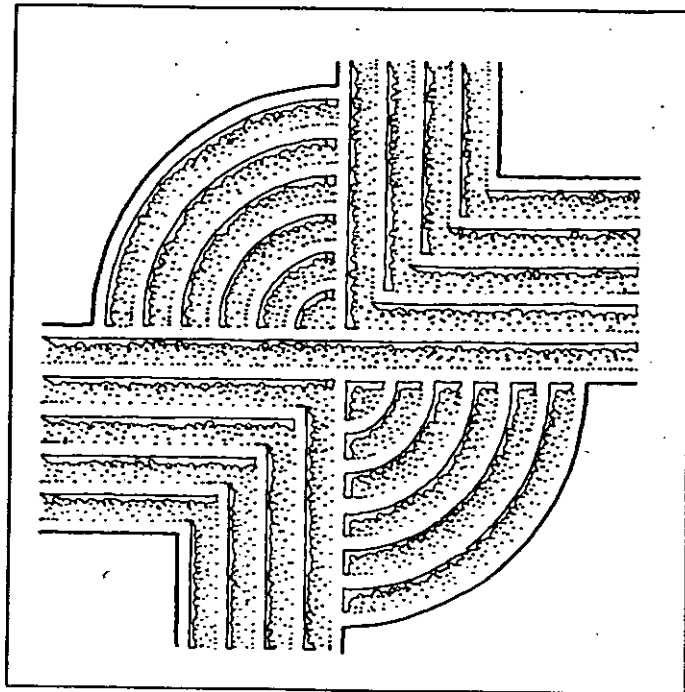


MANAGEMENT SUMMARY OF ARCHAEOLOGICAL
DATA RECOVERY EXCAVATIONS AT 38BU464, AND
38BU1249, CALLAWASSIE ISLAND, BEAUFORT
COUNTY, SOUTH CAROLINA



RESEARCH CONTRIBUTION 51

© 2001 by Chicora Foundation, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, or transcribed in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission of Chicora Foundation, Inc. except for brief quotations used in reviews. Full credit must be given to the authors, publisher, and project sponsor.

MANAGEMENT SUMMARY OF ARCHAEOLOGICAL DATA RECOVERY
EXCAVATIONS AT 38BU464, AND 38BU1249,
CALLAWASSIE ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA

Prepared For:

Mr. Glen McCaskey
Chernoff/Silver and Associates
P.O. Box 6069
Hilton Head Island, South Carolina 29938

Prepared By:

Michael Trinkley

Chicora Research Contribution 51

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

October 5, 1990

Introduction

Callawassie Island is bordered to the north by the Chechessee Creek, to the east by a tributary of the Chechessee Creek and the Callawassie Creek, to the south and west by the Colleton River. The island is separated from neighboring Spring Island by the Callawassie Creek, which runs north-south. The Broad River lies to the east of Callawassie Island (Figure 1).

Large portions of the island have been previously developed and Chicora Foundation's investigations were limited to a series of seven areas encompassing about one-quarter of the total island. As a result of an intensive archaeological survey conducted by Chicora Foundation, Inc. on the first and second phases of the proposed Callawassie Island development (Trinkley 1990a, 1990b), six archaeological sites were determined by the South Carolina State Historic Preservation Officer (SC SHPO) as eligible for inclusion in the National Register of Historic Places. A Memorandum of Agreement between the SC SHPO and the Callawassie Development Corporation, currently pending, requires that these eligible sites be green spaced or receive data recovery excavations. In discussions with the SC SHPO, Callawassie Development Corporation determined that two sites (38BU428 and 38BU1263) would be green spaced while the remaining four sites (38BU19, 38BU464, 38BU1249, and 38BU1262) would receive data recovery excavations.

Chicora Foundation was requested by the developer's agent, Mr. Glen McCaskey, to develop a proposal for data recovery at the four sites which could not be green spaced. A proposal for those investigations was submitted by Chicora on August 6, 1990 and the work was approved by the SC SHPO on September 5, 1990 (letter from Dr. Linda Stine to Mr. Glen McCaskey). The work was approved by the developer on August 24, 1990.

This management summary has been prepared immediately upon completion of the fieldwork and does not contain information on artifact or subsistence analyses. It is intended solely to provide a brief descriptive statement of the work conducted by Chicora and to allow the SC SHPO to verify that the proposed work has actually been accomplished. The management summary is minimally necessary for Callawassie Development Corporation to continue to the development of the land encompassing 38BU464 and 38BU1249. This construction will destroy portions of the sites and, of course, created the need for archaeological mitigation activities initially.

Archaeological investigations were begun at 38BU464 by a crew of four (including the principal investigator) on September 3, 1990

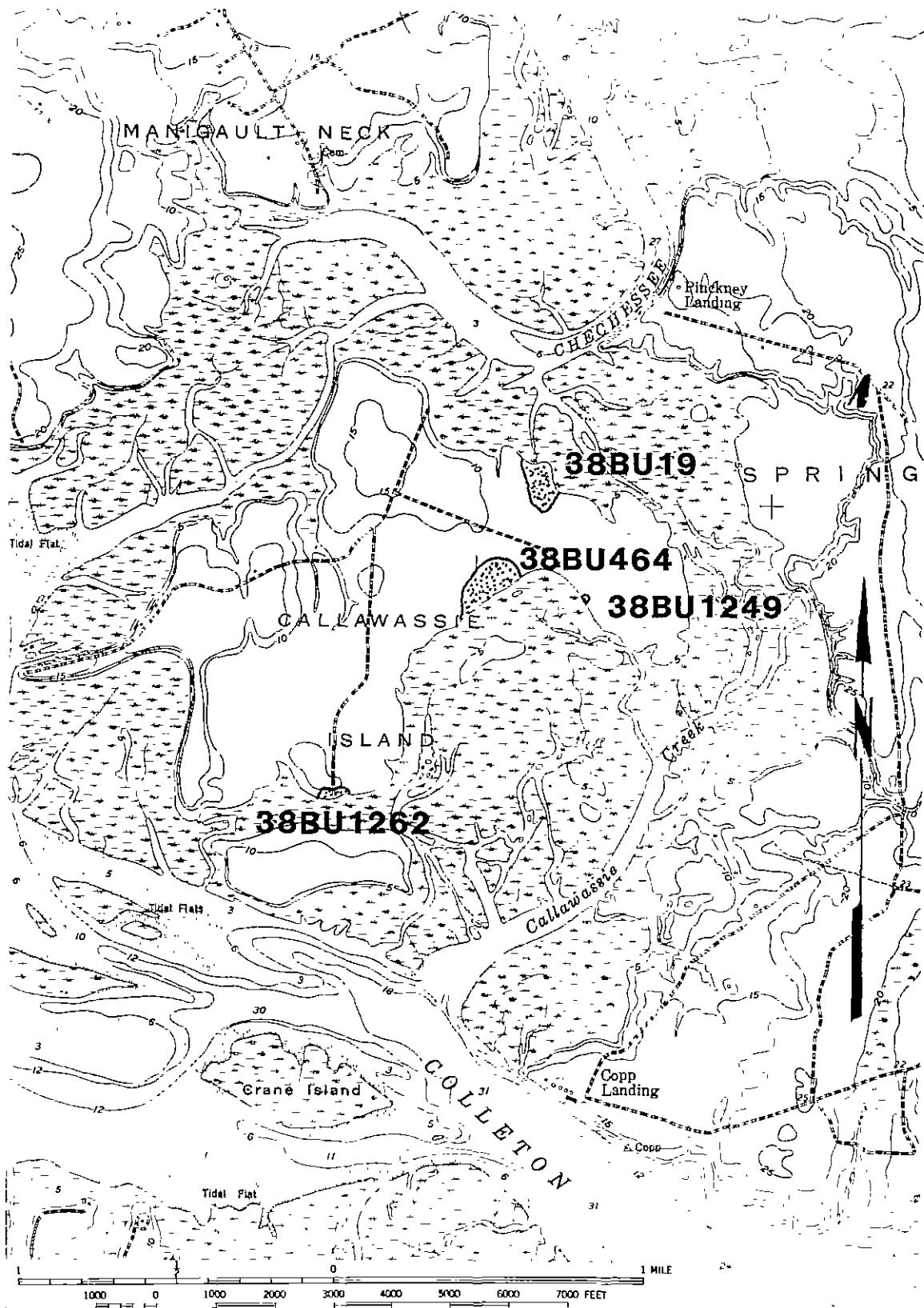


Figure 1. Callawassie Island showing the investigated sites.

and continued through September 28, 1990. A total of 520 person hours were spent in the field and an additional 70 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 1330 square feet of site area were opened and 808 cubic feet of soil and shell were moved in primary excavations, all screened through either 1/4 or 1/8-inch mesh. Excavations at 38BU1249 were begun on October 1 and continued through October 3, 1990 by a crew of four. A total of 400 square feet were opened with 191 cubic feet of primary excavations. A total of 96.5 person hours were devoted to the field investigations.

A representative of Callawassie Development Corporation was notified verbally on September 28, 1990 that the work at site 38BU464 was completed and that the units could be backfilled. Investigations at 38BU1249 are likewise completed and these excavations may also be backfilled by Callawassie.

Previous Investigations

Site 38BU464 was originally recorded by Michie in 1982. At that time Michie noted that the site, a shell midden up to a foot in depth, was situated in the interior of the island in a forest. The site was estimated to measure 50 by 80 feet and Michie recommended additional work at the site (38BU464 site form, South Carolina Institute of Archaeology and Anthropology). These current investigations have found that the site measures at least 700 by 650 feet (which suggests that Michie found only the portion of the site visible on the surface). Today about half of the site has either been cleared for the construction of Fairway 27 or has been damaged through the construction of roads and tennis courts.

The central UTM coordinates are E514200 N3576800. Soils are classified as Eulonia sands and the elevation is about 14 feet MSL. The site is found on a sandy ridge overlooking the Callawassie Creek marsh. A series of 44 shovel tests at 25 to 100 foot intervals initially identified a series of discrete middens exhibiting integrity in the forested area on the east half of the site. Materials recovered included two Stallings sherds (4%), eight Deptford sherds (16%), one Mount Pleasant sherd (2%), 21 St. Catherines sherds (42%), one Altamaha sherd (2%), one Catawba sherd (2%), and 14 unidentifiable sherds (28%). Additional tests were conducted by Chicora during data recovery at 25 foot intervals providing more even coverage of the site. While the site was occupied from about 2000 B.C. through A.D. 1600, it appears that the most intensive settlement occurred during the Middle Woodland St. Catherines phase, about A.D. 1000.

Site 38BU1249 is situated on Fairway 25, about 500 feet east of 38BU464. The site area is in a maritime forest with only minimal exposure along the Callawassie Creek shore. The soils in the site

area are Eulonia sands and the site elevation is 5 to 12 feet MSL. The central UTM coordinates are E514720 N3576720. A series of 18 shovel tests were excavated, revealing site boundaries of 175 feet north-south by 200 feet east-west. The midden at this site appeared unusual in that it is largely composed of periwinkle. Materials recovered include four Deptford sherds and two unidentifiable sherds.

Site 38BU464 was recommended as eligible for inclusion on the National Register because it appeared to represent a large Middle to Late Woodland encampment, possibly associated with the St. Catherines burial mound (38BU19) on Callawassie Island (see Brooks et al. 1982). Site 38BU1249 appeared to represent a relatively small late Early Woodland Deptford phase Type 2 shell midden. Both sites were thought to be able to make significant contributions to Woodland Period settlement and subsistence questions.

Both Chicora and the SC SHPO, however, recognized that sites such as 38BU464 and 38BU1249 require excavation and analyses different from many other sites if they are to yield useful data. Specifically, the major thrust of the excavations were to gather valid subsistence samples for dietary, seasonal, and ecological studies. A second thrust, based on previous investigations at 38BU747 (on Spring Island), was a more intensive examination of interior areas adjacent to the middens. It was hoped that this approach would identify structural remains and evidence of intra-site activity areas. In many ways, the work at 38BU464 and 38BU1249 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 in the Beaufort area.

Excavations at 38BU464

The grid, established N50°E, parallel to the marsh, was tied into several surveyed golf fairway center line points in order to maintain long-term horizontal control. This base line established along the edge of the marsh is considered grid east-west. Although the site is expected to be heavily impacted by golf fairway construction, two permanent points were established for the grid system (both along the base line, one at 300R300 and the other at 300R500). Vertical control was maintained through the use of an assumed elevation datum (the top of the iron rebar marking grid point 300R300, with an AE of 10.00 feet).

Units were established using a modified Chicago 10-foot grid, with each square designated by its southeast corner, from a 0R0 point at the southwest corner of the site. Thus the southwest corner of square 10R20 would be located north 10 feet and right (or east) 20 feet from the 0R0 point.

Work at the site was begun during the survey phase through the excavation of a series of shovel tests on a 25-foot grid pattern

over the site area. The purpose of this testing was to identify specific midden areas. The 25-foot interval was selected since previous work suggested that the shell middens tended to be 20 to 25 feet in diameter. On the basis of this testing, which covered an area 250 by 600 feet (approximately one-half of the total site -- the remainder having been previously heavily damaged by clearing and other development activities).

The next phase of investigations at 38BU464 involved selecting four middens for the excavation of one 10-foot unit in each. An attempt was made to select middens in different site areas, although two middens were relatively close to one another for comparative purposes. These four middens include:

1. 250R310 (excavation of 100 square feet)
2. 280R290-300, 275R330 (excavation of 250 square feet)
3. 300R430 (excavation of 80 square feet)
4. 250, 255-265R730; 250, 255-265R740; 255R750-760 (excavation of 700 square feet).

In addition, two areas of seemingly dense midden were excavated at 335R550 and 395-400R475 (each excavation area totaling 100 square feet). These areas, however, were discovered to represent plowed middens and are correlated with an old field.

Stratigraphy across the site appears to be similar. Zone 1 consists of 0.2 to 0.5 foot of humic brown sand with only a small quantity of shell. Zone 2 is shell midden varying in depth from 0.3 to 1.0 foot. The subsoil at the site is a tan to yellow sand. Based on the perceived density of the shell midden in the plowed areas these were excavated as Zone 2.

One midden area (250, 255-265R730; 250, 255-265R740; 255R750-760) was selected for more intensive investigation. This included opening additional units around the midden, as well as exposure of approximately 75% of the extant midden (a portion of which had been destroyed by an dirt farm road). This midden is estimated to have originally been about 20 feet in diameter with a maximum depth of 1.0 foot.

Soil from the midden excavations was dry screened through 1/8-inch mesh using mechanical sifters. 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 (with shell/soil weight ratios ranging from 1:0.1 to 1:2.7; in comparison the plowed middens contained

shell/soil ratios of 1:2.8 and 1:3.4). Lawrence also requested that a sample of right oyster valves be collected for more specific seasonal analysis.

The qualitative field assessment suggested that the middens were 99% oyster, with only very small quantities of clam, periwinkle, ribbed mussel, razor clam, and whelk. A series of three column samples, however, were sorted by shell species. These revealed that oyster comprises 42.4 to 74.6% of the shell by weight. Periwinkle comprises from 3.4 to 7.3% of the samples by weight. Clam, razor clam, ribbed mussel, cockle, and mud dog whelks were also identified. The low numbers of these species suggests that they were incidentally collected during oyster gathering. The examination of the oyster remains will include species diversity, habitat information, season of collection, and preparation techniques.

The quantity of animal bone was found to be highly variable, both from midden to midden, and also within different areas of the same midden. The faunal remains, based on field assessments include quantities of fish and small mammals, but relatively few large mammals. Ethnobotanical remains appear to be sparse, although charred hickory nutshell fragments are common throughout the site.

Zone 1 soils were screened through 1/4-inch mesh. The increase in mesh size for these zones was based on our belief that small bones, absent the alkaline environment of the shell midden, would not be preserved in the naturally acidic soils. In those areas not associated with middens, and in the plowzone middens, bone was, in fact, very uncommon and the use of the larger screen size appears appropriate.

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 revealed at least 12 potential features (not including post holes), 8 (67%) of which were excavated (including Features 1 through 8). Six of these are shell pits (Features 1, 2, 3, 5, 6, and 8) with variable degrees of use and complexity. All of these features, however, are found at the edges or under the shell midden deposits. Feature 4 represents a burnt and crushed shell lens within one of the middens. The final example, Feature 7, represents a trench associated with the structural remains discussed below.

Artifacts recovered from the middens and features are predominately St. Catherines and Savannah phase pottery, with small quantities of lithic debris, and one example of worked bone. Occasional examples of Irene pottery are also encountered in the excavations. While this summary represents only a preliminary assessment of the site, it is possible that the St. Catherines,

Savannah, and Irene wares are contemporaneous.

At the base of the 250R730-740, 255-265R730, 255-265R740, 255R750-760 St. Catherines and Savannah midden evidence was found of an earlier, Deptford phase, structure. This structure, consisting of five post holes and a trench (Feature 7), was apparently preserved from adjacent plowing, by the overlying midden. The structure is attributed to the Deptford phase, rather than the St. Catherines and Savannah phases, based on the occurrence of only Deptford pottery in the associated post holes and yellow subsoil sand within and immediately adjacent to the structure. The post holes and trench outline about 50% of a roughly circular structure 15 feet in diameter. No Deptford phase pits were identified in the structure area.

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 1990.7. All specimens will be evaluated for conservation needs prior to curation, although field assessments indicate that the prehistoric materials are stable.

Excavations at 38BU1249

The grid, established N29°30'W, parallel to the marsh, was tied into several surveyed golf fairway center line points (100R300 is FW 25 9+00, 300R300 is FW 25 11+00) in order to maintain long-term horizontal control. This base line established along the edge of the marsh is considered grid north-south. Given the limited site area, no permanent grid points were established, although the grid could be reconstructed using the center line points. Vertical control was maintained through the use of an assumed elevation datum (a nail in the base of a pine tree at 304R305, assigned an AE of 10.0 feet).

Units were established using a modified Chicago 10-foot grid, with each square designated by its southeast corner, from a 0R0 point at the southwest corner of the site. Thus the southwest corner of square 10R20 would be located north 10 feet and right (or east) 20 feet from the 0R0 point.

During the survey phase several small subsurface midden areas were identified which exhibited a high density of periwinkle shells. Although a relatively low density of pottery was encountered, the remains appeared to date from the late Early Woodland Deptford phase. These investigations relocated one of the previously identified middens and work concentrated in this single site area. A series of four 10-foot units (290R310-340) were laid out to form a 10 by 40 foot trench bisecting the midden and exploring the area of the midden interior from the marsh.

Stratigraphy in the site area includes Zone 1 humic brown sand soil up to 0.5 foot in depth and Zone 2 dense shell midden, both overlying a tan to yellow sand subsoil. The investigated shell midden, identified primarily in 290R320, is estimated to be about 12 feet in diameter and to have a maximum depth of 0.5 foot.

Soil from the midden excavations was dry screened through 1/8-inch mesh using mechanical sifters. In addition, a 2.25 foot square sample of the 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 the investigated midden (the shell/soil weight ratio is 1:1.3). Lawrence also requested that a sample of right oyster valves be collected for more specific seasonal analysis.

The qualitative field assessment suggested that the middens were largely oyster, with only very small quantities of clam, periwinkle, ribbed mussel, razor clam, and whelk. The column sample is being examined to provide more precise species information, although it is clear that the previous impression that the midden consisted primarily of periwinkle is in error. It is probable that the shovel tests revealed several periwinkle pockets or features. The examination of the oyster remains will include species diversity, habitat information, season of collection, and preparation techniques.

Zone 1 soils were screened through 1/4-inch mesh. The increase in mesh size for these zones was based on our belief that small bones, absent the alkaline environment of the shell midden, would not be preserved in the naturally acidic soils. In those areas not associated with middens, and in the plowzone middens, bone was, in fact, very uncommon and the use of the larger screen size appears appropriate.

Very little animal bone was recovered from these excavations, although the remains found include primarily fish, with very small numbers of mammal remains. Ethnobotanical remains appear to be sparse, although charred hickory nutshell fragments are found in the excavations.

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 revealed 4 potential features, 3 (75%) of which were excavated (including Features 1 through 3). All of these represent shell pits with variable degrees of use and complexity. Unfortunately, two (Features 1 and 3) evidence tree and root disturbance and only Feature 2 was completely excavated. All of these features, however, are found at the edges or under the shell midden deposits.

Artifacts recovered from the middens and features are predominately St. Catherines and Savannah phase pottery, with small quantities of lithic debris. While this summary represents only a preliminary assessment of the site, it appears that this site dates from the Late Woodland, not the Early Woodland as previously suspected.

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 1990.7. All specimens will be evaluated for conservation needs prior to curation, although field assessments indicate that the prehistoric materials are stable.

Interpretations

The excavations at 38BU464 have provided information on several very significant lines of research. First, the site settlement is suggestive of fairly intensive use, although no evidence of permanent structures was identified. The size of the site (prior to damage from agriculture and development activities), abundance of shell steaming pits around middens, and clear gradual accumulation of midden debris on at least one midden suggest that the site was repeatedly occupied by small groups over a fairly long periods of time. Additional information on this may be provided by a seasonality study of the faunal, ethnobotanical, and shellfish remains.

Second, the subsistence remains identified are suggestive of a diffuse economy. In comparison to Deptford middens, a diverse number of shellfish, including oyster, razor clam, ribbed mussel, clam, and periwinkle, were routinely collected. Faunal remains suggest the exploitation of large and small mammals, as well as a wide diversity of fish. Further analysis of the fish remains will probably reveal the presence of small species being carried into the tidal creeks at high tide, as well as larger predatory species. The ethnobotanical remains provide a good indication that hickory nut masts were being exploited.

Third, there is compelling evidence that the St. Catherines and Savannah wares being found at the site are contemporaneous. It may be that they were being manufactured by the same group, or it may be that the two were in contact. Regardless, the context of the archaeological remains makes it unlikely that there are two separate occupations present.

While excavations at 38BU1249 were limited, the data are entirely consistent with those found at 38BU464. As the tract on which these two sites are situated becomes more effectively cleared prior to development, it is increasingly apparent that these sites (as well as 38BU1251, 38BU1252, and 38BU1253) are all one vast

occupation area, probably related to the burial mound on Callawassie (38BU19). If this analysis is correct, these middens represent an extremely large Late Woodland occupation clustered around the very significant burial mound ceremonial center. No such similar settlement pattern has been identified in the South Carolina coastal area.

Sources Cited

- Brooks, Mark J., Larry Lepionka, Ted A. Rathbun, John Goldsborough, Jr.
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.
- Michie, James L.
1982 An Archaeological Investigation of the Cultural Resources of Callawassie Island, Beaufort County, South Carolina. Research Manuscript Series 176. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Trinkley, Michael
1990a Management Summary of an Archaeological Survey of the Callawassie Island Phase 1 Development, Callawassie Island, Beaufort County, South Carolina. Research Contribution 46. Chicora Foundation, Inc., Columbia.
- 1990a Management Summary of an Archaeological Survey of the Callawassie Island Phase 2 Development, Callawassie Island, Beaufort County, South Carolina. Research Contribution 48. Chicora Foundation, Inc., Columbia.