Project Coordinator, for his support and genuine interest in the heritage of Spring Island. Likewise, I want to thank Jim and Betsy Chafin, and Jim Light for their interest, support, and enthusiasm. Others, such as Dick Williams and Vince Graham were constantly ready to assist us in various aspects of the research. Projects such as this clearly indicate that development and a sincere concern for South Carolina's heritage are not incompatible, and may, in fact, even be mutually rewarding.

There are a number of additional people who made our work on Spring Island and our stay on neighboring Callawassie Island both rewarding and pleasurable. First on that list, of course, must be Gordon Mobley, certainly a legend in his own right. I appreciate his patience and the care that he has shown the island, as well as his constant attention to all our details and problems. Also supportive, in a variety of ways, were Marion Cooler, Joe Mobley, William Fripp, James Mitchell, and Kathy Reap. All of the staff at Callawassie Country Club were friendly and made us feel at home.

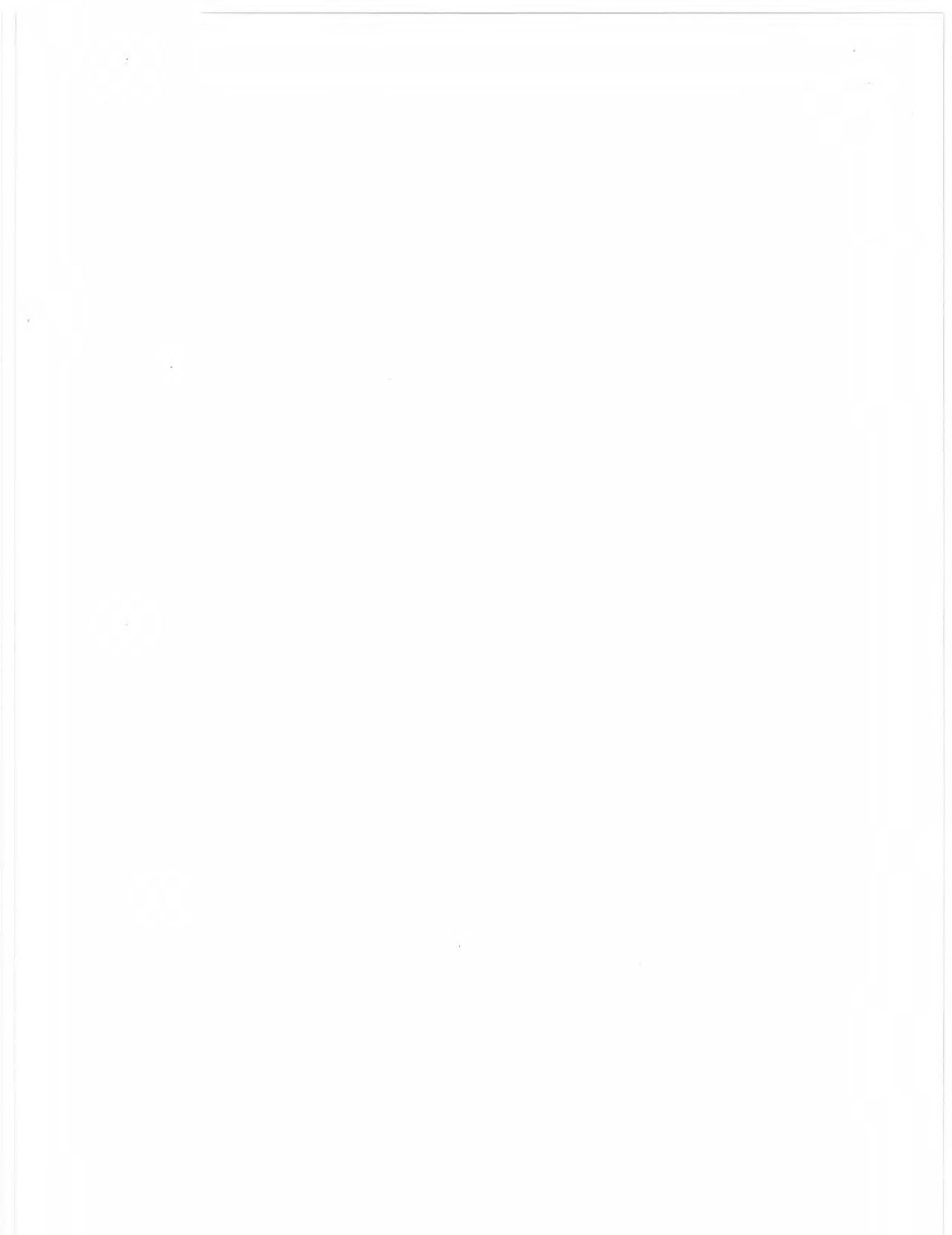
I also need to thank Dr. Patricia Cridlebaugh, Staff Archaeologist at the South Carolina State Historic Preservation Office, for her time and dedication. Spring Island was simply one more in her overwhelming list of projects. Yet, she found the time to provide assistance, support, and sound advice. I also wish to thank Dr. Linda Stine, at the South Carolina Department of Archives and History for her support and assistance in the compliance process. Michael Taylor, Director of The Environmental and Historical Museum of Hilton Head Island assisted us with the curation of the specimens from this project at his institution. Keith Derting and Charles Rinehart at the South Carolina Institute of Archaeology and Anthropology always assisted us in dealing the multitude of site forms and associated problems, while maintaining a sense of humor. The staffs at the various historic repositories, particularly including the South Carolina Department of Archives and History, The Charleston Museum, the South Carolina Historical Society, the South Carolina State Library, and the Library of Congress were pleasant and supportive. In particular, I want to thank John Landrum at the South Carolina State Library for assisting us in locating microfilm, Alex Moore at the South Carolina Department of Archives and History, Connie Cartledge and Jeff Flannery at the Library of Congress, Martha Zierden at the

Charleston Museum, and Caroline Russell at the Historic American Building Survey for their assistance. I would also like to thank Eleanor C. Woodward of St. Petersburg, Florida for her kindness and openness in sharing with us her unpublished archival research on the Baldwin family which included several significant items relating to Spring Island.

Colin Brooker, Architectural Historian for this project, was greatly assisted by a number of individuals, including L. Hayes who first granted access to the Edwards Plantation ruins in 1985, Jane Bruce Guion and Jean Leidersdorf for their assistance in the original survey of the Edwards ruins, Mr. and Mrs. George Potter, John Pratt, Mrs. Charles Cheston, the Sams family of Beaufort, South Carolina, and Cindy Cole of the Historic Beaufort Foundation.

As usual, it is most appropriate to thank the individuals who ensured that this work was done in a professional and timely manner, in spite of all the associated inconveniences and problems -- Natalie Adams, Mona Grunden, Debi Hacker, and Liz Pinckney. I am fortunate to work with such fine and professional individuals. Consultants on this project included Colin Brooker, who endured rain, insects, and my poor temper to conduct, as usual, an excellent architectural assessment of the sites. David Lawrence conducted the shellfish studies for 38BU747 -- a rather thankless task which has contributed greatly to our understanding of the subsistence base of the prehistoric peoples who lived at the site.

Finally, I want to acknowledge the review comments provided by Debi Hacker, Jack Wilson, and Patricia Cridlebaugh.



INTRODUCTION

Michael Trinkley

Background

In accordance with the Coastal Zone Management Act of 1977, the South Carolina Coastal Council, in consultation with the South Carolina State Historic Preservation Officer, stipulated in its permitting process that an archaeological survey of the Spring Island development should be conducted by the Callawassie Development Corporation. The purpose of the survey was to identify Geographic Areas of Particular Concern (GAPC) listed on, eligible for, or potentially eligible for listing on the National Register of Historic Places.

The investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Callawassie Development Corporation (Mr. Glen McCaskey, Project Coordinator), developer of the 3500 acre Spring Island tract. This property is situated about 13 miles southwest of Beaufort and 5 miles northwest of Hilton Head Island. Spring Island is bordered to the north by the Chechessee River and the Chechessee Creek, to the east by the Chechessee and Colleton rivers, to the south by the Colleton River, and to the west by the Callawassie and Chechessee creeks. The island is separated from neighboring Callawassie Island by Callawassie Creek, which runs north-south, and a broad expanse of marsh. The Broad River, which empties into Port Royal Sound, lies to the east of Spring Island (Figure 1).

The proposed development plan for the island involves a number of amenities, such as natural habitat areas, at least one golf course, and a clubhouse, interspersed with lots varying in size up to 5 acres. This plan will involve the clearing, grubbing, filling, and paving of the road network; the construction of the golf course, clubhouse, and associated support structures; the construction of below ground utilities; and the development of individual lots. These development activities will result in considerable land alteration and potential damage to archaeological and historical resources which exist on the island.

Chicora has previously investigated the 200 acre first phase of the development, which incorporated 36 lots and 4.2 miles of access roads on the east central portion of the island (Trinkley 1989a). This current study details the survey of the remaining 3300 acres on the island. At the time of this survey, no plans were available detailing the location of specific development features for the remainder of the island. It is clear, however, that major

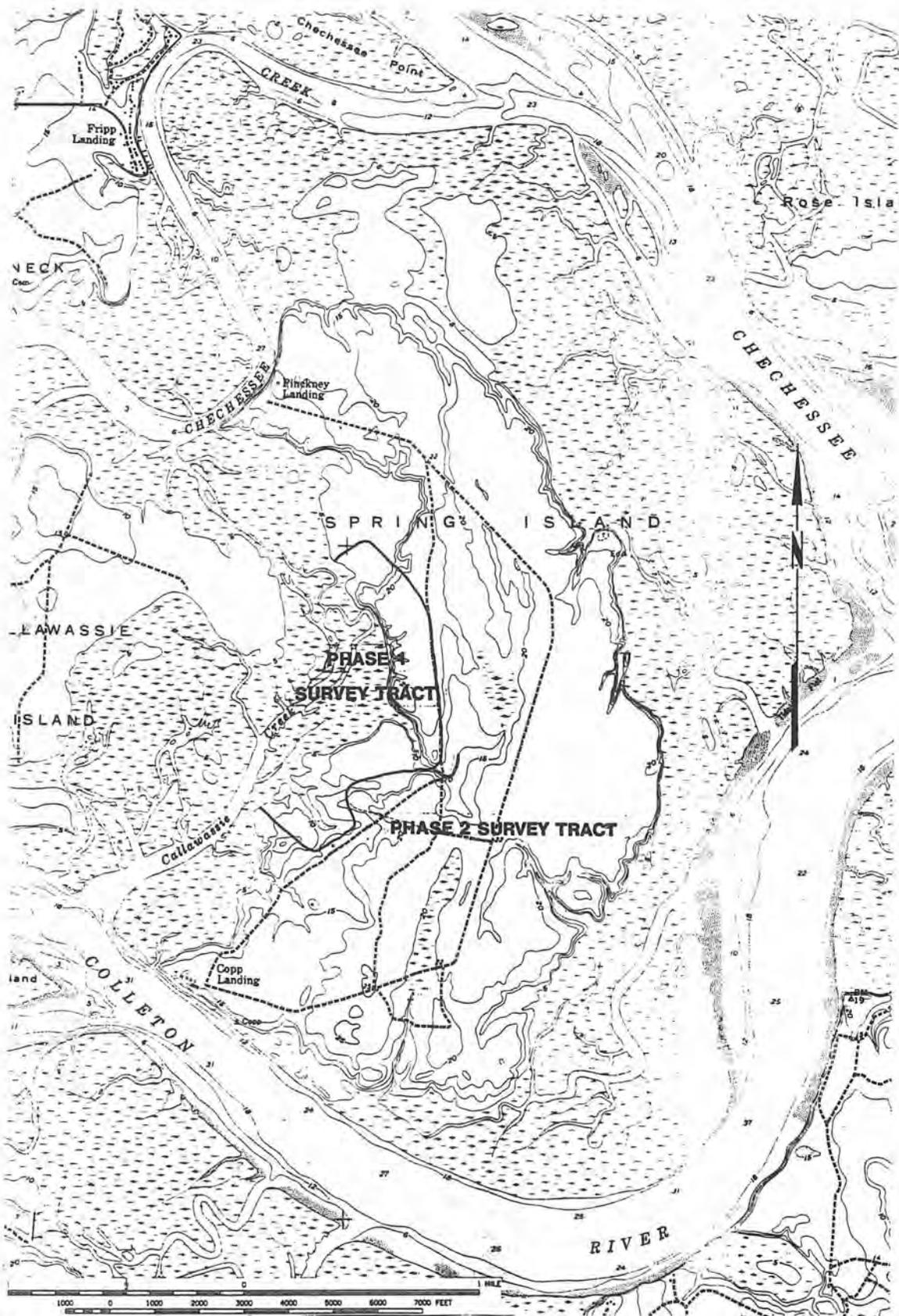


Figure 1. A portion of the Spring Island USGS map showing the project location.

ground disturbing activities, such as the golf course and clubhouse, will be incorporated within this remaining acreage.

The phasing of the archaeological and historical studies was based on the immediate need to proceed with development activities and was approved by the South Carolina Coastal Council and the State Historic Preservation Officer (SHPO). The first phase was conducted in October and November of 1989 and the results of this work have been previously published (Trinkley 1989a).

As a result of the initial survey, six sites were found by the SHPO to be eligible for inclusion on the National Register of Historic Places (Trinkley 1989a; letter from Ms. Mary Watson Edmonds, Deputy State Historic Preservation Officer to Mr. H. Stephen Snyder, S.C. Coastal Council, dated December 12, 1989). One of these six sites, 38BU747, has been the subject of data recovery subsequent to the first phase of investigations and those excavations are also incorporated into this study.

The archaeological survey and evaluation of the Spring Island tract was begun in 1985 by Dr. Larry Lepionka. At that time four weeks were spent on the island with a crew of six and a total of 84 sites were identified at a reconnaissance level of investigations. A manuscript report was prepared in 1986 by Lepionka. This report, however, has not been accepted by the SHPO to satisfy the compliance requirements of the development (letter from Dr. Charles Lee, State Historic Preservation Officer to Mr. R.L. Powell, Davis and Floyd Engineers, dated June 25, 1986). As a result, the Project Coordinator, Mr. Glen McCaskey, requested that Chicora Foundation prepare a proposal to conduct archaeological survey on the island at a level sufficient to comply with the requirements of the SHPO. A proposal for the first phase of the investigations, dated August 28, 1989 was approved by the SHPO and Callawassie Development Corporation on October 6, 1989. A proposal for the second phase of the survey, dated December 9, 1989, was approved on December 29, 1990. The proposal for data recovery at 38BU747, dated December 8, 1989, was also approved on December 29.

The background and archival research specific to this project was conducted on January 8 through 12, and March 12 and 13, 1990. The field work at 38BU747 was conducted from January 15 through January 19, 1990 and the field survey was conducted from January 22 through March 2, 1990. The report preparation (including the necessary laboratory studies) was conducted intermittently from February 19 through March 16, 1990. A management summary was provided on March 9, 1990. A total of 142 person hours were devoted to the work at 38BU747, while 960 person hours were devoted to the second phase of field survey on Spring Island. Conservation of archaeological specimens is currently in process at the Chicora Foundation laboratory in Columbia.

Chicora Foundation initially requested on January 5, 1990 and

again on February 2, 1990 through the Project Coordinator, Mr. Glen McCaskey, that Dr. Lepionka release the artifacts and field notes from Spring Island. Artifacts from a few sites had been provided after the completion of the first phase of Chicora's work on the island, but no materials were available for the remainder of Spring Island. Our intention was to review this documentation, integrate it into the current research, and insure its professional curation. Two shipments were received from Dr. Lepionka on February 9 and February 16, 1990. These materials included collections from 35 sites and photocopied field notes from 77 sites. In review, artifacts were received from 11 sites lacking field notes and field notes were provided from 48 sites without accompanying artifacts. No additional material was provided to Chicora by the conclusion of the field project on March 2, 1990 and we are able only to provide curation for the materials currently in our possession.

Goals

The primary goals of this study were, first, to identify the archaeological resources on the portion of Spring Island not incorporated into our previous survey; second, to assess the ability of these sites to contribute significant archaeological, historical, or anthropological data; and third, to conduct data recovery excavations at a National Register eligible site (38BU747) to be impacted by the first phase of development on the island. The second goal essentially involves the sites' eligibility for inclusion on the National Register of Historic Sites, although Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the SHPO at the South Carolina Department of Archives and History.

Secondary goals were, first, to examine the relationship between site location, soil types, and topography, expanding the previous work by Brooks and Scurry (1978) and Scurry and Brooks (1980) in the Charleston area, and Trinkley (1987, 1989b) on Hilton Head and Daufuskie islands in Beaufort County; second, to explore prehistoric site settlement options and systems on Spring Island; and third, to explore the evolution of the plantation economy and settlement pattern, as evidenced by archaeological remains, on Spring Island.

The first phase of survey on Spring Island incorporated an intricate and intensive system of subsurface testing with transect surveys. The results of this survey revealed substantial changes in site boundaries, as well as major reassessments of site significance. However, few additional archaeological sites were identified and those new sites found tended to be very small (Trinkley 1989a). As a result, Chicora recommended that this second phase dispense with intensive subsurface investigations and rely, instead, on relocating previously identified sites to establish reliable boundaries and justifiable National Register eligibility determinations, coupled with limited survey in high probability

areas. This approach was approved by the SHPO.

Once identified, all sites were evaluated for their potential eligibility for inclusion on the National Register of Historic Sites. 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). Site significance in this survey was evaluated on the basis of five archaeological properties: site integrity (which received the heaviest weighting); site clarity; artifactual variety; artifactual quantity (which received the lowest weighting); and site environmental context (Glassow 1977). These qualities stress properties of the archaeological record, rather than a site's ability or potential to assist in providing data to a limited, and possibly transient, research design. While Glassow's criteria for eligibility are qualitative, rather than quantitative, no better technique for judging site significance has been developed by the archaeological community over the past 13 years.

Site integrity is given the greatest importance because without it, interpretation of the archaeological remains will be tenuous. Artifact quantity is considered the least significant of the properties since the quantity of remains will be entirely dependent on the site type and exposure. Sites which were occupied for longer periods, or which reflect a higher status occupation, or which are domestic, will naturally produce artifacts in greater numbers than sites of brief occupation, or sites of low status, or sites which reflect industrial or specialized activities. All of these sites, however, comprise the totality of the human record and must be examined if a synthesis of past lifeways is to be achieved. Likewise, quantity of remains will be affected by the percentage of cleared ground, the length of collecting time, the number of units excavated, and their placement. The remaining characteristics of artifactual variety, site clarity, and environmental context, are of intermediate value.

Such an approach is particularly reasonable for evaluating a number of sites from a limited geographic area at one time. Clearly, the larger the geographic area the more complete one's interpretative framework. Conclusions on aboriginal settlement suggested as the result of the first phase of survey on Spring Island were based on only 14 sites (Trinkley 1989a). This second phase of investigations on the island have added 49 prehistoric loci, greatly increasing the sample size. As a result of this work it is now possible to study prehistoric settlement and soil correlations using 87 components at 63 sites.

The investigations which have begun on Spring Island are of considerable significance to our understanding of both prehistoric and historic settlement systems. The limited geographic area of sea islands makes them a useful microcosm for the examination of

settlement alternatives. As Braudel (1976:I:148-158) argues for the islands of the Mediterranean during the age of Phillip II, the South Carolina sea islands also appear to be isolated worlds. Yet, both prehistorically and historically, these islands were frequently closely tied to major economic changes. The sea islands, such as Spring or Daufuskie, are paradoxes, being at the same time both isolated, restricted enclaves and also major participants in historical change.

Curation

Archaeological site forms have been filed with the South Carolina Institute of Archaeology and Anthropology and the South Carolina State Historic Preservation Office. In addition, archival copies of the site forms have been provided to The Environmental and Historical Museum of Hilton Head Island.

The field notes, photographic materials, and artifacts resulting from Chicora Foundation's investigations have been curated at The Environmental and Historical Museum of Hilton Head Island as Access Number 1990.2. The artifacts from data recovery excavations at 38BU747 have been cataloged as ARCH 1735 through ARCH 1744, while those from the second phase of survey on the island have been cataloged as ARCH 1745 - ARCH 2352 (using a lot provenience system). The artifacts have been cleaned and/or conserved as necessary, or are in the process of conservation. Further information on conservation practices may be found in the Research Strategy and Methods Section of this report. All original records and duplicate copies were provided to the curatorial facility on pH neutral, alkaline buffered paper and the photographic materials were processed to archival permanence.

As previously discussed, Chicora Foundation has been provided partial collections of both field notes and artifacts from Dr. Larry Lepionka's previous activities on Spring Island. The artifacts which have been released to Chicora have also been curated at The Environmental and Historical Museum of Hilton Head Island (ARCH 2253 through ARCH 2351). The field notes which were released by Lepionka were photocopies; Chicora has curated these original photocopies and one set of archival photocopies at The Environmental and Historical Museum of Hilton Head Island as Accession Number 1990.2. At the present time we have no information on the status of the remaining materials from Dr. Lepionka's work.

NATURAL SETTING

Michael Trinkley

Beaufort County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the south and southeast by the Atlantic Ocean, to the east by St. Helena Sound, to the north and northeast by the Combahee River, to the west by Jasper and Colleton counties and portions of the New and Broad rivers. The mainland primarily consists of nearly level lowlands and low ridges. Elevations range from about sea level to slightly over 100 feet above mean sea level (MSL) (Mathews et al. 1980:134-135). Spring Island is a sea island bounded by the Chechessee River and the Chechessee Creek to the north, the Chechessee and Colleton rivers to the east, the Colleton River to the south, and the Callawassie and Chechessee creeks to the west. The island measures about 4 miles north-south by 1.2 miles east-west. Elevations range from about 5 to 25 feet MSL.

The original Phase 1 tract is situated on the west edge of Spring Island and is dominated by Callawassie Creek to the west and several large impounded drainages. The second phase of the survey incorporated the remainder of the island (Figure 1), including an additional nine impoundments. These drainages represent remnant spring fed sloughs, and one freshwater pond is still found at the southern edge of the Phase 1 tract. Previously artesian wells were common on Spring Island. Topography on the island tends to be level to slightly rolling in the vicinity of the drainages. The west central and east edges are characterized by gradual to steep slopes to the saltwater marshes of Callawassie Creek and the Chechessee River respectively. There are only two areas on the island where high ground meets deep water -- at Pinckney Landing on the northwestern corner (adjacent to Chechessee Creek) and at the southwestern tip (adjacent to the Colleton River). The topography at the north end of the island tends to be low and flat. The interior of the island is characterized by low drainages running north-south and higher sandy ground on either side, forming what may be a remnant ridge and swale formation.

Climate

In the early nineteenth century the Beaufort climate was described as "one of the healthiest" (Mills 1826:377), although Thomas Chaplin's antebellum journal describing life at nearby Tombee Plantation on St. Helena Island presents an entirely different picture (Rosengarten 1987). In 1864 Charlotte Forten wrote that "yellow fever prevailed to an alarming extent, and that, indeed the manufacture of coffins was the only business that was at

all flourishing" (Forten 1864:588). By 1880, however, Henry Hammond wrote that "the sea islands enjoy in a high degree the equable climate peculiar to the islands generally" and that the seasonal variation in temperature "destroys the germs of disease, as of yellow fever and of numerous skin diseases that flourish in similar regions elsewhere" (Hammond 1884:472). Of course, Hammond also mentions that, "doubtless the prophylactic use of quinine has had something to do with the apparently increased healthfulness of this section" (Hammond 1884:474).

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. Spring Island's latitude of about 32°20'N places it on the edge of the balmy subtropical climate typical of Florida. 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 shallow cold air masses from the northwest, moderating them before they reach the sea islands (Landers 1970:2-3; Mathews et al. 1980:46).

Maximum daily temperatures in the summer tend to be near or above 90°F and the minimum daily temperatures tend to be about 68°F. The summer water temperatures average 83°F. The abundant supply of warm, moist and relatively unstable air produces frequent scattered showers and thunderstorms in the summer. Winter has average daily maximum and minimum temperatures of 63°F and 38°F respectively. Precipitation is in the forms of rain associated with fronts and cyclones; snow is uncommon (Janiskee and Bell 1980:1-2).

The average yearly precipitation is 49.4 inches, with 34 inches occurring from April through October, the growing season for most sea island crops. Nearby Hilton Head Island has approximately 285 frost free days annually (Janiskee and Bell 1980:1; Landers 1970). This mild climate, as Hilliard (1984:13) notes, is largely responsible for the presence of many southern crops, such as cotton and sugar cane.

Hilliard also points out that "any description of climate in the South, however brief, would be incomplete without reference" to a meteorological event frequently identified with the region -- the tropical hurricane. Hurricanes occur in the late summer and early fall, the period critical to antebellum cane, cotton, and rice growers. These storms, however, are capricious in occurrence,

[i]n such a case between the dread of pestilence in the city, of common fever in the country, and of an unexpected hurricane on the island, the inhabitants . . . are at the close of every warm season in a painful state of anxiety, not knowing what course to pursue, nor what is best to be done (Ramsay, quoted in Calhoun

1983:2).

The coastal area is a moderately high risk zone for tropical storms, with 169 hurricanes being documented from 1686 to 1972 (0.59 per year) (Mathews et al.1980:56). The last Category 5 hurricane which hit this area was the August 27, 1893 storm which had winds of 120 miles an hour and a storm tide of 17 to 19.5 feet. Over 1000 people in South Carolina were reported killed by this storm (Mathews et al. 1980:55). Other notable historic storms have occurred in 1700, 1752, 1804, 1813, and 1885.

Geology and Soils

The Sea Island coastal region is covered with sands and clays originally derived from the Appalachian Mountains and which are organized into coastal, fluvial, and aeolian deposits. These deposits were transported to the coast during the Quaternary period and were deposited on bedrock of the Mesozoic Era and Tertiary period. These sedimentary bedrock formations are only occasionally exposed on the coast, although they frequently outcrop along the fall line (Mathews et al. 1980:2). The bedrock in the Beaufort area is below a level of at least 1640 feet (Smith 1933:21).

The Pleistocene sediments are organized into topographically distinct, but lithologically similar terraces parallel to the coast. The terraces have elevations ranging from 215 feet down to sea level. These terraces, representing previous sea floors, were apparently formed at high stands of the fluctuating, though falling, Atlantic Ocean and consist chiefly of sand and clay (Cooke 1936; Smith 1933:29). More recently, research by Colquhoun (1969) has refined the theory of formation processes, suggesting a more complex origin involving both erosional and depositional processes operating during marine transgressions and regression.

Cooke (1936) reports that virtually all of Spring Island is part of the Pamlico terrace and formation, with a sea level about 25 feet above the present sea level. Colquhoun (1969), however, suggests that Spring Island is more complex, representing both the Silver Bluff Pleistocene terrace with corresponding sea levels of from 8 to 3 feet above the present level and the Talbot Pleistocene terrace with a sea level about 40 feet above the present level.

Another aspect of Sea Island geology to be considered in these discussions is the fluctuation of sea level during the late Pleistocene and Holocene epochs. Prior to 15,000 B.C. there is evidence that a warming trend resulted in the gradual increase in Pleistocene sea levels (DePratter and Howard 1980). Work by Colquhoun et al. (1980) clearly indicates that there were a number of fluctuations during the Holocene. Their data suggest that as the first Stallings phase sites along the South Carolina coast were occupied about 2100 B.C. the sea level was about 3.9 feet lower

than present. However, by 1600 B.C., when a number of Thom's Creek shell rings were occupied, the sea level had fallen to a level of about 7.2 feet lower than present levels. By the end of the Thom's Creek phase, about 900 B.C., the sea level had risen to a level 2.6 feet lower than present, but over 4.5 feet higher than when the shell rings were first occupied. Quitmyer (1985b) does not believe that the lower sea levels at 2100 B.C. would have greatly altered the estuarine environment, although drops of 10 feet would have reduced available tidal resources.

Data from the nineteenth and twentieth centuries suggest that the level is continuing to rise. Kurtz and Wagner (1957:8) report a 0.8 foot rise in Charleston, South Carolina sea levels from 1833 to 1903. Between 1940 and 1950 a sea level rise of 0.34 feet was again recorded at Charleston. These data, however, do not distinguish between sea level rise and land surface submergence.

Within the Sea Islands section of South Carolina 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 (to be discussed later), 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 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 salt water during high tide. These organic soils usually have two distinct layers. The top few inches are subject to aeration as well as leaching and therefore are a dark brown color. The lower levels, however, consist of reduced compounds resulting from decomposition of organic compounds and are black. The pH of these marsh soils is neutral to slightly alkaline (Mathews et al. 1980:39-44). 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).

Nineteen soil series occur on Spring Island (Table 1), although only one, Seabrook, accounts for more than 10% of the acreage. Table 1 reveals that about 55% of the soils on the island may be considered well drained, while the remainder are somewhat poorly to very poorly drained. Soil drainage may reasonably be

expected to impact prehistoric and historic settlement patterns, as well as cultivation (and hence plantation wealth) during the antebellum period. Plants such as indigo and cotton require well

Table 1.
Soils Found On Spring Island

Soil	%	drainage
Argent	1.80	poor
Baratari	9.38	poor
Bladen	3.96	poor
Chisolm	1.18	well/mod well
Coosaw	1.48	poor
Deloss	0.64	very poor
Eddings	9.95	well
Eulonia	2.10	mod well
Murad	8.04	mod well
Nemours	0.68	mod well
Polawana	2.29	very poor
Ridgeland	1.94	poor
Rosedhu	7.77	very poor
Seabrook	25.27	mod well
Seewee	5.72	somewhat poor
Wahee	5.07	somewhat poor
Wando	8.38	excessive
Williman	1.45	poor
Yonges	2.90	poor

drained soils, while rice requires flooding (and therefore soils capable of holding the water) (Hammond 1884; Hilliard 1975; Huneycutt 1949). A number of period accounts discuss the importance of soil drainage. Seabrook explained:

subsoil so close as to be impervious to water; so that the excess of the rains of winter cannot sink. Nor can it flow off, because of the level surface. . . . The land thereby is kept thoroughly water-soaked until late in the spring. The long continued wetness is favorable only to the growth of coarse and sour grasses and broom sedge . . . acid and antiseptic qualities of the soil . . . sponge-like power to absorb and retain water . . . is barren, (for useful crops) from two causes - excessive wetness and great acidity. The remedies required are also two; and neither alone will be of the least useful effect, without the other also. Draining must remove the wetness - calcareous manures the acidity (Seabrook 1848:37).

Hammond expanded on this mentioning that:

drainage . . . has of necessity always been practiced to

some extent. The remarkably high beds on which cotton is planted here, being from 18 inches to 2 feet high, subserve this purpose. The best planters have long had open drains through their fields. These were generally made by running two furrows with a plow and afterwards hauling out the loose dirt with a hoe, thus leaving an open ditch, if it made be so termed, a foot or more in depth (Hammond 1884:509).

Thus, while Spring Island has a large percentage of land unsuitable for the cultivation of most crops, it is clear that adequate drainage can be constructed. In fact, there is evidence of several significant ditches and adjacent banks on Spring Island. Reference to the historic documentation suggests that some of these ditches may also have served to separate distinct operating units on Spring Island.

Floristics

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

Mathews et al. (1980) suggest that the most significant ecosystem on Spring Island is the maritime forest community. This maritime ecosystem is defined most simply as all upland areas located on barrier islands, limited on the ocean side by tidal marshes. On sea islands the distinction between the maritime forest community and an upland ecosystem (essentially found on the mainland) becomes blurred. Sandifer et al. (1980:108-109) define four subsystems, including the sand spits and bars, dunes, transition shrub, and maritime forest. Of these, only the maritime forest subsystem is likely to have been significant to either the prehistoric or historic occupants and only it will be further discussed. While this subsystem is frequently characterized by the dominance of live oak and the presence of salt spray, these are less noticeable on the sea islands than they are on the narrower barrier islands (Sandifer et al. 1980:120).

The barrier islands may contain communities of oak-pine, oak-palmetto-pine, oak-magnolia, palmetto, or low oak woods. The sea islands, being more mesic or xeric, tend to evidence old field communities, pine-mixed hardwoods communities, pine forest communities, or mixed hardwood communities (Sandifer et al. 1980:120-121, 437).

Robert Mills, discussing Beaufort District in the early nineteenth century, stated:

[b]esides a fine growth of pine, we have the cypress, red

cedar, and live oak . . . white oak, red oak, and several other oaks, hickory, plum, palmetto, magnolia, poplar, beech, birch, ash, dogwood, black mulberry, etc. Of fruit trees we have the orange, sweet and sour, peach, nectarine, fig, cherry (Mills 1826:377).

He also cautions, however, that "[s]ome parts of the district are beginning already to experience a want of timber, even for common purposes" (Mills 1826:383) and suggests that at least 25% of a plantation's acreage should be reserved for woods. On Spring Island, it appears that those areas of poorest drained soils were never exploited for cultivation, but were left in woods. These areas were probably not opened for cultivation until the twentieth century, after extensive late nineteenth and early twentieth century logging.

The estuarine ecosystem in the Spring Island vicinity includes those areas of deep-water tidal habitats and adjacent tidal wetlands. Salinity may range from 0.5 ppt at the head of an estuary to 30 ppt where it comes in contact with the ocean. Estuarine systems are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind. The mean tidal range for Spring Island is 7.5 feet, indicative of an area swept by moderately strong tidal currents. 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 occupation because they naturally contain such high biomass (Thompson 1972:9). 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 systems, such as swamps, bays, savannas, pocosins and creeks, where the salinities measure less than 0.5 ppt. The palustrine ecosystem is diverse, although not well studied (Sandifer et al. 1980:295). A number of forest types are found in the palustrine areas which attract a variety of terrestrial mammals. On Spring Island the typical vegetation consists of red maple, swamp tupelo, sweet gum, red bay, cypress, and various hollies. Also found are wading birds and reptiles. It seems likely that these freshwater environs were of particular importance to the prehistoric occupants.

PREHISTORIC AND HISTORIC OVERVIEW

Michael Trinkley

Prehistoric Archaeology

There is sufficient coastal research to develop a sequence of occupation and at least some information on how the prehistoric occupants in the Spring Island area lived. This section is intended to provide only a brief review of the temporal periods. Several previously published archaeological studies are available for the Beaufort area that provide additional background, including Brooks et al. (1982), DePratter (1979), and Trinkley (1981, 1986). A considerable amount of archaeology has been conducted in the Beaufort area and these works should be consulted for broad overviews.

The Paleoindian period, lasting from 12,000 to 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 megafauna" (Michie 1977:124).

Waring (1961) reported the discovery of three Paleoindian points in the vicinity of Bluffton in 1961 and Michie (1977:105) reports that two additional points have been found on Daws Island, also in Beaufort County. It is possible that early Paleoindian remains may be found on the Pleistocene portions of the island. Sea level during much of this period is expected to have been as much as 65 feet (20 meters) lower than present, so many sites may be inundated (Flint 1971).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleo-Indian 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 little modification to the South Carolina coast. Archaic period assemblages, characterized by corner-notched and broad stemmed projectile points, seem 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). Brooks and Scurry note that:

Archaic period sites, when contrasted with the subsequent Woodland period, are typically small, relatively few in number and contain low densities of archaeological material. These data may indicate that the inter-riverine zone was utilized by Archaic populations characterized by small group size, high mobility, and wide ranging exploitative patterns (Brooks and Scurry 1978:44).

Alternatively, the general sparsity of Archaic sites in the coastal zone may be the result of a more attractive environment inland adjacent to the floodplain swamps and major drainages. Of course, this is not necessarily an alternative explanation since coastal Archaic sites may represent only a small segment in the total settlement system.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of 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 (see Figure 2 for a synopsis of Woodland phases and pottery designations).

The subsistence economy during this early period on the coast of South Carolina was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from shell ring sites indicate that sedentary life was not only possible, but probable. Recent work at sites characterized by fiber-tempered pottery on the southern Georgia coast has led Quitmyer to note that there was:

a specialized economy heavily dependent on marine resources. Marine invertebrates, primarily oyster, were the most significant of the zoological resources. Marine vertebrates, primarily drum, accounted for other important aspects of the diet. To a lesser extent sea

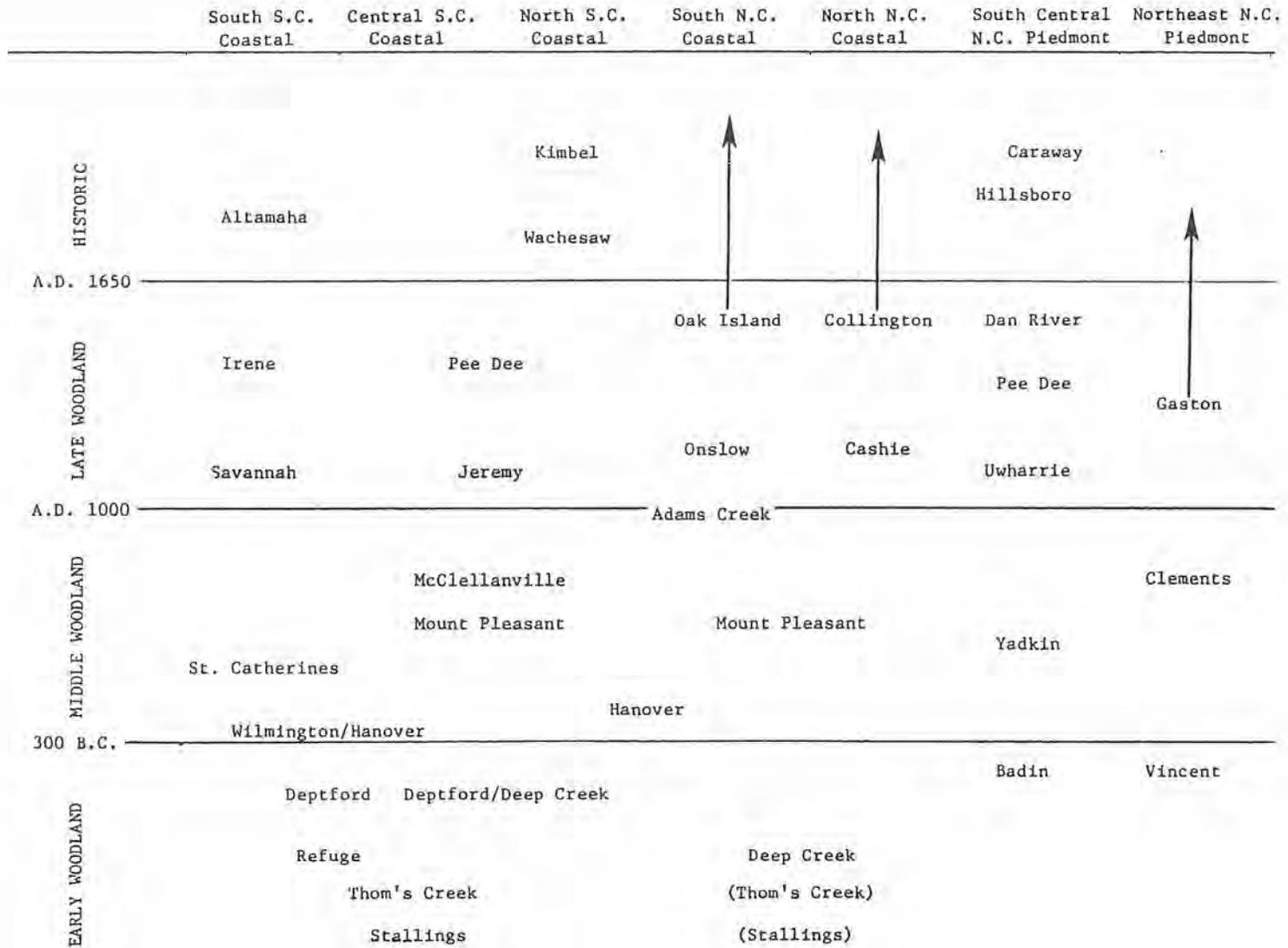


Figure 2. Chronology of the Woodland and Protohistoric periods in the Carolinas.

catfishes (Ariidae) and mullet were part of the diet. Terrestrial animals, like deer, represented only an occasional resource (Quitmyer 1985a:90).

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 tidal marshes (and sites) on which the Thom's Creek people relied.

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

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

The Deptford settlement pattern involves both coastal and inland sites. The coastal sites, which always appear to be situated adjacent to tidal creeks, evidence a diffuse subsistence system. The inland sites are also frequently small, lack shell, and are situated on the edge of swamp terraces. This "dual distribution" has suggested to Milanich (1971:194) a transhumant subsistence pattern. While such may be the case, it has yet to be documented on the coast. The Pinckney Island midden, north of Hilton Head Island, evidences a reliance on shellfish and was occupied in the late winter (Trinkley 1981). The Minim Island midden, on the coast of Georgetown County, indicates a greater reliance on fish, but was also apparently occupied in the fall or winter (Drucker and Jackson 1984; Espenshade and Brockington 1989).

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 continuation of the previous Middle Woodland

cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years. This situation would remain unchanged until the development of the South Appalachian Mississippian complex.

The Middle and Late Woodland occupations in South Carolina are characterized by a pattern of settlement mobility and short-term occupation. 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). The tenacity of this simple lifestyle suggests that the Guale intrusion (see below) was relatively minor in many areas, or at least co-existed with the native inhabitants whose lifestyles were generally unchanged (Trinkley 1981). In addition, there are small quantities of pottery which resemble the more northern Middle Woodland Mount Pleasant series (Phelps 1984:41-44; Trinkley 1983) which were classified as "Untyped" by Trinkley (1981) at the Pinckney Island midden.

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 the 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. The ceramics associated with this period were made:

at least through the end of the Spanish Mission period in the 1680s, when the various Guale groups were either relocated to the St. Augustine vicinity or dispersed by the English (DePratter and Howard 1980:31).

The 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.

The history of the numerous small coastal Indian tribes after contact is poorly known. As Mooney noted, the coastal tribes:

were of but small importance politically; no sustained mission work was ever attempted among them, and there were but few literary men to take an interest in them. War, pestilence, whiskey and systematic slave hunts had nearly exterminated the aboriginal occupants of the Carolinas before anybody had thought them of sufficient

importance to ask who they were, how they lived, or what were their beliefs and opinions (Mooney 1894:6).

Considerable ethnohistoric data has been collected on the Muskogean Georgia Guale Indians by Jones (1978, 1981). This group extended from the Salilla River in southern Georgia northward to the North Edisto River in South Carolina (Jones 1981:215). Jones suggests that the Guale may have been divided into chiefdoms, with two, the Orista and the Escaumacu-Ahoya, being found in South Carolina (Jones 1978:203). During the period from 1526 to 1586, Jones places the Escaumacu-Ahoya in the vicinity of the Broad River in Beaufort County, while the Orista are placed on the Beaufort River, north of Parris Island. By the late seventeenth century the principal town of the Orista appears to have been moved to Edisto Island, about 30 miles to the north (Jones 1978:203).

Waddell considers Orista a variant of Edisto (Waddell 1980:126-168) and places them on Edisto Island by 1666. Prior to that time they were situated in the Port Royal/Santa Elena area. The Escamacu are noted to also have lived in the Port Royal area, between the Broad and Savannah rivers (Waddell 1980:3, 168-198). Nearby were the Yoya, Touppa, Mayon, Stalame, and Kussah (Waddell 1980:3). Many of these tribes (such as the Kussah and Edisto) shifted northward as a result of the Escamacu War (1576-1579) when the Spanish sent out major expeditions. Waddell believes that the Escamacu War "probably left the area between the Broad and the Savannah rivers deserted" (Waddell 1980:3). He notes that in 1684:

the Proprietors decided to clear their title to the coast between the Savannah and the Stono rivers . . . , so they had eight separate cessions and one general cession made to give them a paper claim to all of this territory. The Witcheaught (previously unknown), St. Helena (Escamacu), Wimbee, Combahee, Kussah, Ashepoo, Edisto, and Stono surrendered all their claims (Waddell 1980:4).

The ceramics associated with these protohistoric to early historic groups is expected to be very similar to Altamaha. Similar wares have been found at Spanish Mission sites in Georgia in South Carolina (Caldwell 1943; Chester DePratter, personal communication 1990).

The historic Yemassee Indians of the seventeenth and early eighteenth centuries pose special problems to historians and archaeologists alike. They are found on the South Carolina coast from only 1685 through 1716 and they appear to represent an amalgamation of a number of different groups (Chester DePratter, personal communication 1990). The history of the Yemassee is briefly recounted by Milling (1969:98-112, 135-164). Recent investigations by Bill Green and Chester DePratter have suggested that historic Yemassee ceramics, rectilinear stamped and grit tempered, may be a gradual progression from the earlier Altamaha

pottery. Since the Yemassee represent a number of different groups, it is also possible that additional archaeological investigations will identify several different "types" of Yemassee pottery, reflecting differences in the groups which made up the Yemassee.

Historic Synopsis

The Spanish Period

The first Spanish explorations in the Carolina low country were conducted in the 1520s under the direction of Lucas Vasquez de Ayllon and Francisco Gordillo. One of the few areas explored by Gordillo which can be identified with any certainty is Santa Elena (St. Helena). Apparently Port Royal Sound was entered and land first made at Santa Elena on Santa Elena's Day, August 18, 1520. "Cape Santa Elena," according to Quattlebaum (1956:8) was probably Hilton Head (Hoffman 1984:423).

Gordillo's accounts spurred Ayllon to seek a royal commission both to explore further the land and to establish a settlement in the land called Chicora (Quattlebaum 1956:12-17). In July 1526 Ayllon set sail for Chicora with a fleet of six vessels and has been thought to have established the settlement of San Miguel del Galdape in the vicinity of Winyah Bay (Quattlebaum 1956:23). Hoffman (1984:425) has more recently suggested that the settlement was at the mouth of the Santee River (Ayllon's Jordan River). Ferguson (n.d.:1) has suggested that San Miguel was established at Santa Elena in the Port Royal area. Regardless, the colony was abandoned in the winter of 1526 with the survivors reaching Hispaniola in 1527 (Quattlebaum 1956:27).

The French, in response to increasing Spanish activity in the New World, undertook a settlement in the land of Chicora in 1562. Charlesfort was established in May 1562 under the direction of Jean Ribaut. This settlement fared no better than the earlier Spanish fort of San Miguel and was abandoned within the year (Quattlebaum 1956:42-56). Ribaut was convinced that his settlement was on the Jordan River in the vicinity of Ayllon's Chicora (Hoffman 1984:432). Recent historical and archaeological studies suggest that Charlesfort may have been situated on Port Royal Island in the vicinity of the Town of Port Royal (South 1982a). The deserted Charlesfort was burned by the Spanish in 1564 (South 1982a:1-2). A year later France's second attempt to establish its claim in the New World was thwarted by the Spanish destruction of the French Fort Caroline on the St. John's River. The massacre at Fort Caroline ended French attempts at colonization on the southeast Atlantic coast.

To protect against any future French intrusion such as Charlesfort, the Spanish proceeded to establish a major outpost in the Beaufort area. The town of Santa Elena was built in 1566, a year after a fort was built in St. Augustine. Three sequential

forts were constructed: Fort San Salvador (1566-1570), Fort San Felipe (1570-1576), and Fort San Marcos (1577-1587). In spite of Indian hostilities and periodic burning of the town and forts, the Spanish maintained this settlement until 1587 when it was finally abandoned (South 1979, 1982a, 1982b). Spanish influence, however, continued through a chain of missions spreading up the Atlantic coast from St. Augustine into Georgia. That mission activity, however, declined noticeably during the eighteenth century, primarily because of 1702 and 1704 attacks on St. Augustine and outlying missions by South Carolina Governor James Moore (Deagan 1983:25-26, 40).

The British Proprietary Period

British influence in the New World began in the fifteenth century with the Cabot voyages, but the southern coast did not attract serious attention until King Charles II granted Carolina to the Lords Proprietors in 1663. In August 1663 William Hilton sailed from Barbados to explore the Carolina territory, spending a great deal of time in the Port Royal area (Holmgren 1959). Almost chosen for the first English colony in South Carolina, Hilton Head Island was passed over by Sir John Yeamans in favor of the more protected Charles Town site on the west bank of the Ashley River in 1670 (Clowse 1971:23-24; Holmgren 1959:39).

Like other European powers, the English were lured to the New World for reasons other than the acquisition of land and promotion of agriculture. The Lords Proprietors, who owned the colony until 1719-1720, intended to discover a staple crop whose marketing would provide great wealth through the mercantile system, which was designed to profit the mother country by providing raw materials unavailable in England (Clowse 1971). Charleston was settled by English citizens, including a number from Barbados, and by Huguenot refugees. Black slaves were brought directly from Africa and Barbados.

The Charleston settlement was moved from the mouth of the Ashley River to the junction of the Ashley and Cooper Rivers in 1680, but the colony was a thorough disappointment to the Proprietors. It failed to grow as expected, did not return the anticipated profit, and failed to evidence a workable local government (Ferris 1968:124-125). The early economy was based almost exclusively on Indian trade, naval stores, lumber, and cattle. Rice began emerging as a money crop in the late seventeenth century, but did not markedly improve the economic well-being of the colony until the eighteenth century (Clowse 1971).

Meanwhile, Scottish Covenanters under Lord Cardross established Stuart's Town on Scot's Island (Port Royal) in 1684, where it existed for four years until destroyed by the Spanish. It was not until 1698 that the area was again occupied by the English. Both John Stuart and Major Robert Daniell took possession of lands

on St. Helena and Port Royal islands. The town of Beaufort was founded in 1711 although it was not immediately settled. Spring Island was granted to John Cockran in 1706 in two parcels of 500 acres each (S.C. Department of Archives and History, Colonial Series, Royal Grants, volume 39, page 6). One grant mentions that the land is "part of an Island over against Alatomaha Town."

Waddell (1980) provides no specific information regarding the three towns on the mainland west of Spring Island, Alotomahau, Chechessie, and Otetty, shown on the 1732 survey of the Governor Robert Johnson Barony of 8000 acres prepared by Hugh Bryan (S.C. Department of Archives and History, Miscellaneous Plats, Map Case 2-3) (Figure 3). Swanton, however, suggests that both Callowaggie (Callawassie) and Chechessee are Yemassee words, with the later derived from the Chasee king of the Yemassee (Swanton 1922:97) and that Altamaha, Chasee, and Oketee were three of the five known Yemassee towns (Swanton 1952:115). The Chasee king is mentioned once in the Journals of the Commissioners of the Indian Trade, although with no clear Yemassee association, while the Allatomah Town is mentioned on several occasions (McDowell 1955:37, 46).

While most of the Beaufort Indian groups were persuaded to move to Polawana Island in 1712, the Yemassee, part of the Creek Confederacy, revolted in 1715. By 1718 the Yemassee were defeated and forced southward to Spanish protection (Milling 1969). Consequently, the Beaufort area, known as St. Helena Parish, Granville County, was for the first time relatively safe from both the Spanish and the Indians. The Yemassee, however, continued occasional raids into South Carolina, such as the 1728 destruction of the Passage Fort at Bloody Point on Daufuskie Island (Starr 1984:16). In the same year the English raid on St. Augustine succeeded in breaking the Spanish hold and the remnant Indian groups made peace with the English. The results for the Beaufort area, however, were mixed. While there was a semblance of peace, frontier settlements were largely deserted, population growth was slow, and the Indian trade was diverted from Beaufort to Savannah.

The British Colonial Period

Although peace marked the Carolina colony, the Proprietors continued to have disputes with the populace, primarily over the colony's economic stagnation and deterioration. In 1727 the colony's government virtually broke down when the Council and the Commons were unable to agree on legislation to provide more bills of credit (Clowse 1971:238). This, coupled with the disastrous depression of 1728, brought the colony to the brink of mob violence. Clowse notes that the "initial step toward aiding South Carolina came when the proprietors were eliminated" in 1729 (Clowse 1971:241).

While South Carolina's economic woes were far from solved by this transfer, the Crown's Board of Trade began taking steps to

remedy many of the problems. A new naval store law was passed in 1729 with possible advantages accruing to South Carolina. In 1730 the Parliament opened Carolina rice trade with markets in Spain and Portugal. The Board of Trade also dealt with the problem of the colony's financial solvency (Clowse 1971:245-247). Clowse notes that these changes, coupled with new land policies, "allowed the colony to go into an era of unprecedented expansion" (Clowse 1971:249). South Carolina's position was buttressed by the settlement of Georgia in 1733.

By 1730 the colony's population had risen to about 30,000 individuals, 20,000 of whom were black slaves (Clowse 1971:Table 1). The majority of these slaves were used in South Carolina's expanding rice industry. In the 1730 harvest year 48,155 barrels of rice were reported, up 15,771 barrels or 68% from the previous year (Clowse 1971:Table 3). Although rice was grown in the Beaufort area, it did not become a major crop until after the Revolutionary War. Rice was never a significant crop on the Beaufort Sea Islands, where ranch farming was favored because of its economic returns and favorable climate (Starr 1984:26-27).

Although indigo was known in the Carolina colony as early as 1669 and was being planted the following year, it was not until the 1740s that it became a major cash crop (Huneycutt 1949). While indigo was difficult to process, its success was partially due to it being complementary to rice. Huneycutt notes that planters were "able to 'dovetail' the work season of the two crops so that a single gang of slaves could cultivate both staples" (Huneycutt 1949:18). Indigo continued to be the main cash crop of South Carolina until the Revolutionary War fatally disrupted the industry.

During the war the British occupied Charleston for over two and one-half years (1780-1782). A post was established in Beaufort to coordinate forays into the inland waterways after Prevost's retreat, which passed near Spring Island, from the Battle of Stono Ferry (Federal Writer's Project 1938:7; Rowland 1978:288). British earthworks were established around Port Royal and on Ladys Island (Rowland 1978:290). At the end of the Revolution, the removal of the royal bounties on rice, indigo, and naval stores caused considerable economic chaos with the eventual "restructuring of the state's agricultural and commercial base" (Brockington et al. 1985:34).

The Antebellum Period

While freed of Britain and her mercantilism, the new United States found its economy thoroughly disrupted. There was no longer a bounty on indigo, and in fact Britain encouraged competition from the British and French West Indies, and India "to embarrass her former colonies" (Huneycutt 1949:44). As a consequence the economy shifted to tidewater rice production and cotton agriculture.

Lepionka notes that "long staple cotton of the Sea Islands was of far higher value than the common variety (60 cents a pound compared to 15 cents a pound in the late 1830s) and this became the major cash crop of the coastal islands" (Lepionka et al. 1983:20). It was cotton, in the Beaufort area, that brought a full establishment of the plantation economy. Lepionka concisely states that:

[t]he cities of Charleston and Savannah and numerous smaller towns such as Beaufort and Georgetown were supported in their considerable splendor on this wealth An aristocratic planter class was created, but was based on the essential labor of black slavery without which the plantation economy could not function. Consequently, the demographic pattern of a black majority first established in colonial times was reinforced (Lepionka et al. 1983:21).

Mills, in 1826, provides a thorough commentary on the Beaufort District noting that:

Beaufort is admirably situated for commerce, possessing one of the finest ports and spacious harbors in the world There is no district in the state, either better watered, of more extended navigation, or possessing a larger portion of rich land, than Beaufort; more than one half of the territory is rich swamp land, capable of being improved so as to yield abundantly (Mills 1826:367).

Describing the Beaufort islands, Mills comments that they were "beautiful to the eye, rich in production, and withal salubrious" (Mills 1826:372). Land prices ranged from \$60 an acre for the best, \$30 for "second quality," and as low as 25 cents for the "inferior" lands. Grain and sugarcane were cultivated in small quantities for home use while:

[t]he principal attention of the planter is . . . devoted to the cultivation of cotton and rice, especially the former. The sea islands, or salt water lands, yield cotton of the finest staple, which commands the highest price in market; it has been no uncommon circumstance for such cotton to bring \$1 a pound. In favorable seasons, or particular spots, nearly 300 weight has been raised from an acre, and an active field hand can cultivate upwards of four acres, exclusive of one acre and half of corn and ground provisions (Mills 1826:368).

Reference to the 1860 Beaufort District agricultural census reveals that of the 891,228 acres of farmland, 274,015 (30.7%) were improved. In contrast, only 28% of the State's total farmland was improved, and only 17% of the neighboring Colleton District's farm land was improved. Even in wealthy Charleston District only 17.8%

of the farm land was improved (Kennedy 1864:128-129). The total cash value of Beaufort farms was \$9,900,652, while the state average by county was only \$4,655,083. The value of Beaufort farms was greater than any other district in the state for that year, and only Georgetown listed a greater cash value of farming implements and machinery (reflecting the more specialized equipment needed for rice production).

The record of wealth and prosperity, such as it was, is tempered by the realization that it was based on the racial imbalance typical of Southern slavery. In 1820 there were 32,199 people enumerated in Beaufort District, 84.9% of whom were black (Mills 1826:372). While the 1850 population had risen to 38,805, the racial breakdown had changed little, with 84.7% being black (83.2% were slaves). Thus, while the statewide ratio of free white to black slave was 1:1.4, the Beaufort ratio was 1:5.4 (DeBow 1853:338).

Civil War and the Postbellum

Hilton Head Island fell to Union forces on November 7, 1861 and was occupied by the Expeditionary Corps under the direction of General T.W. Sherman. Beaufort, deserted by the Confederate troops and the white townspeople, was occupied by the Union forces several weeks later. A single white person, who remained loyal to the Federal government, was found on Ladys Island (Johnson 1969:189). Hilton Head became the Headquarters for the Department of the South and served as the staging area for a variety of military campaigns. A brief sketch of this period, generally accurate, is offered by Holmgren (1959), while a similarly popular account is provided by Carse (1981). As a result of the Island's early occupation by Union forces, all of the plantations fell to military occupation, a large number of blacks flocked to the island, and a "Department of Experiments" was born. An excellent account of the "Port Royal Experiment" is provided by Rose (1964), while the land policies on St. Helena are explored by McGuire (1985). Pierce notes that immediately after the fall of Hilton Head, seven slaves from Spring Island made their way to the Union outpost (U.S. Treasury Department 1862:30).

Spring Island seems to have escaped much of the damage caused by the Civil War. Only one account of the island has been identified in the Official Records. Toward the end of the war, on March 31, 1864, a Union gun-boat proceeded as far up the Colleton River as the north end of Spring Island, causing considerable alarm among the Confederate pickets along the mainland side of the river (Scott 1891:379).

Recently, Trinkley (1986) has examined the freedmen village of Mitchelville on Hilton Head Island. One result of the Mitchelville work was to document how little is actually known about the black heritage and postbellum history of the sea islands. Even the

social research spearheaded by the University of North Carolina's Institute for Research in Social Science at Chapel Hill in the early twentieth century (e.g. Johnson 1969, Woofter 1930) failed to record much of the activities on islands such as Hilton Head or Spring.

McGuire (1982, 1985) provides a detailed account of the land policies in the area during the Civil War and her studies should be consulted for detailed information. In general, however, blacks slowly came to own a large proportion of the available land. Certificates of possession were eventually issued for a number of the sea island plantations (McGuire 1982:36). During the postbellum period previous owners slowly came forward to reclaim, or redeem, land confiscated by the Federal government. The 1872 redemption process was not totally successful, partially because some tracts had such low value. By the 1890s a program was established to provide owners unsuccessful at either restoration or redemption with token compensation (McGuire 1982:77; S.C. Department of Archives and History, Secretary of State Records, Beaufort County Tax Claims, Direct Tax Compensation Book IX/2/4/3B).

During the late nineteenth century most of the sea island plantations continued as rural, isolated agrarian communities. The new plantation owners attempted to forge an economic relationship with the free black laborers and found a multitude of problems, including the need to pay higher wages, increasing problems with the cotton boll weevil, and decreasing fertility. The letters of G.C. Hardy, the manager of the Eustis Plantation on nearby Ladys Island in the 1870s, clearly reveal the problems faced during this period. Hardy, in his letters to Frederic Eustis, discusses the rising labor costs and the serious losses of cotton to the boll weevil (South Caroliniana Library, Frederic A. Eustis Collection).

In the 1870s a new form of livelihood was introduced -- the mining of phosphate for fertilizer. While both land and river rock mining were conducted in South Carolina, the Beaufort area saw primarily river dredging to acquire the phosphate ore present as gravel, although land mining of phosphate nodules also took place (Mathews et al. 1980:27, 31). As the industry began to decline in the early twentieth century, blacks returned to agriculture and oyster factories.

Woofter (1930) provides information on the agricultural practices of the St. Helena blacks in the early twentieth century, noting that the population was largely stable, with most blacks remaining in the vicinity of their parents' "home" plantations (Woofter 1930:265). While islands, such as St. Helena, which were large and easily accessible began to change more rapidly during this period, the smaller, more isolated islands, such as Spring, maintained very clear connections with the past which have been repeatedly documented through oral histories.

Spring Island Plantation

The specific history of the study tract has been partially reconstructed by Agnes Baldwin (1966) and her study formed an initial starting point for further research. As additional archaeological investigations become necessary at historic sites on Spring Island it will be profitable to enlarge the scope of historic studies.

Spring Island was granted to John Cockran on September 1, 1706 as two tracts of 500 acres each (S.C. Department of Archives and History, Colonial Series, Royal Grants, volume 39, page 6). While these grants account for only a third of Spring Island's acreage, the wording makes it clear that they were intended to cover the entire island.

Baldwin (1966:2) notes that "we can presume that John Cockran, Indian Trader, selected this island [Spring Island] strategically located across the Chechessee Creek" from three Indian towns in order to establish a trading post. No evidence to support this belief has been identified in the Journal of the Commissioners of the Indian Trade. A 1712 complaint by the Altamaha King indicates that the active trader in this area was Alexander Nicolas (McDowell 1955:37), while Thomas Nairne is also mentioned in connection with the Yemassee (McDowell 1955:27). A 1713 dispute places John Cockran on Daufuskie Island (McDowell 1955:46). Cockran is not among those listed as living within the limits of the Yemassee settlements in 1711 (McDowell 1955:16-17). Baldwin (1966) mentions that Cockran's principal plantation was in St. Paul's Parish, to the north, so it is likely that Spring Island was a relatively minor economic holding; it seems unlikely that he ever operated a trading post, or resided, on Spring Island.

Cockran's abuse of the Indians is well documented in McDowell (1955). On April 14, 1715 he and several other traders were sent to Pocotaligo by the Commissioners of the Indian Trade to settle a dispute with the Yemassee. After an apparently successful meeting the traders retired. The following morning they were taken prisoner, eventually killed, and the Yemassee War began.

A 1733 Memorial indicates that James Cockran had taken possession of Spring Island and had also been granted Callawassie Island in 1711 (South Carolina Department of Archives and History, Memorials, Volume 3, pages 165-167). While James Cockran was an important political figure in South Carolina, there is little indication that he made any improvements on Spring Island. Baldwin (1966:9) questions whether James Cockran even used Spring Island for the simplest of activities, such as cattle. Cockran died intestate between 1719 and 1724. The estate was to be administered by Cockran's widow, Mary, but she died intestate. Administration of both estates was granted to Joseph Russell and Joseph Bryan (Charleston County WPA Wills, Inventories, and Miscellaneous

Records, volume 60, page 145).

Spring Island was inherited by James Cockran's son, James Cockran the Younger (South Carolina Department of Archives and History, Memorials, volume 3, pages 165-167). It is during the tenure of James Cockran the Younger that there is the first evidence of improvements on Spring Island. Between 1738 and 1739 Anthony Trouchet built "a stack of chimneys with 2 fire places," built an oven, constructed a kitchen chimney, and split lathing and plastered a structure at Cockran's (Spring) Island (South Carolina Department of Archives and History, Judgement Roll 14A-1). This work cost a relatively modest sum of £47. Also on the same account is the £200 cost for "lathing and plastering his dwelling and building 2 stacks of chimneys at agreement." Brooker suggests that this last item would indicate a substantial house, perhaps two stories and about 50 by 44 feet (Brooker n.d.:11). However, since this entry does not specify Cockran's Island, as the others do, it is probable that it represents charges for another location. In any event, it is clear that by 1738 Spring Island was being developed as a working plantation.

James Cockran, the Younger, died sometime between December 1, 1739 (the date of his will) and April 2, 1740 (the earliest date identified where he is listed as "deceased"). The executors of Cockran's estate were Richard Ash, Samuel Peronneau, and Hugh Bryan. Baldwin mentions that there are references to a deed of partition, dated December 5, 1744, and a settlement of partition, dated November 8, 1758, although neither have been identified (Baldwin 1966:14).

Several of the heirs to Cockran's estate drew lots for various parcels. One surviving example is the deed to Cato Ash, where he obtained lot 2, which includes Cockran's Point (possibly on Port Royal Island), but no land on Cockrans (Spring) Island (Charleston County RMC, DB FF, page 220). This deed specifies that the island was to be divided into two parcels; the first with 350 acres "to be taken off the southwest part of the said Island, by a line running across it, in a due southeast course," and the second with 650 acres with "the Surplus Land if any."

Baldwin suggests that through undetermined devices Mary Ash acquired ownership of Spring Island (see Baldwin 1966:15). Mary Ash married George Barksdale, but died prior to 1757, leaving possession, but not ownership, of the island to Barksdale (Baldwin 1966:16). The only child from this marriage was Mary Cockran Barksdale. George Barksdale married twice after Mary Ash, first to Susannah Stone (having a son, George) and then to Elizabeth Patterson. George Barksdale's eldest daughter, Mary, married John Edwards, a Beaufort merchant, in 1773 and had a son, George Edwards.

George Barksdale was a Loyalist and with the mounting tension

in the Beaufort area he moved his family in 1780 "from their permanent home on Spring Island" to Charleston for safety. Shortly afterwards the plantation was "burned to the ground" by American forces (Berry 1982:133; see also Great Britain Public Records, Audit Office Number 13, volume 1, folio pages 136-156).

George Barksdale's will, written on December 2, 1775, was proved in 1783. No disposition of Spring Island is made in the will, strongly indicating that while he lived on the plantation, he did not own the property. Barksdale leaves his eldest daughter, Mary Cockran Barksdale, only three slaves, suggesting that she received inheritance of the island from her mother, George Barksdale's first wife, Mary Ash (Charleston County WPA Wills, volume 19, pages 351-352).

Barksdale indicates in his will that his "cattle on Spring Island and sheep Horses and Hogs" were to be sold at auction. This provides some indication of the activities which were taking place on Spring Island prior to the Revolution.

The earliest map identified for Spring Island dates to 1782 and is from the Scavenius Collection at the Dartmouth College Library (copy at the South Carolina Historical Society). This map of British military activities shows a single structure on Spring Island, located at the north end on the Chechessee Creek at modern day Pinckney Landing. This is probably the house of George Barksdale and may be the location of the earliest structure on the island built by James Cockran the Younger (Figure 4).

After George Barksdale's death, Baldwin suggests that George Barksdale (Jr.) continued to operate Spring Island for his sister, Mary Cockran Edwards. The one crop documented for this time period is indigo (information from a Beaufort merchant's account book cited by Baldwin 1966:18). Mary Edwards died on Spring Island in August 1791, leaving her property to be divided equally among her children (Charleston County WPA Record of Wills, volume 24, pages 935-936). This reference indicates that by 1791 a structure replacing the original Cockran/Barksdale house had been constructed.

At present, the interval between 1791 and 1800 is largely a void, although recent research by Woodward (Eleanor C. Woodward, personal communication 1990) indicates that an October 5, 1798 Savannah newspaper mentions Isaac Baldwin "of Spring Island." While the significance of Isaac Baldwin to Spring Island's chain of ownership is difficult to assess, Woodward notes that Baldwin was married to Martha Parmenter Baldwin, the half-sister of Ann Barksdale (the third wife of George Barksdale).

A portion of Spring Island passed from Mary Cockran Edwards to her son, George Edwards. The 1800 census lists George Edwards, single, as living on Spring Island. He owned 40 slaves and two

unidentified white men were also living on the island (Baldwin 1966:20). In 1801, George Edwards married Elizabeth Barksdale and the couple began living in Charleston (Baldwin 1966:20). The remainder of the island was owned by his sisters, Eliza Edwards (who owned the south end) and Mary Holbrook (who owned the north). Consequently, the two unidentified white men also on the island may have been overseers.

On August 2, 1802 George Edwards leased 1051 acres on the south end of the island from Eliza Edwards. Eventually, George Edwards acquired the entire island (see Charleston County RMC, DB H7, pages 11-13; Charleston County Deed Book Q8, pages 161-163; Baldwin 1966:20; South Carolina Department of Archives and History, B1AE 017 1801 312). The 1812 "Chart of the Bars, Sounds of Port Royal and St. Helena," prepared by Daniel Bythewood (National Archives, RG 77, I-4, sheet 3) shows four settlements on Spring Island (Figure 5). The northern settlement appears to be identical to that shown on the 1782 map at Pinckney Landing. The central settlement is on the east side of the island, in the vicinity of the tabby ruins (site 38BU1). The southern settlement is in the vicinity of the modern day Copp Landing. The fourth settlement is on the southeastern edge of the island. This map suggests that by 1812 at least three, and possibly four, settlements had been established and were functioning units.

Chlotilde Martin's newspaper account of Spring Island reports that George Edwards divided the island into four plantations: Bonny Shore, Goose Pond, Old House, and Laural (Martin 1931). The article indicates that Bonny Shore was in the area of the Copp Landing, while Old House was the east side of the island, around the tabby ruins. The degree of trust placed in this article must be tempered with the realization that it was written 80 years after the fact and many of the other statements made in the article can be shown to be folklore. The 1812 map of Spring Island does suggest the possibility of at least three distinct operating units, and the inventory and appraisal of George Edwards made in 1859 lists two slave drivers, again suggesting that the plantation operation was broken into more manageable units.

There is a brief mention of Spring Island in 1806 when a bill of sale for a "negro woman slave named Nancy" is recorded from Joshua Carter to Edward Phalon "of Spring Island, St. Luke's Parish" (South Carolina Department of Archives and History, Bills of Sale, volume 3x, page 125). Edward Phalon may have been an overseer on Spring Island.

In 1810 George Edwards is enumerated in both Charleston and Beaufort, suggesting that he is duplicated in the census records. On Spring Island a total of 170 slaves are listed. The Spring Island household contained one male child under 10 years old, one female child under 10 years old, one female between the ages of 16 and 26, two males between the ages of 26 and 45, one male over 45

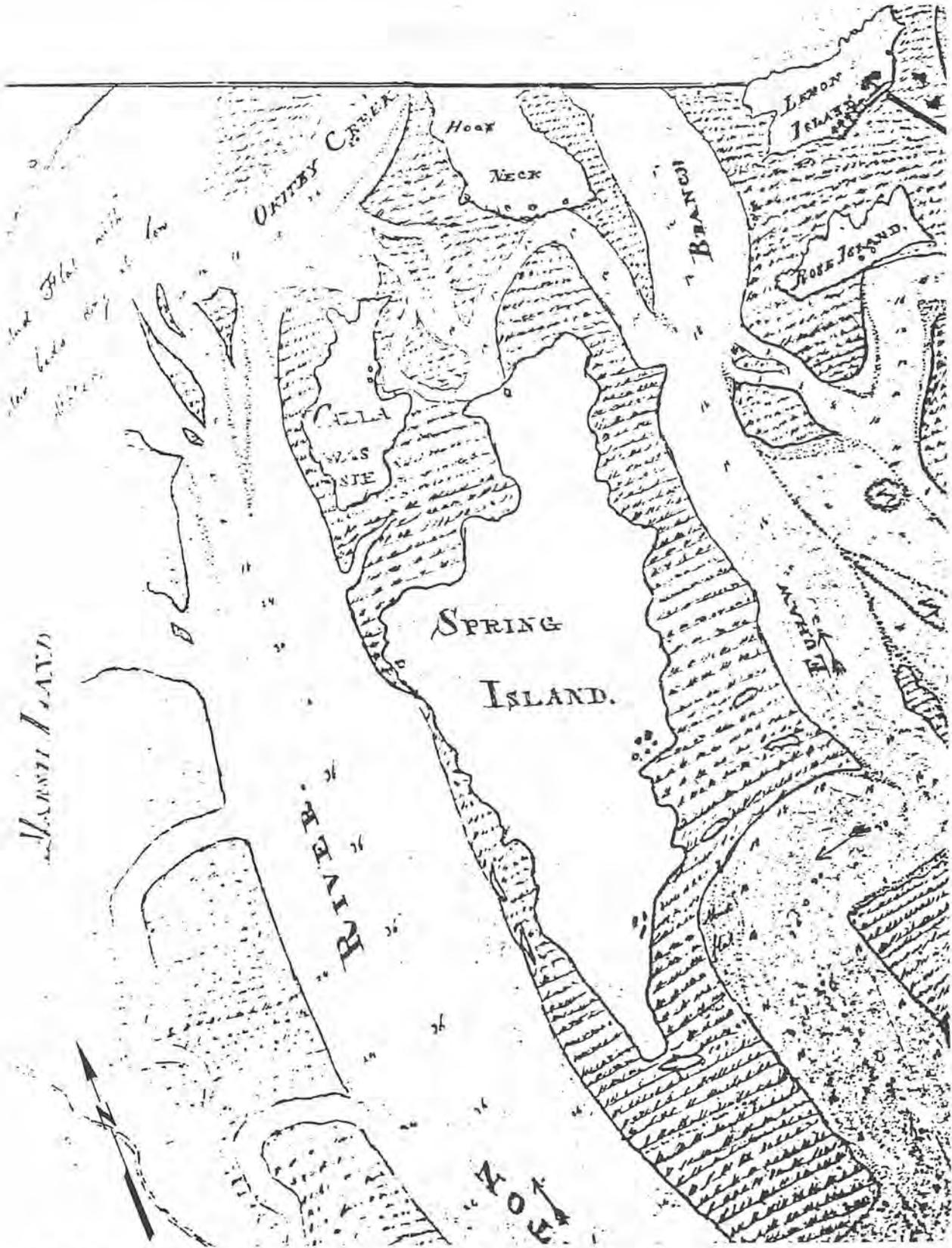


Figure 5. 1812 plan showing Spring Island.

years, and one female over 45 years (South Carolina Department of Archives and History, 1810 Federal Census, Beaufort District, St. Lukes Parish, page 128).

George Edwards was again shown in both Charleston and Beaufort on the 1820 census. Spring Island has 130 slaves engaged in agriculture, although none of Edward's family was living on the island when the census information was collected (South Carolina Department of Archives and History, 1820 Federal Census, Beaufort District, St. Luke's Parish, page 36). Baldwin (1966) also suggests that George Edwards' son, George Barksdale Edwards was becoming active in the operation of the plantation. By 1830 the number of slaves increased to 336 and there are a number of individuals living on the plantation, including two males between 5 and 10, two males between 20 and 30, one female under 5 years, and one female between 20 and 30 (South Carolina Department of Archives and History, 1830 Federal Census, Beaufort District, St. Luke's Parish, page 299). The Charleston household also reported 12 slaves (South Carolina Department of Archives and History, 1830 Federal Census, Charleston District, page 25).

In 1840 there were a total of 250 slaves on the plantation, with 105 engaged in agriculture and six in maintenance or trades. None of Edward's family are enumerated and there is no Charleston listing for Edwards. Ten years later there is no listing for Edwards in Beaufort County, although he is shown as residing in Charleston and he reported a value of \$10,000 in real estate. His occupation is reported as "planter," although he is listed as living in a "boarding house" (South Carolina Department of Archives and History, 1850 Federal Census, Charleston District, St. Phillips, page 277). It is probable, based on the modest real estate holdings, living arrangements, and reported age, that this individual is not George Edwards, but his son, George Barksdale Edwards.

The 1850 agricultural census provides the first good indication of the productivity of the plantation. George Edwards was farming 1000 acres, with 4000 acres of unimproved land (which may have included marsh lands). The cash value of Spring Island was \$50,000 and farm machinery was valued at \$2300. Livestock included 12 horses, 16 asses and mules, 73 milk cows, 40 working oxen, 200 cattle, 70 sheep, and 100 swine, for a total value of \$3400. Crops and other produce raised on the island included 2400 bushels of Indian corn, 2800 pounds of rice, 150 bales of cotton, 1000 bushels of peas and beans, 1000 bushels of sweet potatoes, and 200 pounds of butter. The value of animals slaughtered listed as \$375 (South Carolina Department of Archives and History, 1850 Agricultural Schedule, Beaufort District, St. Luke's Parish, page 307).

Clearly, cotton was the major cash product of the plantation. Cotton production in St. Luke's parish in 1850 ranged from a low of 2 bales to the high, at Spring Island, of 150 bales. The average

yield was 25 bales -- one sixth that produced at Spring Island. In addition, the agricultural census indicates that Edwards was producing respectable quantities of food stuffs for the consumption of his own slaves. In fact, it may be that the plantation came close to being self-sufficient. The reported yield of corn would have provided about 3/4 of a peck a week to each slave for the year, while the sweet potatoes and peas would have provided about 1/3 peck a week to the slaves. The quantity of swine and cattle likewise suggest that the plantation could have come very close to providing its own needs.

The gradual development of Spring Island is suggested by the surviving bills of sales for slaves. George Edwards purchased 67 slaves between 1799 and 1821, selling only one. However, seemingly at the height of his success at Spring Island, Edwards sold 137 slaves (82 in 1837 and 55 in 1847). The reason for these sales cannot be determined, but it seems unlikely that they represent a reduction in agricultural prosperity.

George Edwards died April 11, 1859, leaving the Spring Island plantation to his son George Barksdale Edwards (Baldwin 1966:23). Baldwin, reviewing George Edwards' inventory suggests that:

the household furnishings however, do not appear to be elaborate or sufficient to furnish the large Tabby House now in ruins on the island. It is possible that he lived in a smaller house on the Island and his son and wife, Emma Julia, lived in the "big" house (Baldwin 1966:23).

While this remains a possibility, it must also be recognized that household furnishings were rather indifferently inventoried. In addition, custom and style at this period relied on the frequent movement of furniture from room to room to suit particular needs and functions (Colin Brooker, personal communication 1989). A Civil War diary (discussed below) indicates opulent conditions at the house in 1862.

It appears that George Barksdale Edwards attempted to settle his father's estate, advertising several sales of slaves (Baldwin 1966:24). Litigation between parties to the estate arose (Charleston County RMC, DB, pages 378-382) and George Barksdale Edwards died intestate in June 1860 (Baldwin 1966:24). The 1860 census found only an overseer, Jacob W. Oestervicker, and his family residing on Spring Island. George Barksdale Edwards was living in Charleston at the time (South Carolina Department of Archives and History, 1860 Federal Census, Charleston District, Ward 4, page 342). Baldwin reports that litigation continued over the division of the estate (Baldwin 1966:24).

The 1860 agricultural schedule continues to suggest that Spring Island was a profitable plantation. The plantation contained 2000 acres of improved land (up by 1000 acres from the 1850 census)

and reported a value of \$50,000. The value of machinery and implements was reported as \$2000, while the value of slaughtered animals was \$500. The plantation no longer had any horses, and the asses and mules were reduced to 10. Although 60 milk cows were reported, this represents a reduction of 13 from the 1850 census. Working oxen had increased by 10 to a total of 50. One of the most noticeable declines is in the number of cattle, reduced from 200 to 50 head. The number of sheep increased to 100. Agricultural production included 4000 bushels of Indian corn (up by 1600 bushels), 99 bales of cotton (down by 51), 250 pounds of wool (up by 150 pounds), 1000 bushels of peas and beans, 2000 bushels of sweet potatoes (an increase of 1000 bushels), 50 pounds of butter (down by 150 pounds), and 20 tons of hay (not previously reported). By 1860, Spring Island was no longer producing rice.

Spring Island still was a preeminent cotton plantation in 1860. The average yield of other plantations in St. Luke's was 22.7 bales, down from the 1850 average of 25 bales by about 10%. Although Spring Island was still very profitable, the decline in yield from 150 to 99 bales (a 33% reduction) suggests a serious problem -- perhaps the combination of George B. Edwards' decline in health and the presence of an overseer.

The property was confiscated by the Federal Government in 1861, with the fall of Hilton Head and the surrounding sea islands. At that time the District Tax Commissioners reported the owner as the Estate of George B. Edwards and described the tract as encompassing 2450 acres with a value of \$9800. Taxes, penalty, costs, and interests on the estate amounted to a total of \$380.43 and the property was purchased by the government for \$10,500 (Senate Documents, 1st Session, 47th Congress, volume 4, number 82, page 14). Although Spring Island is not mentioned directly, a November 6, 1862 letter from Caroline Kirk to her daughter, Emily mentions that "[t]he Yankees have entire possession of Callawassie" (South Carolina Historical Society, Kirk Family Letters, page 150).

On November 6, 1861 Oestricker (the overseer for Spring Island, filed an abstract of property lost when Spring Island was abandoned (Abstracts of Property in the State of South Carolina Lost by the Citizens, S.C. Historical Society, File 34/309 1-2). It included 236 slaves, valued at \$141,600, 25 wagons and carts, two carriages, drugs and mortars, four "large cypress plantation boats, a lot of mechanics tools valued at \$300, hoes and other farming implements valued at \$300, 80 bales of Sea Island cotton valued at \$8000, 2000 bushels of corn, 500 bushels of peas, 2000 bushels of sweet potatoes, 2000 pounds of fodder, 45 geese, 26 turkeys, 202 head of cattle, 195 sheep, 33 hogs, six mules, two horses, 12 goats, three Spanish jennies and one jack, and "furniture, crockery & kitchen wares" valued at \$2000. The total losses were estimated to be \$164,319.

Spring Island does not appear to have played a significant

role during the Civil War, being mentioned only once in the Official Records of the Civil War (Scott 1891:379). Woodward, however, has provided a typescript copy of the Civil War diary of John Frederic Holahan (Ms. on file, Bluffton Historical Preservation Society, Bluffton, South Carolina). This diary provides a rare glimpse of Spring Island during a January 1862 raid by Union soldiers. The party landed on Spring Island "at the mansion of Dr. Edwards" by using a small tidal creek, although the boats were sent to "Barnashore" [Bonny Shore, at present-day Copp Landing], probably because there was no adequate landing at the main plantation house. Since the troops entered from the south, they would have been familiar with the landing at the south end of the island. Holahan comments that the island "is covered with unplucked corn and unpicked cotton," and that "herds of cattle" roamed with island along with hogs, chickens, and mules. Holahan also mentions the presence of bee hives on Spring Island. Traversing the island from the north to the south, he mentions that "dwelling houses for overseers and larger buildings for the storage of cotton were at intervals along the shore where landings were made" (probably meaning Bonny Shore, see Figure 6).

The diary indicates that black slaves were still living on Spring Island at this time. Perhaps the most revealing account, however, is the description of the Edwards mansion:

the building is large, roomy and imposing externally, and had been furnished with elegance and taste by the opulent proprietor of the Island. But vandals had smashed the grand piano, cut and mutilated the costly paintings and furniture and carried off the best carpets and other articles capable of removal. . . . Magnificent avenues of live oaks led away in three directions at least for half a mile, and the immediate grounds were enclosed by a fence of osage orange, trimmed as rectangular as a stone wall and ornamental shrubbery adorned the grounds. Flowers are every-where in profusion and everything about us was calculated to delight the eye and overpower the senses with beauty and fragrance. Buried near a cotton warehouse we found a lot of articles useless to us, except for . . . a few dollars in silver coin. . . . I forgot to say that I appropriated some books from the extensive library and a "love of writing stand." I know they would only be destroyed if left behind (Civil War Diary of John Frederic Holahan, Ms. on file, Bluffton Historical Preservation Society, Bluffton, South Carolina).

This account provides significant details not only regarding the landscaping of the Edwards house (to be discussed in more detail by Brooker in a following section), but also concerning the items present in the house. It seems clear from this description that the house had been occupied immediately prior to the fall of

Hilton Head Island in 1861. Further, the account suggests that the inventory of George Edwards' possessions, as suspected, is inaccurate. It seems likely that George Edwards' son was living on Spring Island between 1859 and 1860 when he died and that the house was never closed down prior to the outbreak of the Civil War.

In 1866 Emma J. Edwards, as guardian, applied for the redemption of Spring Island and a certificate of redemption was issued (National Archives, RG 58). This event, and its rarity, was mentioned in a January 28, 1866 letter from John Kirk to his daughter Emily, "[t]he fact is the negroes will surely hold the Islands, expect Spring and Callawassie, owing to the delay of Congress" (South Carolina Historical Society, Kirk Family Letters, page 221).

In 1868 Spring Island was being planted by "Col. Seabrook" and John Kirk wrote Emily that, "I know that that plantation has been hiring large numbers of extra hands for a month past at exorbitant [sic] rates (\$18 per month) and, I presume, their fields are now clean, with a promising prospect" for the cotton crop (South Carolina Historical Society, Kirk Family Papers, page 246-247). The 1870 agricultural census fails to provide any return for the Edwards estate on Spring Island (South Carolina Department of Archives and History, 1870 Agricultural Schedules, Beaufort District, St. Lukes Parish).

In 1872 the plantation was directed to be sold under the direction of Asher Cohen, Special Referee in the matter of "Ogden and Elizabeth Hammond vs. the heirs of George B. Edwards." The property was advertised as:

All that valuable Plantation called Spring Island in Beaufort County, S.C. situate at the juncture of the Chechessee and Colleton River directly opposite Fort Point, containing about 3000 acres high land, about 200 of which are cleared and very fertile for Sea Island or Short Cotton and Provisions. It is abundantly supplied with springs of good water and affords a fine pasture for all kinds of stock together with several small Islands adjacent forming part of and being appurtenant there to and containing ___ acres.

On the Plantation is a large dwelling House and ample outbuildings. There are several settlements which render this property easy to be divided into different plantations. Being an Island it requires no fencing.

It commands a fine view of the Harbor of Port Royal 10 miles distant from the entrance. Considered healthy to live at all the year, and well known as one of the best Sea Island Cotton Plantations on the coast (The Charleston Daily Courier, January 9, 1872).

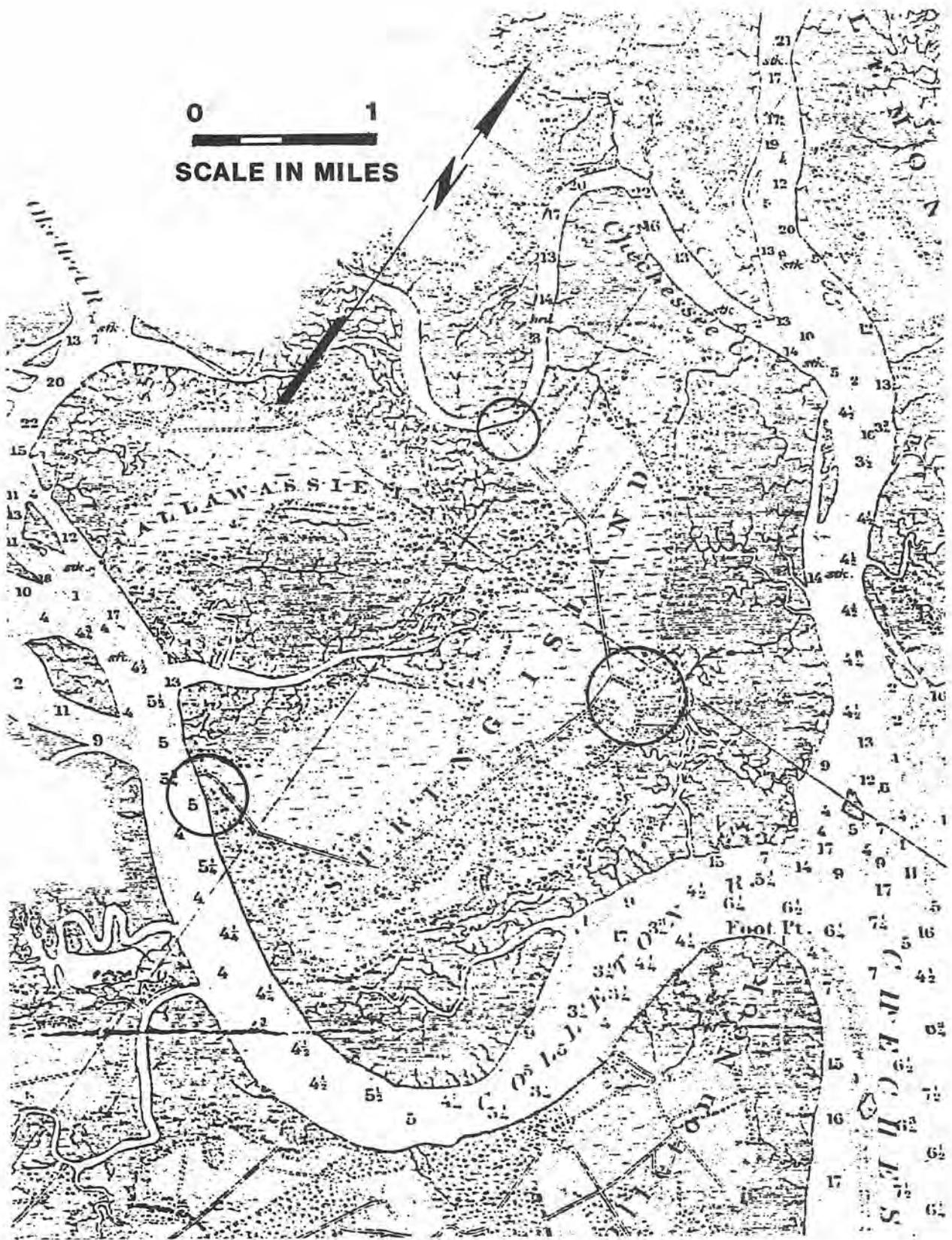


Figure 6. Spring Island in 1872.

There is a coastal survey chart showing Spring Island in 1873 which is based on topographic surveys conducted from 1852 through 1872 (South Carolina Department of Archives and History, Coast Chart No. 55, Coast of South Carolina and Georgia From Hunting Island to Ossabaw Sound). It is likely that this map shows the island immediately prior to the Civil War (Figure 6). Three distinct settlements are shown. The first, at modern day Pinckney Landing on Chechessee Creek, appears to be a double slave row of eight structures. The second, at the modern day Copp Landing, consists of a double row along the access road consisting of 13 structures, seven of which are on the northeast side of the road and six on the southwest side of the road. In addition, there are three buildings at the landing which appear to be barns or other utilitarian structures and another placed somewhat inland which may be a dwelling. The third settlement is at the present location of the tabby ruins. It consists of the main settlement with the main house, two flankers, and a series of three additional structures. To the northeast is a double slave row of 10 structures, while an arc-shaped slave row of eight structures is situated to the southwest of the main complex. Consequently, a total of 40 slave structures are shown on this map, sufficient to house approximately 200 slaves, using an estimate of 5 individuals per structure.

The plantation was sold to Elizabeth Hammond Inwood as Trustee for Trenholm Inwood on July 10, 1873 (Beaufort County RMC DB 7, page 325). In 1874 Elizabeth Inwood sold the property to J.M. Mackay and J.P. Southern, taking back a mortgage. When the mortgage was not satisfied the property reverted (Baldwin 1966:25).

The 1880 agricultural census indicates that Elizabeth Inwood owned a plantation with 200 acres tilled, 6000 acres in woodland, and an additional 1000 acres unimproved. Since this is far in excess of the property on Spring Island, it may include other holdings in St. Luke's parish, or the acreage may have been over estimated. The value of the property is placed at \$25,000 and the only other information provided is that the property was "rented out in small farms" (South Carolina Department of Archives and History, 1880 Agricultural Schedules, Beaufort District, ED 44, page 15).

In 1885 Elizabeth Inwood died and the property was passed to her son, Trenholm Inwood. He sold Spring Island to Thomas Martin on February 14, 1895 (Beaufort County RMC, DB 18, page 784), although the note for the property was not satisfied by Martin until June 1902 (document in possession of Robert Martin, Bluffton, South Carolina).

The property was next conveyed in 1902 to the Spring Island Barony Club (Beaufort County RMC DB 24, page 428) which held the tract until 1912 when it was turned over to Henry Buist for liquidation (Beaufort County RMC DB30, page 310). On May 2, 1912 the island was sold to Alice M. Townsend, excepting 100 acres and

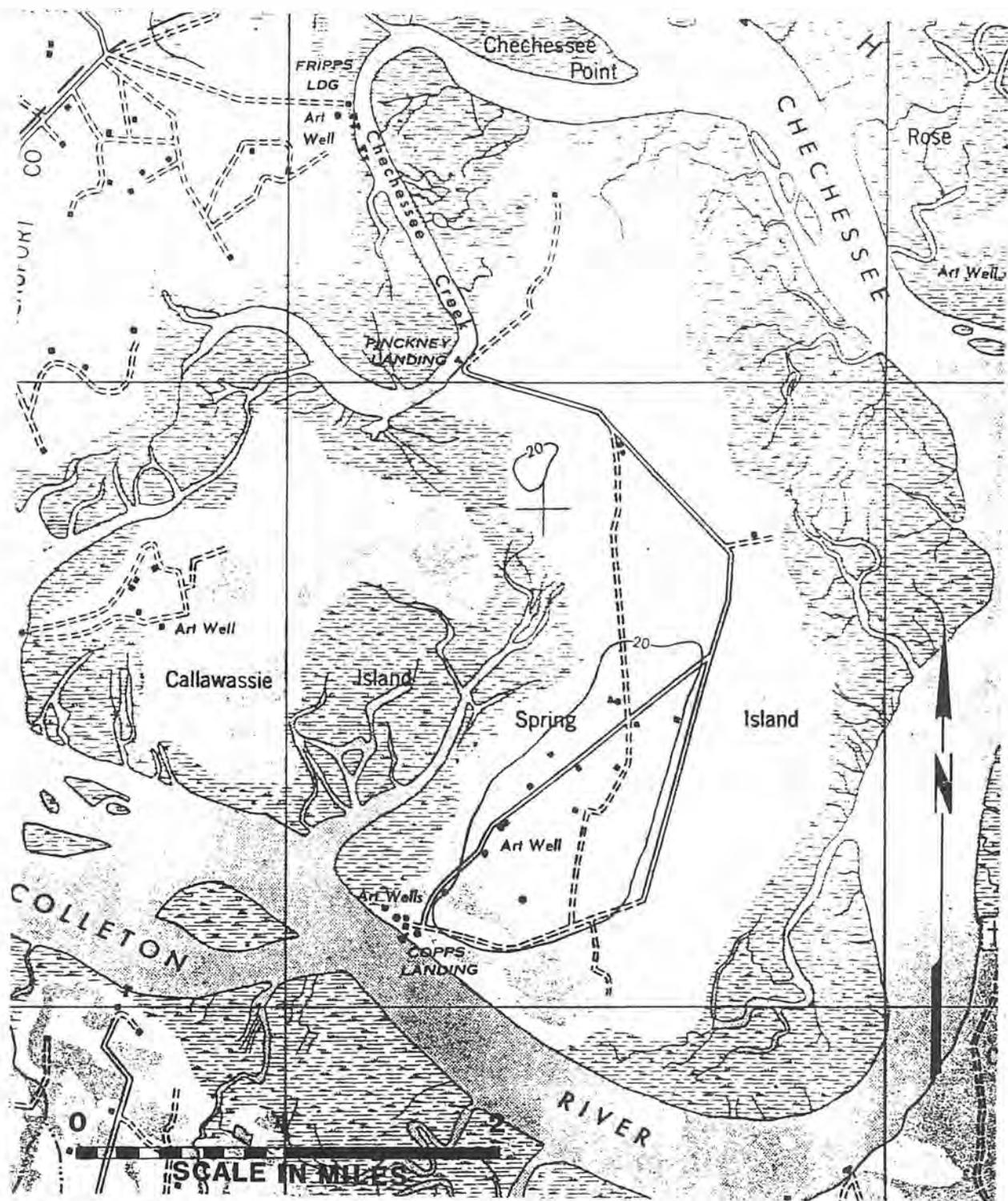


Figure 7. 1943 Okatie 15' Quadrangle showing Spring Island.

a "bungalow" leased to William M. Copp (Beaufort County RMC DB 30, page 403). Little is known of Spring Island during this period, although one account by a white Southerner mentions:

the negroes of this island were very primitive and superstitious. As late as 1913 their death news yell could be heard for miles (Fripp 1951:np).

In addition, architectural evaluation of the tenant house at site 38BU803/1213 revealed a scrap of newspaper adhering to a wall framing timber. This article was from The State newspaper (Columbia, South Carolina) and dated November 5, 1914. It is likely that this structure was constructed sometime between November 5 and December 31, 1914, during the period of Alice Townsend's ownership. Since this tenant house is resting on tabby blocks which have been removed from some other site on the island to serve as foundation piers, it is clear that the recycling of Spring Island's tabby structures began early in the twentieth century. Supporting this evidence are the National Geodetic Survey Horizontal Control Data for the "ED" marker northeast of the Edwards' main house ruins (38BU1). These notes, made in 1931, indicate that the "locality [of this marker] has many scattered tabby stone blocks" (South Carolina Geological Survey, National Geodetic Survey Horizontal Control Data, Spring Island Quadrangle).

In 1920 William Copp, as the sole surviving executor and trustee of the estate of Alice M. Townsend purchased the property (Beaufort County RMC DB 38, page 405). Baldwin notes that the plantation was first used for truck farming by Copp and was later converted to cattle (see also Fripp 1951:np; Martin 1931). A house was built by Copp at present day Copp landing in 1927. While no clear documentation of land use has been identified for Spring Island during this period, the 1943 edition of the 15' Okatie Quadrangle map, which is based on field work conducted in 1912, shows 16 structures on the island. This map, however, probably shows a compilation of structures from 1912 through 1943. The tabby house is shown on the eastern shore of the island, as are structures at Copp Landing and Pinckney Landing (Figure 7). In addition, a school is shown in the center of the island. On the 1937 Beaufort County Highway Map this school is identified as the "Spring Island School," and was for "Negroes." Figure 7 appears to show some of the activity taking place on the island as the result of Copp's farming activity. Chlotilde Martin's 1931 newspaper article notes that "thirty-five negro families live on the Island" in "little tenant houses . . . painted red" (Martin 1931).

Martin also notes that Copp raised about 280 head of cattle and 400 to 500 pigs. Two hundred and fifty acres were planted in oats, 25 in turnips, and 2 acres in cabbage. In addition, Copp was producing pecans and sweet potatoes. At the height of his truck farming about 3000 acres were under cultivation. Copp also had a sawmill and planing mill to produce lumber, as well as a grist mill

and a rice mill (the rice, however, was largely planted to attract birds for hunting) (Martin 1931).

A somewhat more realistic account of life on Spring Island during this period has been obtained from a black informant who moved to Spring Island as a child about 1910 and lived on the island until 1941. He remembers that even during this period there were historic names for the different plantations on the island, including Bonny Shore at the south end, Old House around the ruins of the Edwards house, and Lloyd Point in the area today known as Pinckney Landing. Within each plantation the fields had specific names, including Cherry Hill, Big Neck, Little Neck (which is today Pine Island), Tobby Field, Muckle Bottom, Spring Field, Melton Swamp, and Santa Gate. Early in the twentieth century he remembers that the trees lining the avenue to the Edwards House were planted by two women -- Bess Gatson and Old Lady Berry.

The informant was most familiar with the operation of the island during its ownership by Copp. He remembered that corn, sweet potatoes, beans, lettuce, cotton, tomatoes, hogs, cows, sheep, and goats were raised by Copp. The island had its own cotton gin and steam powered sawmill. About 25 families lived on the island in houses that had been built prior to Copp's ownership in the 1910s or earlier. The wood for the houses had been brought over to Spring Island from Christenson Mills in Savannah. He reported that they were all painted red with white trim because the red paint was the cheapest available and Copp purchased the paint in "big barrels." The informant verified that a "school" for black children was built on Spring Island, but that it was really a "praise house" that was also used as a school. The structure was located on the west side of the Bonny Shore Road (in the vicinity shown on Figure 7).

Copp's first overseer, Humphrey Pinckney, was reported to be a fair and honest man who left Copp's employment because he felt the laborers were being mistreated. The next overseer, Shakey Pinckney (from whom Pinckney Landing may have taken its name) showed little concern for the laborers and was disliked by the informant. The blacks on the island received free housing, but the pay was only \$2.50 a week. Copp originally had a store on the island, but the prices were so high the island blacks preferred to boat over to the mainland and make their purchases at one of the two stores in the Bailey area. Eventually Copp became discouraged that no one would purchase supplies from him and he closed the store on Spring Island.

Copp had a black carpenter named Mr. Smith who made repairs on the existing houses and occasionally replaced a chimney. The informant was familiar with tabby being cut up to be used as foundation piers, but could not recall actually seeing this work done, which suggests that it took place either before his arrival on the island or during his early childhood. The informant remembers, however, only one new house being built on Spring

Island, for a black named Willie Allston. This new house was on the Bonny Shore Road at the south end of the island. The informant remembers the construction of the Copp house and estate, but could add little to that already known about the settlement.

The informant has a vivid memory of the cemetery on Spring Island, which he calls the Old House Graveyard (38BU6). He reported that a number of blacks were buried there, including Agnes Hamilton, Dolly A. Hamilton, Old Man June Gatston, Hackless Howard, Stephen Howard, Nancy Bryan, Dotta Sue, Pigeon Howard, Lottie Howard, and Son Hamilton. When a person on the island died, relatives would obtain a plain coffin from Louis Taylor, a black undertaker in Bluffton. The grave would be marked with a cypress board which had the person's name carved into it. He also spoke freely of the grave goods which would be placed in the cemetery and the sanction against anyone touching or removing items from the cemetery.

The informant also remembered that there were several families living in some "old" houses north of the Edwards ruins (38BU1). These houses, which were in a row perpendicular to the marsh, appear to be the slave row shown on Figure 6. One family living there was Gilbert and Nancy Mitchell. The informant remembers that Shakey Pinckney accused the blacks in that area of stealing cattle and hogs and told Copp that all of the black families should be relocated to the south end of the island. This was done, and the resulting settlement pattern can be seen on the 1947 map of the island (Figure 7).

Copp died on Spring Island in 1939, according to the informant, and after that no more farming to speak of was done on the island. When (John) Lucus purchased the property his major interest was in lumbering the tract. At that time a number of structures, such as the "praise house" and the houses which were probably the remnant slave row north of the Edwards ruins that were standing as late as 1941, were torn down for scrap to patch other buildings.

The 1939 aerial photographs of Spring Island (National Archives, CDU 4 127-129, CDU 4 98) show about half of the island is in cultivation, while the remainder is wooded. Several tenant houses are visible on these photographs, although only the index sheet was available for this study (on file, Map Repository, Thomas Cooper Library).

Spring Island was transferred to Minnie Carter in 1943 by Otilie M. Copp Miles, the daughter of William Copp (Beaufort County RMC DB 59, page 597). In 1945 the island was sold by Carter to P.A. Horswell, excepting timber rights, saw mill, field crops, fruits, and nuts, which were retained by Carter until 1947 (Beaufort County RMC DB 60, page 201). Horswell sold Spring Island to Robert M. Lee on the same day he purchased it from Carter

(Beaufort County RMC DB 60, page 202). Lee retained the property until December 20, 1946, when it was sold to John F. Lucus (Beaufort County RMC DB 65, page 38). In 1958 Lucus sold one-half interest in Spring Island to his wife, Bertha (Beaufort County RMC DB 90, page 223). After the death of John F. Lucus, Bertha Lucus sold the island to Lucille T. and Elisha J. Walker on November 10, 1964 (Beaufort County RMC DB 127, page 97). The 1978 tax assessment for Spring Island lists one barn built in 1910 (dating from the ownership of the Spring Island Barony) and another barn built in 1920 (dating from the occupation of William Copp) (Beaufort County Tax Assessor, PIN 600-011-000-0001-0000).

In summary, the earliest evidence available suggests that Spring Island was occupied as a plantation by James Cockran the Younger about 1738-1739. It seems likely that during this period the occupation was modest; it is equally likely that little evidence of this settlement will be present in the archaeological record because of the intensity of subsequent occupations. There is some evidence that George Barksdale also maintained a plantation on Spring Island, probably in the same location, if not the same house, as that used by Cockran. Barksdale's plantation was abandoned, and possibly burnt, during the Revolutionary War. The location of this settlement, based on a 1782 map, was in the vicinity of modern day Pinckney Landing.

In 1791, Mary Edwards, the eldest daughter of George Barksdale, died on Spring Island. This indicates that between the Revolutionary War and 1791 a structure replacing the original Cockran house had been constructed. There is also evidence that George Edwards was living on Spring Island by 1800, and the archaeological and architectural evidence to be presented later in this study suggests that a portion of the tabby ruins (38BU1) may represent the house constructed prior to 1791.

By 1801 George Edwards married Elizabeth Barksdale and apparently spent time living both in Charleston and on Spring Island. An 1812 map of the island indicates that there were four settlements on the island -- one at the north end of the island in the vicinity of the original Cockran house, one at the present tabby ruins, one on the southeast edge of the island, and a final settlement at the south end of the island at present day Copp Landing.

In 1859 George Edwards died and the plantation was left to his son, George Barksdale Edwards. The 1873 map of Spring Island suggests that three settlements were present on the island during this time -- a slave row at Pinckney Landing (probably dating to 1812), a slave row at Copp Landing (also dating to 1812) and at the Edwards ruins (which includes two slave rows and the main plantation complex). This map indicates a total of at least 40 structures on the island and clearly reveals the wealth and extent of plantation activities.

RESEARCH STRATEGY AND METHODS

Michael Trinkley

Introduction

As was previously indicated, the primary goals of this survey are to identify, record, and assess the significance of archaeological sites within the approximately 3300 acres designated as the second phase of the Spring Island development. Secondary goals include an examination of the soils and drainage as they affect the location of prehistoric sites, and to examine and refine the aboriginal settlement systems as previously observed in the initial phase of investigations on Spring Island (Trinkley 1989a). No major analytical hypotheses were created prior to the field work and data analysis, although certain expectations regarding the secondary goals will be outlined in these discussions. The research design proposed for this study is, as discussed by Goodyear et al. (1979:2), fundamentally explorative and explicative.

The previous discussions regarding soils and drainage lead to the conclusion that prehistoric sites will be found in areas of moderately to well drained soils. Previous work, however, has suggested that a few, small prehistoric shell middens will be located on poorly drained soil. Further, the bulk of the site components will be Middle to Late Woodland, since the high sea level stands during these periods are thought to have restricted the dispersion of resources such as large mammals and forest products. Finally, sites are expected to be small and exhibit low artifact diversity since the use of extractive sites is brief, the sites represent a narrow range of activities, and group size was small (Brooks and Scurry 1978). Previous research has also clearly exhibited a non-random pattern to prehistoric site settlement. Even when vast areas of well drained soils are available for settlement, the sites tend to be found clustered around small tidal inlets and marsh areas (see Scurry and Brooks 1980:77 for Charleston County data, Trinkley 1987 and 1989a for Beaufort County data).

Based on these data, prehistoric sites at Spring Island were expected to occur on the better drained Chisolm, Eddings, Eulonia, Murad, Nemours, Seabrook, and Wando soils, but were not anticipated in the areas of Argent, Baratari, Bladen, Coosaw, Deloss, Polawana, Ridgeland, Rosedhu, Seewee, Wahee, Williman, or Yonges soils. Few prehistoric sites, however, were expected inland, away from marsh or tidal creeks. This situation was anticipated because of the "edge effect" where a variety of resources are brought into close proximity (Odum 1971:157-159). Consequently, it was anticipated

that prehistoric sites would be found clustered in the well drain soil regions. Those sites occurring on the interior were anticipated to be major "base" camps.

Previous work at Spring Island has developed a scheme of classifying prehistoric sites based on size, features, and relationship to water. Type 1 sites represent fairly small, thin scatters of isolated midden immediately adjacent to the marsh. Type 2 sites consist of larger, more discrete heaps of shell found adjacent to the marsh or a major slough. Type 3 sites consist of shell middens found inland from the water 200 to 800 feet and may be characterized as "inland" in the sense that they are not directly oriented to a single, specific marsh or slough. Work conducted during this phase of investigations has identified a fourth class of sites, which lack any evidence of shell midden deposits.

Turning to historic site locations, previous research has suggested that the main house or major plantation complex will be situated in an area of "high ground and deep water," which incorporate the positive attributes of well drained soils and immediate access to water transport (Hartley 1984; South and Hartley 1980). As plantation crops and owners changed during the colonial and antebellum periods, it is possible that settlement areas might also change location. Additionally, it might be impossible to locate the plantation complex in an area which was healthful, centrally located, and adjacent to a deep water access. In such cases compromises on the ideal would be made, but the weight given to each of the various attributes is unclear. While the health and well-being of the owner's slave chattel was of considerable concern, slave rows were not commonly situated on the best land, and in some cases were located on very poorly drained soils (Singleton 1980; Zierden and Calhoun 1983).

The historic documentation, previously discussed, revealed the location of the earliest (eighteenth century) plantation complex, possibly built by James Cockran the Younger. This site (38BU5) is situated on well drained Seabrook soils adjacent to the deep water of Chechessee Creek. By the early 1800s Spring Island Plantation was divided into three loci and this is evident on the 1812 map of the island. The original eighteenth century complex (38BU5) remained intact, and a new settlement had been established on the well drained Wando soils on Callawassie Creek at the southwest edge of the island. The third settlement, the site of the large tabby ruins (38BU1), is situated on well drained Seabrook soils at the head of a small tidal creek on the east central side of the island. While this site is on well drained soils and is situated on a slight bluff to take advantage of healthful breezes, it is the only one of the three not situated adjacent to deep water. It is possible to navigate this creek only at high tide. The division of the island into three parts left the central portion with no deep water access. As will be discussed in more detail, this major

plantation settlement was situated in an area which could be incorporated into a planned picturesque landscape. It may be that this was more significant to George Edwards than deep water access.

Archival Research

This study incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. In addition, archival and historical research was conducted at the South Carolina Historical Society, the Charleston County RMC, the Thomas Cooper Library, the South Carolina Department of Archives and History, and the Beaufort RMC. Throughout this historical research an emphasis was placed on the primary, rather than secondary, sources as the appropriate level of initial study. Since Baldwin (1966) had compiled some historical records for Spring Island, her study was used as a point of departure. While the historical research is not exhaustive, and does not exhaust resources at the Charleston RMC, the South Carolina Historical Society, or the South Caroliniana collections, it does provide a clear background and is a sufficient base for future work in the project area. This historical and archival research was conducted by the author of this study, with assistance from Ms. Mona Grunden Ms. Liz Pinckney, and Ms. Debi Hacker.

Field Survey and Test Excavations

The typical methodology for a compliance survey of a tract such as Spring Island is to establish a systematic intensive survey methodology which examines the entire acreage for archaeological and historical resources. Such an approach, because of the size of Spring Island, the vegetation, and its documented prehistoric and historic significance, would be extremely labor and cost intensive.

The situation on Spring Island, however, was judged to be somewhat different since a reconnaissance survey of the island has been previously conducted (Lepionka 1986). While this reconnaissance survey has several times been rejected by the State Historic Preservation Office as inadequate for compliance purposes, it does provide a starting point for these investigations. The recent survey of the Phase 1 tract on Spring Island revealed that while the previously conducted reconnaissance survey has serious flaws in the areas of site boundary determinations and site assessments, only a few additional sites were recorded as a result of the intensive, systematic survey.

In addition, we felt that the Phase 1 survey (Trinkley 1989a) provided sufficient data to establish a site predictive model on which to base additional investigations on Spring Island. As an example, areas of low, poorly drained soil may be excluded from intensive surveys on the island.

Chicora met with Dr. Patricia Cridlebaugh, Staff Archaeologist

with the South Carolina State Historic Preservation Office and discussed these issues and the development of a field research plan to complete the archaeological survey of Spring Island. The State Historic Preservation Office agreed that combining the previous reconnaissance survey (Lepionka 1986) with the intensive Phase 1 survey (Trinkley 1989a) would justify modifying the survey techniques for the remaining 2800 acres on Spring Island.

As a result, rather than proposing an intensive survey of the entire Phase 2 tract on Spring Island, three levels of additional investigation were proposed. The first was to conduct sufficient shovel or auger testing to adequately determine site boundaries and site eligibility for those sites previously recorded within the Phase 2 boundaries of the island. The second phase would involve limited intensive survey in areas which, based on the Phase 1 survey, were thought to exhibit a high potential for the discovery of additional archaeological resources. The third level would involve some limited archaeological testing at the Edwards' site (38BU1) in order to allow more complete architectural documentation of the standing tabby structures. In addition, preliminary architectural documentation was to be conducted at standing tenant houses in order to verify their eligibility for inclusion on the National Register of Historic Places.

These plans were put into effect with only minor changes. Sixty-six of Lepionka's previously recorded sites were searched for, with 64 sites actually re-identified (one site was found to be inundated and the other could not be relocated). In addition, eight new sites were recorded. The total number of sites within this second phase of survey, therefore, is 74. If the 14 previously recorded sites for the Phase 1 tract are added, this brings the total number of sites on Spring Island to 88 (or 86 if Lepionka's two sites not relocated during this survey are excluded).

Typical field procedures involved relocating the sites based on the available site forms (filed by Lepionka at the South Carolina Institute of Archaeology and Anthropology) and 1 inch to 400 feet mapping provided by the client. This process was often more complex than might be expected given the variation in surface visibility between Lepionka's 1985 survey and that in 1990, five years later. In addition, Lepionka's site forms were not completed until 1986 -- a year after the completion of the field work. As a result, we identified occasional problems in site locations and descriptions. Unfortunately, Lepionka did not release his field notes on the 1985 project until the conclusion of our research, preventing the use of this information to aid in site relocation.

Once the approximate site location was determined, the area was subjected to shovel tests with all materials screened through 1/4-inch mesh. The test interval varied, depending on estimated site size and surface visibility, from 5 foot intervals to 200 foot intervals. These investigations, however, excavated a total of 1694

shovel tests at the 71 recorded sites (site 38BU1 was excluded from shovel testing). These shovel tests were used to establish boundaries which were transferred, in the field, to the development topographic maps. Information at each site was also collected to allow the completion of a South Carolina Institute of Archaeology and Anthropology state site form. Photographs were taken as necessary to document archaeological or architectural features. Notations on soils, middens, and recovered materials were made on Shovel Test Logs. All shovel tests were flagged and the site boundaries were placed on the development map. If possible, small surface grab collections were made to augment the shovel test data.

The identification of new sites incorporated minimal additional survey and emphasized the examination of areas with a high potential for archaeological remains. Because the time required to relocate the original sites was greater than anticipated, it was not possible to allocate as much time to the examination of high probability areas as originally intended. Although it is likely that there remain unidentified interior sites on Spring Island, we feel confident that the major sites have been recorded. Should additional archaeological remains be encountered during construction, the South Carolina State Historic Preservation Office should be immediately notified.

Investigations at 38BU1, which consists of the Edwards plantation complex, included an auger survey using intervals of 100 feet to cover the northern and southern thirds of the site and an interval of 50 feet to cover the central section (in the vicinity of the standing tabby ruins). The results of this survey have been incorporated into computer density maps of the site and will be further discussed in a following section. A series of five 5-foot units were excavated at the site in order to further investigate archaeological and architectural features. These units were located relative to the standing tabby ruins. Vertical control was maintained through the use of an assumed elevation (AE) of 100 feet established on the wooden sill of the southern window in the east elevation of the north wing at the main house. Excavations were conducted in natural zones, with the units troweled, photographed in black and white and color, and drawn at the base of the excavations. Fill was screened through 1/4-inch mesh and material was bagged by provenience. Brick, tabby rubble, and shell were weighed and discarded in the field (except for representative samples which were retained). Soil samples (approximately 1 pint) were routinely collected from each zone, and flotation samples (5 gallons) were collected from proveniences evidencing a high likelihood of containing ethnobotanical remains. Additional information regarding these excavations is provided in a following section of this study.

Reference to Lepionka's report (Lepionka 1986) will reveal that he tended to lump a number of discrete site areas or loci together, assigning a single site number. In some cases such sites

are separated by considerable distances, while in other cases the loci joined together represent distinct temporal periods. While this practice does reduce the number of sites subject to compliance review, it tends to blur significant differences between the various loci. We have chosen to separate several of Lepionka's sites, coordinating these changes with the South Carolina Institute of Archaeology and Anthropology, which maintains the permanent state site files.

Laboratory and Analysis Methods

The cleaning of artifacts was begun in Beaufort during the field work and completed in Columbia. Cataloging of the specimens was conducted at the Chicora laboratories in Columbia from February 17 through March 19, 1990. All artifacts except brass and lead specimens were wet cleaned. Brass and lead items were dry brushed and evaluated for further conservation needs. Conservation treatments were conducted by Chicora personnel in Columbia.

Brass items, if they exhibit active bronze disease, are being subjected to electrolytic reduction in a sodium carbonate solution with up to 4.5 volts for periods of up to 72 hours. Hand cleaning with soft brass brushes or fine-grade bronze wool follows the electrolysis. Afterwards, the surface chlorides are removed with deionized water baths and the items are dried in an acetone bath. The conserved cuprous items are coated with a 20% solution of acryloid B-72 in toluene. Ferrous objects are being treated in one of two ways. After the mechanical removal of gross encrustations, the artifacts are tested for sound metal by the use of a magnet. Items lacking sound metal are subjected to multiple baths of deionized water to remove chlorides. The baths are continued until a conductivity meter indicates a level of chlorides no greater than 1.0 ppm. The specimens are dewatered in acetone baths and given an application of 10% acryloid B-72 in toluene, not only to seal out moisture, but also to provide some additional strength. Items which contain sound metal are subjected to electrolytic reduction in a bath of sodium carbonate solution in currents no greater than 5 volts for a period of 5 to 20 days. When all visible corrosion is removed, the artifacts are wire brushed and placed in a series of deionized water soaks, identical to those described above, for the removal of chlorides. When the artifacts test free of chlorides (at a level less than 0.1 ppm), they are dewatered in a series of acetone baths. A series of phosphoric (10%) and tannic (20%) acid solutions are then applied. The artifacts are air dried for 24 hours and coated with a 10% solution of acryloid B-72 in toluene.

Prehistoric ceramics collected from the marsh and beach areas of 38BU5 contained significant quantities of salts (primarily sodium chloride) which, upon crystallization, had the potential to cause extensive deterioration (Pearson 1987:113). These collections were treated by a flow-through immersion process using tap water

for 24 hours, followed by a static-immersion process of deionized water to reduce the chloride levels.

As previously discussed, the materials have been accepted for curation by The Environmental and Historical Museum of Hilton Head Island as Accession Number 1990.2 and have been cataloged using that institution's accessioning practices (ARCH 1745 through ARCH 2352). Specimens were packed in plastic bags and boxed. All material will be delivered to the curatorial facility at the completion of the conservation treatments.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric pottery was classified using common coastal Georgia and South Carolina typologies (DePratter 1979; Trinkley 1983). The temporal, cultural, and typological classifications of the historic remains follow Noel Hume (1970), Miller (1980), Price (1970), and South (1977).

ARCHAEOLOGICAL INVESTIGATIONS AT 38BU747

Michael Trinkley

Introduction

As a result of the intensive archaeological survey conducted by Chicora on the first phase of the proposed Spring Island development (Trinkley 1989a), six archaeological sites (including 38BU747) were determined by the South Carolina State Historic Preservation Office as eligible for inclusion in the National Register of Historic Places. A Memorandum of Agreement between the State Historic Preservation Office and the Callawassie Development Corporation, dated January 5, 1990, stipulated that the six Register eligible sites would be green spaced, subjected to data recovery, or, if undeveloped by the completion of the Phase 2 survey on the island, reassessed in light of additionally discovered archaeological sites.

One of the six sites eligible for inclusion on the National Register, 38BU747, was found to be within the right-of-way for the proposed Callawassie-Spring Island bridge. As a result, Chicora Foundation was requested by Callawassie Development Corporation to develop a data recovery proposal for this site. A proposal for the necessary investigations was submitted by Chicora on December 8, 1989 and the work was approved by the State Historic Preservation Office and the developer on January 5, 1990.

The initial investigations at 38BU747 identified the site as situated on the north edge of the Phase 1 development tract at UTM coordinates E515600 N3577100 (Figure 8). Site size was estimated to be about 225 feet by 140 feet, based on a total of 16 systematically placed shovel tests. Elevation in the site area ranges from 10 to 12 feet above mean sea level (MSL) and the soils are poorly drained Coosaw sands (this poor drainage, in fact, greatly hampered dry screening portions of the midden through 1/8-inch mesh). Materials recovered in the initial shovel tests included two Deptford/Deep Creek Cord Marked sherds (Trinkley 1989a).

The site was interpreted to represent a small Deptford phase camp, probably dating about 500 B.C., which was oriented almost exclusively toward shellfish collection. Based on the settlement studies conducted at the conclusion of the Phase 1 survey, this site was suggested to be an example of a Type 2 midden -- a primarily oyster midden situated immediately adjacent to the marsh or other water supply which evidenced numerous shell pile accretions. Subsequent investigations have determined that 38BU747

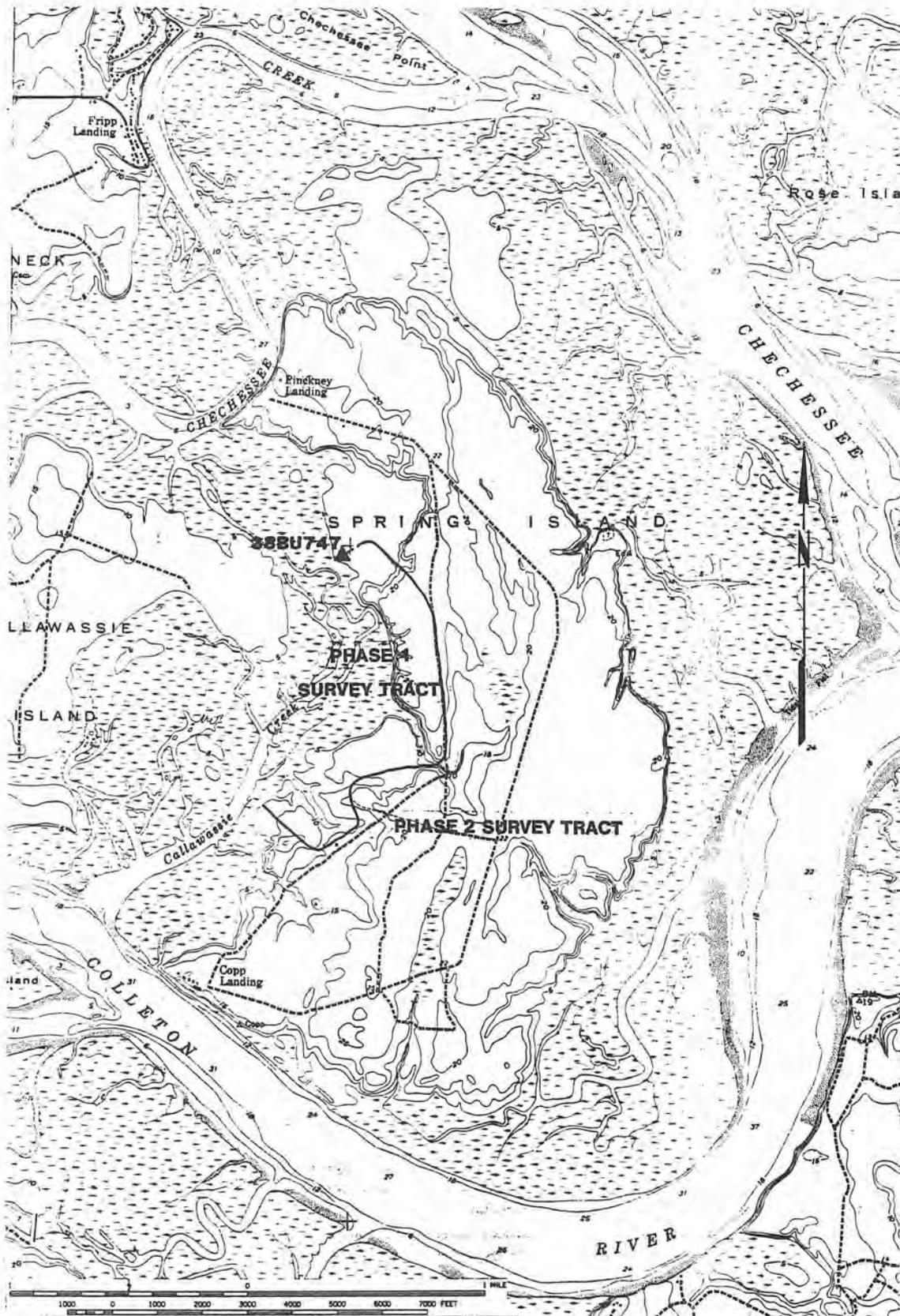


Figure 8. Location of 38BU747 on Spring Island.

more properly fits as a Type 1 site. Regardless, a site such as this might be expected to represent a very early stage of repeated (perhaps seasonal) occupation at an area for the specific activity of shellfish collection. Repeated occupations would result in an originally small occupation mounds gradually blending together to create more uniform middens over time.

Unfortunately, sites such as 38BU747 have received only limited archaeological attention. Often the sites are dismissed with descriptive terms such as "small, limited in extent," "common and found abundantly on the coast," or "possessing only a limited range of artifacts." These statements, however correct, fail to recognize that these sites, by their very abundance, are a significant part of the prehistoric settlement system on the South Carolina coast. It has been previously suggested that the various site types on Spring Island relate to a major shift away from the Thom's Creek settlement system seen on the coast. If these late Early to Middle Woodland settlement systems are to be understood, then the "small" sites must be recognized as a significant aspect of the archaeological record.

When sites such as 38BU747 have been investigated (see, for example, Trinkley 1981) they have been traditionally excavated and subjected to typical archaeological analytical techniques. The results of such studies largely demonstrate that "traditional" archaeological techniques and questions which emphasize the recovery of diagnostic cultural remains are largely unsuitable for anthropological reconstructions (Trinkley 1989a).

Sites such as 38BU747 may fail to yield large quantities of pottery, diagnostic lithics, or other archaeological specimens. The sites may also fail to produce other objects of traditional archaeological investigation and interpretation, such as pits or post holes. While these alone can be considered significant clues to the sites' functions, they must be coupled with a more intensive collection and analysis of subsistence remains. Of primary concern should be the collection of reliable shellfish samples suitable for the analysis of seasonality, habitats being harvested, intensity of harvesting, demographics, and shellfish preparation. This requires that archaeology be recognized as simply a technique for the collection of a number of discrete datasets, including specialized non-traditional archaeological data.

Consequently, the major thrust of the excavations at 38BU747 were to gather valid subsistence samples for dietary, seasonal, and ecological studies. In many ways the work at 38BU747 is unique in the South Carolina low country and a variety of relatively new techniques were tested at the site to determine those approaches best suited to similar sites on Spring Island.

Archaeological investigations were begun at 38BU747 by a crew of four on January 15, although excavation work was delayed until

January 16 when our equipment was transported to the island. The work continued through January 22, 1990. A total of 134 person hours were spent in the field and an additional 8 person hours were spent on laboratory analysis and field processing. The shellfish consultant for this project, Dr. David Lawrence, spent 6 person hours in the field. As a result of this work 400 square feet of site area were opened (representing a 1.3% sample in the site core). A total of 230.5 cubic feet of soil and shell were moved in primary excavations, all screened through either 1/4 or 1/8-inch mesh. Excavations were backfilled by Callawassie Development Corporation at the conclusion of the project.

The site grid, established using cardinal directions, was tied into several survey points on the South Carolina Plan Coordinate System in order to maintain long-term horizontal control. Since the site is expected to be heavily impacted by bridge construction, no permanent points were established for the grid system. Vertical control was maintained through the use of a mean sea level datum (an iron nail in the base of a live oak at 12.87 feet MSL).

Units were established using a modified Chicago 10-foot grid, with each square designated by its southeast corner, from a OR0 point at the southwest corner of the site. Thus the southeast corner of square 10R20 would be located north 10 feet and right (or east) 20 feet from the OR0 point.

Soil from the midden excavations was dry screened through 1/8-inch mesh using mechanical sifters. Dr. Lawrence recommended that the midden be examined for fish scales and other small remains which might not be found as a result of dry screening. In spite of previous success at the recovery of fish bones and scales using dry screening through 1/8-inch mesh, we considered his concerns valid. As a result, we randomly selected a 2.25 by 2.25 foot block within the midden of one unit (representing a 5% sample of the midden), collected all the remains without screening, and transported them off-site for low pressure water screening. This investigation failed to yield any fish bones, fish scales, or other remains not previously detected as a result of mechanical screening.

In addition, a 2.25 foot square sample of each midden was weighed prior to sifting and the shell, collected for analysis by Lawrence, was weighed after screening. This provided a quantified statement of shell density for each of the middens. Lawrence also requested that a sample of right oyster valves be collected for more specific seasonal analysis. The qualitative field assessment suggests that the middens are 99% oyster, with only very small quantities of clam, periwinkle, ribbed mussel, and whelk. The low numbers of these species suggests that they were collected by accident during oyster gathering. The examination of the oyster remains covers species diversity, habitat information, season of collection, and preparation techniques. Only a very small quantity of animal bone was recovered from the middens (less than 20 grams).

Charcoal was present in the midden, although the site area has been periodically burned off as a land management technique. Identifiable non-wood ethnobotanical remains include two carbonized hickory nutshells.

Non-midden units were screened through 1/4-inch mesh. The increase in mesh size for these units was based on our belief that small bones, absent in the alkaline environment of the shell midden, would not be preserved in the naturally acidic soils. To test this, a 2.25 foot square block was screened (with great difficulty) through 1/8-inch mesh. No faunal remains were identified.

Units were troweled at the top of the subsoil, photographed in b/w and color slides, and plotted. Excavation was by natural soil zones and soil samples were routinely collected. These excavations failed to reveal any cultural features.

Field notes were prepared on pH neutral, alkaline buffered paper and photographic materials were processed to archival standards. All original field notes, with archival copies, will be curated at The Environmental and Historical Museum of Hilton Head Island as Accession Number 1990.2. All specimens will be evaluated for conservation needs prior to curation, although field assessments indicate that all materials are stable.

Archaeological Findings

Two 10-foot squares (80-90R110) were placed in an area thought to represent one of the densest middens in the site, based on what appeared to be a surface mound of shell and an adjacent 3 foot square test unit excavated by Lepionka (Figure 9). These units were excavated in two zones, with Zone 1 representing mixed humic sand and shell midden. Zone 2 represented gray moist sand with very light scatters of shell in pockets. Zone 1 varied from 0.2 to 0.5 foot in depth, while Zone 2 varied from 0.2 foot deep in the north to 0.5 foot deep in the south. The north and west profiles of these units revealed that they were located in the vicinity of two discrete middens. The one to the west was the larger, although the 80-90R110 units intersected only the eastern edge of the midden. The midden to the north, while not as large, was better sampled in the excavations.

The shell midden density in these two units differed considerably. In 90R110 the total shell weight was 961 pounds, although Zone 1 was composed of only 10.8% shell by weight. In 80R110 the total shell weight for Zones 1 and 2 was 288 pounds, although the Zone 1 midden was 34.5% shell by weight.

Unit 90R160 was excavated in what appeared to be a second midden area to the east. In this unit an attempt was made to distinguish between a Zone 1a, consisting of gray-brown humic sand

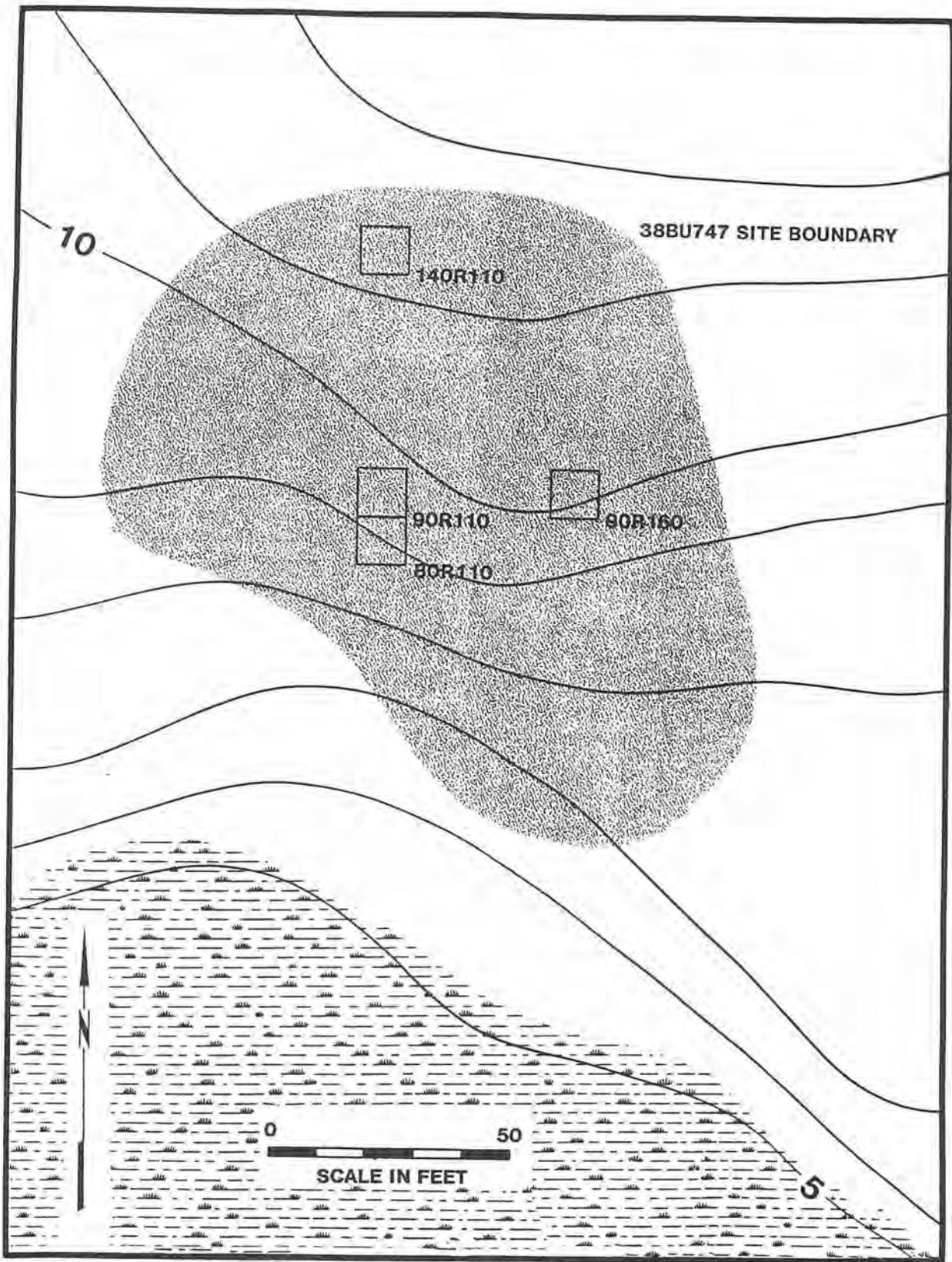


Figure 9. Plan view of excavations at 38BU747.

about 0.2 to 0.3 foot in depth, and Zone 1b, consisting of shell in a tan sand also about 0.2 to 0.3 foot in depth. The midden in this unit was even more obviously deposited as small piles or pockets of shell, rather than a continuous midden. The total weight of shell recovered from both Zone 1a and Zone 1b was 65 pounds, while shell in Zone 1b was found to comprise 11% of the midden by weight.

The final unit, 140R110, was placed in a level area inland from the marsh edge. There was no obvious surface indication of shell and previous shovel tests had failed to reveal midden deposits. Excavation in this area was conducted to determine if pits or structural evidence might be found in the non-midden site area. The stratigraphy revealed a zone of brown humic sand grading into a tan sand at a depth of about 0.5 foot, overlying yellow subsoil. The total shell weight in this unit was 9 pounds, with the bulk of this coming from two very small pockets of shell in the northeast and southeast corners of the unit.

These excavations failed to reveal any evidence of cultural features, although at least 12 tree stains were observed at the base of the excavations. This result, however, must be cautiously interpreted given the nominal excavations in non-midden areas.

The pottery recovered from these excavations spans the period from about 500 B.C. to A.D. 1200, although the excavations revealed discrete loci of occupation. Unites 80-90R110 produced only Deptford pottery (DePratter 1979; Trinkley 1983). Examination of the material reveals that a number of sherds are mends or matches, suggesting a very small number of original vessels and minimal disturbance to the site. Unit 90R160 also revealed only Deptford pottery, although a chert Caraway projectile point (Coe 1964) was recovered from Zone 1a. Unit 140R110, located inland from the other three, produced the widest range of materials, including Deptford, St. Catherines, and Savannah wares (the latter perhaps associated with the Caraway projectile point in 90R160).

The predominant surface treatment of the Deptford pottery was cord marking, although two distinct varieties are present. One is a relatively neatly twisted fiber, while the other is very loosely twisted and frayed. In addition, a small number of Deptford Fabric Impressed and Simple Stamped sherds were also recovered (Figure 10, Table 2).

Other artifacts present at the site include only small fragments of burnt clay or daub. No lithic materials or shell tools were found associated with the Deptford middens. Investigations by Lawrence offers two areas of future artifact investigation. He notes the presence of oyster shells which may evidence scrape marks and which may have been used as tools. Unfortunately, all of these were found in the non-midden unit, 140R110, and cannot therefore be associated with a specific cultural period. In addition, Lawrence observed the presence of fragmented clam shells which he suggests

may be blanks for the production of beads. No other evidence of such a specialized activity (such as finished or partially manufactured beads), however, was identified.

Table 2.
Pottery Recovered from 38BU747

	80R110		90R110		90R160		140R110		Totals
	Z.1	Z.2	Z.1	Z.2	Z.1a	Z.1b	Z.1	trouv.	
Deptford									
Cord Marked	17	17	33	21	12	15	10	3	128 (54.5%)
Fabric Imp.			11	1					12 (5.1%)
Simple Stamp						1			1 (0.4%)
St. Catherines									
Cord Marked							12		12 (5.1%)
Savannah									
Check Stamp							1		1 (0.4%)
Unidentifiable	7	6	12	2	16	11	26	1	81 (34.5%)
Totals	24	23	56	24	28	27	49	4	235

Shellfish Analyses (David Lawrence)

Introduction

This report, authored by Dr. David Lawrence, provides analyses of archaeological molluscs from thin and lenticular shellfish middens (38BU747) on the western edge of Spring Island, Beaufort County, South Carolina. This current report has shown this site to contain Woodland period ceramics assignable to the Deptford series of wares. The aim of this work was to help in the formulation and answering of questions concerning the subsistence patterns, and behaviors of the original and Woodland period inhabitants of the site.

Background and Working Methods

The locality was visited on January 17, 1990 during the excavation of square 90R110. It was immediately evident that American oysters [Crassostrea virginica (Gmelin)] must comprise at minimum 99 percent by weight of the midden's shellfish remains; fragments of the hard-shelled clam or quahog [Mercenaria mercenaria (L.)] are the only minor midden component of any consequence. At that time the research plan included the analysis of molluscs from one 2.25 foot square column sample within each of the major excavations or 10-foot squares. Because such columns in the thin midden might yield inadequate molluscs for a thorough analysis, I requested that a minimum of 50-75 oyster left valves, and all of the Mercenaria fragments, be picked off the sifter screen for each of the excavated 10-foot squares. These requests for screen

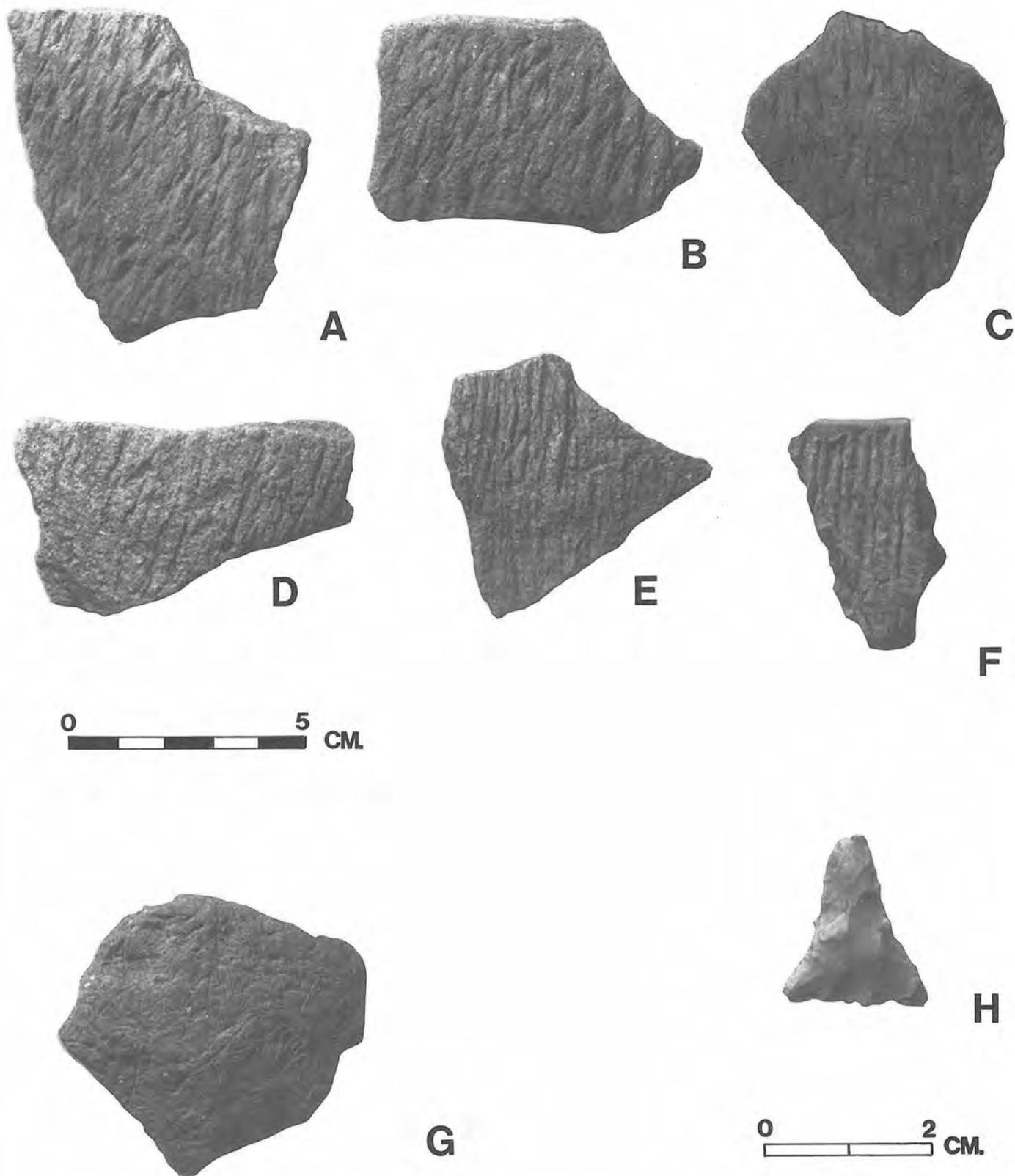


Figure 10. Pottery recovered from 38BU747. A-C, Deptford Cord Marked, loosely twisted fibers; D-E, Deptford Cord Marked, tightly twisted fibers; F, St. Catherine's Cord Marked; G, St. Catherine's Cord Marked, basal sherd; H, Caraway Triangular projectile point.

samples were willingly met by Chicora Foundation personnel. My request for wet screening of at least one representative midden sample was handled in a similar fashion, and has been reported upon by Trinkley (above).

After I left the site, and after excavation of squares 90R110 and 80R110, it was recognized that two discrete middens were located in that area-- a more northerly one and a more westerly one. The column sample for 90R110 came from the northwest corner of that square, near where these two middens merge or meet; the screen sample for the northern half of 90R110 was drawn from throughout that area and included oysters and clams from both the northern and western middens (Michael Trinkley, personal communication 1990). Thus although more of the northern midden was excavated in the 90R110/80R110 area, no mollusc sample came exclusively (or demonstrably completely) from the northern midden or midden lobe. This problem may be difficult to avoid in work upon sites which contain thin and lenticular Woodland period shellfish middens.

With this knowledge, the column sample for 80R110 was thoroughly examined first, to provide a detailed analysis of the molluscs in the western midden of that region. Screen samples from the southern half of 90R110 and from all of block 80R110 came from that same midden and provided complementary information. These oysters are here described in detail, to provide a standard for comparison with those from other blocks of the site. Next the column sample from 90R110 was examined for differences in the interpretation of the molluscs -- differences which might reflect dissimilarities between the northern and western midden lobes. Some were found, and these deviations are noted in this text. The midden or shell materials from the 90R160 and 140R110 areas were treated as each representing a single genetic unit in the archaeological record; the oysters from these latter squares, as well as those from 90R110, are herein compared and contrasted with the more fully described materials from block 80R110. Pertinent data supporting intrasite oyster differences and similarities are summarized in Table 3. The Mercenaria fragments were sorted and kept separate by provenience but are here described collectively, because of their small number over the area of 38BU747.

During the initial sample analysis, 2.5 gallons of each midden column sample were chosen at random and sorted by taxa, oyster shell size, and oyster valves. Data here were used to determine left-right valve ratios. A second 2.5 gallon sample (if available) was inspected for non-oyster taxa with the latter saved if present. When necessary and if available, oyster left valves were selected at random from this second column sample, to bring the total number of larger left valves (height greater than 3 inches, which is the minimum marketable size for present-day oysters in the State of South Carolina) to fifty if possible. These left oyster valves were scrubbed clean for seasonality analysis of their ligament areas. Then the seasonality samples from the columns were

supplemented by 25 or more individuals drawn from the appropriate screen samples, to bring the total number per block, if available, to at least 75 larger left valves. For left oyster valves alone, this report involved the detailed examination of over 250 individuals, and the inspection at some stage of at least double that number of left valves.

Interpretations of the oysters are based upon the criteria of Lawrence (1988) as modified to reflect the complementary work of Kent (1988). These amended criteria may be found in Lawrence (1989).

The Oysters

Square 80R110

The main of the valves are subtriangular to subovate in outline and relatively massive. Relatively small left valve attachment areas are most common, and decipherable shell attachment was to oyster valves. The distinctive perforations and galleries of boring clionid sponges occur but are not widespread on the valves; part of the sponge-infested valves were most likely collected after the death of the oysters concerned. The U-shaped tubes of polydorid bristleworms are present but uncommon on the valves, and thus other oyster associates, capable of leaving traces on the shells of the oysters, are not at all conspicuous. In the larger shells, counts of left versus right valves approach a 1:1 ratio (Table 3). Smaller remains are primarily fragments of robust valves but those which are entire also appear to represent subequal numbers of left and right valves.

These oysters have the characters of those found subtidally in an open estuary-- an estuary where continuing input of fresh waters results in lowered salinities and common fluctuations in salt content and other environmental parameters. These conditions result in fewer competitors of the oysters for space in the subtidal environment, and fewer preserved oyster associates on the valves. The Broad River, with its Chechessee River and Colleton River components, should have such characters today and should have had such attributes in the near past. The presence at 80R110 of small oysters (and those collected after death) suggests "grab" sampling or collection, with initial sorting of the oysters taking place at the occupation site. Although subtidal oysters predominate, there is a minor intertidal component in the materials from 80R110. Conscious separation in space of left and right valves, in any of the events resulting in the midden, did not occur.

A significant fraction of the oyster valves appear distinctly gray in color (Table 3); many additional valves display subtle darkening. Both valve interiors and exteriors are commonly pearly or iridescent in luster and some valve interiors display nearly

granular surfaces. In my experience these colors, lusters, and textures are associated with oysters that have been heated -- heated to a relatively high temperature. These oysters are not confined to a recognizable fire pit and thus alterations by "trashing" or discard into a fire cannot automatically be invoked as an explanation. Likely these oysters were baked (perhaps steamed) at the site with the valves scattered over the nearby area; subsequent trampling perhaps produced the high fragmentation observed in the preserved midden lobe.

Table 3.
Summary of Pertinent Oyster Data for 38BU747
(for definitions of A and B see below)

Square	L/R Valve Ratio	A/B for Graying	A/B for Spring to Summer Season
80R110	1.17	27/75	12/75
90R110	2.10	6/154	16/76
90R160	1.37	0/83	15/83
140R110	5.33	0/16	2/16

A = minimum number of left valves displaying attribute/character
B = number of left valves inspected or available for inspection

Table 4.
Mercenaria Fragments at 38BU747

Block	Number
80R110	6
90R110	7
90R160	0
140R110	1

Food use is supported by evidence of valve separation, by the site occupants, using some instrument. Although prying cracks do

occur on right valves, more common are simple, small, stabbing notches on both right and left valves, with exfoliation of the surrounding valve interior. These remnants may reflect the relative ease of opening cooked oysters, with their two valves already (at least partly) agape.

The reading of seasonality from left valve ligaments at 80R110 is difficult. Present-day subtidal oysters are not common in South Carolina and growth characteristics of these oysters, for comparison and contrast with archaeological materials, are far from completely understood. The apparently more regular growth of subtidal individuals (Lawrence 1988) makes the recognition of annual units even more difficult without using the time-consuming techniques of Kent (1988). In some of these oysters, dorsal exfoliation has resulted in loss of part of the ligament area, making the crucial recognition of annual changes difficult; in others, shell alterations through time have obscured the ligament fabrics of growth. Nonetheless, a strong inference of a broad "season" of gathering can be made for oysters from square 80R110, using the growth model of Lawrence (1988) for South Carolina, because 12 left valves display 1-6 growth increments since the last major topographic high of the ligament area (Table 3). Four of these oysters display three increments ventral from the high. In the growth model this general pattern would indicate the months of March through August, with a concentration in the May-June period of time. Yet because of possible climatic (or evolutionary) changes through time the more general seasonal designation- spring to summer- is to be preferred. These findings do not preclude oyster gathering during other seasons but merely state that the only strong inference is for the mentioned time span.

Squares 90R110 and 90R160

The column and screen oyster samples from 90R110 and 90R160 reveal three striking differences from the western lobe oysters of 80R110. First, grayed or discolored and intact, entire oysters are rare or lacking. Only small fragments of grayed oysters are found in the 90R110 column, and but 6 grayed oysters were found in the screen samples from the entire northern half of 90R110, a region which includes both midden lobes. The simplest explanation and strong inference here is that the western midden lobe is older than the northern midden lobe in the 80-90R110 area. Trampled fragments from the edge of the western lobe became incorporated into the younger accumulations of the northern lobe. Very likely the 80R110 square oysters are also older than the 90R160 midden oysters, but direct evidence of relative ages of these squares' oysters is limited to the complete lack of grayed oysters in the 90R160 square.

Secondly, dorsal valve abrasion (and exfoliation) has resulted in subdued or obliterated cardinal area structures in these oysters. Evidence from square 90R160 is more definitive, but at

least four individuals from 90R110 show this alteration pattern. Both left and right valves display this abrasion, but the material at hand shows most impressive modifications on right valves (at least 10 individuals from 90R160). Thus some of these oysters were used as scraping implements or tools, with the more massive subtidal individuals more typically displaying this evidence of shell use. Another two individuals have their lateral margins smoothed, suggesting that scraping use of the shells may not have been confined to their beaks, umbos, or dorsal margins. And thirdly the column samples from squares 90R110 and 90R160 contain a slightly higher percentage of intertidal oysters than that from 80R110. Because criteria used in environmental separation are subjective in part, and the differences at 38BU747 can be subtle, this interpretation cannot be quantified.

In other regards the oysters from 90R110 and 90R160 are similar to those from 80R110. They were gathered from nearby low salinity habitats, heated during food preparation, and shucked relatively easily by stabbing and prying. Left-right valve ratios (Table 1) are higher than at 80R110, but sufficient, smaller right valve fragments are present in the samples to attribute these numbers to the more fragile nature of the right valves, and not to valve sorting by the site occupants. The increased intertidal component in 90R110 and 90R160, including thinner right valves, may also contribute to these changes in valve ratios. Support for a spring-to-summer season of gathering is likewise strong (Table 3) although, as in the 80R110 sample, other seasons of gathering cannot be completely eliminated based upon the materials examined.

Square 140R110

Only 19 valves (16 left, 3 right) were collected from the excavated non-midden block. Although very few in number, they can be interpreted as similar to those from squares 90R110 and 90R160. Interestingly, six of these nineteen valves have been used as scrapers. The relatively high percentage suggests that the activity involving this use of shells took place away from the midden area(s).

The Mercenaria Fragments

But 14 mercenarias were present in the material examined (Table 4). One left valve (from 80R110) is intact and clearly displays a ventrolateral stabbing notch; thus at least some of these clams were dug up live, from nearby sand bars or flats, for food use (for a more detailed natural history of these clams, see Lawrence 1989). Only one of the remaining and fragmentary clams reveals the large and triangular outline expected from simple impact upon the valves' point of greatest convexity. A method of hitting shells against each other could be used to open the valves, during food use; this possibility, here, is diminished. One other fragment shows possible impact of a chisel-like object, about 18 mm

long; seven other and smaller fragments have rectangular or near-rectangular outlines. The likelihood exists that these mercenarias were actively worked by the site inhabitants, with the production of ornament blanks one potential goal of this shell use. This prospect has also been suggested for materials at a site of similar age, on the nearby Beaufort Marine Air Station (Lawrence 1989), but more specimens need to be gathered and examined in detail before this interpretation or inference can become a strong one.

Summary and Discussion

Oysters excavated at 38BU747 came from three middens or midden lobes- northern and western lobes in the 80-90R110 area, and a 90R160 area midden element. The simplest interpretation has the western lobe older than the other two midden components. All the oysters were gathered from the nearby low salinity waters of the Port Royal Sound complex; both subtidal and intertidal oysters are present in each of the three midden portions. If the inferred relative ages are correct, then the gathering of truly subtidal individuals decreased through time; this may reflect depletion of the desirable, subtidal oyster resource.

The oysters from 38BU747 were used as food. All were heated during food preparation, and were subsequently shucked with relative ease. Significant numbers of oysters from the western lobe have been grayed or discolored. Possible origins for these changes include chemical alterations during their longer residence time in the soils, their use to line younger roasting or steaming pits, and their simple "trashing" in open fires. A single genesis for these modifications cannot be determined with the information available.

Some of the oysters from the northern lobe and the 90R160 area were subsequently used as scraping implements, with the activity concerned taking place away from the immediate midden site. The exact activity involved is uncertain. I have seen these scrapers before in Woodland period materials but have never reported them because, with but one or two examples per provenience, numerous origins for the shell alterations seem possible. Indeed, it was the high concentration of scrapers in the non-midden sample, from square 140R110, which first prompted me to carefully research the other samples for evidence of this shell use. Also fire pits were doubtless present in this same non-midden area, but have not been uncovered. Thus careful excavations away from the shell accumulations can yield information important to our total understanding of the peoples who originally utilized these sites; these areas are worthy of increased archaeological emphasis. Although trenching is clearly a poor technique for some archaeological studies (discussion in Trinkley 1985), it may be a sufficient and cost-efficient way to explore these midden-surrounding areas.

That Mercenaria fragments in coastal Woodland period sites represent worked artifacts, likely ornament blanks, remains a distinct possibility. These fragments need to be systematically and completely recovered in future excavations of similar sites, so that growing numbers of specimens can be examined and interpreted. If used as ornaments, then rejects, discards, and remainders may not be numerous, and each and every fragment takes on significance in the interpretation of these objects.

And finally the seasonal and ultimate use of 38BU747 and analogous sites, by Woodland period humans, deserves additional archaeological consideration. These sites were not continually occupied by large numbers of people who used oysters as a primary dietary item. Rather, present evidence suggests that, in these thin middens, food use of oysters may have been a secondary consideration in site usage, with individual midden lobes perhaps accumulating over but a single year. Although difficulties exist in the seasonal interpretation of the oysters, present reconstructions point toward a spring-to-summer use, more likely involving the late spring and early summer. What could have drawn humans to these sites during that interval of the year? Spring tides are one distinct possibility. With low tides normally subtidal environments would be rather easily accessible thus explaining the nature and inferred source environments of the oysters. In addition, creeks and channels would be most easily blocked as a part of gathering fish and/or crustaceans for current or future food use. These and similar ideas, albeit now conjectural, should be further developed and tested through expanded excavations at carefully chosen Woodland period sites in the Beaufort County region of South Carolina.

Conclusions

The pottery recovered from 38BU747 spans the period from 500 B.C. to A.D. 1200, although the bulk of the site clearly represents a Deptford phase occupation. Based on the pottery assemblage it is likely that this occupation was brief, although it seems likely that two distinct Deptford groups are represented.

Examination of the middens found during these investigations also suggests that the site formation process was brief and involved at least two and possibly three different occupation periods. Shell crushing was minimal except in the one area where two middens partially overlap. This suggests that the middens represent trash deposits situated adjacent to living areas and that little, if any, activity took place immediately on the middens. The artifacts found inland from the midden offer some suggestion that occupation areas may also be found removed from the middens. Perhaps most significantly, these investigations offer guidance for future investigations of similar middens. First, larger areas of the site should be examined. It would, for example, be advantageous to open at least one entire midden, not only to completely

calculate subsistence contributions, but also to examine more clearly the site formation processes. In addition, it is essential to open larger areas inland from the middens to more closely examine the potential for distinct activity areas away from the midden deposits. These current investigations have failed to reveal where the oysters were cooked. In addition, these preliminary analyses indicate that some specialized activities were taking place slightly inland from the marsh. Further investigations at other sites are necessary to clarify these situations.

Analysis of the subsistence remains at 38BU747 clearly indicate that the site represents the by-product of a very focal economy. Animal bone and ethnobotanical remains are very sparse in the midden. The activity at 38BU747 during the Deptford phase was almost entirely oriented toward the collection and processing of oyster. The examination of the shellfish remains revealed that subtidal oysters were preferred and the shellfish collected were both initially culled and cooked at the site. It seems reasonable to suspect that the shellfish were also eaten at the site. Examination of the oysters indicates a spring to summer collection period. This stands in contrast to the presence of two carbonized hickory nutshells, which would tend to suggest a fall occupation. Given the weight of the evidence, however, it is likely that the hickory nuts are accidental inclusions in the midden, or represent stored nuts eaten during the site's occupation during the spring.

The analysis of the shellfish also suggests the depletion of subtidal individuals through time and a greater reliance on intertidal individuals. This may represent a local event, or may indicate widespread environmental and population changes. Small sites such as 38BU747 are more likely to provide clear data on these questions than are larger sites which have been repeatedly occupied. The investigations at 38BU747, therefore, document the importance of intensively investigating even these "small," seemingly insignificant shell middens found along the South Carolina coast.

IDENTIFIED SITES AND RECOMMENDATIONS

Michael Trinkley and Debi Hacker

These investigations identified a total of 74 archaeological sites on the Phase 2 survey tract, while two previously identified sites could not be relocated. Previous investigations on the Phase 1 tract have identified 14 archaeological sites, bringing the total number of archaeological sites on Spring Island to 88. Site forms for all of the investigated sites have been submitted to the South Carolina Institute of Archaeology and Anthropology, the South Carolina State Historic Preservation Office, and the curatorial facility.

This section provides detailed information on each of the archaeological sites within the Phase 2 survey area (Figure 11). For information on the sites in the Phase 1 area, Trinkley (1989) should be consulted.

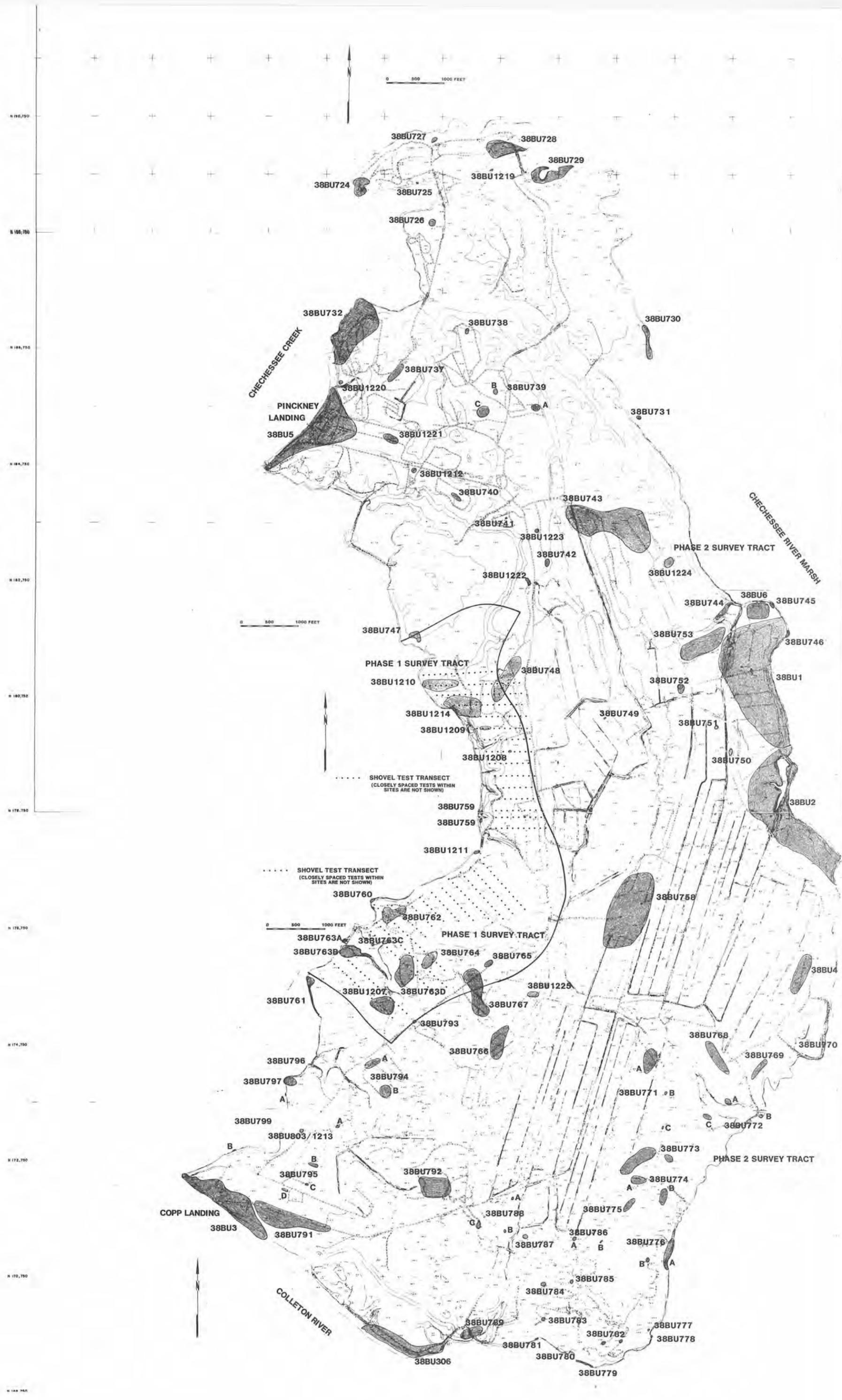
38BU1

Site 38BU1, also known as Edwards Plantation, is situated on the east side of Spring Island adjacent to the marshes of Chechessee Creek. The central UTM coordinates are E517380 N3576970 and the site measures about 1600 feet north-south and 600 feet east-west. These boundaries are based on extensive auger tests with the north and east edges of the site defined by marshes, the south edge defined by an impounded tidal slough, and the west edge partially defined by a small creek. Today the site incorporates a number of agricultural fields, a thin margin of hardwood forest adjacent to the marsh, and a series of four partially standing tabby ruins (discussed in more detail by Brooker in a following section). The soils are well drained Seabrook sands and the elevation ranges from 5 to 20 feet MSL.

The site represents an intact plantation complex with the main house locus (including four tabby structures), a double slave row of 10 structures in a linear arrangement to the northeast, remains of a barn structure on the edge of the marsh to the northeast, a curvilinear slave row of eight structures situated to the southeast, and a possible overseer's house to the southwest (Figures 6 and 12). In addition to the standing architectural features and the archaeological remains, the site incorporates remnants of carefully planned picturesque landscaping, described in detail by Brooker.

Archaeological testing at this site incorporates a series of at least eight 3-foot units excavated in 1985 by Lepionka (notes on

Figure 11. Archaeological sites identified on Spring Island.



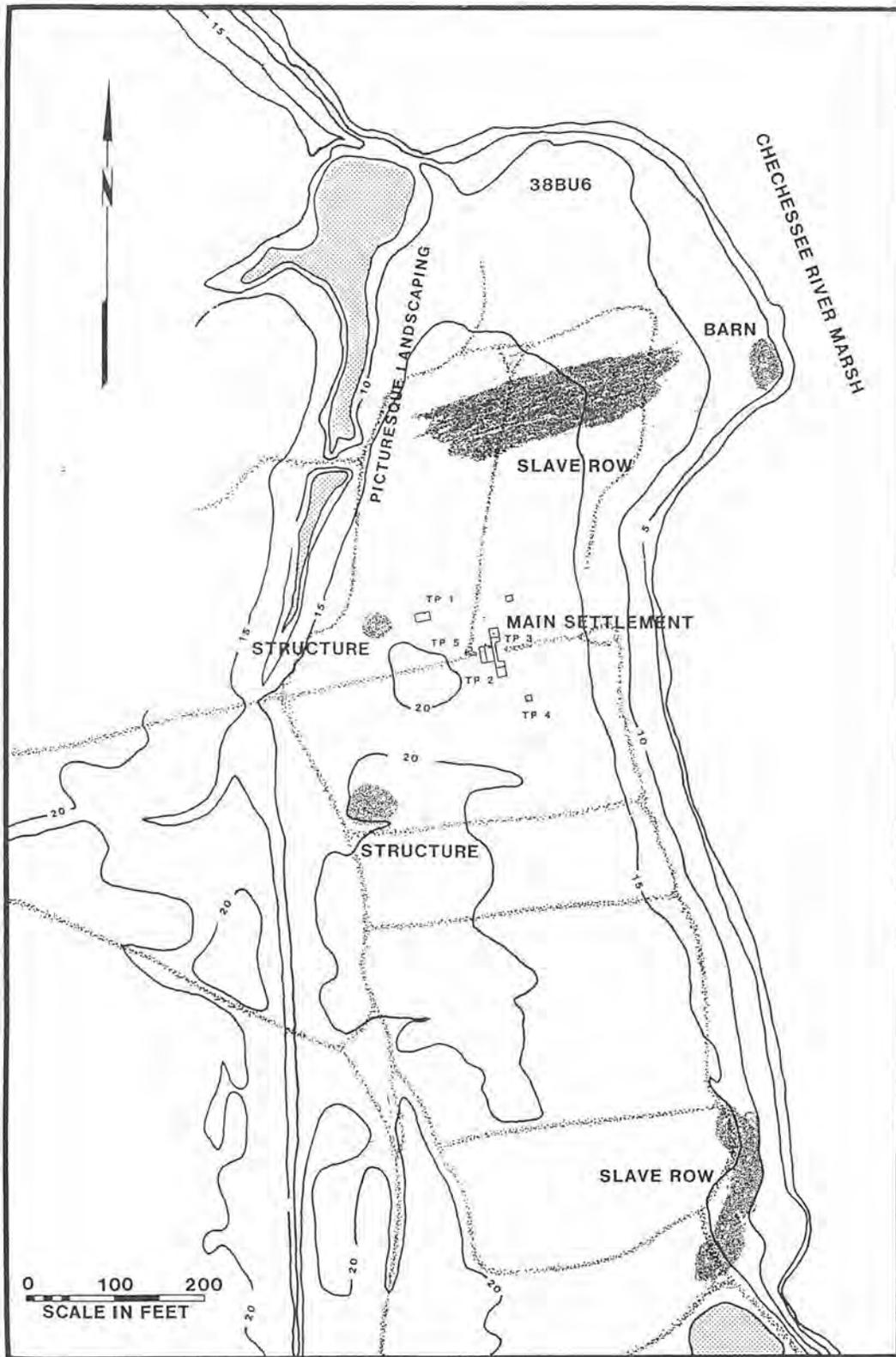


Figure 12. 38BU1 site plan, showing structures, auger tests, and excavations by Chicora.

file, The Environmental and Historical Museum of Hilton Head Island). While the materials from these tests have been released by Lepionka, the accompanying field notes are inadequate to allow use of these data. The mean ceramic date for Lepionka's collection (Table 5) is 1837.9. Of course, this data incorporates material from the entire site and should represent a mid-point date for occupation. More recent investigations by Chicora include the excavation of 213 10-inch diameter auger tests and five 5-foot

Table 5.
Mean Ceramic Date for 38BU1 Using Lepionka's Data

Ceramic	Mean Date (xi)	(fi)	fi x xi
Canton porcelain	1815	7	12705
Overglazed enam. porc.	1730	2	3400
NA salt glazed stoneware	1866	16	29856
Lead glazed slipware	1733	2	3466
Jackfield	1760	1	1760
Clouded wares	1755	1	1755
Creamware, hand painted	1805	1	1805
undecorated	1791	20	35820
Pearlware, mocha	1843	1	1843
blue hand paint	1800	3	5400
blue trans print	1818	10	18180
edged	1805	7	12635
undecorated	1805	12	30685
Whiteware, green edged	1828	2	3656
blue edged	1853	12	22236
poly hand paint	1848	6	11088
blue trans print	1848	8	14784
non-blue trans	1851	2	3702
annular	1866	11	20526
sponge	1853	2	3706
undecorated	1860	81	150660
Yellow ware	1853	9	16677
Total		228	419040

$$419040 \div 228 = 1837.9$$

units, as well as several general surface collections.

Auger tests on the northern and southern thirds of the site were placed at 50 foot intervals, while those in the vicinity of the standing ruins were placed at 25 foot intervals. All fill from these tests was screened through 1/4-inch mesh and all material was retained. Brick, mortar, tabby, and shell were weighed and discarded. These auger test data were used to generate computer density maps of the site (Figures 13 and 14). These maps indicate the presence of the slave row to the northeast, the service

38BU1 - SPRING ISLAND, SC - HISTORIC ARTIFACTS

74

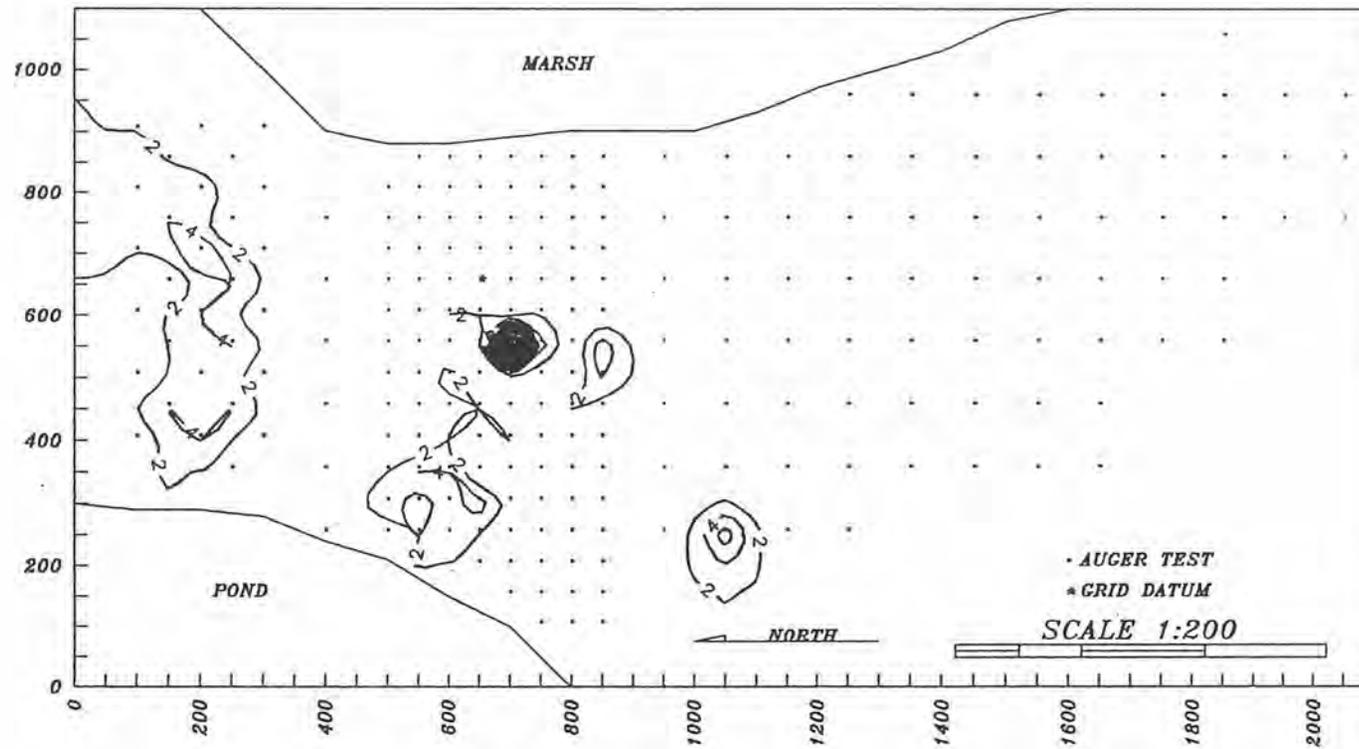


Figure 13. Computer density map of historic artifacts at 38BU1.

38BU1 - SPRING ISLAND, SC - BRICK/TABBY MORTOR

75

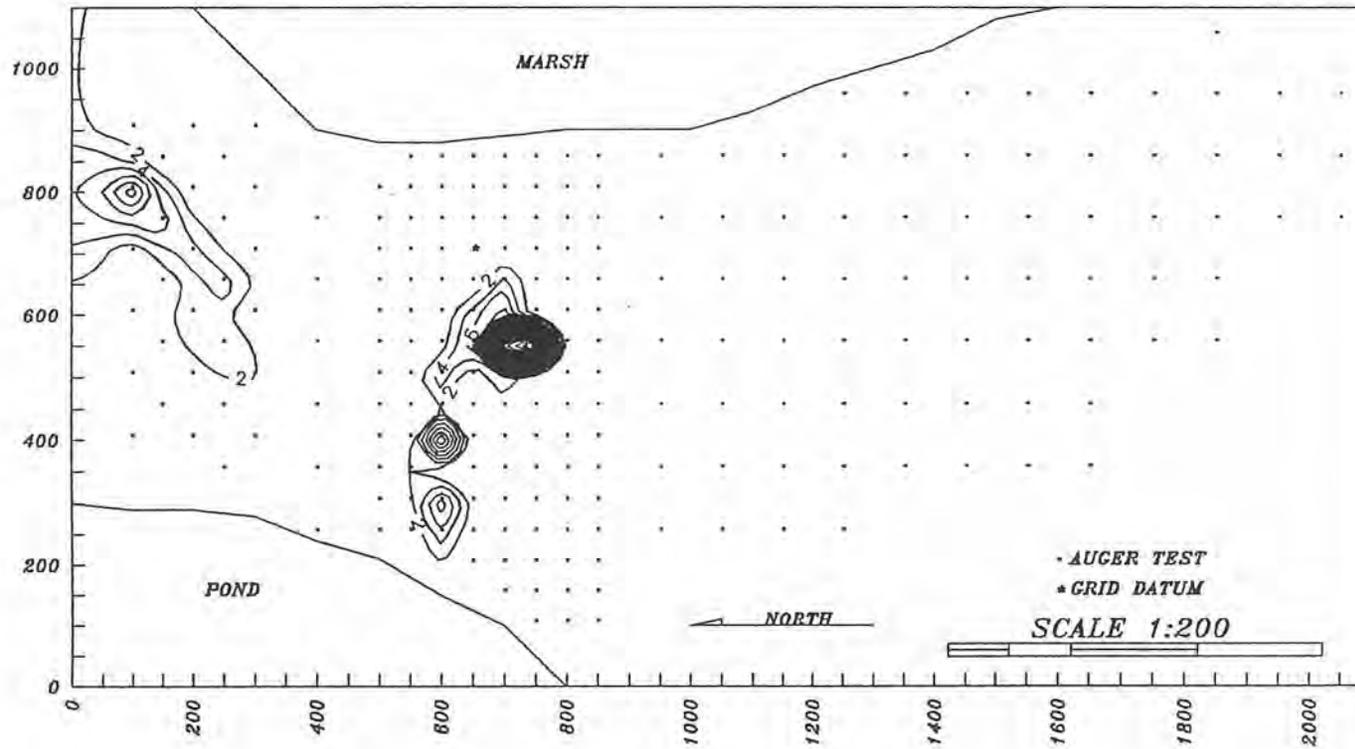


Figure 14. Computer density map of brick and tabby rubble at 38BU1.

building, the overseer's house to the southwest, and the main plantation house. Artifact density around the main house is extremely low, indicating well maintained yard and garden areas. The slave row to the southeast has not been completely identified in this testing operation since the auger tests did not extend sufficiently to the east.

The auger tests produced a small quantity of prehistoric remains, including six Stallings sherds, one Thom's Creek sherd, 25 Deptford sherds, three Savannah sherds, four Irene sherds, two sherds of probable Altamaha pottery, 17 unidentifiable sherds, and two chert flakes. No clear prehistoric concentrations could be identified, although the density of these materials tends to increase toward the south. Historic remains include one Jackfield, one Lead Glazed Slipware, three Creamware ceramics, nine Pearlware ceramics, 16 Whiteware ceramics, four stoneware fragments, four porcelain ceramics, 19 Colono ware sherds, 18 "black" glass bottle fragments, eight clear glass bottle fragments, 2 clear glass bottle fragments, 11 manganese glass fragments, one light blue glass fragment, two brown bottle glass fragments, six aqua bottle glass fragments, one kettle fragment, 3 hand wrought nails, 44 machine cut nails, 12 unidentifiable nails, one spike, eight window glass fragments, one keyhole cover plate, one button, two kaolin pipe bowls, three kaolin pipe stems, and six fragments of unidentifiable metal. The mean ceramic date for this collection (Table 6) is 1825.5. While earlier than that obtained from Lepionka's data (Table 5), it continues to suggest occupation in the first half of the nineteenth century.

Table 6.
Mean Ceramic Date for 38BU1 Using the Auger Test Data

Ceramic	Mean Date (xi)	(fi)	fi x xi
Lead glazed slipware	1733	1	1733
Jackfield	1760	1	1760
Creamware, annular	1798	1	1798
undecorated	1791	2	3582
Pearlware, blue hand paint	1800	1	1800
edged	1805	1	1805
annular	1805	2	3610
undecorated	1805	5	9025
Whiteware, blue edged	1853	1	1853
poly hand paint	1848	1	1848
blue trans print	1848	1	1848
non-blue trans	1851	1	1851
undecorated	1860	10	18600
Total		28	51113

$$51113 \div 28 = 1825.5$$

Excavation units were placed in order to order to gather information on architectural features, as well as to assist in site dating. Based on the limited time available for this work, the units were not tied into a site grid, but were oriented to the various structures. Vertical control was maintained using an assumed elevation point.

Unit 1, located within the service building, was placed 8 feet west of the structure's northeast corner in order to identify evidence of a chimney indicated by faint lines on the wall. Zone 1 consisted of recent fill placed in the structure by Gordon Mobley to level it and reduce weed growth. Zone 2 was divided into three levels. Level 1 consisted of dense building rubble (primarily tabby) in a gray to brown sand matrix. Level 2 consisted of rubble in a dark black charcoal matrix. It was within this level that evidence of flooring boards and carbonized food remains (primarily rice, beans, corn, and peas) were recovered. Level 3 consisted of a thin zone of rubble overlying a tabby chimney footing and a thin poured mortar floor. This unit revealed that the structure originally had a thin mortar floor over which light-weight floor joists were laid to support pine flooring. The chimney stack was supported by a tabby base, onto which brick had been directly laid while the tabby was wet to create a hearth. The structure has burned, probably shortly after abandonment (based on the presence of the stored food remains, but the absence of household items expected if still occupied at the time of the fire).

Unit 2 was located in the northeast corner of the original, or central, unit of the Edwards house. Zone 1 consisted of humic soil and light rubble, representing fairly recent deterioration of the adjacent walls. Zone 2 consisted of dense tabby rubble, fired brick, occasional tabby brick, and abundant mortar and plaster in a brown sand matrix. Materials recovered from this zone included both framing and finishing nails (primarily machine cut). Zone 3 consisted of the burn zone, incorporating tabby rubble and charcoal in a dark brown sand matrix. This zone overlaid a solid tabby floor about 6 inches in thickness. Nails continued to be the most abundant artifact and the relative absence of other artifacts suggests that the house was vacant when it burned. This excavation was placed in the basement of the Edwards house, which was apparently used primarily for storage. The excavations, however, did reveal that the basement walls were finely plastered and that the floor did exhibit use.

Unit 3, located in the northern wing of the Edwards house, was placed to examine the possibility that these wings had central chimneys. The unit was placed 9.35 feet south of the north wall and 8 feet west of the east wall, in the approximate center of the structure. Zone 1 consisted of a gravel layer similar to that found in the service building and representing an attempt to reduce weed growth in the ruins. Zone 2 consisted of brick and mortar rubble in a brown sandy matrix with occasional pockets of decayed plaster.

Charcoal, representing the structure's burning was found in this zone. Zone 3 consists of a brown sand heavily mottled with plaster and charcoal. It appears to represent the original basement floor. A final zone, consisting of leaching from Zone 3, was excavated to the subsoil -- confirming that no tabby floor was poured in the wing additions. There was no indication of soil compaction, artifacts trampled into the soil, or other evidence that this basement area was used.

Unit 4 was placed immediately adjacent to the south and west walls of the south pavilion in an effort to obtain a better understanding of the structure's function. Zone 1 consisted of the gravel lens observed in Units 1 and 3. Zone 2 consisted of brown sand with brick, mortar, plaster, and light tabby rubble. This zone is interpreted to represent gradual structural decay after the site was abandoned. The artifacts found suggest gradual deterioration during the postbellum and possible use during this period. Although the surviving structural timbers evidence fire, no charcoal was found in the excavations. Zone 3 consisted of brown loamy sand grading into light brown loamy sand and represents gradual filling of the structure late in the antebellum period. At the base of this zone, at a depth of 2.45 feet below the existing ground surface within the structure, a thin lime floor was encountered. This floor, about 0.05 to 0.15 foot in thickness, represents Zone 4. Zone 5, below the floor, consists of light tan water deposited sands. This zone represents gradual water deposition in the structure during the early occupation of the site by Edwards. Excavation was halted at this level (2.90 feet below the existing ground level), although a 1 by 2 foot probe was continued to a depth of 4.55 feet. This probe revealed the original lime floor and an intermediate lime floor. In addition, it revealed that the supposed basement window on the west elevation of the structure was actually a door. This structure was originally excavated to produce a semi-subterranean basement, probably intended for storage, with a first floor for some other use. A lime floor was laid in an effort to make the basement more water tight, although the water-laid sand deposits indicate that the structure quickly filled. A second floor was laid and it too was covered by water washed sands. A final floor was laid in the structure, about 1.5 feet above the original floor, before the basement was abandoned.

Unit 5 was placed against the north wall of the central, or original, Edwards house and adjacent to the west wall of the tabby fireplace support. Zone 1 consisted of a thin lens of humic sand overlying the light rubble of Zone 2. After excavation was complete, it became clear that Zone 2 combined the original humus surface present during the structure's occupation with the soil which accumulated against the foundation during occupation. Zone 3, a light tan mottled sand, represents the pre-Edwards humus and contains primarily prehistoric remains. The historic remains encountered from this excavation date from the construction of the original Edwards house; unfortunately, the only dateable items

recovered are an undecorated pearlware ceramic (mean ceramic date of 1805, TPQ of 1780) and three machine cut nails (generally accepted to have a TPQ of 1805, although it is possible that they represent machine nut nails with hand-made heads, which have a TPQ of 1790). Creamware ceramics were found in Zone 2.

If all of the ceramics recovered from these excavations are combined, they yield a mean ceramic date of 1829.8 (Table 7). Given the activities which took place on the site, it is not surprising that the structural excavations have provided a mean date slightly earlier than the auger tests. Unfortunately, these data allow only tentative suggestions at the events which took place at 38BU1.

It seems likely that the main, or original, Edwards house was constructed sometime in the period from 1790 to 1800. This date is based only partially on the rather equivocal evidence provided by Unit 5. Examination of the ceramic collections reveal sparse colonial remains, such as clouded wares, Jackfield, and Lead Glazed Slipware. In addition, excavation of Zone 3 in Unit 4 revealed several fragments of Overglazed Enamelled Porcelain identified by William Sargent (personal communication 1990), Associate Curator of Asian Export Art at the Peabody Museum in Salem, Massachusetts as examples of "pseudo-armorial" porcelain dating between 1790 and 1800. One fragment has a red script "E" painted inside the shield, and was certainly commissioned by George Edwards (cover illustration). Other fragments of this same china set have been recovered from a variety of areas by both these investigations and by those of Lepionka. Dating of the other structures is less clear,

Table 7.
Mean Ceramic Date of 38BU1 Using Excavated Data

Ceramic	Mean Date (xi)	(fi)	fi x xi
Overglazed enam. porc.	1730	3	5190
NA salt glazed stoneware	1866	4	7464
Creamware, undecorated	1791	1	1791
Pearlware, blue trans print	1818	5	9090
edged	1805	3	5415
annular	1805	1	1805
undecorated	1805	4	7220
Whiteware, blue edged	1853	2	3706
annular	1866	3	5598
undecorated	1860	9	16740
Yellow ware	1853	1	1853
Total		36	65872

$$65872 \div 36 = 1829.8$$

but they appear to have been constructed shortly after the main house, perhaps between 1810 and 1820.

The site was apparently occupied until the late antebellum period, at which time it was abandoned. This abandonment process, however, was organized and it appears that virtually all of the furnishings were removed. It seems likely that this event may relate to actions during the Civil War. If an initial construction date of 1795 and an abandonment date of 1859 are accepted, the mean historic date for the site is 1827 -- very close to the mean ceramic date suggested by Table 7. The correspondence is even greater if an initial date of 1800 is used.

Site 38BU1 is a very significant site which is judged to be eligible for inclusion in the National Register of Historic Places. Site integrity is high, as are artifactual quantity and variety. Site clarity is likewise high, based on the limited test excavations. Ideally, the 22 acre site should be completely green spaced in order to preserve not only the archaeological and architectural remains, but also to preserve the totality of the picturesque landscaping. This green spacing should ensure that no future agricultural activity takes place in the site areas. Continuation of planting will cause increased damage to the various site components. Should total green spacing not be feasible, extensive archaeological data recovery will be necessary. Special attention would be required at each of the slave rows, the barn area, the overseer's house, and the main house complex. In addition, every effort should be made to ensure the preservation of the landscape features associated with the plantation. While no archaeological investigations are necessary for the landscaping features, they will need to be carefully and completely delineated on mapping at contour interval of no greater than 0.5 foot and a scale of 1 inch to 50 feet should preservation be impossible. It is also important to ensure the visual integrity of the standing ruins, which currently offer exceptional insight to plantation planning (see Brooker's discussions in the following section of this report).

Of equal importance is the preservation of the standing tabby ruins. Evaluation of these structures by Brooker (Colin Brooker, personal communication 1990) shows that several have serious structural impairments. Green spacing without stabilization would amount to demolition through neglect. While there are both short-term stabilization and long-term preservation options, it seems that this site is of such tremendous significance, that the long-term options should be undertaken. All architectural preservation treatments should be conducted to the Secretary of the Interior's Standards and only after full architectural documentation to Historic American Building Survey standards. Depending on the nature of the architectural preservation treatments undertaken, some additional archaeological investigations may be necessary, even if the area around the structures will be green spaced.

38BU2

This site, situated immediately south of 38BU1 on the east shore of Spring Island, represents a large Early to Middle Woodland shell midden. The central UTM coordinates are E517600 N3576600 and the site is found on well drained Seabrook soils at an elevation of 10 to 21 feet MSL. The site occurs on the edge of the marsh overlooking Chechessee Creek and is forested in hardwoods. No evidence of plowing or other disturbance was observed. A portion of the site surrounds two impounded tidal sloughs and extends into the marsh on a spit of land.

Site tests consist of 76 shovel tests screened through 1/4-inch mesh. These tests revealed site boundaries of 2000 feet along the shore and extending inland 500 feet. This survey revealed a dense Early Woodland Stallings and Thom's Creek site on the spit of land immediately east of the tidal sloughs. The midden in this area is up to 1.5 feet in depth. The remainder of the site consists of a series of Middle Woodland shell middens dating from the Deptford phase. Those on the north half of the site include both sheet middens up to 0.5 foot in depth and discrete middens up to 2.5 feet in depth. At the south end of the site the middens converge, forming a dense sheet midden up to a foot in thickness. Because of the extensive marsh, little erosion was observed.

Materials recovered at this site include one Stallings Plain sherd, one Stallings Shell Punctate sherd, one Thom's Creek Plain sherd, two Thom's Creek Reed Drag and Jab sherds, 20 Deptford Plain sherds, 17 Deptford Cord Marked sherds, 28 Deptford Check Stamped sherds, five unidentifiable Deptford sherds, one Mount Pleasant Plain sherd, 11 St. Catherines Cord Marked sherds, one Savannah Cord Marked sherd, and one Irene Incised sherd. Of these 89 sherds, 70 (or 78.7%) are Deptford, while 11 (or 12.4%) are St. Catherines. In addition to the recovery of aboriginal pottery, the shovel tests also produced evidence of excellent faunal preservation in several areas, as well as the presence of daub (probably from fire pits).

This site evidences excellent integrity and clarity. Artifact quantity and variety is typical of such large shell middens, although there is, in addition, evidence of faunal and floral preservation. This site falls into the Type 2 category previously defined and is one of the largest sites found on Spring Island. It has excellent potential to yield information on both Early and Middle Woodland settlement and subsistence patterns. The preferred mitigation alternative is green spacing. If this option is not possible, than extensive data recovery will be required. These investigations should incorporate excavations at both the Early and Middle Woodland middens. Excavation in the Middle Woodland middens should explore at least three distinct midden areas, as well as adjacent non-midden areas.

38BU3

This site, known as the Copp Place, is situated at the southwest end of the island overlooking the Colleton River. The central UTM coordinates are E514480 N3574320 and the site measures about 1100 feet northwest-southeast and extends 400 feet inland. The site elevation is 10 feet MSL and is found on well drained Wando soils. The area incorporates hardwoods, grassed pasture, and a small area of abandoned pecan orchard.

The Copp Place is the homesite and plantation complex built in 1927 by William Copp. It originally incorporated a large and very elaborate house, two tenant houses, a barn, a shed, a windmill, a generator and battery house, and a fire pump house. Also present was a large dock in front of the house, extending into the Colleton River. Several photographs of the house, taken about 1932, survive (Figure 15; Glen McCaskey, personal communication 1990), although no photographs have been found for any of the other structures on the plantation. The main house (and probably the other structures except the shed) were torn down by Gordon Mobley in the early 1970s. A gazebo was constructed at the west end of the site in the 1980s.

An individual who hunted on Spring Island in the late 1960s has donated photographs of the main house, taken in 1968 shortly before it was demolished (Figures 16 and 17) and has provided a sketch map of the plantation complex as it existed during that period (Figure 18; C.T. Paysinger, personal communication 1990). Archaeological survey at this site incorporated pedestrian surveys to locate surface features, as well as 129 shovel tests. This work identified the approximate location of the main house, identified the dump area used from about 1940 through 1970, and located the windmill site. Limited evidence, consisting of bulldozed tabby piers, was found of the two tenant houses. In addition, a dump site in the marsh was found for the tenant sites. Unfortunately, the shovel tests revealed extensive disturbance associated with the demolition of the plantation complex.

Shovel tests at this site produced three white porcelain ceramics, one undecorated creamware ceramic, one blue edge pearlware ceramic, one colono sherd, six clear bottle glass fragments, one "black" bottle glass fragment, one manganese bottle glass fragment, two green bottle glass fragments, one blue container glass fragment, one iron utensil handle fragment, two fragments of ceramic floor tile, 15 fragments of window glass, seven wire nails, one hand wrought nail, eight unidentifiable nails, one wire fragment, four unidentifiable iron fragments, and three flower pot fragments. The bulk of these remains date from the Copp occupation, although a few items (such as creamware, pearlware, colono, black glass, and hand wrought nail) are probably associated with site 38BU791, immediately to the south of the Copp site. Materials recovered from the main house dump site include one



Figure 15. View of the Copp House, taken in 1932.



Figure 16. View of the Copp House, taken in 1968.



Figure 17. View of the Copp House, taken in 1968.

SPRING ISLAND
 THE "BIG HOUSE" (COPP) COMPLEX
 1964

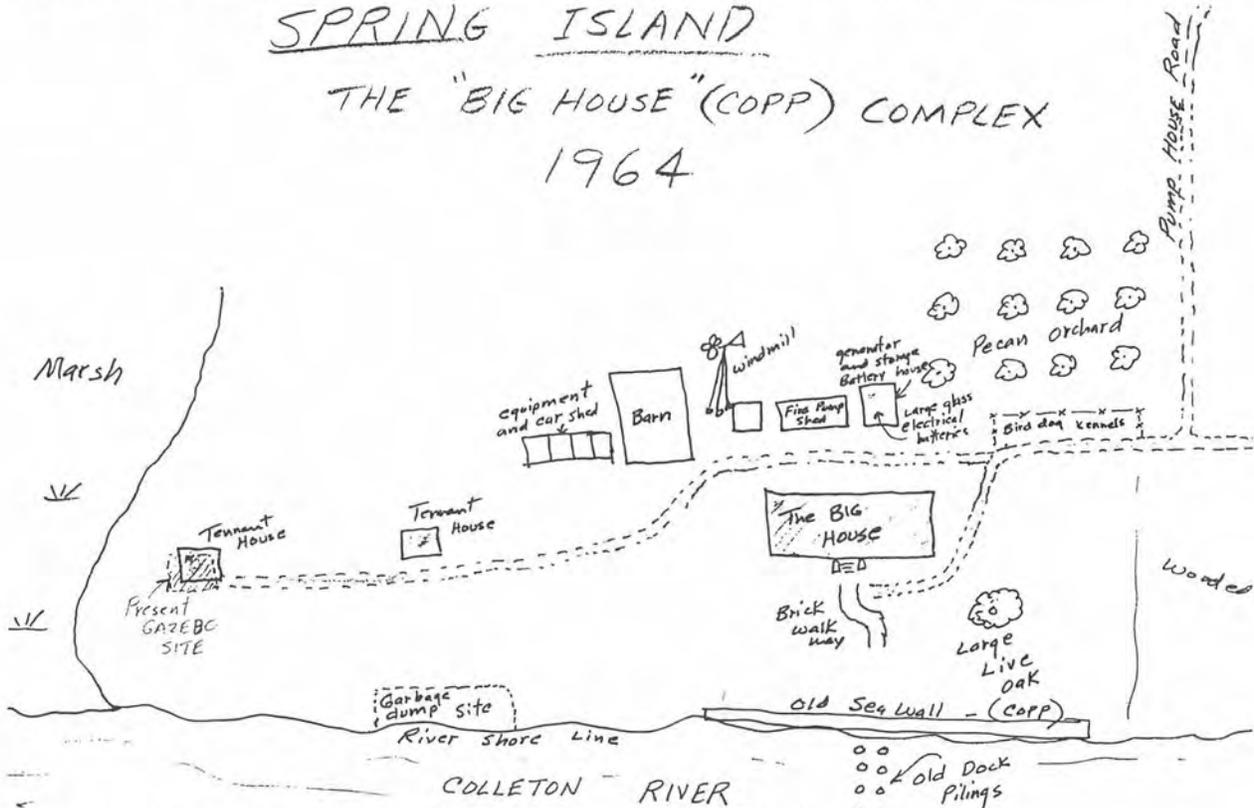


Figure 18. Site 38BU3 as it appeared in 1968.

white porcelain ceramic, one decalcomania whiteware ceramic, one milk glass fragment, and nine intact bottles. The tenant dump produced six clear glass fragments (including several examples of the glass storage batteries, and 18 ceramics.

The National Register eligibility of this site is difficult to assess. During the early twentieth century a number of wealthy northerners migrated to the South Carolina Low Country in order to purchase large plantations for leisure-time activities. Some of these plantations, such as Spring Island, continued to be operated under the direction of local overseers. This represents a significant aspect of South Carolina's history and is worthy of more detailed historical, architectural, and archaeological examination. The Copp site, however, fails to exhibit sufficient integrity to address these issues. Site 38BU3 is therefore tentatively recommended as not eligible for inclusion in the National Register.

38BU4

This site is situated on the eastern shore of Spring Island adjacent to the Chechessee River. The central UTM coordinates are E517560 N3575260 and the site represents a very thin, scattered, shell midden dating to the late Early Woodland. Based on 28 shovel tests, site size is estimated to be 700 feet north-south by 200 feet east-west. Situated on Seabrook soils, the site is found at an elevation of 19-20 feet MSL in a heavily plowed agricultural field. There is some evidence of two shell concentrations, one at the north edge of the field and the other to the south, with only a very light scatter connecting the two. It is probable that the site represents two heavily plowed middens, now almost completely obliterated by cultivation.

These current investigations produced only three prehistoric sherds, one Deptford Plain, one Deptford Cord Marked, and one Deptford Check Stamped, all from the surface. No diagnostic remains were found in any of the shovel test. Previous surface collections by Lepionka (1986) produced one Thom's Creek sherd, 45 Deptford sherds, one St. Catherines sherd, one chert core, and two historic ceramics. This site appears to represent a Type 1 Deptford phase midden.

Previous surveys (38BU4 site file, S.C. Institute of Archaeology and Anthropology, filed by Robert Stephenson in 1969; Lepionka 1986) have suggested that the site might be found in the hardwoods between the field and the marsh. Current investigations by Chicora, however, failed to identify any middens outside the field. Based on the intensive plowing, dispersal of the middens, low artifact density, and the inability to identify any intact deposits, this site is judged to be not eligible for inclusion in the National Register.

38BU5

This site, also known as Pinckney Landing, is situated on the northwest shore of Spring Island overlooking Chechessee Creek. Soils are well drained Seabrook sands and the elevation is 15 to 20 feet MSL. Materials are found over an area 1800 feet along the creek and up to 700 feet inland. The UTM coordinates are E514800 - 515200 N3578000 - 3678400. Vegetation in the site area consists of scattered tracts of hardwood and open areas. Today the site contains a barn, a work shop, dog kennels, a concrete block house currently occupied by Gordon Mobley, and a shed.

Investigations at the site consisted of 78 shovel tests, intensive surface collections along the base of the bluff, and limited surface collections on the interior. The shovel tests have indicated clear site integrity, with undisturbed deposits to a depth of at least 1.0 foot in several areas. Further work in this area may also provide evidence of intact colonial deposits.

The bluff area was divided into five 200 foot long loci with all materials in each section intensively collected. These studies have revealed a multicomponent site with at least four distinct occupations. A dense Stallings phase site has partially eroded from the bluff but is still found intact at the base of the bluff underlying marsh mud. A minor admixture of Thom's Creek through Altamaha phase ceramics are found which have completely eroded from the bluff. Two historic occupations have also been identified. A colonial site has been identified based on remains found at the north end of the bluff. The bulk of this site, however, has been destroyed by erosion. A nineteenth century slave settlement (see Figure 6) has been located inland from the bluff in the vicinity of the modern dog kennel. This site is intact and shovel tests have revealed midden areas and a significant potential for in situ remains.

Table 8 lists the artifacts recovered from the beach collection areas, as well as from inland shovel tests. Tables 9 and 10 reveal that the mean ceramic date for the inland area is 1820.5, while the mean ceramic date for the combined beach areas is 1839.1. The inland area, it appears, still contains some evidence of the early colonial occupation by Barksdale, although the major inland component is the nineteenth century slave settlement. It also seems likely that the bluff was a convenient dumping area for not only the slave settlement, but also for the twentieth century occupations which have contributed the tinted whitewares and decalcomania ceramics.

Lepionka divided this loci into a total of five sites: 38BU5, 38BU733, 38BU734, 38BU735, and 38BU736, with 38BU5 applied only to the twentieth century components. These divisions, based on spatial divisions and temporal remains, which overlap are impractical since they make it impossible to define site boundaries and assess

eligibility. As a consequence, we have chosen to apply the original site designation to the total complex, abandoning the use of the other site numbers.

This site is judged to be eligible for inclusion in the National Register of Historic Places. Two components are of particular concern -- the Stallings midden at the base of the bluff and the nineteenth century slave settlement interior from the bluff. The Stallings site offers a potential to study settlement

Table 8.
Collections From 38BU5

Material	Beach Areas						Shovel Tests
	1	2	3	4	5	6	
PREHISTORIC							
Stallings Plain	76	167	30	3			4
Reed Punctate	4	11	4				
Reed Drag & Jab	7	6	4				
Shell Punctate	5	2	6	1			
Incised	1	2	1				
Finger Pinched			1	1			
Thom's Creek Plain	13	24	1	2			
Reed Punctate	5		4				
Reed Drab & Jab	4	4	2				
Shell Punctate	2	1	2				
Finger Pinched			1				
Deptford Plain					4		
Cord Marked			3	1	3		8
Check Stamped				1	2	3	2
St. Catherines Plain	1						
Cord Marked	3	1		1			1
Check Stamped			1				
Mount Pleasant Cord Marked	2						
Savannah Complicated Stamped	1						
Check Stamped					1		5
Irene Complicated Stamped	1	1	1	1			1
Burnished Plain							3
Altamaha Complicated Stamped	1	2		6			
Catawba Plain	2						1
Savannah River Stemmed CSPP			2				
Biface fragments			2				
Flakes			5				3
Cobbles			1	1			
Chunky stone						1	

HISTORIC					
Delft					1
White SGST, molded					2
scratch blue	1				
Jackfield		2			
North Devon	1				
Lead Glazed Slipware		1			1
Coarse Red Earthenware	9	5		2	6
Clouded Wares			1		
Creamware, undecorated	1	2	9	2	3
annular			1		
Pearlware, undecorated	2	3	1		1
annular	1	1	1		1
edged			3		
poly hand paint	1	1			
blue hand paint	1				1
blue trans print	1	3			1
Whiteware, undecorated	9	21	45	6	11
annular		1			1
edged	2	3	2		
non-blue trans print		1	1		
blue trans print			1		1
tinted			13		
decalcomania			10		
Yellow Ware		1			
White Porcelain	2	5	5	1	1
NA Stoneware	2	8	1		3
Alkaline Glazed Stoneware			1		
Westerwald					1
Other Stoneware	11	1	8	2	
Colono		2			13
Clear Glass		4	3	5	4
Black Glass	24	30	1	6	7
Aqua Glass		5	2	1	1
Manganese Glass		3	3	2	2
Lt. Green Glass	2				1
Milk Glass		4	12		1
Other Glass		3	3	4	2
Kettle Fragments					2
Wire Nails					3
Machine Cut Nails					6
Hand Wrought Nails					2
UID Nails	4				15
Spike		1			
Window Glass	3	2	1		15
Buckle			1		
Gun Flint		1			
Flower Pot	13	14	15	1	10
UID Iron Fragments	4	1	2		3
Misc. Hardware	1	1	1		3
Lead Fishing Weight				1	
Hoe	1				

Table 9.
Mean Ceramic Date For the Inland Area of 38BU5

Ceramic	Mean Date (xi)	(fi)	fi x xi
Westerwald	1738	1	1738
White SGSW	1758	2	3516
Lead Glazed Slipware	1733	1	1733
Decorated Delft	1750	1	1750
Creamware, undecorated	1791	3	5373
Pearlware, blue hand paint	1800	1	1800
blue trans print	1818	1	1818
annular	1805	1	1805
undecorated	1805	1	1805
Whiteware, blue trans print	1848	1	1848
annular	1866	1	1866
undecorated	1860	11	20460
Total		25	45512

$$45512 + 25 = 1820.5$$

Table 10.
Mean Ceramic Date For The Combined Beach Areas of 38BU5
(excluding twentieth century ceramics)

Ceramic	Mean Date (xi)	(fi)	fi x xi
White SGSW, scratch blue	1760	1	1760
Lead Glazed Slipware	1733	1	1733
Jackfield	1760	2	3520
Clouded Wares	1755	1	1755
North Devon	1713	1	1713
Creamware, annular	1798	1	1798
undecorated	1791	14	25074
Pearlware, poly hand paint	1805	2	3610
blue hand paint	1800	1	1800
blue trans print	1818	4	7272
edged	1805	3	5415
annular	1805	3	5415
undecorated	1805	6	10830
Whiteware, blue edged	1853	7	12971
blue trans print	1848	2	3696
non-blue trans	1851	2	3702
annular	1866	1	1866
undecorated	1860	81	150660
Yellow Ware	1853	1	1853
Total		134	246443

$$246443 + 134 = 1839.1$$

and subsistence patterns of a non-shell midden Early Woodland phase site, while the slave row represents an important aspect of the Edwards Plantation and can document the lifeways of Spring Island's black slave population. Green spacing for both components is the preferred alternative, although the Stallings site requires protection from continued erosion. This erosion is caused by boat traffic on the Chechessee Creek and site protection requires stabilization of the bluff. A variety of such measures are possible and are detailed by Thorne et al. (1987). While excavation of this site is possible, coffer dams would be necessary and the logistics of such activity would be costly. The interior slave row can be more easily mitigated through data recovery, if green spacing is not possible. Such investigations would require intensive auger testing and the partial excavation of at least two structures and the complete excavation of one. Associated midden areas should also be examined to supplement pattern analysis and collect subsistence data. In addition, more intensive testing of the area adjacent to the bluff may reveal intact colonial deposits dating to Spring Island's ownership by Barksdale.

38BU6

Site 38BU6, known as the Spring Island or Old House Cemetery, is situated north of 38BU1 on a point of land overlooking the marshes of Chechessee Creek. The soils in the site area include the poorly drained Williman series, as well as the well drained Seabrook series. The central UTM coordinates are E517440 N3577300 and the area is vegetated in hardwoods with a dense understory in some areas.

The site represents a nineteenth and early twentieth century black cemetery. There are five stone markers at the site:

1. JOHN FRIPP/CO. B/21st U.S.C.I
2. ANTHONY EDWARDS/CO. C/21st U.S.C.T.
3. DOLLY ALSTON HAMILTON/BORN/AUG. 10,1905/
DIED/OCT. 26, 1921
4. 1966/GRISETTE/1972
5. 1962/TOTO/1972

although the latter two are for dogs recently buried in the cemetery. Also identified was one white painted wood cross and one wood slab. Visual inspection of the cemetery using transects at 10 foot intervals revealed an additional 29 unmarked graves, identified on the basis of slump or depressions with primarily east-west orientations (Figure 19). The mean orientation of the 32 graves (excluding the two dog burials) is W1°N, and the orientations do not vary more than 20° either north or south of due east-west.

Historic research, including an oral history from an individual familiar with this cemetery, indicates its active use

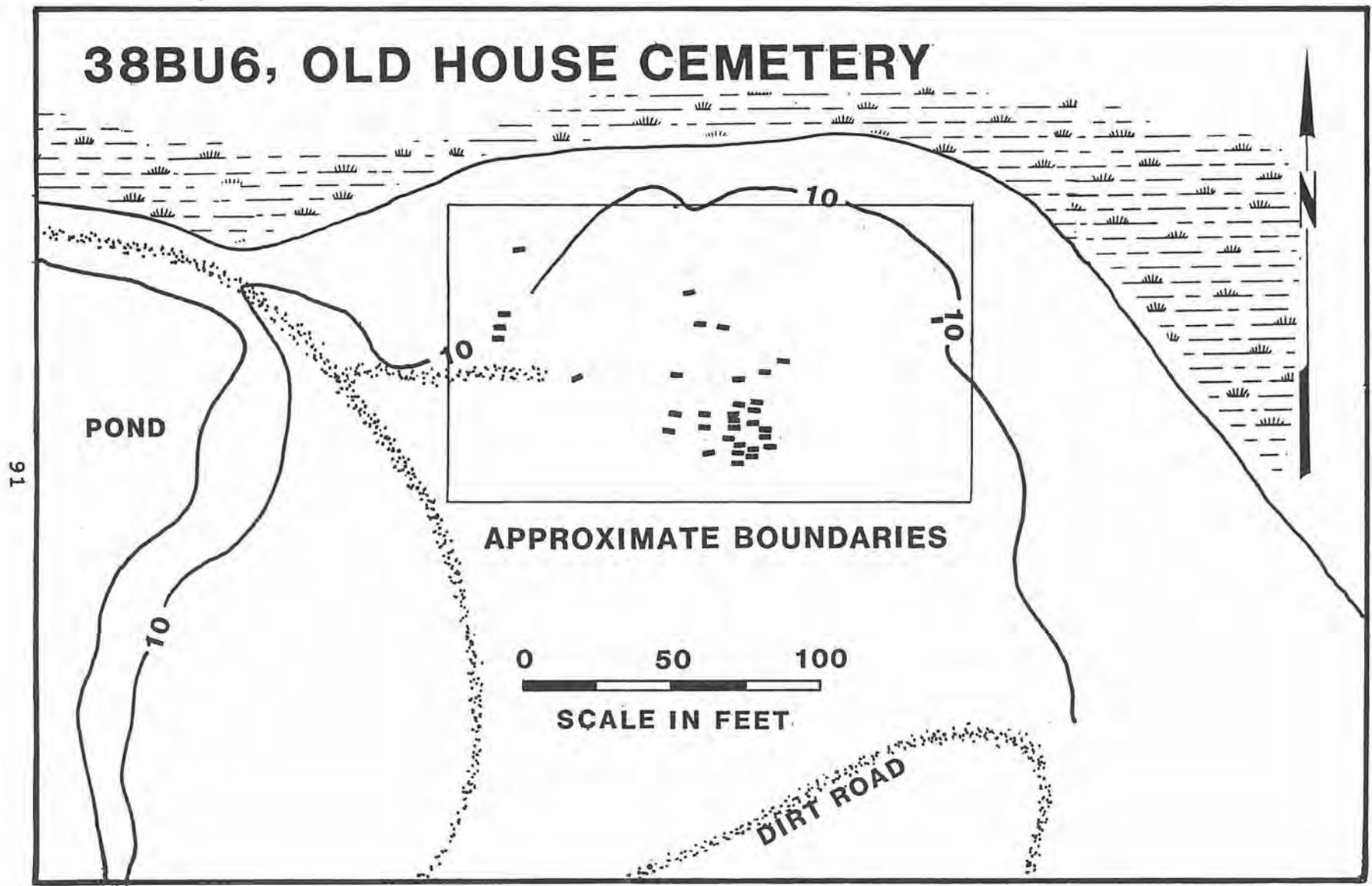


Figure 19. Site 38BU6, showing the location of identified graves and grave depressions.

extending to at least the late 1930s. Research on Anthony Edwards and John Fripp was conducted at the National Archives. Edwards originally enlisted with Company C, 34th Regiment of the United States Colored Infantry, but deserted to join the Company B of the 21st United States Colored Troops at Hilton Head on September 23, 1864 for a three year term. At that time he was recorded as being 23 years old and born in Beaufort (probably indicating only the Beaufort area). His occupation was listed as waiter. On March 5, 1865 he was arrested as a deserter from the 34th Regiment and was released to them. John Fripp, at the age of 46, enlisted with Company B of the 21st Regiment of United States Colored Troops on September 27, 1864 at Morris Island. Fripp, born in South Carolina, listed his occupation as a laborer. He was mustered out on April 25, 1866.

These data suggest that the Spring Island Cemetery was begun during the antebellum period by the black slaves of the Edwards Plantation. Consequently, it is possible that 100 or more individuals were buried here between 1800 and the 1930s. Additional depressions were not identified because of both natural ground leveling and disturbances caused by recent efforts to clear the property using a bush hog. Unfortunately, these efforts at clearing the property have also damaged grave goods associated with the burials.

While cemeteries are not normally recognized as eligible for inclusion on the National Register (36CFR60.6), they may be eligible for inclusion based on the osteological, physical anthropological, and biocultural data they contain. This is clearly the case at 38BU6. This site represents an intact example of Afro-American mortuary behavior and is recommended as eligible for inclusion in the National Register of Historic Places.

Although removal is an option, both archaeologically and legally, green spacing is to be preferred for a variety of reasons, including the cost associated with proper excavation, analysis, and reburial of the remains, as well as for the respect of the deceased. The boundaries of the cemetery as shown in Figure 19 (350 feet east-west by 250 feet north-south) appear to be reasonable based on the dispersion of burial depressions and the estimated use of the cemetery. However, since no excavations were undertaken to determine the actual boundaries, some additional buffer should be provided. This area should be fenced and all future clearing and land maintenance should be done by hand. No heavy equipment should be allowed in the cemetery area under any circumstances. The use of heavy equipment already has obliterated unmarked graves, damaged grave goods, and has damaged the stones and wooden markers associated with marked graves. Spring Island must remain sensitive to the relatives of those buried in this cemetery and should ensure free access to the graves.

38BU306

This site represents a large South Appalachian Mississippian shell midden situated on the south end of the island overlooking the Colleton River. The site elevation is 10 feet MSL and the soils are the Seewee series. Vegetation is primarily maritime forest, although a dirt road bisects the site east-west. Site dimensions, based on the distribution of shell, are 1400 feet along the water and up to 200 feet to the interior. Central UTM coordinates are E515460 N3573520.

The site consists of numerous discontinuous shell middens found on the marsh edge, as well as midden extending inland. The site was tested by a series of 48 shovel tests screened through 1/4-inch mesh. Recovered materials include four Irene Complicated Stamped sherds, one Savannah Cord Marked sherd, and two unidentifiable sherds.

Damage to the site is limited to erosion along the Colleton River and the recent bulldozing of a road along the edge of the bluff. While site integrity has suffered from both of these events, the shovel tests indicate that intact site areas still exist and examination of the bluff edge has revealed the presence of several eroding shell pits. This is the only large (Type 2) shell midden site from the Mississippian period on Spring Island. Consequently, the site is recommended as eligible for inclusion on the National Register of Historic Places. Because of the erosion and the graded road, green spacing does not appear to be a feasible alternative. Archaeological data recovery will be necessary to prevent accelerated site damage and should incorporate investigation of several midden areas. The site has the potential to yield significant data on Irene phase settlement and subsistence patterns.

38BU724

This site, situated at the north end of Spring Island adjacent to Chechessee Creek, is a series of thin (Type 1) shell middens dating from the Deptford and Irene phases. The site is about 100 feet inland from the marsh and was previously reported by Lepionka as his site 1. The central UTM coordinates are E515320 N3579520 and the site is on Wahee soils at an elevation of 8 feet MSL. The site, vegetated in hardwoods with a thin understory, measures about 300 by 300 feet.

The site was tested with a series of 37 shovel tests screened through 1/4-inch mesh. Materials recovered include one Deptford sherd, two Irene Complicated Stamped sherds, three unidentifiable sherds, and one chert flake. These remains indicate the presence of at least two components, although site integrity is high. The site is recommended as eligible for inclusion in the National Register and should be either green spaced or subjected to data recovery.

38BU725

This site, identified by Lepionka as his site 2, is situated at the north end of Spring Island adjacent to Chechessee Creek. Originally Lepionka (1986) reported two loci, S-11 and S-12; this survey, however, was unable to relocate locus S-12 and this evaluation is based entirely on Locus S-11. The central UTM coordinates are E515540 N3579520 and the site is on Wahee soils at an elevation of 5 feet MSL. Investigation of this area revealed that the site consists of redeposited shell midden in the form of bulldozer push piles.

Although a series of 13 shovel tests were excavated in the site area no materials were recovered. It was also impossible to identify the original site area or areas of intact remains. Midden was found scattered over an area about 10 by 5 feet and had a depth no greater than 0.3 foot. Previous work by Lepionka included the excavation of at least one 3-foot unit, although the field notes do not permit this unit to be relocated. At that time, three Deptford sherds and five unidentifiable sherds were recovered from the site area.

The site, lacking any degree of integrity is recommended as not eligible for inclusion in the National Register and no further work appears necessary.

38BU726

This site, designated by Lepionka (1986) as his site 3, consists of at least two discrete shell middens about 200 feet inland from the Chechessee Creek marsh at the north end of Spring Island and about 100 feet from a relic freshwater slough. Originally Lepionka recorded these loci as 10a and 10b, although only Locus 10a could be relocated during this survey. Further complicating the resurvey, Locus 10a has been incorrectly located on a number of maps.

Soils in the site area are the poorly drained Wahee series and the site elevation is 8 feet MSL. The central UTM coordinates are E515680 N3579360. The site is vegetated in mixed hardwoods and shell is exposed on the surface in an old fire lane.

A series of 17 shovel tests were excavated, revealing site dimensions of about 250 by 150 feet. Site depth is about 0.8 foot. The only material recovered by this investigation is a single Deptford Cord Marked sherd. This, however, is consistent with the materials recovered by Lepionka. These shovel tests reveal the midden to be intact and to exhibit a high degree of integrity. This site, characterized as a Type 3 Deptford phase midden, has the potential to contribute significant subsistence and settlement details of late Early Woodland life. The site is recommended as eligible for inclusion in the National Register. Appropriate

mitigation may involve either green spacing or data recovery.

38BU727

This site, designated by Lepionka as site 4, is situated about 200 feet south of the Chechessee Creek in an area of palmetto, hardwood, and pine. The soils are Wahee series sands and the site is at an elevation of 9 feet MSL. The central UTM coordinates are E515710 N3579680. This site was tested by Lepionka with the excavation of a 3-foot unit placed in an area of dense midden. Materials recovered from this unit included one Deptford Cord Marked sherd and daub. Site tests by Chicora involved a series of 12 shovel tests, recovering a single unidentifiable sherd. Site dimensions were established as 100 by 50 feet. Site depth, based on shell midden ranges up to 1.0 foot.

This Type 1 Deptford shell midden is recommended as eligible for inclusion on the National Register of Historic Places. Site integrity is high and areas of dense midden are present. Site mitigation could incorporate either green spacing or data recovery.

38BU728

This site, designated by Lepionka as site 5, consists of a series of discrete shell middens found parallel to an impounded marsh slough which represents a relic freshwater spring. The middens are situated on Bladen and Wahee soils at an elevation of 8 to 10 feet MSL. The central UTM coordinates are E516170 N3579680. Site vegetation is a maritime forest of oak and palmetto adjacent to Chechessee Creek at the north end of Spring Island. The middens at the east end of the site have been damaged by a borrow pit a number of years ago, although the western two-thirds of the site is intact.

A series of 19 1-foot shovel tests were excavated, producing one Deptford Fabric Impressed sherd, five Deptford Cord Marked sherds, three Deptford sherds with eroded surface treatment, two Mount Pleasant Cord Marked sherds, and five unidentifiable sherds. Previous investigations by Lepionka produced Deptford Check Stamped, Deptford Cord Marked, and Deptford Plain sherds. The shovel tests revealed the site to measure about 900 feet east-west by 200 feet north-south.

Site 38BU728 possesses a high degree of integrity with intact shell midden deposits. The site, classified as a Type 2 Deptford midden, has the ability to contribute significant data regarding late Early Woodland settlement and subsistence patterns. It is therefore recommended as eligible for inclusion on the National Register of Historic Places. If the site is to be affected by development activities, appropriate mitigation may include either green spacing or data recovery.

38BU729

Site 38BU729, originally recorded by Lepionka as site 6, is situated at the north end of Spring Island on Bladen soils. The site elevation is 6 feet MSL and the vegetation is typical of maritime forests. The UTM coordinates are E516270 - 516420 N3579620. Investigations have revealed that the site, as originally recorded by Lepionka, has been mislocated on the mapping. In addition, the site consists of three loci of dense shell midden situated adjacent to the marsh slough, as well as a shell midden located in the marsh 50 feet north of the shore edge.

A series of 45 shovel tests were excavated at this site, revealing site dimensions of 800 feet along the marsh edge and up to 100 feet inland. Site depth, in midden areas, ranged up to 1.0 foot. No materials were recovered from the shovel tests and Lepionka's collections from this site were not provided to Chicora.

Although no cultural materials were recovered, this site appears to have good integrity and consists of intact shell middens probably dating from the Early to Middle Woodland period. There is no evidence of site disturbance and there is an excellent potential for the site to yield significant subsistence and settlement data. Consequently, this site is recommended as eligible for inclusion in the National Register.

38BU730

This site consists of three Deptford phase shell middens in the low marsh of a tributary of the Chechessee River at the north end of Spring Island. The middens are vegetated in marsh grass; the trees having died from the encroaching salt water. The soils in this area are the poorly drained Bladen series and the area around the middens is at an elevation of 4 to 5 feet MSL, although the middens are about 2 feet higher than the marsh. The UTM coordinates are E5167690 - 516800 N3578750.

The site, designated by Lepionka (1986) as site 7, was described as a "shell rake." The current investigations have revealed that the shell is not an artificial deposit, but the remains of an eroded and partially inundated midden covering an area of 500 feet along the marsh and extending inland at least 50 feet. A pot burst was found eroding from the marsh and yielded 15 matching Deptford Cord Marked sherds. Site depth, based on erosional profiles, is up to 0.5 foot.

38BU730 exhibits moderate integrity, and although exposed to tidal influences, has the potential to contribute significant information on settlement and subsistence during the Deptford phase. The site also has the potential to yield information on geological processes. 38BU730 is recommended as eligible for inclusion on the National Register of Historic Places.

38BU731

This site was described by Lepionka (1986) as a series of middens along the northeast shore of Spring Island, designated as Locus F24N and site 8. Intensive examination of the site area as shown on Lepionka's maps, however, failed to reveal evidence of the middens. A single shell midden about 50 feet from the shore in high marsh was identified (but is not mentioned in Lepionka's descriptions) and was given the site number. The midden is located at UTM coordinates E516740 N3578340 and is situated on Bladen soils at an elevation of 4 feet MSL. The marsh hummock measures about 20 feet in diameter and is about three feet above the marsh. A single shovel tests was excavated to reveal a midden up to 2 feet in depth. No cultural materials were recovered from the test or from the eroded surface.

Unfortunately, the site (a Type 1 midden) is very small and partially inundated. The lack of site integrity and artifacts suggests that the site is not eligible for inclusion in the National Register.

38BU732

This site consists of six eroding middens on the shore and one locus in a plowed field at the northwest edge of Spring Island bordering Chechessee Creek. The central UTM coordinates are E515310 N3578750 and the site is found on Coosaw soils at an elevation of 5 to 13 feet MSL. The site area has been heavily damaged by agriculture and twentieth century plantation activities. The bulk of the site is covered by a small landfill and associated surface dump areas.

Locus S-4 is situated in the vicinity of the quail house, which burned in 1989. It consists of a shell scatter with heavy disturbance from the construction of the bird house and bulldozing to contain the fire. A tabby footing was found in this area and was probably associated with an early twentieth century tenant house. Locus S-5 is found in the vicinity of the dump and consists of a dense shell midden extending 100 feet along the bluff and from 0.1 to 0.4 foot in depth. Locus S-6 is a very light midden about 20 feet in length. Locus S-7 is another thin midden about 0.1 foot thick and extending a maximum of 15 feet along the bluff. Locus S-8 consists of three discrete middens found along 50 feet of the bluff. The midden is up to 0.1 foot in depth. Locus S-9 is a series of three oyster and mussel shell middens over an area 30 feet along the bluff and up to 0.3 foot in depth. Locus F9N consists of shell in an agricultural field. Lepionka's Locus F9S, located in the same agricultural field, could not be relocated in spite of excellent surface visibility. These middens cover an area 500 by 1200 feet and represent a series of Type 1 middens that have been extensively eroded or blurred together by plowing.

A series of 62 shovel tests were excavated at these various loci. This work revealed that the shoreline loci (S-4, S-6, S-7, S-8, and S-9) fail to extend inland more than 5 feet. The field locus (F9N) has been heavily plowed and dispersed. Shovel tests in the vicinity of Locus S-5 in the dump area were limited because of the extensive disturbance and the potential for pesticides or other hazardous materials. Specimens recovered from these investigations include two Deptford Cord Marked sherds, one Mount Pleasant Cord Marked sherd, one Mount Pleasant sherd with an unidentifiable surface treatment, two St. Catherines Cord Marked sherds, one St. Catherines Plain sherd, two unidentifiable burnished sherds, and 26 unidentifiable sherds.

The bluff edge loci are thin and heavily eroded. The interior loci are either heavily plowed or extensively damaged by twentieth century refuse disposal. No intact site areas could be identified during this survey and the site is recommended as not eligible for inclusion in the National Register.

38BU737

This site, designated as site 14 by Lepionka, is situated at the north end of Spring Island in an agricultural field. The central UTM coordinates are E515520 N3578520 and the soils are Murad sands. The elevation in the site area ranges from 17 to 18 feet MSL. The site consists of a dispersed shell midden at the northwest edge of the field. Shell is sparse on the surface and artifacts were uncommon and extensively plow damaged. A series of 13 shovel tests were excavated in the field in an attempt to locate intact deposits and to determine site boundaries. Artifact density, however, is so low that the boundaries of 400 by 100 feet are based primarily on surface distribution of shell. Materials recovered include one unidentifiable sherd and one brick fragment. Previous surveys by Lepionka produced only a small quantity of Deptford and Stallings sherds. The site is classified as a Type 3 midden.

The site is very heavily plowed and dispersed over the field. Shovel tests revealed no intact deposits and a low artifact density. Consequently, this site is recommended as not eligible for inclusion on the National Register.

38BU738

This site is represented by a thin scatter of shell in an agricultural field at the north end of Spring Island and was designated site 15 by Lepionka (1986). The central UTM coordinates are E515920 N3578820 and the site is situated on well drained Wando and Seabrook soils at an elevation of 20 feet MSL. This appears to be an example of a Type 3 (interior) shell midden.

A series of 12 shovel tests were excavated in the site area and three unidentifiable sherds and one chert flake were recovered.

Surface collections yielded two Stallings sherds, four Deptford Cord Marked sherds, and one unidentifiable sherd. Site boundaries of about 50 by 75 feet are suggested for this site, considerably less than originally established by Lepionka. Artifacts are sparse and the site may be as small as 20 by 20 feet, with the shell dispersed by plowing. Based on the low integrity, this site is recommended as not eligible for inclusion on the National Register.

38BU739

This site, designated site 16 by Lepionka (1986), consists of three discrete loci (A, B, and C) of shell midden. All are situated on a sandy ridge of Seabrook and Murad soils at elevations ranging from 20 to 23 feet MSL. The loci are adjacent to a freshwater slough running to Chechessee Creek. Each locus consists of thinly distributed shell. Locus A, measuring about 100 feet in diameter, is found partially within the field and partially in an adjacent wooded tract. The central UTM coordinates are E516200 N3578430. Loci B and C are entirely within the agricultural field. Locus B measures 75 feet in diameter and the UTM coordinates are E516100 N3578450. Locus C measures 200 feet in diameter and the UTM coordinates are E516060 N3578400.

All material appears to be confined entirely within the plowzone or A horizon, based on a series of 39 shovel tests (19 at Locus A, 6 at Locus B, and 14 at Locus C). Materials recovered from Locus A include one Deptford Cord Marked sherd and two unidentifiable sherds. Materials from Locus B include two unidentifiable sherds. Materials from Locus C include two Deptford Cord Marked sherds, one Mount Pleasant sherd with an unidentifiable surface treatment, and one unidentifiable sherd. Each locus is small and artifact density is very low. The various middens are dispersed and lack any evidence of integrity. This site, consequently, is recommended as not eligible for inclusion in the National Register of Historic Places.

38BU740

This site consists of an eighteenth century domestic scatter on the northwest edge of Spring Island, designated as site 17 by Lepionka (1986). The site is situated in an agricultural field at an elevation of 20 to 21 feet MSL. The soils are the Murad series. The central UTM coordinates are E515810 N3577860. A series of 19 shovel tests were excavated at the site, producing one Colono sherd, one lead glazed slipware ceramic, two undecorated creamware ceramics, one "black" bottle glass fragment, and one kaolin pipe bowl fragment. A general surface collection yielded one undecorated creamware ceramic, one undecorated pearlware ceramic, and several fragments of brick and mortar. The previous survey by Lepionka produced a more diverse collection of eighteenth century ceramic. When these two collections are combined (see Table 11) the mean ceramic date for the site is 1778.9. If the one whiteware ceramic

is removed from consideration, the mean ceramic date calculation yields 1775.6.

Although the shovel tests failed to produce evidence of intact subsurface deposits, they did reveal the presence of a concentration of shell and mortar in the center of the field. The site measures about 200 feet northwest-southeast by 75 feet northeast-southwest. It appears that the site represents the only partially intact evidence of the early occupation of Spring Island. Consequently, it assumes particular importance for understanding not only the history of this plantation, but also occupation of the Low Country frontier during the eighteenth century. Site 38BU740 is recommended as eligible for inclusion in the National Register of Historic Places. Appropriate mitigation may include either green spacing or data recovery.

Table 11.
Mean Ceramic Date For 38BU740

Ceramic	Mean Date (xi)	(fi)	fi x xi
Overglazed Enam. Porc.	1730	1	1730
White SGSW	1758	1	1758
Lead Glazed Slipware	1733	5	8665
Decorated Delft	1750	1	1750
Creamware, undecorated	1791	15	26865
Pearlware, blue trans print	1818	1	1818
undecorated	1805	1	1805
Whiteware, undecorated	1860	1	1860
Total		26	46251

$$46251 \div 26 = 1778.9$$

38BU741

Originally designated by Lepionka as site 18, 38BU741 consists of a thin scatter of shell, brick, and artifacts found in the middle of an agricultural field at the north end of Spring Island. The central UTM coordinates are E516120 N3577820. Soils in the site area are Murad series and the elevation is 21 feet MSL. The site is situated on a sandy ridge overlooking a remnant freshwater slough flowing into the marshes of Chechessee Creek.

A series of eight shovel tests were excavated at the site, indicating boundaries of 75 by 75 feet. No materials were recovered from these tests, or from a general surface collection; the boundaries are based entirely on the surface scatter of shell. Lepionka (1986) previously collected two fragments of clear glass, three fragments of manganese glass, three undecorated creamware ceramics, and one polychrome hand painted pearlware ceramic.

Based on the surface collections and the nature of the artifacts, it seems likely that this site represents a late nineteenth and early twentieth century tenant structure built in the vicinity of an earlier domestic structure. The site has been extensively plowed and the tests failed to indicate any area of in situ remains. Based on these factors and the very low density of artifacts, the site is recommended as not eligible for inclusion on the National Register.

38BU742

This site, situated in the north central portion of Spring Island, consists of a Type 3 shell midden scatter on a ridge of Seabrook sands overlooking an inland slough. The site elevation is 22 feet MSL and the central UTM coordinates are E516300 N3577520. A road bisects the site north-south and the core of the midden appears to be in a relatively undisturbed area at the south edge of the site, immediately adjacent to the slough.

A series of eight shovel tests were excavated, yielding one Deptford Plain sherd, one Deptford Cord Marked sherd, and two unidentifiable sherds. Previous surveys by Lepionka (1986) produced one Deptford Plain sherd, three Deptford Cord Marked sherds, one St. Catherines Plain sherd, three St. Catherines Cord Marked sherds, and one chert biface fragment. The site boundaries have been established as 100 feet north-south and 50 feet east-west, with the core measuring about 30 by 25 feet.

This site contains intact shell midden with a potential to yield information on Deptford and St. Catherines settlement and subsistence patterns. The site location, on an interior ridge adjacent to a freshwater slough, offers an environmental context characteristic of the Type 3 middens but relatively uncommon on Spring Island. This site is recommended as eligible for inclusion on the National Register of Historic Places. Site mitigation may involve either green spacing or data recovery.

38BU743

This site, a Type 3 shell midden, is situated on a ridge of Seabrook sand between an inland slough to the west and the marsh of Chechessee Creek to the east. The site is at an elevation of 20 to 22 feet MSL and the central UTM coordinates are E516300 - 516860 N3577440 - 3577700. It incorporates portions of three fields and intervening wooded tracts of maritime forest.

Lepionka had previously incorporated a very large area into this site, basing the dimensions entirely on the distribution of artifacts in open agricultural fields. Consequently, the site was tested by a series of eight north-south transects at 200 foot intervals, with shovel tests at 200 foot intervals. A total of 35 shovel tests were excavated, revealing site dimensions of 1400 feet

by 600 feet. Shell middens were found dispersed in the cultivated fields, but intact in the adjacent wooded areas. Materials recovered from the shovel tests include four Deptford Cord Marked sherds, one Mount Pleasant cord marked sherd, four St. Catherines Cord Marked sherds, seven unidentifiable sherds, and one daub fragment. Surface collected materials from one field locus include one Stallings Plain sherd, one Mount Pleasant Plain sherd, five Mount Pleasant Cord Marked sherds, one St. Catherines Plain sherd, and four unidentifiable sherds. Lepionka's collections likewise included Deptford, Mount Pleasant, and St. Catherines wares.

This site consists of a number of discrete shell middens covering a large area, many of which exhibit a high degree of integrity. The site appears to be a large Woodland Period site situated on the interior of the island and it has the potential to contribute significant information on late Early Woodland through early Late Woodland settlement and subsistence. It is recommended as eligible for inclusion on the National Register. Mitigation may include green spacing or data recovery. Excavation will need to include additional site survey to more precisely define intact midden areas worthy of study, and the detailed investigation of at least four areas.

38BU744

This site is situated on the east shore of Spring Island immediately west of 38BU6 overlooking the marshes of Chechessee River. The central UTM coordinates are E517340 N3577180 and the site is situated on Williman soils at an elevation of 10 to 15 feet MSL. 38BU744 is a Type 1 Deptford shell midden which is associated with a small tidal slough that was impounded a number of years ago. Materials were recovered both from the slope and the level ground above the slope.

A series of 38 shovel tests were used to establish site boundaries, determine the level of integrity, and yield a collection of 26 Deptford Fabric Impressed sherds (originally two to three sherds were represented), one Deptford Plain sherd, three Deptford Cord Marked sherds, one Mount Pleasant Cord Marked sherd, and seven unidentifiable sherds. The site incorporates an area measuring 300 by 50 feet on the east side of the slough and 400 by 50 feet on the west side. The depth of the deposits ranges from 1.0 to 1.5 feet below the present ground surface.

The site contains intact shell middens which are judged to exhibit a high degree of integrity. Artifact quantity is high and the site has the potential to contribute significant information regarding Deptford phase subsistence and settlement patterns. It is therefore recommended as eligible for inclusion on the National Register of Historic Places.

38BU745

This site, a Type 1 Deptford shell midden, is situated on the eastern shore of Spring Island. The central UTM coordinates are E515510 N3577300 and the site is found on Williman soils at an elevation of 5 feet MSL. The site consists of a thin deposit of shell on the bluff edge eroding into the Chechessee River marsh. This midden ranges in depth from 0.1 to 0.3 foot and is found as small deposits having lengths of less than 10 feet up to 20 feet. The site extends over an area of 100 feet along the bluff. A series of 20 shovel tests, however, revealed that the midden does not extend inland more than 20 to 40 feet. The site area is vegetated in a mixed pine and hardwood forest.

In addition to the prehistoric midden, this survey revealed the presence of 20 tabby blocks scattered in an area measuring about 40 feet in diameter 150 feet inland from the shoreline. One appears to be a fragment of a fire box, while the others are too fragmentary for assessment. These materials are out of context and appear to have been bulldozed into this area from the adjacent field. These remains were examined by Brooker (Colin Brooker, personal communication 1990), who suggests that they are the remains of tabby fireplaces associated with the northern slave row at 38BU1. It is likely that the tabby was bulldozed from the field sometime in the early 1970s and piled in this area.

Materials recovered from the bluff edge include one Stallings Plain sherd, one Deptford Plain sherd, and one unidentifiable sherd. From the interior area, associated with the bulldozed tabby remains, one Colono sherd, one brick fragment, three stoneware ceramics, and two unidentifiable sherds were recovered.

This site represents a thin and heavily eroded shell midden confined to the immediate shore area. The tabby rubble on the site's interior represents material redeposited, probably from 38BU1. Brooker (Colin Brooker, personal communication 1990) has indicated that the tabby is too fragmentary to allow any reasonable reconstruction of the chimney bases. There is an absence of in situ material and the site exhibits a low degree of integrity. As a consequence, 38BU745 is recommended as not eligible for inclusion in the National Register.

38BU746

This site consists of a thin prehistoric midden eroding from the bank overlooking the Chechessee River marsh on the eastern shore of Spring Island. This Type 1 midden, extending inland no more than 25 feet, is situated on Seabrook soils at an elevation of 5 feet MSL. The central UTM coordinates are E517580 N3577180. Further inland there are two scatters of tabby rubble which appear to have been pushed into this area from 38BU1. Around the southern tabby pile, shovel testing revealed the presence of an intact

historic midden, also relating to 38BU1. The 10 shovel tests, however, produced no artifacts associated with either the prehistoric or historic middens.

The tabby rubble has been examined by Brooker (Colin Brooker, personal communication 1990) and it does not appear to be related to that found at 38BU745. The material is too large to represent chimney remains, and appears to be large wall fragments. These materials may, therefore, have been removed from the main Edwards house. One of the blocks was used to set the Coast and Geodetic Survey marker "ED" and those records indicate that these tabby blocks were at this site as early as 1931. It seems likely that they represent the results of an early period of demolition at the Edwards house, although the reason for their movement is unknown.

The prehistoric midden is very thin and heavily eroded. No intact area were encountered. The tabby rubble represents secondary deposition. This site is therefore recommended as not eligible for inclusion in the National Register.

38BU749

According to Lepionka this site was situated in the central portion of Spring Island. At the time of this survey the vicinity of the site was inundated by up to 0.5 foot of water. Discussions with Gordon Mobley (personal communication 1990) indicated that these fields are seasonally flooded for birds. Apparently, Lepionka was fortunate enough to conduct his reconnaissance survey during a portion of the year when the site was accessible.

Since this site could not be relocated during the current survey, its assessment is based on Lepionka's previous work and the likelihood that the seasonal flooding has caused damage through chemical and mechanical alterations. 38BU749 appears to represent a Type 1 midden of unknown cultural affiliation (Lepionka recovered only one unidentifiable sherd from this site in 1985). This site is recommended as not eligible for inclusion in the National Register.

38BU750

This site, designated by Lepionka as site 27, is situated on the east central edge of Spring Island. The soils in the site area are Polawana and the elevation is 21 feet MSL. The central UTM coordinates are E517340 N3576510 and the site represents a sparse scatter of early twentieth century remains in a cultivated field which is used for burning timber debris.

A series of nine shovel tests were excavated without result. No intact deposits could be identified, nor were any artifacts recovered. A surface survey yielded a single fragment of manganese glass. Lepionka's previous collection at this site included two ceramics and six glass fragments.

This site may represent a heavily damaged tenant occupation from the late nineteenth or early twentieth century. Alternately, the material recovered from this field may represent only remains transported to the site in the root balls of trees to be burned. Regardless, there is no indication of site integrity and the area has been extensively damaged by ground clearing, bulldozing, and frequent burning. This site is recommended as not eligible for inclusion in the National Register.

38BU751

This site, designated as site 28 by Lepionka (1986), is situated in the east central portion of Spring Island on Polawana soils at an elevation of 20 feet MSL. The site consists of a thick scatter of shell in the northeast corner of an agricultural field which has only recently been opened. The remains appear to be those of Late Woodland Type 3 midden.

A series of eight shovel tests were excavated in the field, although no materials were encountered. The plowzone was a maximum of 1.0 foot in depth. The surface collection yielded a single St. Catherines sherd, as did Lepionka's earlier survey. Site dimensions of 75 by 75 feet are based on the dense scatter of shell which does not appear to have been spread too greatly by cultivation.

This site represents a St. Catherines interior shell midden. Although the site has been plowed, there is a high potential for intact subsurface pits and features, given that agricultural practices in this field have just recently begun. Site 38BU750 is therefor recommended as eligible for inclusion on the National Register.

38BU752

This site, situated in the east central portion of Spring Island, has been designed site 29 by Lepionka (1986). The central UTM coordinates are E516950 N3577000 and the site is situated on Seabrook soils at an elevation of 27 feet MSL. The area incorporates a grassed lawn and a partially cleared maritime forest. The major component of this site, as originally recorded by Lepionka, is a religious shrine erected by the Walkers in 1972 in the memory of their daughter who died in a horseback riding accident. The shrine consists of an artificial mound about 7 feet in height and 50 feet in diameter (bulldozed from the surrounding area) with a St. Francis statue on a circular slate platform, the St. Francis prayer on a concrete wall, and a marble seat. The bronze statue was founded by the Modern Art Foundry, New York in 1972 and is signed by Clam Spampinato. Spampinato did a number of castings, although this is one of the few religious statues produced.

A series of 12 shovel tests were placed in the area around the

mound in order to examine the small quantity of historic materials reported by Lepionka and revealed during a surface survey. These tests produced primarily early twentieth century material, although mortar wattle and daub fragments were also recovered, primarily from the area southeast of the mound.

The historic component of the site has been heavily damaged by the construction of the mound and does not appear to retain significant integrity. The mound and associated religious shrine must be evaluated based on the importance of the artist and the availability of his work in South Carolina. Discussions with the Modern Art Foundry reveal that the artist has done few religious statues, which does increase the importance of the work. It seems unlikely, however, that the site is eligible for inclusion on the National Register. The developer, however, has indicated that this site will be green spaced.

38BU753

This site, designed by Lepionka (1986) as site 30, is a multicomponent site situated on the eastern shore of Spring Island. The site, on Seabrook soils at an elevation of 20 feet MSL, consists of a series of shell middens in an agricultural field and a wooded tract overlooking a tidal slough which has been impounded. Dense shell middens, however, are confined to the wooded area where there is little evidence of disturbance. In addition, there is some limited evidence of a historic component at the west end of the site in the plowed field. The central UTM coordinates are E517150 N3577100.

A series of 31 shovel tests were excavated at this site to establish site boundaries, determine integrity, and obtain information on temporal period. These tests revealed three Stallings Plain sherds, seven Deptford Plain sherds, one Deptford Simple Stamped sherd, one Savannah Check Stamped sherd, five unidentifiable sherds, and one undecorated whiteware ceramic. At the west end of the site a surface collection in the vicinity of the historic component revealed one "black" glass fragment, one brown glass fragment, one aqua glass fragment, three undecorated whiteware ceramics, and one undecorated creamware ceramic. In addition, a thin scatter of brick and mortar was also found. Prehistoric materials from this area included a chert flake, one Savannah Check Stamped sherd, and one Deptford Cord Marked sherd. Lepionka previously recovered materials primarily associated with the historic aspect, including pearlware and whiteware ceramics, colono ware pottery, kaolin pipe bowls and stems, and bottle glass fragments.

It appears that this site incorporates a large and significant Early through Late Woodland component, as well as a structure dating to the occupation of the nearby Edwards Plantation (38BU1). While the prehistoric component exhibits good integrity, the

historic component has been heavily plowed. This site, therefore, is recommended eligible for inclusion on the National Register, based on the prehistoric component. Either green spacing or data recovery are appropriate mitigation measures, although if data recovery is undertaken, additional testing should be conducted at the historic component to determine if intact deposits can be identified.

38BU758

This site consists of a broad scatter of previously discrete Type 3 shell middens dispersed by plowing. Additional middens are present in the adjacent forested areas which have not been damaged by cultivation. Also associated with this site is a tenant component consisting of a brick chimney base, three in situ concrete piers and a series of tabby piers which have been bulldozed out of context. The site, designated as site 35 by Lepionka, is situated in the central interior of Spring Island and is associated with a freshwater slough immediately to the west of the site. The soils are Seewee sands and the site elevation is 20 to 23 feet MSL. The central UTM coordinates are E516750 N3575720.

A series of 95 shovel tests were excavated at the site. These tests revealed intact midden deposits in areas to a depth of 1.2 feet. Site boundaries were established to be 1400 feet north-south by 700 feet east-west. The tests recovered two Stallings Plain sherds, two Thom's Creek Plain sherds, six Deptford Plain sherds, 14 Deptford Cord Marked sherds, one Deptford sherd with an unidentifiable surface treatment, 17 St. Catherines Cord Marked sherds, two St. Catherines Fabric Impressed sherds, four St. Catherines sherds with unidentifiable surface treatments, one Mount Pleasant Plain sherd, two Mount Pleasant Cord Marked sherds, 11 unidentifiable sherds, one chert biface, and two flakes. Also recovered was a small collection of historic materials, including one edged pearlware, four fragments of light green bottle glass, one fragment of clear bottle glass, one unidentifiable nail, and one saw blade fragment. These remains, however, were widely dispersed and no clear evidence for boundaries of this historic component was detected. The prehistoric materials reveal a strong St. Catherines component (accounting for 37.1% of the pottery) and a strong Deptford component (accounting for 33.9% of the pottery).

This site consists of a large, well preserved Deptford and St. Catherines base camp (Type 3 midden) which evidences a number of intact, well preserved midden loci. These remains have the potential to yield significant information on subsistence and settlement patterns. This site is therefore recommended eligible for inclusion in the National Register of Historic Places. The historic remains may represent a widely dispersed tenant occupation. If the site is not green spaced, additional testing should be conducted in the area of the tenant structure to determine if it is a contributing component of the National

Register site.

38BU761

This site is situated on the southwestern shore of Spring Island and was designated site 38 by Lepionka. The central UTM coordinates are E515050 N3575340 and the site is at an elevation of 5 to 10 feet MSL on Eddings soils. Site vegetation is maritime forest. The site consists of three small, sparse Type 1 shell midden loci eroding from the marsh bluff and a diffuse scatter of shell inland. Lepionka's interior shell midden, locus S-52, could not be relocated with the available mapping.

A series of 11 shovel tests were excavated along the bluff edge to determine site boundaries and integrity. The middens are found scattered along the bluff for 700 feet, but extend inland for only 5 to 10 feet. The diffuse scatter of shell, however, is found inland for up to 100 feet. The one sherd recovered from these tests was found inland and is Altamaha Complicated Stamped.

Although the single sherd recovered suggests a late protohistoric occupation, a period of considerable interest and poorly represented on Spring Island, there is extensive erosion at the site and no evidence of clear site integrity could be identified. Consequently, this site is recommended as not eligible for inclusion in the National Register.

38BU765

This site, situated in the southwest central section of Spring Island, was designated as site 42 by Lepionka (1986). It consists of a thin scatter of shell, prehistoric sherds, and historic ceramics in an agricultural field and woods to the southwest and northeast. The historic remains appear to be concentrated in the northeast corner of the field, although no tabby foundation piers or other architectural remains have been found at the site. The site is situated on Eddings soils at an elevation of 20 feet MSL. The central UTM coordinates are E516050 N3575520.

A series of 29 shovel tests were excavated, yielding one Refuge Dentate Stamped sherd, one St. Catherines Plain sherd, one unidentifiable sherd, two fragments of clear glass, two fragments of manganese glass, and one iron button. A general surface collection in the vicinity of the historic concentration produced two undecorated whiteware ceramics, one brown bottle glass fragment, five manganese container fragments, one light green bottle glass fragment, and one Savannah Check Stamped sherd. Site boundaries were established as 175 by 75 feet with materials found to a depth of 0.6 foot.

This site, which consists of a Type 3 shell midden and an early twentieth century tenant site, has been heavily plowed. No

intact remains of either component have been found. Consequently, this site is recommended as not eligible for inclusion in the National Register.

38BU766

This site is situated in the south central portion of the island on Seabrook soils at an elevation of 22 feet MSL. The central UTM coordinates are E516990 N3575020. The site, originally designated as site 43 by Lepionka (1986), consists of a thin scatter of shell in an agricultural field extending south through a wooded area and into the adjacent dirt road. Other than the shell, artifacts are uncommon and the area appears to have been heavily disturbed. This Type 3 site is estimated to cover an area 600 by 250 feet, although the 18 shovel tests failed to reveal materials at a depth greater than 0.6 foot. The only items recovered are one Deptford Cord Marked sherd and one unidentifiable sherd.

This site has been extensively damaged by plowing. The shovel tests failed to reveal any areas with clear integrity and artifact density is very low. Site 38BU766 is recommended as not eligible for inclusion in the National Register.

38BU767

Originally designated as site 44 by Lepionka (1986), this site is situated in the southwest central portion of Spring Island on a ridge of Eddings sands at an elevation of 20 to 23 feet MSL. The central UTM coordinates are E515975 N3575200 - 3575480. The site consists of at least three shell scatters in plowed fields and the nearby woods on a ridge slope adjacent to an interior drainage of Callawassie Creek. Site dimensions are 850 feet north-south by 300 feet east-west. A series of 31 shovel tests were excavated which, in addition to the surface collection, yielded three Deptford Plain sherds, three Deptford Cord Marked sherds, two unidentified sherds, and three glass fragments. Material was confined to the upper 1.0 foot of soil and no subsurface features were encountered.

Although one dense shell midden area was found in a field, artifact density is low and the site has been extensively plowed. No intact site areas were identified and the wooded tracts exhibit limited areas of midden. This Type 3 shell midden is therefore recommended as not eligible for inclusion in the National Register.

38BU768

Found on the southeastern shore of Spring Island, site 38BU768 was originally designated site 45 by Lepionka. It is situated on a ridge of Seabrook soils overlooking an interior slough and is at an elevation of 22 feet MSL. There are two loci of thin shell midden found at the north and south ends of an agricultural field. These

scatters, based on the shovel tests, do not extend into the adjacent woods and appear to have been thoroughly dispersed. There is a thin scatter of artifacts between the two shell loci, but no intact deposits were encountered. Each loci measures about 75 feet in diameter, although the scatter covers an area of about 650 by 150 feet. No artifacts were found in the 13 shovel tests, and only two specimens were found during the surface collection. One is a reworked chert Savannah River Stemmed projectile point while the other is a chert flake. Lepionka's previous collection includes one Stallings Plain sherd, three Thom's Creek Plain sherds, one Deptford Plain sherd, one Deptford Cord Marked sherd, and three chert flakes.

This Type 3 midden is represented by a diffuse scatter of shell and a very low density of artifacts. Although the site's Early Woodland date and interior location is of considerable interest, the site fails to exhibit clear integrity. It is recommended as not eligible for inclusion in the National Register.

38BU769

This site is situated on the southeastern shore of Spring Island overlooking the Colleton River marshes. It is at an elevation of 15 feet MSL on Seabrook soils and the central UTM coordinates are E517440 N3574950. The site, originally called site 46 by Lepionka (1986), consists of a thin shell midden spread over a field now in a secondary growth of pine. A series of eight shovel tests produced a single Deptford Cord Marked sherd, while Lepionka's previous surface collection also yielded only one Deptford sherd.

This Deptford phase Type 1 midden failed to reveal any evidence of site integrity. The shell midden has been heavily plowed, dispersing shell over an area of 500 by 100 feet. Artifact density and variety is low, and this site is recommended as not eligible for inclusion on the National Register of Historic Places.

38BU770

Originally designated site 47 by Lepionka (1986), 38BU770 was recorded at the edge of a causeway crossing over an impounded tidal slough. An intensive survey conducted during this study failed to relocate the site. Based on the original description and the present inability to identify evidence of the site, it is recommended as not eligible for inclusion on the National Register of Historic Places.

38BU771

This site consists of three widely separated loci, termed A, B, and C on the southeastern edge of Spring Island. These were originally designated as site 48 by Lepionka and are situated on

Seabrook and Rosedhu soils. All three loci are on an interior ridge overlooking a freshwater slough to the east. Elevations range from 20 to 22 feet MSL. The central UTM coordinates of locus A are E516900 N3574920 and the locus is found in a heavily plowed field. It measures about 400 by 200 feet in diameter. Locus B, bisected by a dirt road, measures about 50 by 25 feet and the central UTM coordinates are E517020 N3574750. Locus C has been bisected by the same dirt road and it also measures 50 by 25 feet. The central UTM coordinates of locus C are E517020 N3574580. Of the three, only loci B and C evidence any intact midden.

A series of 11 shovel tests were excavated at locus A, five at locus B and three at locus C. One unidentifiable sherd was found at locus A and one Deptford Plain sherd was found at locus B. No evidence of the "heaps of shell" reported by Lepionka (1986) for locus A could be identified.

These small middens, each apparently a Type 3 Deptford phase site, have been extensively damaged by either cultivation or road construction and maintenance. All three loci are recommended as not eligible for inclusion in the National Register.

38BU772

This site, designated by Lepionka site 49, consists of three Type 1 midden loci around an impounded freshwater slough on the southeast edge of Spring Island. Elevations in the site area range from 15 to 20 feet MSL and the soils are the well drained Seabrook series. The UTM coordinates for the cluster of middens are E517140 -517420 N3574700 - 3574800. These middens correspond to Lepionka's S-32 and S-33 middens, although the latter is misplotted on the available mapping. While shell is found scattered over the entire area outlined by Lepionka, intensive shovel testing failed to locate more than the three loci of intact deposits. The shell is scattered over an area 700 feet by 600 feet (inclusive of the slough area); the actual loci, however, measure about 25 to 40 feet in diameter.

The 61 shovel tests excavated at this site produced only two Deptford Cord Marked sherds, one Deptford Check Stamped sherd, and one unidentifiable sherd.

Although portions of this site evidence extensive disturbance, clear intact midden areas have been identified at three loci. These have the potential to contribute significant information on settlement and subsistence issues concerning the Deptford phase and the site is recommended as eligible for inclusion in the National Register.

38BU773

Designated by Lepionka (1986) as site 50, 38BU773 is situated

on an interior Seabrook ridge in the southeast corner of Spring Island. The site represents an early nineteenth century slave settlement with at least two related barn structures. The site elevation is 25 feet MSL and the central UTM coordinates are E516800 N3574480. The area is in a mixed pine and hardwood forest on the edge of cleared agricultural fields. There is limited evidence of disturbance from recent land clearing, although the bulk of the site appears to be intact. The site measures about 800 by 400 feet.

Surface features include a tabby chimney base measuring 5.9 feet by 2.3 feet and oriented approximately N25°E. Two additional structures, in line with this chimney, are evidenced by rubble piles. Two barn structures are found at the northeast edge of the site. One structure is evidenced by a series of tabby piers, including four corners and two intermediate piers, with evidence of an additional five robbed piers. This structure is oriented N40°E and measures 39.8 by 20.3 feet. The second barn is oriented N42°E and consists of only one corner and an associated intermediate pier. Given the difference in the orientation of the barns compared with the slave row, it is likely that the row and the barns represent two different construction episodes.

A series of 75 shovel tests were excavated to examine the slave row and the area to the east where Lepionka had excavated at least six 3 by 3 foot test units. These studies yielded eight colono sherds, one lead glazed slipware ceramic, one undecorated pearlware, one blue transfer printed pearlware ceramic, one edged pearlware, two window glass fragments, one machine cut nail, five unidentifiable nails, one kaolin pipe bowl fragment, one kettle fragment, one manganese glass fragment, one "black" glass fragment, and one aqua glass fragment. The ceramics from this site yield a tentative mean ceramic date of 1790.3 (Table 12) which suggests that this may be the earliest surviving slave settlement on Spring Island. Figure 5 reveals the presence of a settlement dating to at least 1812 in the area of Spring Island occupied by 38BU773. This settlement, however, is no longer present by the late antebellum

Table 12.
Mean Ceramic Date for 38BU773

Ceramic	Mean Date		fi x xi
	(xi)	(fi)	
Lead Glazed Slipware	1733	1	1733
Pearlware, blue trans print	1818	1	1818
edged	1805	1	1805
undecorated	1805	1	1805
Total		4	7161

$$7161 \div 4 = 1790.3$$

period (see Figure 6).

This site exhibits a high degree of integrity, providing clear evidence of both archaeological and architectural remains. This site has the potential to provide information on the early antebellum slave lifeways and is recommended as eligible for inclusion on the National Register of Historic Places. Appropriate mitigation may involve either green spacing or data recovery. If green spacing is chosen, it will be necessary to ensure stabilization of the exposed tabby firebox. This process, which should be done to the Secretary of the Interior's Standards, will involve capping the tabby to provide long-term preservation. If archaeological data recovery is the preferred mitigation, each of the three structures and related yard areas should be intensively examined, with one structure completely excavated. In addition, excavation should be conducted in the vicinity of each barn in order to more completely determine construction details, temporal placement, and function.

38BU774

This site consists of two loci on the south end of Spring Island overlooking the marshes of Colleton River. The soils are Seabrook sands; the UTM coordinates of locus A are E516800 N3574360 and the coordinates of locus B are E516920 N3574280. These loci were previously designated site 51 by Lepionka (1986). Locus A is a thin scatter of shell in pine second growth, while locus B is an area of widely scattered shell in an adjacent field. A series of five shovel tests were tested at locus A and eight tests were excavated at locus B. Based on the distribution of shell, locus A measures about 225 by 75 feet, while locus B measures about 50 by 250 feet. The shovel tests revealed that the shell fails to have any depth and the site appears to represent two thoroughly plowed Type 1 middens. No artifacts were recovered from the shovel tests, although Lepionka's previous survey yielded one St. Catherines sherd and a small quantity of early twentieth century materials.

No evidence of site integrity was identified during this survey and the artifact density at the middens is very low. This site is recommended as not eligible for inclusion on the National Register.

38BU775

Originally designated site 52 by Lepionka (1986), this site is situated at the south end of Spring Island overlooking a tidal slough of the Colleton River. The site's elevation is 20 feet MSL and it is found on well drained Wando soils. The central UTM coordinates are E516780 N3574230. A thin scatter of shell is observed in an old field, although a series of eight shovel tests failed to yield any artifacts. Previous surveys by Lepionka did produce a small quantity of early twentieth century remains, so it

is probable that this scatter represents a former tenant site heavily damaged by plowing. Site boundaries of 225 by 50 feet have been established by the distribution shell, which certainly reflects plow scatter. This site is recommended as not eligible for inclusion in the National Register.

38BU776

This is a dense Type 2 Deptford phase shell midden situated on the bluff at the south end of Spring Island overlooking the marshes of Colleton River. Soils in the site area are Eddings and the elevation is 14 feet MSL. The locus was originally designated site 53 by Lepionka (1986) and central UTM coordinates are E516960 N3574040. Surface survey revealed that there is a dense shell midden extending along the marsh bluff for about 450 feet. A series of 30 shovel tests indicate that this midden may be found inland as much as 50 feet and that in some areas the depth exceeds 1.5 feet. Only one artifact, a Deptford Cord Marked sherd, was recovered from the tests.

This site represents a dense late Early Woodland shell midden and it exhibits a high degree of integrity. The midden is thick in several areas and may provide both floral and faunal data. It is recommended as eligible for inclusion on the National Register.

38BU777

This site, originally designated site 54 by Lepionka (1986), represents a twentieth century tenant house situated on the south end of Spring Island overlooking a tributary of the Colleton River. Soils are the Eddings series and site elevation is 15 feet MSL. The central UTM coordinates are E516820 N3573630.

Surface features at the site include a standing brick chimney, a partially intact cement pier system, evidence of a stove chimney, and a thin sheet midden adjacent to the house. The pier system indicates a structure minimally 12 by 10 and, given some evidence of bulldozing to remove piers, the structure may have been 16 by 16 feet. The chimney evidences the use of fire bricks in the hearth, several are which are stamped with the names "SOUTHERN STANDARD," "STEVENS," and "AMERICAN." A series of four shovel tests placed in the vicinity of this structure yielded only a single wire nail.

Although the artifact content is quite low, this site appears relatively undisturbed and the scatter of architectural remains suggests that site integrity may be high. The site offers the potential to examine early twentieth century tenant life on Spring Island and is one of only two structures with a high degree of integrity which may be attributed solely to Copp's tenure on the island. Consequently, this site offers the potential to compare and contrast tenant lifestyles in the twentieth century with those of the late nineteenth century. The site is therefore recommended as

eligible for inclusion in the National Register of Historic Places. While the archaeological remains are of primary concern at this site, the remaining architectural remains should not be further disturbed until the site has been completely recorded. If green spacing is the preferred mitigation alternative, the chimney and pier system should be more fully documented to ensure that this information is not lost in the future.

38BU778

This site, situated on the southeast edge of Spring Island overlooking the Colleton River marsh, was previously designated site 55 by Lepionka. It consists of a small lens of shell about 0.1 foot thick on the marsh edge extending inland less than 2.5 feet. The site is situated on Eddings and Wando series soils at an elevation of 5 feet MSL. The central UTM coordinates are E516860 N3573560. The site vegetation consists of mixed pine and hardwoods. Two shovel tests were excavated perpendicular to the bluff, but no artifacts and no intact midden were identified in either test.

This site represents the erosional remains of a small Type 1 shell midden. It has failed to yield evidence of intact remains or diagnostic artifacts. This site is therefore recommended as not eligible for inclusion in the National Register of Historic Places.

38BU779

This site represents an erosional remnant of an Early Woodland Type 1 shell midden at the south end of Spring Island overlooking a tributary of the Colleton River. The soils in the site area are well drained Wando sands and the elevation is 5 feet MSL. The central UTM coordinates of the site, originally designated by Lepionka (1986) as site 56, are E516500 N3573400. Shell is found scattered along the bluff edge for 300 feet and the 15 shovel tests suggest the site may extend inland up to 50 feet. The depth of the midden in all areas is less than 1.0 foot. The only remains recovered from the shovel tests are one Thom's Creek Reed Punctate sherd and one unidentifiable sherd.

The degree of erosion at this site appears to be severe and while some intact midden areas were observed in the shovel tests, too little of the site remains to warrant additional study. Consequently, this site is recommended as not eligible for inclusion on the National Register.

38BU780

This site represents a small, thin Type 1 shell midden at the south end of Spring Island overlooking the marsh of Colleton River. This locus was originally described by Lepionka (1986) as site 57 and was recorded as a historic "dump." Apparently, Lepionka confused his sites 57 and 58 when completing the site forms (which

was done almost a year after the field survey) -- site 58 (38BU781), does represent bluff edge disposal and is his "dump site."

38BU780 on Wando soils at an elevation of 5 feet MSL. The central UTM coordinates are E516400 N3573450 and the site area is vegetated in a mixed pine and hardwood forest. A series of six shovel tests were excavated, although no artifacts were recovered. The site area is estimated, based on the distribution of shell, to cover an area about 10 by 10 feet.

38BU780 exhibits heavy erosion and an absence of integrity. The site is recommended as not eligible for inclusion in the National Register.

38BU781

As previously discussed, this is Lepionka's site 58, and it corresponds with his description of a "dump," as recorded for his site 57. It is situated on the south end of Spring Island overlooking the Colleton River marshes and is on Wando series soils at an elevation of 5 feet MSL. The central UTM coordinates are E516250 N3573500. A series of eight shovel tests were placed on the bluff to determine if the materials found eroding from the bluff and in the marsh were associated with a site inland from the bluff. These tests yielded one undecorated whiteware ceramic and a single mortar fragment. An interior surface collection yielded one undecorated whiteware and one white porcelain ceramic. Four Deptford sherds, one green bottle glass fragment, and one intact aqua bottle (4.4 centimeters square and 12.3 centimeters high) were recovered from the marsh.

Although there is some evidence of historic occupation inland from the bluff edge, the area has been heavily disturbed by land maintenance activities and erosion along the bluff. The present boundaries cannot exceed 3 by 15 feet. This site fails to exhibit clear integrity and is recommended as not eligible for inclusion on the National Register.

38BU782

This scatter, identified by Lepionka as site 59, is situated at the southeast edge of Spring Island overlooking the Colleton River marsh. It consists of two small loci, each about 50 feet in diameter, on Eddings soils at elevations of 10 feet MSL. Both loci are currently plowed and this activity has probably dispersed the shell over a larger area than originally occupied. The central UTM coordinates are E516660 - 516740 N3573500. A series of 19 shovel tests were excavated and they revealed one fragment of "black" glass and one machine cut nail fragment, as well as a small quantity of mortar. A surface collection of the site produced a whiteware ceramic, one "black" bottle fragment, and one aqua glass fragment. Although Lepionka previously collected a small quantity

of prehistoric material from these loci, this survey revealed only historic material.

These two loci, about 150 feet apart, appear to represent a postbellum tenant occupation. While the site appears to be fairly early, there has been extensive plowing and there is no evidence of in situ remains. Consequently, the site is recommended as not eligible for inclusion in the National Register.

38BU783

This site, previously designated by Lepionka as site 60, is situated in a field with second growth pine at the south end of Spring Island. The central UTM coordinates are estimated to be E516275 N3573640. The soils are Wando series sands and the elevation is 15 feet MSL. At the time of Lepionka's original survey this site was found in a plowed field and materials collected suggested that it was a heavily plowed tenant occupation. During this survey a series of seven shovel tests were excavated, but no cultural remains were identified. A thin scatter of shell covering an area 50 by 50 feet was observed as the only indication of the site location.

This site area has been heavily damaged by cultivation and the shovel tests failed to indicate any clear evidence of site integrity. The site is therefore recommended as not eligible for inclusion in the National Register.

38BU784

This site is situated at the south end of Spring Island in a field now in second growth pine. The central UTM coordinates are E516280 N3573810 and the soils are Wando sands. The site elevation is 22 feet MSL. This is a multicomponent site evidencing late Early Woodland and antebellum remains. The site has been extensively plowed and the site boundaries of 50 by 60 feet are based primarily on the scatter of shell. A series of 18 shovel tests revealed one colono sherd, one yellow ware, two fragments of clear glass, one unidentifiable nail fragment, and one Deptford sherd. The surface collection also yielded one "black" bottle glass fragment and two whiteware ceramics.

This site appears to be a mixture of a possible Type 3 shell midden and an antebellum isolated structure (evidence of mortar was also recovered from the shovel tests). This plantation period structure is similar to those discovered on the phase 1 survey tract (Trinkley 1989) and may relate to isolated slave structures intended for individuals guarding fields. Alternatively, the structure may date from the early postbellum. Regardless, there is no evidence of intact deposits and the site has been heavily damaged by intensive plowing. The site is recommended as not eligible for inclusion in the National Register.

38BU785

This site is situated on a sandy ridge of Wando soils at the south end of Spring Island. It was originally designated as site 62 by Lepionka and is found in a plowed field now in second growth pine at an elevation of 22 feet MSL. The central UTM coordinates are E516380 N3573820. Site boundaries, based on the distribution of shell and the excavation of nine shovel tests, are about 50 by 50 feet. These nine tests yielded a total of one Deptford Plain sherd and two Deptford Cord Marked sherds.

This site appears to represent a small Type 3 Deptford phase shell midden on an interior sandy ridge. The site has been heavily damaged by plowing and no areas of intact shell midden could be identified. This site is recommended as not eligible for inclusion on the National Register of Historic Places.

38BU786

Originally described by Lepionka as site 63, this scatter consists of two loci at the south end of Spring Island. Both are found on Wando soils on an interior ridge. The loci have been previously plowed but are now in a second growth of pine and grass. Elevations range from 18 feet MSL at locus A to 22 feet at locus B. A series of 20 shovel tests were excavated at the two site areas, although no artifacts were recovered. Lepionka originally described these sites as containing sparse prehistoric and historic remains. Locus A measures 50 by 25 feet based on the shell scatter, while locus B measures 50 feet in diameter.

Neither locus exhibits site integrity and artifact density is exceedingly low. Site clarity is very low. Consequently, this site is recommended as not eligible for inclusion on the National Register.

38BU787

This site is situated at the south end of Spring Island on a sandy ridge of Wando soils overlooking an interior drainage. It was originally described by Lepionka (1986) as site 64 and consists of a sparse shell scatter around an area of live oaks. The site elevation is 19 feet MSL and the central UTM coordinates are E516150 N3574060. A series of 9 shovel tests failed to reveal any diagnostic cultural remains, although Lepionka's previous surface survey produced a small quantity of "tenant" remains. The site boundaries of 100 by 100 feet in diameter are based on the shell scatter and almost certainly represent dispersion from plowing.

This site lacks integrity and diagnostic artifacts. It is recommended as not eligible for inclusion in the National Register.

38BU788

Recorded as site 65 by Lepionka (1986), 38BU788 consists of three distinct and widely separated loci at the south end of Spring Island. All are situated around an interior drainage; loci A and C are on Seewee soils, while locus B is on Eddings soils. The elevation of all three is 22 feet MSL. The central UTM coordinates for locus A are E516100 N3574250, those for B are E516050 N3574110, and those for C are E516950 N3574120.

Locus A is a small scatter of shell associated with a probable historic tenant occupation. It measures about 50 feet in diameter and has been extensively plowed. A series of four shovel tests were excavated in this area without result. Locus B is a heavily plowed prehistoric Type 3 midden measuring about 50 feet in diameter. Six shovel tests were excavated at this locus, although no materials were recovered. Locus C is also a Type 3 shell midden, measuring about 50 by 150 feet which has been extensively damaged by a road cut. At this locus only one small area of intact site could be identified. A series of 10 shovel tests at this locus produced one Deptford Cord Marked sherd, two St. Catherines Cord Marked sherds, and one unidentifiable sherd. A surface collection in this area also yielded three Deptford Plain sherds and one aqua glass fragment.

All three loci appear to be heavily damaged by either plowing or other mechanical activities. Only limited evidence of site integrity could be found at one locus. This site is recommended as not eligible for inclusion on the National Register.

38BU789

This site, originally designated as site 66 by Lepionka (1986) is situated at the south end of Spring Island on a ridge of Capers soil overlooking the Colleton River marsh to the south and an inland slough to the east. The site elevation is 10 to 15 feet MSL and the central UTM coordinates are E515950 N3573580. The site represents a Late Woodland Type 2 shell midden which extends along the marsh slough for 400 feet. The east-west distribution of the midden is about 200 feet. A series of discrete shell midden piles were observed during the excavation of 14 shovel tests. These tests yielded one St. Catherines Cord Marked sherd and two unidentifiable sherds.

This site evidences a number of shell heaps which appear to be intact and to evidence clear site integrity. The depth of the midden varies from 0.3 to over 1.0 foot in depth. Although artifact content is not high, the middens appear to date from the St. Catherines Phase and the excellent preservation of the middens increases the potential to recover floral and faunal remains, in addition to the shellfish. This site is recommended as eligible for inclusion on the National Register of Historic Places. Mitigation

may include either green spacing or data recovery.

38BU791

This site is situated immediately southeast of 38BU3 at the south end of Spring Island. Called site 68 by Lepionka, it is found primarily on Wando soils at an elevation ranging from 5 to 15 feet MSL. Vegetation in the site area is mixed pine and hardwoods. The central UTM coordinates are E514840 N3575860. The site represents a nineteenth century slave row with evidence of at least one postbellum house site.

The site was tested by 96 shovel tests. This work revealed site dimensions of 1400 feet east-west by about 600 feet north-south. The tests yielded a large collection of historic remains, including three undecorated creamware, one undecorated pearlware, one edged pearlware, one blue hand painted pearlware, 10 undecorated whiteware, two annular whiteware, one blue hand painted whiteware, one blue transfer printed whiteware, two salt glazed stonewares, one clouded ware, 15 colono sherds, one kettle fragment, 16 fragments of "black" bottle glass, one fragment of blue glass, two fragments of blue bottle glass, one manganese glass fragment, one clear glass fragment, one hand wrought nail, six machine cut nails, six unidentifiable nails, two kaolin pipe stem fragments, one padlock fragment, one plow part, and five fragments of unidentifiable iron. The mean ceramic date for this collection is 1836.5 (Table 13), indicating that the site was occupied during the period of Edwards plantation activities. This site is also shown on the 1872 map of Spring Island (compiled from antebellum surveys) (see Figure 6).

Table 13.
Mean Ceramic Date for 38BU791

Ceramic	Mean Date (xi)	(fi)	fi x xi
Clouded wares	1755	1	1755
Creamware, undecorated	1791	3	5373
Pearlware, blue hand paint	1800	1	1800
edged	1805	1	1805
undecorated	1805	1	1805
Whiteware, hand paint	1848	1	1848
blue trans print	1848	1	1848
annular	1866	2	3732
undecorated	1860	10	18600
Total		21	38566

$$38566 \div 21 = 1836.5$$

The density of artifacts at this site, coupled with historic documentation, indicates that this scatter of remains is the slave row known to exist for the south end of Spring Island. Site integrity appears to be high. Site clarity and artifactual variety are likewise high. Consequently, this site is recommended as eligible for inclusion in the National Register of Historic Places. Mitigation of development impacts may include either green spacing or data recovery. If data recovery is the preferred alternative, intensive auger testing will be required to identify the precise area of the slave row and probable structural locations. Excavation should focus on testing at least three structures, with complete excavation of at least one. This approach will provide a sample of data from several structures for comparative studies, and will ensure that complete architectural recordation of at least one. This research design is a cost-effective compromise which allows the collection of an adequate sample while recognizing the potential of redundancy.

38BU792

This site is a Type 3 shell midden situated at the south end of Spring Island. Soils in the site vicinity are Wando series and the site is at an elevation of 24 feet MSL. It was originally designated site 69 by Lepionka and the central UTM coordinates are E515720 N3574300. The site was tested by a series 50 shovel tests in an effort to identify areas of intact shell midden. All of the site, however, is confined to a plowed field with a sparse scatter of shell. Testing yielded one Deptford Cord Marked sherd, one St. Catherines Cord Marked sherd, and one unidentifiable sherd. The surface collection produced an additional one St. Catherines Fabric Impressed sherd, three St. Catherines Cord Marked sherds, and one Deptford Plain sherd.

While these collections document a late Early Woodland and Late Woodland occupation at 38BU792, the tests also reveal that the site is thoroughly plowed and the midden dispersed over an area measuring about 350 by 500 feet. No evidence of intact deposits were identified and all materials were found within the plowzone. Consequently, this site is recommended as not eligible for inclusion on the National Register.

38BU794

This site consists of two small loci of shell scatters in the southwest portion of Spring Island. 38BU794 was originally designated site 71 by Lepionka. Locus A, which measures 50 feet in diameter, is situated on Eddings soils and is a shell scatter in an agricultural field. The central UTM coordinates are E515360 N3574900. Just north of the field, in a fringe of mixed pine and hardwoods bordering the field, a chimney base crudely constructed from both new and recycled bricks was encountered. Other than this chimney base, no other architectural remains were noted. Locus B is

situated at the south end of the same field and also consists of a thin scatter of shell. This locus is in an area of Yonges soil and the central UTM coordinates are E515420 N3574820. Both loci are at an elevation of 15 feet MSL and were tested with a series of 19 shovel tests. These tests produced two undecorated whiteware ceramics and one fragment of clear glass. A general surface collection from the field yielded three undecorated whiteware ceramics. Previous surveys by Lepionka produced relatively large collections of early twentieth century remains from both loci.

These sites appear to represent two distinct tenant occupations. They, however, have been intensively plowed and evidence of architectural remains exists only at Locus A in the north section of the field. Site integrity is low and this site is recommended as not eligible for inclusion in the National Register.

38BU795

This site was originally designated site 72 by Lepionka (1986) and it consists of four "tenant" loci based on his 1985 surveys, all at an elevation of 20 feet MSL. Locus A is situated on Wando soils and the central UTM coordinates are E515200 N3574560. Locus B is situated on Chisolm soils and the central UTM coordinates are E515100 N3574380. Locus C is also situated on Chisolm soils and the UTM coordinates are E515080 N3574260. Locus D is on Wando soils and the UTM coordinates are E514960 N3575240. Locus A, which measures about 50 by 25 feet, is in an agricultural field and was tested by four shovel tests. Locus B, also in a field, was examined with three tests. The scatter in this area is so sparse that no dimensions could be reasonably established. Locus C was tested with two tests and measures 25 feet in diameter. Locus D is also situated in a cultivated field and was examined with four shovel tests. Its dimensions have been set at 50 by 50 feet. No materials were recovered from either the shovel tests or a general surface survey. Lepionka (1986) has previously made a large collection of late nineteenth and early twentieth century materials from these loci.

These loci have been identified during this survey based only on the presence of sparse shell and the previous map locations. No artifacts were recovered, nor was there any evidence of architectural remains. Given the absence of intact remains this site (which actually consists of perhaps four discrete house sites) is recommended as not eligible for inclusion in the National Register.

38BU796

This locus was designated site 73 by Lepionka and is situated on the southwest shore of Spring Island. The central UTM coordinates are E515100 N3575040. The site consists of a thin veneer of shell eroding from the bluff overlooking the marshes of

Callawassie Creek. The site is on Murad sands at an elevation of 5 feet MSL. The shell is found along the edge of the bluff for about 3 feet and extends inland for no more than 2 feet. This midden was tested by a single shovel test 2 feet inland from the bluff where only a sparse amount of shell was found and no artifacts were recovered.

This site, which appears to represent the remnants of Type 1 shell midden, failed to exhibit any intact remains or produce diagnostic artifacts. Consequently, it is recommended as not eligible for inclusion on the National Register of Historic Places.

38BU797

Originally described as site 74 by Lepionka (1986), this Type 2 shell midden is situated on a bluff overlooking the Callawassie Creek marshes at the south end of Spring Island. The site is on Wando soils at an elevation of 5 feet MSL and the central UTM coordinates are E515940 N3574860. The shell is confined to the bluff edge, but further inland a series 29 shovel tests produced what appears to be an occupation area with relatively minor quantities of shell debris. Materials recovered from this site include one St. Catherines Cord Marked sherd, five Irene Plain sherds, four Irene Complicated Stamped sherds, one Catawba Complicated Stamped (see Trinkley et al. 1983:79-80) sherd, and five unidentifiable sherds. Based on the distribution of shell and the results of the shovel tests, the site is estimated to cover an area 150 feet inland by 200 feet along the bluff edge.

This site exhibits a high degree of integrity and relatively high artifact quantities. Of greatest significance is the Mississippian to protohistoric period of occupation. This is a significant site which can contribute a better understanding of late settlement and subsistence patterns on Spring Island. The site is recommended as eligible for inclusion on the National Register. The preferred mitigation alternative is green spacing. If this, however, is not feasible, then data recovery is possible. Any such work should incorporate a more intensive survey of the tract and the investigation of several site areas for comparative purposes.

38BU1212

This site is situated at the north end of Spring Island on Murad soils at an elevation of 23 feet MSL. The UTM coordinates for the site are E515610 N3576010.

The site is situated in a grassed clearing immediately south of the main road on Spring Island, north of a series of silos. Surrounding vegetation includes fields and mixed pine and hardwoods. The site incorporates a standing tenant structure which is currently being used to house quail. This structure is described in detail by Brooker in this volume and is the best preserved of

the early twentieth century tenant houses on the island. It clearly exhibits the details of the vernacular architecture typical of the South Carolina Low Country and is significant as an architectural resource. In addition, two shovel tests in the yard area have revealed that archaeological deposits are also present and appear to have a high degree of integrity. Site boundaries have, rather arbitrarily, been established as 100 by 100 feet, in order to ensure that any associated middens or outbuildings are incorporated.

This site is recommended as eligible for inclusion in the National Register of Historic Places for both its architectural and archaeological remains. Both are capable of providing a otherwise unattainable picture of tenant life on Spring Island during the first quarter of the twentieth century. Green spacing is inappropriate for the architectural remains since such an approach would amount to demolition through neglect. The structure is seriously impaired structurally and in Brooker's opinion it cannot be feasibly rehabilitated while retaining significant architectural features. Consequently, the only appropriate mitigation for this structure is complete architectural recordation through plan drawings and photographs to Historic American Building Survey Standards. While the work undertaken by Brooker during this survey clearly documents the significance of the site, it does not incorporate all of the necessary information to ensure preservation of the architectural details. The archaeological remains may be green spaced, or may be mitigated through data recovery.

38BU1213/803

This site is a tenant house in a state of serious decay situated at the south end of Spring Island on Wando series soils at an elevation of 18 feet MSL. The central UTM coordinates are E514940 N3574500. The site was recorded by Lepionka, but not incorporated into his numbering system; consequently, it was also given a number during the subsequent Chicora survey. Both numbers have been retained on the advice of the South Carolina Institute of Archaeology and Anthropology (Keith Derting, personal communication 1990). The site consists of a partially standing structure which has been surveyed by Colin Brooker and discussed in a following section of this report.

Site dimensions are estimated to be 100 by 100 feet, which incorporate not only the structure, but also a Deptford phase midden on which the tenant house was constructed. A fragment of newspaper found within the timber members of the house indicates a construction date around 1912.

Of the three standing tenant houses on Spring Island (38BU793 [identified in the Phase 1 survey and determined by the SHPO to be eligible for inclusion on the National Register], 38BU1212, and 38BU1213) this structure is in the poorest condition. It is missing

the greatest number of architectural elements and has the most serious structural decay. Its condition, in fact, makes extensive architectural recordation not only difficult but also dangerous. In spite of these problems, it is clearly distinct from the other two structures, probably pre-dating them by at least 20 years. Consequently, it is recommended as eligible for inclusion on the National Register. In its current condition it requires immediate architectural recordation to Historic American Building Survey Standards -- it cannot be green spaced.

38BU1219

This site is situated on the north end of Spring Island and consists of a large Type 1 shell midden situated adjacent to the marsh of Chechessee Creek. It was previously incorporated into Lepionka's site 5 as locus S-15, but has been removed for separate consideration since it is over 200 feet from the remainder of site 5 and a slough occurs between the two loci. The site is situated on Bladen soils at an elevation of 5 feet MSL. The area is vegetated in pine and mixed hardwoods and has been tested by a series of 10 shovel tests. No artifacts were recovered from this testing, although intact shell midden deposits were encountered.

The shell middens present at 38BU1219 are small, but exhibit good integrity. They have the potential to yield significant data on Woodland period settlement and subsistence questions and are considered eligible for inclusion on the National Register.

38BU1220

This site consists of recycled tabby foundation piers, brick chimney fall around an intact fire box, and a low density of artifacts. The site, which is found at the north end of Spring Island, immediately north of Pinckney Landing, is on Williman soils at an elevation of 11 feet MSL. The central UTM coordinates are E515200 N3578490. A series of eight shovel tests have been excavated bisecting the site. Recovered materials include three wire nails, two unidentifiable nail fragments, one clear glass fragment, and one undecorated whiteware ceramic. The pier system suggests a structure 21.6 by 20.5 feet, with the chimney at the end of the short wall (this site is very similar in plan to 38BU793 and 38BU1212).

This site has been impacted by land clearing and maintenance activities. The only architectural remains present are the chimney base and the pier system, which have been recorded. The shovel tests have failed to indicate any intact midden deposits and have revealed the extent of disturbance around the structure. Consequently, this site is recommended as not eligible for inclusion in the National Register of Historic Places.

38BU1221

This site is found at the east end of an agricultural field east of Pinckney Landing on a slight rise of Murad sand. The site elevation is 22 feet MSL and the central UTM coordinates are E515510 N3578210. The site has been heavily plowed and shell in the field is eroded and widely scattered. The site dimensions of 250 by 100 feet as based on the current distribution of both shell and artifacts, realizing that these boundaries probably do not reflect the original site area. Historic materials recovered from surface survey include one fragment of "black" glass and one undecorated whiteware ceramic. Prehistoric remains include one Stallings Plain sherd, one Deptford Plain sherd, one Deptford Cord Marked sherd, two Mount Pleasant sherds, one Irene Plain sherd, six unidentifiable sherds, and one orthoquartzite flake. The site appears to represent an Early Woodland Type 3 midden.

This site evidences a low density of artifacts in a heavily plowed context. Although no subsurface tests were conducted, surface visibility was excellent and it is likely that there is no site integrity (based on extensive shovel testing at similar sites on Spring Island). This site is recommended as not eligible for inclusion on the National Register.

38BU1222

This site consists of a thin scatter of prehistoric material found around the periphery of an active borrow pit situated on the edge of an interior slough on Spring Island. Soils are the Seabrook series and the site elevation is 23 feet MSL. The central UTM coordinates are E516220 N3577420. Site dimensions, based on the scatter of artifacts and shell, are 130 by 50 feet. Recovered materials include two Thom's Creek Plain sherds, three Deptford Plain sherds, one Deptford sherd with an unidentifiable surface treatment, and one heat-treated chert biface. Vegetation around the borrow pit includes mixed pine and hardwoods.

This site has suffered extensive damage from the borrow activities in what appears to have been the site core adjacent to the slough. Material around the site is sparse and dispersed. Consequently, this site is recommended as not eligible for inclusion in the National Register of Historic Places.

38BU1223

Situated in the north central portion of Spring Island on an interior ridge overlooking a low slough area, this site consists of nine recycled tabby piers and a brick chimney fall. The site is found immediately west of a dirt road in a wooded area and it appears that the area had been burned over after the site's abandonment, but prior to demolition. Elevations in the area are 23 feet MSL and the soils are Seabrook sands. The central UTM

coordinates are E516260 N3577670. Site dimensions are estimated to encompass an area 75 by 75 feet. The tabby piers suggest a structure approximately 24.6 by 20.1 feet with the chimney at the end of the long wall (again very similar to the better recorded structures at 38BU793 and 38BU1212). The only materials recovered from a surface survey are one undecorated whiteware ceramic and a molded clear glass bottle (10 inches tall with a 2-3/4 inch basal diameter) with molded lettering "J.S. WITHINGTON & CO./GEORGIA BOY SYRUP."

This site represents an early twentieth century tenant site which was abandoned and later burned. The architectural remains have been partially bulldozed and the artifacts around the structure are sparse. This site is recommended as not eligible for inclusion in the National Register.

38BU1224

This site was previously designated as a part of 38BU743 by Lepionka (1986) and represents his site 20, locus F-25. Since it is a discrete component of site 38BU743, it has been removed from that site number and assigned the number 38BU1224. The central UTM coordinates are E517040 N3577450. The site consists of a thin scatter of shell dispersed over an agricultural field on the northeast shore of Spring Island. The soils are Seabrook sands and the site is at an elevation of 20 to 21 feet MSL. Site dimensions, based on the scatter of shell, are 600 by 100 feet. A series of 28 shovel tests were excavated in this area which revealed one Deptford Plain sherd, one Deptford sherd with an unidentifiable surface treatment, one St. Catherines Cord Marked sherd, one Savannah Check Stamped sherd, one Irene Incised sherd, and one Irene Complicated Stamped sherd.

This Type 3 midden is contained entirely within the plowed field and is thoroughly dispersed. No evidence of intact remains was encountered. This site is recommended as not eligible for inclusion in the National Register of Historic Places.

38BU1225

This site, a Type 3 midden, consists of a light shell scatter with no obvious concentrations, covering the edges of two fields and an intermediate wooded area bisected by a road. The central UTM coordinates are E516260 N3575300 and the site is found on Seabrook soils at an elevation of 22 feet MSL. Site dimensions, based on the surface scatter of shell and the excavation of nine shovel tests, is estimated to be 200 by 100 feet. Materials recovered from the site include one undecorated whiteware ceramic, one blue transfer printed whiteware ceramic, two unidentifiable nail fragments, and one Deptford Plain sherd. Although this site appears to be the remains of a tenant house, no clear evidence for the structure's

location could be obtained.

The site has been intensively cultivated and site integrity is very low. No concentrations of materials could be identified and both the prehistoric and historic remains are thoroughly dispersed. Consequently, this site is recommended as not eligible for inclusion in the National Register of Historic Places.

TABBY STRUCTURES ON SPRING ISLAND

Colin Brooker

Introduction

Visiting Beaufort, South Carolina in 1796, the duc de la Rochefaucauld Liancourt watched the manufacture of tabby, observing,

[t]abby is a lime made from oyster shell mixed with water: a large proportion of whole oyster shells is mixed in. This mortar is poured into wooded frames the length and thickness of the wall to be constructed. These forms have no bottoms but their sides are joined at certain intervals at top and bottom by pieces of wood. The mortar is pounded in with force, and, when they are brim full left for two or three days (la Rochefaucauld Liancourt 1799, cited in Binney 1980:916).

Familiar locally since the early 1730s (when used at Fort Frederick, Port Royal Island, South Carolina), tabby was at the time of la Rochefaucauld's visit becoming a favored medium for residential structures of innovative, even idiosyncratic, design. Among Beaufort's more significant domestic building, unprecedented trends toward tall tabby construction were already apparent, trends which eventually (about 1825) produced the remarkable four story high Habersham and Talbird houses (Brooker 1989:103-104). In plantation contexts from 1790 through 1820 architectural experimentation took different forms. A small group of tabby and timber framed residences scattered across Beaufort and contiguous counties possess non-traditional plans, usually comprising three separate or nearly separate masses linked by porches.

Of this latter stylistic genre, where tabby constitutes the principal medium, few examples are more informative than the Edwards House (38BU1) on Spring Island. Although in ruins, construction details show that the dwelling achieved its tripartite shape not at once, but through an evolutionary process two separate building episodes being involved. The first was probably completed before 1800, while the second, certainly attributable to George Edwards, was constructed before 1820. Evolutionary development is also apparent in the areas adjoining the main house where three tabby built dependencies and artificial banks modifying natural water courses hint that George Edwards superimposed an ordered yet "picturesque" landscape design upon pre-existing settlement patterns which incorporated, besides the principal residence, two antebellum slave rows.

While illustrating regional transitions between traditional and non-traditional planning at the opening of the nineteenth century, neither the Edwards House nor its dependencies have received anything but cursory prior attention from architectural historians. There is no mention of the site in Samuel Gaillard Stoney's still authoritative Plantations of the Carolina Low Country (Stoney 1964) or Jane Iseley and Paul Baldwin's book (1981) on the same subject. Historic Resources of the Low Country (1979) gives the site brief notice but, relying on oral information rather than direct observation (Cindy Cole, personal communication 1990), provides little precise architectural information. One valuable unpublished source, Agnes Baldwin's "History of Spring Island" (Baldwin 1966) amplifies the meager record, reproducing several photographs and a sketch plan of the main house made by John Miller of the Charleston Museum in 1966. Unfortunately, the Charleston Museum has been unable to relocate Miller's work at Spring Island.

The present contribution largely arises out of the author's architectural surveys recording (through measured drawing and photography) Spring Island's tabby ruins. Activities commenced at the Edwards House proper in 1985 when examination revealed tabby decay had reached a near critical point, threatening partial building collapse. Later during 1985, documentation expanded to include two tabby built flankers positioned symmetrically north and south of the main house. Toward the west, what is here called the Service Building was also mapped. Subsequently, Lepionka's archaeological reconnaissance survey (Lepionka 1985) located incompletely preserved tabby foundation piers at a site he designated F39E northeast of the Edwards House. These features were inspected shortly after excavation and an architectural paper compiled (ms. on file, Brooker Architectural Design Consultants, Beaufort, South Carolina).

Since 1985, Chicora Foundation's archaeological surveys (reported in this volume) have added significant new facts concerning the occupational history of 38BU1, narrowing temporal, formal, and functional questions surrounding the site's visible buildings. In association with Chicora, architectural recording has continued; the South Pavilion (where test excavation exposed a previously unsuspected basement), Main House central block, and Service Building receiving attention during March 1990. Independently, the larger task of documenting Beaufort County's tabby building inventory advances, although much remains to be learned concerning a material which, perhaps more than any other, distinguishes local vernacular construction over the period from 1730 to 1865.

Utilizing the result of such ongoing research this report describes the Edwards House complex as understood following these most recent investigations. This paper examines the Main House over its two successive development phases, considers the site's tabby outbuildings, and explores aspects of settlement layout and

organization (excluding the slave settlements known, but remaining unexcavated). Stylistic affinities between the Edwards House and other local late eighteenth and early nineteenth century plantation assemblages are also discussed. It must be emphasized that many pertinent historic sites furnishing comparative architectural data are imperfectly understood and future discoveries will almost certainly modify the various interpretations, analogies, or parallels proposed.

The Edwards House

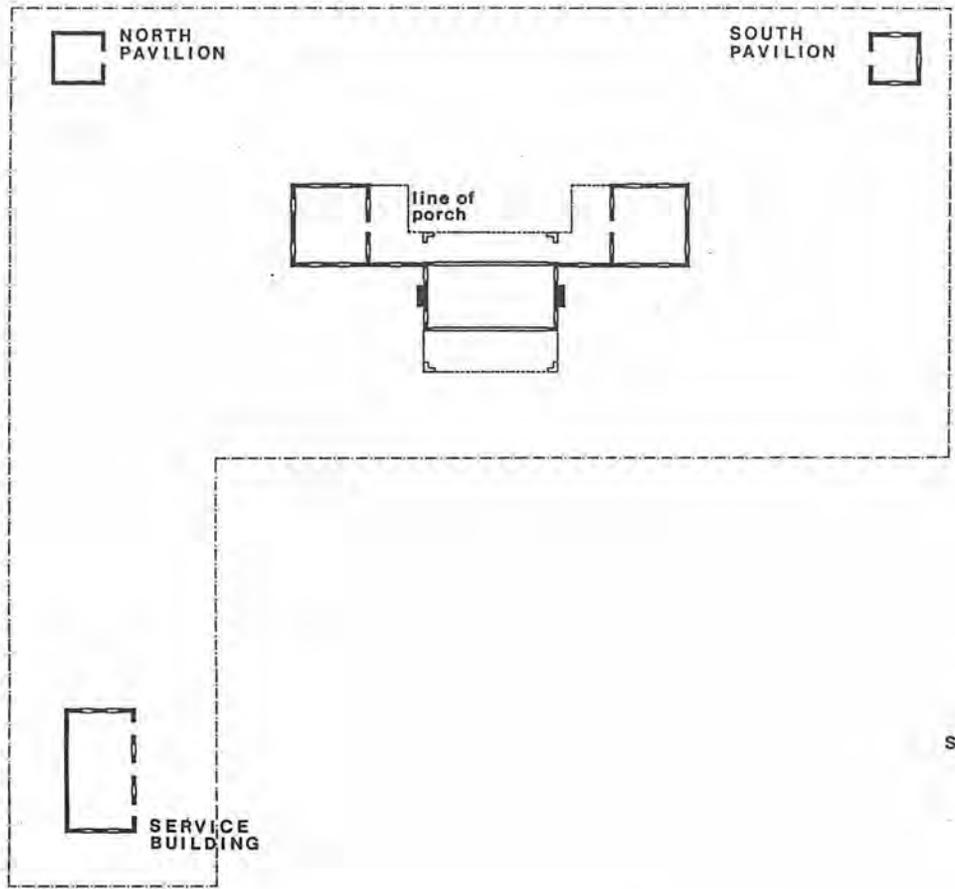
Main House, Phase I

Located overlooking the Chechessee River near Spring Island's eastern shore (Figure 20), the Edwards House is tripartite in plan, comprising a rectangular central element (now substantially ruined), flanked north and south by two symmetrically placed, tabby-built wings. Distinct structural discontinuities indicate that two separate construction phases are represented, the central block (conceived originally as a freestanding element), being the earliest building component.

This Phase I structure is rectangular, measuring approximately 37 feet by 19 feet 9 inches with its long axis oriented almost north-south. External walls are of tabby and 14 inches wide (except where broadened into chimney bases) cast using timber formwork 24 inches high. Today only two gable end fragments survive, each buttressed by an exterior chimney extending 5 feet 8 inches above the present ground level. Small windows flank the chimney bases right and left tabby impressions showing that the openings originally accommodated timber frames. Upper chimney levels were probably constructed using fired brick but, other than ground scatters, these features have almost entirely disappeared. Similarly, erosion and mechanical damage have practically destroyed the east and west facades. Nothing remains above ground of any internal partition walls.

Test excavations (discussed in a previous section by Trinkley) in the building's northeast corner exposed tabby flooring, cast 6 inches deep immediately over subsoil. Absence of any associated timber members indicates that the tabby floor probably functioned as a finished surface. Lack of wear or any repairs suggests only occasional use. External finishes are preserved on the north chimney base, where two-coat stucco exhibits scoring simulating stonework "coursed" at regular 12 inch vertical intervals.

No upper wall or floor elements of the Phase I structure survive, therefore definite conclusions regarding original elevations cannot be reached. Nevertheless, the flanking Phase II screen walls (discussed below), which link the present central block and wings previously mentioned, offer indirect evidence suggesting a two story tabby built house, having its second



SPRING ISLAND
PLANTATION S.C.

Site Plan

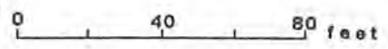


Figure 20. Structures at 38BU1, Edwards Plantation.

(principal) floor raised over an approximately 6 foot high elevated basement. Allowing 9 inch deep joists, the main rooms possibly measured 10 feet or 10 feet 9 inches from floor to ceiling. Tabby piers indicate porches, which must have been reached by way of timber steps probably centrally aligned about the building's short (i.e., east-west) axis, extended along the east and west facades.

Although incomplete, the picture which emerges (i.e., a rectangular structure, two stories high possessing end chimneys and probably a gabled roof extending over porches) is typical for local late eighteenth century residential buildings. Two timber framed buildings, Wild Heron Plantation (ca. 1756), Chatham County, Georgia (Linley 1982:17, 342) and the Chaplin House (ca. 1790), Beaufort County, South Carolina, offer analogies, both utilizing (almost certainly like the Phase I house on Spring Island) attic space lighted through dormer windows. However, the ruined central portion of the tabby built Sams House, Dataw Island, South Carolina, provides the closest dimensional and typological parallel (measured drawings on file, Brooker Architectural Design Consultants, Beaufort, South Carolina). Late nineteenth century drawings illustrate principal spaces (including a central hall dividing two living rooms) accommodated above an elevated basement, end chimneys, a gabled "cat slide" roof, and dormer windows. Unfortunately, Lepionka's final archaeological reports concerning the Sams House (excavated 1985 - 1986) have never appeared, leaving initial construction dates questionable. Historic Resources of the Low Country (1979:69) attributes the building to William Sams in 1786 which, if correct, means Phase I of the Edwards House (suggested to date about 1790 by Trinkley based on archaeological and historical evidence) and the early Sams House are almost contemporary.

Main House, Phase II

During the early nineteenth century, the Edwards House underwent enlargement, renewed building activity fundamentally altering its then traditional aspect. Phase II construction added two tabby double height flanking wings, two tabby screen walls linking the "old house" with its new additions, and a square "U" shaped porch erected on the building's east (river) front. Minor refurbishment aside, the original Phase I building stood unaltered, remaining a principal domestic focus at the greatly extended plan's center (Figures 21 and 22).

The Phase II building required a large labor force preparing and transporting massive quantities of materials (i.e., sand, lime, water, oyster shells, and timber), the operation relying on skillful direction. Work was not confined to the main house, style strongly suggesting that the Service Building, North Pavilion, and South Pavilion were conceived and executed simultaneously.

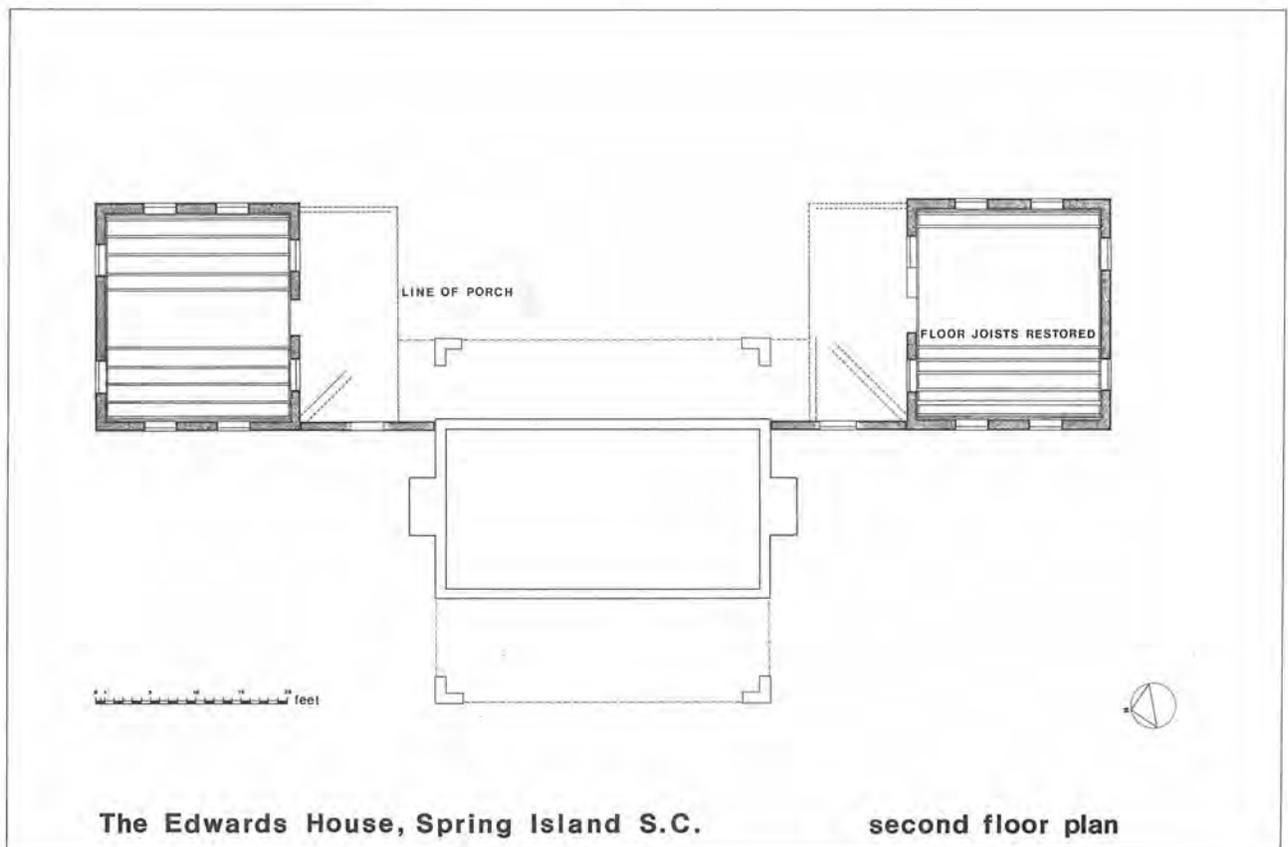
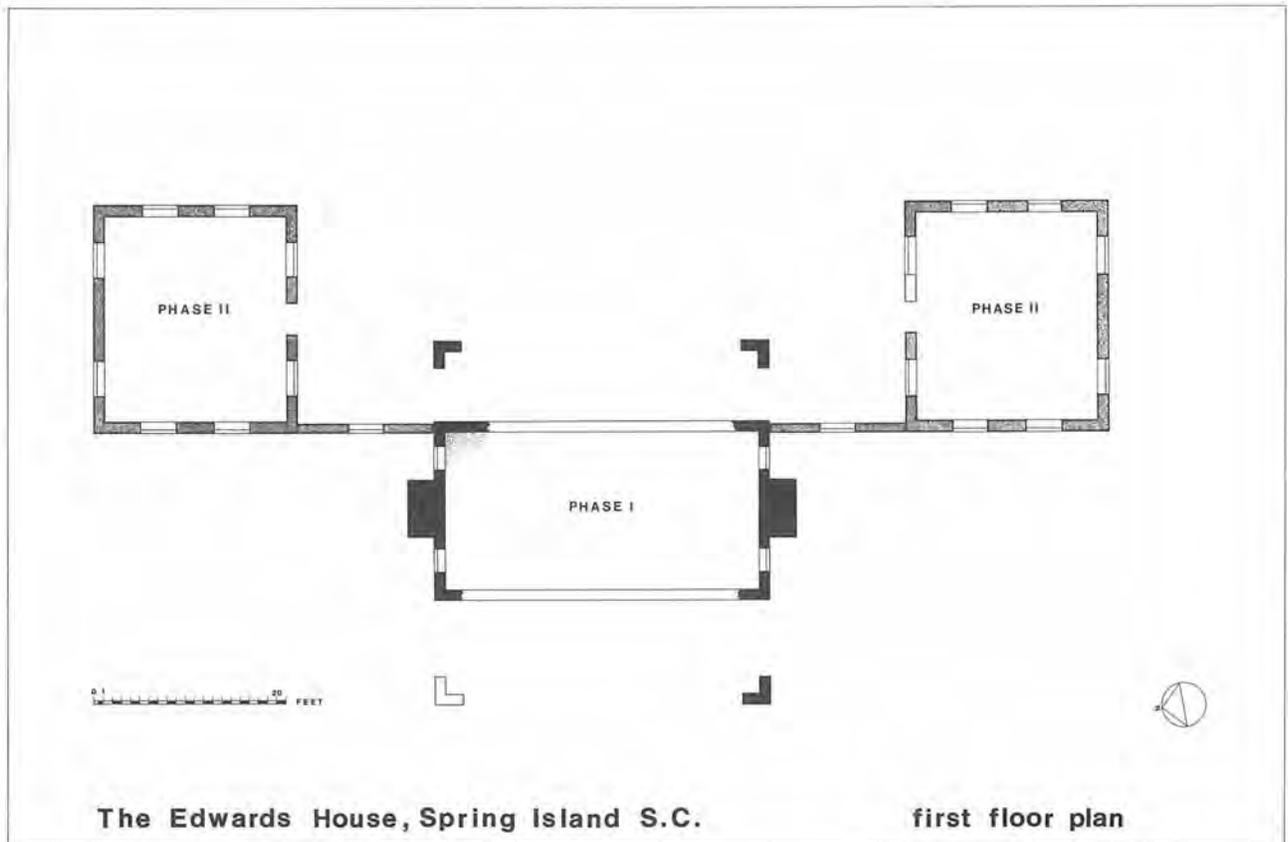
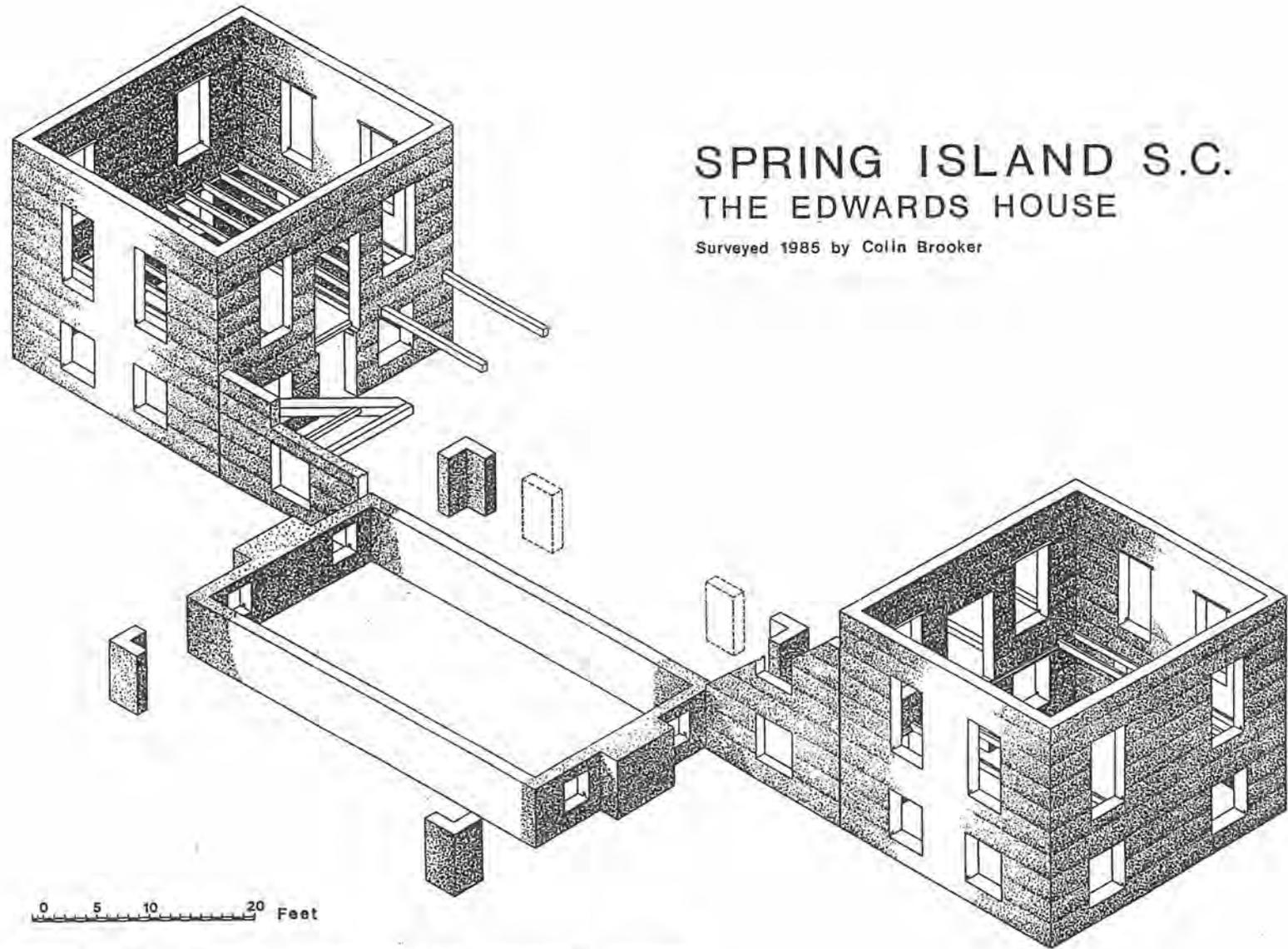


Figure 21. Plan of the Edwards House.



SPRING ISLAND S.C. THE EDWARDS HOUSE

Surveyed 1985 by Colin Brooker

Figure 22. Isometric view of the Edwards House.

North and South Wings

The two Phase II flaking units are preserved differentially. The walls of the North Wing stand intact. The South Wing has suffered partial collapse, losing major portions of its north and south facades, while the east front wall (now dangerously out of vertical) threatens disintegration. Originally, both structures were nearly identical. Almost nothing survives of their internal arrangement, since floor joists, wall plates, timber framing, and trim burned. Carbonized wall plate fragments and tabby impressions, however, allow reconstruction of at least flooring elements. Roofing is questionable since the rafters and their covering are entirely lost. Even so, a hipped solution would be logical considering the rectangular plan shape. Finishes using cypress shingles seem certain.

Each two-story wing measures 22 feet 5 inches north-south and 25 feet 4 inches east-west. The walls extend to a maximum height of 20 feet 4 inches above the present ground level. First floor construction entailed three separate tabby pours of nearly equal height (24 inches average), producing walls 15 inches thick. Above this the walls are reduced internally to a width of 13 inches, the resulting ledge supporting second floor timber wall plates on the north and south internal building faces. Surviving plate fragments are densely grained heart pine. These originally supported floor joists aligned north-south, measuring approximately 7-3/4 inches deep by 2-3/4 inches wide, centered 20 inches apart. Joist sequences are interrupted about the mid-point of each wing, suggesting trimming around vertical elements. Excavations by Chicora near the North Wing's center disclosed broken brick fragments, relics of a chimney probably built against the interior north facade where faint tabby impressions again indicate an element extending vertically.

All facades feature paired windows at first and second floor levels. Lower window openings measure 3 feet 9 inches wide by 4 feet 1 inch high; upper openings measure 3 feet 5 inches wide by 6 feet 8 inches high. Each originally housed a timber frame, probably 4 by 4 inches in section. Although the sashes are missing, it is reasonable to suppose these were double hung without weights.

Slender timber lintels, 2-3/4 to 3 inches deep by 5 to 6-1/2 inches wide once spanned all upper floor window openings. Over lower windows lintels were omitted, with the tabby above being supported solely upon timber frames. Originally the North and South Wings opened onto porches (see below) via a tall central opening divided horizontally so as to give two doors, one at each floor. About 15 feet high by 3 feet 4 inches to 3 feet 6 inches wide, openings are very large for tabby construction, creating serious continuity problems. When intact, the wall and top plates helped tie the facade laterally while the external porch members provided bracing. Destruction of the timber framing induced structural

failure causing the South Wing's partial collapse around the doorways piercing its northern facade.

External finishes are completely decayed. Stucco coatings imitating stonework through scoring are usual locally and can be safely assumed. Internally, oyster shell lime plaster is present with the plaster applied directly over tabby walls.

Linking Elements

A porch extended along the "old house" east face and wrapped around to the front of each of the new wings. This porch constituted an essential design element of the enlarged mansion, unifying architectural massing and the loosely ordered plan. Few details survive, yet impressions left in abutting tabby wall faces allow reconstruction. Raised upon tabby or brick piers, the porch was probably 9 feet wide along its eastern length and about 11 feet wide on the north and south exposures where it fronted the upper Phase II rooms. Timber steps aligned about the composition's central east-west axis probably gave access from the forecourt defined by the North and South Wings (cf. Eldorado on the Santee, Stoney 1964:73).

West, the porch was masked by tabby screen walls extending between the central "old house" and its two additions. Slender (over 17 feet high by 12 inches wide) and almost non load-bearing, these linking devices gave the new assemblage an exaggerated semblance of length. The upper and lower screen wall windows (which can have served little practical purpose) echoed fenestration rhythms established for the North and South Wings.

Internal Planning and Furnishing

Available data does not allow full recovery of internal planning arrangements and therefore how exactly the completed Edwards House functioned is questionable. Considering the Phase II extensions first, test excavation inside the North Wing disclosed no evidence to indicate anything other than compacted dirt floors, suggesting that ground level rooms served ancillary purposes, accommodating slave activities or household supplies perhaps but not the owner's quarters. The latter were presumably located above, on the second floor, with each wing housing just one undivided upper level living space.

A similar pattern occurred within the Phase I building, its first floor possibly incorporating storage or work areas. The second floor incorporated more living rooms, a hall, and a staircase leading to an attic.

George Edwards' 1859 inventory (see Baldwin 1966) supports the hypothesis that, despite its extravagant scale the house, even with additions, offered the owner somewhat limited accommodations

(approximately 1400 square feet at the second floor level). The inventory listed six rooms, two of which were conceivable garrets (providing an additional 583 square feet) situated beneath the old Phase I building's roof. The remaining four probably comprised, besides upper Phase II spaces, two smaller second story rooms in the "old house." A "bedroom" and "dining room" are individually enumerated, however, their respective positions cannot be ascertained since it is unclear whether the 1859 inventory was sequentially or randomly compiled.

Baldwin (1966:23) remarks that the inventory listings "do not appear to be elaborate or sufficient enough to furnish the large tabby house." The tabulation certainly has deficiencies, mentioning two highly valued card tables (\$500), but neither silver or china, costly commodities usually listed separately. This may mean some items were removed shortly before or immediately after George Edwards' death in 1859. Alternatively, Edwards perhaps regarded Charleston (where he owned a handsome house; see Smith 1917:221) as his principal residence, only transferring furnishings between city and plantation when living temporarily on Spring Island. Either way, George Edwards' successor must have refurnished the Main House before its Union looting. The John Fredrick Holahan Diary states:

the building was large, roomy and imposing externally, and had been furnished with elegance and taste by the opulent proprietor of the Island. But vandals had smashed the grand piano, cut and mutilated the costly paintings and furniture and carried off the best carpets and other articles capable of removal (John Fredrick Holahan Diary, February 5, 1862, Bluffton Historical Preservation Society, Bluffton, South Carolina).

The marauders left behind an "extensive library," from which Holahan appropriated "some books . . . and a love of a writing stand."

Architectural Analogies and Temporal Attribution

El Dorado on the Santee (ca. 1797), near Georgetown, South Carolina, provides a close analogy for the Edwards House Phase II development. Like Spring Island's principal residence, El Dorado was symmetrical; the three building masses creating an axial forecourt opening on one side into the landscape (see undated drawing on tracing paper, Albert Simons Collection, South Carolina Historical Society, Charleston, South Carolina, reproduced in Stoney 1964:73). Both houses display "U" shaped circulation patterns. At El Dorado, access to lateral rooms from the central block was achieved by means of a porch and enclosed corridors. At the Edwards House practicality appears sacrificed, open porches linking all parts of the building.

Several plantation sites distributed across St. Luke's Parish

demonstrate that tripartite plans were popular among wealthier local landowners during the first quarter of the nineteenth century. The most influential was perhaps Thomas Heyward's Whitehall (now Good Hope Plantation), near Grahamville, South Carolina, a three or four story high brick house (ca. 1780) flanked on either side by double height tabby structures (ca. 1800-1810) to give an open forecourt (see Historic Resources of the Low County 1979:172-173).

Details concerning Rosehill-on-the-Combahee (ca. 1810, built either under Gibbes or Heyward ownership), another extensive house designed on a non-traditional plan, are known solely from an early nineteenth century painting (Charleston Museum, Charleston, South Carolina). This perhaps idealized portrayal (Figure 23) indicates slight overlaps between three otherwise separate timber framed building masses with the central unit approached via a pedimented portico. The whole structure appears rigorously axial and symmetrical.

On Dataw Island, tabby built wings (two stories high), extend an earlier Sams House (see discussion above) laterally east and west. Circulation was designed as a continuous porch following the building's long axis, open across river side facades and enclosed behind the original house (Figure 24). Ingenious, the resultant massing reinforced the separate identity of individual blocks, the assemblage lacking visual clarity when compared with the Edwards House or Whitehall. Significantly, superimposition of the Edwards and Sams house plans reveals an almost identical overall building envelope, details shared with the Edwards House reflecting the cohesiveness of Beaufort County's technological traditions.

Exactly when the Sams House was enlarged is unknown, although preliminary investigation suggests a date of about 1815 to 1820. Phase II of the Edwards House may be either contemporary or slightly earlier, cartographic and archaeological evidence yielding slightly differing evidence. A manuscript map entitled, "Chart of the Bars, Sounds of Port Royal and St. Helena" from an 1812 survey by Daniel Bythewood (Figure 5) pictures a cluster of buildings occupying the Edwards House site which, despite sketchy drawing, may resemble the present grouping. If Bythewood's survey records the enlarged house and its associated outbuildings, then Phase II structures were erected at some time in the first decade of the nineteenth century, perhaps shortly after 1801 when George Edwards (who, according to the 1800 Federal Census was, along with forty slaves, living at Spring Island) married his cousin, Elizabeth Barksdale. The owner of Ferry Plantation on the Santee (Baldwin 1966:20), Elizabeth Barksdale must have seen El Dorado (see manuscript map entitled, "Plantations on the North Santee," ca. 1830, Smith Case, File 189, South Carolina Historical Society, Charleston, South Carolina), a circumstance which might well explain how El Dorado and the Phase II Edwards House came to possess similar plans. Alternatively, construction could have

commenced a decade or more later, since small ceramic samples from excavation and testing around the Edwards House yield a mean Phase II occupation date of about 1830.

Outbuildings

North and South Pavilions

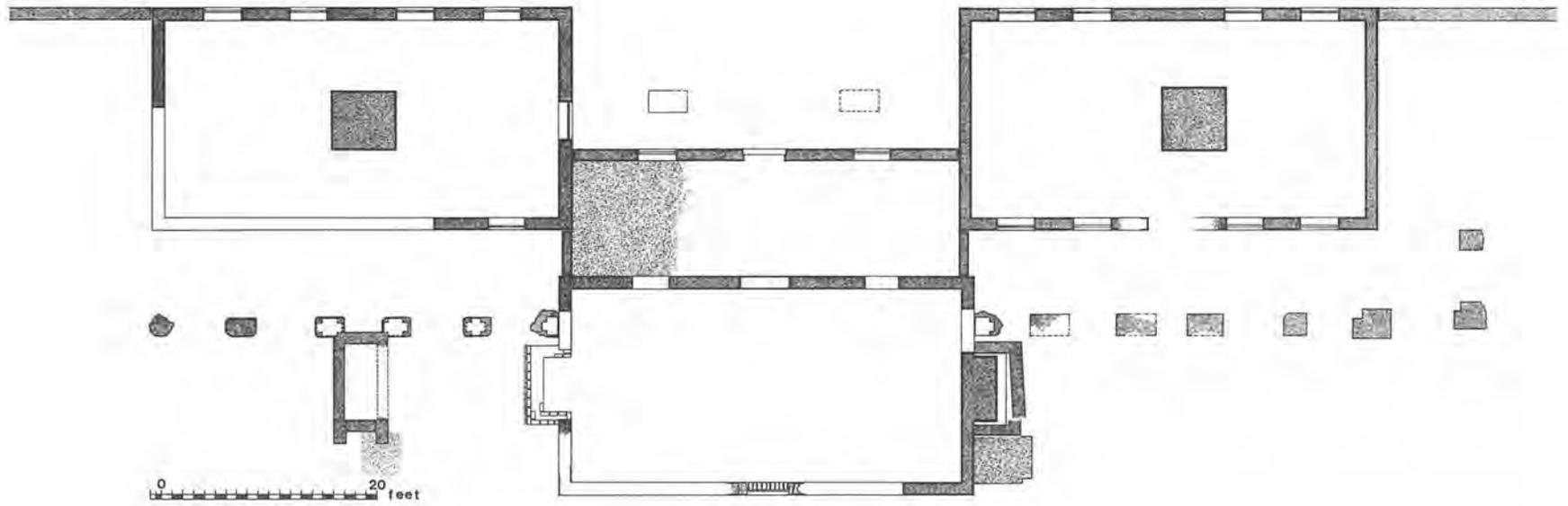
These two outbuildings flank the main house north and south on



Figure 23. A portion of the Rosehill-on-the-Combahee painting showing the main house (Colin Brooker Collection, courtesy of The Charleston Museum).

its east (river) side. Each structure is nearly square with the North Pavilion measuring 15 feet by 15 feet and the South Pavilion 15 feet 2 inches by 15 feet 1 inch. The North Pavilion is a single story raised over an elevated basement, with external walls about 14 feet 4 inches high. The South Pavilion contains one room at basement level (its original earth floor now buried 4 feet below grade) and another at the upper, first floor level.

Considering the South Pavilion (Figure 25) in more detail, the external walls (made entirely of tabby cast to a uniform width of 13 inches), are punctured at the upper level by a north facing doorway and three windows (each measuring 3 feet wide by 5 feet 2 inches high) centered about the south, east, and west facades. At basement level two additional window openings (measuring 3 feet



Ground Floor Plan

DATAW ISLAND S.C. 1
THE SAMS HOUSE

Figure 24. Plan of the Sams House on Dataw Island, Beaufort County.

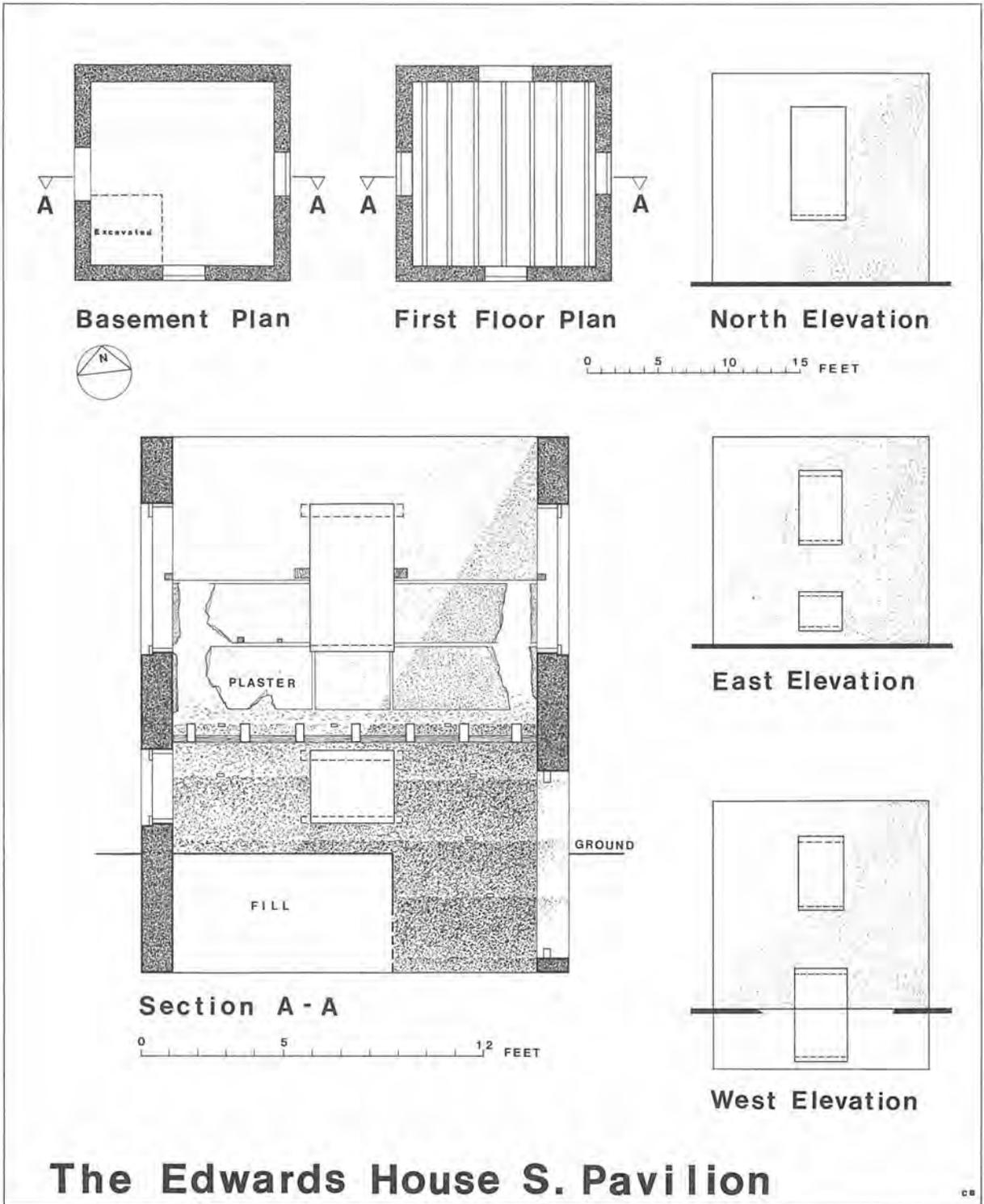


Figure 25. Plan and section of the South Pavilion.

wide by 2 feet 6 inches high) occur on the south and east facades. A west facing doorway gives access to the basement. Internally, tabby impressions show that a 3 by 5 inch timber plate was bedded directly into the tabby walls so as to support pine or cypress floor joists aligned north-south. Floor joists (now destroyed) were 7-3/4 inches deep and 4 inches wide set on slightly variable centers which average 22 inches. The first floor internal wall surfaces still retain plaster. The external faces are entirely stuccoed, although the stucco probably is not original. Nothing remains to indicate the original roof form. Given the building's plan, a hipped solution seems most probable and would echo the roof shapes conjectured as enclosing the Main House wings.

Surface erosion and clumsy modern repairs obscure the North Pavilion's structural detail, but construction is essentially similar to that already described for its southern counterpart. The two flankers differ most in their respective fenestration patterns, the North Pavilion's elevations being blank except for an east facing basement window and a south facing first floor entrance.

Beyond an important aesthetic role designed to extend and emphasize the massing of the Main House, the original purpose of these two outbuildings is not obvious. There has been speculation that the northern structure might be a smoke house and the southern one a kitchen (Baldwin 1966). Lack of any chimneys or hearths (as well as the limited archaeological evidence) eliminates such possibilities. Regarding the South Pavilion, good quality finishes, indistinct traces of applied timber molding internally, and relatively large first floor windows recall single cell plantation offices known elsewhere (i.e., Borough House, Statesburg, South Carolina). The full basement (which proved flood prone and was soon abandoned) is an unusual feature. With minimal fenestration, the North Pavilion can have been suitable for little more than storage, its proximity to the Main House ensuring security.

Service Building

This structure, the largest tabby outbuilding surviving on Spring Island, forms another flanking structure and is located immediately northwest of the Main House (Figure 20). Originally two full stories high, it measures 36 feet 3 inches by 20 feet 2 inches in plan with the long axis aligned N10°E. Walls were cast using timber forms approximately 24 inches high, defining the entire building perimeter. Lower castings produced walls 14 inches thick, diminishing to 12 inches above the second floor level. Internally, the junction was marked by two 3-1/4 by 4-1/2 inch timber wall plates (now almost completely burned) extending along the east and west wall faces. Wall plates supported 10 by 3-1/2 to 4 inch floor joists which ran north-south, centered 14 to 22 inches part except where interrupted by two chimneys built against the inside face of the north elevation. Other than faint tabby impressions, nothing remains of either chimney above ground. Test excavations (discussed

in a previous section of this study) revealed foundations formerly supporting the southern example. Badly damaged and clearly robbed, the south chimney base, apparently constructed using tabby brick, originally measured 3 feet 10 inches north-south by 5 feet 6 inches east-west (Figure 26).

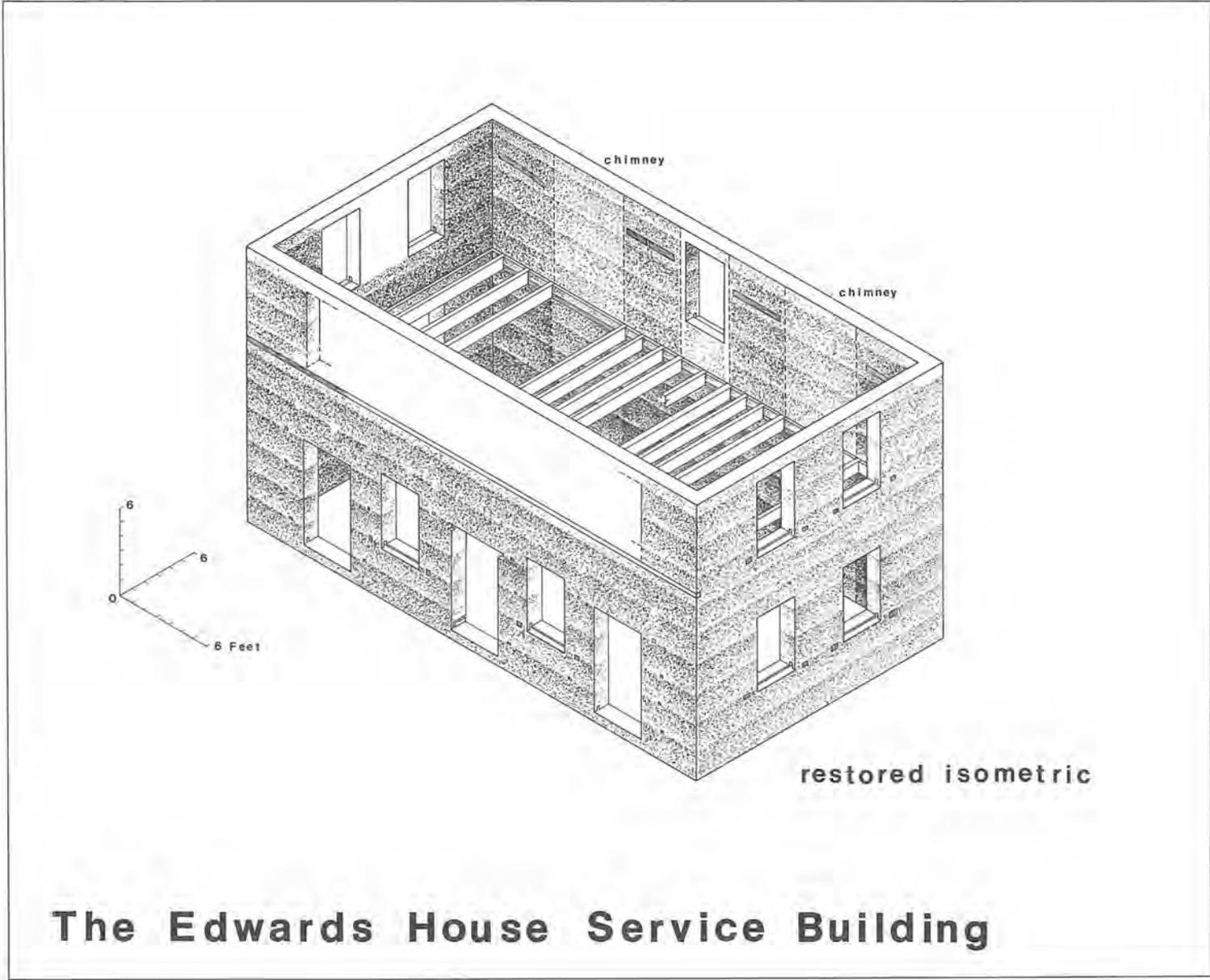
Tabby impressions also suggest a narrow central hall aligned north-south two 10 by 5 inch timber beams supporting the second floor partitions. The arrangement found expression on the lower south facade, which is organized symmetrically about three separate entrances: one positioned centrally (measuring 7 feet 5 inches high by 3 feet 9-1/2 inches wide), the others located toward the east and west ends. Lateral doorways (7 feet 5 inches high by 3 feet 10 inches wide) each flank a window opening which measures 3 feet 1 inch wide by 5 feet 2 inches high. Above first floor level the south facade has suffered extensive damage which makes elevational treatment uncertain (see Figure 26).

Opposite, the rear or north facade is almost blank, a single second floor window opening marking the building's center. East and west fenestration appears generous four symmetrical window openings piercing each end wall (two per floor, with the upper openings measuring 3 feet wide by 5 feet 5 inches high and the lower openings measuring 3 feet wide by 5 feet 2-1/2 inches high). The framing details closely resemble those of the Phase II Main House previously described, suggesting all were glazed. Window frames supported tabby above the openings without intermediate lintels.

The external stucco finishes are lost. Internally, plaster traces are still visible, timber fixings indicating that baseboards and chair rails received careful thought before casting operations commenced. Exterior window shutters were also planned, timber fixings for "butterfly" tie-backs (see Baldwin 1966:Figure 8) obviously having been cast into position rather than added after the building's completion.

The first floor construction is not well attested although an excavation area adjoining the south chimney base suggests a thin mortar bedding (cast directly over top of soil) originally supported battens bearing tongued and grooved boards (similar to the basement of the Haig Point Plantation House built between 1828 and 1830 on Daufuskie Island, South Carolina; see Brooker 1989:96-97).

Three separate entrances and an apparent central hallway strongly suggest that the Service Building was divided into four single room apartments. The two first floor units were reached independently via the lateral doorways and the two second floor rooms shared a common access from the central hall. If so, the hall must have housed timber stairs (no more than 3 feet 4 inches wide) accessing a landing lighted by the single second floor north facing window mentioned above. Assuming the reconstruction is correct,



The Edwards House Service Building

Figure 26. Isometric view of the Edwards Plantation Service Building.

each apartment had an area of approximately 262.5 square feet (including fireplace) and was no doubt heated with hearths opening into either east or west chimney stacks.

Given the Service Building's location near the Main House, domestic slaves are likely candidates for occupants. The structure's solid construction, carefully finished spaces, abundant natural light, and probable glazed windows are all uncommon in housing for field hands or drivers. But while building quality seems high, spatial allocation compares somewhat unfavorably with the best local single family slave housing, such as the tabby dwellings at Haig Point Plantation, Daufuskie Island, South Carolina which provided living areas of 308 square feet (see Brooker 1989:217-220, Figures 39 and 40). Elsewhere, domestic slaves fared less well. The early nineteenth century brick built quarters located behind the Aiken-Rhett House in urban Charleston furnished 184.25 to 213 square feet per unit (Historic American Building Survey SC-276, Library of Congress, Washington, D.C.).

Collective slave dwellings have received little systematic attention and it is therefore difficult to assess how representative of a larger building category the Spring Island example may be. "Barrackslike makeshifts, all too common during the eighteenth century" (Genovese 1972:526) offer only distant analogies. Ruined two story tabby servant quarters (ca. 1810-1820) flanking Whitehall, near Grahamville, South Carolina appear similar in size (about 40 by 20 feet), but fenestration patterns and possible chimney positions differ, indicating another type of internal division.

Foundation Feature

On the edge of the bluff northeast of the Main House, excavation by Lepionka (1986) uncovered badly eroded tabby piers defining a structure measuring 32.5 by 19 feet aligned with its long axis at N5°W. Corner piers are "L" shaped, somewhat irregular in dimension and cast to a width of 13 to 14 inches. Excavation at the base of the northwest example revealed a foundation depth of 18 inches below the present ground level, the pier having a total preserved height of 26 inches. External faces of this feature measure 3 feet 8 inches (north) and 4 feet 1 inch (south) in length. Intermediate piers are badly damaged with only two surviving. An additional pier is positioned toward the building center. Fragmentary remains of possible beam or sill seatings at the southwest corner suggest the tabby elements supported a timber framed superstructure which, judging from finds of window glass, possessed glazed windows. Alignment suggests functional relationships with the nearby slave row. The function of this structure is unknown, but the absence of chimneys and the presence of window glass may suggest processing or storage rather than residential use.

Site Planning and Organization

The Edwards House building group exhibits planning patterns characteristic of late eighteenth and early nineteenth century plantation assemblages distributed throughout the Southeastern United States and former British Caribbean colonies (Handler and Lange 1978:30 et seq.). Lewis (1979:25) has defined typical plantation settlements possessing clusters of service buildings centering about an owner's or (more rarely) manager's residence. Subsidiary structures usually include offices, a kitchen, stables, overseer's quarters, a dairy, and household slave dwellings. Field slaves were usually distanced away from their owners with slave "streets" or "villages" arranged either in rows or on grid patterned plans, becoming commonplace after 1770 (see Brooker 1989:44-45).

Generally, plantation settlement planning ranges between studied, symmetrical schemes and loosely organized layouts, based more upon practical than aesthetic values. At Spring Island the central settlement area is axially ordered, yet demonstrates few overt academic references. Rather, the structures show adaptations reflecting prevailing climatic and material circumstances.

Stoney (1964:44-45) has noted trends toward "local schools of planning" developing across the Carolina Low Country after the American Revolution. Hampton (ca. 1790, see Lane 1984:34-38), Harrietta (ca. 1797, see Stoney 1964:71-72), and those tripartite dwellings discussed above (i.e., Whitehall, the enlarged Sams House, Rosehill-on-the-Combahee, and the Phase II Edwards House) represent one distinctive type, possessing extended, relatively narrow, linear plans opening onto long piazzas or porches. These forms maximized cross ventilation and reduced structural spans. The latter characteristic was particularly important with tabby construction since loading imposed upon tall walls possessing low compressive strength could be reduced.

Internal organization and site orientation of the Phase II Edwards House were arranged to capture every breeze and all principal rooms enjoyed unobstructed riverine and landward exposure. Yet, beyond practical utility, the house also functioned within a carefully contrived landscape composition, its plan being complemented and extended visually by various outbuildings and plantings.

Approaching along the Chechessee River, perspective brings the Edwards House into relationship with the North and South Pavilions to create a water front grouping over 244 feet long. On its land side, the Main House terminates on a wide live oak lined avenue representing one of the three "magnificent avenues" John Frederick Holahan recorded leading "away at least for half a mile" (John Frederick Holahan Diary, Bluffton Historical Preservation Society, Bluffton, South Carolina).

Another, less obvious, design element is the small creek flowing immediately west of the Service Building and North Slave Settlement. Impounded about 1968 (Gordon Mobley, personal communication 1990), the water course shows evidence of earlier artificial terracing which suggests that it once constituted a "picturesque" foil, reflecting both the regimented North Slave Settlement and formalized central building group.

"Picturesque" landscapes (see Hussey 1927:128-185; Wiebenson 1978:39-63), inviting the observer into active participation with an orchestrated sequence of seemingly unpremeditated views balancing architectural and often artificially "improved" natural features, are among the most transient of entities, disappearing quickly once abandoned. However, although poorly documented, literary sources (see Briggs 1951:103-113) demonstrate some early nineteenth century South Carolina planters created such idealized settings about their houses, consciously or instinctively masking slavery's unacceptable face. Typical of these "show places" (Olmsted 1856:412) was perhaps William Smith's plantation on the Combahee River (Colleton County, South Carolina) where "pleasure grounds" ornamented with "select trees, elegant & rare shrubs & bulbous flowers" were "visited in every part thro serpentine walks," the nearby slave settlement forming "a group of handsome cottages" sited amidst gardens and rice fields (Abbott 1832:275-276).

Serpentine paths have left no trace near the Edwards House, but moving about the site it is easy to imagine similar devices allowing the landscape's gradual revelation from along creek banks, the river front, and other vantage points, once existed. Shifting visual relationships between various building masses are striking; the two Pavilions and the Service Building lending the Main House an exaggerated presence and scale. Diagonal views reveal surprising structural juxtapositions, the outbuildings dissolving the rigorous symmetry created by the main building's plan and axial approach avenue.

Shaping of the creek bank and the sensitive positioning of the flanking Pavilions upon slightly rising ground provide two indications that the architectural effect described is not accidental. How the North Slave Settlement accentuated or modified the conjectured scene is an issue which must await further investigation. A late nineteenth century map (Figure 6) shows dwellings erected upon an unusual curved site plan (cf. Haig Point Plantation, Daufuskie Island, South Carolina; Brooker 1989:215). It is also uncertain if any type of formal linkage once connected buildings making up the century settlement group. House and outbuildings now appear isolated but early nineteenth century plats of Beaufort and adjacent counties reveal instances where rectangular or square yards were made about principle plantation residences. The Charleston Museum painting of Rosehill-on-the-Combahee shows the house looking into a fenced rectangular space,

the corners of which are marked by flanking outbuildings. Excavation of the Sams House, Dataw Island has uncovered low tabby foundation walls which form a broad rectangular garden enclosure fronting the main structure. The Edwards House was possibly similar, its two pavilions defining another expansive garden surrounded by clipped hedges. In February 1862, Holahan recorded:

the immediate grounds were enclosed by a fence of osage orange, trimmed as rectangular as a stone wall Flowers grew every-where in profusion and everything about us was calculated to delight the eye and overpower the senses with beauty and fragrance (John Frederick Holahan Diary, Bluffton Historical Preservation Society, Bluffton, South Carolina).

Concerning the identity of late winter blooming plants we can only guess camellias, daffodils, and jonquils may have been represented. Osage orange (Maclura pomifera) is an introduced species often encountered as a plantation hedging plant (Harrar and Harrar 1962:257-259) thanks to its density and impenetrable thorns. Holahan mentions that further "ornamental shrubbery adorned the grounds," though exactly where is not clear from the account. Nevertheless, if details are elusive, something of the site's diversity can be grasped: axial avenues, a neatly defined enclosure, water courses, and abundant ornamentals all playing roles in the composition.

As mentioned earlier, principle tabby built components of the Spring Island layout (i.e., the Phase II Main House, the Service Building, and North and South Pavilions) apparently constitute elements of a building program attributable to George Edwards about 1800 to 1820. It was probably also during this period that the picturesque landscape was developed.

Summary and Conclusion

At the turn of the eighteenth century there developed along South Carolina's coast a building vernacular uniquely responsive to local environmental factors. As Stoney has aptly stated, certain plantation houses with their "elaborated wings, mark attempts to give with some architectural distinction more and better spaces for windows and cross ventilation so necessary for comfort in the Low Country" (Stoney 1964:44-45). These attempts introduced families of plans variously ordered on linear principles, popular variants being tripartite arrangements where three building masses were linked together. Construction modes differed. Along the Santee Delta, timber framing predominated. South of Charleston, tabby was the most characteristic material, offering economy with permanence and stimulating projects conceived on scales matching the region's broad estuarine settings.

The mechanism by which plan types were transferred is not

known, however around St. Luke's Parish construction suggests exchange of information and possibly even skilled workers between plantation owners. Three structures, Whitehall, the Sams House, and the Edwards House, underwent expansion at nearly the same time (about 1800 to 1820) with new additions transforming earlier houses. Results differ, but each owner used tabby to create new wings, opting for a tripartite scheme which, besides providing extra floor area, lent illusion; memories of Palladian examples distantly informing and influencing designs.

Seen from nearby creeks, such linearly organized dwellings must have seemed of great substance, even though enclosed spaces were relatively narrow, rooms modestly proportioned, and apparent stone facings only stucco facings over tabby. Indeed, scenographic qualities distinguish the three examples cited; qualities emphasized on Spring Island through site planning. Two tabby Pavilions extend the Edwards House laterally, projecting an extraordinarily extended north-south axis onto the landscape. East-west a tree lined avenue (focused upon the house) established another powerful visual coordinate. Within this axial setting a "picturesque" ordering process apparently occurred, balancing formal architectural elements against less formal landscape devices while at the same time obscuring fundamental inhumanities attending any regime predicated upon slavery. Poorly understood, the topic deserves further investigation especially since future research is likely to illuminate deplorably neglected questions surrounding the forms and meanings of late eighteenth and early nineteenth century landscape design on South Carolina's sea islands.

Future research will also clarify uncertainties concerning Spring Island plantation's antebellum management. Archaeological surveys indicate slave settlements existed northwest and southeast of the Main House, but information regarding their respective development and architectural form is limited. Similarly, only tentative conclusions can be reached concerning the true function of the barn-like structure located to the northeast of the main complex. Moreover, other buildings remain concealed (one perhaps accommodating an overseer).

Hierarchies, both spatial and social, raise different issues. The Service Building, assuming it housed domestic servants, hints at a small, privileged slave population operating alongside the agricultural work force. There is the possibility that specially skilled slaves accompanied their master's moves from town to country, bringing city mores into the enclosed world of the plantation settlements. Dominating every aspect of antebellum plantation life are successive owners who, despite archival research, remain somewhat enigmatic figures. Wide ranging business contacts, kinship networks, and public service obligations are all factors which ensured that fresh ideas, whether concerning agricultural practice, building construction, or slave welfare, broke Spring Island's geographic and cultural isolation. Was early

nineteenth century Spring Island then, like other more distant islands, "both far ahead and far behind the general history . . . brutally [divided] between the two opposite poles of archaism and innovation" (Braudel 1972:I:150, cited in Trinkley 1989a:ii)? Divorced from what Oleg Graber (Graber et al. 1978:173) has called "the attributes of life," the tabby architecture described, if imaginative at some levels and bounded by tradition at others, can as yet give only incomplete and partial answers.

VERNACULAR ARCHITECTURE ON SPRING ISLAND

Colin Brooker

38BU793 and 38BU1212

As can be seen from Figure 27, the timber framed tenant houses designated 38BU793 and 38BU1212 are almost identical. Of the two, 38BU793 is the better preserved, retaining original window openings, external siding, and internal finishes, although its chimney has been destroyed. Measuring 20 feet 4 inches east-west by 24 feet 3 inches north-south, this single story building consists of four unequally sized spaces paired about and linked by a central through passage. The principal rooms face south, the larger being furnished with a fireplace. At 38BU1212 the orientation is reversed, with the main living areas looking north-northwest onto an unpaved road leading to Pinckney Landing.

In both houses, elevational treatment appears simple, with entrance facades having two windows flanking the main doorway right and left. Two more windows pierce each side elevation while the rear facades feature a single window positioned to one side of the back door. All sashes have been replaced or altered. Originally panes were probably arranged in a six over six configuration (Figures 28 and 29).

Construction is of interest since details clearly demonstrate the economies offered over traditional framing methods by incorporation of manufactured products which eliminate the need for labor intensive carpentry techniques. Somewhat lightly fabricated (wall studs measure 3-3/4 by 1-7/8 inches, floor joists measure 5-3/4 to 6 by 1-7/8 inches on approximately 2 foot centers, and ceiling joists measure 6 by 2 inches) the house frames are almost entirely nailed with rigidity being achieved through a consistent use of 3/4 inch thick, 3-1/2 inch wide tongued and grooved match boarding completely lining all internal spaces (Figure 28). Additionally, external timber siding (entirely replaced at 38BU1212) and tongued and grooved floor boards (again 3-1/2 inches wide) stiffen the two structures. The only visible timber joints are half-lapped examples at ground sill corner junctions. Sills (measuring 6 by 5 to 5-1/2 inches) are among the very few elements which show any evidence indicating hand rather than machine finishing, although economies were also affected at ground level by raising the sills on roughly cut tabby blocks robbed from elsewhere on Spring Island.

Like floor joists, roofing members seem somewhat undersized for the spans involved, comprising 2 by 6 inch rafters distanced

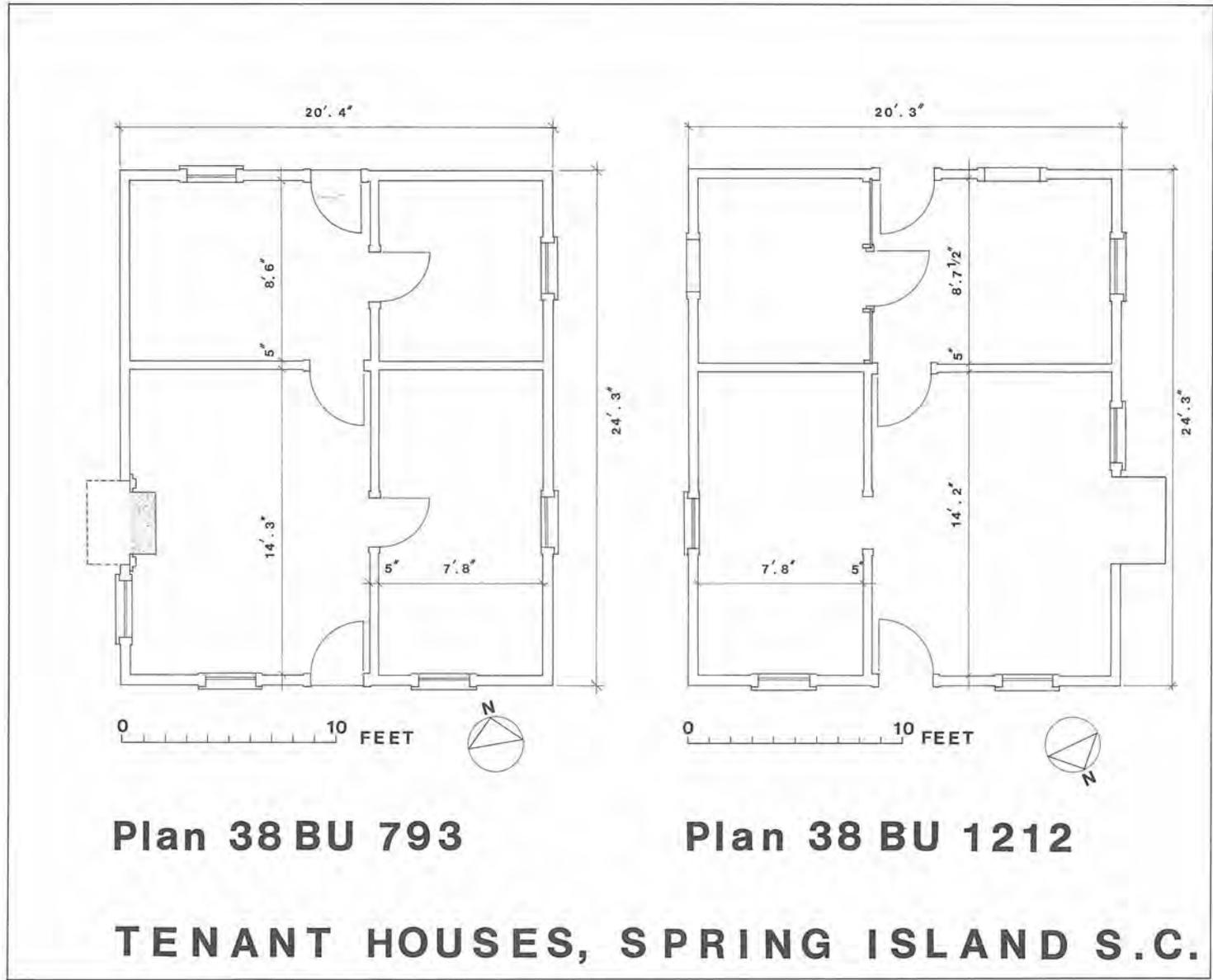


Figure 27. 38BU793 and 38BU1212 plan views.

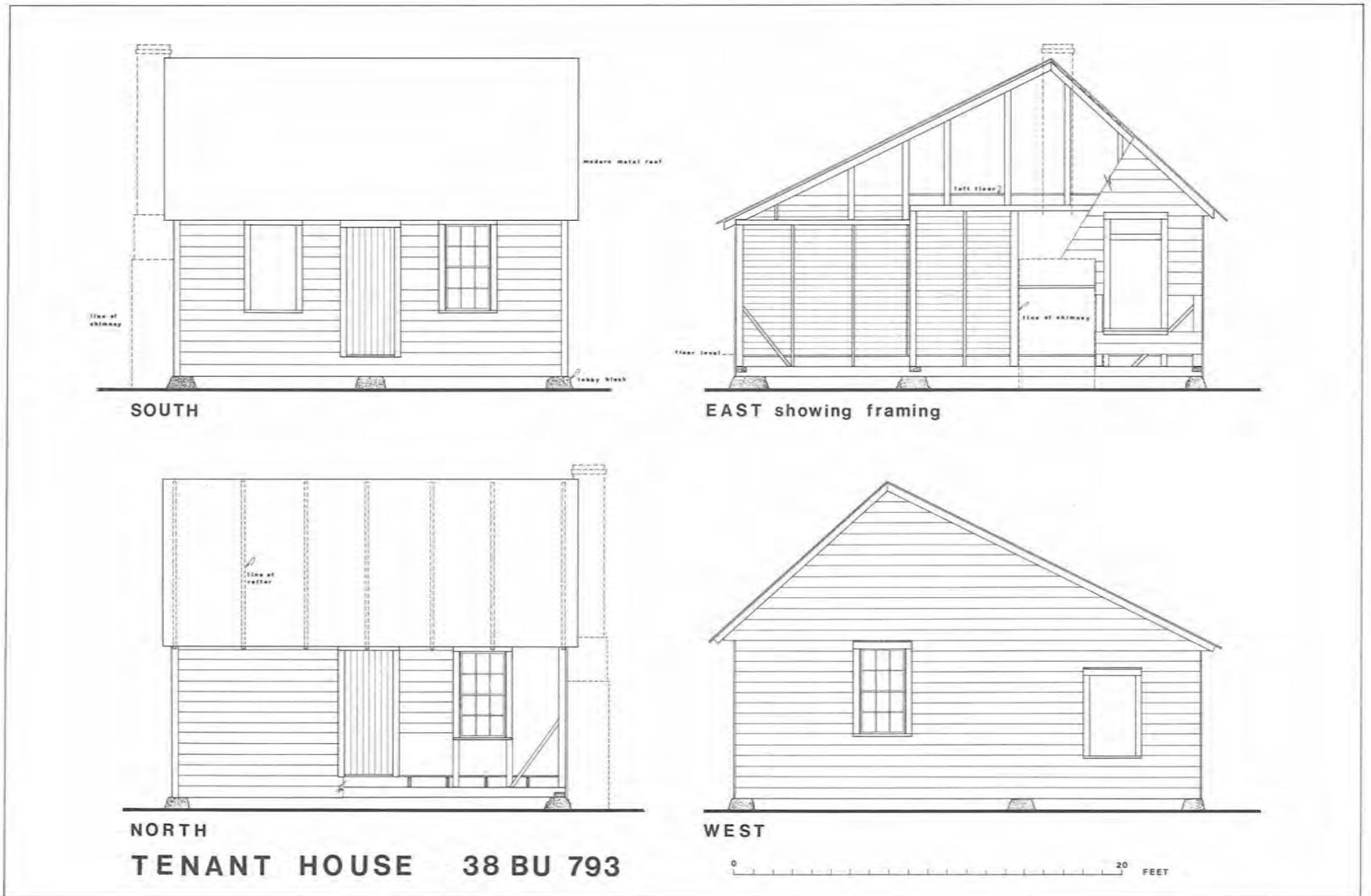


Figure 28. 38BU793 elevations.

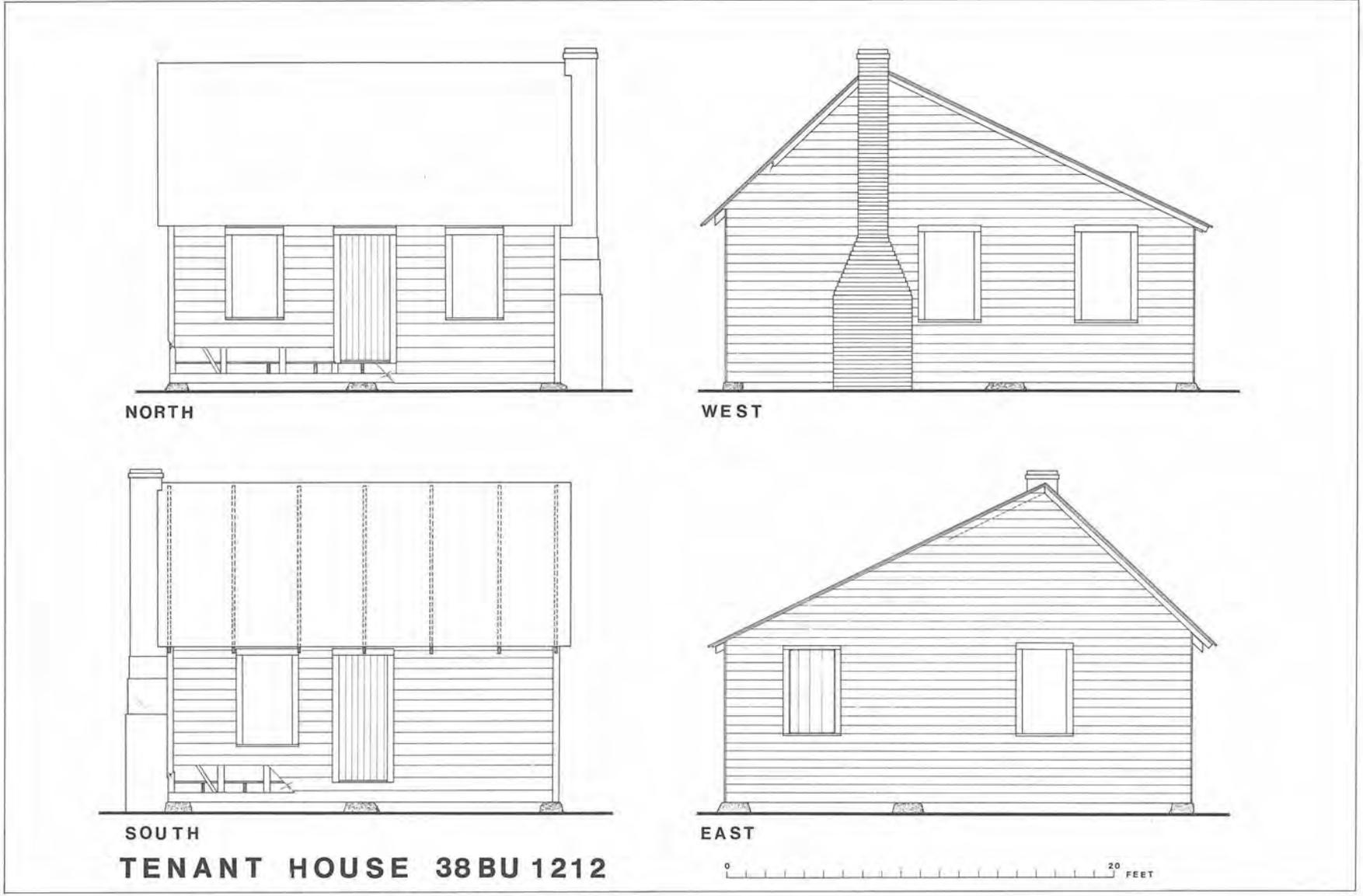


Figure 29. 38BU1212 elevations.

approximately 3 feet 6 inches on center. Roofs are gabled and arranged to give differently angled pitches (differing between the two houses, see Figures 28 and 29) and a long "cat slide" covering rear internal spaces. Originally rafters supported 3 by 3/4 inch purlins and timber shingles, corrugated metal sheeting now replacing the latter. Unlighted but floored storage lofts reached via small ceiling openings occur over the principle rooms.

The brick built chimney at 38BU1212 is shouldered, its base measuring 2 feet 1-3/4 inches by 4 feet. Corbelling produces a stack measuring 19-3/4 by 18-5/8 inches overall and the chimney has a total height of approximately 17 feet 6 inches above ground level. Paint lines and framing indicate that 38BU793's lost chimney was very similarly dimensioned.

Internally, both houses further evidence match boarding's utility. The material was used to make all of the doors, architraves and window surrounds. This suggests building during the early twentieth century when such finishes enjoyed considerable local popularity. This conclusion is strengthened by discovery of a newspaper fragment dating from 1914 which had been pasted onto framing concealed beneath the original wall linings.

Little comparative data exists concerning the form, size, or organization of local early twentieth century tenant housing even though numerous examples stand (more often than not abandoned) across the Low County. Significant indicators of land tenure patterns and the impact of manufactured products upon vernacular architectural traditions, these fast disappearing structures need recognition and systematic study. Thus, while it can be asserted that despite possessing unusual features (notable re-used tabby pier supports) the tenant houses at 38BU793 and 38BU1212 conform to a generalized regional building type, characteristics of which remain ill-defined.

38BU803/1213

The single story house at 38BU803/1213 has suffered extensive wood boring insect damage and is near collapse (Figure 30). Originally it must have incorporated two independently roofed and framed components, one gabled (measuring approximately 22 feet 8 inches by approximately 14 feet 1-1/2 inches), the other (dimensions uncertain) forming a shed-like rear outshot. Two unequally sized rooms are housed within the main building area, the larger accommodating a central through passage and opening into a hearth. Organized as three bays, the entrance facade (oriented N50°E) reflects internal planning, featuring two windows (each measuring 6 feet by 3 feet 4 inches, including the 3-3/4 inch wide timber surrounds) flanking the central door opening (measuring 2 feet 8 inches in width). Formerly, the east end elevation (now ruined) displayed a chimney stack placed on the building's long axis, flanked right and left by two more 6 feet high by 3 feet wide



Figure 30. East elevation of 38BU803/1213.

windows. Another similar window pierces the west facade. Nothing can be recovered of the outshot's plan or elevational treatment.

All framing members are decayed. Insofar as visible, framing to the main, gabled part of the house, includes 7-1/2 deep by 4 inches wide ground sills supported on re-used tabby blocks; 4 by 4-1/2 inch corner posts, 6 by 1/3/4 inch floor joists positioned 18 to 19 inches on center, 4-1/8 by 4-3/8 studs around openings, 2 by 4 inch ceiling joists, and 2 by 6 inch rafters. Concrete foundation pads indicate a porch 6 feet 8 inches wide once extended along the entrance (i.e., north) facade, its roof supported by square, slightly chamfered 3-3/4 by 3-1/4 timber posts of which only a single, fallen example survives. Internally, main rooms are completely lined using 4-3/4 inch wide tongued and grooved boards. Externally, the house frame is entirely clad with weather boarding.

Machine wrought and nailed throughout, the structural timbers and interior finishing details indicate a twentieth century construction, perhaps dating about 1925 to 1930. The structure appears to postdate those described from 38BU793 and 38BU1212.

CONCLUSIONS

Michael Trinkley

As previously discussed, the archaeological surveys on Spring Island have located a total of 88 sites and assessed 35 of these as eligible for inclusion on the National Register of Historic Places (Table 14). In addition, these investigations have provided a significant review of the architecture, both tabby and vernacular, found on this isolated island. The historical research, using primary documents and oral history, has pieced together the island's ownership and provided some indications of lifeways from the colonial period through the early twentieth century. Archaeological excavations at one National Register eligible prehistoric site have revealed the potential that such sites offer to better explain the lifeways of the island's prehistoric occupants. Of special interest is the ability of shellfish remains to provide information on habitat, diet, and food preparation.

These investigations also provide some interesting assessments of the methodology typically used in archaeological investigations. Over the past several years there has been a quiet debate over the usefulness of auger testing in archaeological investigations. Some have suggested that the use of a power auger is extremely damaging to archaeological remains and maintain that shovel testing is a less destructive investigative tool. Others, including the author, maintain that not only does auger testing allow greater coverage in less time (hence being more economical), but it also causes less damage to artifacts than traditional shovel testing.

The work at Spring Island provided an opportunity to explore these conflicting "impressions." The 213 auger tests conducted at 38BU1 required a total of 70 person hours, or approximately 20 person minutes per test (including both auger and screening). Shovel testing conducted elsewhere on Spring Island tended to require less time, averaging about 12 person minutes per test (again including both excavation and screening). Clearly, auger testing falls behind shovel testing in terms of "speed." Auger test logs were examined, revealing that these tests had depths ranging from 1.2 to 2.8 feet (dependent on when subsoil was noticed and augering stopped). The shovel test logs revealed depths of 0.8 to 1.1 foot. These data suggest that auger testing is more likely to provide uniform, comparable results, while shovel testing is likely to vary depending on ease of excavation. When this additional factor of "accuracy" is added as a consideration, it appears that auger testing is not unduly more time consuming.

Of the 213 auger tests, 94 provided artifacts. Of these 94

Site Number	Site Type	Soil	Eligibility	Management Recommendation	Site Number	Site Type	Soil	Eligibility	Management Recommendation
38BU1	18th-19th c. plantation	Seabrook	E	1. preservation of standing tabby 2. preservation of picturesque landscape 3. maintenance of visual integrity 4. green spacing for data recovery of outlying archaeological loci 5. take out of agricultural use	38BU770	probable shell midden	-	NE	1. site could not be relocated
					38BU771	Type 3 shell midden	Seabrook/Rosedhu	NE	
					38BU772	Type 1 shell midden	Seabrook	E	1. green spacing or data recovery
					38BU773	18th-19th c. plantation	Seabrook	E	1. green spacing or data recovery 2. if green spaced, tabby ruins must be stabilized
38BU2	Type 2 shell midden	Seabrook	E		38BU774	Type 1 shell midden	Seabrook	NE	
38BU3	20th c. plantation	Wando	NE		38BU775	20th c. tenant	Wando	NE	
38BU4	Type 1 shell midden	Seabrook	NE		38BU776	Type 2 shell midden	Eddings	E	1. green spacing or data recovery
38BU5	Type 1 shell midden/ 18th-19th c. plantation	Seabrook	E	1. stabilization of bluff to protect prehistoric site 2. green spacing or data recovery of historic site	38BU777	20th c. tenant	Eddings	E	1. green spacing or data recovery 2. if green spaced, architectural recordation must be conducted
38BU6	Cemetery	Williman/Seabrook	E	1. green spacing 2. hand clearing and avoidance of future ground disturbance 3. erection of boundary fence 4. mechanism to ensure family access 1. data recovery necessary because of severe erosion	38BU778	Type 1 shell midden	Eddings/Wando	NE	
					38BU779	Type 1 shell midden	Wando	NE	
					38BU780	Type 1 shell midden	Wando	NE	
					38BU781	20th c. tenant	Wando	NE	
					38BU782	19th c. tenant	Eddings	NE	
					38BU783	tenant	Wando	NE	
					38BU784	Type 3 shell midden/ 19th c. plantation	Wando	NE	
38BU306	Type 2 shell midden	Seewee	E		38BU785	Type 3 shell midden	Wando	NE	
38BU724	Type 1 shell midden	Wahee	E		38BU786	Type 3 shell midden/ tenant	Wando	NE	
38BU725	Type 1 shell midden	Wahee	NE						
38BU726	Type 3 shell midden	Wahee	E	1. green spacing or data recovery					
38BU727	Type 1 shell midden	Wahee	E	1. green spacing or data recovery					
38BU728	Type 2 shell midden	Bladen/Wahee	E	1. green spacing or data recovery					
38BU729	Type 2 shell midden	Bladen	E	1. green spacing or data recovery					
38BU730	Type 1 shell midden	Bladen	E	1. green spacing or data recovery					
38BU731	Type 1 shell midden	Bladen	NE						
38BU732	Type 1 shell midden	Coosaw	NE						
38BU737	Type 3 shell midden	Murad	NE						
38BU738	Type 3 shell midden	Wando/Seabrook	NE						
38BU739	Type 3 shell midden	Seabrook/Murad	NE						
38BU740	18th c. plantation	Murad	E	1. green spacing or data recovery 2. take out of agricultural use					
38BU741	19th-20th c. tenant	Murad	NE						
38BU742	Type 3 shell midden	Seabrook	E	1. green spacing or data recovery					
38BU743	Type 3 shell midden	Seabrook	E	1. green spacing or data recovery					
38BU744	Type 1 shell midden	Williman	E	1. green spacing or data recovery					
38BU745	Type 1 shell midden	Williman	NE						
38BU746	Type 1 shell midden	Seabrook	NE	1. This site is contained within the boundaries of eligible site 38BU1					
38BU747	Type 2 shell midden	Coosaw	E	1. This site has been subjected to data recovery					
38BU748	Type 3 shell midden	Wando	NE						
38BU749	Type 1 (?) shell midden	Ridgeland	NE						
38BU750	19th-20th c. tenant	Polawana	NE						
38BU751	Type 3 shell midden	Polawana	E	1. green spacing or data recovery 2. take out of agricultural use					
38BU752	19th-20th c./statue	Seabrook	NE						
38BU753	Type 3 shell midden/ 19th c. plantation	Seabrook	E	1. green spacing or data recovery 2. if data recovery is conducted, additional testing at the historic component should be conducted					
38BU758	Type 3 shell midden/ 19th-20th c. tenant	Seewee	E	1. green spacing or data recovery 2. if data recovery is conducted additional testing at the historic component should be conducted					
38BU759	Type 1 shell midden	Eddings	NE						
38BU760	Type 1 shell midden	Murad	NE						
38BU761	Type 1 shell midden	Eddings	NE						
38BU762	Type 3 shell midden	Murad	NE						
38BU763	Type 2 shell midden/ 19th c. plantation	Eddings	E	1. green spacing or data recovery at loci A-C					
38BU764	Type 3 shell midden	Eddings	NE						
38BU765	Type 3 shell midden/ 20th c. tenant	Eddings	NE						
38BU766	Type 3 shell midden	Seabrook	NE						
38BU767	Type 3 shell midden	Eddings	NE						
38BU768	Type 3 shell midden	Seabrook	NE						
38BU769	Type 1 shell midden	Seabrook	NE						

Notes:
1. E = Eligible for inclusion on the National Register of Historic Places; NE = not eligible for inclusion on the National Register of Historic Places
2. Architectural recordation should be performed to the standards of the Historic American Building Survey (HABS)
3. Tabby preservation and stabilization must be performed to the Secretary of the Interior's Standards
4. All sites determined eligible by the State Historic Preservation Office must have a management plan submitted for approval, whether the mitigation technique chosen is data recovery or green spacing

Table 14. Sites identified on Spring Island.

proveniences, only five fresh breaks were observed (representing 5% of the proveniences). Of the 127 studied shovel tests with material, 17 fresh breaks (representing 13% of the proveniences) were identified. Therefore, the Spring Island data suggests that shovel testing is likely to be nearly three times as damaging to artifacts as auger testing.

While additional study of these two data recovery techniques is necessary, the current information indicates that auger testing will provide more reliable data with less damage than conventional shovel testing. Perhaps of greater significance, however, are preliminary data on the appropriateness of various testing intervals. Research conducted on Daufuskie Island (Beaufort County, South Carolina) antebellum slave rows suggests that intervals greater than 50 feet are of virtually no use in providing clear site boundaries. Even more surprising is that intervals of even 50 feet provide little indication of individual slave structures. To refine structural locations within the site boundaries it has been necessary to rely on intervals of no greater than 25 feet. The Spring Island data is not as detailed as the work conducted on Daufuskie, but it is in general agreement. At 38BU1, the south slave settlement was not identified and the north settlement was only generally located using 100 foot intervals.

Prehistoric Sites

Investigations on Spring Island have demonstrated the utility of characterizing the prehistoric middens into four broad "types." Type 1 sites are small, thin shell middens found on the shore edge in close proximity to a tidal slough or marsh. Type 2 sites are large heaps of shell, also found on the shore edge and in close proximity to the marsh. Type 3 sites are "inland" sites which are 200 to 800 feet from a water source, but which still evidence shell midden deposits. The Type 4 sites are "interior" sites which fail to evidence any shell midden deposits.

There are 64 prehistoric sites recorded for Spring Island, 51 (80%) of which have produced diagnostic specimens. The remaining 11 sites are classified as prehistoric based on visual impressions (i.e., thin middens of shell without artifacts) or have yielded eroded pottery which cannot be classified. Of the 51 sites with diagnostic material, 87 different archaeological components are recognized. This survey level data, however, does not allow statements to be made regarding the intensity of occupation at sites during any of the periods represented. Consequently, these discussions require that all components be given equal weight. As further research on Spring Island is conducted this situation is expected to change and it will be possible to more accurately discuss prehistoric site settlement.

Stallings pottery occurs on 10 sites (11% of the total having diagnostic material), although it is found as a single component on

none of these sites. Eight of these 10 sites are found on well drained soils, while two sites are on somewhat poorly drained soils. Of these 10 sites, two are Type 1 middens, two are Type 2 middens, and six are Type 3 middens. None of these sites are single component; each has been reoccupied during successive periods. During the Early Woodland, it appears that the bulk of the Stallings occupations tended to be somewhat removed from the shore edge and were situated on well drained soils. The one notable exception to this is 38BU5 where the Stallings midden is partially inundated by Chechessee Creek. This site provides dramatic evidence that during the second millennium B.C. the sea level was slightly lower than its present stand. As sea levels have continued to rise, this site is now flooded at high tide.

There appears to be a decline in the number of sites on Spring Island in the following Thom's Creek and Refuge phases. Thom's Creek pottery was found on five sites (6% of the total number of sites evidencing diagnostic material) while Refuge pottery is found on only two sites (2% of the sites). All of the Thom's Creek sites are found on well drained soils. One site can be characterized as a Type 1 midden, three sites are Type 3 middens, and one site is a Type 4. Of the five sites, only the Type 1 midden is single component. Both of the Refuge sites are found on well drained soils and one is a Type 1 midden while the other is a Type 3 midden. These data tend to suggest a gradual decline in population on Spring Island during the periods immediately following the Stallings phase. One explanation for this is the coalescence of population into large permanent villages during the Thom's Creek phase with the abandonment of many small seasonal camps. This process would result in small Thom's Creek middens being less common than either earlier Stallings or later Deptford phase sites. The low incidence of Refuge phase sites has been noted by other researchers (e.g., DePratter 1978) and has been tied to changing environmental conditions which made the coastal marshes less accessible. DePratter suggests that this change "probably related to a drop in sea level of two or more meters below St. Simmons [Stallings] phase levels" (DePratter 1978:72).

By the following Deptford phase there appears to be a dramatic increase in population on Spring Island. Deptford pottery is found at 42 sites on Spring Island (representing 48% of the known sites with diagnostic material) and 23 of these sites are single component. These sites are found over the entire island, even expanding to the generally low soils at the north end. Twenty-eight of the Deptford sites (67%) are found on well drained soils, while a third of the sites are found on less well drained soils such as the Murad and Wahee series. Ten of the sites are Type 1 middens, eight are Type 2 middens, 23 are Type 3 middens, and one Type 4 site was found.

The settlement pattern during the Deptford phase on Spring Island is similar to that noted by DePratter (1978) during the

Wilmington phase on Skidaway Island in Georgia. The number of sites dramatically increases, previously unoccupied areas of island are settled, many of the sites are located further inland than during earlier occupations, and discrete midden piles are noticed for the first time. The reason that these events appear to occur earlier on the South Carolina coast than further south is not clear. DePratter suggests that during the late Deptford phase the marsh resources were again becoming more abundant, although subsistence was gradually shifting to horticulture (which explains the increased occupation of more interior sites). DePratter speculates that additional investigation of Wilmington phase sites would produce evidence of cultigens. While there is evidence that the sea level stands were perhaps more conducive for coastal settlement during the late Deptford, there is still no evidence that coastal groups were engaging in horticultural activities by A.D. 600. Unfortunately, 12 years after DePratter postulated the presence of agricultural activity, we still lack sufficient evidence to test this hypothesis. Clearly, the Deptford phase sites on Spring Island do offer the potential to further explore this significant research question.

The following Mount Pleasant phase sites, which more closely correspond to the Wilmington time period in Georgia, reveal a significant decline in population from the preceding Deptford phase. Only five sites with Mount Pleasant pottery were identified in this survey (representing 6% of the sites with identifiable components). None of these sites are single component. Three of the sites occur on well drained soils, while two are on somewhat poorly drained soils. Two of the sites are classified as Type 1 middens, while the remainder are Type 3 sites. It is difficult to integrate these data into an overall picture of settlement on Spring Island since the Mount Pleasant phase is imperfectly understood and is more common on the northern coast. In most respects, however, these sites are similar to the earlier Deptford phase and may also be considered to span DePratter's Wilmington phase.

St. Catherines phase ceramics are found at 14 sites on Spring Island (representing 16% of the sites with diagnostic remains), with three sites being single component occupations. Of these 14 sites, two are Type 1 middens, three are Type 2 middens, and nine are the more interior Type 3 middens. All but four of the sites are found on well drained soils. Like the Mount Pleasant phase, there has been little research in South Carolina on St. Catherines phase sites. There is a St. Catherines phase burial mound (38BU19) on Callawassie Island, immediately adjacent to Spring Island and another is known from the Victoria Bluff area to the south of Spring Island. This may suggest that the St. Catherines sites are small outliers representing a seasonally dispersed settlement pattern. While all of the St. Catherines sites evidence shell middens (usually as discrete midden piles suggestive of individual households), the dependence on shellfish seems to be less than during the earlier Deptford phase (see also Trinkley 1981).

Three sites were identified which contain Savannah phase pottery (3% of the total sites), although none are single component. None of the sites produced more than a few Savannah sherds, suggesting that the occupation was uncommon in the study area. All three sites are found on well drained soils and all are classified as Type 3 sites. Like the St. Catherines sites, shell, although present, does not appear to be a major resource. DePratter (1978) has previously suggested that the scarcity of Savannah sites in the immediate coastal area may relate to a shift in subsistence with a dependence on interior coastal plain agricultural villages capable of supporting large, concentrated populations.

Irene phase pottery occurs at six sites (7% of the sites with diagnostic remains), two of which are single component. Two of these sites are Type 1 middens, two are Type 2 middens, and two are Type 3 middens. Three of the sites occur on well drained soil, while the remaining three sites are found on somewhat poorly drained soils. Of these sites, only the two Type 2 middens (38BU306 and 38BU797) appear to represent any evidence of significant Irene occupation. The others have yielded only sparse Irene occupation and suggest only short-term occupation.

This study has evaluated each of the prehistoric sites in terms of its eligibility for inclusion in the National Register of Historic Places. These determinations, as previously discussed, have been based on a number of archaeological qualities, including site integrity, clarity, and variety. A number of very similar sites have been recommended as capable of yielding significant archaeological data and the work at 38BU747 has further documented the ability of even "small" sites to contribute to our understanding of prehistoric coastal subsistence and settlement systems.

There remains, however, the question of redundancy. Some archaeologists might chose to select only those sites of "greatest" significance as eligible for the National Register. We have chosen to recognize that a number of sites on Spring Island are capable of answering important questions, but that there is duplication of data. Consequently, we believe that while the eligibility of all of these sites has been documented, only a sample should be subjected to green spacing or data recovery requirements. This sample should be subdivided into the different types of sites, and within each type at least two sites from each time period should be either preserved or fully investigated. Table 15 offers a suggested prioritization of the sites, based on site integrity and expected research potential. Sites recommended as eligible, but not included in this table, are viewed as offering only duplicate data and therefore requiring no additional investigation.

It is essential that if data recovery is the only available mitigation measure, the sites receive adequate investigation incorporating a multidisciplinary approach. This would encompass

extensive hand excavation exposure of both midden and non-midden areas, collection of adequate flotation and shell column samples, quantification of midden debris, 1/8-inch screening appropriate for the recovery of faunal remains if present, and an effort to identify and collect samples suitable for radiocarbon dating. Many of these techniques are uncommonly applied to prehistoric shell midden archaeology, yet they are essential components of any approach which expects to contribute significant information on the lifeways of prehistoric populations.

Table 15.
Research Priorities of Prehistoric Sites on Spring Island

	<u>Type 1 Sites</u>
First Priority:	38BU744 (Deptford) 38BU1211 (unknown)
Second Priority:	38BU724 (Deptford/Irene) 38BU772 (Deptford) 38BU1219 (unknown)
Third Priority:	38BU727 (Deptford) 38BU730 (Deptford)
	<u>Type 2 Sites</u>
First Priority:	38BU2 (Stallings/Deptford) 38BU306 (Irene) 38BU776 (Deptford) 38BU789 (St. Catherines) 38BU1214 (Deptford)
Second Priority:	38BU728 (Deptford) 38BU729 (unknown) 38BU797 (St. Catherines/Irene) 38BU763 (Stallings/Deptford/St. Catherines) 38BU1210 (Deptford)
	<u>Type 3 Sites</u>
First Priority:	38BU743 (Deptford, Mt. Pleasant, St. Catherines)
Second Priority:	38BU758 (Deptford/St. Catherines) 38BU726 (Deptford) 38BU742 (Deptford/St. Catherines) 38BU751 (St. Catherines) 38BU753 (Stallings/Deptford/Savannah)

Future Research Orientation

The investigations on Spring Island at a survey level have demonstrated a tremendous potential to further our understanding of Woodland Period settlement, subsistence, and lifeways. Recent data

recovery excavations at two Deptford phase sites (38BU747, discussed in this report, and 38BU1214, currently being conducted) have verified this potential and offer refinements for future research. While the Deptford phase is the best represented period of occupation, these comments are equally applicable to other periods.

The first broad category of questions which the Spring Island sites may address are typological and temporal. While "traditional" pottery typologies have been developed for all of the wares found during this survey, such as Deptford and St. Catherines, there remains the need for additional refinements. The Deptford pottery found exhibits considerable variation in temper, which ranges from a fine sand to a coarse quartz. Microscopic analyses may provide insight on the nature and origin of the temper. Deptford Cord Marked wares, which dominate the collections, have never received a detailed cordage analysis. Investigations at 38BU747 have revealed two distinct cordage types which were spatially isolated. Such differences may relate to distinct temporal or ethnic groups. The St. Catherines wares may benefit from equally intensive investigation of cordage, while there is a need for a detailed examination of the tempering associated with this series.

Although worked stone tools are uncommon at the Spring Island sites, those present are manufactured from a relatively narrow range of raw materials. Further research should examine the source of the stone. In addition, very few metric data are available for the projectile point types associated with the Woodland Period sites typical on Spring Island.

There is an extraordinary need to better define the recognized temporal periods on Spring Island. This will require the collection of well documented and selected samples for radiocarbon dating. It is particularly important to understand whether the shell middens found on Spring Island represent short-duration occupations or longer duration settlements. This question may be addressed in several ways, including the collection of multiple dates from single sites. Unfortunately, many shell middens fail to yield adequate charcoal for dating. This requires the use of shell, which has often been viewed with skepticism. As a result, it will be useful to search for features which can yield useful dates and which also provide both shell and charcoal for cross-checks.

The second broad category of questions which should be investigated on Spring Island involves the various settlement patterns. Previous investigations (Trinkley 1989a) have developed four site types, including three distinct shell midden types. Additional work is necessary to understand the relationship of these site types and their functions. Ongoing investigations at 38BU1214 have revealed considerable site complexity, the probability of intra-site patterning, and the probability of discrete activity areas. For adequate investigation, even these

seemingly simple sites will require extensive excavation. The 0.5% sample excavated from 38BU1214 suggests that sample sizes of up to 10% may realistically be required.

The third broad category of questions surrounding the prehistoric sites on Spring Island involve the subsistence system. Again, investigations at 38BU747 and 38BU1214 have revealed the complexity of the data and need for intensive examinations. While it is essential that ethnobotanical, faunal, and shellfish data be collected, it is also essential that these data be thoroughly integrated not only with each other, but also with the material culture assemblage. Questions regarding diet, selection of food sources, seasonality, and food preparation are essential to understanding not only the aboriginal lifeways, but also why these specific site areas were selected.

Future research at Spring Island prehistoric sites should ensure that adequate shellfish, flotation (for ethnobotanical study), and faunal samples are collected from a broad range of midden and non-midden areas. Each aspect of the work should be planned in close coordination with the individual responsible for the specific analysis. Investigations at 38BU747 and 38BU1214 have revealed that shellfish columns 2.25 feet square provide an adequate sample of middens, although samples selected from the screenings are also required. Faunal material is very uncommon and screening of the middens through 1/8-inch mesh is necessary to ensure the adequate collection of fish samples. In those areas without midden, soil acidity tends to be so high that small bone preservation is poor and 1/4-inch screening is appropriate. It has been difficult to obtain adequate ethnobotanical samples from both midden and feature contexts. At 38BU1214 floral remains appear to be more common from the interior areas.

Historic Sites

A series of ten eighteenth and nineteenth century plantation sites have been identified from the work on Spring Island. A total of 23 probable late nineteenth through early twentieth century "tenant" sites have been identified on the basis of the recovered materials. In addition, two other historic sites, the Spring Island or Old House Cemetery and the Copp site, are also recorded based on these investigations.

The plantation period sites include four eighteenth century sites (one of which was probably occupied into the early nineteenth century and another was the location a nineteenth century slave settlement): 38BU5, which represents the probable location of the original Cockran-Barksdale house in the eighteenth century and a slave settlement in the nineteenth century; 38BU740, an occupation which may date from late in Barksdale's ownership of the island; 38BU741, which has been heavily damaged by a later tenant occupation; and 38BU773, a slave settlement and series of barns

spanning the period from Barksdale to Edwards. The six nineteenth century sites include: 38BU1, the main Edwards occupation which includes a series of four standing tabby buildings, the remains of one barn, two slave settlements, and a probable overseer's structure; 38BU791, a nineteenth century slave settlement at the south end of Spring Island; and 38BU753, 38BU763D, 38BU784, and 38BU1207, a series of isolated nineteenth century structures. Site 38BU5, as previously mentioned, is also the location of a nineteenth century slave settlement at the north end of Spring Island.

Of these sites, all except the two small eighteenth century sites (38BU740 and 38BU741) are situated on well drained soils. Site 38BU5 is the only occupation in the immediate area of high ground and deep water. The other sites offer either no water access or, as in the case of 38BU1, access is limited to shallow draught crafts at high tide.

At the present time it is difficult to integrate all of these sites into a history of the changing plantation landscape. It seems likely that 38BU5 is the location of the original Cockran-Barksdale house, built during the first half of the eighteenth century. Whether it survived the Revolutionary War is uncertain, although several other small settlements (38BU740 and 38BU741) were apparently begun during the second half of the eighteenth century. The Cockran-Barksdale settlement conforms to common expectations -- it is on high ground immediately adjacent to deep water. The site was also located on a creek adjacent to Callawassie Island, which was also part of the Cockran holdings. By the late eighteenth century a slave settlement, which continued into the nineteenth century, had been established at 38BU773.

Based on all of the available, and somewhat conflicting information, it seems likely that the first phase of the Edwards house (38BU1) was constructed between 1790 and 1800, with construction complete by 1800. The second phase of the Edwards house likely dates from the first quarter of nineteenth century, perhaps as early as 1810. It was during this expansion that the picturesque landscape was developed and the associated slave rows were probably constructed. Since the island, at that time, was divided between George Edwards and his two sisters (who owned the north and south thirds of Spring Island), the location of the Edwards house was at least partially the result of available property. It seems probable, however, that Edwards also selected an area which could be incorporated into an a planned landscape. Access to the property, while difficult, could be achieved either overland or at high tide. In addition, the property was centrally located on the island, which may have been an administrative factor. Finally, the location of the main house overlooking the confluence of the Chechessee and Broad rivers allowed the owner's wealth and prosperity to be readily visible to river traffic.

The 38BU791 slave row at the south end of Spring Island may have been built sometime between 1820 and 1830, as Edwards wealth increased, or it may date from when the island was divided into three parcels. Likewise, the slave row at the north end of the island (38BU5) may date from either period. It seems odd that while the 38BU5 slave row was situated in an area of high ground and deep water, the slave row at 38BU791 was located east of the "prime" bluff area. This may suggest that the north slave settlement was more significant in the processing and shipment of goods off Spring Island and a comparison of the two slave settlements is of considerable importance.

The four isolated structures (38BU753, 38BU763D, 38BU784, and 38BU1207) represent archaeological features occasionally mentioned in historical documents but rarely identified archaeologically. While few architectural details are present, the sites have yielded evidence of mortar wattle and daub fragments. The archaeological remains suggest low status, probably slave, dwellings. Such isolated structures probably served very specific functions, such as housing for rice gate tenders or those tending agricultural fields. Craton briefly discusses the function of "watchmen," who were:

set to live in a hut on the edge of the fields or provision grounds expected to be vigilant twenty-four hours a day, seven days a week (Craton 1987:214).

These individuals watched over the crops, protecting them from invading birds, wild hogs, and theft.

Of these ten historic sites, all but 38BU741, 38BU753, 38BU763D, 38BU784, and 38BU1207 are recommended as eligible for inclusion on the National Register. The five eligible sites represent a series of extremely significant sites which document the changing patterns of occupation and wealth on Spring Island from about 1730 through 1930. It would be of particular value to examine the three nineteenth century slave settlements (38BU1, 38BU5, and 38BU791) as one research project. Such research could provide answers on the temporal ordering of construction, intra- and inter-site relationships, differing site functions, and the potential that slaves within the three settlements exhibit variable status. Any further research at the historic sites should be integrated to examine the entirety of the Spring Island plantation complex, rather than a single site.

It is also essential that the picturesque landscape at 38BU1, if not green spaced, be thoroughly documented. There are few plantation sites in the Low Country where such well documented features exist. In addition, it is also essential that immediate steps be taken to ensure the long-term preservation of the standing tabby ruins at 38BU1. These ruins offer a wealth of both archaeological and architectural data available on few other sites

-- in this respect 38BU1 may appropriately be considered unique and eligible for inclusion on the National Register of Historic Places at a national level of significance.

There are a series of 23 tenant sites recorded for Spring Island. Of these 17 (74%) are found on well drained soils, while only six are on the somewhat poorly to poorly drained soils of Spring Island. Only two sites (38BU777 and 38BU803/1213) clearly date from the Copp occupation. The remainder date from the late postbellum through the early twentieth century.

Of these sites, six are recommended as eligible for inclusion in the National Register: 38BU753 (because of the prehistoric component), 38BU758 (because of the prehistoric component), 38BU777, 38BU793 (the South Carolina State Historic Preservation Office has previously concurred with the eligibility determination of this site), 38BU803/1213, and 38BU1212. These latter three sites have standing architectural remains which have received preliminary recording through this survey, while 38BU777 exhibits only pier supports and a standing chimney.

These tenant sites are of particular importance since they record the black experience during transition from slavery to freedom. Like their slave ancestors, the southern tenants represent a class largely forgotten by traditional history. Illiterate, poor, and largely ignored by white society, little is known of the life of black tenants. The only means of revealing this aspect of Spring Island's history is through archaeological investigations. As previously discussed by Brooker, the vernacular architecture characterizing these tenant houses is poorly recorded and even less well understood.

Consequently, the tenant sites on Spring Island recommended for inclusion in the National Register should receive either permanent preservation or data recovery. However, even if green spacing is undertaken, full architectural recordation of the standing structures is essential. Each structure is in some stage of impairment and long-term preservation of the structures is not feasible.

Future Research Orientation

Spring Island offers a unique opportunity to examine a single plantation with multiple settlements, using both diachronic and synchronic approaches. For this reason there is virtually no redundancy in the plantation sites -- each site which exhibits clear integrity is considered significant.

Although the colonial settlements exhibit some disturbance, it is essential that information regarding architectural remains, subsistence, and artifact pattern analyses be collected. The only colonial period excavations conducted in the Beaufort area are

those by Chicora at Haig Point (on Daufuskie Island) and at Cotton Hope (on Hilton Head). There is very little information available regarding the lifeways of either plantation owners or plantation slaves during this time period. Work at Spring Island can contribute to a better understanding of these questions.

During the antebellum period a series of at least five slave settlements were established on Spring Island. These settlements provide an opportunity to examine the growth of the plantation, the treatment and lifeways of slaves, and the architecture used in slave housing during this period on Spring Island. Research should be directed toward obtaining appropriate samples of both house and yard areas. It is appropriate to examine a minimum of at least three structures at each settlement, with complete exposure of at least one structure at each site. During this work it is essential that adequate samples of floral, faunal, and shellfish remains are collected for detailed subsistence studies.

The examination of these slave settlements, while certainly useful in isolation from one another, could assume even greater significance if they were integrated into a cohesive research framework comparing and contrasting the various settlements. As previously indicated, much of their significance is drawn from their ability to answer questions regarding the change over time and space on Spring Island. It seems essential that these studies be integrated to provide a view of slavery on all of Spring Island.

In addition to the slave settlements, there are two areas where utilitarian buildings have been identified on the island. These sites have the potential to provide significant architectural data on structures rarely investigated within the plantation framework. Little archaeological investigation has been conducted into the industrial and storage aspects of plantation life.

The examination of the main Edwards settlement has the potential to answer a number of questions surrounding its architecture, dating, use, and patterning. Of particular interest is the service building which may have sheltered house servants in a structure with urban affinities. The recovery of excellently preserved ethnobotanical remains indicates this structure has the potential to yield significant dietary information. Two other below ground structures have been identified on the basis of the survey, but their functions remain unknown.

In the late nineteenth and early twentieth centuries a number of tenant sites were established on Spring Island. Several of these have been recommended as eligible for inclusion on the National Register. These sites have the potential for provide information on the lifeways of black farmers from the period immediately after the Civil War through the period of plantation revitalization by a northern owner.

Green Spacing and Other Development Concerns

It may be possible to green space a number of these sites. This approach is recognized as an appropriate, and often cost-effective mitigation measure for archaeological site conservation. Such green spacing, however, must ensure the permanent protection and integrity of the archaeological data. Seven recommendations are offered if green spacing is to be considered. These provisions, however, are subject to the review and approval of the State Historic Preservation Office.

1. All site areas are to be blocked out in the field with a buffer sufficient to ensure complete protection of the remains.
2. All clearing within the areas must be conducted by hand. No heavy equipment may be used and all cut vegetation should be removed from the site area.
3. The areas must continue to be clearly defined during all phases of construction. No equipment will be allowed in these areas, or be allowed to use the areas as turn-arounds. The areas will not be used to stockpile supplies or be otherwise disturbed. All personnel, including contractor's personnel, should be strictly forbidden from entering the areas.
4. Sites selected for green spacing, if currently under cultivation, must be planted in grass, and removed from further agricultural activity.
5. Any landscaping in the areas will be conducted by hand and ground disturbance must be limited to the upper 0.2 foot of soil. No utilities, including sprinkler lines or shallow electrical cables will be placed through the areas.
6. Callawassie Development Corporation must develop a historic easement or protective covenant protecting those areas set aside in green spacing and this protection must be in perpetuity.
7. Appropriate security must be provided to ensure that no one digs or otherwise disturbs the various sites.

As previously discussed, several of the sites are unsuitable for green spacing. In particular, while the archaeological components of 38BU1 may be green spaced, the tabby ruins are in need of immediate long-term preservation. Green spacing, without this additional step, is equivalent to demolition through neglect. In addition, green spacing the standing tenant structures without the preparation of detailed architectural drawings, given the

deteriorated condition of the dwellings, will not ensure the long term preservation of the architectural information these structures contain.

Even for those eligible sites where data recovery will be selected form of mitigation, it is essential that ground disturbing activities be prevented until such time as excavation is undertaken. At a minimum, Callawassie Development Corporation should ensure that all agricultural activities cease and that no construction equipment be allowed in the vicinity of the sites.

SOURCES CITED

- Allston, R. F. W.
1854 Essay on Sea Coast Crops. A.E. Miller, Charleston.
- Abbott, Abeil
1832 Journey to Savannah. Ms. on file, Essex Institute Library, Essex, Connecticut.
- Baldwin, Agnus
1966 History of Spring Island Plantation, Beaufort County, South Carolina. Ms. on file, Chicora Foundation, Inc., Columbia.
- Bense, Judith A., Hester A. Davis, Lorraine Heartfield, and Kathleen Deagan
1986 Standards and Guidelines for Quality Control in Archaeological Resource Management in the Southeastern United States. Southeastern Archaeology 5:52-62.
- Berry, Michael W.
1982 George Barksdale. Hugenot Society of South Carolina Transactions 87:133.
- Biggs, Loutrel W.
1951 Charleston Gardens. University of South Carolina Press, Columbia.
- Binney, Marcus
1980 Planter's Summer Retreat, Beaufort, South Carolina I. Country Life, March 27.
- Braudel, Fernand
1976 The Mediterranean and the Mediterranean World in the Age of Phillip II. Volume 1. Harper and Row, New York.
- Brockington, Paul, Michael Scardaville, Patrick H, Garrow, David Singer, Linda France, and Cheryl Holt
1985 Rural Settlement in the Charleston Bay Area: Eighteenth and Nineteenth Century Sites in the Mark Clark Expressway Corridor. Garrow and Associates, Atlanta. Submitted to the S.C. Department of Highways and Public Transportation, Columbia.
- Brooker, Colin
n.d. A Survey of Tabby Structures on Spring Island Plantation, South Carolina. Ms. on file, Chicora Foundation, Inc., Columbia.

- 1988 Architecture of the Haig Point Slave Rows. In Archaeological Investigations at Haig Point, Webb, and Oak Ridge Tracts, Daufuskie Island, Beaufort County, South Carolina, edited by Michael Trinkley, pp. 208-243. Research Series 15. Chicora Foundation, Inc., Columbia.
- 1989 Architectural Remains at 38BU806. In An Archaeological Survey of the Barker Field Expansion Project, Hilton Head Island, South Carolina, edited by Michael Trinkley, pp. 39-49. Research Series 17. Chicora Foundation, Inc., Columbia.
- Brooks, Mark J. and James D. Scurry
 1978 An Intensive Archaeological Survey of Amoco Realty Property in Berkeley County, South Carolina with a Test of Two Subsistence-Settlement Hypotheses for the Prehistoric Period. Research Manuscript Series 147. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Brooks, Mark J., Larry Lepionka, Ted A. Rathbun, and John Goldsborough
 1982 Preliminary Archaeological Investigations at the Callawassie Island Burial Mound (38BU19), Beaufort County, South Carolina. Research Manuscript Series 185. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Caldwell, Joseph
 1943 Cultural Relations of Four Indian Sites of the Georgia Coast. Unpublished Ph.D. dissertation, Department of Anthropology, University of Chicago, Chicago.
- Calhoun, Jeanne
 1983 The Scourging Wrath of God: Early Hurricanes in Charleston, 1700-1804. Leaflet No. 29. The Charleston Museum, Charleston, South Carolina.
- Carse, Robert
 1981 Department of the South: Hilton Head Island in the Civil War. State Printing, Columbia.
- Clowse, Converse D.
 1971 Economic Beginnings in Colonial South Carolina, 1670-1730. University of South Carolina Press, Columbia.
- Coe, Joffre L.
 1964 The Formative Cultures of the Carolina Piedmont. Transactions of the American Philosophical Society 54(5).

- Colquhoun, Donald J.
 1969 Geomorphology of the Lower Coastal Plain of South Carolina. Division of Geology, S.C. State Development Board, Columbia.
- Colquhoun, D.J., M.J. Brooks, W.H. Abbott, F.W. Stapor, W.S. Newman, and R.R. Pardi
 1980 Principles and Problems in Establishing a Holocene Sea-Level Curve for South Carolina. In Excursions in Southeastern Geology, edited by James D. Howard, Chester B. DePratter, and Robert W. Frey, pp. 143-159. Guidebook 20. Geological Society of America, Atlanta.
- Cooke, C. Wythe
 1936 Geology of the Coastal Plain of South Carolina. Bulletin 867. U.S. Geological Survey, Washington, D.C.
- Craton, Michael
 1978 Searching for the Invisible Man: Slaves and Plantation Life in Jamaica. Harvard University Press, Cambridge.
- Deagan, Kathleen
 1983 Spanish St. Augustine: The Archaeology of a Colonial Creole Community. Academic Press, New York.
- DeBow, J.D.B.
 1853 The Seventh Census of the United States: 1850. Robert Armstrong, Washington, D.C.
- DePratter, Chester
 1978 Prehistoric Settlement and Subsistence Systems, Skidaway Island, Georgia. Early Georgia 6:65-80.
- 1979 Ceramics. In The Anthropology of St. Catherines Island 2. The Refuge-Deptford Mortuary Complex, edited by David Hurst Thomas and Clark Spencer Larsen, pp. 109-132. Anthropological Papers of the American Museum of Natural History 56(1).
- DePratter, Chester and J.D. Howard
 1980 Indian Occupation and Geologic History of the Georgia Coast: A 5,000 Year Summary. In Excursions in Southeastern Geology, edited by James D. Howard and Chester B. DePratter, and Robert W. Frey, pp. 1-65. Guidebook 20. Geological Society of America, Atlanta.
- Drucker, Lesley and Susan Jackson
 1984 Shell in Motion: An Archaeological Study of the Minim Island National Register Site, Georgetown County, South Carolina. Carolina Archaeological Services, Columbia. Submitted to Charleston District, U.S. Army Corps of

Engineers, Charleston.

Federal Writers' Project

1938 Beaufort and the Sea Islands. Review Printing, Savannah.

Ferguson, Leland G.

n.d. Human Interaction in the Indian Villages of La Florida: Anthropology and Archaeology. Ms. on file, Department of Anthropology, University of South Carolina, Columbia.

Ferris, Robert G., editor

1968 Explorers and Settlers. U.S. Department of the Interior, National Park Service, Washington, D.C.

Flint, Richard F.

1971 Glacial and Quaternary Geology. John Wiley and Sons, New York.

Forten, Charlotte

1864 Life on the Sea Islands. Atlantic Monthly 12(79):587-596.

Fripp, Nellie Hasell

1951 Bluffton Now and Then. Ms. on file, South Carolina Historical Society, Charleston.

Genovese, Eugene

1972 Roll Jordan, Roll: The World the Slaves Made. Random House, New York.

Glassow, Michael A.

1977 Issues in Evaluating the Significance of Archaeological Resources. American Antiquity 42:413-420.

Goodyear, Albert C., John H. House, and Neal W. Ackerly

1979 Laurens-Anderson: An Archaeological Study of the Inter-Riverine Piedmont. Anthropological Studies 4. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Graber, Oleg, Renata Holod, James Knustad, and William Trousdale

1978 City in the Desert: Qasr al-Hayr East. Harvard University Press, Cambridge.

Hammond, Harry

1884 Report on Common Production of the State of South Carolina. In Report on the Cotton Production in the United States, edited by Eugene W. Hilgard, pp. 451-526. Census Office, Department of the Interior, Washington, DC.

- Handler, J.S. and F.W. Lange
 1978 Plantation Slavery in Barbados. Harvard University Press, Cambridge.
- Harrar, Ellwood S. and J.G. Harrar
 1962 Guide to Southern Trees. Dover Publications, New York.
- Hartley, Michael O.
 1984 The Ashley River: A Survey of Seventeenth Century Sites. Research Manuscript Series 192. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Hilliard, Sam B.
 1975 The Tidewater Rice Plantation: An Ingenious Adaptation to Nature. Geoscience and Man 12:57-66.
 1984 Atlas of Antebellum Southern Agriculture. Louisiana State University Press, Baton Rouge.
- Hoffman, Paul E.
 1984 The Chicora Legend and Franco-Spanish Rivalry in La Florida. The Florida Historical Quarterly 62:419-438.
- Holmgren, Virginia C.
 1959 Hilton Head: A Sea Island Chronicle. Hilton Head Island Publishing, Hilton Head Island, South Carolina.
- Huneycutt, Dwight J.
 1949 The Economics of the Indigo Industry in South Carolina. Unpublished M.A. Thesis, Department of Economics. University of South Carolina, Columbia,
- Hussey, Christopher
 1927 The Picturesque: Studies in a Point of View. G.P. Putnam's Sons, London.
- Iseley, N. Jane and William P. Baldwin, Jr.
 1985 Plantations of the Low Country: South Carolina 1697-1865. Legacy Press, Greensboro, North Carolina.
- Janiskee, Robert L. and Michael Bell
 1980 Climate. In Soil Survey of Beaufort and Jasper Counties, South Carolina, edited by W.M. Stuck, pp. 1-2. Soil Conservation Service, U.S. Department of Agriculture, Washington, DC.
- Johnson, Guion G.
 1969 A Social History of the Sea Islands. Negro Universities Press, New York.

Jones, Grant D.

- 1978 The Ethnohistory of the Guale Coast Through 1684. In The Anthropology of St. Catherines Island: Natural and Cultural History, edited by David H. Thomas, Grant D. Jones, Roger S. Durham, and Clark S. Larsen, pp. 178-210. Anthropological Papers 55(2). American Museum of Natural History, New York.
- 1981 Guale Indians of the Southeastern United States Coast. In Excursions in Southeastern Geology, edited by James D. Howard, Chester B. DePratter, and Robert W. Frey, pp. 215-224. Guidebook 20. Geological Society of American, Atlanta.

Kennedy, Joseph C.G.

- 1864 Agriculture of the United States in 1860. Government Printing Office, Washington, DC.

Kent, B.W.

- 1988 Making Dead Oysters Talk. Maryland Historical Trust, Arnold, Maryland.

Kurtz, Herman and Kenneth Wagner

- 1957 Tidal Marshes of the Gulf and Atlantic Coasts of Northern Florida and Charleston, South Carolina. Studies 24. Florida State University, Tallahassee.

Landers, H.

- 1970 Hilton Head and the Sea Islands of South Carolina. Climatography of the United States Number 21-383. Environmental Science Services Administration, U.S. Department of Commerce, Washington, DC.

Lane, Mills

- 1984 Architecture of the Old South: South Carolina. Beehive Press, Savannah, Georgia.

la Rochefaucauld Liancourt, duc de

- 1799 Travels Through the United States of North America in the Years 1795, 1796 and 1797. London.

Lawrence, D.R.

- 1988 Oysters as Geoarchaeologic Objects. Geoarchaeology 3:267-274.
- 1989 Molluscs from the Track Site (38BU927), Beaufort County, South Carolina. Submitted to U.S. Army Corps of Engineers, Savannah District.

Lepionka, Larry

- 1986 Archaeological Reconnaissance Survey of Spring Island, Beaufort County, South Carolina. Ms. on file, South

Carolina Department of Archives and History, Columbia.

Lepionka, Larry, Donald Colquhoun, Rochelle Marrinan, David McCollum, Mark Brooks, John Foss, William Abbott, and Ramona Grunden

- 1983 The Second Refuge Site: Location 22 (38JA61), Savannah National Wildlife Refuge, Jasper County, South Carolina. University of South Carolina, Beaufort. Submitted to National Park Service, Interagency Archaeological Service, Atlanta.

Lewis, Kenneth E.

- 1979 Initial Investigations at an Eighteenth Century Rice Plantation in the Santee River Delta, South Carolina. Research Manuscript Series 151. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Linley, John

- 1982 The Georgia Catalog, Historic American Buildings Survey. University of Georgia Press, Athens.

Martin, Chlotilde R.

- 1931 Spring Island. The (Charleston) News and Courier. January 4, page 6-A.

Mathews, Thomas, Frank Stapor, Jr., Charles Richter, John Milgarese, Michael McKenzie, and Lee Barclay

- 1980 Ecological Characterization of the Sea Island Region of South Carolina and Georgia, volume 1. Office of Biological Services, United States Fish and Wildlife Service, Washington, D.C.

McDowell, W.L., editor

- 1955 Journals of the Commissioners of the Indian Trade. Colonial Records of South Carolina, South Carolina Department of Archives and History, Columbia.

McGuire, Mary J.

- 1982 Getting Their Hands of the Land: Black Farmers in St. Helena Parish, 1861-1900. Unpublished M.A. thesis, Department of History, University of South Carolina, Columbia.

- 1985 Getting Their Hands on the Land: The Revolution in St. Helena Parish, 1861-1900. Unpublished Ph.D. dissertation, Department of History, University of South Carolina, Columbia.

Michie, James L.

- 1977 The Late Pleistocene Human Occupation of South Carolina. Unpublished Honor's Thesis, Department of Anthropology,

University of South Carolina, Columbia.

Milanich, Jerald T.

1971 The Deptford Phase: An Archaeological Reconstruction. Ph.D. dissertation, University of Florida. University Microfilms, Ann Arbor.

Miller, George L.

1980 Classification and Economic Scaling of 19th Century Ceramics. Historical Archaeology 14:1-40.

Milling, Chapman J.

1969 Red Carolinians. University of South Carolina Press, Columbia.

Mills, Robert

1826 Statistics of South Carolina. Hurlbut and Lloyd, Charleston.

Mooney, James

1894 The Siouan Tribes of the East. Bulletin 22. Bureau of American Ethnology, Washington, DC.

Noel Hume, Ivor

1970 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.

Odum, Eugene P.

1971 Fundamentals of Ecology. Third Edition. W.B. Saunders, Philadelphia.

Olmsted, Frederick Law

1856 A Journey in the Seaboard Slave States. Dix and Edwards, New York.

Pearson, Colin

1987 Conservation of Marine Archaeological Objects. Butterworth, London.

Peterson, Drexel

1971 Time and Settlement in the Archaeology of Groton Plantation, South Carolina. Unpublished Ph.D. Dissertation, Department of Anthropology, Harvard University, Cambridge.

Phelps, David S.

1984 Archaeology of the Tillett Site: The First Fishing Community at Wanchese, Roanoke Island. Archaeological Research Report 6. Archaeology Laboratory, Department of Sociology, Anthropology and Economics, East Carolina University, Greenville.

- Price, Cynthia R.
 1979 19th Century Ceramics in the Eastern Ozark Boarder Region. Monograph Series 1. Center for Archaeological Research, Southwest Missouri University, Springfield.
- Quattlebaum, Paul
 1956 The Land Called Chicora. University of Florida Press, Gainesville.
- Quitmyer, Irvy
 1985a Aboriginal Subsistence Activities in the Kings Bay Locality. In Aboriginal Subsistence and Settlement Archaeology of the Kings Bay Locality, vol. 2, edited by William H. Adams, pp. 73-91. Reports of Investigations 2. Department of Anthropology, University of Florida, Gainesville.
- 1985b The Environment of the Kings Bay Locality. In Aboriginal Subsistence and Settlement Archaeology of the Kings Bay Locality, vol. 2, edited by William H. Adams, pp. 1-32. Reports of Investigations 2. Department of Anthropology, University of Florida, Gainesville.
- Rose, Willie Lee
 1964 Rehearsal for Reconstruction: The Port Royal Experiment. Oxford University Press, London.
- Rosengarten, Theodore
 1987 Tombee: Portrait of a Cotton Planter. McGraw-Hill, New York.
- Rowland, Lawrence S.
 1978 Eighteenth Century Beaufort: A Study of South Carolina's Southern Parishes to 1800. Unpublished Ph.D. dissertation, Department of History, University of South Carolina, Columbia.
- Sandifer, Paul A., John V. Miglarese, Dale R. Calder, John J. Manzi, and Lee A. Barclay
 1980 Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 3. Office of Biological Services, Fish and Wildlife Service, Washington, DC.
- Scott, Robert N.
 1891 The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. Series 1, Volume 35, Part 1. Government Printing Office, Washington, D.C.
- Scurry, James D. and Mark J. Brooks
 1980 An Intensive Archaeological Survey of the South Carolina

State Ports Authority's Bellview Plantation, Charleston, South Carolina. Research Manuscript Series 158. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Seabrook, Whitemarsh B.

1848 An Essay on the Agricultural Capabilities of South Carolina. John G. Bowman, Columbia.

Service, E.R.

1966 The Hunters. Prentice-Hall, Englewood.

Singleton, Theresa A.

1980 The Archaeology of Afro-American Slavery in Coastal Georgia: A Regional Perception of Slave Household and Community Patterns. Ph.D. dissertation, University of Florida, Gainesville. University Microfilms, Ann Arbor.

Smith, Alice R. Huger and D.E. Huger

1917 The Dwelling Houses of Charleston, South Carolina. J.B. Lippincott, Philadelphia.

Smith, Lynwood

1933 Physiography of South Carolina. Unpublished M.S. Thesis, Department of Geology, University of South Carolina, Columbia.

South, Stanley

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

1979 The Search for Santa Elena on Parris Island, South Carolina. Research Manuscript Series 150. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1980 The Discovery of Santa Elena. Research Manuscript Series 165. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1982a A Search for the French Charlesfort of 1562. Research Manuscript Series 177. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1982b Exploring Santa Elena 1981. Research Manuscript Series 184. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1983 Revealing Santa Elena 1982. Research Manuscript Series 188. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

- 1984 Testing Archaeological Sampling Methods at Fort San Felipe 1983. Research Manuscript Series 190. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- South, Stanley and Mike Hartley
 1980 Deep Water and High Ground: Seventeenth Century Low Country Settlement. Research Manuscript Series 166. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Starr, Rebecca K.
 1984 A Place Called Daufuskie: Island Bridge to Georgia 1520-1830. Unpublished M.A. Thesis, Department of History, University of South Carolina, Columbia.
- Stoney, Samuel Gaillard
 1964 Plantations of the Carolina Low Country. Carolina Art Association, Charleston.
- Stuck, W. M.
 1980 Soil Survey of Beaufort and Jasper Counties, South Carolina. Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C.
- Swanton, John R.
 1952 The Indian Tribes of North America. Bulletin 145. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.
 1922 Early History of the Creek Indians and Their Neighbors. Bureau of American Ethnology, Bulletin 73. Government Printing Office, Washington, D.C.
- Thomas, David H. and Clark S. Larsen
 1979 The Anthropology of St. Catherine's Island: The Refuge-Deptford Mortuary Complex. Anthropological Papers 56(1). American Museum of Natural History, New York.
- Thompson, Morrow B.
 1972 What is an Estuary? In Port Royal Sound Environmental Study, edited by the S.C. Water Resources Commission, pp. 7-15. State Printing Company, Columbia.
- Trinkley, Michael
 1981 Studies of Three Woodland Period Sites in Beaufort County, South Carolina. South Carolina Department of Highways and Public Transportation, Columbia.
 1982 A Summary Report of the Excavations at Alligator Creek, Charleston County, S.C. U.S.D.A., Forest Service, Columbia.

- 1983 Ceramics of the Central South Carolina Coast. *South Carolina Antiquities* 15:43-54.
- 1985 The Form and Function of South Carolina's Early Woodland Shell Rings. In *Structure and Process in Southeastern Archaeology*, edited by R.S. Dickens and H. Trawick Ward, pp. 102-118. University of Alabama Press, Birmingham.
- 1987 Archaeological Survey of Hilton Head Island, Beaufort County, South Carolina. Research Series 9. Chicora Foundation, Columbia.
- 1989a An Archaeological Survey of the Phase 1 Spring Island Development, Beaufort County, South Carolina. Research Series 18. Chicora Foundation, Inc., Columbia.
- 1989b Archaeological Investigations at Haig Point, Webb, and Oak Ridge, Daufuskie Island, Beaufort County, South Carolina. Research Series 15. Chicora Foundation, Inc., Columbia.
- Trinkley, Michael, editor
- 1986 Indian and Freedmen Occupation at the Fish Haul Site (38BU805), Beaufort County, South Carolina. Research Series 7. Chicora Foundation, Inc., Columbia.
- Trinkley, Michael, S. Homes Hogue, Martha Zierden, and Jack H. Wilson
- 1983 Test Excavations at the Wachesaw Landing Site, Georgetown County, South Carolina. Publication Number 20. North Carolina Archaeological Council, Raleigh.
- United States Treasury Department
- 1862 The Negroes at Port Royal: Report of E.L. Pierce, Government Agent, to the Honorable Salmon P. Chase, Secretary of the Treasury. R.F. Wallcut, Boston.
- Waddell, Gene
- 1980 Indians of the South Carolina Low Country. Reprint Company, Spartanburg, South Carolina.
- Walthall, John A.
- 1980 Prehistoric Indians of the Southeast: Archaeology of Alabama. University of Alabama Press, University.
- Waring, Antonio J., Jr.
- 1961 Fluted Points on the South Carolina Coast. *American Antiquity* 26:550-552.
- Wiebenson, Dora
- 1978 The Picturesque Garden in France. Princeton University Press, Princeton.

Williams, Stephen, editor

- 1968 The Waring Papers: The Collected Works of Antonio J. Waring, Jr. Papers of the Peabody Museum of Archaeology and Ethnology 58. Harvard University, Cambridge.

Wilson, Homes H.

- 1982 An Analysis of Skeletal Material from Bw'67, Brunswick County, North Carolina. Unpublished M.A. Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Woofter, T.J.

- 1930 Black Yeomanry: Life on Saint Helena Island. Henry Holt, New York.

Zierden, Martha and Jeanne Calhoun

- 1983 An Archaeological Assessment of the Greenfield Borrow Pit, Georgetown County. The Charleston Museum, Charleston, South Carolina.

APPENDIX 1. SITE DESCRIPTIONS FROM THE PHASE 1 SURVEY

These site descriptions have been previously reported in Trinkley (1989a), but are included here for ease of reference. The South Carolina State Historic Preservation Officer concurred that sites 38BU747, 38BU763, 38BU793, 38BU1210, 38BU1211, and 38BU1214 are eligible for inclusion on the National Register of Historic Places (letter from Ms. Mary Watson Edmonds, Deputy State Historic Preservation Officer to Mr. H. Stephen Snyder, South Carolina Coastal Council dated December 12, 1989). Since that time data recovery excavations have been conducted at two of these National Register eligible sites, 38BU747 and 38BU1214. The results of the excavations at 38BU747 are discussed in this study, while the results of work at 38BU1214 will be published in a future Chicora Foundation Research Series.

38BU747

Site 38BU747 is situated on the north edge of the Phase 1 development in the vicinity of the proposed bridge connecting Spring and Callawassie islands. The UTM coordinates are E515600 N3577100 and the site measures about 225 feet by 140 feet. Elevation in the site area ranges from 10 to 12 feet and the soils are poorly drained Coosaw series. It is located on the north edge of a small tidal slough and consists of at least two areas of primarily oyster shell midden. This site has been previously identified by Lepionka as his Site 24, locus S59, although the location was misplaced on the various maps. It appears that Lepionka placed several shovel tests in this site, as well as a small excavation unit. Materials recovered during the Chicora survey include two Deptford Cord Marked sherds, both of which came from an area between the middens. No evidence of site damage was identified and site integrity appears high. A total of 16 shovel tests were excavated within the site boundaries and material has been recovered from a maximum depth of 1.1 feet.

This site represents a relatively small Deptford phase camp oriented toward shellfish collection. The site has the potential to yield information on Deptford settlement and subsistence activities. The site is recommended as eligible for inclusion on the National Register of Historic Places. Appropriate mitigation could include either green spacing or data recovery. If data recovery is necessary, at least two units should be placed within midden areas to recover subsistence data, while two additional units should be placed in non-midden areas to determine if features such as post holes or pits are present.

38BU748

Site 38BU748 was originally recorded by Lepionka as Site 25. It is situated 1300 feet inland from the marsh at the northeast corner of the Phase 1 tract on excessively well drained Wando soils. The site elevation is 24 feet and the central UTM coordinates are E516120 N3576920. This site was investigated through a series of 15 shovel tests and the site boundaries, on the basis of this testing, have been established as 800 feet northeast-southwest by 200 feet east-west. This area was previously identified by Lepionka as Site 25.

The site incorporates several fields, now in second growth pine, and several mixed hardwood and pine forest areas. Artifacts recovered include one Deptford Plain, one Deptford Cord Marked, and one Stallings Plain from shovel tests. In addition, one Stallings Plain, one Deptford Plain, one Deptford Cord Marked, and one quartz anvil fragment were recovered from the surface. The shovel tests reveal extensive plow disturbance and no areas of clear site integrity could be identified. Shell middens were previously associated with the site, but are now thoroughly distributed through the fields and wooded areas. As a result, this site is recommended as not eligible for inclusion on the National Register and no further investigations are recommended.

38BU759

Site 38BU759 consists of two areas of shell midden associated with an extinct freshwater slough adjacent to the marsh in the middle of the Phase 1 tract. The central UTM coordinates are E515960 N3576180. The site loci are at an elevation of 5 to 8 feet and are associated with Eddings soils. Both middens are eroding from the bank in an area of mixed hardwood and pine vegetation. The northern locus measures about 75 by 10 feet, while the southern locus measures 100 by 10 feet. These two middens were tested by a total of 20 shovel tests, but no cultural remains could be identified further inland than about 6 feet. The southern midden had been recorded by Lepionka as Site 36, locus S56; the northern midden was apparently not previously recorded.

No materials were recovered from either midden, although it is probable that they represent small Middle Woodland occupations. Because the site has been heavily eroded and is today nothing more than a thin veneer of shell, 38BU759 is recommended as not eligible for inclusion on the National Register and no additional work is recommended.

38BU760

Site 38BU760 is a small shell midden situated on a point of Murad sand at the south end of the Phase 1 development tract. The central UTM coordinates are E515375 N3575800 and the site elevation

is about 5 feet. A series of eight shovel tests, placed in the site area, reveal that the midden does not extend inland more than 10 feet, while it extends about 100 feet along the marsh edge. The maximum depth of the shell midden is 0.3 foot, with it rapidly thinning out toward the southeast (inland). No artifacts were found associated with this midden, although it, like 38BU759, is thought to represent the Middle Woodland.

This site was originally identified by Lepionka as Site 37, although a more northern locus (identified as S54) could not be recovered during this survey. The site has been extensively eroded with only minimal midden left intact in the bank. The absence of cultural remains inland from the midden suggest that the site has been largely destroyed. Consequently, 38BU760 is recommended as not eligible for inclusion on the National Register of Historic Places and no further work is recommended.

38BU762

Site 38BU762 is situated about 300 feet inland from 38BU760 in an area of heavy cultivation. The central UTM coordinates are E515460 N3575750 and the site is situated at an elevation of 13 feet on Murad soils. This site was originally recorded by Lepionka as Site 39, although the Chicora investigations have reduced its size and slightly shifted the site location. A series of 10 shovel tests were excavated at this site, establishing site boundaries of about 400 by 150 feet. The maximum depth of cultural remains was found to be 1 foot, with all materials recovered from the plowzone.

Only one specimen was recovered from this site, a Deptford Plain sherd. Based on the low density of artifacts and the highly plowed nature of the field, it appears that this site possesses a very low level of site integrity. It is recommended as not eligible for inclusion on the National Register and no further investigations are warranted.

38BU763

Site 38BU763 is found at the south end of the Phase 1 tract surrounding a large tidal impoundment. This site was originally identified by Lepionka as Site 2 with no subdivision into various loci. These recent investigations have retained the original site number, but have divided the site into four loci, designated A through D. Locus A represents a small remnant shell midden adjacent to the marsh which has been damaged by the impoundment construction and which is now isolated on an artificial island. Locus B consists of a series of small shell middens to the south of the impoundment and adjacent to a small freshwater pond. Locus C, situated on the north side of the impoundment, is a small shell midden. Locus D, situated to the east of the impoundment, is a deeply plowed prehistoric midden with a historic component. The central UTM coordinates for loci A through C are E515240 N3575550, while the

coordinates for locus D are E515540 N3575400. The various site areas are all found on Eddings soils and range in elevation from 5 to 10 feet.

Locus A has been tested by two non-systematic shovel tests, each 1.5 feet square. These tests have produced primarily Early Woodland materials to a maximum depth of 3.1 feet. Recovered were 13 Stallings Plain sherds, one Thom's Creek Shell Punctate sherd, one Wilmington Cord Marked sherd, 12 unidentifiable sherds, eight animal bones, and one chert Savannah River projectile point fragment. Recovered from the surface of this locus were 22 Stallings Plain sherds, one Thom's Creek Plain sherd, one Thom's Creek Incised sherd, 12 unidentifiable sherds, and two baked clay object fragments. This locus covers an area about 50 feet square.

Locus B is found on a level area between the impoundment and a freshwater pond to the south of locus A. A series of 17 shovel tests were excavated in this area in order to establish site boundaries and also to obtain a small sample of artifacts. The site consists of several intact shell middens and additional areas of shell dispersed through construction and cultivation. Only two shovel tests produced temporally sensitive remains -- one Deptford Cord Marked sherd and eight St. Catherines Cord Marked sherds. This site covers an area 400 feet north-south by 250 feet east-west.

Locus C is situated on the north side of the impoundment on a small point of low ground. The area consists of at least one intact shell midden about 0.4 foot in depth. Two shovel tests were excavated in this locus, although no artifacts were recovered. This site area is thought to cover about 30 feet in diameter.

Locus D is situated in a cultivated field to the east of the impoundment's southern tip. A series of 15 shovel tests were excavated in the site vicinity and an additional 31 auger tests were placed in the locus to further examine the area. While this locus has produced primarily Middle Woodland sherds, there is also a historic component. Material recovered from the shovel tests includes one kaolin pipe bowl fragment, one colono sherd, one machine cut nail fragment, and three unidentifiable prehistoric sherds. A surface collection yielded two Deptford sherds, one brown bottle glass fragment, one aqua bottle glass fragment, and six mortar fragments with wattle or lathing impressions. The auger tests yielded one undecorated pearlware ceramic, one Colono ware sherd, one machine cut nail fragment, one unidentifiable nail fragment, seven Deptford Cord Marked sherds, six Deptford Plain sherds, 17 unidentifiable sherds, one chert flake, and one animal bone. In addition, the auger tests produced a small quantity of fired brick and additional examples of wattle impressed mortar fragments. This locus covers an area of 500 by 250 feet.

Although locus A has been damaged by the construction of the

impoundment, the depth of deposits, the temporal period represented, and the abundance of faunal remains, indicates that the remnants of this site area are capable of yielding significant information about Early Woodland occupation on Spring Island. This locus, therefore, is recommended as eligible for inclusion on the National Register and should either be green spaced or excavated. If green spacing is not practical, at least three 10-foot units should be excavated to recover a sample of the cultural remains present. Locus B, which represents a Middle Woodland shell midden, appears to have a high degree of site integrity and is capable of yielding information on both Middle Woodland settlement and subsistence questions. This area is also recommended as eligible for inclusion on the National Register and should also be green spaced or subjected to data recovery. If excavation at this site is necessary, it should include the examination of at least two spatially discrete shell middens, as well as several areas between middens. Locus C, although small, appears to represent an intact Middle Woodland shell midden similar to sites 38BU759 and 38BU760. At present, these small middens appear qualitatively distinct from the larger middens such as locus B and deserve additional investigation. Consequently, this locus is also recommended as eligible for inclusion on the National Register of Historic Places. Green spacing is the preferred alternative, although data recovery could be accomplished with the excavation of up to three 10-foot units.

The final locus (area D) appears to represent thoroughly plowed shell middens with little integrity. Of greater interest than the prehistoric remains, however, is the presence of the nineteenth century artifacts and mortar with wattle impressions. These historic remains can be isolated to a concentration measuring about 40 feet in diameter which is thought to represent the remains of a small structure. The artifacts recovered are indicative of a domestic use and the status of both the archaeological and architectural remains appears consistent with a slave occupation. There is, however, no evidence of additional structures. Isolated slave structures are occasionally reported in historical accounts, although they are rarely recognized in archaeological research. While this locus has particular importance to our interpretation of the Spring Island plantation complex, the site appears to have lost its integrity through intensive cultivation. As a result, it is recommended as not eligible for inclusion on the National Register as a distinct portion of the overall site.

38BU764

Site 38BU764 is situated about 200 feet to the east of site 38BU763D in a wooded area adjacent to a cultivated field. The central UTM coordinates are E515650 N3575520 and the site is found in an area of Eddings soil at an elevation ranging from 11 to 13 feet. Materials were found to cover an area measuring about 300 by 150 feet, although the site core could be defined in an area

approximately 50 feet in diameter. This site was originally identified by Lepionka as Site 41, although this recent work does not incorporate his locus F97E since it is spatially distinct from 38BU764 and is situated outside the Phase 1 boundaries.

A series of 10 shovel tests, two of which produced specimens, were excavated within the site boundaries. Recovered were one Deptford Check Stamped sherd and one unidentifiable sherd.

The shell midden at this site is sparse and appears to have been heavily damaged by previous cultivation or logging. Artifact quantity and variety are low. As a result, this site is recommended as not eligible for inclusion on the National Register and no additional investigations are recommended.

38BU793

This site is situated adjacent to the main dirt road bordering the eastern side of the Phase 1 development tract. The original mapping provided for the survey boundaries excluded this site and it was not until the completion of the field work that it became apparent that the Phase 1 boundaries would encompass this area. Consequently, only minimal investigations have been carried out at this site.

The site, which consists of an early twentieth century tenant house built on a Deptford phase shell midden, is situated on Eddings soils at an elevation of 14 feet MSL. Site vegetation consists of dense mixed hardwoods and pine, except for an area around the structure which has been periodically bush hogged and lightly disked. The central UTM coordinates are E515570 N3575180. The site boundary is estimated to encompass an area of approximately 100 feet in diameter.

Because this site was not originally included in the Phase 1 development tract, no shovel or auger tests were conducted. A brief, unsystematic grab surface collection, however, produced four undecorated whiteware ceramics, one industrial stoneware fragment, three milk glass fragments, and a hard rubber toy gun fragment. Prehistoric remains at the site include one Deptford Check Stamped sherd, one Deptford Cord Marked sherd, and two Refuge sherds.

Also present at the site are the standing architectural remains of a vernacular tenant structure, probably built in the first quarter of the nineteenth century (based on cartographic sources, architectural evidence, and historical documentation). The structure is notable as an example of the housing being built for black sea island tenants during this period. Most of the wood for the structure appears to have been made on the island, with only the finishing details brought from off the island. The piers for the structure are re-cycled tabby blocks, taken from an, as yet, unidentified nineteenth century site. The house has a shed

extension and an extended through-passage design. The structure is in dilapidated condition, with extensive wood boring insect damage to the structural timbers. In addition, the chimney has been completely robbed. The structure has been briefly examined by Mr. Colin Brooker, an architectural historian working with Chicora Foundation on Spring Island.

Site 38BU793 is one of three nearly identical examples of tenant housing recorded by Chicora. One of the other two, 38BU1212, is in excellent condition, while the third, 38BU1213, is in very poor condition. We recommend 38BU793 as eligible for inclusion on the National Register because it represents the architecture typical of Spring Island in the early twentieth century. There are very few well documented examples of isolated sea island vernacular architecture and this structure has the ability to provide significant insights into the building technology and design of the period. In addition, the site is eligible for the historic archaeological remains present, which have the potential to provide information on tenant dietary patterns and status reconstructions.

The archaeological remains at 38BU793 are suitable for green spacing, or data recovery. Data recovery would involve the excavation of up to eight units in the vicinity of the structure to investigate refuse disposal practices and recover additional archaeological remains. The architectural remains at the site, however, are unsuitable for green spacing since it is unlikely that the structure could be cost effectively preserved. Green spacing, then, would be demolition through neglect. The architectural data present at the structure should be thoroughly recorded to Historic American Building Survey standards which will include both photographic documentation and scaled drawings. This documentation should be curated at the South Carolina Department of Archives and History and at the National Park Service.

38BU1207

Site 38BU1207 is situated at the south edge of the Phase 1 tract, about 400 feet southwest of 38BU763D. The central UTM coordinates are E515400 N3575250. The site is in a heavily wooded area on Eddings soils at an elevation of 13 feet. An impounded tidal slough is located about 200 feet to the northeast and separates this site from 38BU763D. Site boundaries have been established, on the basis of shovel and auger tests, to be about 300 by 300 feet.

This site represents a multicomponent site, with a thin veneer of shell midden covering the entire area. Portions of this midden have been heavily damaged by previous cultivation or logging, although a few areas exhibit some limited degree of integrity. A series of 15 shovel tests and 17 auger tests have been excavated at the site. The shovel tests yielded one iron buckle, one aqua panel bottle fragment, one unidentifiable metal fragment, one Thom's

Creek Reed Punctate sherd, one Deptford Plain sherd, three Deptford Cord Marked sherds, two Deptford Incised sherds, three unidentifiable sherd, one chert flake, and two animal bones. The auger tests produced two black bottle glass fragments, two aqua bottle glass fragments, one machine cut nail fragment, 12 Deptford Plain sherds, two Deptford Cord Marked sherds, one Deptford Check Stamped sherd, one Deptford Incised sherd, and two unidentifiable sherds. In addition, both the shovel and auger tests yielded mortar fragments with wattle impressions very similar to those found at 38BU763D.

The earliest occupation at this site appears to have been during the Early Woodland with use continuing through the Middle Woodland. This component contributed the shell midden found scattered across the site today. The historic component probably dates from the nineteenth century and in all respects appears to be identical to that identified at 38BU763D. Unfortunately, this site has also been heavily damaged by cultivation or logging and there is very limited site integrity. This site is recommended as not eligible for inclusion on the National Register of Historic Places and no further investigations are recommended.

38BU1208

Site 38BU1208 is situated in the middle of the Phase 1 tract and consists of a single positive shovel test. The central UTM coordinates are E516120 N3576550. The site is situated on Seabrook soils at an elevation of 20 feet. The site is in a forested area immediately west of a field in second growth pine. The single item recovered from the three shovel tests is a Deptford Incised sherd. The site has been estimated to cover an area 20 feet in diameter and there is no evidence of site integrity. As a result, this site is recommended as not eligible for inclusion on the National Register of Historic Places.

38BU1209

Site 38BU1209 is also situated in the central area of the Phase 1 development and is probably associated with an adjacent small spring-fed slough. The area is today moderately vegetated with an open understory. Soils in the site area are Eddings sands and the elevation is about 20 feet. The central UTM coordinates are E515980 N3576660. A series of five shovel tests were excavated to establish site boundaries of 150 feet east-west by 30 feet north-south (with the site essentially oriented parallel to the marsh slough). A single Deptford Cord Marked sherd was recovered from these tests in an area of dense shell midden. The only other area of midden has been extensively damaged by recent land clearing.

This site appears to lack sufficient integrity to be considered eligible for inclusion on the National Register. Consequently, no further investigations are recommended for this

site.

38BU1210

Site 38BU1210 is situated at the north end of the Phase 1 development tract, south of a tidal inlet. The central UTM coordinates are E515750 N3576860. Soils in the site area are Eddings sands and the elevation ranges from 16 to 19 feet. Adjacent to the marsh there is a low bluff with eroding shell. It was based on this visible shell that Lepionka defined his Site 24, locus S58. To the north the topography gradually slopes to the slough. The site is characterized by a mixed hardwood and pine forest with a light understory. The site consists of a series of shell middens roughly oriented east-west, parallel to the slough. Site boundaries have been established based on the shovel tests and the site measures about 500 feet east-west by 200 feet north-south.

A series of 14 shovel tests were excavated within the site, yielding one Deptford Cord Marked sherd, two unidentifiable sherds, and one chert flake. A single Stallings Plain sherd was recovered from the surface of a clearing within the site area. As with other sites of this type, the few sherds recovered were found between shell middens, not within the middens.

This site represents an intact Middle Woodland site with a series of small, discrete shell middens. The site appears to exhibit a high degree of integrity and is capable of yielding information on Middle Woodland settlement and subsistence. The site is recommended as eligible for inclusion on the National Register of Historic Places. Green spacing is the preferred mitigation alternative, although if this is not possible, development impact to the site can be mitigated through data recovery. Excavations at this site should emphasize the excavation of up to three shell midden areas, with testing in adjacent non-midden areas.

38BU1211

Site 38BU1211 is a small shell midden adjacent to the south shore of an impounded tidal slough in the middle of the Phase 1 tract. Soils are Murad sands and the site elevation is 5 feet. The central UTM coordinates are E515920 N3576010. The site is characterized by salt-tolerant scrub vegetation and is eroding into the Callawassie Creek marsh. Lepionka identified this midden as Site 36, locus S55, lumping it with locus S56 (which has been assigned site number 38BU759).

The site has been tested with six shovel tests which revealed a dense midden of oyster and ribbed mussel covering an area 100 feet along the shore and continuing inland 30 feet. The midden has a maximum depth of 1.5 feet. While no prehistoric sherds were encountered in the midden, abundant charcoal was found. Lepionka has attributed this midden to non-cultural activity, specifically

raccoons. This is an entirely implausible explanation for a midden of this size and depth which contains charcoal. It appears more likely that this is a specialized gathering site dating from the Middle Woodland period.

This site appears somewhat similar to sites such as 38BU759 and 38BU760, except that it has retained considerable integrity and has been subjected to only minor erosion. Since these small shoreline sites are qualitatively distinct from the larger groups of shell middens at sites such as 38BU763B and 38BU1210, they pose significant questions regarding site settlement, function, and subsistence base. This site is recommended as eligible for inclusion on the National Register of Historic Places. Either green spacing or data recovery is appropriate mitigation to development.

38BU1214

Site 38BU1214 is a large cluster of shell middens located about 300 feet south of and spatially isolated from 38BU1210. The central UTM coordinates are E515890 N3576790 and the site is situated on Eddings sands at an elevation of 20 feet. This site was previously recorded by Lepionka as Site 24, locus S57, but has been given a new site number by this survey to keep it distinct from the other loci identified by Lepionka over an area of 1800 linear feet along the shore. The site is in an area of mixed hardwood and pine with a generally light understory. The site was initially recognized by Lepionka based on the eroding shoreline, although the extent of the site inland was not recognized until this current survey. Site 38BU1214 is situated on a sandy rise which gradually drops to the north and south. To the west there is a high bluff overlooking the Callawassie Creek marsh.

The site, which measures 600 by 300 feet, was investigated by 17 shovel tests and 27 auger tests. The shovel tests yielded one Stallings Plain sherd, six Deptford Plain sherds, and two Deptford Cord Marked sherds. The auger tests produced three Deptford Plain sherds and one Deptford Cord Marked sherd. At least three areas of dense shell midden have been identified within this site, although it is likely that at least a dozen middens probably occur in the site area. As with previous examples of these larger Middle Woodland middens, pottery tends to be associated with non-midden areas, rather than with the shell middens.

Site integrity at 38BU1214 is regarded as high. The discrete midden areas may represent either a temporal range of site use or discrete occupation areas within a more limited period of use. The site has the potential to contribute significant data regarding Deptford phase site settlement and subsistence. As a result, this site is recommended as eligible for inclusion on the National Register of Historic Places. If green spacing is impractical, this site should receive data recovery which investigates at least three distinct midden areas, as well as at least one area between the

middens.

**Archaeological
Investigations**

Historical Research

Preservation

Education

Interpretation

Heritage Marketing

**Museum Support
Programs**



Chicora Foundation, Inc.
PO Box 8664 • 861 Arbutus Drive
Columbia, SC 29202-8664
Tel: 803-787-6910
Fax: 803-787-6910
www.chicora.org