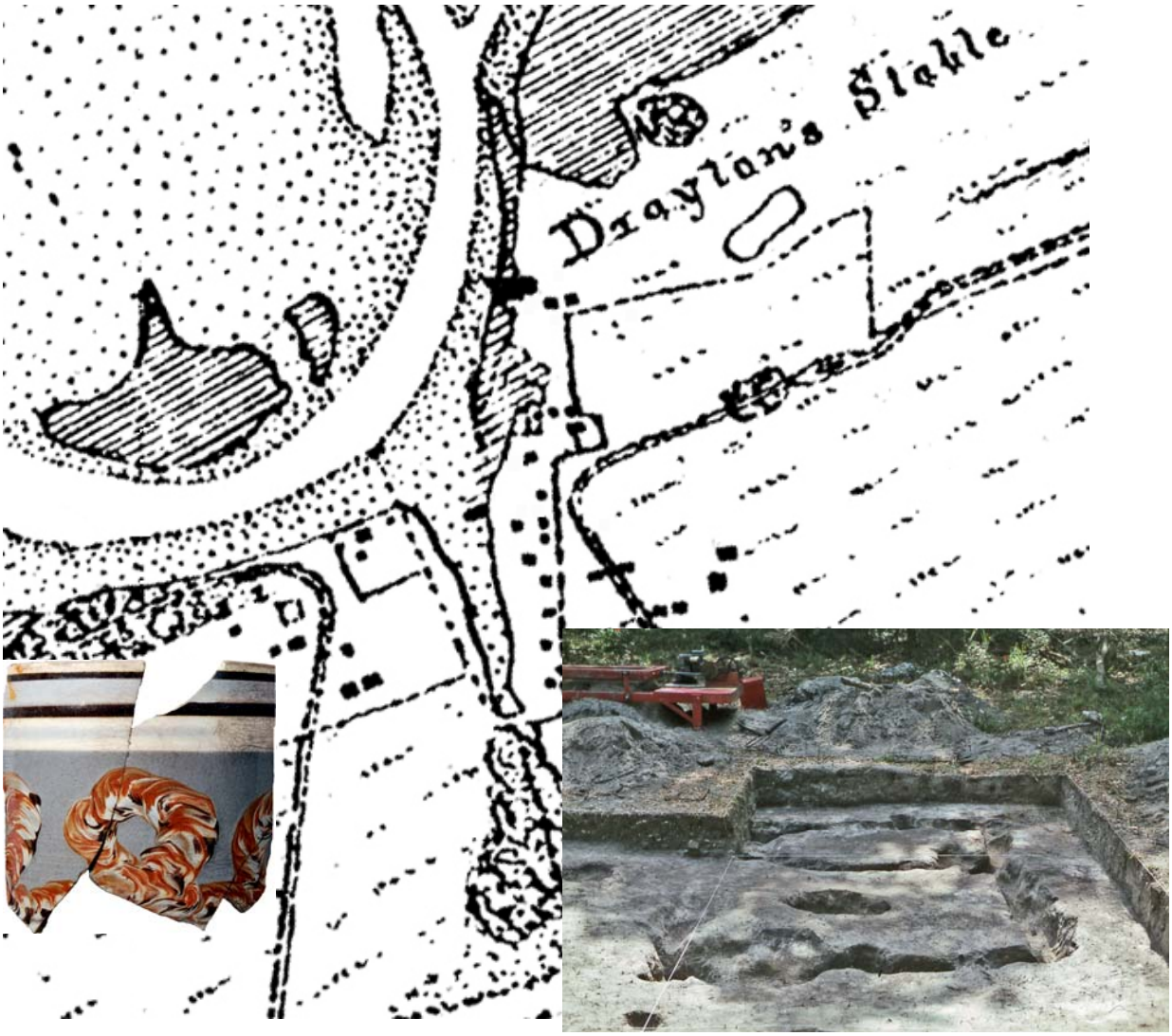
SHOOLBRED'S OLD SETTLEMENT: EXCAVATIONS AT 38CH123, KIAWAH ISLAND, CHARLESTON COUNTY, SOUTH CAROLINA



CHICORA FOUNDATION RESEARCH SERIES 70

SHOOLBRED'S OLD SETTLEMENT: EXCAVATIONS AT 38CH123, KIAWAH ISLAND, CHARLESTON COUNTY, SOUTH CAROLINA

Research Series 70

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What we do about history matters. The often repeated saying that those who forget the lessons of history are doomed to repeat them has a lot of truth in it. But what are "the lessons of history"? The very attempt at definition furnishes ground for new conflicts. History is not a recipe book; past events are never replicated in the present in quite the same way. Historical events are infinitely variable and their interpretations are a constantly shifting process. There are no certainties to be found in the past.

-- Gerda Lerner

ABSTRACT

This study reports on data recovery excavations at archaeological site 38CH123, a large plantation complex that dates from the earliest period of historic occupation on Kiawah Island through the early twentieth century. These excavations focused on portions of the settlement that represented the early eighteenth through mid-nineteenth century. Excavations were conducted over 40 field days in 1994. As a result of this work 2,100 square feet (or 2,235 cubic feet) of soil were moved at the six excavation areas.

The settlement at this location is first seen on an 1802 plat of the island, then divided between James Shoolbred (who inherited the western half of the island from his wife, Mary Gibbes Middleton) and Arnoldus Vanderhorst II (who inherited the eastern half of the island from his wife, Elizabeth). The plat shows not only Vanderhorst's settlement, but also what are called the Old and New Settlements of Shoolbred. 38CH123 is the Old Settlement. Historical documents suggest that the Old Settlement begun under the previous owner of Kiawah, John Stanyarne, or even earlier and continued as a major slave settlement until Shoolbred completed his new settlement further to the east.

Archaeological investigations reveal primarily slave occupation at the Old Settlement, with at least six distinct structures identified during this work (historic documents suggest there may have been at least 21 structures at one time). The identified structures include two early eighteenth century wall trench dwellings 8 by 8 feet and 8 by 10 feet in size, as well as a post structure, two structures set on brick piers, and a double pen slave cabin. The archaeological research reveals a range of architectural styles present at the Old Settlement, perhaps reflecting its very long use.

The investigations also document slave lifeways at the settlements, identifying the ceramics used by African Americans. Not surprisingly cups and bowls, suitable for stews and one-pot meals, dominate. So, too, do plain and simple decorations. What was surprising was the very low incidence of colono ware – a low fired pottery thought to have been made by the African Americans themselves. This may be explained by the isolation of Kiawah and the restrictions imposed on the island's enslaved population.

The study also identifies a range of artifacts that are best explained as part of the slaves' magico-religious world. Bits of glass, fragments of brass, beads, and other objects may all be part of a hidden dimension rarely discussed by archaeological investigations.

Faunal and ethnobotanical studies also provide additional information on slave foodways. Corn and peaches were documented, but of greater interest is the evidence of greens such as mustard or rape and purslane, providing evidence extending to the early colonial period. The faunal remains are of interest since the island's blacks relied far more heavily on cattle than pigs. Wild resources, such as deer and raccoon were, in fact, as significant, as pork on the Shoolbred plantation.

This study provides an early look at slavery on one of South Carolina's most isolated island plantations.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

Background

Site 38CH123 is situated on the north shore of Kiawah, bordering the Kiawah River to the north and northwest, and a small tributary to the west and southwest (Figure 1).

The site was initially identified by John Combes (1974:A-14) during his reconnaissance survey of Kiawah Island prior to its initial development by Coastal Shores, Inc., a subsidiary of Kuwait Investment Corporation. At the time he described the site as "the oldest and most intensive occupied site on Kiawah Island," observing such historic artifacts as salt-glazed stoneware and lead glazed slipware.

Of more immediate interest, however, was his claim that what he called the "West Pasture Site" was "a good candidate for an early Kiawah village." His study was conducted shortly after Stanley South's work at Charles Towne Landing (38CH1), where he encountered a moundless ceremonial center and evidence of protohistoric

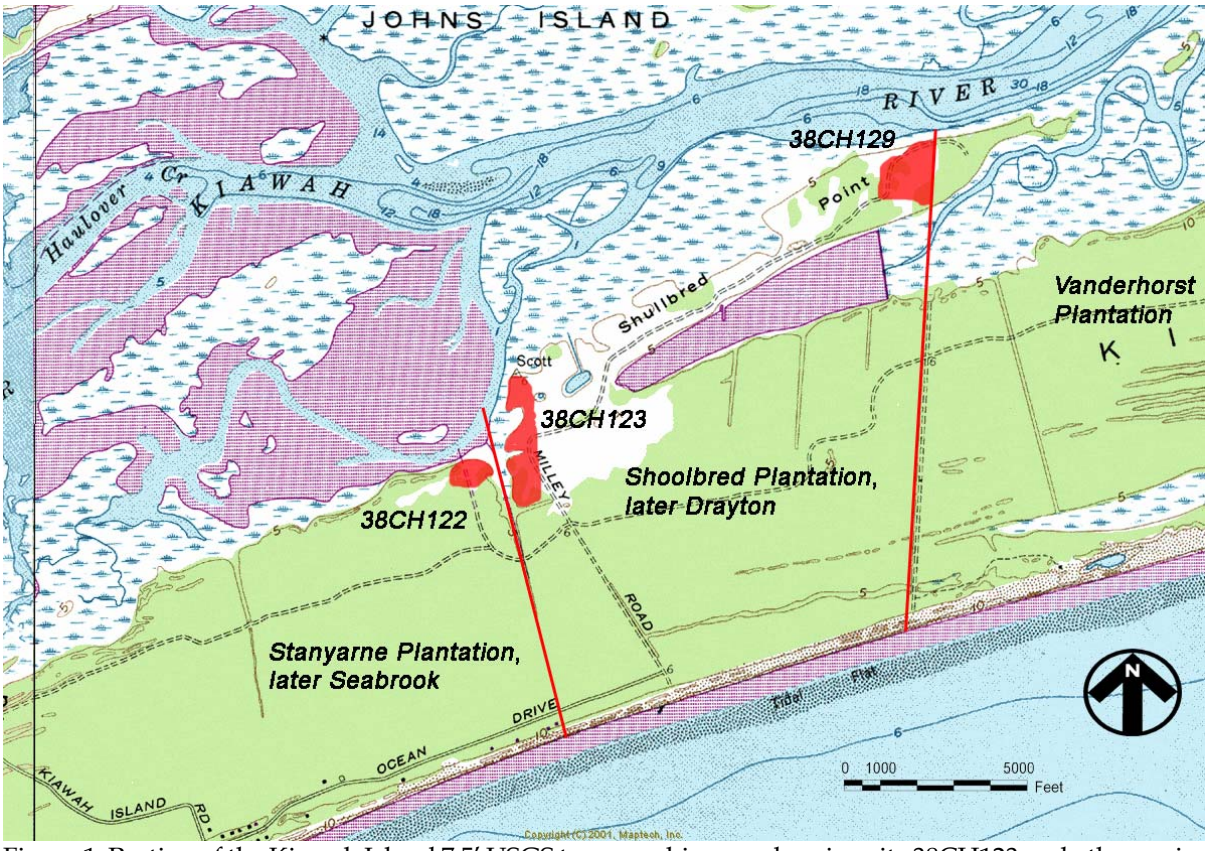

Figure 1. Portion of the Kiawah Island 7.5′ USGS topographic map showing site 38CH123 and other major plantation settlements in the immediate area.

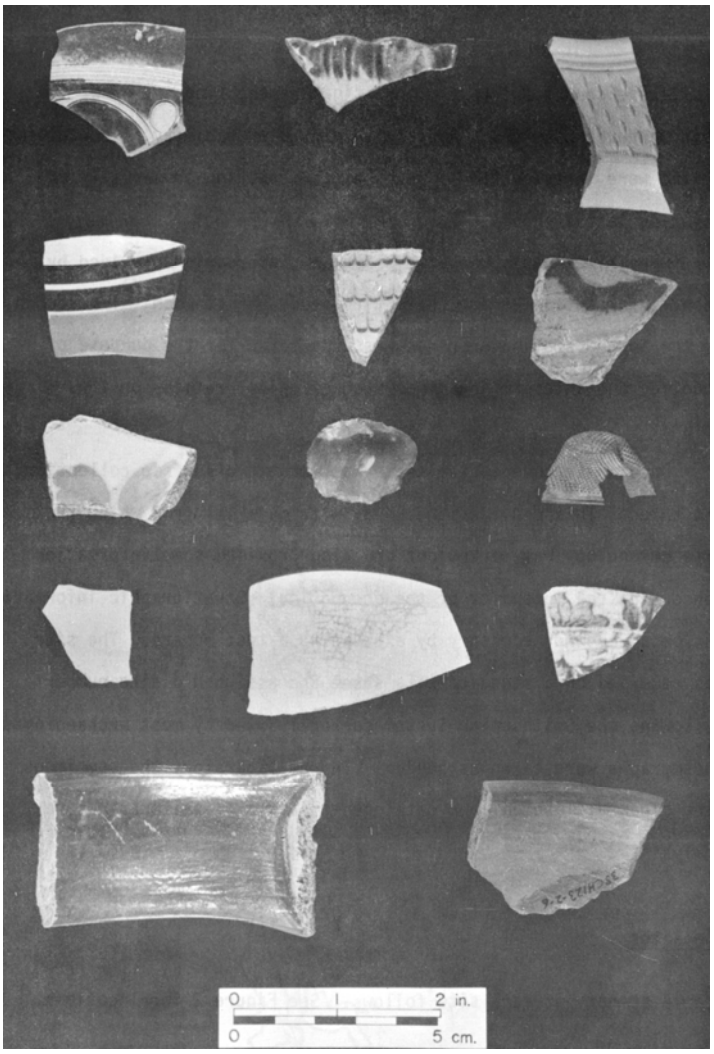

Figure 2. Examples of the historic wares recovered by Combes from the reconnaissance at 38CH123 (adapted from Combes 1975:Figure 3).

Native American pottery he called Chicora (which include the Savannah, Irene, Pee Dee, Adamson, Ft. Watson, Mulberry, and Charles Towne wares) (see South 1973:54-55). South had also explored the Native American groups along the South Carolina coast (South 1972). Thus, there was no doubt considerable interest in locating a source for the complicated stamped pottery found in different areas along the coast.

A portion of the site was further investigated by Jim Michie in 1978. Although this work has never been published by SCIAA, it was apparently undertaken as a preliminary step in a proposed data recovery project. Michie excavated a series of 43 1-meter units at 15 meter intervals (covering an area about 400 by 300 feet or 2.75 acres). 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 span the eighteenth and nineteenth centuries, clearly documenting the site's intensive use during this period. There was, however, little evidence to support Combes' contention that the site might represent a Kiawah Indian village. For reasons that are not clear based on the available documentation, no data recovery was conducted at the site.

It wasn't until 1990 that an intensive survey of the undeveloped portions of Kiawah Island was undertaken. During that investigation site 38CH123 was again visited and further evaluated. By that time the site environs had changed. It was no longer an agricultural field, but was in second growth. Portions of the site's southeastern edge had been impacted by recovery operations from Hurricane Hugo the year before. The area south and east of Michie's work had also been used for the storage of spoil piles from other development activity on the island (Figure 3).

During that work a series of 49 shovel tests were excavated in the portion of the site that was extant; 27 of these tests were positive. The 129 recovered artifacts included a broad range of historic materials, yielding a mean ceramic date of 1758.6 (Trinkley 1993b:117). Based on the shovel tests and surface collections, the site was estimated to measure about 1500 feet north-south by 600 feet east-west, or about 20.7 acres.

Although no in situ architectural remains were identified, a concentration of brick was

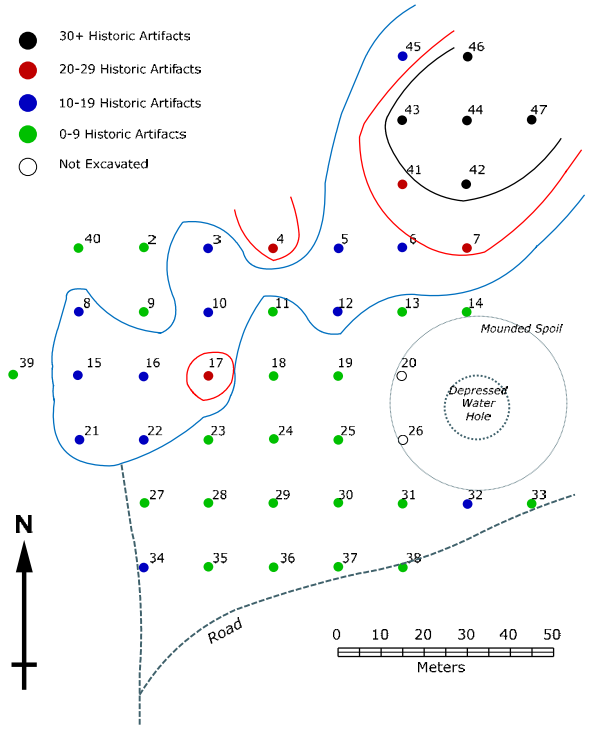

Figure 3. Sketch plan of Michie's testing at 38CH123 showing artifact density at the various shovel tests.

found in the northwest section of the site. The collection did include 13 prehistoric sherds, but all were eroded and small (under 1-inch in diameter). None could be identified as complicated stamped and the only historic artifact in the collection that suggested the possibility of Euro-Native American contact was a single Bellarmine ceramic that has a mean date of 1660.

The site exhibited an artifact pattern that was strongly similar to that attributed to eighteenth century slave settlements. The historical research, however, indicated that this was also the location of settlements by Stanyarne and later Shoolbred.

The integrity of remains and the variety of the recovered specimens indicated the site was eligible for inclusion on the National Register. This assessment was concurred with by the State Historic Preservation Office (SHPO). A research design and proposal for data recovery excavations at 38CH123 was prepared on March 23, 1992 and revised on April 25, 1994. The plans were approved by our client, Kiawah Resort Associates. The proposal was submitted to the SHPO for review and comment. Our office was informed that the proposal was acceptable without modification, although the SHPO requested clarification in several areas of the research (April 11, 1994, letter from Mr. Lee Tippett to Ms. Tina Hadden, Army Corps of Engineers). These comments were addressed on April 15, 1994 (letter from Dr. Michael Trinkley to Mr. Clarence Ham, Army Corps of Engineers).

The field investigations were conducted from May 25, 1994 through July 9, 1994, for a total of 40 field days. Dr. Michael Trinkley was the Principal Investigator for the project and Ms. Natalie Adams was the Field Director. Field Archaeologists included Mr. Ryan Boera, Mr. Tariq Ghaffar, Mr. Spencer Mullins, and Ms. Lyn Roberts.

A management summary for the investigations was submitted to the SHPO in July 1994 and approved by that agency (Adams 1994). No final report was completed for the study, although the collections and all field notes, photographs, and other data were retained by Chicora. In 2008 Kiawah Resort Associates requested that the work be completed in anticipation of Office of Ocean and Coastal Resource Management (OCRM) permits for the development area known as "The Settlement, Phase 6."

Today the site environments have changed dramatically (Figure 4). The site is bisected by Salthouse Lane, and Bass Pond Golf Course is found immediately to the east of the site core (in the area of previous disturbance). Today most of the 22 lots comprising the site have been sold, although none have been built on.

Research Questions

Based on the research available for

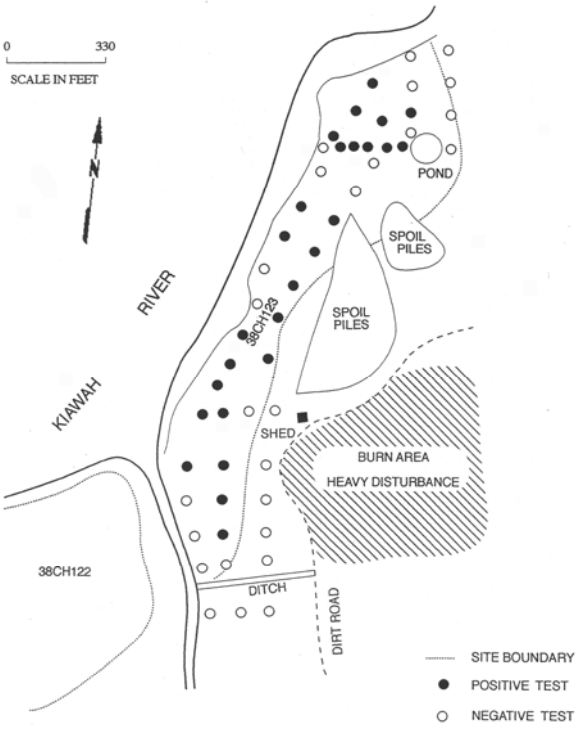

Figure 4. Sketch plan of 38CH123 as a result of the 1991 Chicora survey (adapted from Trinkley 1993b:Figure 28).

38CH123 at the time of the study in 1992, a number of research questions were posed which the site was believed to be able to address. The research at 38CH123 concentrated on five areas.

The first area was simply the temporal period(s) of site occupation. In spite of the limited success of the Michie work at finding evidence of a Native American settlement and our own inability to identify pottery thought to represent a Kiawah settlement, we hoped that more intensive testing conducted as part of the data recovery might identify early remains.

A second focus of the research was to include further investigation of foodways, looking at ethnobotanical and faunal remains from the site. This work was of special interest since we had been able to collect faunal remains from both the Shoolbred (38CH129) and Vanderhorst (38CH127) settlements. While the work at the Stanyarne investigations (38CH122) was limited and likely could provide little comparative information, the other two projects could.

This lead to our third area of interest – comparing and contrasting the data recovered from West Pasture with the other plantation settlements on the island. The investigations at 38CH123 would provide us with at least some level of information on all of the settlements known to exist on the island. This sort of archaeological coverage is very unusual. Historical research indicates that each of these planters had different attitudes toward their property. For example, Shoolbred viewed his plantation as a country estate, an area of relaxation and refuge. In contrast, Arnoldus Vanderhorst – and at least his son Elias after him – viewed their property as a working tract. Even the two "mansions" were quite different – Shoolbred had a well constructed and elaborate brick mansion house, complete with brick paving, brick drains, elaborate architecture, and even a brick cotton house. Vanderhorst's house might better be described as a farm house, rustic at best. We wished to examine how the third settlement would compare to this range already documented.

Our fourth goal was the comparison of not only the main house, but also an examination of other structures on the plantation landscape. At both the Shoolbred and Vanderhorst plantations we had been fortunate to be able to document a range of architecture – a cotton house and several kitchens. What was missing, however, is the architecture of the slaves – their settlement. It appeared that our work at 38CH123 would help to fill in at least some portion of this gap.

Finally, we also hoped that our investigations at 38CH123 would contribute to a better understanding of the changing economics of the plantation through time. Our documentation of historical changes was most thorough at the Vanderhorst settlement, based primarily on the extensive historical accounts available from the Vanderhorst family. The Shoolbreds left no such accounts. By exploring an early portion of the settlement, and examining how the Shoolbred

settlement changed from one location to another, we hoped to be able to address this topic.

Proposed Data Recovery

The initial survey of the West Pasture Site revealed that the remains were scattered over a large area. This finding is clearly supported by the historic documentation, such as maps of the site area which show structures paralleling Salt House Creek (discussed in the historical overview). Our initial survey, however, was hampered by the dense vegetation that had taken over the site area and the deposit of spoil over portions of the site area.

Consequently, we proposed a phased approach that would ensure complete access to the site, examination of site areas that exhibited concentrations of archaeological materials (including structural remains), and an overview of the archaeological resources present.

The first phase of work would consist of Kiawah Resort Associates clearing the dense vegetation using a hydro-ax. In addition, the spoil piles would be removed by the client under the direction of an archaeologist.

The second phase of work would consist of auger testing the entire site at 50 foot intervals. This, in the early 1990s, was considered very close interval and such testing was not common. During the auger testing, field density maps would be compiled and served as a guide for the placement of excavation units. Integrated into this phase of the research would be metal detecting of selected areas with the goal of identifying structural remains. We anticipated that structures might produce large quantities of nails that would easily be identified in metal detecting.

The third phase of the work would consist of block excavations in areas identified during auger testing. We proposed up to five areas of highest interest would be examined with 400 square feet at each, totaling 2,000 square feet of excavation. As will be discussed in a following section, these plans were actually exceeded during the field investigations.

The Natural Setting

Physiography

Charleston County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the east by the Atlantic Ocean and a series of marsh, barrier (such as Kiawah), and sea islands (Mathews et al. 1980:133). Elevations in the County range from sea level to about 70 feet above mean sea level (AMSL). The mainland topography, which consists of subtle ridge and bay undulations, is characteristic of beach ridge plains. Seven major drainages are found in Charleston County. Four of these, the Wando, Ashley, Stono, and North Edisto, are dominated by tidal flows and are saline. The three with significant freshwater flow are the Santee, forming the northern boundary of the County, the South Edisto, forming the southern boundary, and the Cooper, which bisects the County. Because of the low topography, many broad, low-gradient interior drains are present as either extensions of the tidal rivers or as flooded bays and swales.

Coastal islands are generally placed into three major groupings, based on geomorphology, area, sediment composition, and environment of deposition. The classic sea islands such as Daufuskie, Hilton Head, and James islands, are erosional remnants of coastal sand bodies deposited during the Pleistocene. Some, such as Hilton Head, also have an ocean fringe of beach dune ridges developed during the more recent Holocene period. Barrier islands, in contrast, are composed of alternating beach ridges and low troughs or lagoons oriented roughly parallel to the present shoreline, deposited during Holocene high sea level stands. Marsh islands, such as Raccoon Key and Morris Island, are composed of isolated or widely spaced Holocene sand ridges surrounded by recent salt marsh. They are typically situated in the filled lagoons behind the barrier islands, although they are also found fronting the Atlantic Ocean where erosion has removed the protecting barrier islands.

Kiawah is classified as a barrier island. It is situated between Folly Island to the northeast and Seabrook Island to the southwest. Kiawah is separated from Folly by the Stono River and from Seabrook by the Kiawah River. It is separated from John's Island to the north by an expanse of marsh and the Kiawah River.

The island has a sandy beachfront and is about 9.1 miles in length and 2.0 miles in width, including both high ground and marsh. There are approximately 3,300 acres of high ground and 3,730 acres of marsh incorporated into Kiawah Island, making it the largest barrier island and the fifth largest island in South Carolina (with only James, St. Helena, Hilton Head, and Daufuskie, all sea islands, being larger).

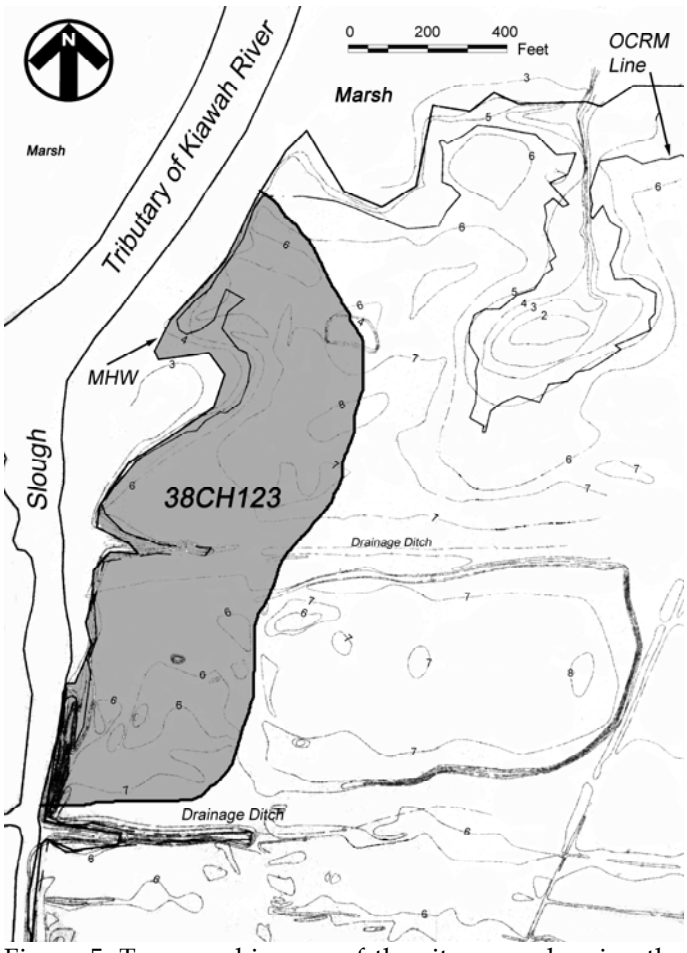

Figure 5. Topographic map of the site area, showing the boundaries of 38CH123.

Elevations on the island range from sea level to 25 feet AMSL. The island is composed of a series of prograding beach ridges that have been highly modified on either end by the migration of the Stono and Kiawah inlets. Hayes et al. (1975) identify four major physiographic regions on Kiawah: the actively changing beach zone; the three tidal inlets of the Stono, Kiawah, and Edisto rivers; the interior of the island, largely consisting of beach-ridge complexes; and the salt marsh area that surrounds the backside of the island.

Of the three, the beach-ridge complex is perhaps the most significant for the archaeological and historical understanding of Kiawah Island. The western half of the island is composed of a series of tightly spaced beach ridges with low relief (typically under 10 feet). Hayes et al. (1975) suggest this low topography is the result of cultivation, although this would require extensive erosion and leveling. In contrast, the eastern end of the island evidences a radically different topography, being composed of very complex, bifurcating beach ridges with expanses of salt marsh occurring between these various ridges. This complex morphology is the result of the large scale changes that have taken place as a result of the Stono River (Hayes et al. 1975:G-84).

Site 38CH123 is situated in the center of the island, on one of the Pleistocene beach ridges separated from the main portion of the island by Bass Pond and its associated marsh. Elevations in the site area are generally 5 to 7 feet above mean sea level (AMSL) – significantly lower than the beach ridges to the east.

The site is also affected by a slough, known as Salthouse Creek, running south from the Kiawah River. This tidal creek has been altered by historic dredging to create a landing – and it was here that the steamboats plying the Charleston coast would make landing during the late nineteenth century.

Reference to Figure 5 reveals that

38CH123 was situated adjacent to this slough on generally level lands. There are at least two potential landing areas still visible in the topography, although both have been extensively filled.

The mean tidal range for Kiawah is approximately 5.2 feet, with a Spring tidal range of approximately 6.1 feet. These tides generate strong currents in the tidal inlets and major tidal channels.

Geology and Soils

Coastal Plain geological formations are unconsolidated sedimentary deposits of very recent age (Pleistocene and Holocene) lying unconformably on ancient crystalline rocks (Cooke 1936; Miller 1971:74). The Pleistocene sediments are organized into topographically distinct, but lithologically similar, geomorphic units, or terraces, parallel to the coast. Kiawah Island is classified by Cooke (1936) as part of the recent Holocene terrace, with elevations under 25 feet MSL (see also Colquhoun 1969).

The work by Stapor and Mathews (1976) found that Kiawah's deposition began at least 2,500 years ago and was essentially complete by 1,000 years ago. The oldest portion of Kiawah appears to be Shoolbred Point (today called Rhett's Bluff), which is an old Pleistocene Beach Ridge (Hayes et al. 1975).

Hayes et al. (1975) have reconstructed Kiawah's historic changes, from the late seventeenth century through the late twentieth century. Although there have been many different changes, perhaps most active has been the eastern end of the island adjacent to the Stono Inlet.

On an island such as Kiawah, water appears to be plentiful, yet sources of fresh water are scarce. The principal deep water aquifers are the limestone of Eocene age known as the Santee Formation and the sands of Cretaceous age, known as the Pee Dee and Black Creek formations, although these are at depths of 400 to 500 feet and 1600 to 2000 feet respectively. The Santee Formation has been pumped so heavily that there is now a "cone of depression" with the result that chloride levels exceed 400 mg/l in some areas (S.C. Water Resources Commission 1973:100).

Lynch et al. note that colonial wells rarely exceeded 20 feet into the sands which were "everywhere saturated with the water which it received from a rainfall averaging 43.78 inches each year" (Lynch et al. 1882:258). Consequently, wells 12 to 15 feet deep provided "an unfailing supply of water of the very best quality" (Lynch et al. 1882:259). Water quality gradually declined as the population increased and antebellum wells became deeper, although they rarely exceeded 60 feet in downtown Charleston. One antebellum brick-lined well on Daniels Island, about 5.5 miles northeast of Charleston, was only 10.7 feet in depth (Zierden et al. 1986:4-44). Cisterns, in common use throughout Charleston, could provide very safe, potable water, although Lynch et al. (1882:292-293) also found many of the cisterns in Charleston "foul," evidencing high levels of ammonia. We have previously discussed the reliance on a cistern by the Vanderhorsts (Trinkley 1993b), while a well (unexcavated) was found at the Shoolbred Plantation.

There is extensive documentation of wells being dug on the islands by Union troops during the Civil War. Copp noted:

> in our camp at Hilton Head, every company had its well, by digging through the sand to a depth of from four to six feet, empty barrels would be inserted, and the well was complete, with plenty of water: although brackish to the taste it was not as bad as we were frequently obliged to use in our later campaigns (Copp 1911:94).

On nearby Folly Island Barlow remarked:

> all the water used on the island was obtained by digging below tide-mark and curbing with

> barrels. The finest and best protected well in camp was made by cutting into a sand dune and making a winding passage to the water, thus placing the water continually in the shade and protecting it from dust and dirt blowing around the camp (Barlow 1899:158).

It is therefore clear that during the historic period wells were in common use, although shallow wells probably tended to be less healthy and more saline.

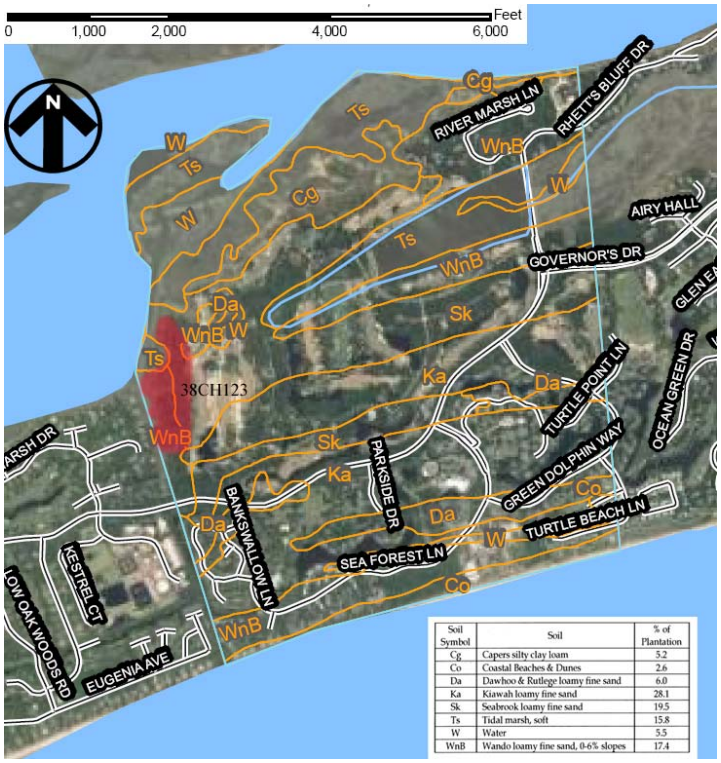

Figure 6. Soils found on the Shoolbred Plantation.

Another significant aspect of coastal 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 Brooks et al. (1989) clearly indicates that there were a number of fluctuations during the Holocene. 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 foot was again recorded at Charleston. These data, however, do not distinguish between sea level rise and land surface submergence.

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

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils of the sea and barrier islands. Sandy to loamy soils dominate in the level to gently sloping mainland areas. The island soils are less diverse and less well developed, frequently lacking a well-defined B horizon. Organic matter is low and the soils tend to be acidic. The Holocene deposits typical of barrier islands and found as a fringe on some sea islands, consist almost entirely of quartz sand which exhibits little organic matter. Tidal marsh soils are Holocene in age and consist of fine sands, clay, and organic matter deposited over older Pleistocene sands. The soils are frequently covered by up to 2 feet of saltwater during high tides. Historically, marsh soils have been used as compost or fertilizer for a variety of crops, including cotton (Hammond 1884:510) and Allston mentions that the sandy soil of the coastal region, "bears well the admixture of salt and marsh mud with the compost" (Allston 1854:13).

If we look at 38CH123 we see that the site is

almost equally divided between the Seabrook (54%) and Wando (42%) soils (the remainder are tidal soils associated with the adjacent Salthouse Creek). Both of these soils are considered well drained; the others are all poorly drained. Taking a broader view and looking at the Shoolbred Plantation, there are five soils, with the well drained Seabrook and Wando series comprising 36.9% of the approximately 800 acres. These soils are found primarily on the northern third of the tract, with the southern portion consisting of the previously discussed dune and trough topography and generally wetter soils – most that would not have been suitable for nineteenth century agriculture. Plants such as indigo and cotton require well drained soils (Hammond 1884; 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, with the other also. Draining must remove the wetness - calcareous manures the acidity (Seabrook 1848:37).

Hammond expanded on this, mentioning:

> 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 may be so termed, a foot or more in depth (Hammond 1884:509).

While a large portion of the land on Kiawah appears to be unsuitable for most crops, it is clear that adequate drainage could be constructed to make the soils more agriculturally productive. In fact, an 1854 map of Kiawah clearly reveals that Kiawah soils were cultivated across the island. Even some limited areas of Crevassee-Dawhoo soils were opened and cultivated. These areas were heavily ditched – providing the drainage that Seabrook and Hammond felt was critical in the low country.

Climate

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

The major climatic controls of the area are latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. Kiawah's latitude of 32°37'N places it on the edge of the balmy subtropical climate typical of Florida, further south. As a result, there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a marine climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains,

about 220 miles to the northwest, block the shallow cold air masses from the northwest, moderating them before they reach the sea islands (Mathews et al. 1980:46).

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

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

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

The annual rainfall on Kiawah is 49 inches, fairly evenly spaced over the year. While adequate for most crops, there may be periods of both excessive rain and drought. Kjerfve (1974:C-8) notes that Kiawah has recorded up to 20 inches of rain in a single month and the rainfall over a three month period has exceeded 30 inches no less than 9 times in the past 37 years. Likewise, periods of draught can occur and cause considerable damage to crops and livestock. Mills remarks that the "Summer of 1728 was uncommonly hot; the face of the earth was completely parched; the pools of standing water dried up, and the field reduced to the greatest distress" (Mills 1972:447-448). Another significant historical drought occurred in 1845, affecting both the Low and Up Country.

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

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:

> in 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, not 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 (about one every two years) (Mathews et al. 1980:56). Two of the most extreme Charleston hurricanes occurred in 1752 and again in 1893, with the latter producing a 17 to 19 foot storm tide and up to 2,000 deaths along the coast.

The climate of the Charleston area, regardless of storms, temperature, humidity, or rainfall, was often viewed as harsh and unhealthful, especially for the white population. Mills states:

> the numerous swamps, bays, and low grounds which indent the low country, retain the waters that fall in rains; and in consequence of these, occasion thick fogs throughout the night, during the summer months. Under such circumstances it is a matter of little

> surprise that fevers prevail. . . . The two fevers most dreaded here, are, what are commonly termed the country and yellow fever. The first is peculiar to the country, and to avoid it, the planters are in the habit either of residing in Charleston during the sickly season, or retiring to the Sea Islands or Sand hills. The second belongs exclusively to the city, and is generally fatal to strangers only, who have not, as it is termed, become climatized (Mills 1972:140-144).

Expounding on the evil of the swamps, Mills also explained:

> that to the extensive swamps and stagnant pools, which cover its surface, are we to attribute the cause of our epidemical diseases. The rank luxuriance of vegetation on these waste lands, their perpetual moisture, and the operation of a powerful sun, produce at certain seasons of the year, in a degree indeed extensive, the rapid decomposition of this vegetable matter: the miasma arising from this decomposition contaminates the surrounding air, which afterwards is wafted by the winds over the country, and poisons, more or less, the whole atmosphere (Mills 1972:462).

Floristics

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

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

Of these the Oak-Pine forests are most common, constituting over half of the forest community on the island. In some areas palmetto becomes an important sub-dominant. Typically these forests are dominated by the laurel oak with pine (primarily loblolly with minor amounts of longleaf pine) as the major canopy co-dominant. Hickory is present, although uncommon. Other trees found are the sweet gum and magnolia, with sassafras, red bay, American holly, and wax myrtle found in the understory.

In the Mixed Oak Hardwood forests pine is reduced in importance and the laurel oak is replaced by the live oak. Yaupon holly and red bay or magnolia are found in the understory. The Palmetto forests are characterized by open palmetto stands with an understory of wax myrtle, red cedar, yaupon holly, and magnolia. The Low Oak woods or thickets are found as a band behind the high dunes. This association is continuous with the Oak-Pine-Palmetto forests. The miscellaneous wooded areas include wax myrtle thickets found in low areas behind the dune fields.

Mills, in the early nineteenth century, remarked that:

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

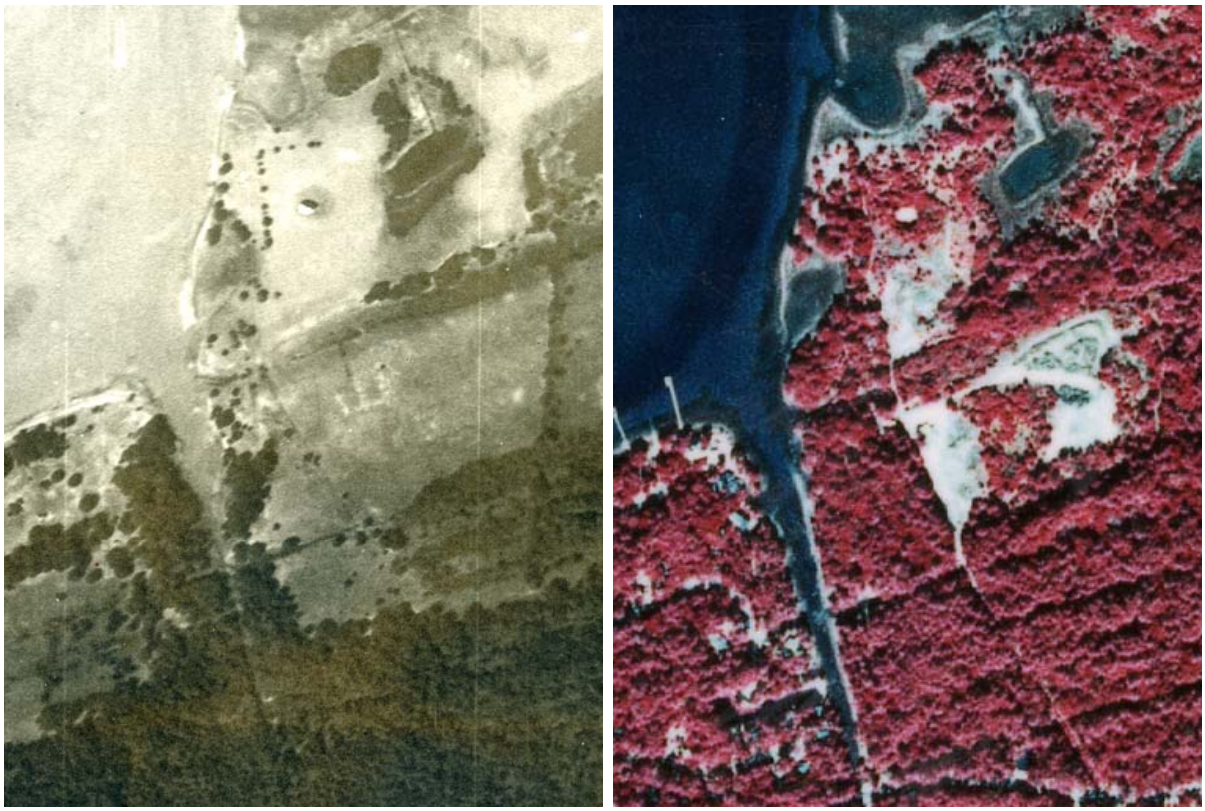

Figure 7. Changes in the site area between 1939 (left aerial, CDV-1-128) and 1989 (right aerial, 1358-11, taken prior to Hurricane Hugo). The false color infrared shows hardwoods in red, the white areas are unvegetated sand, and the dark areas are water or wet soil.

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

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

The "Oak and hickory high lands" according to Mills were, "well suited for corn and provisions, also for indigo and cotton" (Mills 1972:443). The value of these lands in the mid-1820s was from $10 to $20 per acre, less expensive than the tidal swamp or inland swamp lands (where rice and, with drainage, cotton could be grown).

The estuarine ecosystem in the 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 Kiawah is 5.2 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 occupations because they naturally contain a 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.

While shellfish are only briefly itemized by Mills in the context of a food source, he elaborates in his discussion of building material, observing that:

> lime is obtained from burning oyster shells. It makes a very good mortar, where good sharp sand is used, though it is not equal to the stone lime (Mills 1972:460).

There was a major "wood and lime" landing west of 38CH123, on the same tributary of the Kiawah River. In addition, Shoolbred and his neighbor, Vanderhorst, engaged in a legal dispute regarding the ownership of shell banks (intended for lime production) in the Kiawah (Trinkley 1993:62-64).

The last environment to be briefly discussed is the freshwater palustrine ecosystem, which includes all wetland ecosystems, such as the swamps, bays, savannas, pocosins, and creeks, where the salinities measure less than 0.5 ppt. These palustrine ecosystems tend to be diverse, although not well studied (Sandifer et al. 1980:295).

Most of Kiawah's freshwater environments appear to have been created within the twentieth century, primarily unintentionally by the creation of dikes to support logging roads (Hosier 1975:D-40). It is likely, however, that small freshwater ponds were found in various troughs scattered across the island. A number of forest types may be found in the palustrine areas which would attract a variety of terrestrial mammals. The typical vegetation might consist of red maple, swamp tupelo, sweet gum, red bay, cypress, and various hollies. Also found would be wading birds and reptiles. It seems likely that these freshwater environs were of particular importance to the prehistoric occupants.

As will be discussed in a following section, site 38CH123 was cleared and extensively occupied during the eighteenth and nineteenth centuries, although there was certainly opportunistic growth in different areas. Much of the area continued to be cleared and cultivated during the early twentieth century.

By 1939 much of the area had been converted into pasture for the cattle being held on Kiawah (Figure 7). At the north edge of the site we can see a remnant fence. Also present is a structure on the edge of cattle watering hole (the same that is shown on Figures 3, 4, and 5). To the east of this watering hole is a larger drainage connected to the marsh by an excavated drain. The purpose of this feature is unclear.

Bu 1989, 50 years later, a false color infrared shows the changes that have taken place. Pasture is now largely hardwood, although a few areas of open ground are still present. Also still present is the water hole to the west and the impoundment to the east. The field drains seen clearly in the 1939 aerial are still visible 50 years later. It appears that the slough has been cleaned out – probably as a result of development activities on the island. To the west of the slough the area has already been extensively developed; piers, the road network, and houses are all clearly visible.

Curation

An updated site form reflecting this work was filed with the South Carolina Institute of Archaeology and Anthropology (SCIAA). The field notes and artifacts from Chicora's data recovery at 38CH123 are curated at SCIAA using that institution's provenience system. All original records and duplicate records have been provided to the curatorial facility on pH neutral, alkaline buffered paper. Photographic materials include B/W negatives and color transparencies – both of which are being processed to archival standards.

HISTORICAL OVERVIEW

These discussions will focus on the settlement along the east bank of Salthouse Creek and its owners. Trinkley (1993b) should be consulted for a more in depth recounting of Kiawah's history. To help place Kiawah in an even broader context, readers may also be interested in reviewing Trinkley et al. (2008) which provides a detailed synopsis of the history of Johns Island, situated immediately north of Kiawah, across the Kiawah River.

Initial Owners

The first owner of Kiawah was George Raynor (sometimes Rayner) who arrived in the Charleston harbor as the captain of the *Loyal Jamaica* in 1692. Hughson notes that:

> a crew of forty men arrived in a vessel called the *Royal* [sic] *Jamaica*, bringing with them large quantities of silver and gold. By means of their wealth they found immediate favor with many of the people, and the officials were so far swayed by considerations of which history does not speak, that they were permitted to remain in the Province unmolested, on the condition of their entering into bond to keep the peace for a year, the Proprietors in the meantime being applied to for a grant of indemnity in their favor (Hughson 1894:32-32).

An April 1692 entry in the Journal of the Grand Council of South Carolina recounts the arrival of the "*Loyall* [sic] *Jamaica*" off Sullivans Island and the claim by Raynor that the ship was a lawful prize taken in the war against France. On February 22, 1694 Samuel Lowe and John Harris of Port Royal, Jamaica, merchants:

> executed their bond in the sum of £1000 to George Raynor, of Carolina, merchant, indemnifying him from suits or actions by themselves or any of their agents, or from Thomas Harrison, formerly Captain of the ship called the *Loyal Jamaica*, or any of his agents, by reason of his turning the said Harrison out of his command of said ship (Records of the Court of Ordinary of the Province of South Carolina, 1692-1700; see also Carroll 1836:1:106).

Raynor purchased three town lots in 1693/4 and 1,020 acres on the west side of the Stono. On March 29, 1698/9 he was granted the 2,700 acre Kiawah Island plantation by the Proprietors (South Carolina Historical Society, 33-38-10; see also February 22, 1698/9 warrant in Salley and Olsberg 1973:585-586). Shortly thereafter he also acquired an island on the east side of the Stono (Records of the Court of the Ordinary of the Province of South Carolina 1699-1700, p. 21-22; Salley and Olsberg 1973:444, 485, 591).

While some have suggested that Raynor was a pirate, this can hardly be proven given the historical documents. We do know that his land transactions suggest that he, like many others of the period, engaged in land speculation, gradually integrating himself into respectable society.

There is no indication that Raynor ever lived on Kiawah, or even planted the island. He apparently married in Charleston and had at

least one daughter, Mary, who married Roger Moore sometime prior to 1715 (Webber 1936:13). Roger was the son of James Moore, Governor of South Carolina from 1700 to 1703.

Raynor sold half of Kiawah Island to a Captain William Davis about a year after his initial purchase, on November 1, 1701 (South Carolina Historical Society, Misc. Deeds). The other half interest or moiety passed to his daughter in his will (Charleston County RMC DB Y, p. 182). Mary Raynor Moore apparently moved to the Cape Fear area of North Carolina with her husband about 1723. There Roger Moore became a member of the Kings Council and was one of the "chief gentlemen of Cape Fear" (Webber 1936:12-13).

The portion of Kiawah which passed from Raynor to his daughter remained in the Moore family through 1737, passing from Mary to her husband Roger to their son, George Moore (Charleston County RMC, DB Y, p. 182). As absentee owners it seems unlikely that they made any appreciable changes on Kiawah.

Roger Moore sold Kiawah Island to John Stanyarne in October 1717 (Charleston County RMC DB N, p. 119). Apparently there was some doubt to the legality of the transfer, since George Moore, while noting that his father had only a life-interest in the property and therefore could not legally provide fee-simple title, sold his one-half share in Kiawah to John Stanyarne on July 16, 1737 for only 5 shillings, apparently to clear the title (Charleston County RMC DB Y, p. 182).

Kiawah Under Stanyarne

The other moiety of Kiawah, sold by Raynor to William Davis, was passed from Davis to his widow, Elizabeth. She married William Wilkins and sold the property (as executor of her late husband's estate) on July 12, 1708 to Richard Peterson, Jr. for £90 (Charleston County RMC, DB N, p. 113). Richard Peterson is described as a "mariner" (Charleston County RMC DB N, p. 122), perhaps continuing the ownership of this moiety by those having some tie to Raynor's earlier days as a privateer. The moiety eventually passes from Richard Peterson to his son, John Peterson. Apparently a minor, the property was managed by Jonathan Drake, who on January 4, 1722/3 sold John Stanyarne the "whole stock of cattle also the hoges bothe tame and wild" on "Koyawave" for £300. Further Stanyarne was to have "use of that part of the Island which is now in the posation of said John Drake In behalf of said Peterson" (South Carolina Historical Society 12/194/30).

This suggests that Kiawah, in the early eighteenth century, was being used largely as range for cattle, a common practice in the early Colony, especially on the sea islands. It was an easy way to exploit the region's land and resources, offering a relatively secure return for very little investment. Few slaves were necessary to manage the herd. The mild climate of the islands made winter forage more abundant and winter shelters unnecessary. The salt marshes, useless for other purposes, provided excellent grazing and eliminated the need to provide salt licks. Further, the islands were self-contained, eliminating the need for fences (Coon 1972; Dunbar 1961). Production of cattle, hogs, and sheep quickly outstripped local consumption and by the late seventeenth century beef and pork were principal exports of the Colony to the West Indies (Ver Steeg 1975:114-116).

John Peterson died in September 1727 and his property was inherited by his aunts, Elizabeth Porter (of North Carolina) and Eleanor White (late of Jamaica). They, in turn, sold their one-half of Kiawah to John Stanyarne, who had been previously leasing the island, for £600 (Charleston RMC DB N, p. 129).

With the acquisition of the Peterson moiety in 1734 and the Moore moiety in 1737, John Stanyarne for the first time since Raynor, 33 years earlier, united the island under one owner.

Relatively little is known about Stanyarne, although his major seat was Hickory Hill at the end of River Road on adjacent John's Island and it is there, in the family cemetery, that he was buried in 1772 (South Carolina Historical Society 30-06-21). Politically, he sided with the Proprietors during their long-standing disputes with the "Goose Creek" faction (which included his brother, James). The "Goose Creek Men," a wealthy and influential immigrant group from Barbados, favored trade and commercial interaction with pirates and privateers, against the will of the proprietors and Crown (Sirmans 1966:42).

What Stanyarne did on Kiawah is hinted at by the inventory, conducted after his death in December 1772. The document listed a total of 296 slaves working on his eight plantations – six plantations on Johns Island totaling 1,974 acres, one on St. Helena with 1,040 acres, and Kiawah with 2,700 acres, plus his Charleston house.

Agricultural implements, tools, and produce included a lot of indigo seed; seven casks of indigo; 17 indigo hooks; a wire sieve (for screening the wet indigo); five sets of indigo vats, press cloths, and pumps; three pair rice sieves (for separating the different quality grains); 15 rice mills with mortars and pestles; 300 bushels of seed rice; a "win fann for Rice"; 14 bushels old indigo seed; 29 bushels new indigo seed; 63 Indigo vats and "furniture"; and crops of rice and indigo from his Johns Island and Kiawah plantations. While not divided in the inventory, it is likely that the Johns Island plantations produced rice, while Kiawah produced indigo.

Henry Laurens served as a factor for Stanyarne, shipping as much as 6,000 pounds of indigo at a time to England. At the rate of 40 pounds per acre this suggests Stanyarne was planting about 150 acres in indigo, requiring perhaps 30 slaves on Kiawah. After a dispute with an associate of Laurens over the value of the indigo, Stanyarne began shipping on his own account. Unfortunately, Laurens never mentions Kiawah.

John Stanyarne's estate, excluding lands, was valued at £146,246.9.2 (S.C. Currency, or approximately £20,474 sterling)—over $2.5 million in today's dollars. Less than 19% of South Carolina's plantations fell into this category (Coclanis 1989:86).

Other items at Johns and Kiawah islands included: walnut chairs, tables, gilt looking glasses, a clock, four hunting prints, floor cloths (carpets), window blinds, mahogany and cypress tables, tea tables, poplar and pine bedsteads, mattresses, easy and arm chairs, silver castors, candlesticks, silk umbrellas, a rum case, brass scales and weights, curtains, guns and pistols, books, pewter, earthenware, glass, kitchen furniture, iron pots and kettles, milk pans, and green handled knives and forks. Plantation implements included carpenter's tools, shoemaker's tools, an auger, staves and heads (for shipping either rice or indigo), cedar posts, an ox cart, two horse carts, five boats or canoes, iron wedges, spades, a grist mill, whip and crosscut saws, nails (20p, 10p, and 4p), window glass, cut lumber, and a "lott of old iron."

Produce and provisions on the plantations included one jar of hog lard, 36 bottles of wine, two jugs of linseed oil, 158 pounds of tallow, 456 pounds of myrtle wax, rice flour, 2,649 bushels of corn, peas, 2 barrels of pitch, potatoes, and corn blades (used as fodder). The current rice crop was valued at £4,368, while the indigo crop was valued at £6,098. Stock included 31 horses, 206 heads of cattle, 16 head of oxen, 55 hogs, and 50 head of sheep.

Of the 296 slaves, 97 were male, 90 were female, and 109 were children. Their total value was £90,310 or approximately 62% of the estate (Charleston County WPA Inventories, vol. 94B, pp. 436-444).

Stanyarne's will, dated August 27, 1772 and proved December 22, 1772, provided that his grand-daughter, Mary Gibbes, would receive as a life estate the southwestern moiety of "my Island Called Kiwah Island, wheron the dwelling-house now stands, containing one Thousand Three hundred and fifty acres of Land." At her death the property would pass to her heirs, and finally, ownership would be fee simple with the third generation. The other, or northeastern, moiety was devised to Stanyarne's grand-daughter "Elizabeth Vanderhorst, daughter of the late William Raven and Sarah his late wife," again as a life interest converting to fee simple ownership for the third generation (Charleston County WPA Wills, 1771-1774, p. 286; see Writs of Partition, Book No. 1, 1754-1777, p.262 for the division of Kiawah between Gibbes and Vanderhorst, this partition also provides the first plat of Kiawah, dated 1775).

On the eve of the American Revolution it therefore appears that Kiawah was not only a major indigo producing plantation, but that it was also producing at least some provisions, perhaps myrtle wax, and was continuing to be used for stock raising. Stanyarne had built a settlement on the southwestern half of the island, probably in the vicinity of 38CH122 (see Figure 1; this structure was likely constructed around 1765, shortly before Stanyarne's death). No settlement worthy of mention existed on the other half of Kiawah, inherited by Elizabeth Vanderhorst (this spelling is retained throughout this study, although most members of the family used the spelling Van der Horst, with the pronunciation, v_n•der•hórst). The island, united by Stanyarne for nearly 40 years was again divided.

Kiawah During the Revolution

The impact of the American Revolution was perhaps hardest felt in economic terms. Charleston was seized and held by the British for 2½ years, from 1780 to 1782. In addition, the removal of Royal bounties on rice, indigo, and naval stores caused considerable economic chaos with the eventual restructuring of the state's agricultural and economic base.

It is unclear exactly what activities were taking place on Kiawah, although in 1782, nearly at the end of the war, General Nathanael Greene arranged for a truce to allow American officers to use Kiawah Island for rest and recuperation. Apparently the party going to Kiawah included Greene's wife, Catherine; Dr. Robert Johnson, Hospital Physician and Surgeon, Southern Department; Colonel William Washington and his wife, Jane Elliot Washington; Colonel Lewis Morris; Major Pierce; and Captain Nathaniel Pendleton, Jr. and his brother. Colonel Morris wrote his fiancée, Ann Elliott, on August 24, 1782 that they were to begin the trip to Kiawah the following day:

> we shall travel with a cook and all the materials for a table, and depend upon the sea for our support (Anonymous 1939:133).

It is clear from other letters, however, that the group was well provisioned, eating duck, chicken, beef, crab, fish prawn, and potatoes, while drinking coffee and wine (Stegeman and Stegeman 1977:98).

The group apparently stayed at the Gibbes plantation on Kiawah and Pendleton wrote Greene complaining of the lack of hospitality shown to the group by their host, Robert Gibbes (part of this inhospitable behavior was a shortage of wine) (McCaskey 1990:88).

While Robert Gibbes' daughter, Mary, had a life estate in the southern moiety, and she married Thomas Middleton on November 3, 1774, she died the following year, giving birth to her daughter, Mary. Although her husband, Thomas lived until 1779, he had no right to the plantation and played an insignificant part in Kiawah's history. It is likely that on Mary Gibbes Middleton's death, her father, Robert Gibbes (a Charleston merchant and factor, as well as a planter), assumed operation of the

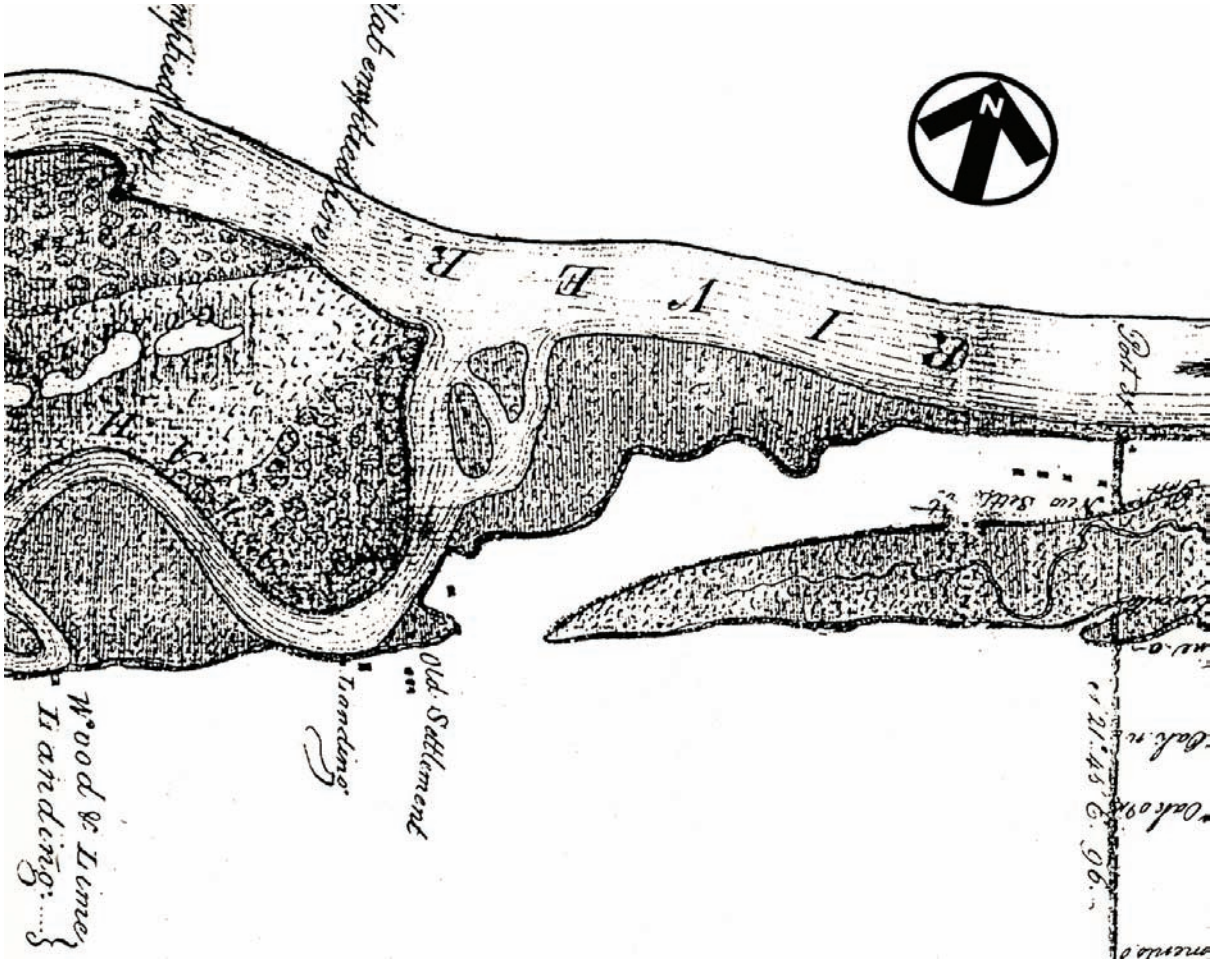

Figure 8. Portion of the 1802 plat of Kiawah Island showing Stanyarne's "Old Settlement," and Shoolbred's "New Settlement." 38CH123 is the "Old Settlement."

plantation in trust for his grand-daughter, Mary, and was thus assumed to be the owner by Greene's officers.

McCaskey (1990:88) suggests that Gibbes' behavior reflected his personnel sentiments and loyalties to the Crown. There may be some truth in this considering that Kiawah had seen the darker side of the Revolution. A house built on Kiawah by Arnoldus Vanderhorst II, husband of Elizabeth Raven, sometime shortly after her inheritance of the northern moiety, had been burned by the British in 1780, immediately before their occupation of Charleston.[1] That the Gibbes plantation survived unscathed perhaps reflects the divided sentiments on Kiawah Island during the Revolution.

[1] It was probably in February 1780, when the British occupied Edisto, Seabrook, Wadmalaw, Johns and Kiawah islands on their way to Charleston (Johnson 1851:247), that the Vanderhorst mansion was burned. When the British seized Charleston, his property was sequestered (Leland 1977:24). Arnoldus II itemized his losses to the British as: "1 Dwelling House on Kiawah burnt by the British with out buildings and fences £2000."

Shoolbred

Shortly after the American Revolution, about 1797, Mary Gibbes Middleton, daughter of Thomas and Mary Middleton, married James Shoolbred, bringing with her fee simple ownership (as the third generation descendant of John Stanyarne) in the southern moiety of Kiawah (South Carolina Historical Society 15/62/1). Shoolbred served as the British Consul for South and North Carolina under the administration of William Pitt. Surprisingly little else is known about the man or his activities on Kiawah Island. The Shoolbred Papers at the Charleston Library Society (Manuscript #62) deal almost entirely with Shoolbred's oversight of his father's business in Canada.

Records such as the census provide little information. For example, Shoolbred, while itemized in the 1800 census, was probably shown in his Charleston house since besides his family only 13 African American slaves are listed. While listed in the 1820 census, there is no information regarding members of the household or slaves.

We do have a few items from the far more complete Vanderhorst papers that provide a glimpse of Shoolbred's activities. At the turn of the century, for example, Vanderhorst's overseer, William Nicks, wrote that his "good Neighbors," the Shoolbreds were unhappy with shell gathering on what they felt were their marshes. As both Nicks' letter and an earlier account book reveal, the production of lime was a profitable undertaking for Vanderhorst. In 1799 Vanderhorst realized £215 from the sale of lime, equal to that of about 15 acres of indigo.

This dispute lead to court action by Shoolbred against Vanderhorst. Shoolbred claimed the oyster beds as his property, based on the partition of the island. Vanderhorst, however, claimed them as part of his 1774 Bonneau grant. The Court of Common Pleas directed that a new survey be made of Kiawah to determine whether the disputed oyster beds were part of the original grant of the island. It took two years for the plat to finally be prepared in 1803 (South Carolina Historical Society, 12/194/46, 49, 50; South Carolina Department of Archives and History, MC 1).

Hardwicke determined that the oyster grounds in question were not part of the original grant of the island, which was of highland only. As a result, the jury found Vanderhorst innocent of any wrongs and ordered Shoolbred to pay court costs (South Carolina Department of Archives and History, Judgment Roll 750A).

The resulting plat (Figure 8) provides the first plan of the island's settlements. Of particular interest is the cluster of six structures designated "Old Settlement," with the largest of these, apparently a main house, adjacent to a landing on a tributary of Kiawah River. To the west is a second landing (identified as "Wood and Lime Landing"). On what is today known as Shoolbred Point or Rhett's Bluff is the "New Settlement," with a series of four structures, forming an east-west line.

The bad blood between Shoolbred and the Vanderhorst family did not last. In June of perhaps 1822 or 1824 Ann, wife of Elias Vanderhorst, wrote from Kiawah:

> Mr. Shoolbred dined with me the other day. I am delighted with the old gentleman, he is elegant in his manners as most men who have seen much of the world are, and combining with this a highly improved mind (South Carolina Historical Society 12/197/17).

It is impossible to reconstruct plantation activities on the southwestern moiety of Kiawah since Shoolbred left no plantation papers or journals. It seems likely, however, that the Shoolbred plantation was more of a retreat or country seat than an intensively operating plantation. It is clear that Shoolbred was making

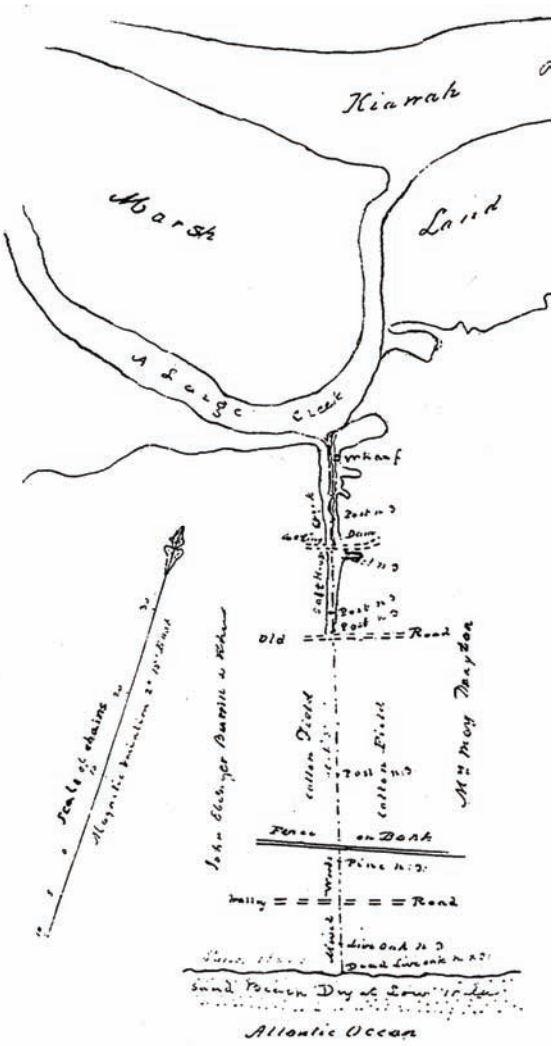

Figure 9. Portion of the 1848 survey that divided Kiawah between Mary Drayton and the Burrill children.

changes to the property -- the largest of which was the relocation of the main settlement shown on the 1802 plat of Kiawah (Figure 8).

By the time Shoolbred married Mary Middleton about 1797, the Stanyarne house would have been 30 years old, constructed around 1765. Shoolbred may have wanted to create a more elaborate and graceful plantation setting for Mary, if not for himself, and chose to move the main settlement northward to what is today called Rhett's Bluff. This move, however, left behind a nucleus of support structures and probably at least a portion of the slave settlement.

The "old settlement" continued to serve as the major landing on the island, apparently used by both Shoolbred and Vanderhorst. There is also good evidence from archaeological studies at the "new settlement" (Trinkley 1993b) that Shoolbred salvaged materials, such as expensive architectural items, from the old mansion, rather than leaving it abandoned to the slaves.

In 1840 Shoolbred was enumerated in Charleston's 4th Ward. His household consisted only of his wife and him, along with 27 African American slaves.

The "new" Shoolbred settlement was well established on Rhett's Bluff by the time of James Shoolbred's death in 1847. His will, proved November 17, 1847, specified that the plantation would be divided into two parts (Charleston County Wills, Book K, p. 138). To John Gibbes Shoolbred (his son), in trust for Mary Drayton (James' daughter and the widow of Charles Drayton) he devised:

> the eastern part of my Plantation on Kiawah Island, bounded on the East by the line which separates it from General Vanderhorst's part of the said Island . . . on the North by Kiawah River, on the South by the Atlantic Ocean and the West by the middle of Salt House Creek down to my carting dam, and thence by a line in continuation of the above line to the Atlantic Ocean, together with all the buildings and improvements within the said boundaries including the settlement on Wall Point [Rhett's Bluff], also all the furniture, household goods, and silver plate in my Kiawah

	Improved Acres	Unimproved Acres	Value of Farm ($)	Value of Implements ($)	Horses, Mules	Oxen	Milk Cows	Other Cattle	Sheep	Swine	Value of Livestock ($)	Value of Slaughtered Animals ($)	Corn (bu)	Oats (bu)	Hay (tons)	Cotton (bales)	Peas (bu)	Sweet Potatoes (bu)	Wool (lbs)	Butter (lbs)
1850 - Mary Drayton	400	94	10,000	600	3	16	40		30	40	760	100	1,100	250		14	220	1,000	60	480
1850 - Mean for St. Johns Colleton	535	448	18,438	874	11	7	40	31	32	36	1,321	183	941	20		34	130	1,521	39	210
1860 - Isaac Wilson	300	142	11,000	150	13	40	8	20	50		2,000	200	500		15	20	150	1,400	200	200
1860 - Mean for St. Johns Colleton	479	1,326	26,962	848	9	8	28	34	33	38	2,231	1,001	778	2	20	32	120	1,696	123	226

Table 1. Agriculture production for the study plantation in 1850 and 1860, compared to the mean for St. Johns Colleton (consisting of Edisto, Wadmalaw, Johns Island, Seabrook, Kiawah, and part of the mainland).

> house, the Canoes Paul and Robuck the Sloop built by W. Bird in 1846, the mail boat, etc. and the horned cattle, sheep, Goats, swine, the utensils of husbandry and everything of the nature of personal estate on said part of said Plantation or used or enjoyed therewith; also the following Negro slaves, to wit, Ben, and Tenny and their five children, Soloman, Pender, Harry, Lilly, and Cato, Siddy, Moses and Kate, Joe and Kit, Cattle Joe, Swine Peter, February & Suckey, Jack and Sarah, John, Cuffy, Ned Sikey and Primus . . . and from and after the decease of the said Mary Drayton . . . to her children living at the time of her decease.

To the children of his deceased daughter, Ann Burrill, named as John Ebenezer Burrill, Mary Burrill, Shoolbred Burrill, and Drayton Burrill (all living in New York), he devised:

> all that part of my Plantation on Kiawah Island lying to the west of the part herein before devised in trust for my daughter Mary Drayton.

This effectively gave Kiawah three owners – Vanderhorst, owning the eastern half of the island; Mary Drayton, owning the central one-quarter; and the Burrills, owning the western one-quarter.

The tract devised to Mary Drayton contained the bulk of the improvements, including Shoolbred's "new settlement" on Wall Point (now known as Shoolbred Point or Rhett's Bluff). The plat of this division, shown in Figure 9, reveals that the island's landing was well developed, and included a wharf on the east side of the inlet called Salthouse Creek. The central part of the island was cleared for cotton fields and a bank had been established on the ocean side of the island, probably to limit flooding. Several roads ran east-west across the island, and the cart path across Salt House Creek suggests that there were still major utilitarian buildings existing on the west side of the inlet.

Notes on the Gibbes family, written in the 1870s, mention that Shoolbred was "buried at his Country Seat, Kiawah Island, along side of his beloved wife," and that "the remains of both repose on Kiawah Island amidst the shrubbery of that beautiful estate" (South Carolina Historical Society 15/62/1, pp. 52, 59). James Shoolbred's stone, still extant near 38CH129, reads: "SACRED/To the Memory of/JAMES SHOOLBRED Esqr./Born in London/May 13th 1776./and Died in Charleston/September 12th 1847/aged seventy-one years and 4 months/having lived in this State/steadily since 1790." His wife's stone reads: "Under This Marble/are deposited by her own desire/the Remains of MARY MIDDLETON SHOOLBRED/Born on the 6th of November 1779/and departed this Life on the/10th of July 1808."

The 1850 census lists Mary Drayton, then 50, living with her 20 year old son, Thomas, on Kiawah Island. Although Thomas listed his occupation as planter, he did not list the value of

his real estate, presumably because it was still in his mother's name. The 1850 slave schedules list 63 African American slaves owned by Mary Drayton. None were listed under her son's name.

Reference to Table 1, the 1850 agricultural schedule for the Shoolbred/Drayton plantation, shows that the tract was listed at just under 500 acres (we calculate about 570 acres; the difference may be surveyor error or may be an error on where we have identified the boundaries – in either event, the two are very close). Cotton production is significantly less than the mean; even figuring in the smaller Kiawah plantation improved acreage, Mary Drayton had lackluster production – perhaps reflected in the lower value of the property. Only in peas, corn, and oats does the Kiawah plantation surpass averages for the parish as a whole. The large number of oxen on the plantation is curious, although they seem to have clearly replaced reliance on mules for cultivation.

Nevertheless, if we compare the Drayton plantation with that held by Vanderhorst (who had 250 improved acres in 1850) we see relatively few differences. It appears that the problem on Kiawah was not management, but rather that the island presented a relatively hostile environment for antebellum agriculture. For example, in May 1858 Elias Vanderhorst complained that Kiawah was his "Botany Bay," a reference to the eighteenth century Australian penal colony that Britain established on land so unproductive that it was found to be unlivable (Trinkley 1993b:66-67).

The Plantation Under Wilson

At Mary Drayton's death in 1855, the eastern portion of Shoolbred's plantation passed to her sons, Thomas Henry Middleton Drayton and John Drayton (Charleston County Wills, Book L 1851-1856, p. 410). In 1855 the plantation included the house, outbuildings, cattle, horses, mules, and 75 slaves. The two brothers held the plantation until January 16, 1860, when they sold it to Isaac Wilson, who mortgaged the island to them to guarantee payments.

An Isaac Wilson is listed as a 32-year old planter of St. Johns Colleton Parish in the 1850 census. The slave schedule for that year indicates that Wilson owned 33 African American slaves. This may be same Isaac R. Wilson, listed in the 1860 census on Johns Island (which was part of St. Johns Colleton). He was reported to be a 45-year old planter with real estate valued at $21,000 and personal estate valued at $27,000. In 1860 he is reported to have owned 86 slaves.

Regardless, by 1860 under the ownership of Wilson, the plantation's improved acreage had gone down, although cotton production went up by six bales. This change was accomplished with 31 slaves, compared to the 63 owned by Mary Drayton 10 years earlier. This increase in the cash crop, however, was accompanied by a decrease in important provision commodities such as corn, oats, peas, and butter (milk cows declined from 40 to just 8, easily accounting for the decline in butter production). It appears that while Wilson was attempting to make the plantation profitable with a cash crop, he was also placing himself in the position of purchasing more provision crops on the open market.

A dramatic demographic change, beyond a simple reduction in numbers, had also taken place in the slave population on Wilson's plantation. While the 1850 population included 16 males and 16 females over the age of 15, as well as 19 children, by 1860 there were only nine males compared to 16 females, with five children. This radical shift may have been the result of Wilson not only trying to trim costs by reducing the population, but may also indicate an effort to farm with less costly female slaves. Of the nine male slaves held by Wilson, a third were over the age of 40, compared to only 12% 10 years earlier.

Figure 10. Portion of the 1863 tracing of the 1854 Coastal Survey of Kiawah Island.

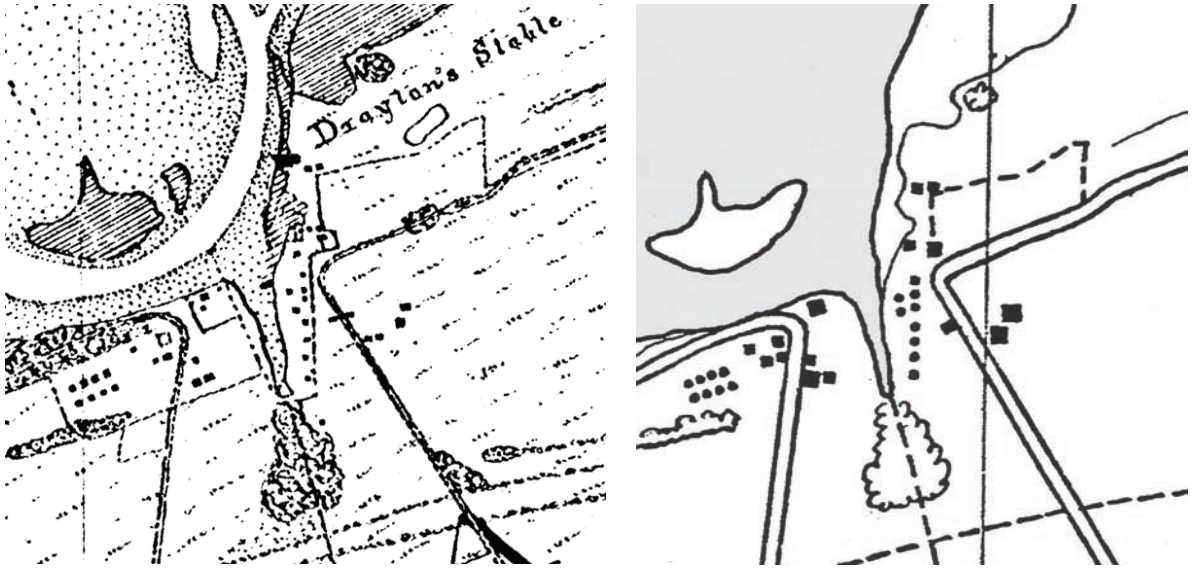

Figure 11. Comparison of the original 1854 plan (on left) and the 1863 tracing (on right) showing the structures in the vicinity of Salthouse Creek. 38CH122 is on the west shore and 38CH123 is on the east shore.

The property devised by Shoolbred to the children of Ann Burrill was sold in March 1854 to William Seabrook (Charleston County RMC, DB L13, p. 81, DB L13, p. 85).

The best view of Kiawah Island is provided by an 1863 tracing of the 1854 Coastal Survey Map entitled, "Kiawah River and Island and Portions of Folly, Cole's, John's and Seabrook's Islands" (Figures 10 and 11). This shows Kiawah under the ownership of the Burrills, Mary Drayton, and Vanderhorst, although it is unlikely that any major changes had occurred since the island was under the dual ownership of Shoolbred and Vanderhorst.

On the west side of Salt House Creek (shown also in Figure 9) there is a settlement consisting of 16 structures surrounded by a fence. These include a double row slave settlement with eight houses, six support structures, a large structure close to the shore that may represent a storehouse, and another large structure that may represent a main house. This portion of the Shoolbred Plantation had been passed to the Burrills, who sold it the year the chart was made to William Seabrook.

On the east side of Salt House Creek (Figure 10) there are a series of 16 structures consisting of possibly nine slave houses, six outbuildings, and a possible main house.

The Shoolbred settlement on Rhett's Bluff is shown as consisting of six buildings. The Vanderhorst settlement is shown as consisting of nine structures. At Sandy Point five structures are shown. This settlement probably consisted of Vanderhorst's house, one or more servants' quarters, outbuildings, and possibly a kitchen.

There are some differences between the original 1854 map and the 1863 tracing. Many of these differences may be due to the map being updated or, more likely, incorrect transfer of structures and features from the original. Nonetheless, these differences are worthy of note and a comparison is shown as Figure 11.

The western settlement is very similar, although two additional structures are shown on the 1854 map in the vicinity of the main settlement. In addition, size and placement of structures varies between the two maps.

At the eastern settlement – 38CH123 – we see potentially more significant differences. Six structures are shown on the earlier map that are left off of the later tracing. The large structure at the edge of the marsh labeled "Drayton's Stable" is not shown on the later map, nor is the large oval pond still seen today.

Regardless, both maps reveal that by the middle of the century, both settlements were still in very active use. What we can't be certain of is the date of any of the structures.

Civil War

With the fall of Hilton Head and Beaufort to Union forces in November 1861, the entire coast was left vulnerable and the call went out for planters to remove themselves – and their property – from the coastal islands. We know that Elias Vanderhorst made these arrangements in early 1862 and it seems reasonable that Shoolbred did as well.

When Arnoldus Vanderhorst IV (the son of Elias and Ann Vanderhorst) visited Kiawah in March 1862 he told Adele (his wife):

> fortunately found everything just as I had left it when I removed the negroes. The next plantation belonging to Mr. Wilson [the Shoolbred plantation, 38CH129, passed on to Mary Drayton and sold to Wilson in 1860] was not so fortunate. Our own troops had broken into the fine dwelling house and maliciously destroyed the furniture, and left the house in such a condition that it scarcely ever will be habitable for a decent family. The Vandals were not satisfied with this shameful destruction of private property, but were low enough to rob the poor old negro who was left to take care of the place of all his chickens, and they even went in his house, and stole a new pair of shoes that his master had given him. Is it not melancholy to think that we have such Barbarians amongst us, and that these are the men that the country looks to to fight its battles. The more I see of our people the more I am convinced of their total unfitness to Government themselves, and I think the sooner we have a strong government the better for all classes (South Carolina Historical Society 12/200/12).

This is the only account we have of any activities specific to the old Shoolbred plantation. We do know, however, that Kiawah saw periodic troop movements, patrols, and other activities, by both Confederate and Union forces. It seems likely in all this activity that the plantation structures continued to suffer damage and depravations by both sides.

This assessment is supported by a March 31, 1864 letter from Colonel A.M. Barney (142nd New York Volunteers) to his friend, Phiny. Written from Kiawah, Barney describes the island and its plantations:

> There are three plantations on it and was two very fair houses. One of them was accidently burned in July last by the tall dry grass getting afire from some bivouac fires, the other has been almost entirely demolished by this and other Regts.

It is clear when this fragment of history is compared to the archaeological and historical evidence that the three plantations were the Vanderhorst, Shoolbred (by that time, Wilson), and Drayton (the "Old Settlement"). It was the

Shoolbred house, 38CH129, which Vanderhorst described as vandalized in March 1862 that Barney reported as burned during July 1863. The house being "demolished" was almost certainly the Vanderhorst mansion, 38CH127. By the end of the war,

> the elegant [Shoolbred] mansion and all the splendidly arranged outbuildings all, well as the barns, negro quarters &c. were totally destroyed (South Carolina Historical Society 15/62/1, p. 59-60).

Postbellum Stagnation

It is clear from the 1866 Coastal Survey that Kiawah had changed (Figure 12). The Shoolbred "New Settlement" no longer existed, as implied by the above description. Only six structures (including the main house) are shown for Vanderhorst's settlement. The Seabrook settlement on the west side of Salthouse Creek is reduced to 14 structures, although the main house (presumably the original Stanyarne mansion) is still standing. The cluster of structures east of Salthouse Creek at 38CH123, or the Shoolbred "Old Settlement" has been reduced to 11 buildings.

Although we have been able to reconstruct many of the activities on the Vanderhorst settlement, virtually nothing has been discovered about activities at the Wilson plantation or "Old Settlement."

We do know that court action was brought against Isaac Wilson in 1866 by Wallace Lawton for various unpaid mortgages and the Court of Equity directed that Wilson's property should be sold. Wilson's portion of the Shoolbred estate, described as:

> that plantation or tract of land lying and being on Kiawah Island in District of Colleton and State aforesaid: measuring and containing – Butting and Bounding Northwardly on the Atlantic Ocean, Southwardly on Kiawah River [these two boundaries were accidently reversed in the deed], Eastwardly on Lands of Elias Vanderhorst, and Westwardly on lands of William Seabrook (Charleston County RMC, DB D15, p. 405).

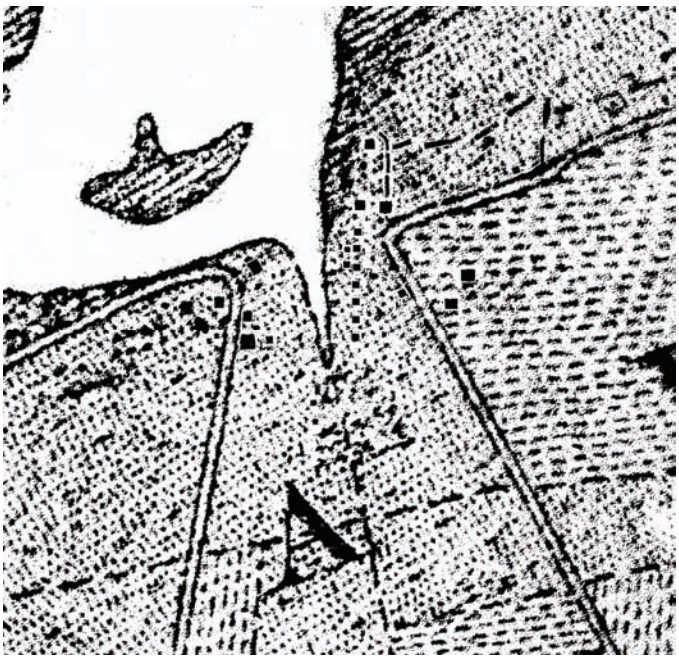

Figure 12. Portion of the 1866 Coastal Survey showing Kiawah's settlements at Salthouse Creek after the Civil War.

The Wilson portion of Kiawah, including 38CH123, was sold to James Gibbes for $4,510. Gibbes was a grandson of James and Mary Shoolbred and a cousin of Thomas Henry Middleton Drayton and John Drayton, who had originally sold the property to Wilson in 1860. Gibbes' intent was to maintain the property within the family, and when his daughter Amelia S. Gibbes married John Haile, a marriage settlement stipulated that the property would

pass from Amelia to her children. If the children failed to reach legal age, the Kiawah plantation would revert back to James Gibbes, or his estate (Charleston County RMC, DB C16, p. 293).

It was also during the early postbellum years that Seabrook's portion of Kiawah Island was transferred, through indeterminate means, to William Gregg. Gregg went bankrupt in 1872 and in March 1873 the property was conveyed by the assignee of William Gregg to H.H. Hickman (Charleston County RMC, DB H16, p. 413). Arnoldus Vanderhorst, while not becoming rich on Kiawah, was sufficiently covering his costs that he was able to purchase the old Seabrook portion of the Shoolbred plantation from Hickman in 1879 (Charleston County RMC DB S17, p. 408). The 1,200 acres that Hickman purchased for $1,850 seven years earlier he sold at a loss, with Vanderhorst paying only $750. During that interval it appears that nothing substantial was done on the Seabrook tract, since it does not appear in the agricultural or population census for Kiawah. This transaction now gave the Vanderhorst family control of all but the central quarter of Kiawah Island.

Adele Vanderhorst inherited Kiawah at her husband's death in 1881(Charleston County Wills, Book Q, p. 222). She adroitly managed Kiawah's affairs with the assistance of Quash Stevens, former slave and the half brother of Arnoldus Vanderhorst IV. Not only did she supervise the labor contracts and planting of the island, but was also the first to recognize the hunting lease potential of the island, issuing the first lease to Edward Willis in January 1899.

In 1893 John and Amelia Gibbes Haile's only child, James Haile, died without issue. As a result of the marriage settlement the Haile's Kiawah property reverted back to the estate of James Gibbes. The attachment to Kiawah seems to have declined as the generations changed and in 1900 Adele Vanderhorst purchased the property for $3,500 (Charleston County RMC, DB Y22, p. 592). For the first time since John Stanyarne in the first half of the eighteenth century, Kiawah Island was united under a single owner.

Kiawah in the Twentieth Century

A 1904 inventory by Vanderhorst taken during a change of overseers briefly mentions the "old settlement and wharf mill" as the location of a pitcher pump. It is uncertain that this was 38CH123, but the mention of a wharf suggests it may be.

Adele Vanderhorst died in 1915, leaving her estate evenly divided between her children (Charleston County Probate Court, Wills Book Y, p. 15). This unfortunate event left the island managed by her son, Arnoldus Vanderhorst V and would create a family feud that lasted for decades.

By 1917 Arnoldus was leasing the eastern half of the island (presumably the original Vanderhorst Plantation) to J.B. Smith. While also serving as an overseer, Smith was primarily engaged in cattle – an activity that the Vanderhorsts began themselves in the late 1870s. Smith stayed through 1918 and in 1919 the island was leased to W.L. Limehouse to raise hogs. In 1920 Vanderhorst leased the island for $500 to F.Y. Legare, again for cattle. In 1921 the western half of the island was leased to J.B. Boyer (who may have stayed on until the late 1920s).

In 1933 survey notes by the USGS reveal that the vicinity of Salthouse Creek were still being used for cattle. The marker was named SCOTT, for the island's last long-time African American resident.

Two maps span this period – the 1919 and 1944 topographic maps (Figure 13). The 1919 map shows only one structure at West Pasture, although its function is uncertain. It does, however, appear to be the same structure shown in the 1939 aerial (Figure 7). By 1944 even this structure was gone.

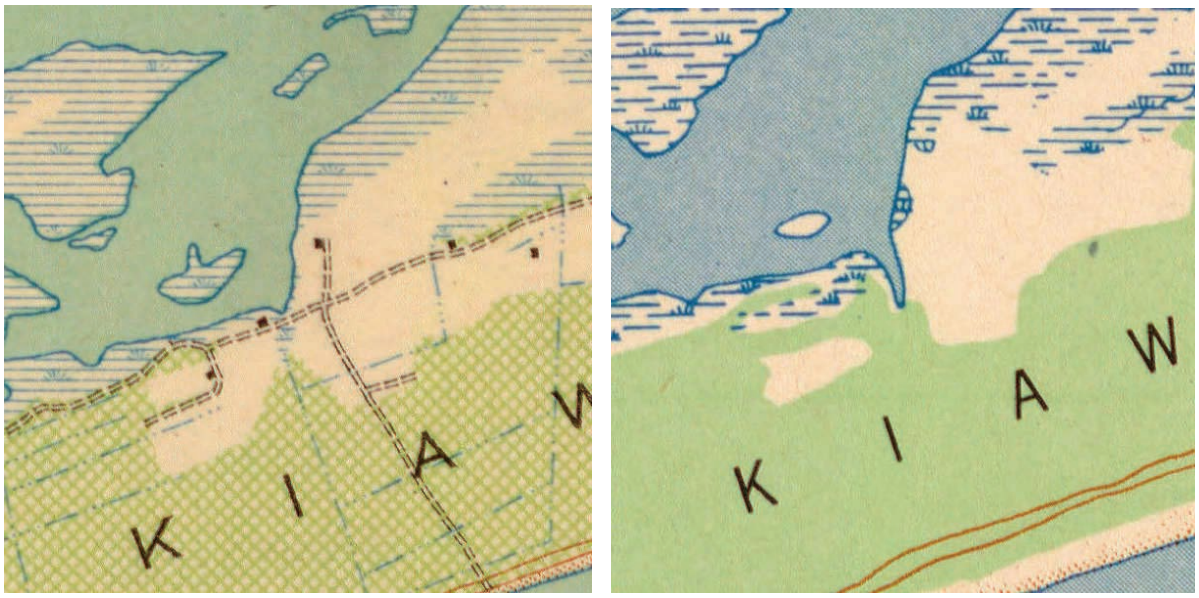

Figure 13. Twentieth century maps of activities at 38CH123. On the left is the 1919 15' Wadmalaw topographic map; on the right is the 1944 15' Wadmalaw topographic map.

Arnoldus Vanderhorst V died December 21, 1943 and management fell upon William Weston, the last surviving executor of Adele Vanderhorst. He inherited the impossible task of pleasing the Vanderhorst children – half of whom wished to sell the island while the other half desired to maintain the lifeways of the past. In November 1944 Weston filed suit in the Charleston courts, asking "inter alia" for instructions on the disposition of the estate.

While this action progressed, Weston continued to care for the island. Charlie Scott, the last Black living on the island, was paid $100 a year to serve as caretaker. In a 1951 interview Scott recalled Kiawah about 1915, remembering 28 Black tenant farmers on the island. Between 250 and 300 pounds of sea island cotton were produced per acre. He specified 31 structures, including one house for whites with two rooms, one four room house for whites (situated on Captain Maynard's Island and used by the overseer), the "Big House" (Vanderhorst's mansion) with nine rooms (apparently counting the pantry as a room), and a kitchen structure with two or three rooms. Also present were 20 single houses with two rooms and six double houses with four rooms for the Blacks. He also mentioned the presence of a frame church on the island, possibly the Kiawah School which closed in the early 1900s. The island dock at Draytons on Salthouse Creek, was 16 feet wide and 150 feet long (Interview by American Appraisal Company, ms. on file, Chicora Foundation, Inc., Columbia).

Another long-time resident of the area, Captain Thomas C. Welch, remembered the:

> daily boat service, that before and after the 1911 hurricane, operated between Kiawah and Charleston. This was a freight and passenger service leaving Kiawah in the morning and returning in the evening. The trip, including many stops, took about 4 hours each way. The boats ranged from 10 to 50 tons capacity. It was rated a dependable service and docked at Chisolm's Mill at the foot of Tradd Street, Ashley River, Charleston [this service was discontinued about 1928](Interview by American

Appraisal Company, ms. on file, Chicora Foundation, Inc., Columbia).

It was during this time that Dubose Heyward wrote *Porgy*, the story of a crippled beggar and his ill-fated love affair with Bess. Heyward's knowledge came from his work for a Charleston cotton factor during his youth. While people and names have been changed (for example, Catfish Row was really Cabbage Row), the essence of Charleston during that time remains. In Chapter 4 Heyward wrote of the "negro picnic grounds on Kittiwar Island" and the trip to Kiawah made by The Sons and Daughters of Repent Ye Saith the Lord. He described the landing at Salthouse Creek, "thrusting a slender wharf from its thickly wooded extremity into the slack tide" (Heyward 1925:111-117).

While waiting for the court's instructions, the only major income producing activities on Kiawah were rentals of the island for pasturage, use as a hunting club, and the U.S. Government's rental of part of the island in 1945 (Charleston County Probate Court, Book I, p. 331).

On April 30, 1947 Judge W.H. Grumball ordered that Weston was empowered to sell the estate of Adele Vanderhorst. On December 5, 1950 Weston found a buyer in C.C. Royal of Royal Lumber Company (Charleston County RMC DB B53, p. 71) and the Vanderhorst era on Kiawah was closed.

By June 1951 the only structures left on the island were a large dwelling (the Vanderhorst mansion), part of the kitchen building (also associated with Vanderhorst Plantation), a concrete and brick cattle dipping vat south of the Vanderhorst mansion, and the boat dock/wharf (American Appraisal Company report dated August 10, 1951, ms. on file, Chicora Foundation, Inc., Columbia).

With ownership in the hands of C.C. Royal the island was used most intensively for logging and the merchantable timber not removed by J.F.P. Easley and James Salva in 1909, J.C. Beard and Max Baumwind in 1911, or J.T. Kollock in 1939, was harvested. Royal also began the first "development" on Kiawah, creating 65 lots and a series of modest homes along the beach on Eugenia Avenue (*News and Courier*, July 4, 1966). Named for his wife, Eugenia Mae, this small community would become the summer home of many prominent South Carolinians, including Governor John C. West, Senator Marshall Parker, and Comptroller General Earle Morris (Gilbert and Fox 1993:103-104). Local informants have explained – and archaeological research has confirmed – that the bricks to build these structures were salvaged by Royal from the ruins of the Shoolbred plantation, most probably the "barn" structure. Early in his ownership of Kiawah, Royal received a letter from 90 year old island resident Charlie Scott, who requested permission to stay on Kiawah until his death. Scott lived in a small house with a yard filled with "goats, rabbits, and chickens" on what is today Rhetts Bluff north of the boat landing (Gilbert and Fox 1993:104).

EXCAVATIONS

Methods

As previously mentioned, our strategy at 38CH123 was to have the site area cleared of both vegetation and spoil, allowing us to establish a grid suitable for close interval auger testing. The testing results would then direct the placement of block excavations.

To provide horizontal control at the site we created a grid covering an area 1500 feet north-south by a maximum of 400 feet east-west. The initial grid was simply a series of sequentially numbered points generally running from the northwest corner of the site eastward and southward. There were, however, a number of areas where the grid was expanded and those points were numbered out of sequence.

Subsequently a modified Chicago-style grid based on an arbitrary 0R0 point located off the site tract at its southwestern corner was established for horizontal control of the block excavations. Both grids are shown in Figure 14. The grid was tied into the USGS SCOTT marker and its Reference Marker 1. In addition, two 4-foot sections of rebar were set at 1550R150 and 1550R450 (Auger Tests 1 and 7 respectively).

Excavation units were designated by their southeast corner so that 200R100 indicates a point 200 feet north of the arbitrary 0R0 point and 100 feet right (or east) of that point.

A single vertical control point was used for the excavations at 38CH123. The USGS SCOTT marker had a recorded elevation of 6.19 feet AMSL and this was used for all elevations taken during these investigations.

The auger tests were excavated using a 10-inch power auger (producing an excavation with a volume of 0.54 ft^2 – or about half the size of a traditional shovel test). After excavation the fill was hand screened through ¼-inch mesh, with brick and shell being quantified in the field and discarded. The results of this auger testing (described below) were mapped in the field and used to direct the placement of hand excavated units.

Metal detecting at the site was conducted with a Tesoro Bandido II™ using an 8-inch concentric coil (electromagnetic type operating at 10KHz). The instrument has the capability to operate in either an all metal mode or discriminate mode (which eliminates ferrous metal response). The all metal mode is the industry standard VFL type which does not require motion of the search coil for proper operation. The discriminate mode is based on motion of the search coil, but allows control over the detector's response to ferrous metals. Searches used transects at approximately 20 foot intervals across areas identified as possible structural remains based on the auger tests.

The minimal excavation unit was a 5 by 5 foot unit, although 5x10 and 10x10 units were used during this work. Chicora has adopted engineering measurements (feet and tenths of feet) for consistency in its work, especially on European sites where structural measurements are most often in feet. Formal excavations at the sites were conducted by hand, using mechanical sifters fitted with ¼-inch inserts for standardized recovery of artifacts. Excavations took place at six specific areas within the site (identified on Figure 14).

Excavation was conducted by natural soil zones. Most of the site area exhibited a plowzone, averaging just under a foot (0.91 feet), although it varied from 0.66 foot to 1.64 feet. This plowzone varied from a dusky red (10YR3/2) to weak red (10YR4/2, 4/3, 5/2, 5/3)

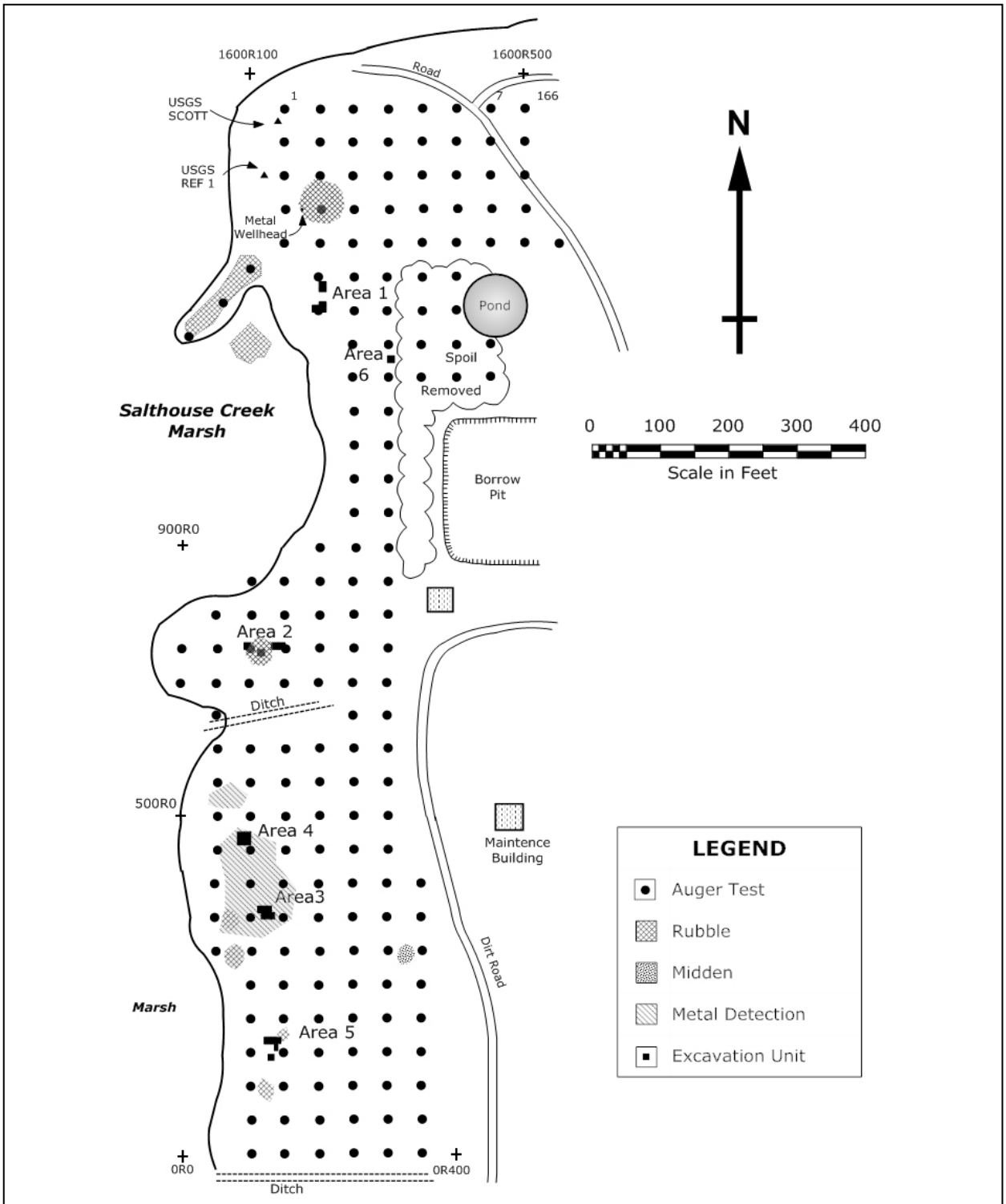

Figure 14. Plan of auger tests, grid, and excavation areas at 38CH123.

sandy loam. The subsoil varied from a weak red to red to pale red (10YR5/2, 10YR5/6, 10YR6/2) sandy clay. There were occasional plow scars and plow ridges, although generally these were removed with the plowzone. Flat shoveling was often necessary to better reveal features, given the low contrast between the plowed soil and subsoil.

The bulk of the historic remains were found in this plowzone, although there was occasionally a zone 2 consisting of rubble debris or shell midden. When shell midden was encountered this zone was screened through 1/8-inch mesh for improved data recovery. A shell column sample (2.25 feet square) was collected to provide analysis on midden density and shellfish variability.

Munsell soil color notations were made during the course of excavations, typically on moist soils freshly exposed. All materials except brick, mortar, and shell were retained by provenience. Rubble and shell were weighed and discarded on-site. A one-ounce soil sample was retained from each zone. We have previously retained much larger samples, allowing the luxury of a variety of soil studies. With the current curation issues at SCIAA, this is no longer practical and we have abandoned the retention of large samples.

Units were troweled and photographed using black and white negative and color transparency film at the base of the excavations. Each unit was drawn at a scale of 1 inch to 2 feet. Features were designated by consecutive numbers (beginning with Feature 1). Post holes were consecutively numbered by excavation area (not by unit as is the common method). Features, depending on the evaluation of the field director, were either completely excavated or bisected (i.e., partially excavated). Feature fill was screened through ¼ or 1/8-inch mesh and features, upon completion of their excavation, were also photographed using black and white negative film and color transparencies. One ounce soil samples were obtained from all features. A 5-gallon sample was also retained from each feature with dark organic fill for flotation using mechanically assisted water float equipment.

A total of 913.5 person hours were devoted to the field work and 106 person hours to the field processing of archaeological specimens for a total of 1,019.5 person hours. As a result of this work, 2,100 square feet (or 2,235 cubic feet) of soil were moved at the six excavation areas. This represents 100 square feet of excavation over that which had been proposed and approved for this data recovery.

The investigations produced 6,848 pounds of shell and 2,130 pounds of brick and mortar rubble.

Auger Testing

Figures 15-16 illustrate the results of the auger testing for artifacts, brick, and shell.

Artifact density maps reveal several areas of distinctly dense remains. Working from north to south, the first was found in the vicinity of 1350-1400R250. Although the signature in this area was relatively weak, it was situated immediately east and southeast of a dense brick pile. This locus was designated Area 7.

A second area, representing very dense remains, was centered at 1250R200 and was designated Area 1. This area was situated about 100 feet east of dense rubble found on a spit of land extending into the Salthouse Creek marsh. Additional rubble was also found in the marsh itself. In spite of the rubble, artifacts were relatively sparse.

What has been termed Area 6 was recognized from a relatively weak signature of artifacts in the vicinity of 1150-1200R300.

A third area of dense remains, coupled with associated brick rubble, was found at 750R50-150, although the remains appeared to

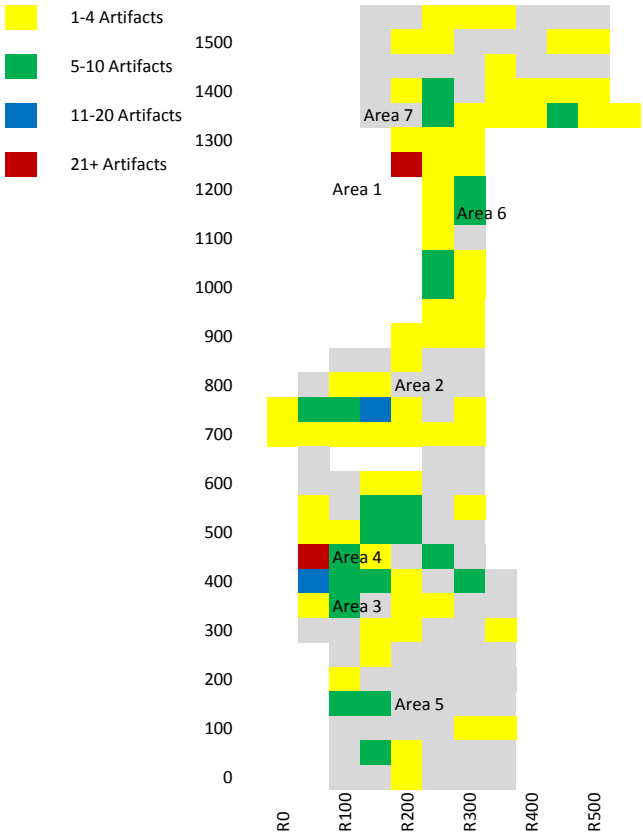

Figure 15. Artifact density map for 38CH123.

spread outward about 50 to 100 feet from this core area. This locus was termed Area 2.

A fourth locus, called Area 4, was found centered at 400-450R50, but extending eastward for about 150 to 200 feet. There were two areas of surface rubble south of the core area. Area 3 was identified at 350R100; this represented the southern extension of this broad zone and was in the vicinity of one the scatters of surface brick.

The fifth locus was found at 100-150R100 and was designated Area 5.

Although clusters are evident, Figure 15 shows a generally broad smear or scatter of artifacts covering all of the area designated as 38CH123. Densities decline at the northern end of the site and begin to decline around the N250 line at the south end. Densities also do not extend inland (east) of Salthouse Creek more than about 250 to 300 feet, indicating that the site was closely associated with this marsh inlet. There also appears to be little occupation around the ditch bisecting the site at N650.

The results of auger testing for brick and shell are perhaps less revealing (see Figure 16). Although there were numerous areas of surface brick rubble, the auger study (at 50-foot intervals) found only three significant areas. Again looking north to south, the first is in the vicinity of 1400R150-200. This correlates with a locus of artifacts identified as Area 7. The density, however, was not high, except for one test.

The second area of dense brick rubble was found on the N750 line, where every auger test produced at least moderate brick and two tests produced dense brick. The density seems to be concentrated at 750R50-100, in the vicinity of what has been identified as Area 2.

The third locus of brick is spread over a relatively large area from the N400 to N500 lines. This correlates loosely with what has been called Area 4, although it may also be associated with Area 3.

Thus, in at least three areas of recognizable artifact density, the auger study also produced evidence of distinct brick concentrations.

Turning to the shell, the auger tests found a number of different loci producing relatively dense shell in individual tests. There were, however, only two clearly defined concentrations. The first was at 750R50-150 – previously identified as Area 2 and also associated with dense brick remains. The second extended from 400R50 northeastward to

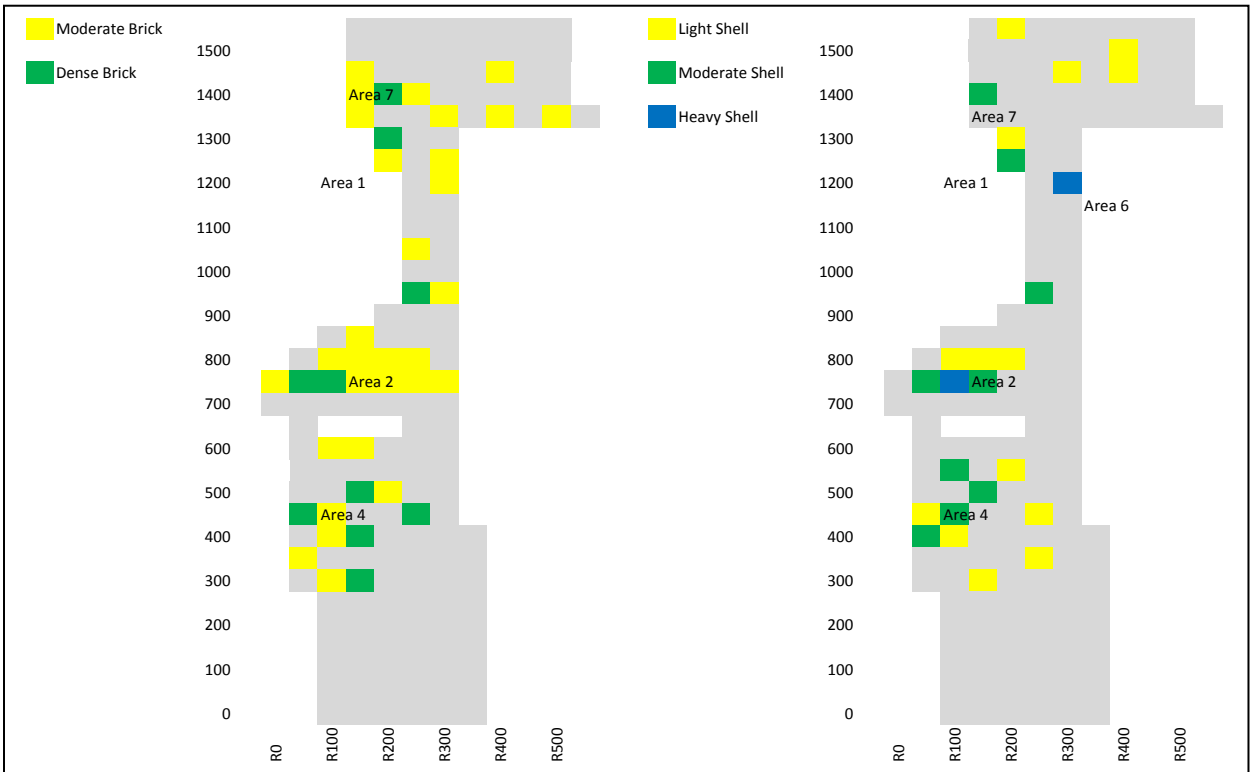

Figure 16. Density maps of brick (on left) and shell (on right) at 38CH123.

500R150. This area was also associated with both dense artifacts and dense brick rubble, being designated Area 4.

Taken in context, the auger testing at 50 foot intervals was able to clearly define multiple areas of dense artifacts, bricks, and shell. The work helped define areas of attention, refocusing research efforts from a site area that encompassed nearly 21 areas down to seven loci that included about 1 acre. The precision of the 50 foot interval, however, was not adequate to allow clear structural definition.

This, of course, was already recognized based on Chicora research on Daufuskie Island, as well as at Willbrook Plantation (Trinkley 1987:111-117; Trinkley 1993a:78). Balancing time against cost, 25-foot interval testing is near ideal. This point was again recently demonstrated by Keel (1999:78).

Thus, the testing at 38CH123 was not ideal in terms of structural definition, but it was what could be accomplished with the available research funds at a 21 acre plantation. For example, using 100 foot intervals would require 100 tests, decreasing the interval to 50 feet increases the number of tests to 400, further refining the testing using 25-foot intervals results in up to 1,521 tests. Of course, at 38CH123 when ditches, borrow pits, modern structures, and wetland areas were excluded, the actual number of tests was just under 200. Nevertheless, the point is that a 25-foot test interval dramatically increases not only precision, but also time and cost. In retrospect, given the benefit of a decade of additional research, it would have been advantageous to use a 25-foot interval at this site.

Metal Detecting

At the time of this investigation there was not a great deal of literature on the use of metal detecting for site discovery. We hoped that it would be possible to identify distinct structural areas based on the density of one specific artifact type – nails.

The results were rather unspectacular. Using the all metal mode in order to identify nails proved very labor intensive since every metal fragment on the site produced a signature. Even attempting to simply define areas based on the intensity of signals proved difficult. The major accomplishment was the definition of Areas 3 and 4, distinguished from the rather large and amorphous scatter of artifacts identified through auger testing.

While we have no doubt that the technique may be useful under some circumstances, it was abandoned at 38CH123 after the examination of one area in the vicinity of 550R100. That work failed to refine our understanding of materials at that specific location.

Results of Excavations

Area 1

Excavations in this area were directed by a very high density of artifacts, coupled with indications of both brick rubble and shell. The work resulted in the excavation of 400 square feet (350 cubic feet): 1250R200-210, 1260R210, and 280-285R210 (three 10 foot units and two 5x10 units) (Figure 17). The excavations, not including post holes, produced 582 pounds of brick (Table 2); most of this came from 1250R200-210 and 1260R210 – the three southern units that also produced a segment of an in situ brick foundation wall (identified as Features 1 and 2). We believe that the portion of the West Pasture site examined by Combes and later tested by Michie was in this area.

Excavations in this area (actually the three southern units – those to the north were far less productive) revealed three features and nine post holes. These are interpreted to represent three structures, although none were fully exposed.

The first and earliest structure (**Structure A**) is a prehistoric house represented by three post holes. Upon excavation of the posts, two were found to lack any artifacts and the third produced only five prehistoric sherds. In addition, each of these post holes have a very similar diameter, depth, and shape. Moreover, each contained flecks of charcoal, suggesting that that the structure had burned. Extrapolating from these posts and assuming a circular configuration the structure perhaps measured about 15 feet in diameter – although this is admittedly speculative.

Table 2.
Brick Recovered from
Excavations at Area 1

Unit	Brick (lbs.)
1250R200 (10x10)	118
Feature 3	3
1250R210 (10x10)	216
PH 4	6
PH 5	2
PH6	6
Feature 2	37
1260R210 (5x10)	113
PH 1	8
PH 2	30
Feature 1	1
1280R210 (5x10)	53
1285R210 (10x10)	82
Total Rubble	675

The second structure (**Structure B**) is evidenced by three posts (PH 1-3) clearly associated based on content, alignment, and form. The mean date for the remains in these post holes is 1748 – dating from the early tenure of John Stanyarne. The size of the structure is unknown, but the one posited wall is oriented N51°E. This structure is similar to other slave

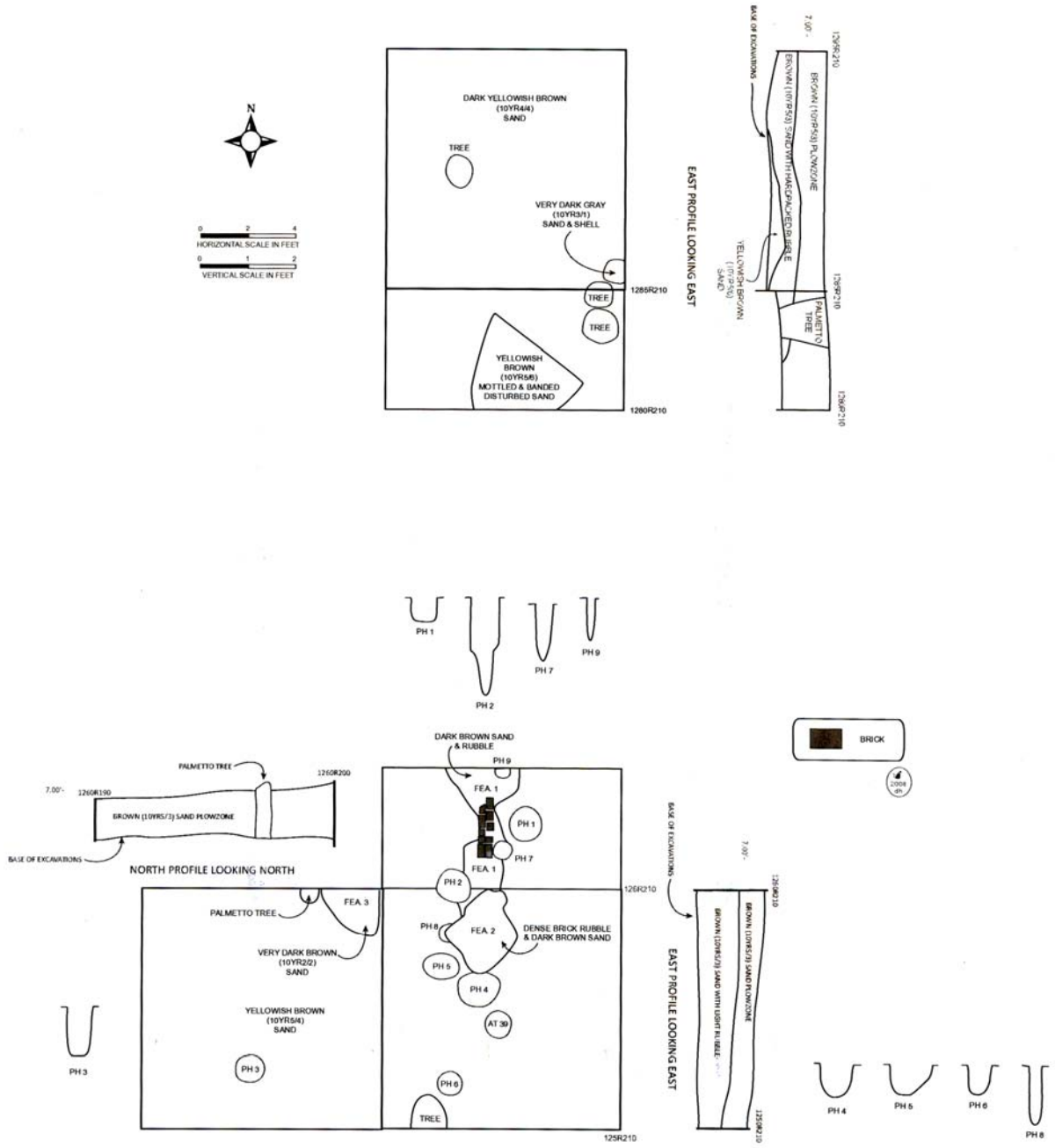

Figure 17. Plan and profiles of excavations at Area 1.

Figure 18. Units 1250R200-210, 1260R210 before and after excavation of features and post holes, view to the north.

low status structures found on low country plantations where posts were used as piers to support the foundation sill. Post hole 2 intrudes into Feature 1, suggesting that Structure B predates Structure C, discussed below.

One of the post holes contained a large portion of a charred post. Very few of the historic artifacts at the site were burnt, so it is believed that the builder charred the ends of posts to deter decay. This was a common practice and was discussed in detail in several early 19th century building guides (see, for example, Fitchen 1988:133).

A third structure (**Structure C**) is represented by a small portion of a brick pier, oriented magnetic north, only one course deep. Two bricks in wydth, the pier utilized a variety of brick fragments and does not appear able to support a particularly large building.

Underlying and surrounding the pier were flecks of charcoal and associated rubble which were designated **Feature 1**. Upon excavation this feature was found to represent a smear that incorporated the builder's trench for the brick pier, as well as other staining. At least part of this feature may represent a drip line associated with Structure C, although we cannot discount other contributing activities. In fact, so little is associated with this feature (two lead glazed slipware ceramics, black bottle glass, and a clear glass goblet stem) that its date, beyond an early eighteenth century attribution, is problematical. Post Hole 2, however, is intrusive into Feature 1, indicating that Structure B was constructed after the abandonment and demolition of Structure C.

Given the mean ceramic date of 1772 for Area 1, it is likely that either Structure B or C extended into the mid-nineteenth century.

Feature 2 was found in 1250R210 at the south end of Feature 1, centered at 1258R204. Upon excavation the feature was shallow and undulating, seeming to represent a series of wallowed out areas. The fill contained abundant rubble and it follows the line of Structure C; it is likely the two are associated. The artifact assemblage is very similar to Feature 1.

Figure 19. Feature 3 after excavation, view to the north.

Feature 3 was found at 1260R209, bisected by the N1260 wall. This is the only feature in the units that cannot be associated with one of the three structures. The feature measured 2.0 by 2.2 feet and had a maximum depth of 2.0 feet. The associated artifact assemblage is nearly identical to Features 1 and 2 although the feature contained only 3 pounds of brick rubble. At the base of the pit was a large fragment of burned wood. Unfortunately the feature function is uncertain.

In sum, Area 1 was found to represent the remains of at least three structures – one was likely prehistoric and the remaining two both dated from Stanyarne's tenure. Structure C appears to be an early eighteenth century high status structure of frame construction built on brick piers. It was replaced by Structure B, a low status dwelling, possibly associated with slaves, with a different orientation and far less well constructed.

Area 2

Auger testing in this area defined an area of dense artifacts, brick, and shell. There was also an indication of rubble on the surface, covering an area about 25 feet in diameter, as well as a relatively dense shell midden covering an area about 30 feet in diameter centered at 705R78. Artifacts, however, were concentrated at 750R150 (AT 71), declining in density to the west.

Four 10-foot units (700R50, 690R70, and 700R90-100) were laid out in this area. Units 700R90-100 were intended to explore the center and eastern edge of the shell midden, while units 700R50 and 690R70 were laid in to examine an area of relatively little shell. Once excavated we found that 690R70 contained the western edge of the shell midden, clearly defined in profile. A total of 440 cubic feet of soil was excavated yielding 2,469 pounds of shell and 407 pounds of brick, not including Feature 4.

Table 3.
Brick and Shell Recovered from Excavations at Area 2

Unit	Brick (lbs.)	Shell (lbs.)
740R120	53	416
750R100	263	-
Feature 4		20
750R140, Z 1	70	1,450
750R140, Z 2	-	114
750R150, Z 1	21	445
750R150, Z 2	-	44
Total	407	2,489

These excavations failed to identify any architectural features. In fact, no features other than a ditch (**Feature 4**) were found at the base of the excavations, although 700R90-100 did produce several gullies that were lensed and appear to represent filled erosional areas.

While we were unsuccessful in recovering architectural remains in this area, the units did provide important data concerning site formation activities.

In the area of the shell midden two zones were identifiable. The upper (Zone 1) consisted of shell midden, while the lower (Zone 2) evidenced much lower densities of shell. In addition, the Zone 1 deposits in 750R140 have a

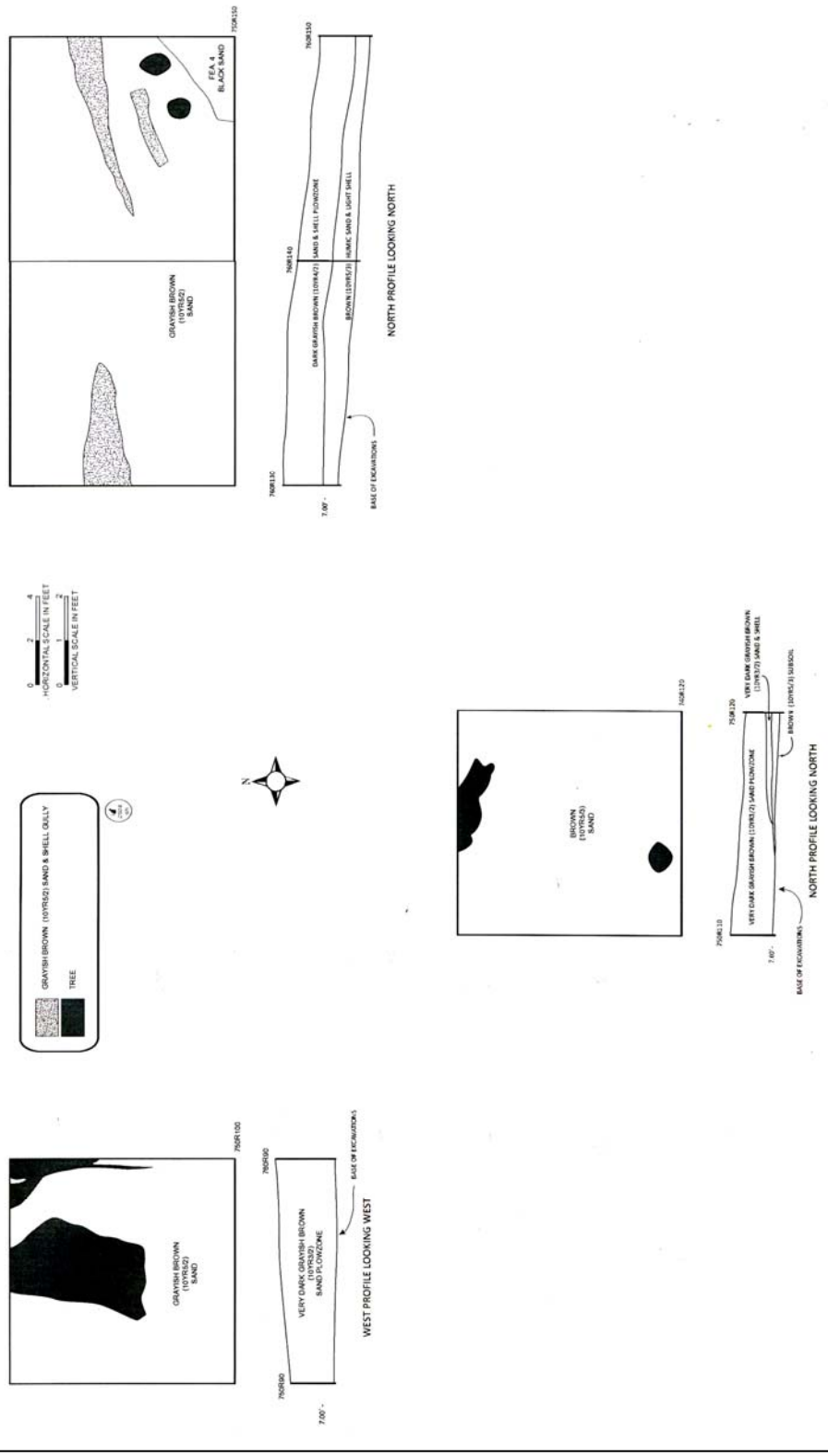

Figure 20. Plan and profiles of excavations at Area 2.

mean date of about 1822, while ceramics in the underlying soil produced a mean date of 1790. Although this is not a substantial difference, we also found that deposits to the west continued to become more recent – for example, the ceramics in 750R100 yielded a mean date of 1842. Thus, there is some indication that two occupation periods may be present in this area, or that the occupation in this area spanned the mid-eighteenth to mid-nineteenth centuries.

Figure 21. Feature 4 after excavation, view to the east.

The midden has a considerably higher proportion of kitchen to architectural remains (5.3:1) than either the underlying Zone 2 (1.2:1) or 750R100 to the west (1.4:1). This is probably because the midden represented a trash pile that received a variety of plantation debris. Similar shell piles in proximity to slave structures has been observed at Daufuskie Island (Trinkley 1989:251-252).

The midden at Area 2 had a soil:shell ratio of 2.9:1. This indicates a lower shell density than any of the historic middens identified on Daufuskie (Trinkley 1989:Table 11). The primary species in the Area 2 midden was oyster (57.6% by weight) and whelk (40.7%), with a minor component of clam (1.7%).

Although no architectural features were identified, the presence of the midden is strongly suggestive that one or more slave structures were situated in this immediate area.

Feature 4 (Figure 21) was identified at the base of Zone 2 in the southeast corner of 750R150. Upon excavation the feature was found to be about a foot in depth (about 2 feet below grade). The fill was homogenous black loamy sand, suggesting that it was filled in one event and not through gradual silting. This ditch runs in the same direction as the gullies found in 700R90-100. The feature is interpreted to represent an agricultural drainage ditch dating from the mid-nineteenth century.

Area 3

Excavations in this area were based on a concentration of artifacts, although little brick or shell was found associated. The artifact concentration was amorphous and the two excavation areas (Area 3, discussed here and Area 4, discussed below) were defined based on metal detecting).

A series of two 5x10 units (350R120, 350R135) and three 10x10 units (350R130, 360R120-130) were excavated resulting in 380 cubic feet of primary excavation. Shell and brick from the excavations are tabulated in Table 4.

Excavations in this area produced the well defined remains of a post and trench foundation structure (**Structure D**) measuring about 8 by 10 feet and oriented N2°W (Figures 22 and 23). It is likely that the structure was wattled, although no daub was recovered (since the structure did not burn). A door was centered on the north wall and there was a small room (approximately 3 by 8 feet) partitioned off on the east side of the structure.

Table 4.
Brick and Shell Recovered from Excavations at Area 3

Unit	Brick (lbs.)	Shell (lbs.)
350R120 (5x10)	4	179
PH 20	-	6
PH22	-	1
PH24	-	1
350R130 (10x10)	19	316
Feature 9	-	12
PH 1	-	3
PH 2	-	2
PH 3	-	-
PH 4	-	1
PH 11	-	-
350R135 (5x10)	125	5
Feature 8	-	19
Feature 9	-	1
PH 6	-	1
PH 8	-	1
PH 9	-	1
360R120 (10x10)	11	156
360R130 (10x10)	10	257
PH 15	-	1
PH 16	-	4
PH 17	-	4
PH 18	-	1
PH 19	-	1
Total	169	973

The wall trench, designated **Feature 9**, averaged 0.7 to 1.3 feet in width and was about 0.7 to 0.9 foot in depth. Within this trench were a series of 11 recognizable post holes (identified as PH 1-11). Others no doubt existed within the trench, but were set so shallowly that they were not identifiable. Those identified ranged from about 0.6 to 1.5 foot in diameter and from 0.6 to 1.9 foot in diameter. Corner posts 1, 3, 7, and 8 tended to be among the deepest.

In the center of the structure was a pit, designated **Feature 9A**, measuring about 2.5 by 1.3 feet and 0.7 foot in depth. Although the function is not clear, the artifacts recovered from the pit (for example, a hoe and an intact peppermint bottle) suggest it was used for storage. Storage pits, often termed root cellars, are a common feature on eighteenth century Virginia slave settlements with earthfast construction (Sanford 1996:137; Samford 1999). The pit at Structure D is but a faint shadow of the larger and more elaborate Virginia examples, but the purpose appears identical.

The function of the small side room is uncertain, but we believe it may have been intended for storage. In the southwest corner of this room was found **Feature 8,** pit measuring about a foot in diameter and about 0.7 foot in depth. Excavation revealed 19 pounds of oyster – most (95) left valve and all intertidal clusters.

Other post holes were found scattered across the excavation area, but none could be associated with a second structure. It is possible that they were associated with Structure D, representing exterior domestic activities.

In sum, the investigations at Area 3 produced evidence of a single wall trench slave structure dating to the late eighteenth through

Figure 22. Structure D in Area 3 after excavation, looking east.

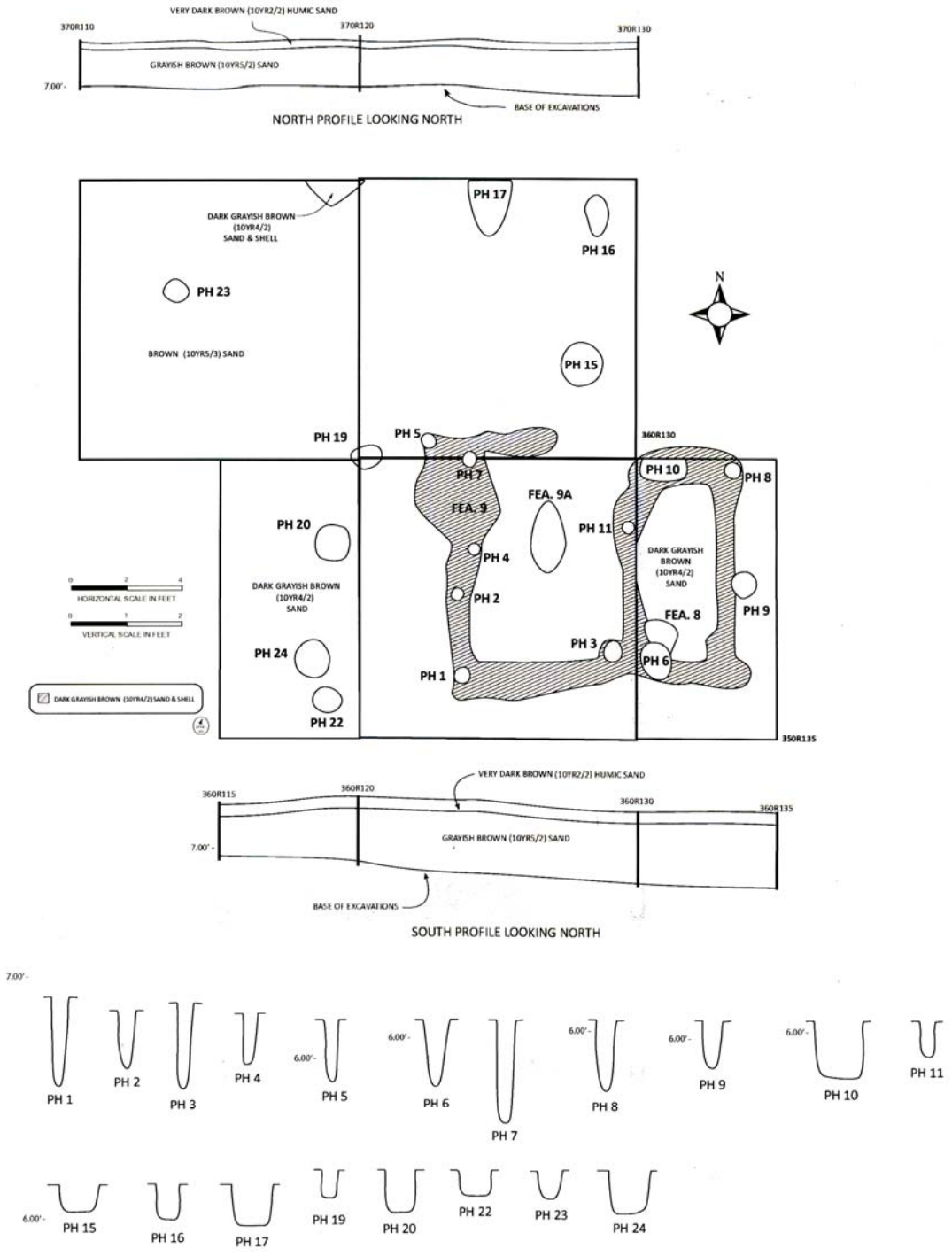

Figure 23. Plan and profiles of excavations at Area 3.

Table 5.
Brick and Shell Recovered from Excavations at Area 4

Unit	Brick (lbs.)	Shell (lbs.)
460R90	27	146
Feature 7	2	5
460R100	39	792
Feature 5	-	57
PH 10	-	9
PH 11	24	1
PH 12	-	48
470R90	59	256
470R100	52	971
PH 13	2	18
PH 14	-	57
Total	205	2,360

early nineteenth centuries. The 8 by 10 foot structure was oriented roughly north-south, in alignment with Salthouse Creek. Since there is no indication that the structure burned, we assume that it eventually was abandoned or collapsed.

Area 4

This was the second area identified through metal detecting from a broad smear of artifacts. A series of four 10-foot units were excavated (460-470R90-100) with 423 cubic feet of primary excavation.

The excavations found only minor amounts of brick in the units, although post hole 11 in 460R100 had been backfilled with brick fragments. Shell was far more common, contributing 2,360 pounds, primarily from 460-470R100. In these two units a thin zone of shell, about 0.4 foot in depth, was found immediately below the plowzone (Table 5). The soil:shell ratio in this midden was 5.2:1, with the midden dominated by oyster (95.2% by weight). Clam contributed only 4.7% of the midden.

At the base of the plowzone we identified **Structure E** measuring about 8 feet square and oriented magnetic north. Like Structure D it is a post and wall trench building with a series of well-defined post holes within the trench outline.

The four posts at the structure corners (PH 11-14) were especially deep, averaging 2.2 feet in depth. The posts, based on the diameters of the holes, was not great – about 0.4 foot. This structure stood long enough for the southeast corner (PH 11) to have been repaired. This repair may account for the additional post (PH 10) found on the south wall (see Figure 25). Between and surrounding the posts was a well defined wall trench (**Feature 5**) about a foot in width and varying from 0.2 to 0.5 foot in depth. This trench was filled with a dark grayish brown sand and variable amounts of shell.

The entrance was found on the northern end of the west wall, evidenced by not only a gap in the wall trench, but also an area of heavy mottling that appears to represent an erosional lens, perhaps the result of heavy traffic.

Figure 24. Area 4 showing Structure E (Feature 5) prior to excavation, looking southeast.

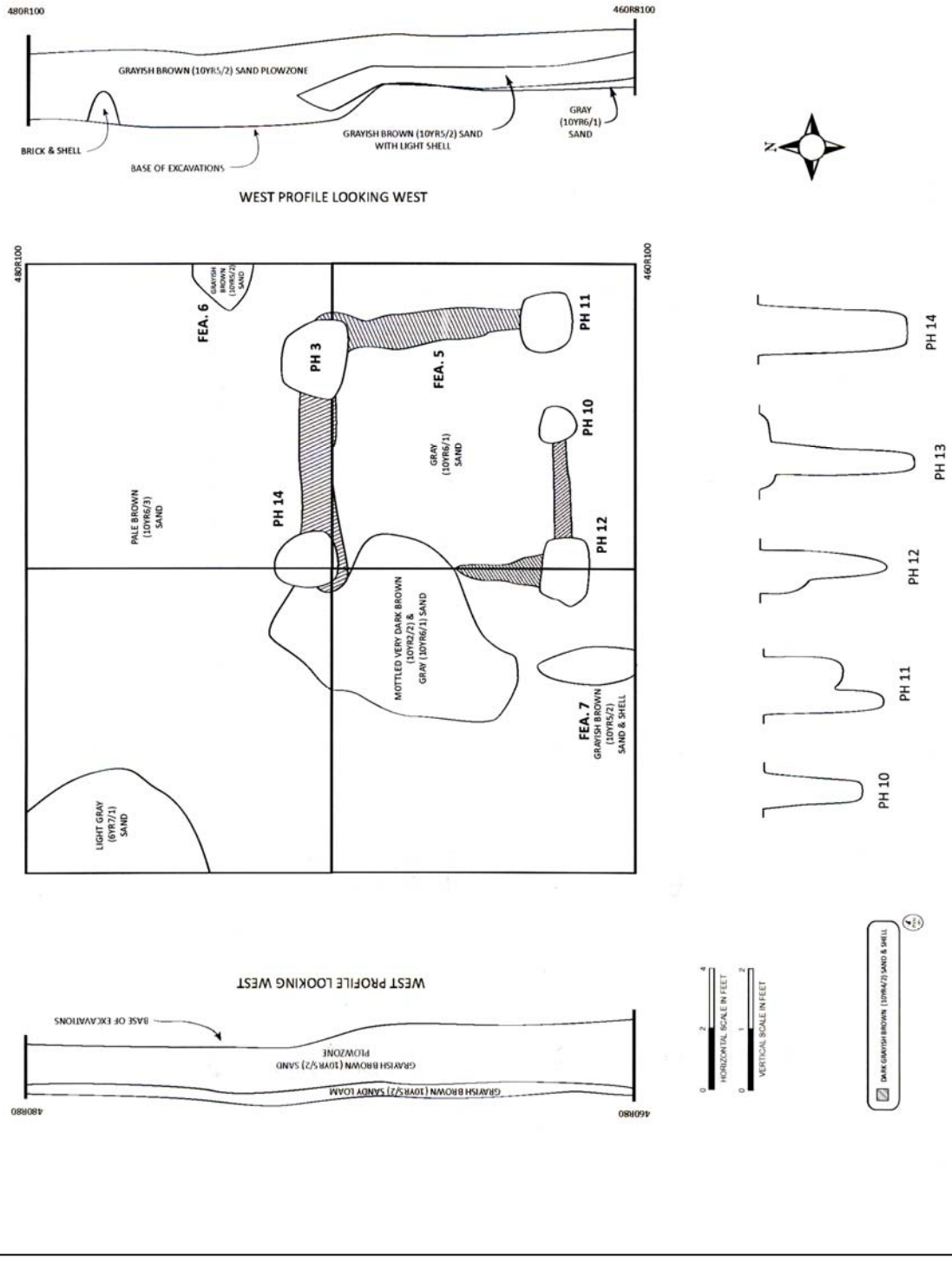

Figure 25. Plan and profiles of excavations at Area 4.

A few feet from the southwest corner we identified a linear stain designated **Feature 7**. About 3 feet were exposed and the maximum width was about 1.2 feet. Upon excavation the feature was found to be very shallow, only 0.06 foot in depth. Artifacts were sparse, but a whetstone was recovered. Although the function is uncertain, this may represent a drip line associated with the Structure E roof.

Feature 6 is a shallow depression just north of the structure. Only the western portion was exposed, but it measures 2.0 feet north-south by at least 1.5 feet east-west. The feature was a maximum of 0.4 feet deep. We believe this pit, based on the burnt animal bone and charcoal present, was a yard hearth – an area of outdoor food preparation.

Artifacts from this structure suggest a mid- to late-eighteenth century slave dwelling. Structure E is similar in size, orientation, and design to Structure D in Area 3. Ranging from 100 to 150 feet from Salthouse Creek, they may represent a portion of the slave settlement shown on a variety of nineteenth century maps (see, for example, Figure 8, 10, and 11).

Area 5

Situated at the south edge of the site, auger testing revealed a moderate concentration of artifacts, but no dense brick or shell remains. Excavations here consisted of four 5x10 foot units and two 10x10 foot units for a total 400 square feet or 565 cubic feet in primary excavations. Although the auger testing failed to identify any brick or shell concentrations, the hand excavations produced relatively large quantities of both (Table 6). As a result of this work **Structure F** was identified.

Stratigraphy in this area was more complex than found elsewhere on the site, at least partially because of the unusual topographic setting. The identified structure was found at the head of ridge trough (Figure 26). Most of the units exhibited a typical Zone 1 of about a foot overlying the subsoil. Unit 165R130, on the slope of the western ridge, exhibited about 1 to 2 feet of colluvium built up over a lens of shell, identified in the excavations as Zone 1A. This midden extended into 165R135, where it terminated.

Table 6.
Brick and Shell Recovered from Excavations at Area 5

Unit	Brick (lbs.)	Shell (lbs.)
140R135 (10x10)	4	41
155R140 (5x10)	10	74
165R135 (5x10) , Z 1	28	37
165R135, Z 1A	15	98
165R145 (5x10)	428	124
Feature 10	195	116
Feature 11	374	8
170R145 (5x10)	119	68
165R150 (10x10), Z1	15	99
165R150, Z 1A	5	479

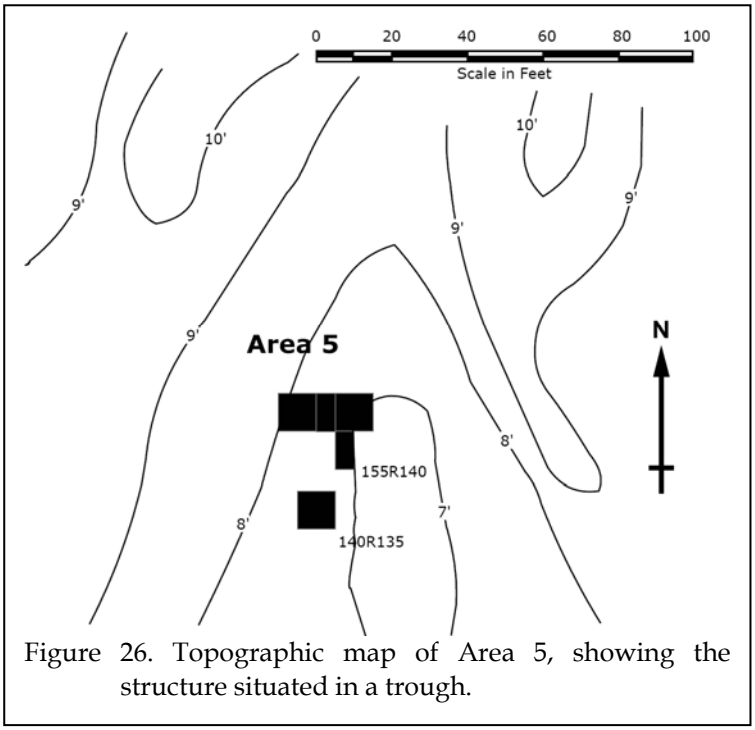

Figure 26. Topographic map of Area 5, showing the structure situated in a trough.

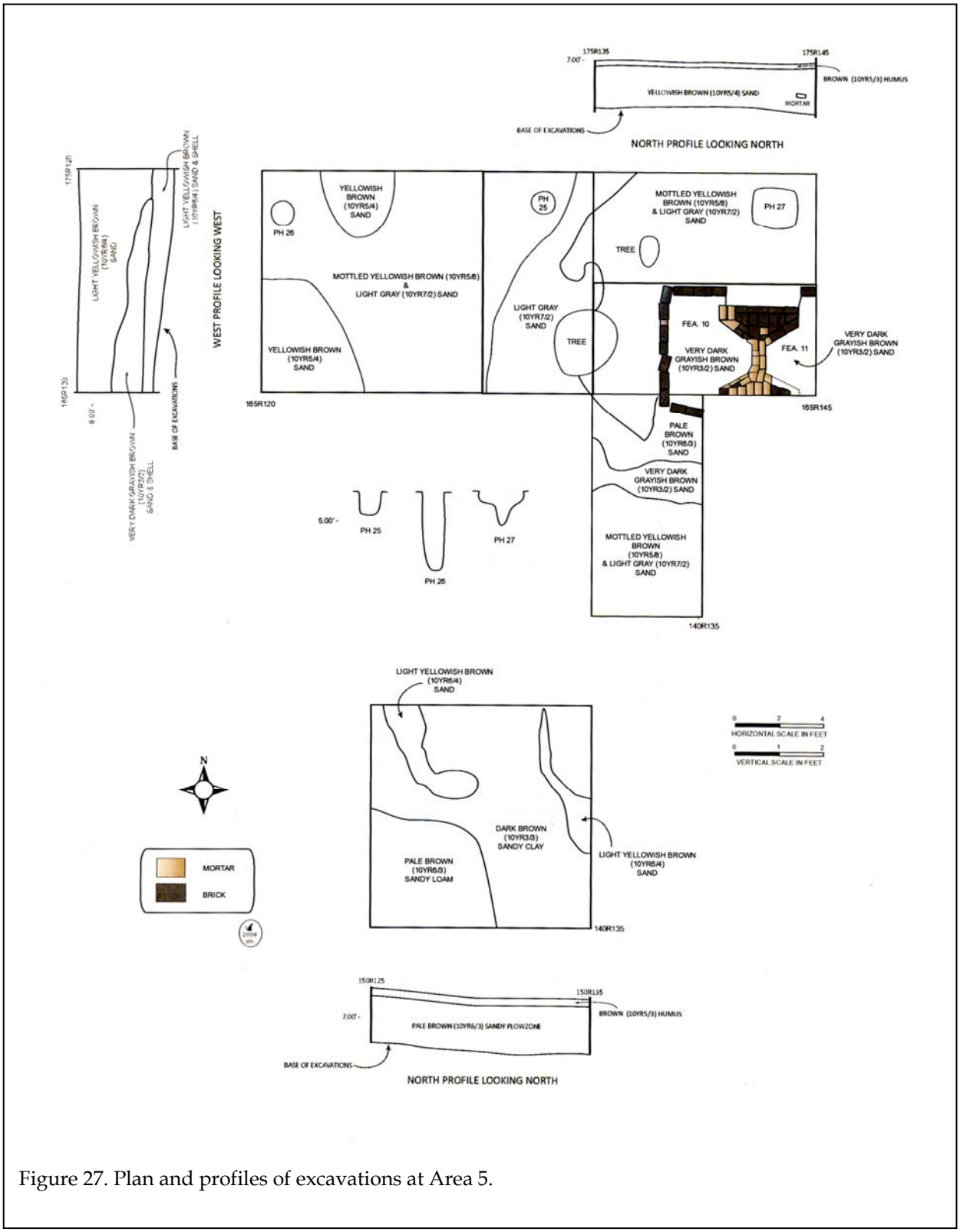

Figure 27. Plan and profiles of excavations at Area 5.

This midden had a soil:shell ratio of 10.7:1, reflecting a dense shell deposit. The midden consisted primarily of oyster (86.9% by weight), with a minor amount of clam.

Figure 28. Structure F at Area 5. The top view is of the eastern fire box, view to the southeast. The bottom view is of the western fire box, view to the north.

Structure F is based on the exposure of a central brick chimney and three posts (PH 25-27) associated with the northern wall of the western bay of the double pen structure (Figure 27). All three posts were relatively large, 0.5 or larger, and were intended to bear the weight of the sill plate for the structure. The three were equally placed along the wall. The western bay measured 15 by 23 feet, with the entire structure projected to measure about 15 by 46 feet. The floor area of about 348 square feet is considerably larger than the other dwellings identified at West Pasture (measuring 64 and 80 square feet). The structure was oriented magnetic north.

The assemblage is indicative of an early to mid-nineteenth century settlement – a time period characterized by planter's efforts to "improve" the condition of their slaves (see, for example, Adams 1990). When the ceramics from Zone 1 are compared to those from Zone 1A, we see no substantive difference – the shell midden dates from the same time period as the structure and other refuse at the site.

The midden appears to be another example of a shell pile collected adjacent to a slave structure and, over time, gradually eroding down slope and under the structure.

The only features identified in Area 5 are the fill taken from the base of the two hearth areas. The western hearth was designated **Feature 10**. This firebox had a layer of shell at the base that appears to have supported a brick base to the firebox. It is unknown if the brick extended into the hearth area. Unfortunately much of the chimney brick had been robbed and this made

interpretations difficult. Nevertheless, the feature contained 195 pounds of brick and 116 pounds of shell.

Feature 11 was the interior of the firebox for the east side of the chimney. The hearth on this side was not exposed. The interior of this firebox had been robbed entirely of usable brick and consisted almost entirely of soil, brick rubble, and mortar fill. Since only 8 pounds of shell was recovered from this feature, its internal construction was clearly distinct from Feature 10. Brick and mortar rubble from the robbed box weighed 374 pounds.

Area 6

Toward the end of the investigation there was adequate time to select one additional area for very brief investigations. The area selected was toward the north end of the site, but further inland from Salthouse Creek. During the auger testing this area revealed a moderate artifact density and abundant shell, although the brick density was less spectacular. Only one 10-foot unit was excavated – 1175R310. Primary excavation resulted in the removal of 80 cubic feet, the soil in this area being relatively shallow. The investigations produced 30 pounds of brick and 262 pounds of shell.

Figure 29. Unit 1175R310 in Area 6. The linear brick rubble has been identified as Structure G. View is to the north.

The investigations revealed a continuous brick footing measuring two brick in wydth. This has been designated **Structure G** (Figures 29 and 30). A corner may have been exposed, but the footing was so shallow that it had been impacted and partially displaced by plowing (several plowscars were present at the base of the 0.8 foot deep plowzone).

The footing was shallowly set, extending into the subsoil about 0.1 foot. The footing was oriented N64°W – distinctly different that the other structural remains identified on the site.

Based on associated artifacts, this structure was likely a slave dwelling dating to the late-eighteenth century. While the others identified were all wall trench structures lacking interior hearths, this structure suggests brick construction, if not for the walls then perhaps for the firebox. It is distinctly different, not only in appearance, but also in orientation from the other structures identified at 38CH123.

Shell Middens

As previously discussed, three middens were investigated at 38CH123. All were historic, found in association with slave structures and containing historic artifacts. They represent trash disposal associated with the occupation of the settlement and reflect the natural bond between African American slave and the marsh. The story of George Brown who lived on Edisto provides one such glimpse. Brown to his interviewer in 1939 that his diet consisted of "sweet potatoes, home [hominy?] grits, coffee sweetened with molasses, and fish or oysters." Oyster stew was specifically mentioned

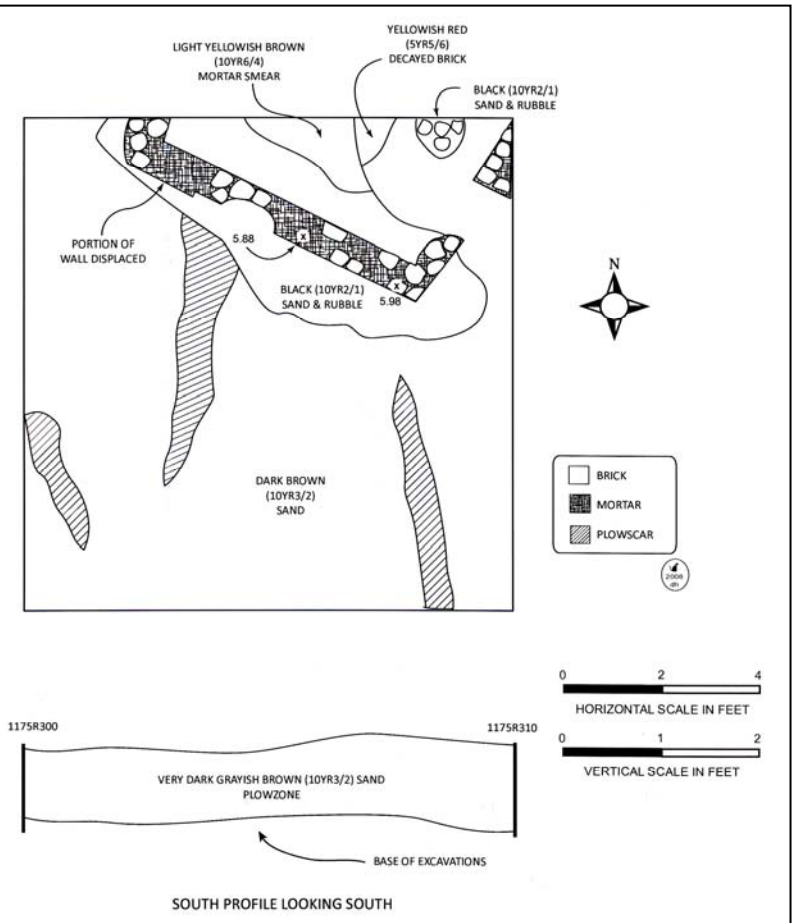

Figure 30. Plan and profile of the unit in Area 6.

and the interviewer commented that "oyster shells, bleached milk white in the sun, are scattered about" the settlement (Library of Congress, Federal Writers' Project, Project #1655, Chalmes S. Murray, Edisto Island, SC). Crum also commented that, "oyster shells growing white with age, are found about all Negro yards, and piles of them under their houses" (Crum 1940:85).

Not all of the middens at 38CH123 were identical, in fact each appears distinct as shown in Table 7. Data from other historic middens are provided for comparison. There is too little data to develop trends, but it is interesting that several of the later middens are dominated by whelks. Although accessibility may be responsible, additional research may also suggest that preferences change over time – or perhaps that changing environmental conditions affected access to different species. Regardless, this seems to be an important research topic deserving of additional consideration.

Table 7.
Historic Shell Midden Content and Density (weight in pounds)

Site	Unit/Area	Soil:Shell Ratio	Percent by Weight: Oyster	Clam	Whelk	Period
38CH123	750R140, Area 2	2.9:1	57.6	1.7	40.7	mid-18th –mid-19th c.
	470R100, Area 4	5.2:1	95.2	4.8	-	mid- late-18th c.
	165R140, Area 5	10.7:1	86.9	13.1	-	antebellum
38BU634	40R50, Struct 2	1.3:1	nc	nc	nc	antebellum
	25R20, unknown	1:1	nc	nc	nc	antebellum
	40R30, Struct 7	2.2:1	nc	nc	nc	antebellum
	30R20, Struct 8	1.3:1	nc	nc	nc	antebellum
38CH127	Structure 3	nc	29.0	-	71.0	postbellum
	Structure 4a	nc	20.0	-	80.0	postbellum

Other Site Features

During the auger testing at 38CH123 a riveted metal wellhead was discovered in the northwest quadrant of the site, about 100 feet inland from Salthouse Creek (Figure 31; see also Figure 14 for the location).

We know that in 1901 a 158-foot deep well was dug on Kiawah by Adele Vanderhorst (South Carolina Historical Society 12/213/16). Although the well was thought to have been in the vicinity of the Vanderhorst house, it was never found. It may be that this feature represents that well, excavated at the

Vanderhorst wharf. The metal wellhead had been coated with tar, probably to prevent corrosion. In the center was a hole for piping. It is unknown what type of pump was used for the well since no other remains were identified at this location.

Figure 31. Riveted metal wellhead found at 38CH123. This may represent the 1901 Vanderhorst well.

ANALYSIS

Methods

Processing and Conservation

Processing began in the field during the 1994 investigations, but was completed at Chicora's labs in Columbia. During the washing, artifacts were sorted by broad categories – pottery, lithics, bone, ceramics, glass, iron, and other materials. Upon drying, the artifacts were temporarily bagged by these categories, pending cataloging. Conservation treatments were conducted by Chicora personnel in Columbia from October 2008 through January 2009.

Brass items, if they exhibited active bronze disease, were 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 followed the electrolysis. Afterwards, the surface chlorides were removed with deionized water baths (until a chloride level of no greater than 1 ppm or 18 µmhos/cm was achieved using a conductivity meter) and the items were dried in an acetone bath. The conserved cuprous items were coated with a 20% solution (w/v) of acryloid B-72 in toluene.

Ferrous objects were subjected to electrolytic reduction in a bath of sodium carbonate solution in currents no greater than 5 volts for a period of 5 to 30 days (or in a few cases far longer). When all visible corrosion was removed, the artifacts were wire brushed and placed in a series of deionized water soaks for the removal of soluble chlorides. When the artifacts tested free of chlorides (at a level less than 0.1 ppm, or 2 µmhos/cm), they were dewatered in acetone baths and were air dried for 24 hours. Afterwards, a series of phosphoric (10% v/v) and tannic (20% w/v) acid solutions were applied and the specimens were again allowed to air dry for 24 hours. They were finally coated with a 10% solution (w/v) of acryloid B-72 in toluene.

The materials have been accepted for curation by the South Carolina Institute of Archaeology and Anthropology. The collection has been cataloged using this institution's accessioning practices. Specimens were packed in plastic bags and boxed. 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, are also curated at this facility. All materials have been delivered to the curatorial facility.

Analytical Methods

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains.

As previously discussed, the prehistoric remains were not a contributing resource in terms of eligibility and the data recovery plan did not incorporate research questions focused on these remains. Consequently, the few prehistoric remains found in scattered proveniences are not included in this study.

The temporal, cultural, and typological classifications of the historic remains follow such authors as Cushion (1976), Godden (1964, 1985), Miller (1980, 1991a), Noël Hume (1978), Norman-Wilcox (1965), Peirce (1988), Price (1970), South (1977), and Walton (1976). Glass artifacts were identified using sources such as Jones (1986), Jones and Sullivan (1985), McKearin and McKearin (1972), McNally (1982),

Smith (1981), Vose (1975), and Warren (1970). Additional references, where appropriate, will be discussed in the following sections.

The analysis system used South's (1977) functional groups as an effort to subdivide historic assemblages into groups that could reflect behavioral categories. Initially developed for eighteenth-century British colonial assemblages, this approach appears to be a reasonable choice for even early nineteenth century materials since it allows ready comparison to other collections. The functional categories of Kitchen, Architecture, Furniture, Personal, Clothing, Arms, Tobacco, and Activities provide not only the range necessary for describing and characterizing most collections, but also allow typically consistent comparison with other collections.

Minimum Vessel Counts

Another important analytical technique used in this study is the minimum vessel count, as both an alternative to the more traditional count of ceramics[1] and also as a prerequisite to the application of Miller's cost indices. The most common approach for the calculation of minimum number of vessels (MNV) is to lay out all of the ceramics from a particular analytic unit (such as a feature), grouping the sherds by ware, type, and variety (e.g., floral motif vs. pastoral). All possible mends are then made. Body sherds are, from this point on, considered residual and not further considered. Remaining rim sherds that fail to provide mends, are examined for matches in design, rim form colors, and other attributes that would indicate matches with previously defined vessels. Those that fail to match either mended vessels or other rims are counted as additional vessels. Since there were no closed features, such as wells or privies, suitable for this level of analysis, the analytic unit used was all of the units from a specific area, combined with the features and post holes from that area. These were combined for this analysis, using a minimum distinction method for the MNV, which tends to provide a relatively conservative count.

Although no cross mend analyses were conducted on the glass artifacts, these materials were examined in a similar fashion to the ceramics to define minimum number of vessel counts, with the number of vessel bases in a given assemblage being used to define the MNV. Attempts were made to mend and match vessel bases in order to ensure the accuracy of the count. If a glass artifact exhibited a different color and/or form not represented by the counted bases, then it was designated a separate vessel or container.

Dating Techniques

Mean dates rely on South's (1977) mean ceramic dating technique, using primarily the mean dates that he has developed. A very few of our colleagues occasionally use Carlson (1983) in addition to South. Carlson observes that a drawback to South's technique is that it gives the same weight to ceramics manufactured for long periods (say from 1700 to 1800, yielding a mean date of 1750) as it does to those produced

[1] Although counts are used in this report, and virtually every study of historic wares, we know that they are biased as measures of the proportions of types. Simply put, the proportion by number of sherds of a particular type reflects two things – first, the proportion of that type in the population, and second, the average number of sherds into which vessels of that type have broken (known among some researchers as their brokenness) in comparison with the brokenness of other types. In general, however, brokenness will vary from one type to another and also from one size vessel of a particular type to another size vessel of the same type. Usually, types with a high brokenness will be over-represented in comparison to those with a low brokenness. More importantly, this bias not only affects the study of a single assemblage, but may also affect the study, or comparison, of different assemblages that may have a different level of brokenness.

for only short periods (say from 1740 to 1760, with the same mean date of 1750). While this is true – and is certainly an understandable issue – it seems that overall it results in only a few years error (especially with larger collections). Moreover, it seems that relatively few investigators have chosen to implement the changes proposed by Carlson.

We have also chosen not to provide tobacco stem dates for several reasons. One is that pipe stem bore diameters are frequently not consistent throughout their length. There are also lingering concerns over the adequacy of various sample sizes – Noël Hume (1963), for example, argues that a minimum sample of 900 to 1,000 stems is necessary, while Hanson (1971) suggests that 30 stems are adequate. We are inclined to believe that a larger figure is likely more viable – and none of the West Pasture samples come even close. There are other questions concerning when the dating technique begins to break down, with dates ranging from 1744 through 1800 having been offered. Since West Pasture clearly dates from at least the mid-eighteenth century through early to mid-nineteenth century, the use of pipe stem dating becomes problematic. Finally, there are actually a variety of dating techniques – at least six variations having been proposed in the past. Pfeiffer (1978) offers a review of the problems inherent in using pipe stems for dating. What we have done is to provide the raw data throughout our discussions, so that readers who may wish to compare more conventional dating techniques to pipe stem dating have the opportunity to do so.

Of greater importance to us at a site such as the Shoolbred Old Settlement, where at least a portion of our research focuses on when different structures or site areas were used, is the occupation span reflected by the ceramics. One method used to determine the occupation span of the excavations is South's (1977) bracketing technique. This method consists of creating a time line where the manufacturing spans of the various ceramics are placed. Determining where at least half of the ceramic type bars touch places the left bracket. The right bracket is placed the same way, however, it is placed far enough to the right to touch at least the beginning of the latest type present (South 1977:214). We have chosen to alter South's bracketing technique slightly by placing the left bar at the earliest ending date when that ending date does not overlap with the rest of the ceramic type bars.

Since South's method only uses ceramic types to determine approximate period of occupation, Salwen and Bridges (1977) argue that ceramic types that have high counts are poorly represented in the ceramic assemblage. Because of this valid complaint, a second method – a ceramic probability contribution chart – was used to determine occupation spans. Albert Bartovics (1981) advocates the calculation of probability distributions for ceramic types within an assemblage. Using this technique, an approximation of the probability of a ceramic type contribution to the site's occupation is derived. This formula is expressed:

$$Pj/yr. = \frac{fj}{F \times Dj} \quad \text{where}$$

Pj = partial probability contribution
fj = number of sherds in type j
F = number of sherds in sample
Dj = duration in range of years.

Artifact Patterns

Most historic archaeologists make extensive use of South's artifact groups and classes – sometimes as simply a convenient and logical means of ordering data. Often these functional categories are used for an "artifact pattern analysis" developed by South (1977), who believes that the patterns identified in the archaeological record will reflect cultural processes and will assist in delimiting distinct site types. South has succinctly stated that, "we can have no science without pattern recognition, and pattern cannot be refined without

quantification" (South 1977:25). The identification (and occasionally creation) of patterns in historical archaeology is not an end in and of itself, but rather is one of a series of techniques useful for comparing different sites with the ultimate goal of distinguishing cultural processes at work in the archaeological record.

There can be no denying that the technique has problems, some of which are serious, but no more effective technique than South's has been proposed. Garrow (1982b:57-66) offers some extensive revisions of South's original patterns, which will be incorporated in this study. Even at the level of a fairly simple heuristic device, pattern analysis has revealed five, and possibly seven, "archaeological signatures" – the Revised Carolina Artifact Pattern (Garrow 1982b, South 1977) associated with colonial English refuse disposal; the Revised Frontier Pattern (Garrow 1982b; South 1977), associated with British-American refuse disposal on rural sites; the Carolina Slave Artifact Pattern (Garrow 1982b; Wheaton et al. 1983), representative of nineteenth century slavery; the Georgia Slave Artifact Pattern (Singleton 1980; Zierden and Calhoun 1983), found in association with eighteenth century slave settlements; and the Public Interaction Artifact Pattern (Garrow 1982b); as well as the less well developed or tested Tenant/Yeoman Farmer Artifact Pattern (Drucker et al.1984) and the Washington Civic Center Pattern (Garrow 1982b), which Cheek et al. (1983:90) suggest might be better termed a "Nineteenth Century White Urban Pattern."

A careful inspection of these patterns reveals surprisingly no overlap in the major categories of Kitchen and Architecture which suggests that these two categories are particularly sensitive indicators of either site function (including intra-site functional differences) or "cultural differences" (see Cheek et al. 1983:90; Garrow 1982a:4; South 1977:146-154).

Area 1

Excavations in this area revealed two historic structures – Structure C is thought to be an early eighteenth century high status structure of frame construction on brick piers. Later the locus was occupied by a possible slave structure, reflecting a change in function for this area.

The investigations produced 4,865 artifacts; most (61.62%) are kitchen artifacts, with architecture related items (primarily window glass) coming in a distant second at 55.27%.

Kitchen Group

The Kitchen Artifact Group consists of 2,998 specimens. Of these, ceramics account for 1,614 specimens or 53.83%. This assemblage is dominated by eighteenth century wares, the most common being lead glazed slipware (n=255, 15.8%). These are examples of the "everyday necessities for the more humble table" (Cushion 1976:79). Erickson and Hunter (2001:95) comment that these wares were "a mainstay of domestic and utilitarian pottery for the masses." Vessel forms were typically plates, trenchers, mugs, and pitchers, exported to the American colonies from England in huge numbers. Also present are 95 examples of delft – tin glazed ceramics – that Cushion (1976:78) notes were generally for table use.

There are, however, examples of more expensive items, such as the porcelains and white salt glazed stonewares. Eighteenth century Chinese porcelains have been carefully discussed from the Broom Hall plantation site (Trinkley et al. 1995:185-197) and there is little new information. Virtually all decorated pieces are blue on white, although very small quantities (25 specimens) illustrate overglaze enamel decoration – probably done either at Canton or the point of initial manufacture, perhaps Jingdezhen.

Table 8.
Artifacts Recovered from Area 1

	1250R200	1250R210	1260R210	128R210	1285R210	Feature 1	Feature 2	Feature 3	Post Holes	Totals
Kitchen Group										2998
Overglazed enamelled porcelain			1	23	1					
Underglazed blue porcelain	8	8	7	5	13				1	
White porcelain, undecorated	4	3			2					
White porcelain, blue hand painted		2			5					
White SG SW	13	3	4	8	11				2	
White SG SW, scratch blue	1	1								
White SG SW, slip dipped	8	7		3	1			3		
Delft, undecorated	12	5	7		5				1	
Delft, blue hand painted	17	18	10	2	5		2	3		
Delft, poly	1		1	2	2				2	
Lead glazed slipware	75	70	28	20	41	2	1	9	9	
Creamware, undecorated	53	41	9	19	19					
Creamware, molded	1	1	1							
Creamware, annular	3	2			2					
Creamware, mocha		1								
Creamware, edged		4	2							
Creamware, poly hand painted	1									
Creamware, cauliflower	1	1	1	2	6					
Pearlware, undecorated	5	9			6					
Pearlware, blue hand painted	5	15	3		2					
Pearlware, poly hand pained		2								
Pearlware, sponge					1					
Pearlware, annular		6	1							
Pearlware, green edged				1						
Pearlware, blue edged		2								
Pearlware, blue transfer printed	4	2		1					1	
Whiteware, undecorated	1	1	1	3	4					
Whiteware, poly hand painted										
Whiteware, sponged		1								
Whiteware, annular				1	1					
Whiteware, blue edged				1						
Whiteware, blue transfer printed		2			1					
Whiteware, green transfer printed		4								
Whiteware, purple transfer printed		1								
Whiteware, black transfer printed		1	1							
Whiteware, decal					2					
Yellow ware, undecorated	3	1								
Jackfield	2	3	3	1	1		1		2	
Westerwald	1	7		5	5					
Gray SG SW	5	1	5	2	10					
Brown SG SW	8	9	4	1	3					
Coarse Red earthenware	9	6	5	6	6			1	9	
North Devon gravel tempered				1						
South European Ware	1									
Red earthenware	2	2		1	2				1	
Burnt refined earthenware	2	1								
Glass, black	220	374	166	79	161	11	3	6	11	
Glass, aqua	1			4	11					
Glass, amber				6	2					
Glass, light green	6	5	2	6	22					
Glass, clear	12	34	6	12	33		1			
Glass, brown	2			2	9					
Glass, other					14					
Glass, melted		1			1					
Glass, tableware	7	2	3	26	9	1				
Kitchenware	4	1								
Colono ware	19	40	9	16	19		2	3		
Architecture Group										2689
Window glass	451	721	331	334	568	4	14	6	44	
Delft tile	1									
Nails, wrought	1	6	1	5	3					
Nails, machine cut	4	11	7	4	6					
Nails, UID	34	33	11	33	26			3	27	
Furniture Group										5
Brass tacks	3	2								
Arms Group										13
Lead shot	3	3	1	1	1		1		1	
Gunflint	1									
Percusion cap	1									
Tobacco Group										119
Pipe stems, 4/64-inch	6	9		4	10				1	
Pipe stems, 5/64-inch	11	10	5	8	21		1		3	
Pipe stems, 6/64-inch	1	1	1							
Pipe stems, fragments	1		1							
Pipe bowl fragments	5	11		5	3		1			
Clothing Group										12
Buttons	4	2		2	1					
Grommet				1	2					
Personal Group										4
Broach		1								
Beads	1				1		1			
Activities Group										21
Lead fishing weight		1		2	4					
Misc. hardware	3	1								
Smoothing Stones		1	1							
Other	1	1	2		3				1	
TOTAL	910	1397	583	595	1001	16	25	19	101	4,865

Sweeney (1994:8-9) observes that by the 1720s tea drinking had become well established as a genteel ritual requiring not only new skills, but also a host of new containers and utensils, such as the tea-table, pots, bowls, strainers, sugar tongs, cups, creamers, and slop dishes. Sweeney observes that this range of requirements "offered new opportunities for consumption and display," creating a ritual that dominated high society for several decades. By mid-century, however, the genteel ritual was becoming established in middle and even lower class homes and losing its status (Carr and Walsh 1994:66; Bushman 1993:184).

While none of specimens at Area 1 possess armorials, initials, or mottos and the range of decoration is actually quite limited, Chinese porcelains were expensive and the examples from this area represent both tea services and table wares. The specimens were intended for formal dining and entertaining.

The white salt-glazed stonewares adapted techniques used by German potters since the early fourteenth century. The introduction of this pottery – relatively simple and inexpensive to produce – came at a perfect time for Staffordshire potters, allowing them to introduce comparatively fine wares for the tea ritual and offering competition to Chinese porcelains (Cushion 1976:81). Noël Hume (1978:115) notes that by the mid-eighteenth century these wares became "the typical English tableware" and displaced delft.

Other early ceramics include Westerwald and gray salt-glazed stonewares, Jackfield, and North Devon gravel tempered wares. Of particular interest given its very early date range is the North Devon. Coming from England, this was a coarse, heavily gravel-tempered earthenware with a light-brown to apple-green glaze (Noël Hume 1978:133) that generally was found as utilitarian forms.

Curiously colono wares, low fire earthenwares produced by African American slaves, are not especially common in this early assemblage. While 108 specimens were recovered, virtually all are small sherds and combined they represent only a very few vessels. Not only is the collection small, but it is not very revealing. We have no indication of foot rings or European vessel forms.

Turning to the latter half of the eighteenth century and early nineteenth century, the most common ceramic is creamware (170 specimens). Creamware was developed or refined (not invented) by Josiah Wedgwood in the 1750s and was considered to be a revolution in the industry. Wedgwood was able to provide a fine glazed ware at a relatively inexpensive price. Originally called cream-colored ware, when Queen Charlotte, wife of King George III, became a user of it, Wedgwood began calling his cream-colored product "Queens ware." Soon replicated by a number of other potters, the dominance of this cream-colored ware dealt a death blow to the older tin-glazed delft and the white salt-glazed stonewares – "rejected from genteel tables" (Collard 1967:105; see also Cohen and Hess 1993:31).

There is little indication of the continuum called pearlware and whiteware. Both combined comprise just over half the quantity of creamware.

These data suggest that occupation in this area waned after the first quarter of the nineteenth century. The range in ceramics may also indicate two different status occupations – discussed further below.

Although a large quantity of container glass was recovered from this excavation (n=1223), most of this (84.3%) represents "black" glass. This collection includes one case bottle and 7 blown bottles with base diameters ranging from 72 to 102 mm. Jones (1986) suggests these may include both undersized beer and wine sizes, dating from the mid-eighteenth to early nineteenth centuries.

The tableware items include five tumblers with rim diameters ranging from 2 to 4 inches, along with four goblets, two with folded feet and two with blown feet. Goblet rim diameters range from 2 to 3 inches.

The kitchenware collection consists entirely of kettle fragments.

Architecture Group

The 2,689 architectural items in the Area 1 collection are dominated by window glass, which consists of 2,473 fragments. In contrast, there are only 251 nails and most of these, 167, are unidentifiable fragments. Of the 48 nails that can be identified, most (n=32) are machine cut. These nails were introduced about 1780 and can be distinguished from the earlier wrought nails by their taper on only two sides, rather than four (see Howard 1989:54; Nelson 1968). Most of the cut nails from Area 1, however, continue to have hand applied heads, suggesting a transitional date between the two types.

Unfortunately, the collection is simply too small to offer any meaningful observations regarding the nature of construction techniques.

The only other architectural item found is a single delft tile fragment. While too small to provide information on the scene portrayed, the one specimen is ¼-inch thick. Noël Hume (1978:285) notes that tiles of this thickness were almost exclusively used for fireplace and wall skirtings (as opposed to flooring tiles which were substantially thicker). Lounsbury (1994:374) notes that "Dutch tiles" were most commonly applied to the jambs of fireplace openings, resulting in them also being called "chimney tiles." He places their peak in popularity around mid-eighteenth century.

Furniture Group

The only recovered furniture related items in Area 1 are brass tacks – used to retain upholstery and as decoration.

Tacks are typically suggestive of high-status furnishings with elaborate metal fittings – and generally such items are interpreted as evidence of the owner's wealth and possessions. Such an interpretation, however, requires us to wonder how the items came to be incorporated in the archaeological record. Noël Hume might have us imagine individual items being broken and lost; or we might imagine a few furnishings being left in the structure and gradually being incorporated with the ruins of the house. Another explanation, however, may involve alternative uses for these tacks.

There are numerous accounts of pins, needles, and other sharp items being used in various charm bags and voodoo rituals. Long (2001:55) observes that "sharp pins, needles, and tacks were used to 'pin down' the target" and the Savannah Unit, Georgia Writers' Project (1940:102) recounts a story of "needles an pins" being used with graveyard soil and other ingredients to make a root bag. Leone and Fry (1999) combine archaeology and folklore to suggest alternative explanations for such everyday things as brass tacks.

Arms Group

Thirteen arms related artifacts were identified in Area 1, including 11 lead shot, one honey-colored gun flint (likely French), and one percussion cap.

The lead shot range in size from 0.275 to 0.346 inch, a range that extends from what is historically considered buckshot and the larger swan shot. These were typically hunting loads.

Tobacco Group

This artifact group consists of 386 specimens, including 94 tobacco pipe stems (77.2% of the total group) and 25 pipe bowls. Of the 92 stems that can be measured, 59 (64.1%) are 5/56-inch in diameter. The next most common bore diameter is 4/64.

The vast majority of the pipe bowls are plain; two are ribbed. In addition, one of the pipe bowls is manufactured from a red clay. These are typically associated with very early settlements, dating from the last few decades of the seventeenth century through the first few of the eighteenth century. While found from Mid-Atlantic through Southeastern sites, they have long been observed in great quantities in Jamaica (Heidtke 1992). Some of these pipes in the Mid-Atlantic have motifs thought to link them with African American manufacture. The specimen from 38CH123, however, is plain.

Table 9.
Buttons Recovered from Area 1

South's Type	Description	#	Measurements (in mm)
7	Spun brass/white metal with eye cast in place	3	13, 22, 25
18	Stamped brass	1	13
26	Machine stamped brass face and back, eye loose	2	11, 12
28	Brass, concave back, stamped	1	14
31	Brass, spun back	1	22
-	Domed brass	1	11

Clothing Group

The largest contributors to this category are nine buttons. Also present are three brass grommets. The buttons are briefly described in Table 9. The size ranges follow generally accepted concepts of use, with those buttons 6 mm and under being associated with undergarments or delicate outer garments, those between 7 and 13 mm used on shirts and pants, and the larger buttons being used for coats. The Area 1 collection seems to reflect an even distribution between outer garments and coats.

Personal Group

There are only four personal items in the collection – one broach and three beads.

The broach is fragmentary and consists of a brass base with "gold" foil. It may depict a bird in flight next to a branch. While this would have originated at a relatively high status dwelling, it is difficult to exclude its subsequent use by African American slaves (as is the case for many of these specimens).

The attribution of the beads to African Americans is more certain. The three specimens include one Type 1f clear glass translucent faceted tube bead (Kidd and Kidd 1970). This bead measures 5.9 by 5.6 mm. A second specimen is a blue translucent wire wound bead (Type W11c) with a diameter of 10.8 mm. The final specimen is a light green translucent seed bead (Type W1d) with a diameter of 2.6 mm.

Activities Group

The final category is that of the Activities Group – a miscellaneous assortment often consisting of tools, hardware, and other utilitarian items. In Area 1, 21 specimens are found in this group.

Of considerable interest are the seven lead net weights. All are essentially round in shape with diameters ranging from 15.1 to 15.8 mm (average 15.3 mm). Similar weights are known from a variety of Mid-Atlantic and Southeastern archaeological sites and are common finds at seventeenth century sites in England as well.

Also included in this category are a small number of items that may be associated with African American religico-magical practices. Several small scraps of brass were found, as well as three mica fragments. Also recovered was an orange, translucent stone. All of these are consistent with the artifacts thought to represent evidence of spiritualism (see, for example, Leone and Fry 1999 or Wilkie 1995, 1997).

Dating the Collection

The mean ceramic date for Area 1 is relatively early – 1756 (Table 10). This reflects

Table 10.
Mean Ceramic Date for Area 1

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Overglazed enamelled porc	1660-1800	1730	25	43250
Underglazed blue porc	1660-1800	1730	42	72660
English porc	1745-1795	1770	16	28320
Westerwald	1700-1775	1738	18	31284
White salt glazed stoneware	1740-1775	1758	41	72078
White sg sw, scratch blue	1744-1775	1760	2	3520
White sg sw, slip dip	1715-1775	1745	22	38390
Lead glazed slipware	1670-1795	1733	255	441915
Jackfield	1740-1780	1760	13	22880
Decorated delft	1600-1802	1750	130	227500
Plain delft	1640-1800	1720	60	103200
North Devon	1650-1775	1713	1	1713
Creamware, cable	1790-1820	1805	1	1805
Creamware, annular	1780-1815	1798	3	5394
Creamware, hand painted	1790-1820	1805	12	21660
Creamware, undecorated	1762-1820	1791	147	263277
Pearlware, mocha	1795-1890	1843	1	1843
Pearlware, poly hand painted	1795-1815	1805	1	1805
Pearlware, blue hand painted	1780-1820	1800	2	3600
Pearlware, blue trans printed	1795-1840	1818	8	14544
Pearlware, edged	1780-1830	1805	3	5415
Pearlware, annular/cable	1790-1820	1805	7	12635
Pearlware, undecorated	1780-1830	1805	20	36100
Whiteware, blue edged	1826-1880	1853	1	1853
Whiteware, blue trans printed	1831-1865	1848	3	5544
Whiteware, non-blue trans printed	1826-1875	1851	7	12957
Whiteware, annular	1831-1900	1866	2	3732
Whiteware, sponge/splatter	1836-1870	1853	1	1853
Whiteware, undecorated	1813-1900	1860	10	18600
Yellow ware	1826-1880	1853	4	7412
Total			858	1506739
Mean Ceramic Date	1756.1			

the abundant early eighteenth century ceramics present in the assemblage and is generally consistent with the other artifacts present at the site – although there are certainly later materials present.

In contrast, South's bracketing technique suggests an occupation range of 1795 to 1835, although this technique would assume that a number of the ceramics, such as the Westerwald, white salt glazed stonewares, Jackfield, and North Devon were heirlooms. It essentially assumes that the occupation began with creamwares – an unlikely scenario.

Using Bartovics' probability distributions we see that occupation in Area 1 began early, ca. 1670, and continued unabated to about 1820. Thus, Bartovics and South tend to agree on a mean occupation of 1745 to about 1756. This suggests that the site was certainly occupied by the time of John Stanyarne's ownership. It may even have been settled earlier. Granted earlier remains are sparse, but a settlement by a few slaves of Raynor, Davis, or Moore tending cattle might well have left a very faint archaeological footprint.

Artifact Pattern

As explained earlier, the artifact pattern can be used to reveal either site function or "cultural differences." The artifact pattern revealed by the collections at Area 1 is shown in Table 11.

This assemblage has a pattern that is very similar to the Revised Carolina Artifact Pattern, characteristic of British Colonial refuse disposal. We see little indication of admixture with eighteenth century slave refuse since we would expect such a mix to increase the kitchen group at the

Table 11.
Artifact Pattern Comparison for Area 1

	38CH123, Area 1 Pattern	Revised Carolina Artifact Pattern[1]	Townhouse Pattern[2]	Dual-Function Pattern[2]	Georgia Slave Artifact Pattern[3]	Carolina Slave Artifact Pattern[1]	Yeoman Pattern[4]
Kitchen Group	51.24	51.8 - 65.0	58.4	63.1	20.0 - 25.8	70.9 - 84.2	40.0 - 61.2
Architectural Group	45.79	25.2 - 31.4	36.0	25.0	67.9 - 73.2	11.8 - 24.8	35.8 - 56.3
Furniture Group	0.09	0.2 - 0.6	0.2	0.1	0.0 - 0.1	0.1	0.4
Arms Group	0.22	0.1 - 0.3	0.3	0.2	0.0 - 0.2	0.1 - 0.3	-
Tobacco Group	2.03	1.9 - 13.9	2.8	6.0	0.3 - 9.7	2.4 - 5.4	-
Clothing Group	0.20	0.6 - 5.4	0.9	1.2	0.3 - 1.7	0.3 - 0.8	1.8
Personal Group	0.07	0.2 - 0.5	0.2	0.1	0.1 - 0.2	0.1	0.4
Activities Group	0.36	0.9 - 1.7	1.1	4.1	0.2 - 0.4	0.2 - 0.9	1.8

[1] Garrow 1982
[2] Zierden et al. 1988
[3] Singleton 1980
[4] Drucker et al. 1984

expense of the architectural refuse. In our sample from Area 1 the architectural remains are actually higher than we would expect for a high status owner dwelling – a result of the exceptionally large quantity of window glass in the collection. Of course, we may be seeing the inclusion of a nineteenth – not eighteenth – century slave assemblage that would increase architectural remains.

To better explore this idea, it may be useful to look more closely at the ceramics recovered from Area 1.

Status

To explore status we can examine the range of vessel forms: hollow ware, flatware, utilitarian, and serving vessels. Archaeologists believe that higher status individuals, because of their wealth, tended to have diets that allowed or preferred the use of flatware and serving ware. Lower status individuals would be more inclined to eat one-pot meals that necessitate bowl or hollow ware forms.

We also realize that some decorative motifs tend to be more expensive than others. For example, annular wares tend to be very inexpensive. Transfer prints tend to be expensive. Plain wares are problematical since they begin their history as expensive but rather quickly become less expensive.

There are some ceramics that tend to be associated with either higher or lower status (although high status wares can be cast off from the master's table). For example porcelain is a very high status ware. On the other hand, lead glazed slipwares were the wares of the yeoman farmer and laborer – as well as slave.

When we examine the ceramics by function, we see that overall the assemblage is dominated by hollow wares – forms that are suggestive of a relatively low status occupation (Table 12). This holds true regardless of the type of ceramic being examined, although certainly wares such as lead glazed slipware and delft are more heavily dominated by hollow ware forms than are the porcelains or creamwares. Flatwares do account for nearly a third of the collection and the analysis reveals the presence of both serving and storage forms as well.

If we look at the motifs present on the Area 1 ceramics we obtain a very similar picture (Table 13). Throughout the occupation relatively inexpensive motifs are common. Although the whiteware suggests a different trend, this collection is so small that we doubt the results are valid.

Table 12.
Vessel Forms in Area 1

Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian
Porcelain	9	5	0	0
Delft	7	0	0	0
WSG Stoneware	5	1	0	0
Lead Glazed Slipware	17	5	0	0
Creamware	9	10	1	0
Pearlware	4	3	0	0
Whiteware	1	3	0	0
Other Ceramics	4	0	0	2
Total	56	27	1	2
%	65.12	31.40	1.16	2.33

Table 13.
Proportion of motifs in Area 1

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	15.8	84.2
Pearlware	16.7	83.3
Whiteware	50.0	50.0

What these observations suggest is that while the pattern analysis is supportive of an owner or overseer, the ceramics themselves suggest an individual of modest means. Since it seems unlikely that Stanyarne, whose main residence was on Johns Island, would have built a mansion on Kiawah so early, we may be looking at an overseer or even a very temporary residence – a working farm – and if so, the assemblage seems what we would expect. In fact, while the pattern analysis is different, the vessel forms from the ca. 1738 overseer site

Table 14.
Miller's Ceramic Indices for Area 1

	Plates			Bowls			Cups/Saucers		
	#	Index Value	Product	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware									
Undecorated	8	1.00	8	7	1.00	7	3	1.00	3
Annular			0	2	1.60	3.2			0
Edged	4	1.67	6.68			0			0
Hand painted			0	2	3.75	7.5			0
Transfer printed			0			0			0
Average Value			1.22			1.609091			1
Whiteware									
Undecorated			0			0			0
Annular			0	1	1.20	1.2			0
Edged	1	1.33	1.33			0			0
Hand painted			0			0			0
Transfer printed	2	2.17	4.34			0			0
Average Value			1.89			1.2			0
Combined Average Index Value		1.38							

38CH1278 are also about one-third flat wares and two-thirds hollow wares (Trinkley et al. 2005:65). The same situation was also encountered at 38BK1900, Area A, an overseer site dated to about 1734 (Trinkley et al. 2003:71).

A final approach to status involves the use of Miller's cost indices. Developed by George Miller (1980, 1991a), the method uses a scaling index called the "cost index" to estimate the relative value of a vessel based on decoration, vessel form, size, and the date of manufacture. The resulting index values can be used to compare the cost of the ceramic assemblage to other sites. The approach is suitable only with the CC wares – what we have identified as creamware, pearlware, and whiteware. The results of the analysis are shown in Table 14.

The result is a relatively low combined ceramic index value of 1.38. Although comparable to several owner settlements, there are numerous slave settlements with higher values. The usefulness of this approach is compromised by the mixing of possibly two assemblages – one from Stanyarne or his overseer with another from slaves. Nevertheless, the "averaging" yields a low number, consistent with other data such as vessel form and vessel motif.

Area 2

Area 2 produced evidence of both architectural rubble and shell, although no structural remains were found. Two of the units had a distinct shell midden zone (called Zone 2), although we have previously suggested that two occupations may be represented in this area – one dating from the late eighteenth century and a second from the early to mid-nineteenth century.

Table 15 reveals that the collection is dominated by kitchen artifacts (69.64%) and within this category by ceramics, which comprise nearly 53% of the total.

Kitchen Group

Whitewares contribute nearly 41% of the ceramic assemblage, followed by pearlwares (25.38%), and then creamwares (16.85%). Early eighteenth century ceramics such as lead glazed slipware, delft, and white salt glazed stoneware are a minor contributor, at 3.72% of the collection. One pearlware ceramic has a Davenport mark dated from 1810 to 1825 (consisting of an anchor with "Davenport" above it).

Area 2 did produce a small collection of porcelains (1.02% of the ceramic assemblage), as well as three specimens of black basalt. Black basalt is a black, dry-bodied stoneware that began in late 1750s (often called Egyptian black) and perfected by Wedgwood in the 1760s (Gusset 1980). While originally used for Wedgwood's famous Etruscan vases, its popularity spread into more utilitarian forms, such as tea wares. It was imitated by a variety of potters until the early nineteenth century; its

Table 15.
Artifacts recovered from Area 2

	740R120	750R100	750R140 Zone 1	750R140 Zone 2	750R150 Zone 1	750R150 Zone 2	Feature 4	Totals
Kitchen Group								3503
Overglazed enamelled porcelain	2	2						
Underglazed blue porcelain	1		1		2	1		
White porcelain, undecorated	4	2	3					
White porcelain, blue hand painted		1						
Delft, undecorated	1							
Delft, blue hand painted					1			
Delft, poly			1					
Lead glazed slipware	8	1	17	3	31	5	1	
Creamware, undecorated	47	16	133	35	49	18	1	
Creamware, annular			4		6			
Creamware, edged				1				
Creamware, poly hand painted	1							
Creamware, HPOG			1					
Pearlware, undecorated	28	13	32	2	98	6	3	
Pearlware, blue hand painted	2		6	1	13		2	
Pearlware, poly hand pained	6	1	11		19	1		
Pearlware, sponge	1				1			
Pearlware, cable	6	2	5		27			
Pearlware, annular	10	5	20		38	3		
Pearlware, green edged	1	2	3		3	1		
Pearlware, blue edged	4	1	9		43	1	1	
Pearlware, blue transfer printed	6	1	6	2	24			
Whiteware, undecorated	26	72	110		100	5	1	
Whiteware, poly hand painted	2	7	1				1	
Whiteware, annular	5	164	30		26	1		
Whiteware, cable	3	1	16		6	1	1	
Whiteware, edged		6	8		19			
Whiteware, blue transfer printed	16	21	39		32	2		
Whiteware, non-blue transfer printed	7	6	5	1	2	1		
Whiteware, sponge		7						
Yellow ware, undecorated	4	4	4		3		1	
Yellow ware, mocha/annular	6	1	3		2			
Black basalt	2				1			
Tortoiseshell	4	8						
Gray SG SW	5			3		1		
Brown SG SW	12	9	11	1	21			
Albany slip SW		1	1					
Alkaline glazed stoneware			1					
Coarse Red earthenware	22	2	10	2	25			
Red earthenware			8		6			
Burnt/UID refined earthenware	4	7	10		24	2		
Glass, black	334	137	345	14	241	26	7	
Glass, aqua	25	32	9		20	2		
Glass, green	6	3	9	2	18			
Glass, light green	47	17	25		21	2		
Glass, other	26	34	8		2			
Glass, clear	26	22	49		8			
Glass, milk	1	1						
Glass, tableware	1	19	30		10			
Utensil	2	1	3					
Kitchenware	1	11	2			1	1	
Colono ware	8	1	18	2	20	1		
Architecture Group								1203
Window glass	12	18	20		9	4		
Keyhole cover	1							
Hinge fragments			1	1	1		1	
Nails, wrought	3	9	9	3	3		1	
Nails, machine cut	52	53	31	1	29		2	
Nails, UID	243	282	129	62	169	36	15	
Spike	2		1					
Furniture Group								7
Brass tacks	2				3			
Figurine fragment	1							
brass keyhole surround			1					
Arms Group								3
Lead shot	1							
Gunflint	1		1					
Tobacco Group								279
Pipe stems, 4/64-inch	9	8	27	4	41	5		
Pipe stems, 5/64-inch	3	15	36	4	48	4	1	
Pipe stems, 6/64-inch	2	2	4		11		1	
Pipe stems, fragments			1		3			
Pipe bowl fragments	10	2	11	1	23	3		
Clothing Group								63
Buttons	11	9	20	1	13			
Grommet	1	1						
Suspender button	1							
Collar stud		3						
Lace bobbin fragment			1					
Flat iron			1					
Scissor handle			1					
Personal Group								7
Broach fragment	1							
Slate pencil	1	1			1			
Beads		1						
Jewelry setting		1						
Bone toothbrush					1			
Activities Group								53
Fishing weight	3		1		1			
Strap fragments	3	1				1	1	
Glass marble	1							
Doll's head		1						
Misc. hardware	4	3	3		3			
Counting slate	1	1						
Hoe fragment			1					
Ax head			1					
Other	1	7	7		8			
TOTAL	1093	1059	1315	146	1329	134	42	5,118

longevity at least partially because it was fashionable to use the ware during mourning.

The second most prolific category in the Kitchen Group is glass container fragments, contributing 1,519 specimens. Of these, 1,104 or 72.68% are "black" glass. While certainly a substantial collection, this translates into only five round and one case bottle. The case bottle is so-named since it was designed to pack readily in a case. It often held gin and while the size varies, a quart is the typical volume. The round bottles average about 90 to 100 mm – a size typically attributed to wine bottles from about 1790 to 1850 (Jones 1986).

Other bottles included one clear pharmaceutical vial, as well as at least three panel bottles which typically contained proprietary medicines.

One of the specimens – a portion of a South Carolina dispensary bottle – provides clear evidence that the trash area was used well into the post-bellum. The dispensary system operated in South Carolina from 1893 until 1907 when it was abolished in favor of local option. Charleston was one of the six counties that maintained the dispensary system until 1915 when prohibition began (Huggins 1971; Teal and Wallace 2004). Thus, this bottle fragment in Area 2 indicates disposal from 1893 to possibly as late as 1915.

The tableware category includes six utensil fragments. Three are white metal – a spoon bowl and two handle fragments. The remaining items are all iron – a three-tine fork, a knife blade and tang, and a fragment of bone handle. These utensils might be found on the table of master, overseer, or slave.

Another tableware item were fragments of a 7-inch diameter tin bowl.

Glass tableware items include four tumblers and a goblet, typically expected on the tables of the more wealthy, but certainly found in slave assemblages as cast-offs from the master's table. Also present in Area 2 are two molded glass bowls, two molded footed vessels ("candy dish" forms), a decorative jar and lid, and a pitcher. While similar decorative items are occasionally found in slave assemblages, they are typically individual items. In this case the assemblage is relatively large and suggestive that some of these may have come from an owner or overseer.

Kitchenware items consist only of five kettle fragments.

The Colono assemblage in Area 2 appears relatively large – 50 specimens. But the count is deceiving since 49 of these specimens are small sherds, under an inch in diameter. Only one large sherd was recovered. This low incidence of Colono, however, is consistent with a late eighteenth or early nineteenth century assemblage.

Architecture Group

This category includes 1,203 specimens, although most of these items are unidentifiable nails (936 or 77.80%). Identifiable nails account for only 196 specimens. Of these only 28 (14.28%) are wrought. The remainder are machine cut. Cut nails may be further distinguished by determining if the head was hand or machine applied. Hand-heading indicates a date prior to ca. 1836, while machine applied heads are suggestive of a later date (Wells 1998:93-94).

In Area 2, nearly 53% of the nails have the earlier hand-applied heads, indicating that a substantial portion of the collection likely dates from the first quarter of the nineteenth century.

Because different sized nails served different self-limited functions, it is possible to

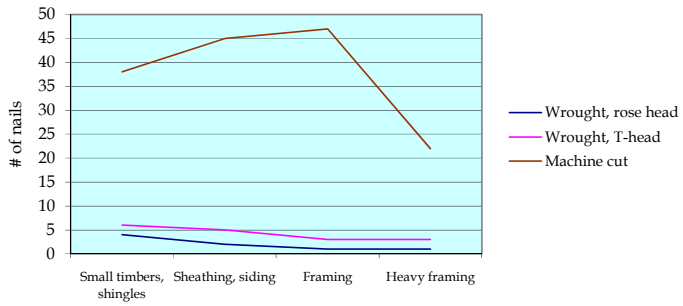

Figure 32. Function of nails from Area 2.

use the relative frequencies of nail sizes[2] to indicate building construction details.

Figure 32 shows the nails, combining the two head types for machine cut nails. This reveals an assemblage that contains nails for a variety of functions, even heavy framing. The presence of nails under 6d suggests that the structure had plaster lathe or other fine detailing. The large number of framing nails suggests a nineteenth century construction – certainly supported by the low incidence of wrought nails.

While window glass is present in the collection, it is certainly not as abundant as was found in Area 1. Other architectural remains include four items of construction hardware – all hinge fragments. Two are fragments of strap hinges, two others are pintle fragments. Another interesting item is a brass keyhole cover embossed with what appears to be the initials "ER Co." While Erwin & Russell immediately come to mind, we have found no similar motif in their catalog.

Furniture Group

As with Area 1, the most common furniture artifact is the brass tack. The other items include a very small fragment of a ceramic figurine and a brass keyhole surround typical of furniture locks.

Arms Group

The single lead shot measures 0.31 inch – a size typically called swan shot and intended for game hunting.

Also present in the collection are two gunflints – both a dark brown flint.

Tobacco Group

The most common pipe bore diameter is 5/64 inch, which accounts for 49.33% of those recovered. The next most common size, 4/64 inch, contributes an additional 41.78%. Although most are plain, several have molded lines and dots.

Fifty pipe bowl fragments are identified and most (70.8%) are plain. The most common decorative element on the bowls were ribs (25% of the total assemblage or 85.7% of those decorated). Other motifs include leaves (used to disguise the mold seams) and a cross hatch pattern.

The collection also includes two red clay bowls, as well as two red clay stems. One of the stems is marked "Glasgo[w]/[ ] W Kelman." We have been unsuccessful in finding a Kelman making tobacco pipes, but of greater interest is the evidence that this type was being produced in Scotland during either the late eighteenth or early nineteenth century.

[2] Nails were not only sold by shape, but also by size, the lengths being designated by *d* (pence). This nomenclature developed from the medieval English practice of describing the size according to the price per thousand (Lounsbury 1994:239). Nelson (1968:2) provides the same interpretation, although the price was per hundred. Common sizes include 2d - 6d, 8d, 10d, 12d, 20d, 30d, and 40d. It was not, however, until the late nineteenth century that penny weights were standardized.

Clothing Group

Of the 62 clothing specimens identified in Area 2, 53 (85.5%) are buttons. These are tabulated in Table 16, but several provide good date ranges based on their backmarks or other details.

Table 16.
Buttons Recovered from Area 2

South's Type	Description	Number	Measurements (in mm)
6	Cast face, cast back, flux joined	1	14
7	Spun brass/white metal with eye cast in place	10	14, 15, 17, 18, 2-20, 23, 3 frags
10	Cast brass, domed disc	1	21
15	Bone disc, 1-hole	3	13, 21, frag
18	Stamped brass or white metal	8	12, 2-14, 15, 3-20, frag
22	Shell, 2 or 4-hole, flat back, sunken panel	1	13
23	Porcelain, convex	16	2-10, 11-11, 13, 2-14
25	Plain brass face, iron back and eye	1	17
26	Machine stamped brass face and back, eye loose	2	19, 26
27	Brass, domed, machine embossed	1	18
28	Stamped brass, concave back	1	12
29	Cast white metal, wire eye	3	15, 17, 18
32	Stamped brass, sunken panel	1	18
-	opaque blue glass	1	frag
-	black glass	1	11
	brass and glass	1	21
	Iron with fiber center	1	21

Unit 750R150, Zone 1 produced three identifiable buttons. A type 18 button had a backmark of "Armitage/Phil." This is identified as George Armitage who was working at the Philadelphia Arsenal from about 1800 into the 1830s (Luscomb 1967:13). Another type 18 button had the backmark "W&R S/Plated." This is the English button maker, W&R Smith. We have been unable to obtain a date range for this manufacturer, but it appears that the firm was operating in the early 1800s. The final item is a type 27 South Carolina Militia button with the backmark "Scovills/Waterbury." This button was made between 1830 and 1850 and is given the identifier SC236As1 (Tice 1997:442-443).

The remaining clothing items provide an interesting cross section, including an iron and a portion of scissor handle. The detachable collar was invented in 1827 and the porcelain collar studs found in the Area 2 collection would have been used to attach the collar to the shirt. Porcelain became popular by mid-century, corresponding to the increase in porcelain buttons being manufactured. Suspenders were invented in 1822 and the suspender button recovered from Area 2 may also date to the middle of the nineteenth century.

Personal Group

A single bead was recovered in Area 2. This specimen is a round, wire wound specimen of translucent blue glass. The type is designated W1b (Kidd and Kidd 1970). The collection also includes several slate pencils. While these artifacts cannot be reliably dated, they do indicate a degree of literacy.

Two jewelry settings were identified in the collection. Perhaps the most unusual item, given the remote and isolated condition of Kiawah, is the fragment of bone toothbrush. Although too small to provide dating information (a range of 1780 to 1860 is likely), bone toothbrushes through the first half of the nineteenth century were luxury items and it seems likely that this one came from the owner's house (see Mattick 1993). Although it may represent a simple discard, we know that African American spiritualism used personal articles for various charms or rootwork (Leone and Fry 1999:381). As early as 1849 we have accounts of slaves using rootwork to "prevent their masters from exercising their will over their slaves" (Bibb 1849:25). Certainly there is little else more personal than a toothbrush.

Activities Group

Lead fishing weights identical to those identified in Area 1 are found again in Area 2. Also present are metal barrel straps – a relatively common item found discarded on plantation settlements.

Two "toys" were also recovered. One is a small fragment of a white porcelain doll's head. Also found was a glass marble fragment. Glass marbles have a long history, but it wasn't until 1848 that their manufacture became quick enough to make them a viable market alternative to stone or china. Although we commonly think of marbles as a child's game, it is important to realize that they were just as often used by adults in gaming. Games such as "ringer" and "spanner" were played for cash wagers and formed the nucleus of urban backlot gaming.

Tools are represented in the assemblage by an axe head and a hoe fragment – both common plantation tools throughout the nineteenth century.

Included in the Miscellaneous Hardware category are four brass nails and one brass spike. While brass (an alloy of copper and zinc, sometimes mixed with tin to prevent dezincification) nails and spikes were commonly used in ship building and repair, they seem almost ubiquitous on low country plantations and even at the Freedmen's village of Mitchelville (Trinkley 1986:257, 259).

We know that brass nails found use among African Americans as an article used in gris-gris bags often called "hands," "mojos," or "tobys" in American literature. The slave narratives speak of combining "hair and brass nails and thimbles and needles" in a "conjure bag" (Leone and Fry 1999: 381). Other bits of copper and brass scrap found in Area 2 might have served similar functions since there seems to be little other use in salvaging such materials.

Table 17.
Mean Ceramic Date for Area 2

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Overglazed enamelled porc	1660-1800	1730	4	6920
Underglazed blue porc	1660-1800	1730	5	8650
English porc	1745-1795	1770	10	17700
Black basalt	1750-1820	1785	3	5355
Lead glazed slipware	1670-1795	1733	66	114378
Decorated delft	1600-1802	1750	1	1750
Plain delft	1640-1800	1720	1	1720
Creamware, cable	1790-1820	1805	1	1805
Creamware, annular	1780-1815	1798	10	17980
Creamware, hand painted	1790-1820	1805	2	3610
Creamware, undecorated	1762-1820	1791	299	535509
Pearlware, poly hand painted	1795-1815	1805	38	68590
Pearlware, blue hand painted	1780-1820	1800	24	43200
Pearlware, blue trans printed	1795-1840	1818	39	70902
Pearlware, edged	1780-1830	1805	69	124545
Pearlware, annular/cable	1790-1820	1805	116	209380
Pearlware, undecorated	1780-1830	1805	182	328510
Whiteware, green edged	1826-1830	1828	9	16452
Whiteware, blue edged	1826-1880	1853	24	44472
Whiteware, poly hand painted	1826-1870	1848	11	20328
Whiteware, blue trans printed	1831-1865	1848	110	203280
Whiteware, non-blue trans printed	1826-1875	1851	22	40722
Whiteware, annular	1831-1900	1866	254	473964
Whiteware, sponge/splatter	1836-1870	1853	7	12971
Whiteware, undecorated	1813-1900	1860	314	584040
Yellow ware	1826-1880	1853	28	51884
Total			1649	3008617
Mean Ceramic Date	1824.5			

Another item worthy of brief mention is a small fragment of lump graphite. There are no graphite sources in South Carolina, but a very large and productive source was found in England prior to the seventeenth century. This material was highly valued and its occurrence in a trash dump is unusual.

Dating the Collection

Table 17 reveals that the mean ceramic date for Area 2 is 1824.5. This date is consistent with those few artifacts where a maker's mark or other information supplied supplemental dating. Nevertheless, we have suggested the possibility of two occupations and if we look only at the Zone 2 collections we find that the assemblage provides a mean date of 1796 – 28

Table 18.
Mean Ceramic Date for the Zone 2 Deposits in Area 2

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Underglazed blue porc	1660-1800	1730	1	1730
Lead glazed slipware	1670-1795	1733	8	13864
Creamware, undecorated	1762-1820	1791	53	94923
Pearlware, poly hand painted	1795-1815	1805	1	1805
Pearlware, blue hand painted	1780-1820	1800	1	1800
Pearlware, blue trans printed	1795-1840	1818	2	3636
Pearlware, edged	1780-1830	1805	2	3610
Pearlware, annular/cable	1790-1820	1805	3	5415
Pearlware, undecorated	1780-1830	1805	8	14440
Whiteware, blue trans printed	1831-1865	1848	2	3696
Whiteware, non-blue trans printed	1826-1875	1851	2	3702
Whiteware, annular	1831-1900	1866	2	3732
Whiteware, undecorated	1813-1900	1860	5	9300
Total			90	161653
Mean Ceramic Date	1796.1			

years earlier than the combined collection (Table 18).

If we use South's bracketing technique to examine the range of occupation represented by the refuse in Area 2, a period from about 1790 to 1830 is indicated. The midpoint of this range is about 14 years earlier than the mean ceramic date.

As a final dating tool we also used Bartovics' probability distributions. These reveal that occupation began in Area 2 about 1765 and continued until 1830 when there was a modest decline in activity. However, some deposition continued perhaps as late as 1900 (this late terminal date is the result of the broad range assigned to whitewares). It is interesting that this technique shows no gradual increase in settlement prior to 1765 and no gradual decline after the Civil War.

With these data in mind, it is difficult to support our contention that two separate deposits are present in Area 2. Rather, it appears that slightly different areas were used for trash disposal over a very long period of time. Since we suspect that one or more structures were nearby, we can extend these observations to suggest that activities began here late in the tenure of John Stanyarne and continued through the following ownership of Shoolbred, Wilson, and even Vanderhorst.

Artifact Pattern

The artifact pattern in Area 2 resembles that of the Revised Carolina Artifact Pattern associated with eighteenth and early nineteenth century planters. In Area 2 the portion of architectural remains is slightly low, but we have no architectural features to swell these numbers and the refuse we do have is almost certainly discard. Furniture and Personal Group artifacts are also lower than might be expected. While an argument could be made to support an overseer contribution, the proportion of tobacco items seems too low.

Table 19.
Artifact Pattern Comparison for Area 2

	38CH123 Area 2	Revised Carolina Artifct Pattern[1]	38BK1900 Area B 18th Cen. Overseer[2]	38CH1278 18th Cen. Overseer[3]	Carolina Slave Artifact Pattern[1]	Georgia Slave Artifact Pattern[4]
Kitchen	68.4	51.8-65.0	65.2	78.1	70.9-84.2	20.0-25.8
Architecture	23.5	25.2-31.4	21.2	8.9	11.8-24.8	67.9-73.2
Furniture	0.1	02-0.6	0	0.1	0.1	0.0-0.1
Arms	0.1	0.1-0.3	0.3	0.2	0.1-0.3	0.0-0.2
Tobacco	5.5	1.9-13.9	10.2	11.4	2.4-5.4	0.3-9.7
Clothing	1.2	0.6-5.4	0.1	0.2	0.3-0.8	0.3-1.7
Personal	0.1	0.2-0.5	0.1	0.2	0.1	0.1-0.2
Activities	1.1	0.9-1.7	2.9	1.1	0.2-0.9	0.2-0.4

[1]Garrow 1982
[2]Trinkley et al. 2003
[3]Trinkley et al. 2005
[4]Singlton 1980

Thus, the pattern data might convincingly argue for owner or overseer; even a Carolina Slave Artifact Pattern could be supported. It may be helpful to examine the status of the recovered artifacts to better understand the origins of this trash deposit.

Status

To explore status we can examine the range of vessel forms, the motifs used, and calculate the cost indices for the pottery present. Table 20 shows the range in vessel forms recovered from Area 2. The ratio of flat to hollow wares is about 1:1.3 and over 5% of the collection consisted of serving vessels such as teaware, platters, and bowls. Utilitarian wares, such as storage containers and pans, comprise about 2% of the assemblage.

Table 20.
Vessel Forms Recovered from Area 2

Ceramic Type	Hollow	Flat Ware	Serving	Utilitarian
Porcelain	0	4	0	0
Lead Glazed Slipware	0	10	0	2
Creamware	20	6	0	0
Pearlware	24	17	0	0
Whiteware	47	33	2	1
Other Ceramics	3	0	8	1
Total	94	70	10	4
%	52.81	39.33	5.62	2.25

We would expect a predominance of flat wares from the planter's table, but the slave's assemblage would consist almost entirely of hollow wares. This assemblage from Area 2 is in the middle and one explanation for this is that we are seeing both higher and lower status refuse being mixed together.

Table 21.
Proportion of motifs in Area 2

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	5.0	95.0
Pearlware	20.0	80.0
Whiteware	15.3	84.7

Nevertheless, the inexpensive motifs clearly dominate the collection (Table 21), comprising no less than 80% of creamwares through whitewares.

The last approach for examination of status is the calculation of Miller's indices, shown in Table 22. The combined average index value is 1.53, which is mid-way on the economic scale. Examination of the indices by vessel form, however, reveals that plates and cups have the average value or greater, while the bowls have overall lower values. This tends to suggest mixing of the assemblage and while we continue to suspect that we are seeing a combination of materials dumped in Area 2, these indices, the vessel forms, and the vessel motifs all point to a relatively low status assemblage.

Table 22.
Miller's Ceramic Indices for Area 2

	Plates			Bowls			Cups/Saucers		
	#	Index Value	Product	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware									
Undecorated	5	1.00	5	11	1.00	11	6	1.00	6
Annular			0	17	1.60	27.2	1	1.50	1.5
Edged	14	1.33	18.62			0			0
Hand painted	1	1.5	1.5	4	2.00	8	3	1.80	5.4
Transfer printed	3	4.33	12.99			0	2	3.40	6.8
Average Value			1.6569565			1.44375			1.641667
Whiteware									
Undecorated	17	1.22	20.74	8	1.00	8	6	1.00	6
Annular			0	25	1.20	30	1	1.50	1.5
Edged	8	1.33	10.64			0			0
Hand painted	1	2.17	2.17	2	1.60	3.2			0
Transfer printed	7	2.67	18.69	1	2.60	2.6	4	2.57	10.28
Average Value			1.5830303			1.216667			1.616364
Combined Average Index Value		1.53							

Area 3

Excavation in Area 3 produced the well-defined remains of Structure D, a wall trench house thought to represent an eighteenth century slave dwelling. A total of 2,839 artifacts were recovered from the primary excavations, features, and associated post holes. Over two thirds of that assemblage consists of kitchen related items.

Kitchen Group

This category includes 1,833 specimens, nearly 60% of which are ceramics. Of these ceramics nearly a third are pearlwares, followed by whitewares, then by creamwares. There are no significant numbers of early or mid-eighteenth century ceramics. Porcelains account for only three specimens, white salt glazed stonewares for only one, and lead glazed slipware contributes only 34 examples. The

Table 23.
Artifacts Recovered from Area 3

	350R120	350R130	350R135	360R120	360R130	Feature 8	Feature 9	Feature 9A	Post Holes	Totals
Kitchen Group										1833
Underglazed blue porcelain		1		1						2
White porcelain, undecorated					1					1
White SG SW									1	1
Lead glazed slipware	2	7	7	9	8	1				34
Creamware, undecorated	11	44	16	26	56		6		3	162
Creamware, annular	5	5	7	1	5		1			24
Creamware, poly hand painted					1					1
Pearlware, undecorated	16	32	5	22	45		2		8	130
Pearlware, molded					1					1
Pearlware, blue hand painted	1	6		2	9					18
Pearlware, poly hand pained	7	2	2	13	6					30
Pearlware, mocha		1		1						2
Pearlware, cable	7	10	2	5	8			1		33
Pearlware, annular	19	43	1	12	17			1	1	94
Pearlware, green edged	2	5	1	2	3					13
Pearlware, blue edged	1	10	4	3	9			1		28
Pearlware, sponged	1			1						2
Pearlware, blue transfer printed	6	5	3	9	4					27
Whiteware, undecorated	21	41	7	25	33			2	1	130
Whiteware, annular	4	11	5	14	26			1		61
Whiteware, cable	4	7		11	21					43
Whiteware, blue edged	4	3	2	5	2					16
Whiteware, blue transfer printed	1	1			1					3
Whiteware, non-blue transfer printed		1		3						4
Whiteware, sponged	1			1	2					4
Yellow ware, undecorated		5		1						6
Yellow ware, mocha/annular	3	5		6	2					16
Gray SG SW		1	5							
Brown SG SW	2	15	1	5	9				1	
Albany slip SW		1	2							
Coarse Red earthenware	13	41	26	11	38	3	6	1	1	
Red earthenware	2			2						
Burnt/stained refined earthenware	2	4	2	1	4					
Glass, black	84	216	34	103	123	1	10	3	11	585
Glass, aqua	2	4	2	2	10					
Glass, green	7	13	1	6	13					
Glass, light green	3	1		9	7					
Glass, other	2	2	1	1						
Glass, clear	6	4	1	1	10		1			
Glass, tableware		1		7	1			1		
Utensil		2			1					
Kitchenware	2	7		1	1					
Colono ware	9	11	1	3	5					29
Architecture Group										738
Window glass	2	1		1	3		1			
Hinge fragments					1					
Nails, wrought	21	76	17	10	16	1	9	4	5	
Nails, machine cut	39	89	7	20	66	2	8	4	11	
Nails, UID	9	76	12	66	87	4	41	5	24	
Furniture Group										2
Escutcheon					1					
Knob					1					
Arms Group										2
Lead ball		1								
Gunflint			1							
Tobacco Group										207
Pipe stems, 4/64-inch		10	5	9	21					
Pipe stems, 5/64-inch	8	34	6	27	37				2	
Pipe stems, 6/64-inch	4	7		3	3					
Pipe bowl fragments	8	11		2	10					
Clothing Group										23
Buttons	4	6	1	1	7		1		1	
Shoe buckle		1								
Brass acoutrement				1						
Personal Group										4
Key					2					
Beads				2						
Activities Group										31
Hoe								1		
Triangular file				1						
Gimlet bit		1								
Strap fragments		4	2		1		2			
Clay marble	1									
Misc. hardware	2	1			1			2		
Counting slate	1									
Other			1	4	5				1	
TOTAL	349	886	190	472	744	12	88	28	71	2,840

collection appears, overall, to be a very tight late eighteenth to mid-nineteenth century assemblage. Also lacking are later wares that might suggest occupation into the postbellum.

One ceramic, an undecorated whiteware, evidenced the maker's mark, "Adams." This is most likely William Adams & Sons (with the earlier names of W. Adams, W. Adams & Co., W. Adams & Son). The mark is unfortunately not especially useful for dating since the portion we have could span the first half of the nineteenth century – essentially the entire range of whiteware (Godden 1964:21).

Container glass accounts for an additional 694 specimens. Of these, 585 (84.3%) are "black" glass. This assemblage represents 11 bottles with basal diameters ranging from 104 to 127 mm. Jones (1986) suggests these represent undersized beer styles, dating from the 1730s through about 1805.

The remaining glass represents one green bottle, one aqua bottle, three amber bottles, and one clear bottle. Functions for these containers are indeterminate.

One bottle is worthy of more detailed attention. Feature 9A produced a clear, blown in the mold, bottle embossed, "BLYTHE / KINGS PATENT / ESSENCE OF / PEPPERMINT." The bottle measures ¾-inch square and has a height of 2⅞ inches.

John Juniper, a London chemist, was granted a Royal Patent in 1762 for his "new medicine," Essence of Peppermint. This medicine was supposed to "contain all the virtues of that plant, and is an excellent remedy in cholicks, retchings, sickness, and all disorders arising from flatulency." The patent gave Juniper the exclusive rights to make and market the medicine for 14 years, until 1774. The product was being widely sold in England and even exported to the States immediately prior to the Revolution. Like many other proprietary medicines, it became widely imitated once the patent ended. By the early 1800s, and certainly by 1820, the medicine was being made and sold by numerous manufacturers, and it had lost its original association with Juniper. Although bottles with Blythe are reported, we have found no dating information for this particular manufacturer.

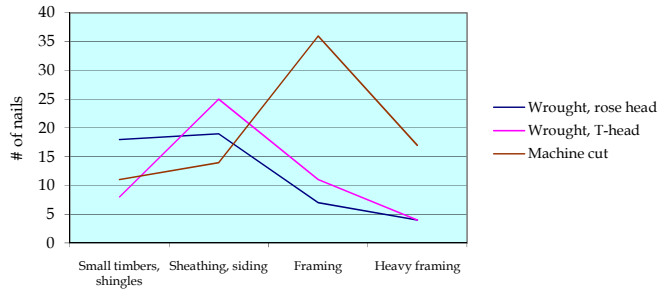

Figure 33. Function of nails from Area 3.

The three utensil fragments include two white metal handles and one iron knife tang. The frequency of damage to utensil handles has previously caused us to suggest that they may have been intentionally altered to create tools used in the production of saw grass and palmetto baskets associated with African Americans (Trinkley 1986:236-237).

The glass tableware fragments include three tumblers with diameters ranging from 2½ to 3 inches.

Colono ware is present, but again in only very small quantities. The 29 specimens include only eight large (over 1-inch) sherds. The remainder is all under 1-inch. This very low incidence of Colono pottery is consistent with excavations elsewhere on Kiawah (Trinkley 1993b:224, 283-285, 371).

Architecture Group

Window glass is nearly absent in this collection, with only eight specimens recovered. This is inadequate for even a single pane of glass, leaving open its function in the archaeological collections. A single pintle fragment suggests Structure D had a hung door.

Over 44% of the recovered nails were fragmentary or so damaged that identification of size or type was not possible. Of the remaining collection 60% are cut nails. Most of these (74.3%) had machine applied heads, suggesting that the nails may have been added in the late antebellum.

The wrought nails appear to have been used for shingling and attachment of light sheathing (Figure 33). In the case of this structure, this may mean that the wattle was attached with nails, much as plaster lathe is attached – distinct from the prehistoric method of weaving the wattle between posts. This is certainly consistent with the relatively few posts identified with the structure. The cut nails, however, tend be larger and used for framing. We believe that the best explanation is that these nails were used for roof construction – although certainly later repairs can't be ruled out.

Furniture Group

Only two artifacts were identified that represent furniture related items. One is a brass escutcheon that was probably used on a relatively large furniture item with either a knob or handle pull. The other is a brass knob or drawer pull.

Arms Group

Two arms related items were recovered from Area 3. One is a lead ball 0.51 inch in diameter. This size, during the colonial period, is the same size as used in the French 32 *calibre* trade-guns as well as many pistols (Hamilton 1980: 127). By the time of the Civil War relatively few weapons continued to use such a small projectile. US service weapons that did included several pistols, Hall's rifle, and a small number of flintlocks. On the Southern side there were a number of muzzleloading "sporting" rifles and non-military smoothbores that might use such a ball (Thomas 1997:103-104). Consequently, the origin of this ball is uncertain.

The second item is a fragmentary light brown colored gunflint.

Tobacco Group

The most common bore diameter is 5/64-inch, accounting for nearly 65% of the recovered stems. The most interesting specimen is a kaolin stem with a 4/64-inch bore that is covered with a pewter sleeve. Noël Hume (1978:308; see also Davis 2003:8, 283) mentions metal pipes, including pewter, but leaves the reader with the impression that they were solidly metal – quite distinct from the Area 3 specimen. The literature notes that pewter pipes were often used in the Indian trade from the seventeenth through early nineteenth centuries, although discussions are unclear concerning the manufacture of these pipes.

Table 24.
Buttons recovered from Area 3

South's Type	Description	Number	Measurements (in mm)
7	Spun brass/white metal with eye cast in place	15	13, 15, 2-17, 3-18, 2-20, 21, 22, 24, 3-25
15	Bone disc, 1-hole	1	9
18	Stamped brass or white metal	2	17, 23
20	Bone disc, 4-hole, often rounded	1	17
23	Porcelain, convex	1	11
-	Brass, strongly convex	1	13

Pipe bowls recovered from Area 3 include primarily plain (46.8%) and ribbed (34.4%) specimens. A few with leaves on the mold seam or leaves and ribs are also found.

Clothing Group

The Clothing Group includes 23 items, 21 of which are buttons, itemized in Table 24. None of these specimens include backmarks suitable for dating and the range is suggestive of a late eighteenth through mid-nineteenth century assemblage.

Other clothing items include a fragment of a silver gilt shoe buckle and a brass accoutrement plate.

Shoe buckles began to replace shoe laces during the second half of the seventeenth century, largely as a statement of conspicuous consumption. By the eighteenth century they were strongly tied to a person's status and social identify. African American slaves would wear "stout yellow buckles" made of brass or another yellow metal, while the more affluent would wear more finely made gold gilt buckles. Buckles went out of fashion by the end of the eighteenth century (although they do continue to be found in assemblages through the first quarter of the nineteenth century), being replaced by the method of fastening they had originally replaced – the shoe lace (Riello 2006).

The specimen from Area 3 is fragmentary, but it was clearly a delicate and relatively high status item, likely worn by an individual of some means.

The accoutrement plate is oval, measuring 1½ inches in height and 1¼ inches in width. There are four hooks on the reverse and on the front is an arm and sword crest. This design was adapted by Massachusetts Militia units based on the Commonwealth's Latin motto, "Ense Petit Placidam sub Libertate Quietem," which translated means, "This hand,

the rule of tyrants to oppose, Seeks with the sword fair freedom's soft repose." Although Gavin (1975) fails to illustrate this design, Tice (1997:314, 318) illustrates the shield on a number of general use militia buttons dating from the 1830s through 1860.

We know that Massachusetts units were on Kiawah during the Civil War, so this likely dates from that time period.

Personal Items

Recovered from Area 3 are two beads and two iron keys. The beads include one blue faceted tube bead (Type 1f) and one milk glass wire wound bead (Type W1c).

The iron keys are largely intact with damage to only their bows. They range from 2½ to 2¾ inches in length, although both bits are ½ inch square to fit a keyhole ¾ inches in height. They are of a size for either a small door lock or a large padlock.

Activity Group

This last category includes 31 specimens, accounting for 1.09% of the total assemblage.

A single "toy" was identified – a white clay marble.

Tools include a hoe, a gimlet bit, and a triangular file fragment. The bit is 3/8-inch in diameter (or in the nomenclature of gimlets, a 12 or 12/32) and 4⅜ inches in length. Gimlet bits were used to drill relatively small holes through wood; the point pulling up wood fibers preventing splintering at the exit hole. The gimlet bit was the pervasive drill bit in the nineteenth century. The triangular file was traditionally used by carpenters for sharpening saws. The bit and file are both suggestive of a skilled slave carpenter.

Dating the Collection

The 1,086 ceramics in Area 3 produced 884 suitable for mean ceramic dating. The result, 1817.5, is shown in Table 25. Eighteenth century ceramics such as delft are absent and other wares, such as white salt glazed stoneware and even lead glazed slipware, occur in very low densities. The primary eighteenth century contributor were the creamwares.

Table 25.
Mean Ceramic Date for Area 3

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Underglazed blue porc	1660-1800	1730	2	3460
English porc	1745-1795	1770	1	1770
White salt glazed stoneware	1740-1775	1758	1	1758
Lead glazed slipware	1670-1795	1733	34	58922
Creamware, annular	1780-1815	1798	24	43152
Creamware, hand painted	1790-1820	1805	1	1805
Creamware, undecorated	1762-1820	1791	162	290142
Pearlware, mocha	1795-1890	1843	2	3686
Pearlware, poly hand painted	1795-1815	1805	30	54150
Pearlware, blue hand painted	1780-1820	1800	18	32400
Pearlware, blue trans printed	1795-1840	1818	27	49086
Pearlware, edged	1780-1830	1805	41	74005
Pearlware, annular/cable	1790-1820	1805	127	229235
Pearlware, molded	1800-1820	1810	1	1810
Pearlware, undecorated	1780-1830	1805	130	234650
Whiteware, blue edged	1826-1880	1853	16	29648
Whiteware, blue trans printed	1831-1865	1848	3	5544
Whiteware, non-blue trans printed	1826-1875	1851	4	7404
Whiteware, annular	1831-1900	1866	104	194064
Whiteware, sponge/splatter	1836-1870	1853	4	7412
Whiteware, undecorated	1813-1900	1860	130	241800
Yellow ware	1826-1880	1853	22	40766
Total			884	1606669
Mean Ceramic Date	1817.5			

If we view the assemblage using South's bracketing technique, the occupation may have extended from about 1795 to 1835, a relatively short period of time. Under such a scenario, objects such as the accoutrement plate and possibly the round ball would be intrusive. This seems unlikely and when we examine the collection using Bartovics' probability distribution, it reveals an occupation that began about 1760, gradually increasing after the Revolution and peaking about 1790. There was minor decline about 1810, but a very noticeable drop in occupation about 1830. Some occupation, however, may have continued through the Civil War.

Table 26.
Artifact Pattern Comparison for Area 3

	38CH123 Area 3	Revised Carolina Artifact Pattern[1]	Townhouse Pattern[2]	Dual-Function Pattern[2]	Georgia Slave Artifact Pattern[3]	Carolina Slave Artifact Pattern[1]	Yeoman Pattern[4]
Kitchen Group	64.5	51.8 - 65.0	58.4	63.1	20.0 - 25.8	70.9 - 84.2	40.0 - 61.2
Architectural Group	26.0	25.2 - 31.4	36.0	25.0	67.9 - 73.2	11.8 - 24.8	35.8 - 56.3
Furniture Group	0.1	0.2 - 0.6	0.2	0.1	0.0 - 0.1	0.1	0.4
Arms Group	0.1	0.1 - 0.3	0.3	0.2	0.0 - 0.2	0.1 - 0.3	-
Tobacco Group	7.3	1.9 - 13.9	2.8	6.0	0.3 - 9.7	2.4 - 5.4	-
Clothing Group	0.8	0.6 - 5.4	0.9	1.2	0.3 - 1.7	0.3 - 0.8	1.8
Personal Group	0.1	0.2 - 0.5	0.2	0.1	0.1 - 0.2	0.1	0.4
Activities Group	1.1	0.9 - 1.7	1.1	4.1	0.2 - 0.4	0.2 - 0.9	1.8

[1] Garrow 1982
[2] Zierden et al. 1988
[3] Singleton 1980
[4] Drucker et al. 1984

This provides us with a relatively narrow occupation range from about 1760 to 1830. This places the site occupied during the island's ownership by Stanyarne and reaching its peak during the early years of Shoolbred's development on the island. Its decline between 1810 and 1830 is likely associated with Shoolbred moving the plantation focus from the location on Salthouse Creek to the Kiawah River.

Artifact Pattern

The artifact pattern in Area 3 (shown in Table 26) resembles that of the Revised Carolina Artifact Pattern. This is a somewhat odd finding given this settlement in unequivocally that of an African American slave. While patterns with imprecise fits were understanding in Area 1 (where there was evidence of multiple occupations) and Area 2 (where we had only a trash dump), we have no simple explanation for Area 3. Granted the difference between the pattern of owner and eighteenth century slave is one of degree and some overlap has been found, especially when owners of very modest means have been examined: however, this situation does not seem applicable to Kiawah.

Since the pattern analysis is ambiguous, it may be helpful to examine the status implied by the ceramics recovered in Area 3 to better understand those who lived in Structure D.

Status

As explained previously, to explore status we can examine the range of vessel forms, the motifs used, and calculate the cost indices for the pottery present. Table 27 shows the range in vessel forms

When vessel form is examined the majority of the collection consists of hollow wares, indicating a reliance on one pot stews – a foodway typical of the poor, including enslaved African Americans (Table 27).

Table 27.
Vessel Forms Recovered from Area 3

Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian
Porcelain	0	1	0	0
Lead Glazed Slipware	0	1	0	4
Creamware	12	10	0	0
Pearlware	36	25	2	1
Whiteware	22	23	1	0
Other Ceramics	8	0	0	0
Total	78	60	3	5
%	53.42	41.10	2.05	3.42

If we examine the motifs represented in the collection, we obtain our clearest view of the occupants living in Structure D. The collection is overwhelmingly dominated by inexpensive motifs. We suspect the few more expensive occurring pearlware and whiteware patterns are those handed down from the master's table. The inexpensive motifs, such as annular and edged wares were probably purchased in barrel lots specifically for the use by the slaves.

Table 28.
Proportion of Motifs in Area 3

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	0.0	100.0
Pearlware	15.3	84.7
Whiteware	4.3	95.7

Table 29.
Miller's Ceramic Indices for Area 3

	Plates			Bowls			Cups/Saucers		
	#	Index Value	Product	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware									
Undecorated	10	1.00	10	7	1.00	7	2	1.00	2
Annular			0	26	1.60	41.6	1	1.50	1.5
Edged	25	1.33	33.25			0			0
Hand painted			0	4	2.00	8	3	1.80	5.4
Transfer printed			0	4	4.32	17.28	1	3.40	3.4
Average Value			1.235714			1.801951			1.757143
Whiteware									
Undecorated	7		7	1	1.00	1			0
Annular			0	21	1.20	25.2			0
Edged	14	1.43	20.02			0			0
Hand painted			0			0			0
Transfer printed	2	2.86	5.72			0			0
Average Value			1.423478			1.190909			0
Combined Average Index Value		1.48							

Looking at Miller's cost indices, we see that the assemblage in Area 3 exhibits a cost falling in the lower third of the calculated indices available for comparison (Table 28). This is indicative of a low status occupation and we suspect that it is inflated through the addition of ceramics from the master's table.

Area 4

Like Area 3 discussed above, Area 4 revealed a wall trench structure thought to represent a slave dwelling. A total of 2,658 artifacts was recovered through the excavation of four 10-foot units. Four-fifths of that collection represented kitchen artifacts.

Kitchen Group

This category consists of 2,165 specimens. This collection is nearly evenly split between ceramics (1,024 specimens, 47.3%) and container glass (1,008 specimens, 46.5%).

The ceramics are dominated by creamwares, giving the collection a solidly late eighteenth century appearance. Lead glazed slipwares are also present, but absent are a variety of other early wares, such as delft and white salt glazed stoneware.

A small quantity of both Black Basalt and Nottingham stoneware are found in this collection, but otherwise the assemblage is similar to others discussed thus far. When compared to the collection from Area 3, we find a noticeable decline in both pearlwares and whitewares, suggesting that the structure here was not used nearly as long.

The single unidentifiable stoneware is a small fragment of a beige stoneware with blue hand painting. It is inscribed, "Fachin__." This may be a reference to Fachin, Bourgogne, France – a small village in central France.

As elsewhere at 38CH123, the container glass collection is strongly dominated by "black" glass. In area 4 the 854 fragments of black glass account for 84.9% of the container glass assemblage. These fragments represent 19 bottles with basal diameters ranging from 78 to 115 mm. These probably represent beer and wine bottles (Jones 1986), although the containers were certainly reused by the African American slaves.

Other bottles include three light green, four aqua, one amber, two clear, and one manganese.

One of the light green bottles is embossed, "Worce[stershire]." The first commercial bottling of Worcestershire sauce occurred in 1837. This fermented anchovy sauce is the legacy of British contact with India and by the 1840s its popularity had spread to America. Another clearly nineteenth century bottle is an aqua panel bottled.

The single manganese bottle is another example of a South Carolina dispensary bottle, indicating that the area continued to see trash disposal into the early twentieth century.

Table 30.
Artifacts Recovered from Area 4

	460R90	460R100	470R90	470R100	Feature 5	Feature 6	Feature 7	Post Holes	Totals
Kitchen Group									2165
Lead glazed slipware	9	29	9	20	1			9	
Creamware, undecorated	58	177	56	132	2			20	
Creamware, annular	20	4	1	3					
Creamware, edged		1							
Creamware, poly hand painted	1			1				1	
Creamware, HPOG	1								
Pearlware, undecorated	43	25	19	23				3	
Pearlware, blue hand painted	3		7	10					
Pearlware, poly hand pained	2	5	4	5					
Pearlware, sponge			1	8					
Pearlware, mocha	2	1	1						
Pearlware, cable	6	10	4						
Pearlware, annular	24	7	6	15					
Pearlware, green edged	2	2	1	4					
Pearlware, blue edged	10	5	2	3					
Pearlware, blue transfer printed	3	1	2						
Whiteware, undecorated	22	6	4	1					
Whiteware, poly hand painted		2							
Whiteware, annular	7	1	3						
Whiteware, cable				2					
Whiteware, blue edged		1							
Whiteware, green edged		1							
Whiteware, blue transfer printed	1								
Whiteware, non-blue transfer printed			1						
Yellow ware, undecorated	1								
Black basalt			1	2					
Nottingham			1						
Gray SG SW	2	7	2	2					
Brown SG SW	24	8	21	14			1		
Albany slip SW		5							
Alkaline glazed stoneware	1		1						
Coarse Red earthenware	4	5	4	14	1			1	
Red refined earthenware	2	8		2				1	
UID SW			1						
Burnt/stained refined earthenware	6	1	1	3					
Glass, black	126	248	139	281	18	2	2	40	
Glass, aqua	7	13	8	43					
Glass, green	1	5	2	2				1	
Glass, light green	8	22	12	6					
Glass, other	2	1	1						
Glass, clear	3	8		6				1	
Glass, tableware	2	1	17	3					
Utensil	1		2			1			
Kitchenware	6	5	6	5				1	
Colono ware	12	44	8	15	1			3	
Architecture Group									281
Window glass	6	3	3	4	1				
Latch keeper					1				
Shutter pintle				1					
Spike			2	5					
Nails, wrought	2	12		8					
Nails, machine cut	9	26	1	31	1				
Nails, UID	81	26	5	25	3		2	23	
Furniture Group									2
Brass tacks		1							
Escutcheon			1						
Arms Group									2
Flint wrap				1					
Lead shot				1					
Tobacco Group									148
Pipe stems, 4/64-inch	13	18	6	19	2			2	
Pipe stems, 5/64-inch	11	18	12	19	3		1	2	
Pipe stems, 6/64-inch	3							1	
Pipe bowl fragments	7	7	1	1				2	
Clothing Group									32
Buttons	5	9	3	11	1				
Buckles	2	1							
Personal Group									4
Bone fan fragment								1	
Iron key				1					
Beads		1		1					
Activities Group									24
Whet stone							1		
Triangular file			1						
Brass calipers/compass		1							
Strap fragments	2	4		1					
Skinning knife		1							
Hoe		1							
Misc. hardware	2	4	1	1					
Smoothing Stones				2					
Other		2							
TOTAL	565	794	384	757	35	3	7	113	2,658

Considering that there was a major landing on Salthouse Creek this should come as no surprise.

The tableware items include four utensil fragments. From unit excavations are two spoon bowls – one white metal and the other iron – and one bone handle. Feature 6 produced an iron knife blade and tang. Table glass included two goblets and one tumbler.

Kitchenware items, like elsewhere on the site, include only kettle fragments. From Area 4 we recovered 21 kettle fragments and two kettle rims.

The 83 Colono sherds identified in the collections are dominated by 55 small sherds (under 1-inch).

Architecture Group

The architectural items recovered from Area 4 include 281 specimens. Most of these (255 or 90.4% are nails. Unfortunately, this category is dominated by 165 unidentifiable fragments. Of the small collection that could be identified, machine cut nails are the most common, with only 22 wrought nails recovered. Most of the cut nails (70%) have hand applied heads, indicating a date relatively early in their use.

The analysis of the

sizes represented (Figure 34) presents a view distinct from the structure in Area 3. Here in Area 4 the most common size, regardless of type, would have been used for sheathing or siding – probably for the attachment of the wattle on the structure. The reliance on machine cut nails is probably indicative of an early nineteenth century date.

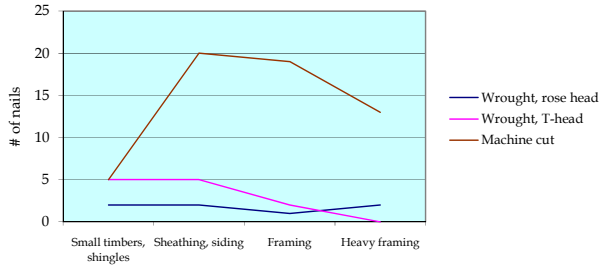

Figure 34. Function of nails from Area 4.

Other architectural remains are scarce, consisting of a few spikes, a single latch keeper, and a single shutter pintle. Although this last item is categorized based on its size, we imagine that it could have been used for a door and its presence does not necessarily indicate the presence of openings. The 17 fragments of window glass most likely are not indicative glazing, but only that glass was scavenged from elsewhere on the plantation.

Furniture Group

This collection consists of a single tack and a single brass escutcheon. The latter is a fragmentary piece of scroll work such as might be found on a drawer.

Arms Group

Two items were recovered from this group. One was a lead flint wrap. When using a musket, tightening the jaws of the cock directly onto the flint rarely worked. To hold the flint steady and improve the grip, either leather or lead was wrapped around the flint. The recovery of flint wraps, however, does not prove slaves had access to weapons since the flint could have been salvaged.

The lead ball recovered has a diameter of .58 inch. This would have been well adapted to guns with bores from .60 to .63 inch. While used during the War of 1812, it was not a common Civil War ball size. However, as previously mentioned many sporting guns were pressed into service.

Tobacco Group

Of the 148 specimens, 87.8% are pipe stems. These are nearly equally divided between 4/64 and 5/64-inch diameter bores. The 18 fragmentary bowls are primarily plain or undecorated, although four are ribbed, two have floral decorations, and one has leaves running up the seam.

Clothing Group

Buttons are the most common artifact in the Area 4 clothing collection, with 29 specimens recovered (Table 31). These represent primarily late eighteenth century types. Only four of the 29 specimens are a size typically used for shirts or pants, with the majority being a size that would normally be found on coats.

Table 31.
Buttons Recovered from Area 4

South's Type	Description	Number	Measurements (in mm)
7	Spun brass/white metal with eye cast in place	15	14, 2-15, 19, 3-20, 4-21, 22, 25, 26, 27
9	Brass flat discm hand stamped face, no foot	2	24, 29
11	Pewter/white metal, one-piece cast	2	18, 25
15	Bone disc, 1-hole	1	14
18	Stamped brass or white metal	5	2-13, 19, 2-20
20	Bone disc, 4-hole, often rounded	1	17
28	Stamped brass, concave back	3	2-12, 22

The only other items identified in Area 3 are two brass buckles and one iron buckle. All of these buckles are of a size that they might be used for knee breeches, although the iron buckle may also be tack.

Personal Group

The two beads in this category include one opaque blue tube bead (Kidd and Kidd Type 11a) and one opaque pale blue wire wound bead (Kidd and Kidd Type W1c).

The key is an iron bit key measuring 3⅜ inches overall. The bit measures ¾-inch square and the key was designed to fit a keyhole with a height of 1-inch. This suggests a lock measuring about 4 inches in width, with a length of 6-7 inches.

The final item is a small blade fragment of a bone fan.

Activities Group

This group produced several artifacts worthy of discussion. Tools include what is usually called a skinning knife, a hoe fragment, a triangular file, and an intact brass caliper.

Skinning knives, while similar to butcher knives with very strong, moderately short blades, have a slight curve and are slightly widened at the tip. They date at least to the mid-nineteenth century and probably much earlier.

The brass caliper or divider was a tool used for measuring distances on maps, although it was just as frequently used to measure and fit work or lay out patterns. The calipers from Area 4 measure 3 inches in height and have a large bow at the top hinge with an overall width of 1⅜ inches. This tool, in combination with the triangular file is suggestive of a carpenter – a suggestion also offered for Area 3 based on its assemblage.

Dating the Collection

The 1,024 ceramics in Area 4 produced 871 specimens suitable for mean ceramic dating. The result, 1794.6, is shown in Table 31. When the ranges of occupation examined using South's bracketing technique, a date from 1795 to 1830 is suggested – characteristic of most of the assemblages found at 38CH123.

Table 32.
Mean Ceramic Date for Area 4

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Nottingham stoneware	1700-1810	1755	1	1755
Black basalt	1750-1820	1785	3	5355
Lead glazed slipware	1670-1795	1733	77	133441
Creamware, annular	1780-1815	1798	28	50344
Creamware, hand painted	1790-1820	1805	4	7220
Creamware, undecorated	1762-1820	1791	445	796995
Pearlware, mocha	1795-1890	1843	4	7372
Pearlware, poly hand painted	1795-1815	1805	16	28880
Pearlware, blue hand painted	1780-1820	1800	20	36000
Pearlware, blue trans printed	1795-1840	1818	6	10908
Pearlware, edged	1780-1830	1805	29	52345
Pearlware, annular/cable	1790-1820	1805	72	129960
Pearlware, undecorated	1780-1830	1805	113	203965
Whiteware, green edged	1826-1830	1828	1	1828
Whiteware, blue edged	1826-1880	1853	1	1853
Whiteware, poly hand painted	1826-1870	1848	2	3696
Whiteware, blue trans printed	1831-1865	1848	1	1848
Whiteware, non-blue trans printed	1826-1875	1851	1	1851
Whiteware, annular	1831-1900	1866	13	24258
Whiteware, undecorated	1813-1900	1860	33	61380
Yellow ware	1826-1880	1853	1	1853
Total			871	1563107
Mean Ceramic Date	1794.6			

Perhaps the best approximation of range, however, is offered by Bartovics' probability distribution. This analysis shows an occupation that perhaps began in the late seventeenth century, dramatically expanding about 1760. This intensive occupation lasted to about 1820, at which point occupation was drastically curtailed, ending entirely about 1830. The mean ceramic date of about 1795 very accurately identifies this occupational expansion between 1760 and 1820.

This analysis suggests that while some occupation may have occurred during the original development of the island by Raynor, it wasn't until about 30 years after Stanyarne's acquisition of the island in the late 1730s that this structure was constructed. In fact, given Stanyarne's death in 1772, much of the settlement activities occurred under the control of Shoolbred. The sudden end of activities at Area 4 almost certainly marks the shift in

Table 33.
Artifact Pattern Comparison for Area 4

	38CH123 Area 4	Revised Carolina Artifct Pattern[1]	38BK1900 Area B 18th Cen. Overseer[2]	38CH1278 18th Cen. Overseer[3]	Carolina Slave Artifact Pattern[1]	Georgia Slave Artifact Pattern[4]
Kitchen	81.5	51.8-65.0	65.2	78.1	70.9-84.2	20.0-25.8
Architecture	10.6	25.2-31.4	21.2	8.9	11.8-24.8	67.9-73.2
Furniture	0.1	02-0.6	0	0.1	0.1	0.0-0.1
Arms	0.1	0.1-0.3	0.3	0.2	0.1-0.3	0.0-0.2
Tobacco	5.6	1.9-13.9	10.2	11.4	2.4-5.4	0.3-9.7
Clothing	1.2	0.6-5.4	0.1	0.2	0.3-0.8	0.3-1.7
Personal	0.2	0.2-0.5	0.1	0.2	0.1	0.1-0.2
Activities	0.9	0.9-1.7	2.9	1.1	0.2-0.9	0.2-0.4

[1]Garrow 1982
[2]Trinkley et al. 2003
[3]Trinkley et al. 2005
[4]Singlton 1980

settlement activities from this "old settlement" to the Kiawah River settlement.

Artifact Pattern

The collection from Area 4 reveals a pattern that is a close approximation of the Carolina Slave Artifact Pattern, representative of eighteenth century slave occupations. These assemblages tend to have a very low architectural contribution since the structures were simple wall trench buildings. In contrast, kitchen items tend to be very high.

This assemblage appears to closely match its anticipated pattern, just as Area 3 did. Both are indicative of a slavery pattern that while typifying the eighteenth century, continued well into the nineteenth century in some locations.

Status

Given the relatively clear pattern, we expect the artifacts to reveal very low status – many hollow ware forms suggestive of one pot meals and very inexpensive motifs, indicating that the least expensive vessels available were purchased for slave use.

These expectations are found to be correct. When we examine the vessel forms, 50% are hollow ware. What is surprising is the contribution made by flatwares – 46 plate forms are found. This is nearly equal to the bowl forms. However, a similar trend was observed at the other wall trench structure identified in Area 3. Both serving vessels and storage containers are relatively common in the assemblage. There are, of course, many different explanations. The simplest may be that we see a sizeable proportion of the collection being handed down from the master's table. Another intriguing possibility is that the slaves in Area 3 and 4 – both containing carpentry tools – may represent craftsmen who were given special rewards or privileges.

Table 34.
Vessel Forms Recovered from Area 3

Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian
Lead Glazed Slipware	0	7	0	2
Creamware	27	10	2	2
Pearlware	22	23	0	0
Whiteware	4	5	0	0
Other Ceramics	4	1	1	4
Total	57	46	3	8
%	50.00	40.35	2.63	7.02

Similarly, examination of the motifs present reveals that inexpensive designs, such as plain, annular, cable, and edged are consistently the most common, regardless of ware. Through time there seems to be a slight increase in more costly motifs, but the sample size also drops so the association is questionable.

Table 35.
Proportion of Motifs in Area 4

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	0.0	100.0
Pearlware	16.7	83.3
Whiteware	22.2	77.8

Thus, in all respects the collection is entirely consistent with what we would expect

from a late eighteenth or early nineteenth century slave settlement.

Table 36.
Miller's Ceramic Indices for Area 4

	Plates			Bowls			Cups/Saucers		
	#	Index Value	Product	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware									
Undecorated	10	1.00	10.00	20	1.00	20.00	4	1.00	4.00
Annular			0.00	16	1.60	25.60	3	1.50	4.50
Edged	23	1.35	31.05			0.00			0.00
Hand painted			0.00	7	2.00	14.00			0.00
Transfer printed			0.00			0.00			0.00
Average Value			1.24			1.39			1.21
Whiteware									
Undecorated	2	1.00	2.00			0.00			0.00
Annular			0.00	4	1.20	4.80			0.00
Edged	1	1.33	1.33			0.00			0.00
Hand painted			0.00			0.00			0.00
Transfer printed	2	3.33	6.66			0.00			0.00
Average Value			2.00			1.20			0.00
Combined Average Index Value		1.41							

Miller's Ceramic Index for the Area 4 ceramics is calculated to be 1.41 – just slightly lower than was identified for Area 3, again suggesting the overall similarity of the two areas. This index places the assemblage in the lower third of those previously identified by Chicora – again characteristic of a slave household receiving the cheapest possible ceramics from the master.

Although we have seen considerable variability in some of the assemblages recovered from 38CH123, Areas 3 and 4 appear to be very similar to context and overall characteristics. Both appear to represent late eighteenth to early nineteenth century slave assemblages.

Area 5

Area 5 provided the remains of a double pen slave cabin with a central brick fireplace. The structure is similar to those seen on antebellum plantations where owners sought to ameliorate the conditions that attracted the attention of Northern abolitionists. Housing "improved" although it is questionable if the overall health or wellbeing of the enslaved workers on the plantation improved. This area produced 6,067 artifacts with nearly two-thirds representing kitchen associated items – primarily ceramics.

Kitchen Group

The most common artifacts in the kitchen category are ceramics, accounting for 2,401 specimens or 65.5% of the kitchen assemblage. Ceramics are dominated by the early nineteenth century pearlwares, which account for over 46% of the collection. Otherwise, the collection is remarkably similar to the other loci previously discussed. Early wares are either absent or rare and the bulk of the collection appears to be lower status motifs – for example annular pearlwares alone account for 290 specimens.

The container glass collection, consisting of 1,211 specimens, is more interesting. Nearly two thirds of the collection consists of "black" glass. When examined, these fragments were found to represent at least 22 round bottles, ranging from 60 to 115 mm in diameter. Jones (1986) would suggest these may include both beer and wines styles. Found in a posited slave context they almost certainly represent reuse, but this is a large collection. In addition, the assemblage includes three molded seals. Although many such seals included owner's names or family crests, these seals were also used to identify vineyards.

At Area 5 one seal was found marked "St. Estephe / M'edoc." Saint-Estèphe is found in the northern part of Médoc. Although no wines from this region made the First Growth or Premiers Crus on the Official (1855)

Table 37.
Artifacts Recovered from Area 5

	135R135	155R140	165R130 Zone 1	165R130 Zone 1A	165R135 Zone 1	165R135 Zone 1A	165R145	170R145	Feature 10	Feature 11	Post Holes	Totals
Kitchen Group												3657
Underglazed blue porcelain		1										
Lead glazed slipware		2		3		1			1			
Creamware, undecorated	27	45	64	73	11	23	3	12	2		4	
Creamware, annular	5	9	2	25	9							
Creamware, HPOG	1					4						
Pearlware, undecorated	40	71	37	170	17	40		19	3			
Pearlware, blue hand painted	4	11	1	8	5	4		1				
Pearlware, poly hand pained	23	19	8	5	5	1		2				
Pearlware, mocha	9	5	1	15		5		4	5			
Pearlware, cable	6	22	10	25	6	8	1	19				
Pearlware, annular	35	67	20	67	21	38	5	35	2			
Pearlware, sponge		1		1								
Pearlware, green edged	8	6	1	13	1	1		4				
Pearlware, blue edged	5	6	13	32	13	6	1	8			1	
Pearlware, blue transfer printed	11	14	3	15	6	2		8	2			
Whiteware, undecorated	20	71	32	47	49	56	4	15	2			
Whiteware, poly hand painted	1	2										
Whiteware, annular	13	49	6	3	8	15	2	2				
Whiteware, cable	2	5	5	15	3	9		9				
Whiteware, blue edged	8	6	4	8	3	89		4	1			
Whiteware, green edged	1							1				
Whiteware, blue transfer printed		4	7	3	13	15	1	6				
Whiteware, non-blue transfer printed	1					1						
Yellow ware, undecorated	1	4	3		1	1						
Yellow ware, mocha/annular	1	6			1	3		1				
Astbury ware	1	3										
Gray SG SW	2	3		1				1				
Brown SG SW	2		2	18	1			2				
Albany slip SW	2											
Coarse Red earthenware	5		2	14		5		5	2		1	
Red earthenware		18		1	2	3		1				
Burnt/stained refined earthenware	25	98	10	8	56	16		11	3			
Glass, black	39	96	65	97	155	202	26	128	7	2	1	
Glass, aqua	3	3	3	6	20	21	8	29	2			
Glass, green	10	8	8	17	12	31		36	2			
Glass, light green	4	22	13	14	16	11	4	29				
Glass, other	1	1	5	3	7	2	3	17				
Glass, clear	3	9			5	2		3				
Glass, tableware	3				2		1	1				
Utensil				1		1						
Kitchenware	1	4	1	3		1	1	2		1	1	
Colono ware	1	1	1	13	3	1					1	
Architecture Group												1946
Window glass	4	4	4	1	3	4	3	25				
Hinge fragments				1			1	2				
Sandstone paver							1					
Nails, wrought	3	17	4	29	3	6	2	3	2			
Nails, machine cut	20	55	11	49	14	10	5					
Nails, UID	103	627	64	73	134	218	133	262		36	10	
Furniture Group												4
Brass tacks		3				1						
Arms Group												10
Lead shot								1			1	
Lead flint wrap		1		1								
Gunflint		2			2		1	1				
Tobacco Group												340
Pipe stems, 4/64-inch	5	16	7	13	4	6	1	2	1			
Pipe stems, 5/64-inch	14	54	13	23	24	22	11	12	1	2		
Pipe stems, 6/64-inch	7	12	3	1	7	9	1	7	1			
Pipe stems, fragments		1	1				1					
Pipe bowl fragments	11	6	3	5	1	10	5	13	3	1		
Clothing Group												43
Buttons	4	4	5	5	3	4	3	5	1	1		
Buckles				2	2	1						
Scissor				1								
Brass eye						1						
Thimble								1				
Personal Group												9
Coin						1						
Beads		3			1	1	1	1	1			
Activities Group												58
Lead fishing weight		2		1	1	1		3	1			
Strap fragments				2			2	1	1			
Hoe							1	1				
Adze							1					
Ax head		1										
Triangular file	2		1			1	1					
Misc. hardware	2	5		1		2	6					
Smoothing Stones	1											
Counting slate							1					
Other	5	7		1	1	1			1			
TOTAL	505	1512	443	933	651	917	241	755	47	43	20	6,067

Classification of the Great Wines of Bordeaux, St. Estèphe wines are listed in the Second, Third, Fourth and Fifth Growth lists. Even earlier, in the first decade of the eighteenth century, a new type of wine began production which the English, the principal importers, called "New French Claret."

Two additional seals were found marked "Mure / Hermitage." These identify not only the region – Hermitage in the Rhône valley, but also the house – Mure (Livingstone-Learmonth 2005:237). The Mure family arrived in 1653, established their connections with England by 1695, and by 1750 were Hermitage's largest shippers abroad. Livingstone-Learmonth (2005:238) notes that the wine was a favorite among the "aristocracy or rich gentry." The revolution of 1789 ended the dominance of the Mure family as their estate was confiscated and not returned until 1801. Although it appears that their English connections returned, the Continental blockade from 1806 onward forced the Hermitage wines to look elsewhere for customers, with most of the wine being shipped to Switzerland and Belgium, and later to Dutch and Baltic customers.

Other bottles in Area 5 included two pharmaceutical bottles and a panel bottle with the embossed word, "London."

Tableware included a bone handle for a utensil, two tumblers, and one goblet. Kitchenware items included an iron utensil handle, 12 kettle fragments, and several can or light metal fragments.

The 21 colono sherds included 19 small (under 1-inch) sherds and two large sherds. As elsewhere on the site, colono pottery does not seem to have been significant.

Architecture Group

Window glass here is more common than at Area 3 or 4, with 48 fragments recovered. Most of this (25 fragments or 52.1%) came from the western half of a single unit, 170R145. This suggests that a glazed window may have been present.

The collection, however, is dominated by the 1,893 nails recovered in the excavations. Most of these (87.7%) were unidentifiable, but those that could be examined showed that cut nails were favored over wrought by a margin of over 2:1. Figure 35 also reveals that most of the wrought nails were used for attachment of shingles. Cut nails, in contrast, seem to have been preferred for the attachment of the siding. Larger framing nails are relatively uncommon, suggesting that craft techniques, such as mortise and tenons, may have been used in the construction.

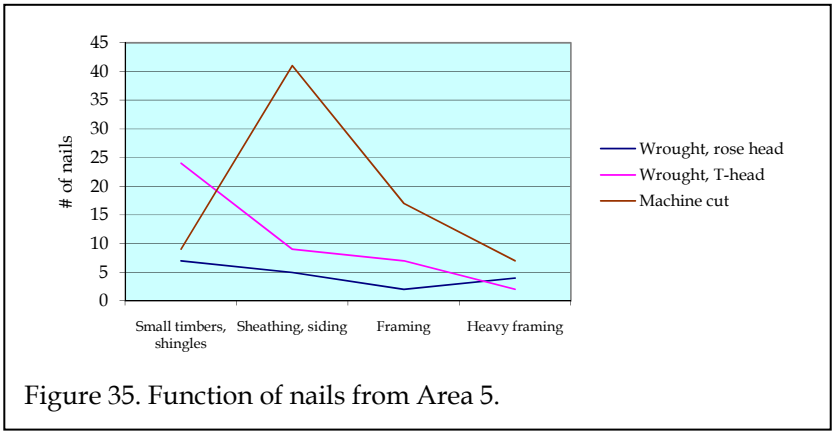

Figure 35. Function of nails from Area 5.

Most of the cut nails (83.6%) have machine applied heads. This suggests that the assemblage dates from the first quarter of the nineteenth century or perhaps later.

Other architectural items include four hinge fragments, representing two strap hinges, one iron pintle, and one brass pintle. The last item is not a typical hardware item and it is likely that it was salvaged from a boat, perhaps representing the rudder pintle. It may have been

pressed into service or may have some other purpose in the assemblage. Also recovered was a fragment of a sandstone paver, about 1¼ inch in thickness. This may have been a step or perhaps part of the hearth.

Furniture Group

The only furniture related items are four brass tacks.

Arms Group

Arms related items include two lead shot, two lead flint wraps, and six gunflints – a rather large assemblage for a posited slave dwelling.

One shot is .33 inch or roughly the size of buckshot. The other specimen is a lead ball with a diameter of .55 inch. This size, during the colonial period is the same size as used in the French 32 *calibre* trade-guns as well as many pistols (Hamilton 1980: 127). By the time of the Civil War relatively few weapons continued to use such a small projectile. On the Southern side there were a number of muzzleloading "sporting" rifles and non-military smoothbores that might use such a ball (Thomas 1997:103-104).

The flint wraps would be associated with flintlocks, as would the various gunflints found in the assemblage. The gunflints include both French (brown to honey colored) and English (black) flints.

Tobacco Group

The collection yielded 340 tobacco artifacts. Most of these (282, 82.9%) are stems ranging in bore diameter from 4/64 to 6/64 inch. Also present are 58 fragmentary pipe bowls. Most of these are ribbed (51.7%), although plain and a leaf motif are both common. Several exhibit a roulette design around the rim and one was molded with a Mason symbol.

Clothing Group

The Clothing Group includes 35 buttons, four buckles, a scissor fragment, a brass thimble, and a brass eye.

Table 38.
Buttons Recovered from Area 5

South's Type	Description	Number	Measurements (in mm)
7	Spun brass/white metal with eye cast in place	12	13,2-15, 18, 20, 3-21, 2-22, 2-25
8	Molded white metal with eye boss	1	25
11	Pewter/white metal, one-piece cast	1	24
15	Bone disc, 1-hole	2	12, 17
18	Stamped brass or white metal	8	14, 15, 18, 2-19, 20, 21, 22
19	Bone disc, 5-hole	3	11, 16, 17
20	Bone disc, 4-hole, often rounded	3	15, 17, 18
21	Iron with fiber center	1	19
27	Brass, domed, machine embossed	1	26
29	Cast white metal, wire eye	1	18
-	brass, white metal	1	15
-	white porcelain, 2-hole	1	12

The buttons are itemized in Table 37. Only four of the buttons are 13mm or less, suggesting use on shirts and pants. The remainder, from 14 to 25 mm are sizes typically associated with outer garments and coats. Seven of the specimens (all Type 18 buttons) have various quality backmarks, such as "Treble Gilt," "Best Quality," or "Standard Gilt." None indicated a manufacturer, although one did indicate "London" as its origin.

The buckles are all small, ranging in size from 1 to 1¼ inches in height and from ½ to 1 inch in width. Two are brass, the remaining three are iron. Buckles of this size are likely too small for belts, but are of the size for both stock and knee buckles. Most such buckles appear to have been made of brass or white metal, often plated, although some iron examples are also known and were likely used by the lower classes. Unfortunately, these sizes may also have been used for tack, so their function is uncertain.

Personal Group

This collection consists of eight glass beads and a single coin – an 1838 silver dime. This design shows Liberty seated on a rock supporting the Union Shield with her name on it

and 13 stars surrounding. On the reverse is centered the words, "ONE DIME" encircled by a wreath and the legend "UNITED STATES OF AMERICA."

The beads include six specimens of faceted tube beads (Kidd and Kidd Type 1f). Colors recovered include one clear glass and five blue glass. The remaining two specimens are oval wire wound beads (Kidd and Kidd W1c), one milk glass and the other blue.

Activities Group

As with Areas 3 and 4, the Activities Group includes a variety of tools, including five triangular files, an ax head, two hoes, and a Spanish adze. Adzes were used by a variety of trades, including wheelwrights, gutter makers, carpenters, and shipwrights. What has been called the Spanish adze has a curved blade and a pin poll that would allow nails and spikes to be driven below the surface, out of the cutting head's reach.

The nine fishing weights identified in the collection are all round with a central hole – identical to the others recovered from 38CH123.

Brass items in the hardware category include four nails and five nail fragments.

Dating the Collection

The mean ceramic date for the collection is 1820.5 (Table 38) – a date clearly resulting from the very large assemblage of pearlwares in the collection. An occupation range from about 1795 to 1830 is suggested by South's Bracketing Technique, but a more accurate estimation is probably provided by Bartovics' probability distribution. Using this approach we find that occupation probably began about 1760, but beginning about 1780 increased dramatically to its peak about 1800. The density of occupation declined slightly about 1820, but dropped precipitously in 1830. Some occupation in this area may have continued to the Civil War.

Table 39.
Mean Ceramic Date for Area 5

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Underglazed blue porc	1660-1800	1730	1	1730
Lead glazed slipware	1670-1795	1733	7	12131
Creamware, annular	1780-1815	1798	50	89900
Creamware, hand painted	1790-1820	1805	5	9025
Creamware, undecorated	1762-1820	1791	264	472824
Pearlware, mocha	1795-1890	1843	44	81092
Pearlware, poly hand painted	1795-1815	1805	63	113715
Pearlware, blue hand painted	1780-1820	1800	34	61200
Pearlware, blue trans printed	1795-1840	1818	61	110898
Pearlware, edged	1780-1830	1805	119	214795
Pearlware, annular/cable	1790-1820	1805	387	698535
Pearlware, undecorated	1780-1830	1805	397	716585
Whiteware, green edged	1826-1830	1828	2	3656
Whiteware, blue edged	1826-1880	1853	123	227919
Whiteware, poly hand painted	1826-1870	1848	3	5544
Whiteware, blue trans printed	1831-1865	1848	49	90552
Whiteware, non-blue trans printed	1826-1875	1851	2	3702
Whiteware, annular	1831-1900	1866	146	272436
Whiteware, undecorated	1813-1900	1860	296	550560
Yellow ware	1826-1880	1853	22	40766
Total			2075	3777565
Mean Ceramic Date	1820.5			

Correlating this with the historic documentation we find that occupation may have begun about a decade prior to Stanyarne's death, rising appreciably with the acquisition of the plantation by Shoolbred. Occupation began to decline about the time the "New Settlement" on the Kiawah River was completed.

Pattern Analysis

The pattern analysis for Area 5 does not reveal what would typically be considered a slave pattern. In fact, it is very similar to the Revised Carolina Artifact Pattern found at main settlements and characterizing British colonial refuse disposal (Table 39).

This disparity, however, seems to be the result of an architectural assemblage that is high for slave, combined with a kitchen collection that is low. The architectural remains consist primarily of nails, with most of these being fragmentary. Thus, while the architecture

Table 40.
Artifact Pattern Comparison for Area 5

	38CH123 Area 5	Revised Carolina Artifact Pattern[1]	Townhouse Pattern[2]	Dual-Function Pattern[2]	Georgia Slave Artifact Pattern[3]	Carolina Slave Artifact Pattern[1]	Yeoman Pattern[4]
Kitchen Group	60.3	51.8 - 65.0	58.4	63.1	20.0 - 25.8	70.9 - 84.2	40.0 - 61.2
Architectural Group	32.1	25.2 - 31.4	36.0	25.0	67.9 - 73.2	11.8 - 24.8	35.8 - 56.3
Furniture Group	0.1	0.2 - 0.6	0.2	0.1	0.0 - 0.1	0.1	0.4
Arms Group	0.2	0.1 - 0.3	0.3	0.2	0.0 - 0.2	0.1 - 0.3	-
Tobacco Group	5.6	1.9 - 13.9	2.8	6.0	0.3 - 9.7	2.4 - 5.4	-
Clothing Group	0.7	0.6 - 5.4	0.9	1.2	0.3 - 1.7	0.3 - 0.8	1.8
Personal Group	0.1	0.2 - 0.5	0.2	0.1	0.1 - 0.2	0.1	0.4
Activities Group	1.0	0.9 - 1.7	1.1	4.1	0.2 - 0.4	0.2 - 0.9	1.8

[1] Garrow 1982
[2] Zierden et al. 1988
[3] Singleton 1980
[4] Drucker et al. 1984

percentage may reflect the well-built nature of the slave cabin, we believe that a more simple explanation may be the artificially elevated number of nails resulting from the large amount of fragments. We suggest this since the architectural percentage is actually over what would be expected at a main house with considerably more architectural detailing.

Status

If the artifact pattern is less than definitive, what does the analysis of vessel form and motif tell us about the status of Area 5's occupants?

Table 41.
Vessel Forms Recovered from Area 5

Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian
Creamware	18	9	2	1
Pearlware	68	39	6	1
Whiteware	16	25	0	2
Other Ceramics	4	0	1	3
Total	106	73	9	7
%	54.36	37.44	4.62	3.59

Vessel forms are predominately hollow wares, mainly bowls (84 of the 109 hollow ware vessels or 79.2%). Nevertheless, flat wares are still present, comprising nearly two of every five vessels. Both serving and utilitarian wares are also present in the assemblage. Four of the seven utilitarian vessels are chamber pots, while four of the nine serving vessels were either teapots or pitchers.

If we examine the change in vessel form popularity we find that the proportion of hollow and flat vessel forms remains relatively stable through the various creamware and pearlware ceramics. With the advent of whiteware, however, there is a dramatic reversal and flatwares suddenly become the favored (or least most common) vessel form (see Figure 36). Whether this indicates a change in the vessel forms available from the master or perhaps a more significant change in dietary practices is uncertain.

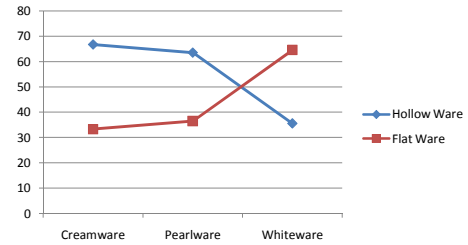

Figure 36. Portion of vessel forms over time.

Turning to the motifs, inexpensive wares such as plain, annular, and edged account for a sizeable majority of all three major wares (Table 41). We do discover, however, that the proportion of more expensive wares, such as transfer printed and hand painted, increases over time, beginning at only 4% for creamwares and increasing to nearly a quarter of the whiteware collection. It appears that as flatware increases, so too does the contribution of expensive motifs. This suggests the answer to the change in vessel forms may be related to

Table 42.
Proportion of Motifs in Area 5

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	4.0	96.0
Pearlware	14.7	85.3
Whiteware	24.4	75.6

Table 43.
Miller's Ceramic Indices for Area 5

	Plates			Bowls			Cups/Saucers		
	#	Index Value	Product	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware									
Undecorated	8	1.00	8.00	3	1.00	3.00	3	1.00	3.00
Annular			0.00	55	1.60	88.00	6	1.50	9.00
Edged	40	1.33	53.20			0.00			0.00
Hand painted	1	1.50	1.50	9	2.00	18.00	7	1.80	12.60
Transfer printed	2	4.33	8.66	2	4.32	8.64	1	3.40	3.40
Average Value			1.40			1.70			1.65
Whiteware									
Undecorated	2	1.00	2.00	2	1.00	2.00			0.00
Annular			0.00	11	1.20	13.20	1	1.50	1.50
Edged	14	1.33	18.62			0.00			0.00
Hand painted			0.00			0.00			0.00
Transfer printed	9	3.33	29.97	1	2.80	2.80	1	3.00	3.00
Average Value			2.02			1.29			2.25
Combined Average Index Value		1.72							

increased distribution of cast-offs from the master's table to the slave population. While addressing one question, however, it fails to explain why the contribution from the main settlement increased during the late antebellum.

The last analysis for Area 5 is the calculation of Miller's Ceramic Indices shown in Table 42. This reveals one of the highest combined index values found on the site – and an index that ranks among the top third of sites investigated by Chicora. Even if the whitewares are discounted because of their probable origin on the master's table, the creamwares and pearlwares have a combined average index of 1.58 – still ranking about midway compared to other sites.

It appears that for whatever reason the slaves at Area 5 were using relatively valuable ceramics throughout the occupation.

Area 6

Area 6 incorporates a single 10 foot unit excavated in an area that revealed several brick walls suggestive of a possible slave structure. Unfortunately the collection is small, consisting of only 541 artifacts and this limits the representativeness of the collections and various data sets.

Kitchen Group

The 461 specimens in this category are primarily ceramics (336 or 72.9%). When Table 43 is examined the reader will note a variety of wares, although most are suggestive of an eighteenth century occupation. Whitewares, for example, account for only 12 specimens. While the collection is dominated by creamwares, some of the ceramics, such as the North Devon Gravel Tempered, delft, white salt glazed stonewares, and lead glazed slipwares are early and suggest that the site was occupied for a long period.

The container glass is unremarkable, with four blown bottles represented by the collection. The beer styles date from the last half of the eighteenth century, while the wine styles date from the late eighteenth and early nineteenth centuries (Jones 1986).

The one specimen of table glass in the collection is a tumbler. The seven kitchenware items are all kettle fragments. The colono, as elsewhere on the site, consists almost exclusively of small sherds.

Architecture Group

This collection consists of 14 fragments of window glass and a small collection of nails (most of which are unidentifiable). It is somewhat surprising that so few nails are present given the presence of brick footings. Regardless, this collection is so small that no conclusions can be drawn except that structural activities (perhaps repairs) continued into the

Table 44.
Artifacts Recovered from Area 6

	1175R310	Totals
Kitchen Group		461
Underglazed blue porcelain	14	
White SG SW	15	
White SG SW, scratch blue	1	
White SG SW, slip dipped	3	
Delft, undecorated	5	
Delft, blue hand painted	8	
Delft, poly	1	
Lead glazed slipware	73	
Creamware, undecorated	83	
Creamware, annular	5	
Pearlware, undecorated	11	
Pearlware, blue hand painted	1	
Pearlware, poly hand pained	6	
Pearlware, cable	2	
Pearlware, annular	14	
Pearlware, green edged	3	
Pearlware, blue transfer printed	9	
Whiteware, undecorated	4	
Whiteware, annular	1	
Whiteware, cable	3	
Whiteware, blue transfer printed	4	
Yellow ware, undecorated	1	
Jackfield	1	
Tortoiseshell	2	
Nottingham	2	
Westerwald	2	
Gray SG SW	7	
Brown SG SW	22	
Albany slip SW	2	
Coarse red earthenware	20	
North Devon gravel tempered	5	
South European Ware	2	
Burnt/stained refined earthenware	4	
Glass, black	84	
Glass, aqua	19	
Glass, light green	1	
Glass, other	2	
Glass, tableware	1	
Kitchenware	7	
Colono ware	11	
Architecture Group		46
Window glass	14	
Nails, wrought	2	
Nails, machine cut	3	
Nails, UID	27	
Furniture Group		2
Brass tacks	2	
Arms Group		1
Gunflint	1	
Tobacco Group		22
Pipe stems, 4/64-inch	11	
Pipe stems, 5/64-inch	6	
Pipe stems, 7/64-inch	1	
Pipe bowl fragments	4	
Clothing Group		2
Buttons	2	
Personal Group		1
Iron razor handle	1	
Activities Group		6
Lead fishing weight	1	
Misc. hardware	1	
Smoothing Stones	2	
Other	2	
TOTAL		541

early nineteenth century when cut nails with machine applied heads would be available.

Other Artifact Groups

Furniture items consist only of brass tacks. The arms category is represented by a single gunflint. Tobacco related items are dominated by stems, although the assemblage includes a single 7/64-inch diameter bore, not seen previously at 38CH123.

Clothing items consist of two buttons – one Type 7 and one Type 8. Both are of a size typically associated with coats.

The one personal item in the collection is a portion of a straight razor consisting of the handle and blade. This is an eighteenth century example, lacking both a tang and the "monkey tail" (the curved "trigger" piece at the end of the handle) that became common in the early nineteenth century.

Activity Group artifacts included a lead fishing weight, identical to others found on the site. Although there were few colono sherds, this unit also produced two smoothing stones.

Dating the Collection

The mean ceramic date for the collection (Table 44) is 1771.2. Since the collection in Area 4 is similar to collections elsewhere on the site it

Table 45.
Mean Ceramic Date for Area 6

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Underglazed blue porc	1660-1800	1730	14	24220
Nottingham stoneware	1700-1810	1755	2	3510
Westerwald	1700-1775	1738	2	3476
White salt glazed stoneware	1740-1775	1758	15	26370
White sg sw, scratch blue	1744-1775	1760	1	1760
White sg sw, slip dip	1715-1775	1745	3	5235
Lead glazed slipware	1670-1795	1733	73	126509
Jackfield	1740-1780	1760	1	1760
Decorated delft	1600-1802	1750	5	8750
Plain delft	1640-1800	1720	8	13760
North Devon	1650-1775	1713	5	8565
Creamware, annular	1780-1815	1798	5	8990
Creamware, undecorated	1762-1820	1791	83	148653
Pearlware, poly hand painted	1795-1815	1805	6	10830
Pearlware, blue hand painted	1780-1820	1800	1	1800
Pearlware, blue trans printed	1795-1840	1818	9	16362
Pearlware, edged	1780-1830	1805	3	5415
Pearlware, annular/cable	1790-1820	1805	16	28880
Pearlware, undecorated	1780-1830	1805	11	19855
Whiteware, blue trans printed	1831-1865	1848	4	7392
Whiteware, annular	1831-1900	1866	4	7464
Whiteware, undecorated	1813-1900	1860	4	7440
Yellow ware	1826-1880	1853	1	1853
Total			276	488849
Mean Ceramic Date	1771.2			

comes as no surprise that South's Bracketing Technique indicates a range of occupation from about 1795 through about 1830. Bartovics' probability distribution provides a more sensitive approach, indicating occupation may have begun as early as 1670 and continued at a substantial level until about 1760 when there was a significant increase in occupation intensity. This continued until 1820 when occupation suddenly declined and appears to have terminated by 1840.

This dating suggests that the settlement, while perhaps dating to the earliest years of Kiawah's settlement by Raynor, was substantially increased by Stanyarne and continued through Shoolbred's early occupation – probably until the Kiawah River settlement was completed.

Artifact Pattern

Given the vagaries of excavation areas with much larger collections, it should come as no surprise that the artifact pattern for Area 6 is not a perfect match of any previously defined pattern. Nevertheless, it does resemble the Carolina Slave Artifact Pattern – typical of eighteenth century slave dwellings. Architectural remains are scarce, indicative of the ephemeral nature of the structures. Of course, this begs the question of the role served by the brick piers. Kitchen artifacts tend to be very high in this pattern – consistent with the findings from Area 6.

Table 46.
Artifact Pattern Comparisons for Area 6

	38CH123 Area 6	Revised Carolina Artifct Pattern[1]	38BK1900 Area B 18th Cen. Overseer[2]	38CH1278 18th Cen. Overseer[3]	Carolina Slave Artifact Pattern[1]	Georgia Slave Artifact Pattern[4]
Kitchen	85.2	51.8-65.0	65.2	78.1	70.9-84.2	20.0-25.8
Architecture	8.5	25.2-31.4	21.2	8.9	11.8-24.8	67.9-73.2
Furniture	0.4	02-0.6	0	0.1	0.1	0.0-0.1
Arms	0.2	0.1-0.3	0.3	0.2	0.1-0.3	0.0-0.2
Tobacco	4.1	1.9-13.9	10.2	11.4	2.4-5.4	0.3-9.7
Clothing	0.4	0.6-5.4	0.1	0.2	0.3-0.8	0.3-1.7
Personal	0.2	0.2-0.5	0.1	0.2	0.1	0.1-0.2
Activities	1.1	0.9-1.7	2.9	1.1	0.2-0.9	0.2-0.4

[1]Garrow 1982
[2]Trinkley et al. 2003
[3]Trinkley et al. 2005
[4]Singlton 1980

Status

Looking at the ceramics from Area 6 we find that hollow wares, thought by archaeologists to be associated with low status occupants, such as slaves, who relied on one pot meals, comprise 50% of the Area 6 assemblage. A surprisingly large proportion of the collection (four vessels) consists of storage containers or pans, resulting in the utilitarian wares consisting of 15.4% of the assemblage.

Table 47.
Vessel Forms Recovered from Area 6

Ceramic Type	Hollow Ware	Flat Ware	Utilitarian
Delft	1	0	0
WSG Stoneware	4	0	0
Lead Glazed Slipware	3	2	0
Creamware	2	3	0
Pearlware	2	2	0
Whiteware	0	2	0
Other Ceramics	1	0	4
Total	13	9	4
%	50.00	34.62	15.38

For both creamwares and pearlwares, inexpensive motifs comprise all of the collections. This, however, is reversed when the whitewares are considered. The sample size of only 22 vessels may be an issue in this analysis. In fact, when we examine Miller's ceramic indices we find an average value of 1.30 – at the bottom of the scale and consistent with a slave settlement.

Table 48.
Proportion of Motifs in Area 6

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Creamware	0.0	100.0
Pearlware	0.0	100.0
Whiteware	100.0	0.0

Table 49.
Miller's Ceramic Indices for Area 6

	Plates			Bowls		
	#	Index Value	Product	#	Index Value	Product
Creamware/Pearlware						
Undecorated	3	1.00	3.00	2	1.00	2.00
Annular			0.00	2	1.60	3.20
Edged	2	1.67	3.34			0.00
Hand painted			0.00			0.00
Transfer printed			0.00			0.00
Average Value			1.27			1.30
Whiteware						
Undecorated			0.00			0.00
Annular			0.00			0.00
Edged			0.00			0.00
Hand painted			0.00			0.00
Transfer printed	2	1.33	2.66			0.00
Average Value			1.33			0.00
Combined Average Index Value		1.30				

Thus, while some of the status data may be ambiguous, it appears that overall this area is consistent with a slave dwelling.

Summary, Observations, and Speculations

Occupation Range and Historical Associations

Figure 37 shows the occupation range for each of the six areas investigated. It shows that while the artifacts recovered span the eighteenth and nineteenth centuries, we have some well defined occupational clusters that correlate well with historical events on the island.

Three site areas – 1, 4, and 6 – evidence occupation that may extend back to the earliest occupation of Kiawah, probably by African American cattle tenders. Each of these sites, however, had occupation that extended over 100 or more years, indicating that the settlement area was especially favorable. In fact, two of these loci – Areas 4 and 6 – were intensively used later in the site's history. This later occupation has largely masked the initial occupation.

More importantly, five of the studied loci – Areas 2, 3, 4, 5, and 6 – indicate that their most intensive occupation occurred between the time of Stanyarne's death and Shoolbred's

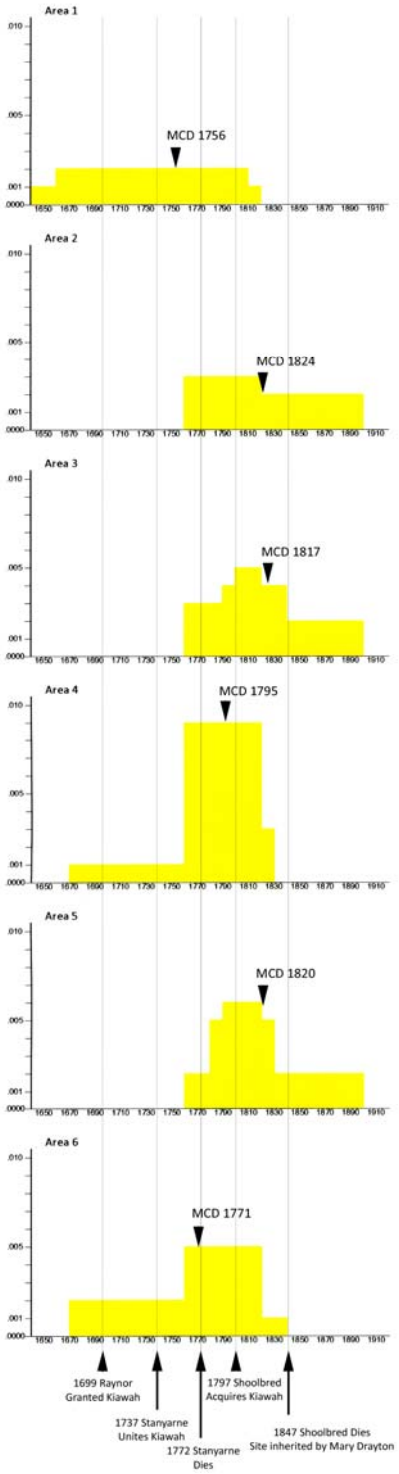

Figure 37. Occupational range at each of the examined areas.

death. These sites represent the most intensive development of 38CH123 and document the "Old Settlement" has it was known at the time.

In each of these cases, the data indicates that while there may have been pre-existing occupation activities, the intensity of occupation dramatically increased, typically either when Gibbes assumed control of the plantation for his daughter, Mary, or after she married James Shoolbred.

Shoolbred's "New Settlement" was certainly established on the Kiawah River by his death in 1847 and we have previously suggested that it might have been under construction shortly after his marriage to Mary Gibbes. The mean ceramic dates for the main settlement and flanker (1852 and 1806 respectively) provide a rather broad range. However, if we use Bartovics' probability distribution (an analysis not performed in 1993), we find that the settlement was most intensively occupied beginning about 1830, with occupation declining abruptly immediately after the Civil War.

Thus, if we take 1820 as the date when the "New Settlement" was fully functional, we notice that occupation at many of the "Old Settlement" areas declines about this same time.

Thus, we believe that the settlement on the east bank of Salthouse Creek began during Stanyarne's tenure, but flourished during the first several decades of Shoolbred's ownership. After his new settlement on the Kiawah River was completed, the old settlement at Salthouse Creek began to wane – although activities certainly continued for at least another few decades.

Structural Evidence

Theresa Singleton has suggested that one of the most useful contributions archaeology can make toward the understanding of African American lifeways on plantations is to provide "details of early slave housing" (Singleton 1996:150).

Structural remains dating to the very earliest settlement of Kiawah remain elusive. Area 1 produced several partial wall alignments. **Structure B**, arguably the earliest structure identified on the island, is thought to date to the 1740s based on materials recovered from the post holes. Although little of this structure was recovered, it appears to be a structure supported by posts, as distinct from wall trench structures typically associated with this early period. Overlying it is **Structure C**, built on brick piers. Still early, this structure is also very different from the wall trench buildings.

These two structures indicate that evolutionary interpretations of structural forms may be only partially correct and there was clearly considerable variation on Charleston plantations. This alone, we believe, is a significant contribution.

Areas 3 and 4 revealed post and wall trench structures (**Structures D and E** respectively). Others have termed this type of architecture "mud-wall" (Singleton 1996:150). Regardless of terminology, this construction is well known since the investigation of Yaughan and Curriboo plantations in Berkeley County where the technique was first identified (Wheaton et al. 1983).

The two structures ranged from about 8x8 to 8x10 feet with the larger example having a partitioned space or room that might have been used for storage. Structure D (the larger) also revealed a shallow basin (Feature 9A) in the center of the larger room. In the basin was a peppermint bottle and a hoe – artifacts similar to those found in "cellars" found associated with many African American dwellings in Virginia.

Area 5 produced a very different type of structure – a double pen frame cabin set on wood piers with a central brick fireplace. Each dwelling unit measured about 15 by 23 feet,

with the entire structure measuring about 15 by 46 feet. This has been designed **Structure F**. This is the type of structure often associated with efforts by southern planters to "improve" the conditions of their slaves (see for example, Adams 1990).

Structure G, found in Area 6, dates to the last half of the eighteenth century and appears to have been set on brick piers. Although little is known about this building, its brick piers and early date place it in the same category as the structure found at Area 1 and provide further evidence of multiple architectural styles co-existing at 38CH123.

The existence of these different styles may be nothing more than convenience. On the other hand, it is curious if Shoolbred, having strong English ties, was in the least swayed by either the 1772 declaration that slavery was illegal in England or the 1807 Abolition of Slave Trade Act enacted by England. In fact, prior to Shoolbred's death in 1847 England had enacted treaties with virtually every major slaving nation to end the trade.

Review of Patterns

Table 49 provides a comparison of the artifact patterns obtained from the six excavation areas. Readers are reminded that all of these areas, in so far as we can determine based on other lines of reasoning, represent slave settlements (or, as in case of Area 2, are in close proximity). It was surprising to us that the areas exhibit such a diverse range of patterns. Of course part of the problem is that there is actually relatively little separation between the Revised Carolina and Carolina Slave artifact patterns.

Table 50.
Comparison of Artifact Patterns

	38CH123										
	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Revised Carolina Artifact Pattern[1]	Georgia Slave Artifact Pattern[2]	Carolina Slave Artifact Pattern[1]	38BK1900 Area B 18th Cen. Overseer[3]	38CH1278 18th Cen. Overseer[4]
Kitchen Group	43.8	68.4	64.5	81.5	60.3	85.2	51.8 - 65.0	20.0 - 25.8	70.9 - 84.2	65.2	78.1
Architectural Group	53.0	23.5	26.0	10.6	32.1	8.5	25.2 - 31.4	67.9 - 73.2	11.8 - 24.8	21.2	8.9
Furniture Group	0.1	0.1	0.1	0.1	0.1	0.4	0.2 - 0.6	0.0 - 0.1	0.1	0	0.1
Arms Group	0.2	0.1	0.1	0.1	0.2	0.2	0.1 - 0.3	0.0 - 0.2	0.1 - 0.3	0.3	0.2
Tobacco Group	2.2	5.5	7.3	5.6	5.6	4.1	1.9 - 13.9	0.3 - 9.7	2.4 - 5.4	10.2	11.4
Clothing Group	0.2	1.2	0.8	1.2	0.7	0.4	0.6 - 5.4	0.3 - 1.7	0.3 - 0.8	0.1	0.2
Personal Group	0.1	0.1	0.1	0.2	0.1	0.2	0.2 - 0.5	0.1 - 0.2	0.1	0.1	0.2
Activities Group	0.4	1.1	1.1	0.9	1.0	1.1	0.9 - 1.7	0.2 - 0.4	0.2 - 0.9	2.9	1.1

[1] Garrow 1982
[2] Singleton 1980
[3] Drucker et al. 1984
[3]Trinkley et al. 2003
[4]Trinkley et al. 2005

Figure 38 is a scatter plot of the architecture and kitchen percentages for each of the areas, combined with the Revised Carolina Artifact Pattern and the Carolina Slave Artifact Pattern. It is immediately obvious that there are two distinct clusters. One comprises Areas 4 and

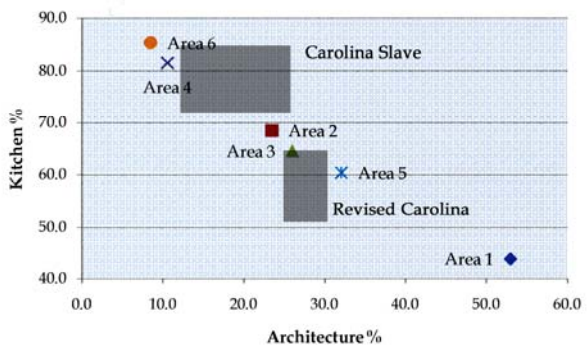

Figure 38. Plot of kitchen and architecture artifacts.

6; the other includes Areas 2, 3, and possibly 5. Area 1 is an outlier, perhaps because there are several structural remains at this locus. Although Areas 3 and 4 both produced wall trench structures, they exhibit noticeably different patterns.

In addition, Figure 38 also reveals that Areas 4 and 6 (a wall trench structure and a brick foundation structure) both resemble the Carolina Slave Artifact Pattern. In contrast, Areas 2, 3, and 5 (representing a midden area, a wall trench structure, and a double pen frame cabin) exhibit patterns that most closely resemble the Revised Carolina Artifact Pattern.

Although it could be argued that Area 6 has too small a collection to be representative, the remaining collections are substantial and sample size seems an unlikely explanation. Similarly, excavations in Areas 1, 3, 4, 5, and 6 all focused on architectural remains, so it appears that we should be comparing similar excavation samples.

What we cannot control for is the representativeness of the Shoolbred settlements. Lacking historical documents to help us better understand the management philosophy, commercial goals, and daily plantation operations by Shoolbred, we can't be certain if the "odd" patterns are perhaps just idiosyncratic. We also can't be certain if there are other factors at work, perhaps involving the social status or specialization of the slaves living at these various structures. Thus, while culture may be patterned, it appears that our understanding of eighteenth and early nineteenth century slave artifact patterns is still far from complete.

Status Indicators

If status is explanation for differences in the patterns we find at 38CH123, it doesn't appear that status differences were reflected in vessel form. Figure 39 shows the proportion of hollow wares, flat wares, utilitarian, and serving vessels at the six areas. Although there are some minor variations, each is very similar, with Areas 2, 3, 4, 5 almost identical.

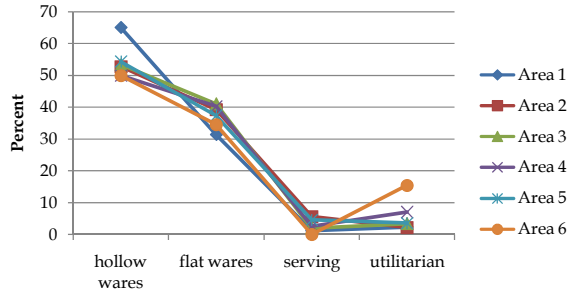

Figure 39. Vessel forms by area.

Relatively little variation is found in the assemblages if we look at the motifs (Figure 40). While Areas 1 and 6 exhibit some differences, even these are limited to a single ware (in both cases, whiteware). Otherwise we find that inexpensive motifs are most abundant in each area and across wares (or time).

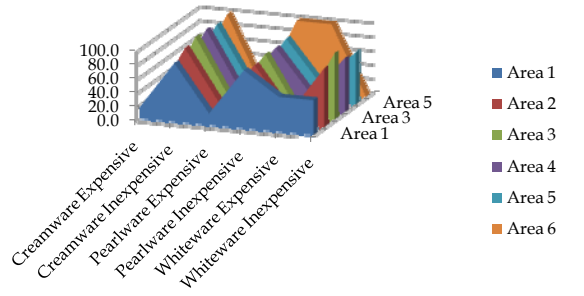

Figure 40. Motifs by area.

Even when we examine the ceramics using Miller's ceramic indices we find there is actually little variation (Figure 41). The range is limited to 0.42. Overall, the indices are indicative of relatively inexpensive wares throughout the assemblage and over time. Taken as an average (1.47) this index remains in the lower third of comparative sites. This is consistent with our expectations for slave dwellings.

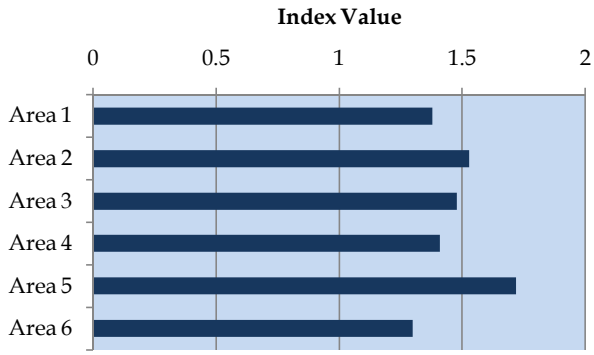

Figure 41. Miller's ceramic indices for the study areas.

Thus, although the differences between the areas may attract our attention, overall there is far more similar about the individual structures than there is different. The Kiawah slaves received hollow ware vessels – bowls primarily – that would have been suitable for one-pot meals. While there is some indication that vessels were discarded off the master's table, in general the motifs were inexpensive. This suggests that Stanyarne, and Shoolbred after him, acquires ceramics in lots for distribution to the slaves on their plantation.

Magic and Religion or Self Delusion

Archaeologists over the last two decades have become far more interested in attempting to discern evidence of African American cosmology. Ferguson, for example, suggests that scratched designs in Colono bowls are sacred symbols (Ferguson 1992) and Stine and her colleagues argue the ritual and spiritual importance of beads, particularly blue ones (Stine et al. 1996). Wilkie (1995, 1997) has urged archaeologists to better explore the context of artifacts at African American sites, looking for artifacts, perhaps previously ignored, which might indicate something of the magical-religious practices of slaves. Leone and Fry (1999) combine archaeology and folklore to find evidence of conjuring in a plantation assemblage.

Singleton's comments concerning the issue are cautionary, as well as ambiguous. She notes that,

> Nearly every slave site has at least one or two unexplained objects. Archaeologists in all subject areas have a tendency, however, to interpret such unexplained objects as charms or ritual items. Many of these interpretations are supported by historical and ethnographic documentation, whereas others are more speculative (Singleton 1996:147).

She then goes on, however, to attribute religious meaning to a wide variety of items, ranging from beads to coins to seashells, spoons, and nails.

There is certainly a wealth of documentation found in the slave narratives and even photographs from the early twentieth century. When we examine autobiographies of slaves, written closer to the period, we find additional evidence. For example, the ex-slave Henry Bibb commented that, "many . . . believe in what they call 'conjuration' . . . and say that by it they can prevent their masters from exercising their will over their slaves" (Bibb 1849).

A more detailed account is provided by Pascal Beverly Randolph,

> In the southern portion of the United States . . . where the same rites are extensively practiced among the negroes. . . . It goes under the name of Voudooism or Hoodooism. . . . Among the materials used for the fitich [sic] are feathers of various colors, blood, dog's and cat's teeth, clay from graves, egg-shells, beads, and broken bits of glass" (Randolph 1870).

Other items mentioned by Randolph include conch [whelk?] shells, and "a piece of money with a hole in it."

Norris (1870) recounts a range of "negro superstitions, including the use of frog bones and "pounded [broken?] glass." A short article in the magazine *Catholic World* mentioned the use of hair, quicksilver, and pins to create a gris-gris or charm (Anonymous 1886). In 1899 a variety of articles used in conjuring were reported and included cat bones, metal files, nails, and "silver money" (Anonymous 1899).

These accounts may help explain the odd artifacts – what Singleton called the unexplained. For example, the eight window glass fragments found at Structures D (Area 3) – a wall trench structure that almost certainly did not possess glazed windows. Or the 17 fragments found at Structure E (Area 4), another wall-trench feature that lacked windows.

The site also produced 19 brass nails or spikes – are we to believe that all were salvaged from boats just to have in case they were needed? Do the 16 brass tacks represent discarded furniture items salvaged by enslaved Africans for household use? Or might they have been collected for other uses? What of the other nine brass hardware items, all fragmentary and without any clear function or purpose, especially in a slave household?

To the assemblage we can add the three fragments of mica and the orange translucent stone. Also present in the various slave assemblages are seemingly personal items that would not have been slave property and for which we can imagine little purpose – a broken toothbrush, a razor handle, or brass jewelry fragments. Yet, all of these certainly play a role in the various accounts of religious practices.

So, in Singleton's terms, any effort to attribute these items to religious or magical practices is speculative. But so too is any effort to attribute them to other functions – how might brass nails be reworked to some other object as part of the slaves "making do," as suggested by Singleton? We certainly have not found evidence of brass nails, tacks, bone toothbrushes, or broken window glass being reworked into some other article of everyday use.

The Near Absence of Colono

Another feature that stands out among the Kiawah slave settlements is the near absence of colono ware pottery. While this slave made pottery accounts for upwards of 70% of the pottery found at rural Colonial slave settlements, it is rare on Kiawah.

In contrast, colono comprises nearly half of the ceramics found at 38CH1542 – just across the Kiawah River on Johns Island. This site's mean ceramic date of 1776 places it as contemporaneous with several of the Kiawah sites (Trinkley et al. 2008:135).

We cannot directly associate this low incidence of colono with either Stanyarne or Shoolbred, since no settlement on Kiawah has produced more than a few sherds of colono. We believe this may be the result of limited access – limited access to both trading (acquiring the vessels from other potters) and limited access to suitable clay deposits (allowing slaves on Kiawah to make their own pottery). If this is correct, then at least for the enslaved, Kiawah was an isolated and restricted island in the sense of Fernand Braudel.

Clothing Evidence for Colonial Slaves

While ceramics, architecture, even diet, are common topics when reviewing the lifeways of enslaved African Americans, archaeologists have traditionally left discussions of clothing to historians. This is not surprising given that so little is left archaeologically to document how slaves were clothed.

The West Pasture site is no exception. The most common clothing items recovered were buttons. The 144 intact specimens include only 36 typically associated with shirts and pants, but 108 associated with coats. There were no buttons associated with undergarments.

Foster (1997:147-149) provides ante-bellum evidence that undergarments were rare, but might be found occasionally during the winter months. Most slaves, however, did without – and this seems reflected in the absence of small buttons.

The shirts worn by African American men may have had their origin not in European society, but in West Africa. Antebellum accounts describe shirts as "banyan" or "Binyan," a Hindu term for a loose shirt, gown, or jacket. One account describes them as "like a chemise" paired with "some pantaloons" (Foster 1997:165-166). Baumgarten (2002:135) notes that colonial clothing consisted of waistcoats with sleeves, breeches or trousers (the latter being a nineteenth century article, introduced about 1805), and shirts for the men. Shirts often had no buttons although the breeches usually would have at least a few.

Outerwear, while perhaps not as rare as undergarments, appears to have been found only in winter. Foster (1997:149-150) suggests that coats were the most common item, but that slaves would generally own only one. These were the sleeved waistcoats described by Baumgarten.

The low incidence of shirt and pants buttons may indicate that patterns were used which required few buttons. In contrast, it appears that coats were abundant at the slave settlement.

Of equal interest are the 15 beads recovered from the site. Baumgarten comments that newly imported slaves, arriving with only what they were wearing, often brought with them beads. One account, from 1732, mentions, "some had beads about their necks, arms, and waists" (quoted in Baumgarten 2002:133). Another account mentions one slave had, "in his left Ear Three Beads strung for an Ear-Ring" (Baumgarten 2002:137). The importance of beads continued into the antebellum according to Foster (1997:172-173). She notes a ca. 1855 photograph of a black woman wearing a necklace of beads and lists a number of accounts from the slave narratives. These accounts explain that beads were worn for more than their aesthetic appearance; often the blacks explained that the beads had protective powers (Foster 19976:174-175).

The importance of beads – and their magical powers – is also found in accounts from Jamaica and other islands in the Caribbean. A 1786 account comments on the slaves "wearing apparel, jewellery [sic] and beads too numerous to specify" (Higman 1994:116). Buckridge traces the use of beads to West Africa, observing that,

> The symbolism of beads – their colour, material, size and shape, even where they were worn on the body – helped the wearers to communicate non-verbally their religious beliefs, sex, age, wealth and status. Strings of beads were worn for protection against evil spirits (Buckridge 2004:58).

Turning to Jamaica he observes that beads were procured from local markets, smuggled over on slave ships, and even given by the slave owners. One plantation ration included, "small glass, ribbons, beads, thread . . . all or most of them of British growth or manufacture" (Quoted in Buckridge 2004:59). While highly valued as items of personal adornment, like in Africa there was a strong religious connection as well. Buckridge recounts that red beads were worn as protection against "duppies" or ghosts, while amber beads were a common talisman in the African-Jamaican cult of Myalis (Buckridge 2004:60). Red beads were

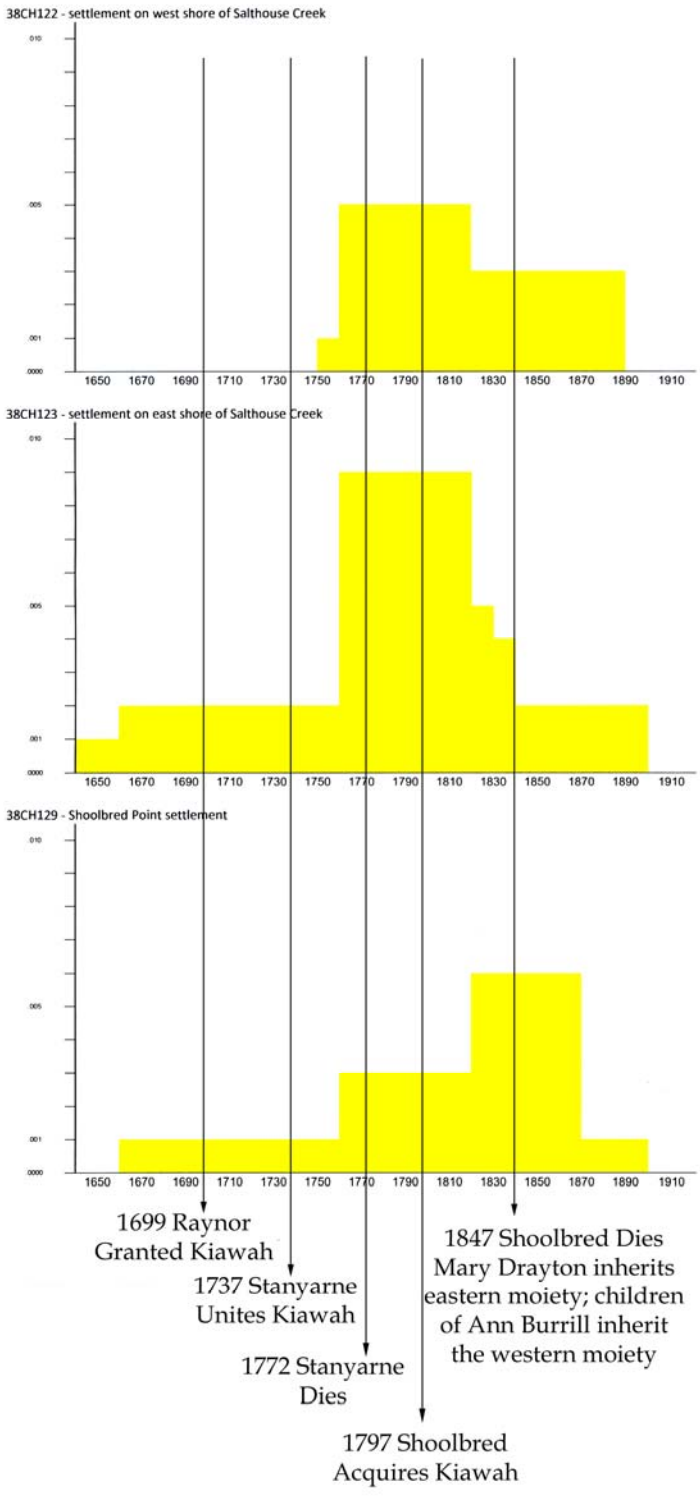

Figure 42. Dating comparison of the three plantation settlements (excluding Vanderhorst) on Kiawah.

also worn priests of Orunmila, the god of divination (Buckridge 2004:96).

Thus, while we have relatively few artifacts of clothing or adornment, those recovered from 38CH123 illuminate the culture and activities of the enslaved Africans on Kiawah Island.

38CH123 in Context

The old settlement at 38CH123 is but one of the four settlements on Kiawah. At the far east is Vanderhorst's settlement. Although Elizabeth Vanderhorst was given the east half of the island by the will of her father, John Stanyarne, in 1772, the standing structure was not constructed until after the Revolution.

The west end of the island, acquired as early as 1699 by Captain George Raynor, saw three distinct settlements.

Site 38CH122 is situated to the west of Salthouse Creek (Trinkley 1993). This settlement, based on very limited research, began about 1760, with a noticeable decline in activity in 1820, although activities continued to about 1890.

Site 38CH123, the subject of this study, has occupation as early as 1670 – perhaps associated with Raynor's cattle herding slaves – with occupation focused on the period just prior to Stanyarne's death in 1772 until about 1820.

Finally, the Shoolbred new settlement, 38CH129, while exhibiting occupation at least as early as 1760, peaked from 1820 to 1870.

Figure 42 graphically portrays these settlements and their correlation with various historic events on the island. This figure also suggests that both 38CH123 and 38CH129 had occupation that dated to the very early owners of Kiawah. In contrast, 38CH122 appears not to have been settled until the middle of Stanyarne's tenure – about the same time that settlement was expanded at 38CH123. This suggests that Stanyarne, about 1760, undertook a major expansion on Kiawah.

The cause of this expansion is uncertain – we know too little about Stanyarne and the economic pressures of the time – but we can note that both indigo and rice prices peaked in 1759. This may have been sufficient to encourage Stanyarne to shift from cattle production on Kiawah to more intensive agricultural pursuits.

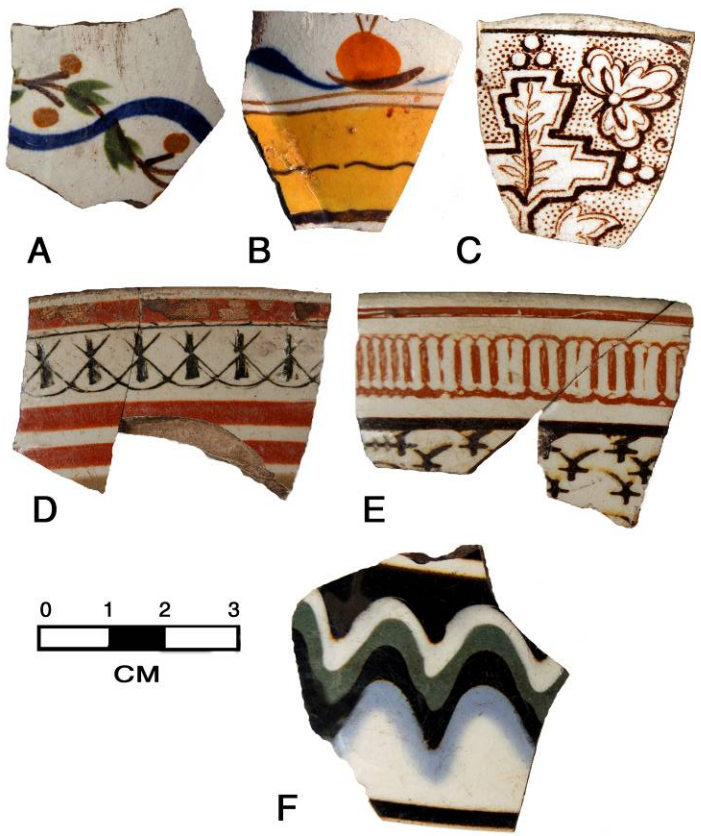

Figure 43. Kitchen Artifact Group. A-B, polychrome hand painted pearlware (158-6, 120-6); C, brown transfer printed whiteware (106-15); D, annular pearlware (135-7); E, annular creamware (116-5); F, cable decorated pearlware.

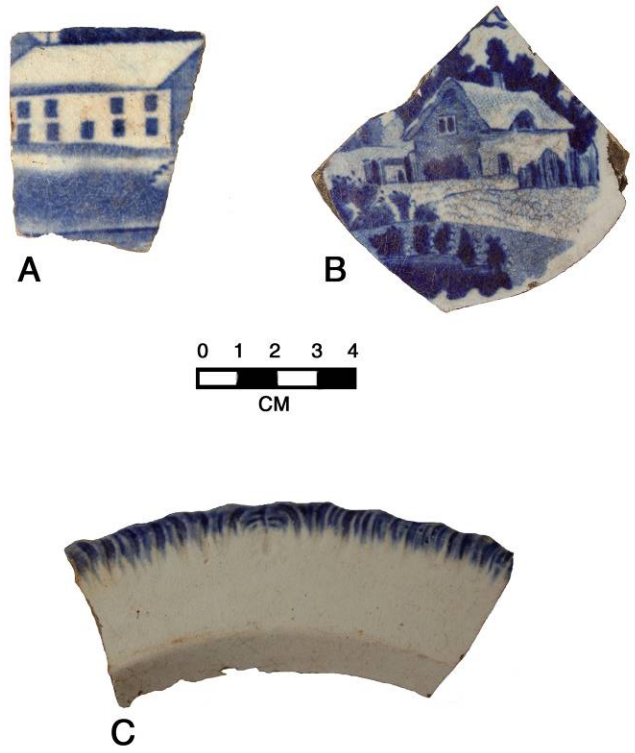

Figure 44. Kitchen Artifact Group. A, blue transfer printed pearlware (131-8); B, blue transfer printed pearlware, farmhouse pattern (130-8); C, blue edged pearlware (109-14).

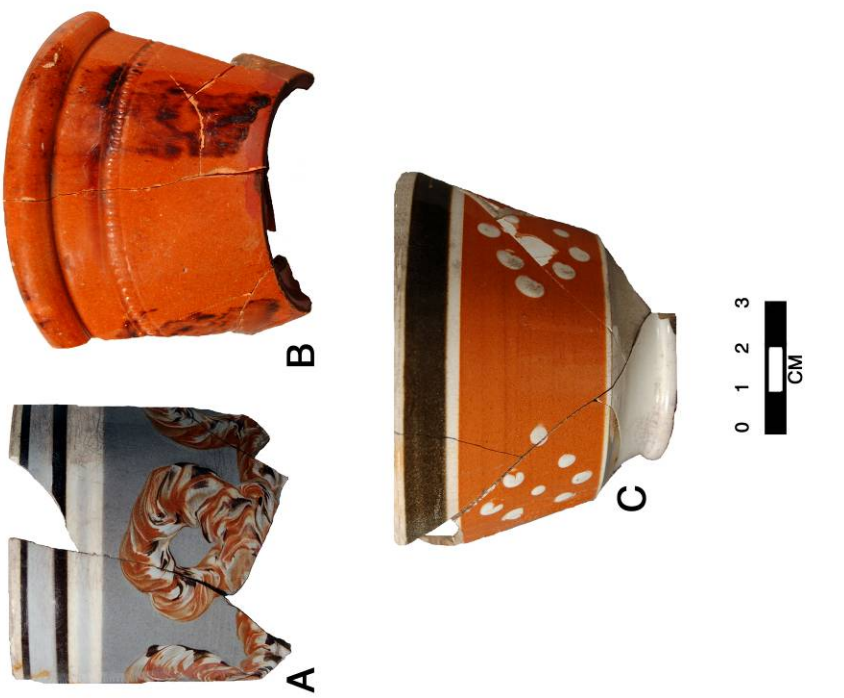

Figure 45. Kitchen Artifact Group. A, blue hand painted delft cup (213-6); B, annular whiteware bowl (123-9); C, annular and splatter pearlware bowl (115-4); D, undecorated creamware (127-3).

Figure 46. Kitchen Artifact Group. A, annular cable whiteware mug (130-12, 123-9); B, clear lead glazed coarse red earthenware bowl (109-16); C, annular cable whiteware bowl (109-9, 130-120.

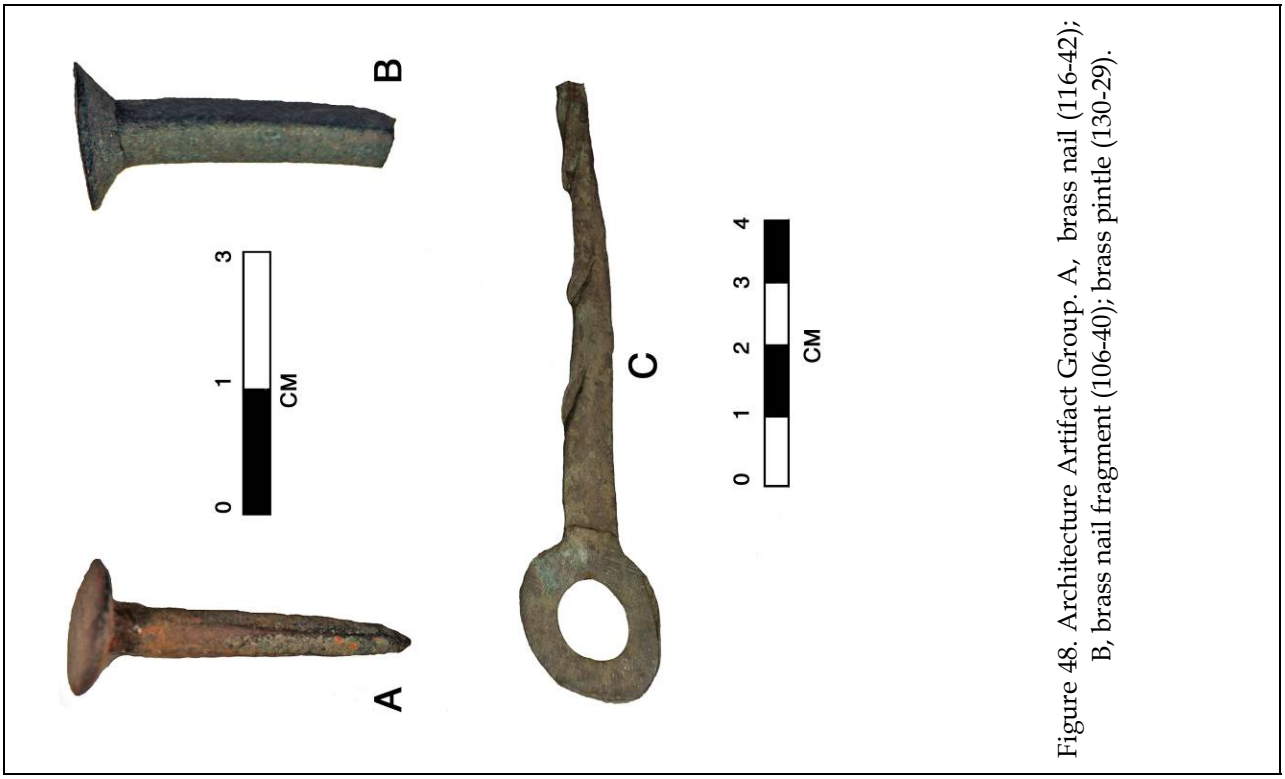

Figure 47. Kitchen Artifact Group. A, clear glass, swans knob and body (179-25); B, medallion from wine bottle (St. Estephe/Médoc; 106-27); C, medallion from wine bottle (Mure/Hermitage; 120-19); D, black (green) wine bottle neck and lip fragment (130-24).

Figure 48. Architecture Artifact Group. A, brass nail (116-42); B, brass nail fragment (106-40); brass pintle (130-29).

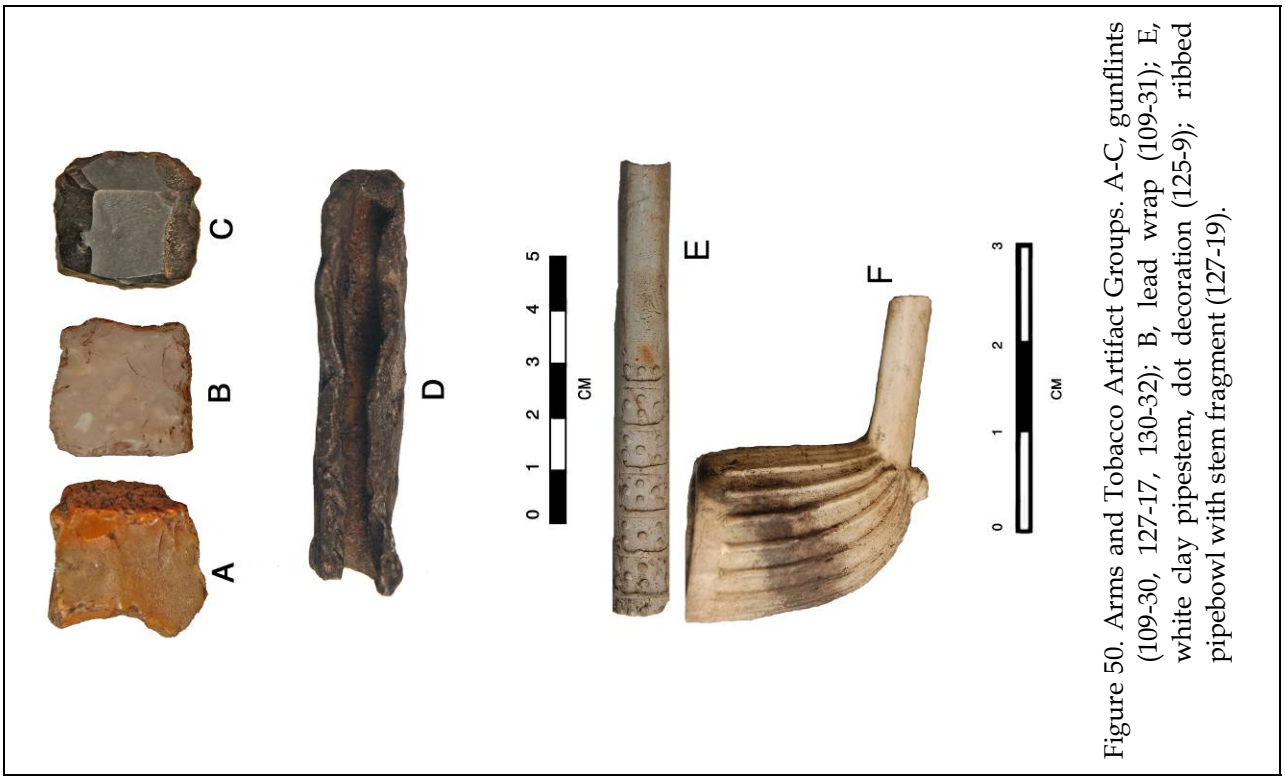

Figure 50. Arms and Tobacco Artifact Groups. A-C, gunflints (109-30, 127-17, 130-32); B, lead wrap (109-31); E, white clay pipestem, dot decoration (125-9); ribbed pipebowl with stem fragment (127-19).

Figure 49. Furniture and Activties Artifact Group. A, brass furniture knob (149-24); B, brass tack (109-29); C, lead fishing weight (109-37); D, brass calipers (161-26); E, projectile point fragment; F, fishing weight (116-41).

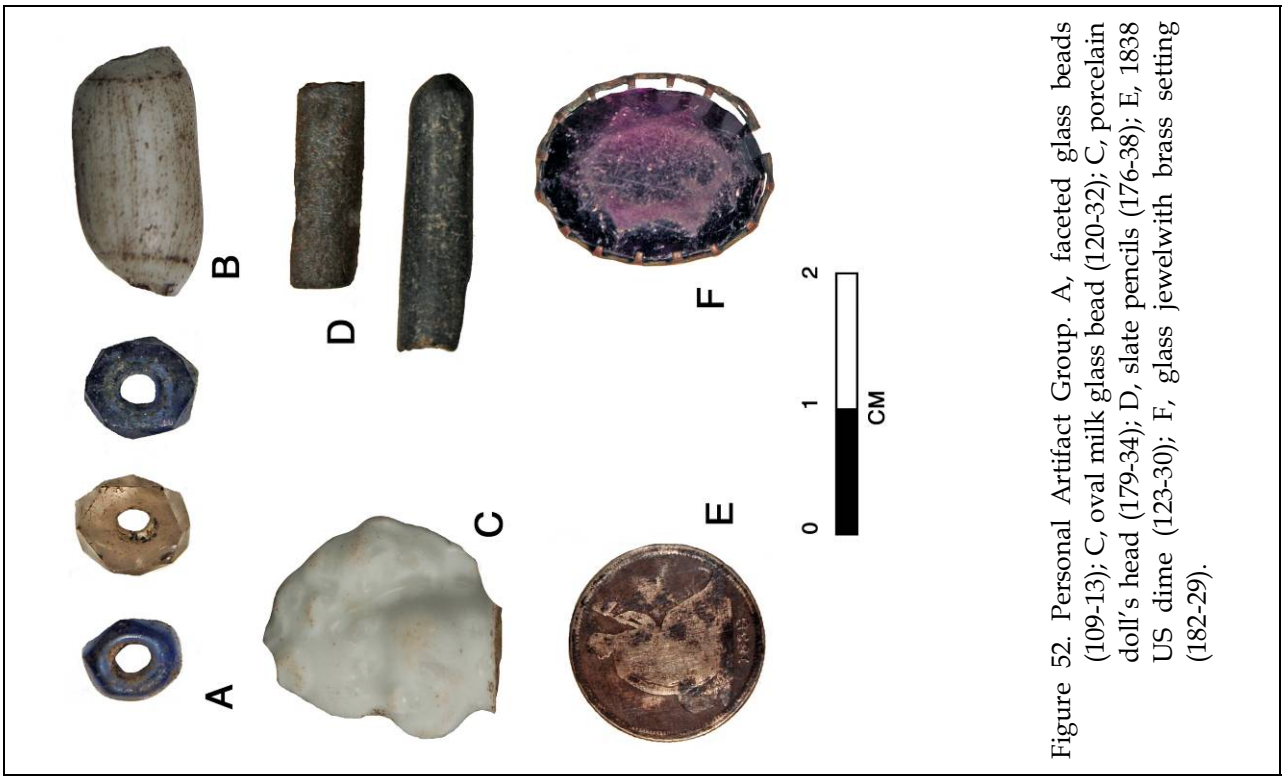

Figure 52. Personal Artifact Group. A, faceted glass beads (109-13); C, oval milk glass bead (120-32); C, porcelain doll's head (179-34); D, slate pencils (176-38); E, 1838 US dime (123-30); F, glass jewelwith brass setting (182-29).

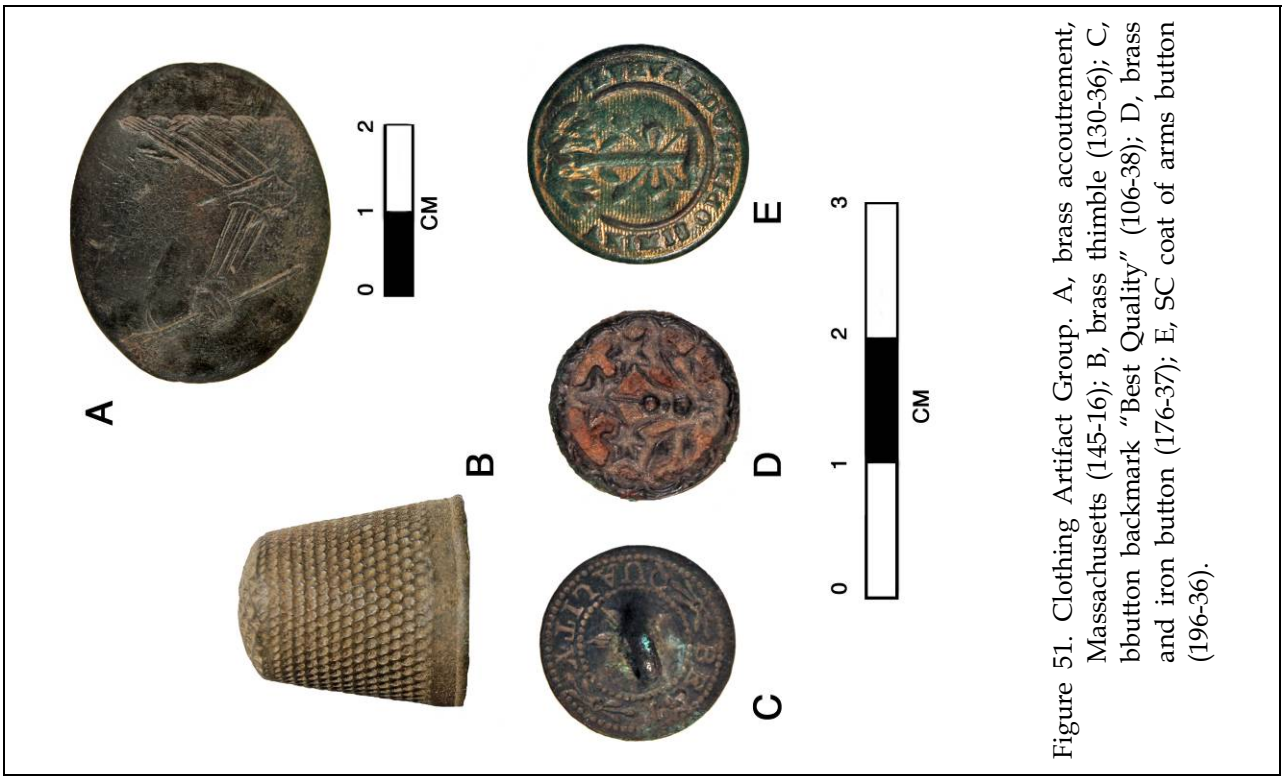

Figure 51. Clothing Artifact Group. A, brass accoutrement, Massachusetts (145-16); B, brass thimble (130-36); C, bbutton backmark "Best Quality" (106-38); D, brass and iron button (176-37); E, SC coat of arms button (196-36).

FAUNAL MATERIALS FROM SHOOLBRED'S OLD SETTLEMENT

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Introduction

This research uses the faunal material from 38CH123, Shoolbred's Old Settlement, to better understand the diet and food preparation associated with an eighteenth century plantation in South Carolina. During the 1994 excavation of the site, six different areas and eleven features were discovered. Most of the areas and features are associated with low status dwellings dating from the mid-eighteenth to nineteenth centuries. Area 1 was the only area to contain a non-slave associated dwelling, identified as Structure C. This structure appears to be a high status dwelling dating to the early eighteenth century and is associated with Feature 2. The following questions guided this research:

- Are there major differences in subsistence patterns associated with each area? For example, is there more dependence of wild game in one area over the other?
- If differences between the areas occur, what do they reflect? Does one area have bone elements associated with better quality and meatier cuts of meat than the others?
- Are there patterns associated with animal domestication and exploitation practices?
- Are bone modifications present and if so, what can they tell us about the butchering patterns at the site?

By examining the faunal collection with respect to all the areas, differential use of and access to animal foods, both wild and domestic, can be assessed. It is anticipated that Areas 2 through 6 should show similarities in the variety of animal species present, as they are all associated with low status dwellings. Differential access to specific cuts of meat has often been used to extrapolate status or prestige distinctions among different areas at other similar sites (Weinand and Reitz 1996). The premise is that groups of higher status have more access to the better quality meat segments (forequarter and hindquarter). Likewise, lower status groups would be restricted to the less desirable cuts (elements of the axial skeleton, cranium, and lower legs and feet). Since Areas 2 through 6 from this site are associated with low status dwellings, differences among them should be minimal.

Methods

Faunal materials recovered from 38CH123 were collected by dry screening unit soil through ¼-inch mesh. Samples of midden soils were screened through ⅛-inch mesh. Flotation samples, typically five gallons in size, were collected from the areas that displayed a high potential for the recovery of ethnobotanical remains. Faunal analysis was performed in the Bioarchaeology Lab at Ball State University. The analysis was completed with the aid of the faunal comparative collection housed in the Bioarchaeology Lab and the Applied Archaeology Laboratories located in the Department of Anthropology, Ball State

University. Zooarchaeology texts were also employed due to the limited availability of comparative fauna. The data was analyzed and organized according to unit, feature, post hole and area. Following the completion of the analysis individual tables were constructed for each area, feature, and post hole.

Standard zooarchaeological methods (Reitz and Wing 1999) were used to examine the faunal remains. When possible, each specimen was identified to species and at least to class (unidentified mammal, unidentified aves, etc.). When class could not be identified, the specimen was labeled as miscellaneous unidentified. Element side (right or left), section (epiphysis, proximal, distal, etc.) was recorded for each specimen and level of maturity (immature, adult, old adult), were noted where preservation permitted. This system allowed for the determination of the minimum number of individuals (MNI) for each species located within a unit (Grayson 1973). The MNI for each area was computed from the unit totals. MNI was also determined for each feature and post hole. All specimens were weighed to the nearest 0.01 gram.

The MNI totals for the 38CH123 faunal collection were established by combining horizontal and vertical stratigraphic divisions by area. In other words, each unit and associated level, minus the features and post holes, for each area was treated as a separate feature. This method provides fewer MNI than the Maximum Distinction Method, where both horizontal and vertical levels are considered separately. However, this approach provides a greater MNI number than treating the whole site as a single unit, a method known as the Minimum Distinction Method (Grayson 1973). Information from the units was combined by area in order to consider rudimentary species representation. The use of MNI is problematic since there are different procedures for determination and depending on the method chosen and the resulting MNI may be over or under represented (Casteel 1978, Grayson 1973, 1984). Information gathered for all of the areas were combined to provide a site total.

Human influence may bias the number of specific bone elements present in a faunal collection thereby affecting the MNI (Reitz 1986, Reitz and Weinand 1995, Scott 1981, Thomas 1971, Welch 1991). Screening and recovery methods as well as poor preservation of small mammals and other animals will likely lead to biases in species representation. The excavation at this site did include taking flotation samples, which help to decrease the bias toward larger species.

Another problem is that the representation of an animal does not presume its sole use at the site (Reitz and Weinand 1995). Certain meat portions could have been sold or traded off site (Scott 1981; Thomas 1971), or as mentioned earlier, choice cuts may have been readily available to one group at the site but not others (Reitz 1986). Use of MNI as an analytical tool can be misleading as often the number of species represented can seem more important that the actual dietary contribution. One pig or deer, for example, provides far more meat than five chickens.

While MNI as a zooarchaeological measure can be problematic, the use of the biomass contribution of each species was included in this study to provide a different perspective to the actual dietary contribution made by species. Biomass represents the biological relationship between bone mass and soft tissue mass, also known as allometry. The allometric equation $Y=aX^b$, also written as Y=Log a+b (logX), expresses the relationship between skeletal weight and body weight (Simpson et al. 1960:397). In this equation, "Y" is the biomass in kilograms and "X" is the weight of bone in kilograms. Symbol "a" is the Y-intercept for a log-plot based on a least squares regression and the best fit line while "b" is the slope of the line defined by the least squares regression and the best fit line.

Taking into account bone weight, this least squares analysis of logarithmic data estimates the amount of soft tissue that would have been supported by the bone (Casteel 1978, Reitz 1982, Reitz and Cordier 1983, Reitz and Scarry 1985, Reitz et al. 1987, Reitz and Wing 1999, Wing and Brown 1979). Formulae and examples of the values used for "a" and "b" are discussed in Reitz and Wing (1999).

A constructive method for comparing similarities and differences in faunal collections among sites is to observe the percentages of MNI and biomass for specific faunal categories. The faunal categories used in this study are domestic mammal, wild mammal, domestic bird, wild bird, reptile, fish, and commensal. This comparison can be useful in observing similarities and differences in the faunal assemblage between the activity areas and among sites.

The frequencies of elements in respective anatomical groups (head, axial, forequarter, hindquarter, and lower leg and foot) are useful in identifying butchery and animal husbandry patterns. For this research the skeletons of deer, pig and cattle were subdivided into five categories: head, axial, forequarter, hindquarter, and lower leg and foot.

The head category consists of the teeth, mandible and cranial elements, while the axial group includes the vertebra and ribs. The forequarter group is comprised of the scapulae, humeri, radii, and ulnae; the hindquarter consists of the innominate, femur, tibia and fibula elements. The lower leg and foot category consists of the metapoidals, tarsals, carpals and phalanges.

The number of identified specimens (NISP) of each segment category was counted for each species and each category's percentage of the total was calculated. Next, $\log_e X$ (X being the percentage for each category) was computed and $\log_e Y$ (the log of the animal's expected percentage for each category) was subtracted from this value. These subsequent values were plotted so that the deviation from the center line (the expected percentage if butchering occurred on site with no elements being traded or sold) could be investigated. If the value falls below the zero line, elements for this category are under-represented while above the line means the elements are over-represented for that group. Log difference scale models for cattle (Reitz and Zierden 1991), deer (Reitz and Wing 1999), and pig were used to observe elemental group representation for the different areas. This method shows differential use of different segments among the areas.

Bone modifications classified as sawed, clean-cut, burned, chopped/hacked, gnawed and worked are also included in the analysis. Sawing appears on bone as parallel striations located on the outer layer. Clean-cut marks, usually produced by sawing, lack the striations. Cuts are defined as shallow incisions on the bone surface generally associated with cutting meat around the joint area while chop/hack marks are created using a cleaver or axe. Bone modified by exposure to fire during preparation or after discard is classified as burned. Gnawed bone indicates bone was not buried immediately following disposal and consequently was exposed to animals such as rodents or dogs. Human modification of bone not associated with food preparation is identified as worked bone (Reitz and Weinand 1995).

Identified Fauna

The general use and habitat preference will now be considered for 38CH123. Tables 51-67 provide an inventory of the animal species identified in the collection for the entire site (Table 51) and by area and feature (Tables 52-67). Twelve mammal species, five bird species (one only to class), three turtle species, eleven fish species, and two shellfish species were identified in the collection. A short description of animals identified at 38CH123 follows.

Mammals

Domestic Mammals

Three domestic mammal species used for food are present in the faunal collection: cow (*Bos taurus*); pig (*Sus scrofa*); and domestic sheep (*Ovis aries*).

Cattle are typically described as difficult animals to raise, but despite problems associated with herding cattle, they served as a major dietary resource in the Southeastern United States (see Hilliard 1972:112-140; Rouse 1973; Towne and Wentworth 1950, 1955). An advantage to raising cattle is that they adapt better than pigs to the hot humid coastal environments (Reitz 1995), such as those in South Carolina. Other major benefits for raising cattle included the demand for hides, fresh beef, and other products (milk, cheese, buttermilk, and butter) (see Hilliard 1972:119-135; Rouse 1973; Towne and Wentworth 1955). Several problems are associated with raising cattle. First, cattle are dependent on grain or field grasses for weight gain. This means plenty of pasture land must be available or grain regularly provided, both costly endeavors. The second problem is that cattle for their large size only yield about 50-60% edible meat when dressed (Towne and Wentworth 1950:7-8). Hence the energy and investment in cattle herding is less profitable than for other domestic mammals.

Hilliard (1972) identifies pigs as one of the most important domestic mammal food sources used in the Southeastern United States (see Hilliard 1972:92-111). One major advantage to raising pigs is that they require little direct care, adapt well to either free-range or being confined to a pen (Carson 1985:2), and can gain about two pounds from every 15-25 pounds of feed. Because of their large size and weight gain, dressed pig carcass can yield 65-80% usable meat (Towne and Wentworth 1950:7-8).

The third domesticated mammal found at 38CH123 was sheep. Like cattle, sheep provided products other than food, most importantly wool for clothing (Hilliard 1972:141-142). Carson (1985:2) suggests people in America quickly acquired the taste for deer meat, which easily replaced sheep. According to Hilliard (1972) mutton was a minor food source during the eighteenth century and its popularity declined further through time. Sheep was found in lower amounts when compared to the other domesticated mammals and because of their similarity in morphology with deer, may have been misidentified.

Another domestic mammal, the horse (*Equus caballus*), was identified in the 38CH123 collection. The element identified was one tooth and it is probable that it was not used as a food item. Horses are used as pack animals, to plow fields, and as transportation.

Wild Mammals

Several wild mammals presumably used for food were identified in the 38CH123 faunal collection. These include deer (*Oldocoileus virginianus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), eastern cottontail (*Sylvilagus floridanus*), and black bear (*Ursus americanus*). All of these mammals can be found in forest habitats, but several are more likely to occupy specific areas of the forest. Deer prefer the edge of deciduous forests and open forests as well as farmlands and bushy areas (Whitaker 1997). Raccoons prefer bottomland forests along marshes, streams and rivers as well as agricultural and wooded urban sites. Opossums usually prefer open deciduous forest near a permanent source of water, but they also live in open woods, brushy wastelands, along the forest edges and agricultural areas. The eastern cottontail also occupies a variety of habitats, particularly deciduous forests, overgrown fields, and forest edge and has become commensal with humans around farms and in some urban areas. Black bears are primarily found in forests and swamplands (Choate et al. 1994).

A wild mammal not presumed to have been used as food was identified at 38CH123. This is the bobcat (*Lynx rufus*) and the element

identified was a canine tooth. Bobcat prefers hardwood, coniferous or mixed forests but they can also reside in swamps, farmland and brushy areas (Whitaker 1997). Bobcat pelts may have been used for clothing.

Birds

Domestic Birds

The only domestic bird species identified in the 38CH123 faunal collection was the chicken (*Gallus gallus*). Chicken, like pigs, are relatively easy to keep since they can live as free-range or confined to a pen. In addition to meat, chickens provided eggs (Hilliard 1972: 46-67) and feathers possibly used in furnishings.

Wild Birds

The turkey (*Meleagris gallopavo*), Canada goose (*Branta canadensis*), red-tailed hawk (*Buteo jamaicensis*), and an unidentified duck species represent the wild bird species identified in the 38CH123 collection. Wild turkey prefers forest habitats, specifically oak woodlands and mixed pine-oak forest (Bull and Ferrand 1994). Canada goose prefers areas with permanent water sources, such as lakes, bays, rivers and marshes, but may be found feeding in open grasslands and stubble fields (Bull and Ferrand 1994). Red-tailed hawk prefers deciduous forests and a variety of open country, including farmlands and plains (Bull and Ferrand 1994). It is probable that the hawk specimen identified was not used for food and may have been killed due to its predatory nature towards domestic birds.

Reptiles

Three reptile species were identified in the 38CH123 collection. These include the box turtle (*Terrapene carolina*), cooter (*Chrysemys floridana*), and diamondback terrapin (*Malaclemys terrapin*). The box turtle and cooter are associated with all types of freshwater sources, while the diamondback terrapin is associated with salt-marsh estuaries and tidal flats. All three turtle species can be observed on land sunning or looking for areas to nest (Behler 1998). According to Hilliard (1972:89), the cooter was part of the Southern diet during the eighteenth and nineteenth centuries.

Pisces

There were eight fish species and three fish families identified in the 38CH123 faunal collection. The fish species include bowfin (*Amia* calva), hardhead catfish (*Arius felis*), gafftopsail catfish (*Bagre marinus*), summer flounder (*Paralichthys dentatus*), bluefish (*Pomatomus saltatrix*), bluegill (*Lepomis macrochirus*), and clearnose skate (*Raja eglanteria*). The three fish families were catfish (*Ictalurus sp.*), gar (*Lepisosteus sp.*), and drum (*Sciaenops sp.*).

Catfish are found in both fresh and salt waters and are bottom-feeders. In this faunal collection, two specific catfish species were identified: hardhead catfish and gafftopsail catfish. Hardhead catfish are found in shallow coastal waters over sand or mud and are sometimes found in fresh water, but never far up rivers and can grow up to 61 centimeters. Gafftopsail catfish are found in shallow coastal and bay areas and also occur seasonally in estuaries and can grow up to 99 centimeters (Boschung et al. 1983). Fish in the gar family are commonly found in quiet, weedy backwater areas that are often stagnant. It is likely that the specific gar species in this collection is the long-nose gar (*Lepisosteus osseus*), which can grow up to 1.8 meters and 22.8 kilograms. Drums are commonly found in bays and estuaries, as well as tidal shores (Boschung et al. 1983).

Bluegill are found in clear, shallow warm areas of water, including pools of streams, lakes and ponds and they can grow up to 30 centimeters and 2.2 kilograms. Red drum are commonly found in the surf zone to offshore waters, although this depends on the season and age of individuals, and they sometimes enter fresh water. Red drum can grow to 1.5 meters

and 41 kilograms (Boschung et al. 1983). Summer flounder are commonly found on the bottom of coastal waters and they are also sometimes found on the bottoms of bays and harbors. They can grow up to 94 centimeters and 12 kilograms (Robins et al. 1986). Bluefish are found in surface waters near the shore and can grow up to 1.1 meters and 14.4 kilograms. Clearnose skates are found in shallow shore waters and are more commonly found inshore during warm months, as they move to deeper waters in the winter. They can grow up to 94 centimeters (Boschung et al. 1983).

Commensal Species

Commensal species include animals found near or around human habitations but are not generally consumed by humans. These animals include pets, pests, vermin and the animals that feed on them. Canis species, snakes, amphibians, rats and mice are common examples of commensal species. The commensal species identified in the collection was the marsh rice rat (*Oryzomys palustris*) and the eastern mole (*Scalopus aquaticus*). In addition to human domestic areas rodent species generally prefer forested areas with convenient cover but can also be observed in other habitats including, forest edge, disturbed landscapes, clearings, and overgrown clearings (Choate et al. 1994). Moles occupy both forested and unforested areas, spending most of its life underground in moist, loose, sandy or loamy soils (Choate et al. 1994).

Results

Table 51 provides a summary of the total MNI, NISP, weight, biomass weight and percentages of MNI and biomass weight for Shoolbred's Old Settlement. A total of 3,560 bones weighing 12,137.83 grams were identified representing 36 animal species. Of this total, 1088 (30.56%) fragments were identified to species, 1677 (47.11%) to class, and 795 (22.33%) could not be identified to class. Most of the remains were mammal totaling 96.6% of the total biomass weight. Cattle, pig, deer, and raccoon dominated the mammal group. Turtle represented the next greatest contribution based on a biomass weight of 0.88%. Most of the turtle was cooter, which made up 0.50% of the total site biomass percentage. Bird was the next greatest contributor based on a biomass weight of 0.86%. Chicken (biomass percentage 0.35%) and turkey (biomass percentage 0.15%) contributed the most in this category. Fish were the least represented group, although not by that large of a margin. Fish made up 0.64% of the total site biomass percentage. In addition to vertebrate fauna, crab (*Callinectes sp.*), clam (*Mercenaria mercenaria*), shell and barnacle were identified at this site.

Area 1 (Table 52) included excavation units and Features 1-3 (Table 53-55). Area 2 (Table 56) contained excavation units and Feature 4 (Table 57). Area 3 (Table 58) consisted of excavation units and Feature 9 (Table 59). Area 4 (Table 60) included excavation units and Features 5-7 (Table 61-63). Area 5 contained excavation units and Features 10 and 11 (Table 64-65). Area 6 (Table 66) consisted of one excavation unit. The number of bones found in the features ranged from 8 to 153 fragments. Feature 5 (Table 61) is the largest of the features, with 153 fragments. It is a wall trench located in Area 4 and the bone fragments are probably from the rest of Area 4. Feature 10 (Table 64) is the second largest feature, with 144 fragments. It is a chimney hearth located in Area 5 and the bone fragments are probably from the rest of Area 5.

Results from the post holes are located in Table 68. The number of bones found in post holes ranged from 1 to 70 fragments. Post holes 11-13 yielded the largest faunal assemblages and they are all located in Area 4. The most commonly identified species was cattle, occurring in eight of the 24 post holes. Most of the post hole faunal assemblages consisted of fragments that could only be identified to class. All of the areas have mammals dominating the assemblage, with at least 90% of the total biomass. In regards to other types of fauna, Areas 2-5 are similar, while Areas 1 and 6 do not

show the same level of diversity. Area 6 is the smallest collection, with a total of 39 fragments, weighing 183.01 grams. Area 1 is the next smallest collection, with a total of 209 fragments, weighing 455.19 grams. The level of diversity found in areas 2-5 is indicative of low status populations, i.e. there is a greater level of diversity, as low status groups have to supplement their diet with wild game. Area 2 is the only area with mole, bobcat, and horse, with one fragment each. Area 5 contains sheep

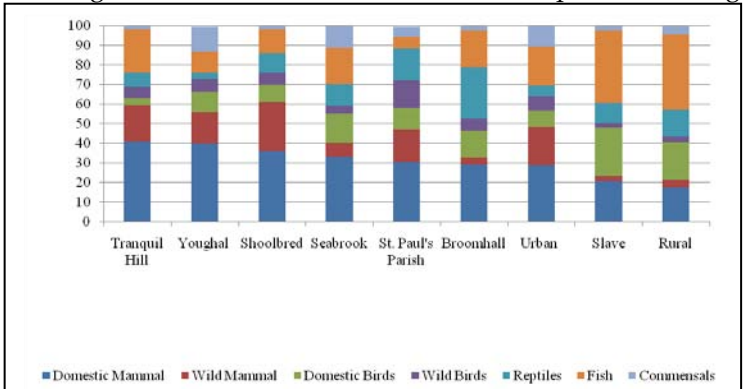

Figure 53. Comparisons of Shoolbred with other plantation sites and patterns. Based on MNI %.

fragments, which were rarer than other mammals. Area 5 also contained a human tooth, which did not occur elsewhere at this site. Areas 1 and 2 are the only areas that contain commensal fragments. Area 3 is also different, as it has the greatest amount of wild mammals and no wild birds.

Faunal Category Patterns

Figure 53 presents an inventory of faunal categories for Shoolbred's Old Settlement. These are compared with patterns obtained for slave, urban, and rural historic settlements located in coastal South Carolina and Georgia (Reitz 1986). Faunal assemblages from other South Carolina plantations included in this study are Broomhall Plantation (Hogue et al. 1995), Seabrook Plantation (Hogue 1998), Youghal Plantation (Hogue and McCain 2006), and Tranquil Hill (Lowrey and Hogue 2008) are also included for comparative purposes. Patterns established by Reitz (1986) for slave, rural and urban collections are also included for comparative purposes. Figure 54 presents an inventory of faunal categories comparing Areas 1-6.

For this study, the categories used are domestic mammal, wild mammal, domestic bird, wild bird, reptiles, fish and commensals. The graph of the areas includes an additional category, crab and clam. The commensal category includes the mole and the rodent species identified at the site. For comparative purposes, percentages are calculated using MNI. The MNI values from Table 51 were used for Figure 53, while MNIs were summed for each area's excavation units for Figure 54.

There are some differences observed in Figure 53, between Shoolbred's Old Settlement and the other collections. Shoolbred's Old Settlement has a greater frequency of wild mammals and a lower frequency of commensals when compared to the other collections. Both this site and the Tranquil Hill site have a large number of wild mammals (predominately deer and raccoon) compared to

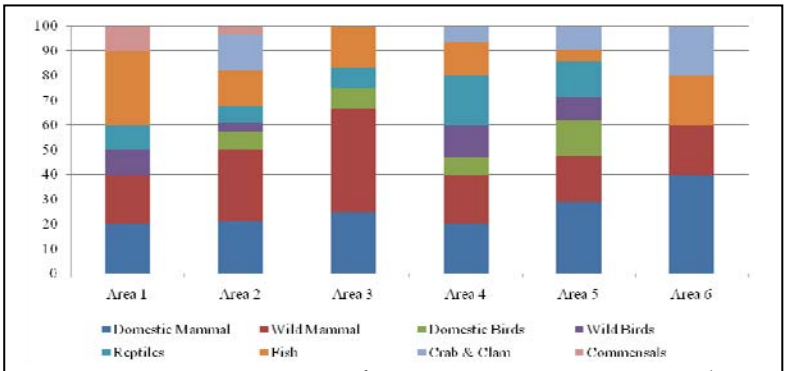

Figure 54. Comparisons of Areas 1-6 patterns. Based on MNI%.

all the other patterns. Shoolbred's Old Settlement and Broomhall have considerably less commensals compared to all the other

patterns. With the exception of commensal remains, the pattern observed for Shoolbred's Old Settlement is most similar to the urban pattern derived by Reitz (1986) where domestic and wild mammals are the dominant food source. Interestingly, the Shoolbred's faunal assemblage does not reflect the patterns expected for slave occupation.

When Figure 54 is examined, it is clear that none of the areas are identical. Area 3 has no wild birds, but has the greatest frequency of wild mammals. Areas 1 and 6 have the greatest number of fish, despite the fact that they yielded the smallest faunal assemblages. Area 5 has few fish species but is one of the larger assemblages. Area 2, the largest of the six collections, has the most diverse number of faunal categories represented.

Differential Meat Portions

The skeletons of cattle, pig, and deer are subdivided into five categories: head, axial, forequarter, hindquarter, and lower leg and foot. Areas 1 and 6 are not included in the comparison, as multiple categories were missing elements. Meatier cuts are associated with the fore and hind quarters and to a lesser degree the axial skeleton. Less desirable cuts are elements associated with the cranium, lower leg and foot bones. The NISP (number of identified specimens) of each segment category was counted and each category's percentage of the NISP for cattle, pig or deer was calculated. The next step was to calculate $\log_e X$ (X being the percentage of each category) and subtract the $\log_e Y$ (the log of the animal's expected percentage for each category from $\log_e X$ (Reitz and Zierden 1991; Reitz and Wing 1999). This value was plotted so that the deviation from the center line (the expected percentage) could be investigated. By looking at the difference between the expected and the observed, differential use of segments in separate areas can be examined.

As shown in Figure 55, the areas display a great deal of variation in the categories for cattle portions. Only Areas 2 and 5 have greater amounts of the more desirable cuts of meat, and only in the forequarter category. The areas are most similar in the lower leg and foot category, with Area 5 as the exception. The greatest differences among the areas stem from categories not containing any identified elements. For example, in Area 2, no hindquarter elements were identified and in Area 3 no axial parts. The lack of elements in a category causes a high negative value, creating multiple peaks and valleys in the graph.

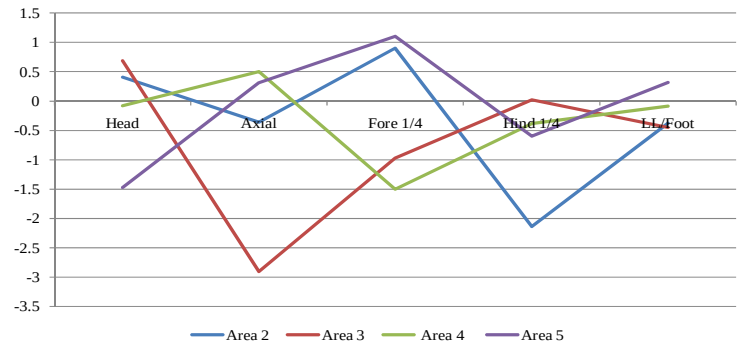

Figure 55. Log graph of cattle segments by area. Zero (0) line represents element representation standard.

As shown in Figure 56, the differential meat portions for pig are similar across the areas. Area 4 has lower amounts in the axial category when compared to the other areas. Area 5 has a lower amount of hindquarter elements when compared to the others. All of the areas have greater than expected amounts in the forequarter category and with the exception of Area 5, all areas have greater than expected amounts in the hindquarter category. The differential meat portion log graph indicates that pig was possibly being butchered elsewhere and the more desirable cuts of meat were being brought in. There is a discrepancy with this conclusion, as higher than expected amounts occur in the head category.

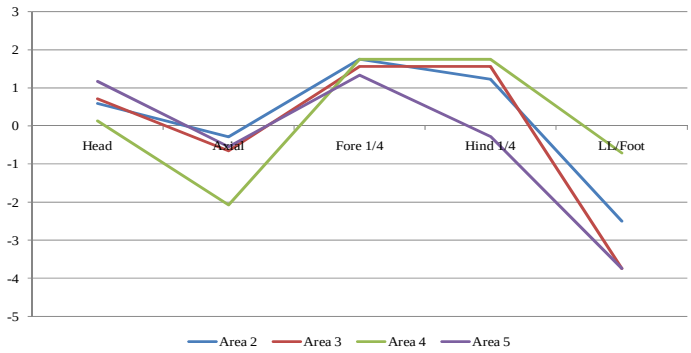

Figure 56. Log graph of pig segments by area. Zero (0) line represents element representation standard.

As shown in Figure 57, the differential meat portions for deer are very similar across the areas. However, there are some differences. Area 2 has a lower amount of hindquarter elements when compared to the other areas, but it is still greater than expected. Area 3 has the greatest amount of hindquarter elements when compared to the other areas. All of the areas have lower than expected amounts in the head, axial and lower leg and foot categories, with some areas lower than others. All of the areas have greater than expected amounts in the forequarter and hindquarter categories, indicating that deer were butchered off-site and the meatier portions were brought back to the site.

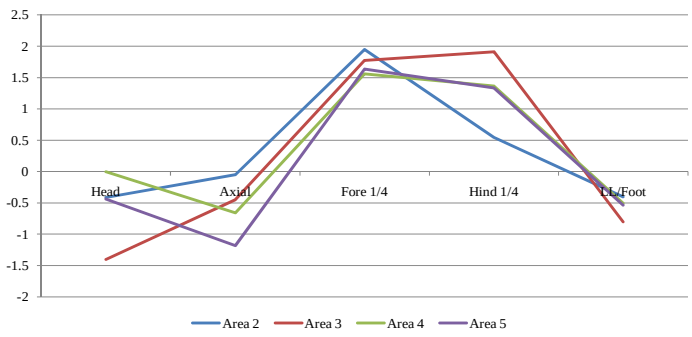

Figure 57. Log graph of deer segments by area. Zero (0) line represents element representation standard.

Bone Modifications

A summary of the modified bone elements is presented in Table 69. Each fragment was examined in regards to modifications classified as sawed, clean-cut, burned, chopped/hacked, gnawed, and worked into tools or artifacts such as awls or buttons. In certain cases, categories were created for bones with two or more different modifications. No worked bone was observed in the collection and the dominant modification is burned. Approximately 15% (14.67%) of the total faunal collection had modifications, and of those, 86.40%, were burned. Sawed and chopped/hacked modifications were present in equal amounts, 4.99%. Of the areas, Area 4 had the least amount of modified bones, while Area 3 had the greatest amount of modifications. Area 3 also contained the greatest frequency of wild mammals among the areas and this may explain why more modified bones were found there.

Area 5 is interesting, as it had the greatest amount of sawed and gnawed bones. Area 5 contained 46.15% of the total sawed bone and 50% of the total gnawed bone. The majority of sawed bone in this area was cattle, with nine instances. As shown in Figure 54, with the exception of Area 6, Area 5 has a greater frequency of domestic mammals compared to the other areas. Area 5 contained Structure F, which was larger than the other dwellings identified at the site. It dates to the early to mid-nineteenth century, which is a time period where owners tried to improve slaves' quality of life (See Excavations, this volume).

Conclusions

The faunal remains recovered from the various areas, features and post holes at Shoolbred's Old Settlement provided an opportunity to examine faunal use at the site. A total of 3,560 bone fragments were recovered weighing 12,137.83 grams. Mammals, particularly cattle with 49.09% of the total site biomass and 6,224.07 grams weight, dominated the assemblage. As shown in Figure 54, with the exception of Area 6, the most diverse faunal assemblage was associated with Area 2. The level of diversity identified in this collection is consistent with what is expected from lower status groups, with an increased reliance on wild mammals and other wild game.

Overall the site had 34 animal species representing a variety of wild game, fish, domestic mammals and birds. Better cuts of beef were identified with only a few areas, specifically Areas 2 and 5. Better cuts of pork and venison were identified with Areas 2-5. Processing of large mammals may have occurred elsewhere based on the log-differences scale model (Figures 55-57) where there is underrepresentation in the lower leg and foot bone categories, except for Area 5 in regards to cattle. Based on the comparisons of faunal categories (Figure 53) and percentages, the Shoolbred's Old Settlement site appears most similar to the pattern observed for Reitz's (1986) urban model and other plantations located in South Carolina. In regards to bone modifications, burning was the prevalent, followed by sawing (Table 69).

With additional research one may be able to document specific and different subsistence patterns in separate areas of a state or region. The level of diversity found in a faunal collection can indicate the status of the population groups that resided in that area. Even though there were not many differences among the areas at Shoolbred's Old Settlement, it is important to investigate individual plantation and other historic sites to identify the dietary patterns and differences among them.

Table 51.
Faunal Identification, MNI, Number, Weight and Biomass Measures for All Units, Features and Post Holes

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cow, *Bos taurus*	26	18.71	374	6224.07	68.3387	49.09
Pig, *Sus scrofa*	18	12.95	157	1019.94	13.4189	9.64
Sheep, *Ovis aries*	2	1.44	9	60.55	1.0566	0.76
Human, *Homo sapiens*			1	1.17	0.0303	0.02
Deer, *Odocoileus virginianus*	11	7.91	84	509.72	7.1878	5.16
Horse, *Equus caballus*	1	0.72	1	40.52	0.736	0.53
Raccoon, *Procyon lotor*	11	7.91	57	423.93	6.0893	4.37
Rice Rat, *Oryzomys palustris*	1	0.72	3	0.29	0.0086	0.01
Rat, *Rattus sp.*	1	0.72	1	0.1	0.0033	0
Eastern Cotton Tail, *Sylvilagus floridanus*	2	1.44	6	3.58	0.0829	0.06
Opossum, *Didelphis virginiana*	6	4.32	23	36.62	0.672	0.48
Mole, *Scalopus aquaticus*	1	0.72	1	0.19	0.0059	0
Bobcat, *Lynx rufus*	1	0.72	1	0.63	0.0174	0.01
Black Bear, *Ursus americanus*	2	1.44	2	7.19	0.1553	0.11
Unidentified Large Mammal			665	2113.85	25.8563	18.57
Unidentified Small Mammal			70	57.71	1.0119	0.73
Unidentified Mammal			699	721.25	9.8237	7.06
Aves						
Turkey, *Meleagris gallopavo*	5	3.6	8	12.78	0.2075	0.15
Chicken, *Gallus gallus*	11	7.91	97	32.68	0.4875	0.35
Canada Goose, *Branta canadensis*	1	0.72	1	3.45	0.063	0.05
Red-Necked Duck, *Aythya collaris*	1	0.72	1	1.18	0.0237	0.02
Red-Tailed Hawk, *Buteo jamaicensis*	1	0.72	1	0.91	0.0187	0.01
Unid Duck			3	1.41	0.0279	0.02
Unid Bird			68	23.9	0.3667	0.26
Reptile						
Box Turtle, *Terrapene carolina*	6	4.32	9	6.21	0.1075	0.08
Cooter, *Chrysemys floridana*	3	2.16	27	101.75	0.6999	0.5
Diamondback Terrapin, *Malaclemys terrapin*	3	2.16	5	16.29	0.2051	0.15
Unid Turtle			11	16.11	0.2036	0.15
Pisces						
Catfish, *Ictalurus sp.*			27	6.18	0.1126	0.08
Sea Catfish, *Arius felis*	4	2.88	10	6.98	0.1264	0.09
Gafftopsail Catfish, *Bagre marinus*	1	0.72	1	0.09	0.002	0
Bowfin, *Amia calva*	3	2.16	5	1.96	0.0509	0.04
Drum, *Sciaenops sp.*		0.72	4	2.76	0.0825	0.06
Red Drum, *Sciaenops ocellatus*	1	2.16	3	2.09	0.0671	0.05
Gar, *Lepisosteus sp.*	3	0.72	25	6.8	0.1394	0.1
Flounder, *Paralichthys dentatus*	1	0.72	58	0.2	0.0063	0
Bluefish, *Pomatomus saltatrix*	1	0.72	12	0.01	0.00006	0
Bluegill, *Lepomis macrochirus*	1	0.72	43	0.08	0.0034	0
Ray, *Raja eglanteria*	1	0.72	2	0.86	0.1106	0.08
Unid Fish			161	11.04	0.1954	0.14
Crab, *Callinectes sp.*	9	6.47	19	30.84	0.5637	0.4
Shell			2	2.58		
Clam, *Mercenaria mercenaria*			7	51.52	0.8586	0.62
Barnacle			1	3.9		
Miscellaneous Unidentified			795	571.96		
Total	139	100.74	3560	12137.83	139.22496	100
Burned Bone			462	690.91		
Unburned bone			3098	11446.92		

Table 52.
Faunal Identification, MNI, Number, Weight and Biomass Measures for the Area 1 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	10	19	203.87	3.1051	42.73
Pig, *Sus scrofa*	1	10	7	11.05	0.2285	3.14
Deer, *Odocoileus virginianus*	1	10	10	37.78	0.6911	9.51
Raccoon, *Procyon lotor*	1	10	3	6.31	0.138	1.9
Unidentified Large Mammal			45	125.69	2.0387	28.05
Unidentified Small Mammal			15	13.93	0.2815	3.87
Unidentified Mammal			49	28.86	0.5423	7.46
Aves						
Unid Duck	1	10	3	1.41	0.0279	0.38
Unid Bird			9	1.4	0.0277	0.38
Reptile						
Diamondback Terrapin, *Malaclemys terrapin*	1	10	2	4.19	0.0825	1.14
Pisces						
Bowfin, *Amia calva*	1	10	1	0.21	0.0083	0.11
Drum, *Aplodinotus grunniens*	1	10	2	0.81	0.0333	0.46
Gar, *Lepisosteus sp.*	1	10	16	2.22	0.0563	0.77
Crab, *Callinectes sp.*	1	10	1	0.89	0.0059	0.08
Shell			1	1.12		
Miscellaneous Unidentified			26	15.45		
Total	10	100	209	455.19	7.2671	99.98
Burned Bone			14	17.27		
Unburned bone			195	437.92		

Table 53.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 1

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Pig, *Sus scrofa*	1	33.3	2	3.39	0.0789	24.69
Unidentified Large Mammal			2	6.97	0.1509	47.23
Unidentified Mammal			9	2.83	0.0671	21
Aves						
Chicken, *Gallus gallus*	1	33.3	1	0.23	0.0053	1.66
Unid Bird			4	0.06	0.0015	0.47
Reptile						
Box Turtle, *Terrapene carolina*			1	0.55	0.0118	3.69
Pisces						
Sea Catfish, *Arius felis*	1	33.3	2	0.09	0.002	0.63
Unid Fish			26	0.09	0.002	0.63
Miscellaneous Unidentified			11	0.32		
Total	3	99.9	58	14.53	0.3195	100
Burned Bone			2	6.2		
Unburned bone			56	8.33		

Table 54.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 2

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Pig, *Sus scrofa*	1	33.3	1	2.67	0.0636	28.47
Unidentified Large Mammal			3	6.44	0.1406	62.94
Pisces						
Catfish, *Ictalurus sp.*	1	33.3	1	0.21	0.0045	2.01
Drum, *Sciaenops sp.*	1	33.3	1	0.27	0.0147	6.58
Unid Fish			9	0.12	0.0027	
Miscellaneous Unidentified	3	99.9	14	2.17		
Total			29	11.88	0.2234	100
Burned Bone			2	0.32		
Unburned bone			27	11.56		

Table 55.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 3

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Pig, *Sus scrofa*	1	33.3	2	14.08	0.2842	71.59
Deer, *Odocoileus virginianus*	1	33.3	1	0.56	0.0156	3.93
Unidentified Large Mammal			2	4.2	0.0957	24.11
Pisces						
Unid Fish	1	33.3	3	0.07	0.0015	0.37
Miscellaneous Unidentified			11	1.97		
Total	3	99.9	19	20.88	0.397	100
Burned Bone			0	0		
Unburned bone			19	20.88		

Table 56.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Area 2 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cow, *Bos taurus*	3	10.71	56	679.89	9.3152	39.37
Pig, *Sus scrofa*	2	7.14	37	232.71	3.5492	15
Deer, *Odocoileus virginianus*	3	10.71	19	77.16	1.3141	5.55
Horse, *Equus caballus*	1	3.57	1	40.52	0.736	3.11
Raccoon, *Procyon lotor*	2	7.14	16	16.82	0.3336	1.41
Opossum, *Didelphis virginiana*	1	3.57	3	7.15	0.1545	0.65
Mole, *Scalopus aquaticus*	1	3.57	1	0.19	0.006	0.03
Bobcat, *Lynx rufus*	1	3.57	1	0.63	0.0173	0.07
Black Bear, *Ursus americanus*	1	3.57	1	3.61	0.0835	0.35
Unidentified Large Mammal			130	391.63	5.67	23.96
Unidentified Small Mammal			9	5.06	0.1132	0.48
Unidentified Mammal			101	106.39	1.7547	7.42
Aves						
Turkey, *Meleagris gallopavo*	1	3.57	1	2.16	0.0411	0.17
Chicken, *Gallus gallus*	2	7.14	6	4.91	0.0868	0.37
Unid Bird			2	2.43	0.0458	0.19
Reptile						
Box Turtle, *Terrapene carolina*	1	3.57	2	1	0.0316	0.13
Cooter, *Chrysemys floridana*	1	3.57	4	3.7	0.0759	0.32
Unid Turtle			5	2.19	0.0534	0.23
Pisces						
Catfish, *Ictalurus sp.*			5	2.02	0.0389	0.16
Sea Catfish, *Arius felis*	2	7.14	6	5.18	0.0952	0.4
Gafftopsail Catfish, *Bagre marinus*	1	3.57	1	0.09	0.002	0.01
Gar, *Lepisosteus sp.*	1	3.57	6	1.97	0.0511	0.22
Unid Fish			7	2.57	0.0634	0.27
Crab, *Callinectes sp.*	4	14.29	15	5.49	0.0311	0.13
Clam, *Mercenaria mercenaria*			6	50.23		
Miscellaneous Unidentified			219	160.8		
Total	28	99.97	660	1806.5	23.6636	100
Burned Bone			121	171.46		
Unburned bone			539	1635.04		

Table 57.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 4

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	33.3	3	73.39	1.2562	76.99
Pig, *Sus scrofa*	1	33.3	1	18.83	0.3692	22.63
Pisces						
Flounder, *Paralichthys dentatus*	1	33.3	58	0.2	0.0062	0.38
Miscellaneous Unidentified			3	1.41		
Total	3	99.9	65	93.83	1.6316	100
Burned Bone			2	10.41		
Unburned bone			63	88.42		

Table 58.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Area 3 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cow, *Bos taurus*	2	16.67	52	637.54	8.7914	43.44
Pig, *Sus scrofa*	1	8.33	8	50.63	0.8994	4.44
Deer, *Odocoileus virginianus*	1	8.33	21	216.17	3.3213	16.41
Raccoon, *Procyon lotor*	1	8.33	2	0.71	0.0193	0.1
Eastern Cotton Tail, *Sylvilagus floridanus*	1	8.33	2	1.29	0.033	0.16
Opossum, *Didelphis virginiana*	1	8.33	3	2.88	0.0681	0.34
Black Bear, *Ursus americanus*	1	8.33	1	3.58	0.0828	0.41
Unidentified Large Mammal			98	351.83	5.1487	25.44
Unidentified Small Mammal			10	7.88	0.1686	0.83
Unidentified Mammal			63	75.41	1.2873	6.36
Aves						
Chicken, *Gallus gallus*	1	8.33	4	3.69	0.0669	0.33
Unid Bird			2	0.71	0.149	0.74
Reptile						
Box Turtle, *Terrapene carolina*	1	8.33	4	1.83	0.0474	0.23
Unid Turtle			4	6.35	0.1091	0.54
Pisces						
Catfish, *Ictalurus sp.*	1	8.33	3	1.01	0.021	0.1
Bowfin, *Amia calva*	1	8.33	1	0.83	0.0253	0.13
Miscellaneous Unidentified			181	173.57		
Total	12	99.97	459	1535.91	20.2386	100
Burned Bone			164	230.36		

Table 59.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 9

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	20	3	44.11	0.7944	54.01
Pig, Sus scrofa	1	20	1	2.7	0.0643	4.37
Sheep, *Ovis aries*	1	20	1	4.61	0.104	7.07
Unidentified Large Mammal			4	22.36	0.431	29.3
Unidentified Mammal			4	2.8	0.0664	4.51
Aves						
Unid Bird	1	20	3	0.38	0.0084	0.58
Pisces						
Catfish, *Ictalurus sp.*	1	20	1	0.11	0.0024	0.16
Miscellaneous Unidentified			21	9.38		
Total	5	100	38	86.45	1.4709	100
Burned Bone			3	1.3		
Unburned bone			35	85.15		

Table 60.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Area 4 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cow, *Bos taurus*	2	13.33	99	1333.76	17.08	53.69
Pig, *Sus scrofa*	1	6.67	37	322.76	0.678	2.13
Deer, *Odocoileus virginianus*	1	6.67	23	129.9	2.1001	6.6
Raccoon, *Procyon lotor*	1	6.67	17	29.09	0.5462	1.72
Opossum, *Didelphis virginiana*	1	6.67	4	8.42	0.1789	0.56
Unidentified Large Mammal			146	505.95	7.1399	22.44
Unidentified Small Mammal			8	6.99	0.1514	0.48
Unidentified Mammal			59	98.95	1.6439	5.17
Aves						
Turkey, *Meleagris gallopavo*	1	6.67	2	3.18	0.0585	0.18
Chicken, *Gallus gallus*	1	6.67	2	1.59	0.0311	0.1
Red-Tailed Hawk, *Buteo jamaicensis*	1	6.67	1	0.91	0.0187	0.06
Unid Bird			3	2.57	0.0482	0.15
Reptile						
Box Turtle, *Terrapene carolina*	1	6.67	1	0.27	0.0131	0.04
Cooter, *Chrysemys floridana*	1	6.67	20	83.79	0.6145	1.93
Diamondback Terrapin, *Malaclemys terrapin*	1	6.67	2	11.68	0.1641	0.52
Unid Turtle			2	7.57	0.1227	0.39
Pisces						
Catfish, *Ictalurus sp.*			1	0.04	0.0009	0
Sea Catfish, *Arius felis*	1	6.67	2	1.71	0.5841	1.84
Gar, *Lepisosteus sp.*	1	6.67	3	2.61	0.0642	0.2
Unid Fish			47	5.38	0.5351	1.68
Crab, *Callinectes sp.*	1	6.67	1	6.88	0.0382	0.12
Miscellaneous Unidentified			91	112.3		
Total	15	100.04	571	2676.3	31.8118	100
Burned Bone			6	7.22		
Unburned bone			565	2669.08		

Table 61.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 5

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	11.11	5	39.89	0.7257	34.46
Pig, *Sus scrofa*	1	11.11	1	21.71	0.4197	19.93
Raccoon, *Procyon lotor*	1	11.11	1	4.35	0.0987	4.69
Opossum, *Didelphis virginiana*	1	11.11	1	2.98	0.0702	3.33
Unidentified Large Mammal			5	15.43	0.3086	14.65
Unidentified Small Mammal			4	1.25	0.0321	1.52
Unidentified Mammal			30	12.75	0.2599	12.34
Aves						
Turkey, *Meleagris gallopavo*	1	11.11	1	0.78	0.0162	0.77
Chicken, *Gallus gallus*	1	11.11	68	7.19	0.1229	5.83
Unid Bird			1	0.07	0.0018	0.08
Reptile						
Box Turtle, *Terrapene carolina*	1	11.11	2	0.61	0.0227	1.08
Pisces						
Catfish, *Ictalurus sp.*	1	11.11	1	0.38	0.0079	0.38
Bluefish, *Pomatomus saltatrix*	1	11.11	12	0.01	0.0006	0.03
Unid Fish			12	0.96	0.0191	0.91
Miscellaneous Unidentified			9	1.63		
Total	9	99.99	153	109.99	2.1061	100
Burned Bone			4	0.72		
Unburned bone			149	109.27		

Table 62.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 6

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	20	2	70.49	1.2114	74.58
Pig, *Sus scrofa*	1	20	1	2.6	0.0621	3.82
Deer, *Odocoileus virginianus*	1	20	1	5.65	0.1249	7.69
Unidentified Large Mammal			10	9.72	0.2036	12.54
Aves						
Unid Bird	1	20	4	0.79	0.0164	1.01
Pisces						
Catfish, *Ictalurus sp.*	1	20	2	0.07	0.0015	0.09
Unid Fish			2	0.2	0.0043	0.27
Miscellaneous Unidentified			33	4.15		
Total	5	100	55	93.67	1.6242	100
Burned Bone			0	0		
Unburned bone			55	93.67		

Table 63.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 7

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Unidentified Large Mammal	1	100	5	43.05	0.7772	100
Miscellaneous Unidentified			15	9.56		
Total	1	100	20	52.61	0.7772	100
Burned Bone			0	0		
Unburned bone			20	52.61		

Table 64.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Area 5 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cow, *Bos taurus*	3	14.29	76	1886.59	23.3404	58.04
Pig, *Sus scrofa*	2	9.52	49	241.51	3.6739	9.14
Sheep, *Ovis aries*	1	4.76	8	55.94	0.9839	2.45
Human, *Homo sapiens*			1	1.17		
Raccoon, *Procyon lotor*	2	9.52	13	86.28	1.4532	3.61
Eastern Cotton Tail, *Sylvilagus floridanus*	1	4.76	4	2.29	0.0554	0.14
Opossum, *Didelphis virginiana*	1	4.76	11	14.12	0.285	0.71
Unidentified Large Mammal			166	438.94	6.2829	15.63
Unidentified Small Mammal			14	13.99	0.2826	0.7
Unidentified Mammal			176	189.62	2.9518	7.34
Aves						
Turkey, *Meleagris gallopavo*	1	4.76	3	5.53	0.0968	0.24
Chicken, *Gallus gallus*	3	14.29	14	13.9	0.2239	0.56
Canada Goose, *Branta canadensis*	1	4.76	1	3.45	0.063	0.16
Unid Bird			20	12.04	0.1965	0.49
Reptile						
Box Turtle, *Terrapene carolina*	1	4.76	2	1.95	0.0494	0.12
Cooter, *Chrysemys floridana*	1	4.76	3	14.26	0.1876	0.47
Diamondback Terrapin, *Malaclemys terrapin*	1	4.76	1	0.42	0.0177	0.04
Pisces						
Red Drum, *Sciaenops ocellatus*	1	4.76	3	2.09	0.0659	0.16
Crab, *Callinectes sp.*	1	4.76	1	0.22	0.0016	0
Shell			1	1.46		
Clam, *Mercenaria mercenaria*	1	4.76	1	1.29		
Miscellaneous Unidentified			78	46.68		
Total	21	99.98	646	3033.74	40.2115	100
Burned Bone			84	100.09		
Unburned bone			562	2933.65		

Table 65.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 10

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	14.29	8	215.51	3.3122	71.35
Deer, *Odocoileus virginianus*	1	14.29	1	3.59	0.0831	1.79
Rice Rat, *Oryzomys palustris*	1	14.29	3	0.29	0.0086	0.19
Opossum, *Didelphis virginiana*	1	14.29	2	1.07	0.0279	0.6
Unidentified Large Mammal			4	43.41	0.7831	16.87
Unidentified Small Mammal			3	1.41	0.0358	0.77
Unidentified Mammal			7	17.21	0.3405	7.33
Aves						
Unid Bird			4	1.6	0.0313	0.67
Pisces						
Catfish, *Ictalurus sp.*	1	14.29	1	0.08	0.0018	0.04
Bluegill, *Lepomis macrochirus*	1	14.29	43	0.08	0.0033	0.07
Unid Fish			43	0.49	0.0101	0.22
Crab, *Callinectes sp.*	1	14.29	1	0.69	0.0047	0.1
Miscellaneous Unidentified			24	18.22		
Total	7	100.03	144	303.65	4.6424	100
Burned Bone			18	55.33		
Unburned bone			126	248.32		

Table 66.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for Feature 11

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	100	1	38.45	0.7021	63.72
Unidentified Large Mammal			2	17.79	0.3508	31.83
Unidentified Small Mammal			1	2	0.049	4.45
Miscellaneous Unidentified			4	3.06		
Total	1	100	8	61.3	1.1019	100
Burned Bone			5	22.32		
Unburned bone			3	38.98		

Table 67.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Area 6 Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
Mammals						
Cattle, *Bos taurus*	1	20	5	75.44	1.2877	40.05
Pig, *Sus scrofa*	1	20	2	21.86	0.4223	13.14
Deer, *Odocoileus virginianus*	1	20	5	8.08	0.1724	5.36
Unidentified Large Mammal			21	68.53	1.1811	36.74
Unidentified Small Mammal			1	0.28	0.0083	0.26
Pisces						
Drum, *Sciaenops sp.*	1	20	1	1.68	0.0571	1.78
Unid Fish			1	0.19	0.0041	0.13
Crab, *Callinectes sp.*	1	20	1	2.93	0.0818	2.54
Barnacle		20	1	3.9		
Miscellaneous Unidentified			1	0.12		
Total	5	100	39	183.01	3.2148	100
Burned Bone			7	32.13		
Unburned bone			32	150.88		

Table 68.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Post Hole Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
PH 2						
Mammals						
Cattle, *Bos taurus*	1	50	1	35.77	0.6579	99.43
Aves						
Unid Bird	1	50	1	0.16	0.0038	0.57
Total	2	100	2	35.93	0.6617	100
Burned Bone			0	0		
Unburned bone			2	35.93		
PH 3						
Miscellaneous Unidentified			3	0.63		
Total			3	0.63		
Burned Bone			1	0.25		
Unburned bone			2	0.38		
PH 4						
Mammals						
Unidentified Large Mammal	1	33.3	1	6.72	0.146	34.59
Unidentified Mammal			23	7.06	0.1527	36.18
Pisces						
Catfish, *Ictalurus sp.*	1	33.3	6	0.47	0.0097	2.29
Ray, *Raja eglanteria*	1	33.3	2	0.86	0.1105	26.18
Unid Fish			2	0.15	0.0032	0.76
Miscellaneous Unidentified			4	0.92		
Total	3	99.9	38	16.18	0.4221	100
Burned Bone			0	0		
Unburned bone			38	16.18		
PH 5						
Mammals						
Rat, *Rattus sp.*			1	0.1	0.0033	2.89
Unidentified Large Mammal			2	4.03	0.0922	80.45
Pisces						
Catfish, *Ictalurus sp.*			3	0.56	0.0167	14.57
Unid Fish			2	0.11	0.0024	2.09
Miscellaneous Unidentified			12	3.18		
Total	0	0	20	7.98	0.1146	100
Burned Bone			2	0.39		
Unburned bone			18	7.59		
PH 6						
Mammals						
Unidentified Large Mammal	1	100	1	4.68	0.1054	100
Miscellaneous Unidentified			2	1.4		
Total	1	100	3	6.08	0.1054	100
Burned Bone			1	1.24		
Unburned bone			2	4.84		
PH 7						
Mammals						
Unidentified Mammal	1	100	1	1.35	0.0344	100
Miscellaneous Unidentified			9	0.45		
Total	1	100	10	1.8	0.0344	100
Burned Bone			1	0.14		
Unburned bone			9	1.66		
PH 8						
Miscellaneous Unidentified			5	0.19		
Total	0	0	5	0.19	0	0
Burned Bone			5	0.19		
Unburned bone			0	0		
PH 9						
Mammals						
Deer, *Odocoileus virginianus*	1	33.3	1	2.31	0.0558	39.94
Raccoon, *Procyon lotor*	1	33.3	1	3.03	0.0713	51.04
Aves						
Unid Bird	1	33.3	9	0.59	0.0126	9.02
Miscellaneous Unidentified			1	1.23		
Total	3	99.9	12	7.16	0.1397	100
Burned Bone			0	0		
Unburned bone			12	7.16		

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
PH 10						
Mammals						
Cattle, *Bos taurus*	1	33.3	6	97.48	1.6218	98.63
Aves						
Unid Bird	1	33.3	1	0.26	0.0059	0.36
Pisces	1	33.3	1	0.83	0.0167	1.01
Unid Fish						
Miscellaneous Unidentified			18	3.17		
Total	3	99.9	26	101.74	1.6444	100
Burned Bone			0	0		
Unburned bone			26	101.74		
PH 11						
Mammals						
Cattle, *Bos taurus*	1	20	6	277.86	4.1633	71.59
Pig, *Sus scrofa*	1	20	4	32.29	0.6	10.32
Raccoon, *Procyon lotor*	1	20	1	2	0.04908	0.84
Unidentified Mammal			46	54.2	0.9563	16.45
Aves						
Turkey, *Meleagris gallopavo*	1	20	1	1.13	0.0228	0.39
Red-Necked Duck, *Aythya collaris*	1	20	1	1.18	0.0237	0.41
Total	5	100	59	368.66	5.81518	100
Burned Bone			5	14.8		
Unburned bone			54	353.86		
PH 12						
Mammals						
Cattle, *Bos taurus*	1	33.3	16	308.2	4.5703	80.93
Pig, *Sus scrofa*	1	33.3	3	40.69	0.738	13.07
Unidentified Small Mammal			1	2.17	0.0528	0.93
Unidentified Mammal			23	13.93	0.2815	4.99
Aves						
Unid Bird	1	33.3	1	0.19	0.0045	0.08
Total	3	99.9	44	365.18	5.6471	100
Burned Bone			0	0		
Unburned bone			44	365.18		
PH 13						
Mammals						
Cattle, *Bos taurus*	1	16.67	4	69.67	1.1987	40.45
Deer, *Odocoileus virginianus*	1	16.67	2	28.52	0.5365	18.1
Raccoon, *Procyon lotor*	1	16.67	3	5.34	0.1187	4.01
Unidentified Large Mammal			7	34.03	0.629	21.23
Unidentified Small Mammal			1	1.43	0.0362	1.22
Unidentified Mammal			44	20.4	0.3968	13.39
Aves						
Unid Bird	1	16.67	4	0.65	0.0137	0.46
Pisces						
Catfish, *Ictalurus sp.*	1	16.67	2	0.3	0.0063	0.21
Bowfin, *Amia calva*	1	16.67	3	0.92	0.0275	0.93
Total	6	100.02	70	161.26	2.9634	100
Burned Bone			0	0		
Unburned bone			70	161.26		
PH 14						
Mammals						
Cattle, *Bos taurus*	1	33.3	7	108.24	1.7821	93.36
Unidentified Mammal			3	4.19	0.0954	5
Aves						
Chicken, *Gallus gallus*	1	33.3	1	0.49	0.0106	0.56
Pisces						1.08
Catfish, *Ictalurus sp.*	1	33.3	2	1.04	0.0207	
Total	3	99.9	13	113.96	1.9088	100
Burned Bone			0	0		
Unburned bone			13	113.96		
PH 15						
Mammals						
Unidentified Mammal	1	100	3	12.75	0.2599	100
Total	1	100	3	12.75	0.2599	100
Burned Bone			0	0		
Unburned bone			3	12.75		
PH 16						
Mammals						
Cattle, *Bos taurus*	1	100	2	11.25	0.2322	78.55
Unidentified Mammal			3	2.66	0.0634	21.45
Total	1	100	5	13.91	0.2956	100
Burned Bone			1	0.7		
Unburned bone			4	13.21		

Table 68, cont.
Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Post Hole Units

	MNI #	MNI %	Number of Bones	Weight in gms	Biomass in kg	Biomass %
		PH 17				
Mammals						
Cattle, *Bos taurus*	1	100	3	16.67	0.3309	64.54
Unidentified Mammal			6	8.57	0.1818	35.46
Total	1	100	9	25.24	0.5127	100
Burned Bone			2	3.25		
Unburned bone			7	21.99		
		PH 18				
Mammals						
Pig, *Sus scrofa*	1	100	1	0.46	0.013	100
Total	1	100	1	0.46	0.013	100
Burned Bone			0	0		
Unburned bone			1	0.46		
		PH 19				
Mammals						
Unidentified Mammal	1	100	3	4.4	0.0997	100
Total	1	100	3	4.4	0.0997	100
Burned Bone			1	1.8		
Unburned bone			2	2.6		
		PH 20				
Mammals						
Unidentified Large Mammal			1	12.45	0.2544	54.23
Unidentified Small Mammal			1	0.51	0.0143	3.05
Unidentified Mammal			8	9.55	0.2004	42.72
Total	0	0	10	22.51	0.4691	100
Burned Bone			5	6.32		
Unburned bone			5	16.19		
		PH 21				
Mammals						
Unidentified Mammal	1	50	8	13.35	0.2709	94.99
Aves						
Chicken, *Gallus gallus*	1	50	1	0.68	0.0143	5.01
Total	2	100	9	14.03	0.2852	100
Burned Bone			5	6.1		
Unburned bone			4	7.93		
		PH 22				
Mammals						
Unidentified Mammal	1	100	2	2.62	0.0625	100
Total	1	100	2	2.62	0.0625	100
Burned Bone			1	0.6		
Unburned bone			1	2.02		
		PH 23				
Mammals						
Unidentified Small Mammal	1	100	1	0.2	0.0061	56.48
Unidentified Mammal			1	0.15	0.0047	43.52
Total	1	100	2	0.35	0.0108	100
Burned Bone			0	0		
Unburned bone			2	0.35		
		PH 25				
Mammals						
Unidentified Mammal	1	100	1	0.71	0.0193	100
Total	1	100	1	0.71	0.0193	100
Burned Bone			0	0		
Unburned bone			1	0.71		
		PH 26				
Mammals						
Unidentified Small Mammal			1	0.61	0.0168	12.99
Unidentified Mammal			3	5.03	0.1125	87.01
Total	0	0	4	5.64	0.1293	100
Burned Bone			0	0		
Unburned bone			4	5.64		

Table 69.
Bone Modifications for Area Units and Features

	Sawed	Clean Cut	Burned	Chopped/Hacked	Gnawed	Burned & Cut	Cut & Hacked	Total
Modified Bones From Area 1								
Cattle	1	-	-	-		-		1
Deer	-	1	-	-		-		1
Raccoon	-	-	-	1		-		1
Unidentified Large Mammal	-	1	5	-		-		6
Unidentified Small Mammal	-	-	1	-		-		1
Unidentified Mammal	-	1	3	-		1		5
Miscellaneous Unidentified	-	1	4	-		-		5
Total	1	4	13	1		1		20
% of NISP (n = 209)	0.48	1.91	6.22	0.48		0.48		9.57
Modified Bones From Feature 1								
Unidentified Large Mammal			1					1
Miscellaneous Unidentified			1					1
Total			2					2
% of NISP (n = 58)			3.45					3.45
Modified Bones From Feature 2								
Miscellaneous Unidentified			2					2
Total			2					2
% of NISP (n = 26)			7.69					7.69
Modified Bones From Area 2								
Cattle	-	3	-					4
Pig	2	-	-					2
Deer	-	-	1					2
Unidentified Large Mammal	-	-	27					30
Unidentified Small Mammal	-	1	1					2
Unidentified Mammal	-	-	15					15
Box Turtle	-	-	1					1
Gar	-	-	1					1
Unidentified Fish	-	-	3					3
Crab	-	-	1					1
Unidentified Shell	-	-	3					3
Miscellaneous Unidentified	-	-	72					72
Total	2	4	125					136
% of NISP (n = 660)	0.3	0.61	18.94					20.61
Modified Bones From Feature 4								
Cattle			1					2
Pig			1					1
Miscellaneous Unidentified			1					1
Total			3					4
% of NISP (n = 65)			4.62					6.15
Modified Bones From Area 3								
Cattle	2	-	5					9
Unidentified Large Mammal	-	-	32					36
Unidentified Small Mammal	-	-	3					3
Unidentified Mammal	-	-	24					24
Unidentified Turtle	-	-	1					1
Bowfin	-	-	1					1
Catfish	-	-	1					1
Miscellaneous Unidentified	-	-	104					104
Total	2	0	171					179
% of NISP (n = 459)	0.44	0	37.25					39

	Sawed	Clean Cut	Burned	Chopped/Hacked	Gnawed	Burned & Cut	Cut & Hacked	Total
Modified Bones From Feature 9								
Cattle	1	1	-					2
Unidentified Large Mammal	-	-	-					1
Miscellaneous Unidentified	-	-	3					3
Total	1	1	3					6
% of NISP (n = 38)	2.63	2.63	7.89					15.79
Modified Bones From Area 4								
Cattle	1	2	-	2	1			6
Pig	1	1	-	-	-			2
Deer	1	-	-	1	-			2
Unidentified Large Mammal	1	-	3	2	-			6
Miscellaneous Unidentified	-	-	3	-	-			3
Total	4	3	6	5	1			19
% of NISP (n = 571)	0.7	0.53	1.05	0.88	0.18			3.33
Modified Bones From Feature 5								
Cattle	2		-	-				2
Unidentified Mammal	-		2	-				2
Unidentified Bird	-		-	1				1
Unidentified Fish	-		1	-				1
Miscellaneous Unidentified			1					1
Total	2		4	1				7
% of NISP (n = 153)	1.31		2.61	0.65				4.58
Modified Bones From Feature 6								
Unidentified Large Mammal		1						1
Total		1						1
% of NISP (n = 56)		1.79						1.79
Modified Bones From Area 5								
Cattle	9	-	1	-	-			10
Pig	2	-	-	1	1			4
Sheep	-	1	-	-	-			1
Unidentified Large Mammal	1	-	9	2	1			12
Unidentified Small Mammal	-	-	2	-	-			2
Unidentified Mammal	-	-	17	-	1			18
Chicken	-	-	4	-	-			4
Unidentified Bird	-	-	1	-	-			1
Box Turtle	-	-	1	-	-			1
Miscellaneous Unidentified	-	1	41	-	-			42
Total	12	2	76	3	3			96
% of NISP (n = 646)	1.86	0.31	11.76	0.46	0.46			14.86
Modified Bones From Feature 10								
Cattle	1		1	-	1	-	1	4
Unidentified Large Mammal	-		3	-	-	1	-	4
Unidentified Small Mammal	-		-	2	-	-	-	2
Miscellaneous Unidentified	-		-	-	-	-	-	0
Total	1		4	2	1	1	1	10
% of NISP (n = 144)	0.69		2.78	1.39	0.69	0.69	0.69	6.94

ETHNOBOTANICAL REMAINS

Introduction

Ethnobotanical remains were recovered from flotation samples (all from features), as well as being handpicked during excavation (including features, postholes, and units).

Flotation samples, offering the potential to recover very small seeds and other food remains, provide the most reliable and sensitive subsistence information. Samples of 10 to 20 grams are usually considered adequate, if no bias was introduced in the field (5 of the 11 samples here do not meet this threshold).

Popper (1988) explores the "cumulative stages" of patterning, or potential bias, in ethnobotanical data. She notes that the first potential source of bias includes the world view and patterned behavior of the site occupants – how were the plants used, processed, and discarded, for example. Added to this are the preservation potentials of both the plant itself and the site's depositional history. Of the materials used and actually preserved, additional potential biases are introduced in the collection and processing of the samples. For example, there may be differences between deposits sampled and not sampled, between the materials recovered through flotation and those lost or broken, and even between those that are considered identifiable and those which are not.

In the case of West Pasture the soil samples were each 5 gallons in volume (representing soil prescreened to remove artifacts and architectural debris to ¼-inch) and were water floated (using a machine assisted system) at Chicora's Columbia laboratories. Prescreening may cause some fragmentation, but it ensures a much larger soil sample than would be the case if artifacts, brick, and mortar were retained.

Hand-picked (or even waterscreened samples in some cases) may produce little information on subsistence since they often represent primarily wood charcoal large enough to be readily collected during either excavation or screening. Such hand-picked samples are perhaps most useful for providing ecological information through examination of the wood species present. It is, however, appropriate to note that all of the corn fragments recovered in this study comes from handpicked samples.

Such studies assume that charcoal from different species tends to burn, fragment, and be preserved similarly so that no species naturally produce smaller, or less common, pieces of charcoal and is less likely than others to be represented – an assumption that is dangerous at best. Such studies also assume that the wood was being collected in the same proportions by the site occupants as the charcoal found in the archaeological record—likely, but very difficult to examine in any detail. And finally, an examination of wood species may also assume that the species present represent woods intentionally selected by the site occupants for use as fuel or other purposes – probably the easiest assumption to accept if due care is used to exclude the results of natural fires.

While this method probably gives a fair indication of the trees in the site area at the time of occupation, there are several factors that may bias any environmental reconstruction based solely on charcoal evidence, including selective gathering by site occupants (perhaps selecting better burning woods, while excluding others) and differential self-pruning of the trees (providing greater availability of some species

over others). Smart and Hoffman (1988) provide an excellent review of environment interpretation using charcoal that should be consulted by those particularly interested in this aspect of the study.

Procedures and Results

The 11 flotation samples were prepared in a manner similar to that described by Yarnell (1974:113-114) and were examined under low magnification (7 to 30x) to identify carbonized plant foods and food remains. Remains were identified based on gross morphological features and seed identification relied on Schopmeyer (1974), United States Department of Agriculture (1971), Martin and Barkley (1961), and Montgomery (1977). All float samples consisted of the charcoal obtained from 5 gallons of soil (by volume). The entire sample from this floated amount was examined.

Table 70.
Flotation Sample Proveniences

Feature No.	Location	Description
1	Area 1	bldrs. trench/drip line associated w/Struct. B/C
2	Area 1	associated with Struct. C
3	Area 1	pit, association undetermined
4	Area 2	mid-19th cen. agricultural drainage ditch
5	Area 4	wall trench for Struct. E
6	Area 4	yard hearth associated with Struct. E
7	Area 4	drip line associated with Struct. E
8	Area 3	storage pit associated with Struct. D
9	Area 3	wall trench for Struct. D
10	Area 5	western hearth, Struct. F
11	Area 5	eastern hearth, Struct. F

The proveniences are listed in Table 70 and we provide some brief information on the nature of the feature for the benefit of the reader. The results of the analysis are provided in Table 71. All of these features are likely associated with the African American slave occupation of the West Pasture settlement, with the possible exception of Features 1-3 from Area 1.

All of the features contained large quantities of uncarbonized organic debris (rootlets). For example, the fill associated with the posited drip line of Structure E was almost entirely uncarbonized material (84.41%), suggesting that drip lines may not provide especially valuable datasets.

When the uncarbonized components are ignored, the collections are composed largely of wood charcoal.

Six of the 11 features contain seeds, although in most cases the quantities are relatively small. While one sample includes only unidentifiable seed coat fragments, the remaining five samples all contain one genus – *Brassica* (mustard, rape, turnip). In addition, one sample includes a single *Portulaca* (purslane) seed.

The hand-picked samples were bagged in the field directly from either the ¼-inch screen or actual feature excavation and were therefore clean and easily sorted. The samples were also examined under low magnification with the larger pieces of wood charcoal identified, where possible, to the genus level using comparative samples, Panshin and de Zeeuw (1970), and Koehler (1917). Wood charcoal samples were broken in half to expose a fresh transverse surface. The results of this analysis are shown in Table 72.

All but seven of the 46 hand-picked samples (85%) contained pine (*Pinus* sp.). The only other common wood was oak (*Quercus* sp.), found in 17 of the samples (37%). The remaining species include maple (*Acer* sp.), hickory (*Carya* sp.), linden (*Tilia* sp.), and *Prunus* sp (including plums, cherries, peaches and other species). All are represented by four or fewer occurrences.

Eight fragmentary seed coats were identified in the collection (all from 470R100 in Area 4), as was a peach pit, and a small sample of burnt corn cobs.

Table 71.
Analysis of Flotation Samples from West Pasture (Shoolbred Old Settlement)
Wt. in g, t = trace

Feature & Provenience	Wood Charcoal		Uncarb. Organic		Bone		Shell & Mortar		Seeds		Total	Seeds
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%		
Fea. 1	18.12	84.12	3.42	15.88					t	t	21.54	1 seed, *Brassica* sp.
Fea. 2. S½	7.24	42.99	9.59	56.95					0.01	0.06	16.84	3 seeds, 2 *Brassica* sp., 1 *Portulaca* sp.
Fea. 3	2.76	61.06	1.76	38.94							4.52	
Fea. 4 N½	14.27	14.77	6.98	7.23	0.02	0.02	75.32	77.98			96.59	
Fea. 5	2.71	47.46	3.00	52.54					t	t	5.71	1 seed frag, UID
Fea. 6	0.99	53.80	0.85	46.20							1.84	
Fea. 7	0.65	15.59	3.52	84.41							4.17	
Fea. 8	2.42	57.76	1.76	42.00					0.01	0.24	4.19	6 seeds, *Brassica* sp.
Fea. 9	1.97	12.15	2.50	15.41			11.75	72.44	t	t	16.22	1 seed, *Brassica* sp.
Fea. 10	16.67	64.86	9.03	35.14							25.70	
Fea. 11	6.11	45.53	7.27	54.17					0.04	0.30	13.42	68 seeds, *Brassica* sp.
Total	73.91		49.68		0.02		87.07		0.06		210.74	

Brassica sp. includes mustard, turnip, and rape. The latter was identified at the Crowfield slave settlement in the analysis of carbonized residue on Colono sherds – so the plant is documented as having been used by African Americans during the colonial period (Trinkley et al. 2003:136-137). That research noted that the plant was often traded as "greens" and the oil, pressed from seeds, was used for cooking.

This seed has also been found from several Charleston, SC urban sites, including the tanyard at the First Trident Site (Trinkley 1983:91, 93).

Table 72.
Wood Charcoal Identified from Hand-Picked Samples
(calculated as % of each sample; t = trace)

Provenience	*Pinus* sp.	*Quercus* sp.	*Acer* sp.	*Carya* sp.	*Tilia* sp.	*Prunus* sp.	UID Wood	Seeds	Corn Cupules	Peach Pit	Bone
Area 1											
1175R310, SE	0.56										
1175R310, NE	0.22										
1175R310, N½	6.10										
1250R200, NW	0.93										
1250R210, SW	0.17										
1250R210, trowel	0.39	1.14									
1260R210, SE	1.65										
1285R210, SW							0.10		0.16		
PH 1	2.74	0.26							3.51		
PH 2	6.59										
PH 4	0.49										
PH 6	0.13	0.78					0.10				
PH 7	1.44										
PH 8		0.49									
Feature 1	7.85	0.17							0.33		
Feature 3				5.91							
Area 2											
740R120, NW		0.17									
740R120, NE	0.14		0.84								
750R140, NW, Lv1	1.41	1.20					0.39				
750R140, NE, Lv1	0.52										
750R150, SW, Lv1	0.42	0.07									
750R150, NW, Lv1	0.49	0.87									
750R150, SW,Lv1	0.15										
Area 3											
350R120, S½	0.17										
360R130, SE					0.06					0.84	
PH 17	0.38										
PH 21	0.25	0.53									
PH 22	0.26	0.38					0.10				
Feature 8	0.05										
Feature 9, S Wall	2.31						0.40				
Feature 9, PH 5	0.67										
Area 4											
460R90, SW	0.50	0.12	0.05			0.01					
460R90, NW		0.06		0.90							
470R100, SE	1.43										
470R100, SE							1.60	t			
PH 10	0.97										
PH 11	6.36										
PH 12	0.75	0.44									
PH 13	2.94	2.15									
PH 14	2.88										
Feature 6	1.13	0.80					2.05				
Area 5											
165R130, NE, Lv 1A	0.24		0.20				0.20				
165R130, NW, Lv 1A	0.25		0.34								
165R145,W½	2.29	0.26									
175R145, SE	1.95			0.90							
175R145, SW	1.57										2.99
Total Weight	59.74	9.89	1.43	7.71	0.06	0.01	4.94	t	4.00	0.84	2.99

Thomas Jefferson grew *Brassica*, although his plants may have been mustard or turnips and were used primarily for animal feed – a use that has been documented in at least one other source. Porcher (1863:72-75) provides considerable information concerning mustard and recommends that it be grown on every plantation. Regardless, *Brassica* grows in disturbed habitats and areas of previous cultivation. It produces seeds from March through June (Radford et al. 1968:497).

One seed of purslane (probably common purslane, *Portulaca oleracea*) was recovered. This plant has been associated with numerous Native American sites (see Chapman et al. 1974), but has also been found in the well at Jamestown, Virginia (Steve Archer, personal communication 2008).

Purslane (including the stems, leaves, and flower buds) may be eaten as a green, having a slightly sour and salty taste. Although it can be used fresh in salads or cooked like spinach or other greens, it has a mucilaginous quality and is also used in soups and stews as a thickener.

The peach (*Prunus*

persica) is well known in the Southeast. Hilliard (1972:180) comments that it was a favorite food, found fresh, dried, or preserved. Where there were sufficient quantities, peaches were converted into a wine and distilled into a brandy. They were even fed to the hogs. Nevertheless, orchard production was spotty and often poorly tended (Hilliard 1972:181).

In South Carolina, the peach is best cultivated in the upstate, although plantation records and diaries are replete with evidence that the peach was grown in the low country. Radford et al. (1968:566) note that the peach is frequently found escaped from cultivation and fruits from June through July.

Table 73.
Cob Fragments from the Hand Picked Collections

	Cob				Cupule		
Provenience	Type	Row Number	Cross Section	Length (mm)	Pair	Number 10 mm	Width (mm)
Area 1							
1285R210, SW					+	3	6.68
PH 1	R	12	C	22	+	2	9.20
PH 1	R	12	C	15	+	2	9.64
PH 1	T	12	C	16	+	2	9.43
PH 1	R	12	C	11	+	2	9.68
PH 1					+	2	10.90
PH 1					+	2	9.99
PH 1					+	2	8.78
Feature 1					+	2	10.34

R = regular cob
T = tip of cob
C = circular cross section
+ = strongly paired

All of the corn (*Zea mays*) recovered from the samples are fragmentary cobs or cupules (a cupule is a pocket on the cob in which a pair of grains is borne); no kernels were recovered. Porcher (1863:548-561) provides considerable discussion on the possible benefits of corn, although it is doubtful that it was much used beyond its meal for humans and as fodder for cattle and horses. Porcher does mention, "blade tea is quite a favorite diaphoretic used recently by many in the Confederate States in fever – its antiperiodic properties doubtful" (Porcher 1963:548). Hilliard also discusses the importance of corn, observing that by the mid-antebellum corn production along the coast was below that needed for self-sufficiency (Hilliard 1972:158-159).

The cob fragments are described in Table 73. This table follows Ford's (1973) standard so as to provide a thoroughly documented comparative collection for future researchers. All of the identifiable cobs were circular in cross section with 12 rows. Cupules had widths ranging from 6.68 to 10.90 mm, with a mean of 9.40 mm.

This may represent the Southern Flints, corn with short cobs and ears that were slightly compressed at the base and gently tapered to the tip. Ears generally had 12 to 14 rows and the corn was widely grown (along with Southern Dents) during the historic period (Brown and Goodman 1977, Kalm 1974).

Southern Flints are (or perhaps were since there don't seem to be any available today) an old open pollinated type that was well adapted to the Southern climate. The Southern Flints are also reported to have had excellent insect resistance and excellent storage capabilities, making good quality hominy & grits. They were not, however, well adapted to large scale mechanized agriculture and this likely contributed to its loss.

Although it is likely that corn was grown on Shoolbred's tract, it seems unlikely that it ever matched either indigo or rice production, or that it was a major food for the slaves. The presence of the cupules indicates that the cobs were burned after the removal of the kernels.

All of the proveniences producing corn are from Area 1. Two of the three are units and the single feature provenience was likely a builder's trench. One possible explanation is the use of the corn cobs in smudge pits.

While prehistorians typically relate smudge production to either tanning hides or smudging ceramics, other functions are likely. For example, at the Spanish Mission San Luis de Talimali, McEwan and Hann (2000) suggest smudge pits were intended for insect control. Stickler (2004) makes a similar observation for the early nineteenth century smudge pits at Fort Mitchel in Alabama. Research by the Center for Archaeological Studies, South Alabama University at the colonial Dog River Plantation in Louisiana found smudge pits in the slave settlement area. The researchers believe that the smoke produced drove off mosquitoes (http://www.southalabama.edu/archaeology/dog-river-plantation-slavery.html). Low country blacks still use smudge pits for this purpose.

Turning to the wood species, the most abundant was pine (*Pinus* sp.). This may reflect the density of the species, or it may only reflect that pine is a good self-pruner, making its wood readily accessible. Other species include hickory (*Carya* sp.) and oak (*Quercus* sp.). All are typical of maritime forests and will be found on sandy soils, generally well drained.

Other species include maple (*Acer* sp.), probably red maple (A. *rubrum*) which is found in low, rich soils (Radford et al. 1968:688). Fowells (1965:58) notes that the red maple will mostly be found on moderately well-drained moist sites at low to intermediate elevations, although it will also be encountered in swampy areas and in depressions. The other wood identified, linden (*Tilia* sp.), is possibly *T. caroliniana*, a tree that Radford et al. (1968:699) report from sandy coastal plain woods and better known as Carolina Basswood. It is not a particularly common tree, perhaps explaining its very low occurrence in the collection.

The wood species are suggestive of two distinct habitats – the pine, oak, and hickory are generally characterized by sandier and better drained upland soils; the maple and linden are more often associated with low to swampy locations. Both could be found in close proximity to Shoolbred's Old Settlement.

Discussion

The samples from the Shoolbred Old Settlement reveal the use of some foods, such as corn and peach, which are expected at an eighteenth century slave settlement. While relatively little corn was found and it produced no kernel information, the data does provide an additional sample that is useful to better understand the corn that was prevalent along the coastal plain.

The mustard and purslane seeds provide additional information on African American diet and foodways. Both are greens, although other uses may be implied by the presence of at least the *Brassica*.

Overall, the scarcity of carbonized food remains is consistent with the idea that African Americans were consuming one-pot, slow cook meals. Under such circumstances there would be few opportunities for plant foods to be incorporated into the archaeological record. Moreover many of the features identified do not represent ideal sources of dietary information.

The charcoal represents woods that can reasonably be associated with the forests surrounding the settlement. Some species are characteristic of the upland forests, with pine being the most common. Other woods are characteristic of the lower, wetter portions of the plantation.

By the antebellum, pines were common in the low country. Commenting on the prevalence of pines, found usually with "only a very few back-jack oaks," Edmund Ruffin observed that they were found on "the dryest [sic] land" whose surface is "sandy & dry" (Mathew 1992:74).

Well known for their naval stores and often used for building materials, pines – like

oaks – might be found in a variety of settings. Although the function of the recovered woods is uncertain, their presence as widely dispersed and carbonized suggests that for the most part we are looking at the remains of fuel.

Unlike oak, however, pine was not a particularly good firewood. Depending on the species, the heat index ranges from about 77 to 85, but the wood burns quickly and is smoky. In contrast, oak has a heat index of 82 to 92 (Graves 1919:29). The varying quality of firewood has long been recognized. For example, Reese notes, "the heavy and dense woods give the greatest heat, burn the longest, and have the densest charcoal. To the dense woods belong the oak, beech, alder, birch, and elm; to the soft, the fir, the pine of different sorts, larch, linden, willow, and poplar" (Reese 1847:116).

SUMMARY AND CONCLUSIONS

Readers will recall that there were five research goals established for the Shoolbred Old Settlement examination at the West Pasture Site (38CH123). These included examination of the time periods represented by the site, documentation of the plantation structures and their placement on the landscape, comparing and contrasting the data recovered from West Pasture with the other plantation settlements on the island, exploration of the foodways represented by the settlements, and finally, a better understand of the plantation economics. Each of these will be briefly examined here.

Temporal Periods

Figure 58 provides an overview of the dates attributed to the Shoolbred Old Settlement (38CH123), the Shoolbred New Settlement (38CH129), and the Stanyarne Plantation (38CH122). In general, the Old Settlement pre-dates the New Settlement. The Stanyarne Plantation has received the least study and its temporal – much less historical – placement is less certain. However, it appears to have had early slave occupation, certainly consistent with Stanyarne's ownership. The main settlement, however, is far less securely dated and may have post-dated Stanyarne's involvement with Kiawah.

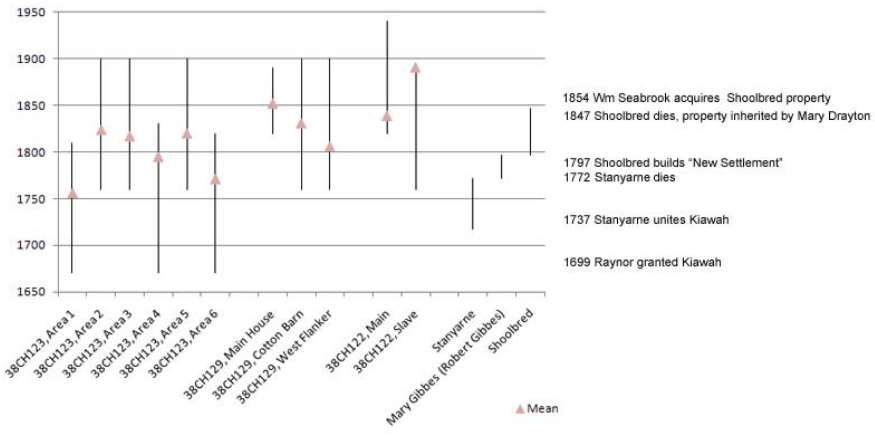

Figure 58. Dating synthesis for major sites on Kiawah Island.

Regardless, three site areas in the Old Settlement, 1, 4, and 6, evidence occupation that may extend back to the earliest occupation of Kiawah, probably by African American cattle tenders under Raynor and likely under Stanyarne.

Five of the studied loci in the Old Settlement – Areas 2, 3, 4, 5, and 6 – indicate that their most intensive occupation occurred between the time of Stanyarne's death and Shoolbred's death. These sites represent the most intensive development of 38CH123 and document the Old Settlement as it was known at the time.

In addition, we note that occupation at many of the Old Settlement areas also begins to decline about the time that Shoolbred weds Mary Gibbes and creates his New Settlement further to the east.

Thus, the settlement on the east bank of Salthouse Creek began during Stanyarne's tenure and perhaps even earlier, but continued to flourish during the first several decades of Shoolbred's ownership. After his New Settlement on the Kiawah River was completed, the Old

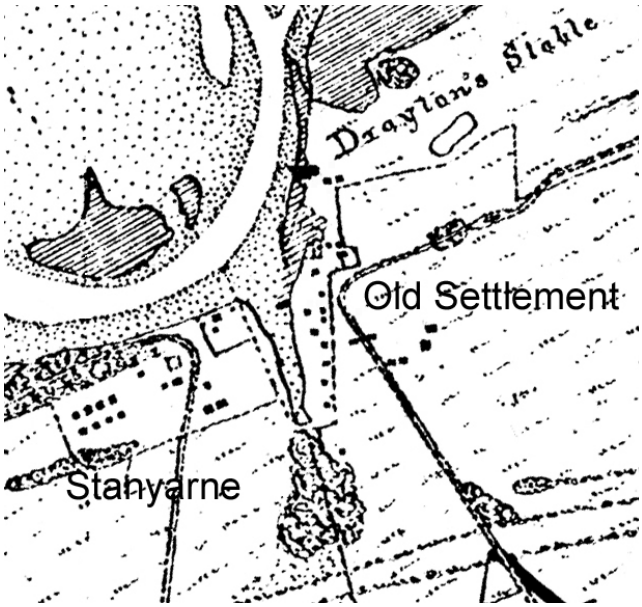

Figure 59. 1854 plan of the Stanyarne and Old Settlements.

Settlement at Salthouse Creek began to wane – although activities certainly continued for at least another few decades.

What is not so clear in Figure 58 is the dating of the main house at 38CH122, known as Stanyarne Plantation. Although the work has been limited in this area, we believe that the early Stanyarne settlement has been largely masked by the later occupation activities of Seabrook and Gibbes (Adams 1993:368-369). Regardless, this settlement is known to have been constructed by at least 1772 and it was likely the location where American troops were entertained by Robert Gibbes on Kiawah during the American Revolution.

Although a relatively small portion of the West Pasture site was examined during this research, the investigations have helped resolve the temporal placement of the site. We are able to confirm the very early importance of this site, with evidence of occupation by at least early 1700s. In addition, we found evidence that the site continued in use well into the twentieth century.

Structures and the Plantation Landscape

The research at Old Settlement identified at least six different structures (identified as B-G; Structure A is a partial prehistoric dwelling). They are briefly outlined in Table 70.

The earliest structure, dating to about 1733, was wood frame constructed on brick piers. Another early structure, dating to 1748 and also in Area 1, was constructed using large posts similar to antebellum slave house construction observed on Daufuski's Haig Point Plantation in Beaufort County.

The two well defined wall trench structures, typical of the "mud huts" associated with the eighteenth century, are found in Areas 3 and 4 and date from the last several decades of the eighteenth century. These structures are similar in size, measuring about 72 square feet. Structure G, from about the same time period, is another frame structure built atop brick piers.

Table 74.
Structures Identified at the Old Settlement

Structure	Date	Type	Size	Orientation
Area 1				
Structure B	1748	posts	unknown	N51°E
Structure C	1733	brick piers	unknown	N5°E
Area 3				
Structure D	1793	wall trench	8x10	N2°W
Area 4				
Structure E	1778	wall trench	8x8	N2°W
Area 5				
Structure F	1814	double pen	15x46	N-S
Area 6				
Structure G	1771	brick piers	unknown	N64°W

The last structure (F)is a double pen slave dwelling characteristic of the antebellum and exhibiting a mean date of 1814. This structure, measuring about 15 by 46 feet, contained two dwellings, each with about 348 square feet – nearly five times larger than the eighteenth century structures.

The structural orientations reveal essentially two orientations. Structures C, D, E, and F are all oriented essentially north-south/east-west. These span the eighteenth and early nineteenth centuries, suggesting that orientations did not change dramatically over time, probably because the structures were tied to relatively stable geographic features – such as the orientation of Salthouse Creek and the road to the east.

Structures B and G are both set at an angle, roughly NE-SW, to the other structures. It is unknown why these structures took a distinctly different orientation, although this arrangement seems to mirror that of the Stanyarne Settlement to the west of Salthouse Creek.

In spite of the number of structures identified, it remains regrettable that not all were fully exposed. It is also regrettable that with all of the maps available showing this settlement it was not possible to do yet more work and attempt to examine all of the structures. Such an effort would have allowed a far more comprehensive statement to be made regarding the structures present in this settlement.

What we can say is that the settlement appears, throughout time, to have been largely used by enslaved African Americans. Structures were built, repaired, and replaced. Different architectural designs were used, based perhaps on skill, needs, or the design of the owner. What is most noticeable, however, is that a variety of architectural designs co-existed on the plantation. This defies the simplistic view of the plantation as a well-planned, cohesive, and consistent landscape.

The existence of several different styles may be nothing more than convenience. On the other hand, Shoolbred, with his strong English ties, may have been impacted by the 1772 declaration that made slavery illegal in England and the 1807 Abolition of Slave Trade Act subsequently enacted by England. In fact, prior to Shoolbred's death in 1847 England had enacted treaties with virtually every major slaving nation to end the trade.

Shoolbred's Old Settlement in Context

We hoped that the investigations at 38CH123 would add a dimension to our studies on Kiawah that had otherwise been missing – an understanding of slave lifeways. Research at the Shoolbred New Settlement provided main house, flanker, and cotton barn data. From the Vanderhorst site we were able to develop extensive data on the main house and kitchen, although some minor data was available for slaves. At the Stanyarne settlement we had data from another main settlement. The slave settlement at this location, however, was occupied into the twentieth century and provided little information on colonial or antebellum slave lifeways. Thus, the Shoolbred Old Settlement was our best hope to study Kiawah's slaves. Fortunately, this goal was met.

Table 50 in this study provides a detailed look at artifact patterns. Figure 60 here shows these patterns graphically. The individual areas reveal considerable variation (and variation beyond the range of the Carolina Slave Pattern, associated with eighteenth century

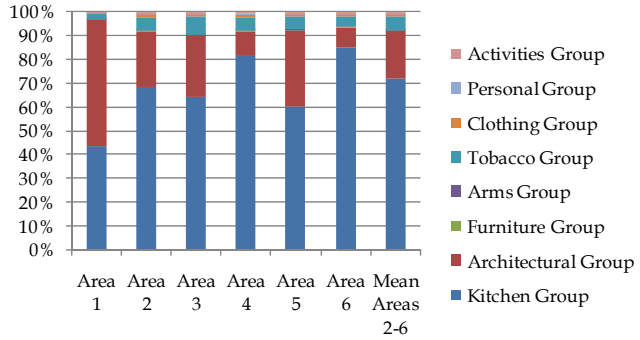

Figure 60. Artifact pattern comparison of Areas 1-6.

slave dwellings). Yet when we consider the mean of Areas 2-6 (with Area 1 excluded since it represents a midden, rather than debris from a specific, known structure), we find that the pattern is a close fit to the Carolina Slave Pattern. It appears that while individual areas may represent variations, taken together the site neatly matches our expectations.

What remains curious is that we find nothing matching the Georgia Slave Artifact Pattern, which is thought to represent nineteenth century slave assemblages where there are an abundance of architecturally related items resulting from more substantial architecture. It seems reasonable that we would see a match with the remains from Area 5 or 6 where there is substantial architectural evidence. Yet there is no match and even these areas far more closely resemble the Carolina Slave Artifact Pattern.

One explanation is that in spite of these patterns working successfully at hundreds of sites, they are fundamentally flawed. Perhaps, however, the problem lies not with the pattern, but rather with the site data. It may be that the dense and prolonged occupation of 38CH123 has resulted in an assemblage that is dominated by the earlier settlements.

Some of these concerns have been indicated in Figure 38, a scatter plot of architecture and kitchen percentages for each of the areas, combined with the Revised Carolina Artifact Pattern and the Carolina Slave Artifact Pattern. It reveals that Area 1, perhaps representing an overseer or some other anomalous settlement, is clearly distinct.

Examining status we found nothing unexpected. Vessel forms in all areas are remarkably similar. Hollow wares, associated with one-pot meals or stews, dominate all of the collections. In general, inexpensive motifs (plain and annular, for example) are more common than expensive motifs (such as transfer printed or hand painted) in each area and across wares (or time). Miller's indices are similarly indicative of relatively inexpensive wares throughout the assemblage and over time.

Thus, although the differences between the areas may attract our attention, overall there are far more similarities among the individual structures than there are differences. The Kiawah slaves received hollow ware vessels – bowls primarily – that would have been suitable for one-pot meals. While there is some indication that vessels were discarded off the master's table, in general the motifs were inexpensive. This suggests that Stanyarne, and Shoolbred after him, acquired ceramics in lots for distribution to the slaves on their plantation.

What does stand out is that colono ware pottery, here and at other Kiawah sites, is very uncommon. This is in contrast to many eighteenth century sites (see, for example, Trinkley et al. 1995 for Broomhall Plantation; Trinkley et al. 2003 for the Crowfield slave settlement; or Trinkley et al. 2008 for the Mullet Hall Plantation immediately across the Kiawah River on Johns Island). Perhaps the best explanation is the isolation of Kiawah – making it difficult for African Americans to either import the finished product or acquire the clay thought necessary.

The Old Settlement data provides information on other aspects of slave life, including magic or spiritualism, as well as clothing.

We continue to view a broad range of artifacts as just as likely to represent evidence of religious activities as they are to be simply scavenged trash. In this category we place the few window glass fragments found at structures that surely did not possess windows; the fragments of mica and orange translucent stone; as well as the small handful of brass nails and other brass scraps.

Even in the seemingly "secular" category of clothing these investigations

document a range of beads that are often associated with magical powers.

Foodways

The ethnobotanical analysis revealed no great surprises – corn was present, as were peaches. Both were staples of eighteenth and nineteenth century plantations.

Also present were greens, such as purslane and mustard or rape. Whit (2007:48) notes that spinach and mustard greens both came with the slaves from Africa. There is also evidence that while owners focused on the roots of plants such as turnips, African American slaves would consume the tops or leaves (see, for example, the plantation journal of Thomas B. Chaplin in Rosengarten 1987:519). Purslane has the additional benefit as serving as a thickener.

Such plants, however, are noted not only from historical accounts, but also from a variety of archaeological contexts.

Regardless, the ethnobotanical work continues to demonstrate that the archaeological record can make contributions, however small, to our understanding of African American foodways. The limitations we see and have seen are more the result of limited sampling and examination of contexts that are less than ideal than an indication that plant foods are not represented.

Examining the faunal remains we find that the collection is dominated by cattle, representing 49% of the site's biomass. Pig, in spite of its reputation as a dietary staple, was far less common, accounting for only 9.6% of the collection's biomass. In contrast, deer and raccoon contributed 9.5% of the site's biomass. When rabbit and opossum are added, the contribution of wild animals exceeds that of the pig (but doesn't approach that of cattle). Birds, reptiles, and fish, while present, appear to have been minor dietary contributors.

When this pattern is compared to those suggested by Elizabeth Reitz the closest match is that of urban sites, which reveal a significant dependence on domestic and wild mammals. Reitz's patterns for both rural sites and especially slave sites, with their high dependence on domestic birds and fish, are a very poor match for the Old Settlement.

Of course, as illustrated by Poulos and Hogue in this volume, Reitz's patterns have not been an especially good match for many of the plantation studies conducted in the past decade. While some discrepancies may be the result of different sampling techniques, there may also be considerably more variability in slave foodways than previously thought. This is certainly supported by Table 54 in which Poulos and Hogue compare the different areas within the Shoolbred Old Settlement. It may be time to revisit these dietary patterns and see if revisions are appropriate.

If the specific cuts of meat present are examined for each of the areas, we see that better cuts of beef were identified with only Areas 2 and 5. Area 5 produced a double pen structure and the better cuts here may be associated with an improved antebellum diet. It may be that improvements in housing were associated with improvements in diet. Area 2, on the other hand, is anomalous. There were no architectural features here and the materials recovered are from a dense midden reflecting plantation trash. Thus, it is impossible to associate this particular area with any group or condition.

Plantation Economics

Perhaps our most optimistic goal was to gain more knowledge concerning the plantation's economics through time. This goal was largely generated by the unfortunate dearth of information concerning the activities of either Stanyarne or Shoolbred, since neither has produced journals or account books specific to the Kiawah property.

Little in this area has been generated by our research. It may have been unreasonable to expect a predominately slave occupied settlement to provide definitive economic indicators.

The very early indications for occupation at 38CH123 do support that the earliest historic occupants on the island *may* have been cattle tenders, but we are able to provide no definitive evidence. We were also unsuccessful in recovering artifacts that might definitively be associated with indigo, rice, or cotton.

However, we see no evidence of contraction, no decline in the quality of faunal resources, or reduction in the quality of ceramics that might indicate any significant economic downturn during the American Revolution or as ownership shifted from the Stanyarne family to Shoolbred. In contrast to the continual decline of the Vanderhorst enterprises (Trinkley 1993b), the Shoolbred plantation seems – at least based on these data – to have been relatively stable.

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