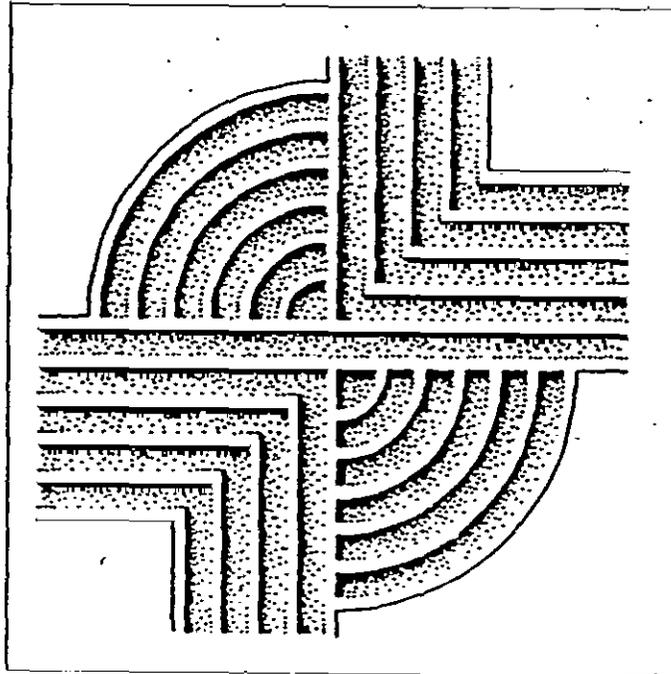


MANAGEMENT SUMMARY OF ARCHAEOLOGICAL SURVEY ON KIAWAH ISLAND, CHARLESTON COUNTY, SOUTH CAROLINA



RESEARCH CONTRIBUTION 60

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MANAGEMENT SUMMARY OF ARCHAEOLOGICAL SURVEY
ON KIAWAH ISLAND, CHARLESTON COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 60

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April 2, 1991

Introduction

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Ray Pantlik, Kiawah Resort Associates, developer of the approximately 3,300 acre Kiawah Island property. Kiawah Island is situated in Charleston County, south of the City of Charleston, and is bordered to north and west by the Kiawah River, to the east by the Stono River and Inlet, and to the south by the Atlantic Ocean. The island is separated from neighboring Folly Island to the east by the Stono Inlet, from Seabrook Island to the west by the Kiawah River, and Johns Island to the north by the Kiawah River and the associated marshes (Figure 1).

Large portions of the island have been developed as a residential resort community. This study, therefore, incorporates only those areas not currently developed or set aside as green spaced preserves. The survey area included approximately 959 acres in five separate parcels, identified as A, B, D, E, and F (Parcel C, the Vanderhorst Plantation tract, was not included in this study) (Figure 2). Each of these has been identified as having differing archaeological potential:

Area A - situated immediately north and south of Bass Pond and east of a marsh slough to the west of Bass Pond, encompassing approximately 109 acres. This is an area of high archaeological probability based on previous surveys, historical research, and topographic setting.

Area B - situated on an interior plain south of Bass Pond. This area incorporates approximately 119 acres. This area appears to have a low archaeological potential based on its distance from a water source and poorly drained soils.

Area D - representing approximately 245 acres of ridge and trough topography known as Cinder Point at the northeast end of the island. This area is thought to have a high archaeological potential based on the presence of previously identified archaeological sites.

Area E - representing approximately 117 acres of ridge and trough topography similar to Area D and known as Eagle Point. Although previously identified as an area of low archaeological potential, an analysis of the soils, topographic setting, and proximity to water suggests that the archaeological site density and diversity may be similar to Area D.

Area F - situated south of Bass Creek on the Atlantic Ocean side of the island, encompassing approximately 369 acres. This area incorporates Sandy Point. Examination of the Shoreline Movement Maps (South Carolina Department of Archives and History) reveals that this area has been accreting over the past 100 years. The archaeological potential is therefore evaluated as low.

Although development activities within these various tracts will be phases, all are anticipated to be opened for residential development within the next two to five years. This activity will involve the clearing, grubbing, filling, and grading of roadways. Construction activities will also include the placement of water and sewer lines, underground utilities, and disturbance caused by house construction on individual lots. These activities will result in considerable land alteration with potential damage to archaeological and historical resources which may exist in the project area.

This summary is intended to provide a synopsis of the archaeological survey of these five tracts; it is not intended to be a final report. The results of this work, and recommendations for additional work, will be more fully discussed in the final report of the survey to be prepared by Chicora Foundation.

The Programmatic Memorandum of Agreement for the archaeological resources of Kiawah Island (dated September 6, 1990) specifies that "presently undeveloped areas will be intensively surveyed prior to future development." As a further clarification, Dr. Linda Stine indicated that areas of high and low archaeological potential, as previously discussed, could be defined and could receive differing intensities of archaeological investigation (letter from Dr. Linda Stine to Mr. Ray Pantlik, July 9, 1990).

Chicora Foundation was requested by Mr. Ray Pantlik to prepare a proposal for the survey of these five tracts and that proposal was submitted to both Kiawah Resort Associates and the South Carolina State Historic Preservation Office on December 28, 1990. That proposal was accepted by Kiawah Resort Associates on January 10, 1991 and an agreement was signed on January 28, 1991.

The archival research for this study was largely completed for Chicora's data recovery excavations at the Shoolbred Plantation (38CH129), although additional research is currently be conducted for several of the newly discovered sites. Field work on the survey was conducted by Ms. Natalie Adams, Ms. Mona Grunden, Ms. Liz Pinckney, and Dr. Michael Trinkley from February 18 through March 14. This work required a total of 608 person hours, with an additional 32 person hours devoted to field processing of the resulting collections.

Arrangements have been made to curate the collections from

these investigations at The Charleston Museum as Accession Number 1991.8. Cataloging will be conducted to the facility's standards, using a lot provenience system. All field records will be provided to the institution on pH neutral, alkaline buffered paper and the photographic materials will be processed to archival permanence. Site forms have been submitted to the South Carolina Institute of Archaeology and Anthropology and duplicate copies will be provided to The Charleston Museum. Additional information on the processing and conservation of the artifacts may be found in a subsequent section of this management summary.

Effective Environment

Kiawah Island is a barrier island situated in Charleston County, South Carolina between Folly Island to the northeast, Seabrook Island to the southwest, and Johns Island to the north. The island is separated from Folly Island by the Stono Inlet from Seabrook Island by the Kiawah River, and from Johns Island by an expanse of marsh and the Kiawah River. The 3,300 acre (highland) island measures about 9 miles in length and 2 miles in width.

The island represents a Holocene beach ridge barrier island which, unlike many others, is prograding with a gradual seaward growth (Mathews et al. 1980:149). In fact, the northeastern end of the island has accreted approximately 4000 feet between 1890 and 1940. The only area of significant erosion is that portion of the island situated on the mouth of the Stono Inlet where approximately 1900 feet have eroded between 1890 and 1940 (Stephen et al. 1975).

Elevations on the island range from sea level to 25 feet above mean sea level (MSL). Prior to development the area was in maritime forest modified by fairly intensive agricultural activity (concentrated in recent times in the north central portion of the island). Today vegetation consists of live oak, loblolly pine, wax myrtle, and palmetto in areas of remnant maritime forest. Other areas are characterized by planted pine. Logging conducted after Hurricane Hugo has resulted in partial deforestation of some areas. Wetland vegetation is found in areas of freshwater and brackish impoundments, as well as in some trough areas.

The soils are typical of the area and consist of the Crevasse-Dawhoo complex (mixed drainage), the Dawhoo series (poorly drained), Kiawah series (poorly drained), Seabrook series (well drained), and Wando series (excessively drained) (Miller 1971). Area A consists of Wando, Seabrook, and Kiawah soils. Area B consists entirely of the poorly drained Seabrook, Kiawah, and Dawhoo series. Areas D, E, and F are all classified as the mixed Crevasse-Dawhoo complex.

Background Research

Portions of the areas investigated by Chicora have been

previously examined by Combes (1975), Lepionka (1981, 1982), and Michie (see Poplin n.d.), although none of these previous studies are appropriate for compliance purposes. Nevertheless, this previous work does provide information on the nature of Kiawah's archaeological resources, the geology and topography of the region, and documentation of the resources present on the island.

Of particular importance is the previous work conducted by Michie at the Shoolbred "Old Settlement," 38CH123. Although no report has been prepared for this work, Poplin (n.d.) has conducted a spatial analysis of artifact distribution and the S.C. Institute of Archaeology and Anthropology site files contain detailed notes on the artifact analyses.

The original work by Combes (1975) has identified a number of sites in the survey tract, although site descriptions and locations were minimal. Chicora's investigations attempted to re-identify and fully assess the sites previously identified by Combes during his reconnaissance survey of the island.

A detailed historical evaluation of the Shoolbred Plantation and its various owners has been conducted by Chicora using the resources of the South Carolina Historical Society, the South Caroliniana Library, the Charleston Library Society, the Historic Charleston Foundation, the South Carolina Department of Archives and History, and the Charleston Register of Mesne Conveyance. This study, while completed, has not yet been thoroughly evaluated and will be included in the final study.

The intensive survey of Kiawah Island also revealed the importance of additional research in the Civil War records pertaining to the island. While the current survey level does not warrant detailed research in the National Archives or examination of regimental histories, Chicora is undertaking further work using published accounts and has been provided valuable by Mr. James Legg. This information will also be included in the final study.

Field Methods

The initially proposed field methods (as outlined in the proposal submitted to the S.C. State Historic Preservation Office) involved an intensive, systematic field survey of the high probability tracts -- Areas A, D, and E. Chicora would employ the use of shovel testing on transect lines in order to provide a systematic examination of the vegetated areas.

Shovel tests, approximately 1.0 foot square, would be excavated at 100 foot intervals along transects also placed at 100 foot intervals. All soils would be screened through 1/4-inch mesh and all recovered cultural materials would be retained (excluding shell, brick, and mortar, which would be noted and discarded). Individual shovel tests would be flagged so that site loci could be

relocated should additional investigations be necessary.

If archaeological remains were discovered during this testing procedure, the spacing of the tests would be decreased to no greater than 50 feet (both parallel and perpendicular to the original test) in order to better identify the limits occupation. These shovel tests would assist not only in determining site boundaries, but also in determining site integrity, artifact density, and temporal periods of occupation.

Even within the high probability areas it was felt that some locales would evidence a greater potential for the preservation of archaeological remains than others. For example, although Areas D and E (Cinder and Eagle points) are characterized as having high archaeological probability, this potential appears to be limited to the sand ridges, excluding the low, poorly drained troughs. Consequently, the transects would be oriented to ensure that the ridges, rather than the troughs, received the greatest attention.

Those areas of low archaeological potential, identified as Areas B and F, would receive only minimal survey. This would involve a pedestrian survey of open and cleared areas coupled with shovel testing at 200 foot intervals along transects spaced at 200 feet. This represents a somewhat greater level of survey intensity than originally proposed by the S.C. State Historic Preservation Office Archaeologist (which indicated that "a pedestrian walk over and occasional, judgmental shovel tests" might be sufficient).

These proposed field methods were implemented with only minor modifications. Throughout many of the survey tracts extensive Hurricane Hugo damage was observed. In many cases the resulting ground disturbance increased surface visibility and allowed better than expected surface collection conditions. In such cases the originally proposed subsurface tested was supplemented by surface survey.

The originally proposed limited subsurface investigations in Area F were abandoned for more intensive survey when it became apparent that rather intensive use of the area was made by Union Army encampments during the Civil War.

In Areas D, E, and portions of F, it quickly became apparent that the troughs were even less likely to contain archaeological sites than originally supposed. These areas were very low, frequently exhibiting a water table within the upper 1.0 foot of the ground surface. Consequently, survey in these areas emphasized the higher ridges.

The only additional factor which should be noted is that the only map available for the survey were the 1959 Kiawah and Legareville USGS topographic sheets, last photorevised in 1971. These maps are dated and offer few topographic features useful in

forest surveys. They were supplemented by a circa 1980 color aerial photograph and an earlier blue-line aerial photograph of the island. However, many site locations must be considered approximate given the available mapping. To compensate for this, all potentially eligible sites were distinctly flagged in the field and may be plotted on more detailed development maps as they become available.

Information was collected at each identified site necessary for the completion of the S.C. Institute of Archaeology and Anthropology site forms. As previously mentioned all sites were recorded on the available USGS topographic maps.

Additional attention was directed to the sites known from previous investigations (e.g., Combes 1975) which are located in Areas A and D. While the normal survey methodology was carried out in these areas, Chicora archaeologists also attempted to relocate previously identified sites, assess their current condition, and synthesize previous archaeological investigations.

Laboratory Analysis

The cleaning of artifacts was initially conducted in the field so the site inventory forms could be completed, with subsequent analysis at the Chicora Foundation laboratories in Columbia. As previously discussed, these materials have been accepted for curation by The Charleston Museum as Accession Number 1991.8. All artifacts will be evaluated for conservation needs and will be treated by Chicora Foundation prior to final curation. The initial assessment indicates that the prehistoric materials are stable, although a number of iron artifacts will require treatment.

Site forms have been filed with the S.C. Institute of Archaeology and Anthropology. Field notes and photographic materials have been prepared for curation using archival standards and will be transferred to The Charleston Museum at the completion of the project.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric ceramics were classified using common South Carolina types (Trinkley 1983). The temporal, cultural, and typological classification of historic remains will follow Noel Hume (1970), Miller (1980, 1991), Price (1979), South (1977), and others.

Results

These investigations identified a total of 23 sites in the survey tracts. Seven previously identified sites were relocated and evaluated, two previously identified sites were determined to be one site, and 15 previously unidentified were recorded. In addition, two of Combes' (1975) sites (38CH218 and 38CH219) could

not be relocated during the field investigations.

Site 38CH123, also known as the "West Pasture Site," represents the eighteenth century main plantation settlement by Thomas Middleton and the nineteenth century slave settlement for the Shoalbred Plantation.

The UTM coordinates are E583900 N3608000-3607740 and the site is situated primarily on well drained Wando soils (although portions extend to the poorly drained Dawhoo series). The site is found at elevations ranging from 5 to 10 feet MSL and is situated on a sandy "terrace" overlooking a slough inlet to the west.

Originally reported by Combes as an protohistoric Indian village with eighteenth and nineteenth century artifacts (Combes 1975:A-14), a portion of the site was further investigated by Michie in 1978. Michie's work has not been published, although it was apparently undertaken as a preliminary step in a data recovery project which was never conducted. Michie did, however, excavate a series of 43 one-meter (3.2 feet) units at 12 meter (39 foot) intervals (covering an area about 230 by 320 feet). This work took place in the portion of the site originally identified by Combes, but failed to identify site boundaries.

The artifacts recovered by Michie apparently span the eighteenth and nineteenth century, clearing documenting the site's intensive use during this period. There is, however, little evidence to support Combes' contention that the site might represent a Kiawah Indian village (see S.C. Institute of Archaeology and Anthropology 38CH123 site files).

A series of 48 shovel tests were excavated in the site area, with 27 of these tests yielding artifactual remains (not including tests with only brick or shell). Based on the distribution of material from these tests, coupled with surface collections, the site is estimated to measure about 1500 feet north-south by 600 feet east-west.

Materials recovered from Chicora's testing include two light green bottle glass, 29 black bottle glass, one aqua bottle glass, two clear bottle glass, two undecorated creamware, three undecorated pearlware, four edged pearlware, two annular pearlware, one blue hand painted pearlware, 10 undecorated whiteware, one blue transfer printed whiteware, one polychrome hand painted whiteware, one annular whiteware, five salt glazed stoneware, one plain delft, one hand painted overglaze porcelain, one red earthenware with clear lead glaze, one colono sherd, nine window glass fragments, nine UID nail fragments, three machine cut nail fragment, five hand wrought nail fragments, three kaolin pipe stems, one iron tack, six UID metal fragments, one iron, 12 animal bone fragments, one flint nodule, and 13 unidentifiable sherds.

Also found during the survey were areas of brick rubble and scattered brick, suggesting structural remains in the immediate area of the study. Plaster fragments were recovered from at least one area.

These materials support the previous findings of both eighteenth and nineteenth century occupation in the site area. The presence of both high (porcelain, hand painted pearlware) and lower (annular pearlware and whiteware, lead glazed earthenware) status ceramics tends to support the historic documentation which suggests that the earliest settlement at this site was the Middleton main house, with the site being abandoned to the use of slaves in the nineteenth century.

The site has been damaged by several development related activities, including the use of an eastern fringe area for burning and the use of the area immediately south and west of the area tested by Michie for the storage of spoil. Without more detailed investigations it is difficult to assess this damage, although it appears that perhaps 25% of the total site area has been severely disturbed. The remaining 75%, however, exhibits very high site integrity.

This site is recommended as eligible for inclusion on the National Register of Historic Places. It possesses a high degree of site integrity and has the potential to yield significant information on eighteenth and nineteenth high and low status architecture and plantation life. The site takes on additional importance for comparative studies with the work recently conducted by Chicora at 38CH129.

Although green spacing is preferred for this site, it seems unlikely that such a measure is possible, especially considering the site covers an area of approximately 20 acres (although not in a uniform manner). Given the lessons learned during data recovery at 38CH129 it is essential that the first stage of data recovery at 38CH123 be a detailed close interval auger survey to identify structural locations and yard scatters. Once this is complete, a sample of all structures should be carefully excavated by hand. Research at this site must uniformly stress both architectural development, the collection of data useful for lifeways reconstructions, the analysis of trash disposal practices, and the reconstruction of plantation foodways.

Site 38CH218, originally reported by Combes (1975:A-19) to be a small "shell heap," this site could not be relocated during this study and is presumed destroyed.

Site 38CH219, described by Combes as "another small shell heap" (Combes 1975:A-19), could not be relocated during this survey and is thought to have been destroyed by natural erosion.

Site 38CH220, was originally described as a "scatter of shell" in one of the island roads (Combes 1975:A-20). This site was identified during the Chicora survey, but had been destroyed by subsequent bull dozer and tree clearing activity.

The central UTM coordinates are E590510 N3610060 and the site is found on Crevasse-Dawhoo soils at an elevation of about 5 feet MSL. The site is situated on a sandy ridge overlooking Cinder Creek and the marsh.

At the time of the survey a scatter of oyster shell was observed, measuring about 50 feet in diameter. A series of 10 shovel tests were excavated in the site area, all revealing that the upper soil zone had been thoroughly disturbed by logging operations. Four of these tests produced either shell or, in one case, a single sherd. Materials recovered from the site include one Deptford Cord Marked sherd and one unidentifiable sherd.

This site is recommended as not eligible for the National Register because of the extensive logging damage and the absence of in situ shell midden deposits. No further work is recommended at this site.

Site 38CH222, also known as the "Terrapin Island Site," was reported by Combes to consist of a shell midden which "extends into the marsh" (Combes 1975:A-20). The site was identified during these investigations and the central UTM coordinates are E589800 N3610820. The soils are considered high tidal marsh and the elevation is under 5 feet MSL. The site is situated at the north end of Thumb Point adjacent to a tributary of the Kiawah River.

At the time of the survey the site consisted of several very light scatters of primarily oyster shell covering an area approximately 200 feet in diameter. The site size, however, reflects the surface scatter of shell since only three shovel tests revealed shell and no artifacts were encountered. The area has been extensively damaged by logging operations conducted after Hurricane Hugo and no intact site areas could be identified.

This site is recommended as not eligible for inclusion on the National Register of Historic Places. It appears to have originally been an ephemeral, if not insignificant, occupation, but it has been totally destroyed. No further investigations are recommended.

Site 38CH223 was initially recorded by Combes, who characterized it as neither "large or extensive." During these investigations the site was found on an interior dune ridge overlooking a marsh inlet. The central UTM coordinates are E589740 N3610000 and the site is found on Capers soils at an elevation of about 5 feet MSL.

A series of 10 shovel tests were placed in the site, with

three producing cultural remains (nine Deptford Cord Marked sherds and eight unidentifiable sherds). The site measures approximately 300 by 100 feet. During the shovel tests it was determined that the site originally consisted of several pockets of shell midden perhaps 20 feet in diameter. These loci, however, have been thoroughly disturbed and scattered by logging operations conducted after Hurricane Hugo.

This site is recommended as not eligible for inclusion on the National Register given the extensive logging disturbance and the inability to locate areas of intact shell midden. No additional investigations are recommended.

Site 38CH224 was reported by Combes to consist of a "100 foot light scatter of midden" (Combes 1975:A-21). The current survey identified the site, assigning it central UTM coordinates of E589220 N3609840. The site is situated on a sand dune ridge of Crevasse-Dawhoo soils at an elevation of 5 to 10 feet MSL overlooking Cinder Creek.

A series of 25 shovel tests reveal the site to extend over an area about 300 feet east-west by 100 feet north-south. Three shovel tests produced disturbed shell midden, but no artifacts were recovered. The site has been extensively damaged by logging operations conducted after Hurricane Hugo. While two areas of probable original shell midden were identified, no intact midden areas could be found.

This site is recommended as not eligible for inclusion on the National Register because of the extensive logging damage. No further investigations appear warranted at the site.

Sites 38CH225/38CH228 were originally reported as two entities by Combes. Site 38CH225 was described as a "small scatter" and 38CH228 was described as a buried, extensive site (Combes 1975:A-21, A-22). The site was later examined by Lepionka (1981) who found it possessing excellent integrity, intact middens, and relatively abundant pottery. In spite of these attributes, Lepionka remarked that:

The site in question replicates the same pattern that is to be found in numerous coastal sites and so is, in spite of its excellent preservation, hardly unique. We do not consider that there is any necessity for further investigation, excavation, or other mitigation procedure (Lepionka 1981:11).

In taking this position, Lepionka fails to realize that a site need not be "unique" to be worthy of additional attention. In fact, there are very few, perhaps no, unique sites since cultural behavior is patterned and this results in the "replication" as he calls it. To be eligible for the National Register a site must

"have yielded or may be likely to yield, information important in prehistory or history" according to 36CFR800.10(a)(4).

The current survey found that the two sites originally defined by Combes in fact represent a continuation of small shell middens covering an area about 700 feet northwest-southeast by 3000 feet southwest-northeast. The UTM coordinates for the site are E590640-591420 N3610520-3611080. The site is situated on Crevasse-Dawhoo soils at an elevation of about 5 feet MSL.

A series of 89 shovel tests were excavated on the ridge known as Marsh Hawk Point at 100 foot intervals. An additional 20 tests were excavated at 25 foot intervals to further refine site loci. As a result of this work it became apparent that the entire area consists of intermittent middens with shell scatter between them. The testing, however, identified four loci of fairly dense shell concentration and recovered five Deptford Cord Marked sherds. Unfortunately, much of the site has been damaged by logging operations following Hurricane Hugo.

There is no doubt that had this site been thoroughly assessed prior to the damage inflicted by logging operations that it would have been recommended as eligible for inclusion on the National Register. Based both on previous archaeological discussions there were areas of clear site integrity with in situ midden, relatively abundant faunal remains, the potential for the recovery of features. Given the presence of remains in dune troughs, where erosion is minimal, it seems likely that structural remains might also have been present.

At the present time the site has been subjected to heavy, although inconsistent, damage by logging operations. The extensive shovel tests have identified a series of four seemingly intact "islands" of midden in the midst of thoroughly disturbed topography. It seems appropriate to recommend that these remnant site areas be considered eligible for inclusion in the National Register, with data recovery excavations concentrating on two of the four loci for recovery of faunal and ethnobotanical remains, evidence of structures, and intra-site patterning. Should the initial excavations, however, reveal disturbance not previously realize for the site, the excavations should be abandoned.

Site 38CH227 was originally reported by Combes to be a ring of shell corresponding to a fortification shown on an 1822 map. At the time of Combes survey the site measured about 75 feet in diameter with the ridge of shell standing about 3 to 4 feet above the surrounding hard marsh surface (Combes 1975:A-22).

The current investigations have identified this site on a relatively high point of land at the confluence of the Stono and Kiawah Rivers, immediately north of a small tidal creek. The central UTM coordinates are E591900 N3611060 and the soils are

classified as tidal marsh. The site elevation is approximately 5 feet MSL.

The survey revealed that only the backside (i.e. western) portion of this ring is still intact, the remainder having been totally destroyed by erosion. The remnants of the "ring" are evidenced as scattered shell on the hard sand beach spreading north and south from the site area. The portion of the site remaining measures about 100 feet in diameter. A series of seven shovel tests in the "ring" failed to identify any cultural remains or to provide clear information on site formation processes. Artifacts recovered from the surface, however, include one Deptford Cord Marked sherd, one Deptford Check Stamped sherd, one UID sherd, one brown salt glazed stoneware ceramic, and one flint cobble. Also recovered was one brass machine gun shell.

Additional historical research suggests that this was originally a fortification constructed during the War of 1812 and used for the defence of the Stono approaches. Vague references to the fort are present in the National Archives (Colin Brooker, personal communication 1991), although it is referred to as a "tabby" fortification. This site may also have been used during the Civil War, representing what was referred to as the "river fort".

The archaeological evidence suggests that the reference to "tabby" aside, the fort was constructed by piling already existing Early Woodland shell midden in a circle to form a gun emplacement. The erosion of the Stono combined with the Kiawah has resulted in the majority of this site being destroyed.

Although this is a significant historic site, relating to the War of 1812 and later to the Civil War, it appears that very little of the original fortifications remain. It is also likely that some reworking of the site took place during the Civil War. The prehistoric site from which the fortification was constructed has been thoroughly disturbed by these activities and is unlikely to yield significant data. Consequently, we recommend the site as eligible for inclusion on the National Register, however, the only mitigation measure recommended is that a topographic map of the site be constructed at a scale of 1 inch to 50 feet and a contour interval of 0.25 foot. This will appropriately record the remaining evidence of the site.

Site 38CH229, also known as the Middle Field Site, was identified by Combes, who noted only that while little was found in the original survey, "there is a good chance that a significant site will turn up, so care should be taken with any earth moving" (Combes 1975:A-23).

The Chicora investigations revealed evidence of a thoroughly plowed site covering an area about 250 feet east-west by 200 feet north-south. The central UTM coordinates are E584740 N3608460. The

site is situated on Crevasse-Dawhoo soils at an elevation of 5 to 10 feet MSL.

A series of 20 shovel tests in the area revealed small sherds and a light scatter of crushed shell. Only one Deptford Cord Marked sherd and one UID sherd were recovered from the testing. The site has been heavily impacted by previous cultivation. More recent disturbances include road construction, filling of a portion of Bass Pond, and logging after Hurricane Hugo.

This site is recommended as not eligible for inclusion on the National Register of Historic Places and no further work is recommended.

Site 38CH1215 is situated on the northwest end of Bass Pond in an area of uniformly low, poorly drained Crevasse-Dawhoo soils. The central UTM coordinates are E584360 N3608180 and the site is at an elevation of about 5 feet MSL. The site is found in area similar to 38CH229 and it may represent a continuation of small shell middens adjacent to the old Bass Pond drainage.

A series of 15 shovel tests in the site area revealed the presence of only one Deptford Check Stamped sherd and occasional small quantities of crushed shell. The site is estimated to cover a maximum area of 50 feet in diameter, with the original size probably smaller. The site area evidenced previous plowing and had been heavily impacted by Hurricane Hugo (although no logging operations had been conducted in this area).

This site is recommended as not eligible for inclusion in the National Register of Historic Places based on the low density of remains, evidence of heavy plowing, and failure to identify intact midden deposits. No further investigations are recommended.

Site 38CH1216 is situated at the northwest end of Bass Pond and, like 38CH229 and 38CH1215, may represent a continuation of small, isolated shell middens which have been dispersed by plowing. The central UTM coordinates are E584440 N3608280 and the site is situated on Wando soils at an elevation of about 5 feet MSL.

A series of 10 shovel tests produced a single Deptford Check Stamped sherd and a thin scatter of crushed oyster shell. The maximum site size is estimated to be 50 feet in diameter.

This site is recommended as not eligible for inclusion on the National Register because of the heavy plow disturbance, low density of recovered materials, and failure to yield in situ midden deposits.

Site 38CH1217 is situated immediately north of the filled section of Bass Pond. It is virtually identical to 38CH229, 38CH1215, and 38CH1216. The central UTM coordinates are E584520

N3608320 and the site is situated on poorly drained, low Crevasse-Dawhoo soils at an elevation of about 5 feet MSL.

A series of 10 shovel tests yielded two UID sherds from a single test. The site, therefore, is estimated to cover an area no greater than 50 feet in diameter, although the shell scatter suggests that the plowed out midden may have been as small as 15 to 20 feet. This site area has been ditched for drainage, although no evidence of additional middens was identified in the ditch profiles.

This site is recommended as not eligible for inclusion on the National Register. It has been heavily plowed and the site area has sustained significant damage from Hurricane Hugo. No further work is recommended.

Site 38CH1218 is similar to those previously discussed in the vicinity north of the filled section of Bass Pond. The central UTM coordinates are E584300 N3608260 and the soils are the poorly drained Crevasse-Dawhoo complex. Site elevations are approximately 5 to 7 feet MSL.

A series of 30 shovel tests were excavated in this area. These tests revealed a thin scatter of shell over an area about 200 feet east-west by 100 feet north-south, although only one sherd (Irene Complicated Stamped) was recovered. No evidence was encountered of intact midden deposits. Like previous sites evidence of heavy plowing was encountered, with Ap soils found to a maximum depth of 1.2 feet. The site area has been impacted by Hurricane Hugo, although no logging activities had taken place at the time of the survey.

This site is recommended as not eligible for inclusion on the National Register of Historic Places because of the extensive plow disturbance, low artifact density, and failure to identify in situ midden deposits.

Site 38CH1219 is located about 500 feet north-northeast of 38CH123 on the north edge of Kiawah Island. The central UTM coordinates are E584100 N3608180 and the site is found on excessively drained Wando soils at an elevation of about 5 to 7 feet MSL. Site vegetation consists of mixed pine and hardwoods and the site, which consists of a small, isolated shell midden, is situated about 50 feet south of the marsh edge. The midden measures about 10 feet in diameter and is about 0.5 feet above the surrounding ground level.

A series of five shovel tests were excavated in and around the midden. The single test in the midden yielded 20 Deptford Cord Marked sherds, one UID sherd, and one lithic. Those surrounding the midden produced no evidence of adjacent occupation.

This midden appears, based on the admittedly limited data available, to represent an intact example of the plowed middens recorded as 38CH229, 38CH1215, 38CH1216, 38CH1217, and 38CH1218. This midden, however, escaped plowed since it is situated in the hardwood vegetation bordering the marsh and on the edge of the agricultural fields.

This similarity to an apparently common type of site in the survey area, abundant and varied artifactual remains, and the presence of intact midden supports a recommendation that the site is eligible for inclusion on the National Register of Historic Places. Green spacing is the preferred mitigation technique, although if this approach is not possible, total site excavation is possible given the small size and should be undertaken.

Site 38CH1220 is situated on a ridge in Area F, immediately north of the currently developed golf course. The central UTM coordinates are E592540 N3609060 and the soils in the site area are the poorly drained Crevassee-Dawhoo complex, although drainage on the ridge is considerably better than in the troughs to the north and south. Site elevation is approximately 15 feet MSL. Vegetation in the area consists of live oaks with a thick understory of wax myrtle and yaupon. Some damage has been caused by Hurricane Hugo, although the area has not been impacted by logging operations.

The site is evidenced by a scatter of approximately eight brick scatters along the crest of the ridge and surface indications suggest that the site measures about 200 to 300 feet north-south by about 1000 feet east-west. A series of 66 shovel tests were excavated, both systematically at 25 foot intervals along a transect following the ridge and also judgmentally. These tests produced only one UID nail fragment. Surface collections in the site area, however, yielded one iron axe head, 17 black bottle glass fragments, one blue bottle glass fragment, one UID nail fragment, two UID spike fragments, one strap hinge, and 21 animal bones.

During the survey damage to the site was identified consistent with relic hunting using metal detectors. This damage appears to be minimal, although the activity appears to have taken place over a wide area of the site.

This site appears to represent a Civil War encampment. The individual scatters of brick may be related to kitchens, with the tent camp located nearby. Preliminary historical documentation does indicate that Union troops (possibly the 54th New York) used this portion of Kiawah Island using the latter period of the war. The only similar site archaeologically documented in South Carolina is that on Folly Island (Legg and Smith 1989). The low density of observed archaeological materials is consistent with a military encampment where strict policing of the area was undertaken on a routine basis. Unlike most archaeological sites which consist of

either clearly defined structures or sheet midden, such encampments are characterized by localized and discrete features such as privies and wells.

38CH1220 is recommended as eligible for inclusion on the National Register of Historic Places. The site appears to be intact, with only minimal disturbance caused by relic hunting and hurricane damage. This site has the potential to not only provide independent documentation of camp life, but the data may be used for comparative studies with the work previously conducted on Folly Island (Legg and Smith 1989).

Green spacing is the preferred alternative at 38CH1220, especially since this may be the last intact military site on Kiawah (at least two additional sites have been destroyed by earlier development activities). If such an approach is not possible then data recovery excavations are recommended. The first phase of this work should be an intensive examination of archival records, utilizing the sources available at the National Archives and the Library of Congress. Following this, it will be necessary to develop a research design which will allow features, such as wells and privies, to be identified for further excavation and/or sampling.

Site 38CH1221 is situated on a high sand dune ridge adjacent to Bass Creek in Area F. This dune ridge has suffered extensive erosion and perhaps as little as 10% of the feature is still extant. The "beach" or shoreline area is not available for investigation because of extensive rip rap placed along the shore and up the dune ridge. The central UTM coordinates are E591480 N3609220 and the site is situated in an area described as Crevasse-Dawhoo complex, although because of the elevation (about 10 feet MSL) the soils tend to be relatively well drained.

This site is documented on the "Map of the Defenses of Charleston City and Harbor, showing also The Works Erected by the U.S. Forces in 1863 and 1864" and appears to represent a signal tower used to relay messages up the South Carolina coast. A series of five shovel tests were placed on the remnant dune ridge, which measures about 30 feet by 20 feet. One test yielded one cut nail fragment.

It appears that the bulk of this site, which is expected to have left a relatively faint archaeological footprint at best, has been largely destroyed by natural erosion. Consequently, the site is recommended as not eligible for inclusion on the National Register.

Site 38CH1222 appears to represent a Civil War military encampment. It is situated in Area F about 2000 feet northwest of 38CH1220 in an area of Crevasse-Dawhoo soils. The site elevation is about 5 feet MSL, although the soils are relatively well drained.

Vegetation consists of a mixed pine and hardwood forest which has been slightly damaged by Hurricane Hugo.

A series of 22 systematically and judgmentally placed shovel tests were excavated in the site area. The systematically placed tests failed to yield artifacts, although those placed judgmentally (adjacent to relic collector holes) yielded one strap hinge, one pintle, one fireplace hook, one latch, two fragments of strap metal with wood impressions (probably barrel hoops), five UID iron fragments, 11 UID nails, six machine cut nail fragments, one machine cut nail, and one spike fragment. Two fragments of marl blocks were collected from the surface of an adjacent road cut.

This site is shown on the "Map of the Defenses of Charleston City and Harbor, showing also The Works Erected by the U.S. Forces in 1863 and 1864," although it is uncertain whether it represents a signal tower or a possible encampment. The site appears to measure about 100 by 50 feet, rather small for an encampment, although it may represent only a portion of the previously destroyed 142nd New York camp.

The site has been heavily damaged by relic collectors (with at least one "excavation" apparently destroying a well or similar feature) and by the construction of an adjacent dirt road. Consequently, this site is recommended as not eligible for inclusion on the National Register of Historic Places.

Site 38CH1223 is situated on a sand ridge in the central portion of Eagle Point, equidistant from Cinder Creek to the north and the marshes of Bass Creek to the south. The central UTM coordinates are E589460 N3609280 and the site is on Crevasse-Dawhoo soils at an elevation of about 7 feet MSL. Vegetation has been disrupted by Hurricane Hugo and the area has been clear cut in logging operations. Portions of the site have been used as a burn site for the Hugo debris.

A series of 10 shovel tests in the site area revealed extensive disturbance from logging, bulldozing, and burning. Surface visibility, however, was very good, and five Deptford Cord Marked sherds were recovered from the site. Based on the dispersion of shell, the site currently covers an area about 700 feet east-west by 800 feet north-south, although the disturbance is so heavy that the original boundaries cannot be determined.

This site is recommended as not eligible for inclusion on the National Register. It has been destroyed by logging and subsequent ground clearing activities. No areas of intact midden were identified and the shovel tests document extensive disturbance in the upper 1.0 foot of the soil.

Site 38CH1224 is situated between two dune ridges in Area D and consists of pockets of intact shell midden, although the area

has been logged. The central UTM coordinates are E590980 N3610560 and the soils are the Crevasse-Dawhoo complex. The site is at an elevation of 5 feet MSL.

The site was encountered in a series of three shovel tests and is estimated to measure about 300 feet southwest-northeast by 100 feet northwest-southeast. Materials recovered seven Wilmington Cord Marked and three Deptford Cord Marked sherds from a single shovel test, as well as three Deptford Cord Marked and two UID sherds from the surface. All three tests revealed relatively intact midden deposits up to about 0.5 foot in depth.

The site is recommended as eligible for inclusion on the National Register, in spite of the logging activity, based on the presence of intact midden and relatively high artifact content. As with similar sites data recovery excavations should emphasize the recovery of one discrete midden deposit and sampling of the surrounding area to identify activity loci or structural remains.

Site 38CH1225 is situated about 1000 feet southwest of 38CH1224 but is also found between two dune ridges and consists of pockets of intact shell midden. The central UTM coordinates area E590720 N3610340. The soils are the Crevasse-Dawhoo complex and the site is at an elevation of about 5 feet MSL.

The area has been logged, but a series of four shovel tests on two transects identified the site and produced three Deptford Cord Marked and two UID sherds. A surface collection yielded nine Deptford Cord Marked and two UID sherds. Areas of intact midden were found during the survey, with the maximum depth of midden deposits being 0.4 foot. The site is estimated to measure 300 feet northwest-southeast by 200 feet northeast-southwest.

This site is recommended as eligible for inclusion on the National Register based on the presence of intact midden deposits and the potential to recovery settlement and subsistence data from carefully controlled midden excavations.

Site 38CH1226 is situated in Area D, about 1000 feet west of 38CH1225. The site consists of heavily damaged shell middens in a dune trough at an elevation of about 5 feet MSL. The soils are Classified as the Crevasse-Dawhoo complex and the central UTM coordinates are E590480 N3610280.

The site area has been intensively logged with resulting heavy damage, including rutting, displacement of soil, and erosion. A series of eight shovel tests in the site area revealed scattered shell and two Deptford Cord Marked sherds. No areas of intact midden were identified and shell is displaced over an area of about 50 feet in diameter.

This site appears to have originally represented a single,

small shell midden. It has been destroyed by Hurricane Hugo logging operations and is recommended as not eligible for inclusion on the National Register.

Site 38CH1227, situated on an interior dune ridge on Cinder Point, consists of a small shell midden. The central UTM coordinates are E588960 N3609880 and the soils are the Crevasse-Dawhoo complex. Site elevation is about 5 to 10 feet MSL. The area has been logged, leaving only scattered pines and hardwoods.

This site was investigated by a single shovel test which revealed heavy disturbance to a depth of about 0.9 foot. The shell midden is sparse and is found in an area about 25 feet in diameter. No artifacts were recovered from the shovel test or from the surface survey.

This site is recommended as not eligible for inclusion on the National Register. It has been heavily damaged by logging operations conducted after Hurricane Hugo and lacks both integrity and clarity.

Site 38CH1228 is a shell midden situated on a low hummock in the marsh about 1200 feet northwest of the mouth of Bass Creek and about 500 feet west of the Stono River. The central UTM coordinates are E592340 N3610700. The site is at an elevation of about 3 to 5 feet MSL and is situated on soils classified as soft tidal marsh.

The shell midden occupies the entire high ground area which forms the hummock, measuring about 150 by 100 feet. The midden, composed almost entirely of whole oyster shell, has a maximum depth of 0.8 foot. Only minimal erosion was observed at the time of the survey. A series of seven shovel tests were excavated in the midden, with one producing a small, unidentifiable sherd.

This site is recommended as eligible for inclusion on the National Register. Intact, well preserved midden has been identified and the site is situated in an uncommon environmental context. Given the location of the midden it is unlikely that it will be affected by development activities. The site, however, should be periodically monitored for secondary development impacts, principally erosion.

Site 38CH1229 is situated on a dune ridge in the Cinder Point area. The central UTM coordinates are E589960 N3610360 and the site is found on poorly drained Capers soil at an elevation of about 7 feet MSL. Vegetation in the area is mixed pine and hardwoods.

This site represents the discovery of a single Irene Burnished sherd in a shovel test adjacent to an old dirt road. Additional tests in the area failed to reveal the presence of either associated midden or additional materials. A pedestrian survey along the open roadbed likewise failed to reveal the presence of

additional materials.

The site is recommended as not eligible for inclusion on the National Register based on the absence of clear site integrity. No further work is recommended in this area.

Summary

The intensive archaeological survey of the undeveloped areas remaining on Kiawah Island incorporated five tracts totalling approximately 959 acres. As a result of this survey a total of 23 sites have been defined and examined (Table 1). Eight of these sites are recommended as eligible for inclusion on the National Register of Historic Places.

Table 1.
Archaeological Sites Identified on Kiawah Island.

Site	Period	Location	Soil	Size	Eligibility
38CH123	historic plantation	marsh edge	Wando	1500x600	E
38CH220	Deptford shell midden	marsh edge	Crevasse-Dawhoo	50x50	NE
38CH222	UID shell midden	marsh edge	Tidal marsh	200x200	NE
38CH223	Deptford shell midden	dune ridge	Capers	300x100	NE
38CH224	UID shell midden	dune ridge	Crevasse-Dawhoo	300x100	NE
38CH225/228	Deptford shell middens	dune ridge	Crevasse-Dawhoo	700x3000	E
38CH227	Deptford shell midden/ 19th century fort	river edge	Tidal marsh	100x300	E
38CH229	Deptford shell midden	sand ridge	Crevasse-Dawhoo	250x200	NE
38CH1215	Deptford shell midden	sand ridge	Crevasse-Dawhoo	50x50	NE
38CH1216	Deptford shell midden	sand ridge	Wando	50x50	NE
38CH1217	UID shell midden	sand ridge	Crevasse-Dawhoo	50x50	NE
38CH1218	Irene shell midden	sand ridge	Crevasse-Dawhoo	200x100	NE
38CH1219	Deptford shell midden	marsh edge	Wando	20x20	E
38CH1220	Civil War encampment	dune ridge	Crevasse-Dawhoo	1000x300	E
38CH1221	Civil War	dune ridge	Crevasse-Dawhoo	15x15	NE
38CH1222	Civil War	dune ridge	Crevasse-Dawhoo	100x50	NE
38CH1223	Deptford shell middens	dune ridge	Crevasse-Dawhoo	700x800	NE
38CH1224	Deptford/Wilmington shell middens	dune trough	Crevasse-Dawhoo	100x300	E
38CH1225	Deptford shell middens	dune trough	Crevasse-Dawhoo	200x300	E
38CH1226	Deptford shell midden	dune trough	Crevasse-Dawhoo	50x50	NE
38CH1227	UID shell midden	dune ridge	Crevasse-Dawhoo	25x25	NE
38CH1228	UID shell midden	marsh	Tidal marsh	150x100	E
38CH1229	Irene	dune ridge	Capers	10x10	NE

Size: In feet

Eligibility: E = eligible for inclusion on National Register of Historic Places

NE = not eligible for inclusion on National Register of Historic Places

Sources

- Combes, John D.
1975 The Archaeology of Kiawah Island. In Environmental Inventory of Kiawah Island, William M. Campbell and John Mark Dean, editors, pp. A-1 - A-32. Environmental Research Center, Inc., Columbia.
- Legg, James B. and Steven D. Smith
1989 "The Best Ever Occupied...": Archaeological Investigations of a Civil War Encampment on Folly Island, South Carolina. Research Manuscript 209. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Lepionka, Larry
1981 The Middle Woodland Occupation of Marsh Hawk Point. Ms. on file, Chicora Foundation, Inc., Columbia.

1982 Latifundia Shulbrendensis Reviderent. Ms. on file, Chicora Foundation, Inc., Columbia.
- Mathews, Thomas D., Frank W. Stapor, Jr., Charles R. Richter, John V. Miglarese, Michael D. McKenzie, and Lee R. Barclay
1980 Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, col. 1. Office of Biological Services, Fish and Wildlife Service, Washington, D.C.
- Miller, E.N., Jr.
1971 Soil Survey of Charleston County, South Carolina. U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.
- Miller, George C.
1980 Classification and Economic Scaling of 19th Century Ceramics. Historical Archaeology 14:1-40.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. Historical Archaeology 25:1-25.
- Noel Hume, Ivor
1970 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.
- Poplin, Eric C.
n.d. 38CH123 - An Analysis of the Distribution of Artifacts Across an Archaeological Site. Ms. on file, Department of Geography, University of

Calgary, Calgary, Alberta.

- Price, Cynthia R.
1979 19th Century Ceramics in the Eastern Ozark Border Region. Monograph Series 1. Center for Archaeological Research, Southwest Missouri University, Springfield.
- South, Stanley
1977 Method and Theory in Historical Archaeology. Academic Press, New York.
- Stephen, M.F., P.J. Brown, D.M. Fitzgerald, D.K. Hubbard, and M.O. Hayes
1975 Beach Erosion Inventory of Charleston County: A Preliminary Report. Technical Report Number 4. South Carolina Sea Grant, Charleston.
- Trinkley, Michael
1983 Ceramics of the Central South Carolina Coast. South Carolina Antiquities 15:43-54.