# INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION, CHARLESTON COUNTY, SOUTH CAROLINA





**CHICORA FOUNDATION RESEARCH SERIES 71** 

# INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION, CHARLESTON COUNTY, SOUTH CAROLINA

**Research Series 71** 

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There are seven sins in the world: Wealth without work, pleasure without conscience, knowledge without character, commerce without morality, science without humanity, worship without sacrifice, and politics without principle.

-- Mohandas K. Gandhi

# ABSTRACT

This document reports on data recovery excavations conducted by Chicora Foundation for Special Properties of Charleston, SC at archaeological site 38CH2091, a late eighteenth century plantation complex, under an existing Office of Ocean and Coastal Resources Management (OCRM) Memorandum of Agreement (MOA). The work was based on a data recovery plan submitted by Chicora archaeologists in 2007.

Previous archaeological investigations included an intensive cultural resources survey, as well as close interval testing. This work revealed the presence of three probable structures, based on discrete brick piles, dating from at least the last quarter of the eighteenth through the first quarter of the nineteenth century. Historical research for the property was ambiguous at the survey and testing stage, confounded by an absence of plats and the failure to identify meaningful property descriptions. St. Paul's Parish, however, was known for its abundant, and wealthy eighteenth century inland swamp rice cultivation. This practice, however, was largely abandoned after the American Revolution and vast tracts sat largely idle through the nineteenth century.

The data recovery investigations included black excavations, followed by careful mechanical stripping to further explore the architectural remains. Although not specified by the data recovery plans, these field investigations were coupled with additional historical research.

The field work identified a main house, probably constructed about 1750-1760 that measured about 43 by 23 feet, with a south facing entrance. Along the north exterior wall were two chimneys. The structure had a footprint of about 989 square feet and was one story, slightly raised, with its roofline probably containing additional occupied spaces. This structure is a type that was likely common, but which not been well documented.

The second structure identified was a kitchen and probable wash house, evidenced with a central double (back-to-back) chimney.

The third structure was a later, nineteenth century, slave structure, probably providing housing for house slaves.

Artifact recovery was excellent, with the excavations producing a wide range of architectural, kitchen, and other specimens. Features are not abundant and we discovered that the southern portion of the site had been cultivated in the past.

Additional historical research reveals the plantation, possibly known as Richmond Hill, was likely occupied, at least in the late eighteenth and early nineteenth centuries, by the Sommers family. Thus far, we have been unable to identify much about this family or their activities. The archaeological collection, therefore, are of special importance in exploring the lifeways of St. Paul's Parish planters during the height of tidal rice cultivation in the eighteenth century.

# TABLE OF CONTENTS

List of Figures		v
List of Tables		vii
Introduction		1
Background	1	
Research Questions	3	
Proposed Data Recovery	4	
The Natural Setting	5	
Curation	10	
Historical Overview		11
Eighteenth Century	11	
Nineteenth Century	15	
Twentieth Century	17	
Excavations		25
Mathode	25	25
Nethous Results of Exceptions and Strimping	23	
Auditsolunal Domaina	27	
Architecturul Kemains	33	
Analysis		39
Methods	39	
Kitchen	42	
Main House	49	
Slave Structure	55	
The Faunal Analysis S. Homes Hogue and Mari K. Poulos		67
Introduction	67	
Methods	67	
Identified Fauna	69	
Results	75	
Conclusions	79	
Ethnobotanical Analysis		81
Introduction	81	
Procedures and Results	82	
Discussion	83	
	00	
Summary and Conclusions		85
Research Design	85	
Historical Research	85	
Architectural Findings	86	
Archaeological Assemblage	87	

Future Research

Sources Cited

89

91

# LIST OF FIGURES

Figu	ıre	
Ĭ.	Portion of the USGS Ravenel topographic map showing the site area	1
2.	Sketch plan of the site	2
3.	Area of brick pile 1	3
4.	Soils found in the vicinity of 38CH2091	6
5.	Aerial photo from 1949 showing the site area	10
6.	Ilfracombe, England	11
7.	Portion of Mouzon's An Accurate Map of North and South Carolina	12
8.	Portion of Mills' 1826 Atlas showing the vicinity of the Sommers' settlement	13
9.	Preliminary family tree of the Sommers family	14
10.	Portion of Map of Charleston and its Defenses, 1863	16
11.	Taylor plat showing the study parcel	18
12.	1912 Simons and Mayrant plat	19
13.	Portion of the Kollock Property Map	20
14.	1973 plat of the study parcel	20
15.	Acreage valuation in the 1824 tax returns	21
16.	Topographic map of 38CH2091	26
17.	Stripping using a Bobcat	27
18.	Chimney exposes in the western brick mound	28
19.	Feature 1 before excavation	28
20.	Plan and profiles of the kitchen excavations	29
21.	Profiles for Features 1, 3, and 4	29
22.	Brick wall fall in the south profile of 105R250	30
23.	Plan and profile of excavations at the main house	31
24.	North wall of the eastern structure (main house)	32
25.	Brick fire box in the southern mound (slave structure)	32
26.	Plan and profile of excavation at the slave structure	33
27.	Plantation kitchen fireplace	35
28.	Comparison of fireplace sizes for kitchen and laundry/wash house	36
28.	Function of nails from the kitchen area	45
29.	Function of nails from the main house area	51
30.	Function of nails from the slave structure	58
31.	Kitchen group artifacts	61
32.	Kitchen group artifacts	62
33.	Kitchen group artifacts	63
34.	Kitchen, architecture, and activity group artifacts	64
35.	Arms, clothing, and personal group artifacts	65
36.	Comparison of faunal patterns	77
37.	Log graphs of cattle, pig, and deer segments	78
38.	Miller's ceramic indices for 37 archaeological assemblages	89

# LIST OF TABLES

Tab	le	
1.	Comparison of the 1860 agricultural census data	22
2.	Brick and shell weights	27
3.	Brick sizes and colors	36
4.	Artifacts recovered from the kitchen area	43
5.	Buttons recovered in the kitchen area	46
6.	Mean ceramic date for the kitchen area	47
7.	Artifact pattern comparison for the kitchen	47
8.	Vessel forms in the kitchen	48
9.	Proportion of motifs in the kitchen assemblage	48
10.	Miller's ceramic indices for the kitchen	49
11.	Artifacts recovered from the main house area	50
12.	Buttons recovered from the main house excavations	52
13.	Mean ceramic date for the main house collection	54
14.	Artifact pattern comparison for the main house	54
15.	Vessel forms at the main house	55
16.	Proportion of the motifs in the main house assemblage	55
17.	Miller's ceramic indices for the main house	56
18.	Artifacts recovered from the slave house area	57
19.	Mean ceramic date for the slave structure	58
20.	Artifact pattern of the slave house	59
21.	Vessel forms at the slave structure	59
22.	Proportion of motifs in the main house assemblage	60
23.	Miller's indices for the slave structure	60
24.	Faunal identification for 38CH2091	70
25.	Faunal identification for kitchen units	71
26.	Faunal identification for the main house	72
27.	Faunal identification for the slave house unit	73
28.	Faunal identification for stripping	73
29.	Bone modifications by area	77
30.	Analysis of hand-picked samples	82
31.	Comparison of dates derived from the 38CH2091 collections	87
32.	Comparison of artifact patterns	87
33.	Status indicators for 38CH2091	88

# INTRODUCTION

#### **Background**

St. Paul's Parish, created by the 1706 Church Act, included about 5701 square miles (364,800 acres) bordered to the west by the Edisto River and to the east by the Stono. It included the islands of Edisto, Seabrook, Johns, Wadmalaw, and Kiawah. After 1734, however, these islands were struck off (becoming St. John Colleton Parish) and St. Paul's was reduced to 320 square miles. It laid between St. George Dorchester to the northeast and St. Bartholomew Parish to the southwest. Site 38CH2091 was first encountered during a 2006 survey (Trinkley and Southerland 2006). Situated in Charleston County north of US 17, the site was found on a ridge or bluff overlooking lowlands that gradually give way to old rice fields that are today called Caw Caw Swamp (Figure 1). Elevations in the site area are about 30-40 feet above mean sea level (AMSL).

The site was encountered in shovel testing, with 42% of the 168 shovel tests (primarily at 50 foot intervals) positive for either



area.



artifacts or brick rubble. The site was found to contain late eighteenth to early nineteenth century domestic materials, producing almost 140 artifacts (representative of Kitchen, Architecture, Clothing, and Activities groups) and three brick piles (thought to represent three structures).

Additional close interval shovel testing was conducted later that same year to further define the site and determine eligibility. The size of the site, however, stayed consistent with the Phase I testing of 500 feet north-south by 375 feet east-west (Figure 2). In addition to the shovel testing, this second phase of testing also included the excavation of 10 1.5 foot units to provide additional information on soil profiles and artifact density. These test units focused on the three brick piles identified during the initial survey.

A mean ceramic date (MCD) calculated from the test units at each of the three brick piles, revealed that brick piles 1 and generally were 2 contemporary, with brick pile 1 having a MCD of 1786 and brick pile 2 having a MCD of 1798.6. Brick pile 3, however, exhibited a MCD of 1821.5. Taken together, the MCD for the site (using all artifacts from shovel testing and test units) was found to 1797.3 (Southerland and Trinkley 2006).

Brick pile 1 was the largest scatter, extending almost 30 feet. No intact brick was found and three of the four test units (TU 1, TU 2, and TU 9) produced a layer of very dark grayish brown (10YR3/2) sand, representing a burn layer. Burned artifacts and melted

glass were recovered from several of the test units.

Brick pile 2, to the west, appeared smaller, with the brick more scattered. Subsequent examinations (with the area cleared of underbrush) suggested the presence of two or three small piles. A burn layer was not recognized in the three test units placed in this area (TU 3, TU 4, and TU 8).

Brick pile 3 was a small (and low density) brick scatter compared to the first two loci. In addition, artifacts were less abundant with three test units (TU 5, TU 6, and TU 7) producing less than 20 specimens each.



The 540 artifacts recovered from the initial studies yielded an artifact pattern most reminiscent of the Revised Carolina Artifact Pattern (Garrow 1982) characteristic of British-American occupants during the late colonial and early antebellum. There were, however, also some similarities to an eighteenth century overseer's site in Berkeley County (Trinkley et al. 2003).

The analysis of the ceramics from the testing phase also revealed conflicting data. Flat wares dominated the collection – suggestive of a wealthier individual. The decorations, however, suggested more modest means, being dominated by plain, annular, and edged examples. Curiously, in spite of the generally early dates for the site, no Colono ware (a low fired pottery associated with slave manufacture) was encountered in the testing phase.

Confronted with ambiguous remains, often the historic documentation will help resolve some of the conflicts. This was not the case at 38CH2091. We can speculate that the occupants of the plantation were almost certainly associated with upland rice cultivation (for which a detailed context has been previously developed, see Trinkley et al. 2003:13-41), but at this juncture little more can be said. Although there are indications that the plantation might be Richmond Hill, this is a name that fails to show up in secondary accounts for the region.

In fact, the St. Paul's Parish is largely unstudied. By the early antebellum many of the plantations were largely devalued by the decline in upland swamp rice cultivation and land in this part of South Carolina had little value. Chaplin, for example, notes "Saint Paul Parish, South Carolina, had an estimated 128 settled inland rice swamp plantations at

the time of the Revolution, but only 8 in the antebellum period once tidal estates proliferated" (Chaplin 1993:243). Ruffin had little to say about the region, other than noting, "the ride of this day has been mostly through a poor country, almost abandoned" (Mathew 1992:121).

As a result of the study, the site was recommended eligible for inclusion on the National Register of Historic Places under Criterion D, information potential. This evaluation was accepted by the State Historic Preservation Office (SHPO) (letter from Mr. Chuck Cantley, SHPO, dated December 14, 2006). A Memorandum of Agreement was signed with the SHPO and the Office of Ocean and Coastal Resource Management (OCRM) for data recovery at the site. A data recovery plan was submitted to the SHPO and accepted in 2007.

#### **Research Questions**

The National Register assessment of the site and the subsequent MOA Data Recovery Plan was predicated on the assumption that 38CH2091 represented that of an overseer, with an initial structure burned during the Revolution and rebuilt nearby afterwards. Thus the initial focus was to examine this hypothesis, with special attention on the identification of an additional overseer resource and comparison of these data to those obtained from Liberty Hall (Trinkley et al. 2003) and Belle Hall (Trinkley et al. 2005).

We observed that the latter study incorporated an extensive review and context development for eighteenth century overseers in South Carolina. To this could be added the research by Wiethoff (2006), although his focus is on the antebellum. We commented that these studies provide a good overview of artifacts and artifact patterns, as well as additional information on architectural expectations. The historical research would provide a context in which to evaluate the findings.

We recognized that field investigations would need to focus on two issues: the collection of a representative collection and the evaluation of architectural remains. While artifacts tend to be densest in the vicinity of the brick piles, these piles may only represent one aspect of the site's architecture (for example a brick chimney fall).

As a result, we hoped to explore a variety of areas – balancing artifact density (and good recovery) with obtaining a sample that would provide the opportunity to explore intrasite variation, should it exist. It would also be necessary to ensure that the excavations are able to address architectural issues, such as structure design, complexity, and components.

We also recognized the importance of exploring the relationship of brick piles 1 and 2 – do they represent the same structure (for example end chimneys on a structure larger than anticipated) or perhaps two discrete structures (perhaps a house and utility building)?

Finally, our data recovery plan observed that brick pile 3, both later in time and isolated

on the southern site edge, while deserving of some attention, was likely not to be the key to the understanding of the site's form and function. Thus, it was to receive considerably less attention than the other two areas. Similarly, although prehistoric remains were present, they were determined not to represent a contributing resource.

Data sets recognized through the testing phase included both floral and faunal remains. Therefore, we anticipated the need for both some level of zoorchaeological and ethnobotanical analysis.

Our data recovery plan did not allow for additional historical research since we felt that the previous efforts had likely exhausted available sources.

#### **Proposed Data Recovery**

#### **Field Investigations**

We proposed to immediately begin block excavations, since the 25-foot interval shovel testing provided good site definition. We initially noted that since structural excavations typically produce very large (at times overwhelming) collections of architectural remains (window glass and nails), we would do no more structural excavations than necessary to obtain a sample of materials and identify structure size and organization. Since we believed the structures to be relatively small, we anticipated no more than about 150 ft<sup>2</sup> per area would be required – for a total of 300 ft<sup>2</sup>. Given the relatively late date for brick pile 3, we proposed no more than 50-100 ft<sup>2</sup> in that area.

Once these excavations were completed, we intended to turn to yard and near-house areas, where it might be possible to collect samples representative of trash disposal practices – these remains would better help define the class of the occupants and their life style. Yard excavation areas might also provide better faunal samples. We anticipated a combined total of 300 square feet of yard excavation at brick piles 1 and 2.

Identified features would be plotted and investigated. The extent of excavation will depend on the nature of the feature and the materials recovered. Some might be excavated in their entirety, others might only be sampled. Five-gallon flotation samples would be taken of features that have dark, organic soils indicating the potential for the recovery of floral remains.

With the completion of these studies, we then proposed to strip in cardinal directions from the excavation blocks to expose additional area, allowing for the documentation of features or activity areas that might not have been identified in the controlled excavations.

The data recovery investigations were conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Phineas Deford of Special Properties in Charleston, South Carolina. The field studies were conducted from February 18 through March 18, 2008 with a crew of four archaeologists (Lauren Crosby, Ashley Guba, Cynthia Wyland, and Nicole Southerland), plus the Principal Investigator (who was on-site throughout the project). Additional assistance provided by Chicora's Laboratory was Supervisor, Debi Hacker. A total of 564 person hours were spent in the field.

#### 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 nearby Wadmalaw and Johns islands), 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 (about 11 miles to the east of 38CH2091), 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. Within a half mile of the site is the Caw Caw Swamp. Within a mile to the south is a small slough feeding the swamp, and within 1.5 miles is also Middle Branch. Caw Caw is a fresh water swamp with bottomland hardwood forests. Historically these flat swamps were cleared for rice cultivation. Today, those fields are still seen as remnant ditches and dikes that run through the swamp woods. At the north edge of the property there is a substantial dike that probably marked the edge of the high ground and held back the flooded fields. Toward the Stono River to the east there are brackish and salt marshes that would have been unsuitable for rice cultivation.

The site is found at an elevation ranging from about 35 to 40 feet AMSL on the edge of a terrace or bluff. The topography slopes to the north into Caw Caw Swamp and the old rice fields. To the south, elevations remain relatively high. Thus the settlement is in a prime location – on high ground, but in close proximity to the source of the owner's wealth.

#### **Geology and Soils**

Coastal Plain geological formations are unconsolidated sedimentary deposits of very recent age (Pleistocene and Holocene) lying unconformably on ancient crystalline rocks (Cooke 1936; Miller 1971:74). The Pleistocene sediments are organized into topographically distinct, but lithologically similar, geomorphic units, or terraces, parallel to the coast. The vicinity of 38CH2091 is classified by Cooke (1936) as part of the Pamlico Terrace and Formation (Late-Pleistocene surface), with elevations about 25 feet MSL and Talbot Terrace, with elevations about 42 feet AMSL.



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. This is part of what has been called the Atlantic Coast Flatwoods – a flat coastal strip that Hilliard notes, "was seldom well enough drained for most crops" (Hilliard 1984:11). Herein lies a paradox. The Charleston coast – and vicinity of 38CH2091 – has a climate that is excellent for agriculture. It has adequate rainfall, a summer growing season capable of producing two crops, and a mild winter season which supports crops such as Irish potatoes and peas. Yet the soils have generally low fertility and are poorly drained. Henderson and Smith note,

The favorable climate permits successful production of a variety of crops, even though many of the soils are inherently of low productivity. This fact tends to lessen the significance of soil differences and increases the importance of good soil management (Henderson and Smith 1957:596).

> Unfortunately, planters did not focus on soil management and it was limited to the use of marsh soils as compost or fertilizer for crops such as cotton (Hammond 1884:510). Allston also

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 38CH2091 we see that it is situated on a ridge of Lakeland sands situated between Rutlege loamy fine sands to the north and Chipley loamy fine sands to the south. The Lakeland soils are very deep, excessively drained soils on uplands that are rapidly permeable. They were formed in thick beds of eolian or marine sand and the depth to a seasonal water table is more than 80 inches. The soils have an A horizon that is up to 0.3 foot in depth and is a very dark grayish brown (10YR3/2) crushed and rubbed sand. Below is a C horizon of yellowish brown (10YR5/4) sand.

In contrast the Rutlege soils are very poorly drained and exhibit a seasonal water table within 0.5 foot of the surface. Their A horizon may be 1.4 foot in depth and will consist of black (10YR2/1) sands. Although Rutlege soils are permeable, run-off is negligible and the soils are typically found in depressions, flats, and floodplains – such as Caw Caw Swamp. The Chipley Series are also deep, somewhat poorly drained, and may have a seasonal water table within 1.5 to 3.0 feet of the surface. The soils are found on the uplands and while they are permeable, their A horizons are a very dark gray (10YR3/1) sand, indicating considerable oxidation.

Even plants such as indigo 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).

Thus, the settlement is situated on the highest and best drained soils. The Rutlege soils to the north would have supported rice, while the Chipley soils to the south would have supported agriculture only with drainage and mounding crops. While some crops might have been planted on the Lakeland soils around the settlement, these soils can become droughty if there is inadequate rainfall.

#### 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. Ravenel'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 for the area in August is 96°F, although temperatures may be much higher. 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).

The inland swamp areas normally experience a high relative humidity (RH), adding greatly to the discomfort. Pringle remarked in 1742 that guns "sufferr'd with the Rust by Lying so Long here, & which affects any Kind of Iron Ware, much more in this Climate than in Europe" (Edgar 1972:465).

The annual rainfall in the Ravenel area is 34 inches, fairly evenly spaced over the year. While adequate for most crops, there may be periods of both excessive rain and drought, with the latter causing 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 294 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. rank luxuriance The 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 the extensive, 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

As mentioned previously, the site is situated in the Atlantic Coast Flatwoods. Cypress, blackgum, and tupelo were historically abundant on the poorly drained swamplands, while sweetgum, white oak, water oak, ash, and occasionally loblolly pine were found the better drained alluvial river bottom areas. These same hardwoods competed with loblolly pine on the poorly drained flatwoods and on dry ridges longleaf pine was a common species (Ellerbe 1974:18). Küchler (1964:111) broadly defines the area's potential natural vegetation as an oakhickory-pine forest characterized by medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees. Mills, in the early nineteenth century, remarked that:

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

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

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

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



Figure 5. Aerial photo from 1949 shows that much of the site was under cultivation, with many fallow fields surrounding it.

The estuarine ecosystem can be found closer to the coast and while they are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind, shellfish can be found in the upper reaches of Toogoodoo Creek, about 4 miles from 38CH2091. 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).

In closer proximity 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 10 ecosystems tend to be diverse, although not well studied (Sandifer et al. 1980:295). 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 importance particular to the prehistoric occupants, although they may also have been exploited by the plantation's African American community.

As suggested by the historic accounts, we know that much of the site area was cleared and cultivated during at least the twentieth century (Figure 5).

#### **Curation**

An updated site form reflecting this work has been filed with the South Carolina Institute of Archaeology and Anthropology (SCIAA). The field notes and artifacts from Chicora's data recovery at 38CH2091 will be curated at SCIAA. The artifacts have been cataloged cleaned and following that institution's provenience system. All original records and duplicate records will be provided to the curatorial facility on pH neutral, alkaline buffered paper. Photographic documentation is entirely digital. Copies of all photographs will be provided as tiff images to SCIAA.

# HISTORICAL OVERVIEW

The historical overview of the tract was confounded by an early twentieth century amalgamation of parcels with no good verbal descriptions, combined with an absence of useful plats. As a result, we have found little historic documentation to help us interpret the archaeological data – making the concern that archaeology serves as the handmaiden of history a rather moot discussion, at least for this particular site (e.g. Noël Hume 1964).

What we present below is pieced together using a variety of sources and often a fair amount of conjecture. It is, however, the best synthesis available for this interesting St. Paul Parish plantation.

#### **Eighteenth Century**

The earliest owner we have identified Sommers was Iames (variously spelled Somers and Summers). Whether he ever lived in Charleston is uncertain and we have been unable to identify his acquisition of the property. We believe that he died in England, being buried on April 3, 1792 in Bath (International Genealogical Index, File 183509, pg. 564). We have no information concerning his birth or marriage.

We do know that his brother, George Sommers (1700-1777), lived in Charleston and left at least half of his St. Pauls Parish property to his wife, Henrietta for her life, then to his brother, James in his will written in 1767 (what became of the remainder of the property is uncertain). A plan of Sommers lands shows that Sommers Hall was owned by George Sommers.

To the southwest was Golden Grove, owned by (discussed John Sommers below) and surrounded by the lands of Humphry Sommers to the north and south (South Carolina Historical Society, plat 32-35-10). We also know that he owned at least 181 slaves and a schooner (Edgar and Bailey 1977:648). These plantations appear to include what were called Lower Plantation and pine lands (Charleston Co. WB 17, pg. 600). During his lifetime George Sommers gave "two silver alms dishes" to St. Michaels in 1764 (Williams 1951:177). His residence in Charleston, constructed about 1755, was at 43 East Bay Street (Poston 1997:92-93).

Circumstantial evidence points to Humphry Sommers, also of Ilfredcombem (or Ilfracombe) (Figure 6), being a third brother. Edgar and Bailey (1977:649) indicate he operated



a 1,500 acre plantation in St. Paul with 90 slaves (as well as another in St. George Dorchester),



dying in December 1788. A 1790-91 plat shows his St. Paul property surrounding Golden Grove and Sommers Hall to the north and south (South Carolina Historical Society, plat 32-35-10). He is also known as one of the primary subcontractors for the construction of St. Michaels (Williams 1951:141, 149).

Our limited knowledge of James Sommers comes from his will, dated December 8, 1786 and proved July 23, 1792. He is described as a gentleman of Ilfredcombe, County of Devonshire (National Archives, Kew, Richmond, Surrey, England, PROB 11/1211; Charleston County WB 24, p. 1166-1172).

Ilfredcombe, today known as Ilfracombe, is a small seaside community on the Bristol Channel in North Devon. It has a long maritime history, being the location of the longest operating lighthouse in England. It appears that Sommers made a considerable fortune in shipping, with his will listing the ship, *Martha* and four sloops, *Damar, Henrietta*, *Blessing*, and *Success*.

The will reveals that James Sommers left a number of legacies to his children and grandchildren. Most of his wealth, however, was devised to his son, John Sommers. The will described the estate as including, "Mefauages,

Tenements, dwell Houses, Lotts of Land, plantations, Negroes and Stock, and the profits and produce thereof situate lying and being in the City of Charleston and parish of Saint Paul's or elsewhere."

James Sommers' inventory was taken on February 20, 1793 by Thomas Roper, Thomas Farr, and Joseph Farr – all neighbors (Charleston County Inventories, Book C, p. 47). The largest holding was the 94 slaves, including Abraham, a driver; Quash

and Young Henry, coopers; and John and Guy, carpenters. We see a cross section of a slave community, with ages ranging from Cain ("old and ruptured") through children. Other plantation goods included 50 head of cattle, 11 working oxen, poultry, hogs, corn, peas, and rough rice (paddy rice; rice harvested but not yet winnowed). Unfortunately, no household goods were inventoried (although this can't be used to argue that no house was present).

The only other information we have identified on James Sommers is a November 20, 1752 public notice in the *South Carolina Gazette* that announced Sommers (among others) had failed to appear for jury duty in the Court of Common Pleas and was being fined £10. Thus James Sommers must have been in the Colony for at least a few years. It seems likely that James Sommers made periodic trips to England, since in 1768 he was returning to Charleston from Bristol (*South Carolina and American Gazette*, July 29, 1768).

Our knowledge of John Sommers is little better. It is reported (Ancestry.com OneWorld Tree) that he was born in Charleston in 1750 – indicating that his father, James Sommers, was still in the colony at that time.

John married Martha N.S. Roper, daughter of William Roper and Grace Hext, on June 22, 1772 in Charleston (Holcomb 1995:39). They had five children: James, John Withingham, Henrietta (also spelled Henretta, Harrietta), Mary, and Sarah.

John appears to have been a successful planter in his own right, being granted 1,500 acres in 1774 on Ferguson's Creek in nearby St. John's Berkeley (SCDAH, Colonial Grants, v. 31, pg. 166; Colonial Plats, v. 21, pg. 213). He appears to have also owned a tract in St. Andrews Parish (SCDAH, McCrady Plat 5872). He provided the South Carolina government with several loans, totaling over £200 sterling (SCDAH Account Audited, File 7204A).

The 1790 federal census listed John Sommers as residing in Charleston (St. Phillips and St. Michaels Parish). His household included himself, three females (all over 16 and likely including his wife, Martha, his daughters and Mary). Henrietta and There was only one slave living with the family.

John Sommers died in 1790, predeceasing his father by several years. His will, dated April 6, 1790, was proved April 15, 1790 and left his wife, Martha, a life interest in

his St. Paul Parish plantation, Golden Grove (Charleston County WB 23, pg. 631). Thereafter he left the Golden Grove tract and several "pine barrens" to his son, James. His St. George Parish tract, Goldings, was left to his other son, John Withingham. John W. was also to inherit Golden

Grove should James not live to the age of 21. Another plantation, Beach Hill, was to be sold.

We know that the sale of the Beach Hill properties was accomplished, with the deed to William Eckells by Edward Perry, Executor of John Sommers, recorded in June 1791 (Charleston County RMC, DB A7, pg. 390).

The 1790 Charleston City Directory, apparently compiled after John's death, lists Martha Sommers living at 1 East Bay.

In 1795 James Sommers' estate (which one is uncertain) was being looked after by A. Tunno, who signed a petition to the legislature concerning the failure to maintain drains and water passages in Caw Caw Swamp along with nine other St. Paul planters (John Boyle; J. Fram; B. Ferguson; John H. Ferguson; William C. Ferguson; Philip Gadsden for Mrs. Anne



Ferguson; Christopher Gadsden, Exec. For Thomas Ferguson; [ ] Maxwell; and Thomas Roper). The petition complained that the commission established to cut the drains had delegated the work to disinterested parties and, as a result, drains had been "partially carried on in various directions," serving to "frustrate



rather than fulfill" the ordinance. They complained that, "it is to this ill-fated cause several of our most valuable plantations are now abandoned by their proprietors, who have forsaken them not with the design of entering upon the culture of more luxuriant soils, but of such as promise to be less hazardous" (SCDAH, Petitions to the General Assembly, 1795, item 112).

We also find Martha Sommers in 1798 being sued by James and Alexander Fraser Gregorie (James Gregorie and Son, merchants at 117 Broad Street in Charleston) for two years of unpaid accounts. During 1793 and 1794 Martha Sommers had charged over £106. Items purchased include a variety of sewing items (needles, thread, ribbon, tape, and fabric), as well as hats, seal skin gloves, black silk gloves, white kid gloves, a tortoise shell comb, sad irons, paper, slippers, and brooms. Also purchased were a variety of herbs, including chamomile flowers, rhubarb, hawthorn, and British oil. This last material was processed bitumen, sold as a remedy for "rheumatic and scorbutic affections."

John had directed that Martha should be "maintained by my Estate during her said wodowhood in the same style and manner she has ever been accustomed to during my life" and appointed five executors to ensure that this was accomplished. Her affairs seem to have been poorly managed.

#### Nineteenth Century

By 1810 we find George Buist and Charles E. Rowand as the administrators of the the estate of Martha Sommers suing Artemus B. Darby for the sum of \$872.48 (SCDAH, Judgment Rolls, Charleston District, 1810, item, 38A). This reveals that Martha Sommers died at some point between 1798 and 1810.

Thus, the Sommers property appears to have passed to John Withingham Sommers. Various Charleston city directories (e.g., 1822, 1829) list John W. Sommers as an accountant, living at 3 Church Street and working at D'Oyley's Wharf (in 1822).

It is reported, however, that by the early antebellum St. Paul's was largely abandoned by planters, the properties being significantly devalued by the decline in upland swamp rice cultivation and years of abusive agricultural practices. Land in St. Paul's had little value beyond its timber and the hope that, at some future time, fortunes would change. Chaplin, for example, notes "Saint Paul Parish, South Carolina, had an estimated 128 settled inland rice swamp plantations at the time of the Revolution, but only 8 in the antebellum period once tidal estates proliferated" (Chaplin 1993:243). Ruffin, during his 1843 tour, had little to say about the region, other than noting, "the ride of this day has been mostly through a poor country, almost abandoned" (Mathew 1992:121). Earlier, Mills had explained that the area was "decidedly unhealthy," with this problem largely the result of the "abandonment of the inland swamps, which were formerly cultivated in rice, and which now, from being exposed to the heat of the sun, have become the hot-beds of disease." He concludes that little will change in the district until the swamps are reclaimed and properly cultivated (Mills 1972:505-506 [1826]).

Mills' *Atlas* (Figure 8) shows relatively few settlements in the area, although it does suggest the presence of Ropers in the immediate vicinity. What are shown are many roads running north toward the abandoned inland rice lands off the Charleston-Jacksonborough Road – evidence of previous settlements.

In January 1838 an ad appeared in the *South Carolina Gazette* announcing the sale of,

Two valuable plantations, Golden Grove and Richmond Hill, on the Jacksonborough Road, one 17, the other 19 miles from Charleston, each contains about 1000 acres – 220 on each of as good rice land as need be planted – the remainder cotton, provision and pine land. When under cultivation, 300 barrels of rice have been made from 100 acres. Except a few acres about the buildings these places have not been cultivated for the last 30 years, so that the soil may be said to be in a virgin state. On

Golden Grove, there is a twostory dwelling house and kitchen, on the other a one-story framed house. For stock of all kinds and grazing these lands are not surpassed anywhere in the low country. They will be sold either separate or together. Refer to John W. Sommers, Esq. St. Pauls Parish, to George or Buist and the teacher, residing in various rental properties on Coming, Wentworth, and Montague streets. In 1820 he was the administrator of the estate of a James D. Somers (SCDAH, Miscellaneous Records, Vol. 4S, pg. 409). Regardless, McDow died in late 1839, with his will being proved on January 7, 1840 (Charleston Co. WB 42, pg. 46). There is no mention of Sommers or any St. Pauls property in the will. In fact, the will is entirely consistent with a teacher of modest means.



Buist and the subscriber, William McDow, in Charleston.

This advertisement is of special interest since it reveals the name of the study tract to be Richmond Hill. The cessation of cultivation in about 1808 would correspond to the death of Sommers mother, Martha. While John W. Sommers may have been an accountant, the ad lists him residing in St. Pauls – suggesting that he may have taken up residence at one of the plantations, probably Golden Grove (which had a larger house).

The relationship of Sommers and McDow is unclear. Various city directories between 1822 and 1835 reveal McDow to be a We have been unable to identify that the properties were ever sold, finding no properties going into or out of McDow, and no properties going out of Sommers. In fact, Sommers does not appear in the federal census for 1810, 1820, or 1830.

By the time of the Civil War, no mention is made of plantations in the vicinity of Richmond Hill on the available maps. However, the *Official Records* provide some insight on the topography. Confederate General Johnson Hagood worried in 1863 that, "the swamp having been all cleared and drained in former years, it is now nothing more than a succession of wet meadows, intersected with old rice-field ditches" (*OR* 47:394). Sherman's Second Division crossed the Caw Caw on February 13, 1865, but no mention is made of any nearby plantation houses (*OR* 98:78). Elsewhere more detail is provided and we learn that Sherman's forced divided into two columns, "one, consisting of the Second and Third Divisions, along the road to the east of Caw Caw Swamp, with the First and Fourth Divisions on a plantation road up the west bank" (*OR* 98:225). There is still no mention of any structures in the area.

What happened to Richmond Hill in the years just before – and after – the Civil War is unclear. As early as 1868 we have found that a portion of Richmond Hill was sold by J.W. Martin to Daniel Miller (Colleton County Register of Deeds, DB D, pg. 42). Daniel Miller acquired additional Richmond Hill lands from Eller D. Ricker in 1870 (Colleton County Register of Deeds, DB G, pg. 228).

In the postbellum we also find Edward B. Fishburne acquiring large tracts in the immediate area, including portions of the Holly Grove, Miley Tract, Roper or Bellevilla, and Beneventure tracts from a sheriff's sale in 1874 (Colleton County Register of Deeds, DB G, pg. 682) and a 1,200 acre parcel in 1877 that made up much of the eventual American Tea Growing Co. lands (Colleton County Register of Deeds, DB J, pg. 238). Although most of these lands are to the east of Richmond Hill, they are poorly platted and we know that they were eventually sold to Luder Sahlmann, Jr. in 1912 and 1913 (Charleston County RMC, DB T25, pg. 346 and DB U25, pg. 484) and from Sahlmann to Rosher D. Miller in 1920 (Charleston County RMC, DB K29, pg. 452).

#### **Twentieth Century**

It appears that Rosher D. Miller acquired significant holdings in the project area during his lifetime. Rosher Miller died in 1932 and his will, dated November 16, 1927, was probated on October 21, 1932 (Charleston County Probate Court, Box 715, packet 16; WB DD, pg. 523). The estate included his heirs, including the son Capple Miller (providing an alternate spelling).

Capple A. Miller (the Cappie A. Miller of later deeds) purchased this property (as well as numerous other tracts) in 1946 for \$4,000 from the estate of Rosher D. Miller (Charleston County RMC, DB J44, pg. 528).

It is clear that the sale is intended to pass on to Cappie Miller all of his father's property and the deed states, "the premises hereby conveyed including, but not limited to" a list of 29 tracts (for a total of 2,280.94 acres). The statement "not limited to" may be little more than a legal necessity, but several of the tracts listed note that the deeds were never recorded. Thus, it appears that there may have been some confusion over exactly what lands were part of the Miller estate. There was also no plat prepared as part of this transfer that might be relied on to clarify the holdings or even to document from whom specific parcels were acquired. The uncertainty of the various tracts, their boundaries, and even their owners is attested to by the 1969 plat that illustrates an out of Blackwell, parcel indicating adverse possession (possession without a title, allowed by common law).

It has been possible to identify the two plats that show many of the tracts – the 1882 Taylor plat and the 1912 Simons and Mayrant plat. The portions which include the study tract are illustrated as Figures 11 and 12.

The earlier plat provides much detail, but little assistance. While the southern quarter of the property is shown as essentially blank, the northern half is identified as Richmond Hill – the eighteenth century property of James Sommers.

The later 1912 plat also fails to illustrate precise property lines, although the southern half of the property is shown as "R. Miller,"



INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION



presumably Rosher Miller while to the north the tract is again listed as Richmond Hill.

It was about this time that Kollock created his Property Map of Charleston County (Figure 13). This shows the boundaries of Sommer's tract 19 miles from Charleston, identified as Golden Grove and, about 2 miles to the east (or 17 miles from Charleston) would be Richmond Hill.



Although Richmond Hill is shown only as a small area with indefinite boundaries, we believe that it may encompass the entire area north of the Jacksonborough Road that Kollock was unable to attribute to another plantation. This reconstruction would provide approximately 1,000 acres – consistent with the 1838 advertisement.

By mid-twentieth century, Claude P. Miller created his holdings from two sources. A portion was devised to Miller in 1957 by the will of Cappie A. Miller (Charleston County Estate File 868, No. 6), while another portion (the remaining one-half of the 1,736 acres) was conveyed to Miller by John H. Miller in 1970 (Charleston County RMC, DB U94, pg. 195). The purchase from John H. Miller was accompanied by two plats (Charleston County RMC, PB Z, pg. 140 and PB V, pg. 1), as well as making reference to several old plats, including one J.D. Taylor made in 1882 and another by Simons and Mayrant in 1912. Moreover, John Miller's portion of the property also came from the estate of Cappie A. Miller (who died testate, December 16, 1957).

Burl L. Gibbs acquired the property from Miller in 1974 (Charleston County RMC, DB 7104, pg. 412) and in 2002 devised the tract to his wife, Ayako Gibbs (Charleston County RMC, DB E404, pg. 506). This deed makes reference to a plat illustrated as Figure 14 (Charleston County RMC, PB AC, pg. 133). This plat is particularly important as it illustrates not only the current southern boundary, the old Jacksboro Road, but also the northern boundary, which is identified as an old public canal within the Caw Caw swamp. This canal is mentioned in a number of postbellum deeds, and it may be a portion of the canal being complained about by the rice planters of St. Pauls in 1795.

#### In 2005 the property was sold by



Gibbes to the corporation, Refuge at Ravenel, for \$1,320,000 (Charleston County RMC, DB B542, pg. 85).



#### A Tentative Context

With such limited direct historical evidence, it is useful to examine other documents in an effort to develop a better "feel" for St. Paul's Parish. There is surprisingly little eighteenth century information. Neither Pringle nor Laurens had any substantive dealings with St. Paul's planters and even secondary accounts are largely quiet concerning the area. As previously mentioned, Chaplin mentions the decline in inland swamp rice plantations – although the information is attributed to Wallace (1934:2:379).

Turning to the nineteenth century, the 1824 tax returns for St. Paul's Parish provide a glimpse of activities during the first quarter of the century. There are 97 extant returns that list real estate; an additional 64 returns are of individuals who list no plantation lands. The documents itemize 84,899 acres. With the district composed of approximately 204,800 acres, these returns document about 41.5% of the land. This suggests either huge survey errors or that large portions of the parish even this late had not been claimed. The latter seems most likely and we guess that much of this unallotted land consisted of swamps.

The state taxed real estate based on the

value of the property. Owners divided their acreage into 13 categories, valuing their land from \$26/acre to only 20¢/acre. Figure 15 suggests that the parish lands were not highly valued. The bulk (43.24%) of the acreage was assessed at \$1.00 an acre. And while 16.98% of the land was valued at \$3/acre, nearly that much (14.98%) was placed in the lowest category with a value of only .20¢/acre. Only 6.23% of the acre was valued at \$8.50 an acre or higher (none of the

land was placed in the highest category of \$26/acre).

Although we have no comparable data for later in the century, the 1850 and 1860 agricultural schedules do provide insight on land values and production of St. Paul Plantations. Table 1 lists St. Paul's and compares the results with data from surrounding parishes in Colleton and Charleston districts.

When we compare the 1850 and 1860 data we see that improved acreage declined from 19,416 to 16,591 acres. That is an average decline of 64 acres per plantation. While the best lands for planting declined, the average size of plantations in the parish actually increased from 923 acres to 1,475 - suggesting that consolidation of lands was going on immediately prior to the Civil War. This consolidation increased the value of the lands from \$954,921 in 1850 to \$1,106,244 in 1860. In spite of this, the per acre value of St. Paul's lands fell from \$10.24 to \$5.77 – a seemingly significant overall loss.

Table 1. Comparison of 1860 Agricultural Census Data										
	Acres									
Parish	Number of Planters	Improved	Unimproved	Total	\$ Value	\$/tota acreag	l Valu e Implei	e of ments – F	Iorses	Asses
Christ Church	59	12,664	35,410	48,074	\$454,12	.5 5	\$16 \$	28,225	287	128
St. John's	132	63,183	175,010	238,193	\$3,559,01	.0 .5	\$15 \$1	11,972	1,239	
St. Paul's	130	16,591	175,164	191,755	\$1,106,24	4	\$9 \$	76,433	680	273
St. George	256	18,470	172,773	191,243	\$1,035,22	3	\$5 \$	31,858	847	256
St. Bartholomew	640	59,279	424,706	483,985	\$3,105,44	6 5	\$52 \$2	09,979	2,265	699
					<b>•</b> •			<b>2</b>	Sweet	
Parish Milk	Cows Ove	n Cattle	Sheen	Swine	\$ 0f Livestock	Corn (bu)	Rice (lbs)	(bales)	Potatoes (bu)	\$ Animals Slaughtered
Christ Church	051	101 1 1	579 1.058	1 823	\$77 575	27 315	180.000	(50103)	(54)	\$5 505
St John's	3 723 1	121 1,0	579 1,038 531 4,303	5 014	\$294 511	102 666	1 500,000	4.265	5 223.858	\$132 104
St. Paul's	2.240	201 5.3	229 2.888	5,767	\$203,482	67.635	711,497	1,012	2 63.620	\$24.844
St. George	2,317	110 5,	148 2,866	13,132	\$246,527	108,190	687,105	861	32,854	\$39,902
St. Bartholomew	5,586	279 13,2	243 8,901	30,337	\$606,973	320,805	13,520,604	3,593	137,525	\$104,181

If we look at total acreage reported in the two tabulations, it increases from 93,512 acres (45.7% of actual acreage) in 1850 to 191,755 acres (93.6% of actual acreage) in 1860. Taking the data at face value, this suggests that land continued to be granted in St. Paul's Parish through the late antebellum and that by 1860 close to all of the available land had been claimed.

The census figures also reveal a significant increase in the parish's livestock value – nearly doubling from \$102,260 in 1850 to \$203,482 in 1860. This increase in value, however, did not co-occur with any significant increase in the number of animals; in fact, there was a minor decline in the numbers of horses, milk cows, and cattle. This increase may signify improved breeds. The value of animals slaughtered also increased, from \$13,718 to \$24,884.

There is a modest increase in agricultural production. Corn production increased by nearly 16%, the sweet potato harvest increased by 27%, and cotton increased by 30% from 779 bales to 1,012 bales during the decade. This growth in cotton, however, may

have come at the cost of rice, which declined by 13%. This may indicate the declining importance of upland rice as it was replaced by tidal cultivation.

St. Paul's in 1860 contained almost the same acreage as nearby St. George parish (191,755 compared to 190,913 acres). St. George did have about 2,000 more improved acres, but the mean per acre land value in St. George Parish was only \$5, compared to \$5.77 in St. Paul. St. George did contain more horses and pigs, although it is unclear if the numbers are adequate to account for St. George's \$246,527 livestock value (21% higher than St. Paul's). St. George produced less cotton (861 bales), fewer sweet potatoes (32,854 bushels), and less rice (687,105 pounds). Thus, it is difficult to see St. Paul's Parish as especially impoverished, at least when compared to St. George.

If we expand the comparison to include St. Bartholomew (which is nearly four times larger than St. Paul's) we see that land values in St. Bartholomew were over \$52/acre – far above the value of land in St. Paul's Parish. Yet, the per plantation production of cotton was only 6 bales, compared to 8 bales in St. Paul's. The value of livestock in St. Bartholomew was \$948, compared to \$1,565 in St. Paul's. St. Paul's plantations produced more of almost every crop than did those in St. Bartholomew.

Only if we expand our view into Charleston District do we begin to see significantly more wealthy parishes. For example, nearby St. John's Parish had an average land value of \$15 an acre, compared to the \$5.77 value in St. Paul's. And while plantations in St. Paul's Parish had an average of only 128 improved acres, those in St. John's averaged 479 acres. The per plantation production in St. John's was also larger than in St. Paul's – for example, the average cotton production in St. John's was 32 bales and sweet potato production averaged 1,696 bushels.

Not all Charleston District parishes were so wealthy. If we examine Christ Church, for example, the value per acre was \$16 and the per plantation production of cotton was 8 bales – identical to that in St. Paul's. Per plantation production of subsistence crops, however, was greater even in Christ Church.

Thus, there can be little argument that St. Paul's paled in comparison to many of the more northerly districts, although the parish was not nearly as deserted and destitute as the scant historical reviews might lead us to believe. In addition, even while the parish lagged in production and economic return, planters continued to acquire property.

#### INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

# EXCAVATIONS

#### Methods

The project area was relatively open during the survey and testing phases, but some hand clearing was necessary to allow access and placement of the site grid.

To provide horizontal control at the site we created a grid allowing expansion to cover the two brick piles north of the dirt access road, as well as the smaller pile to the south of the road. This grid was oriented north-south and was a modified Chicago-style grid based on an arbitrary 0R0 point located at the southwest edge of the tract.

A single vertical control point was used for the excavations at 38CH2091 placed in the middle of the access road. This point was given an assumed elevation (AE) of 10 feet above mean sea level (AMSL). All of the excavations' vertical elevations were tied into this datum.

A contour map of the site was created based on the established grid and assumed elevation datum. This map clearly reveals that the site, while situated at the edge of the sand ridge overlooking the Caw Caw Swamp, is relatively flat, with very little variation (Figure 16).

The minimal excavation unit was a 5 by 5 foot unit, with excavations at the site also making use of 2.5x10, 5x10, and 10x10 units. Chicora has adopted engineering measurements (feet and tenths of feet) for consistency in its work. Formal excavations at the sites were conducted by hand, using mechanical sifters fitted with <sup>1</sup>/<sub>4</sub>-inch inserts for standardized recovery of artifacts.

Excavation was conducted by natural soil zones. Most areas around the brick piles exhibit a black (7.5YR2.5/1) or very dark brown (7.5YR2.5/3) loamy sand with dense rubble that represents a demolition or collapse level of structural remains. Both structures to the north of the road exhibit burning – probably representing the proximate cause of their abandonment.

In some areas the rubble overlies a dark brown (7.5YR3/3) loamy sand that appears to represent the old A horizon at the time of structure use. This, in turn, overlies a brownish yellow (10YR6/6) or light yellowish brown (10YR6/4) sand that represents subsoil at the site. In other areas the rubble sits on the subsoil without any clear evidence of remnant A horizon soils, suggesting that occupation, salvage, or other factors mixed the rubble and old A horizon.

Munsell soil color notations were made during the course of excavations, typically on moist soils, freshly exposed. All materials except shell and rubble (consisting of brick and mortar) were retained by provenience. Shell and rubble were weighed (to the nearest pound) 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 digital recordation 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). Features, depending on the evaluation of the


#### INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

field director, were either completely excavated, bisected (i.e., partially excavated), or not removed (based on redundancy).



Figure 17. Stripping using a Bobcat and a toothless bucket followed by flat shoveling.

Feature fill was dry screened through <sup>1</sup>/<sub>4</sub>inch mesh and features, upon completion of their excavation, were also photographed using a digital camera. Since we anticipated pollen and phytolith studies of many features, larger soil samples were routinely collected by dry screening out shell and rubble through <sup>1</sup>/<sub>4</sub>-inch mesh, prior to waterscreening. A 5-gallon sample was also retained from features exhibiting a dark, loam fill for flotation using mechanically assisted water float equipment.

At the conclusion of the hand excavations, additional square footage at each of the three brick mounds was opened by mechanical stripping. A small Bobcat with a 52inch grading bucket (these lack teeth, allowing for clean cutting) was used (Figure 17).

As a result of this work,  $350 \text{ ft}^2$  were hand excavated at the western mound,  $375 \text{ ft}^2$  at the eastern mound, and 50 ft<sup>2</sup> at the southern mound, totaling 775 ft<sup>2</sup> or 895.5 ft<sup>3</sup>. These excavations included 14,732 pounds (7.4 tons) of brick rubble and 355 pounds of shell. An additional 375 ft<sup>2</sup> at the western mound, 400 ft<sup>2</sup> at the eastern mound, and 350 ft<sup>2</sup> at the southern mound were mechanically stripped. The stripping operations added an additional 1,125 ft<sup>2</sup> to the hand excavations. As a result 1,900 ft<sup>2</sup> of the site area was examined during these data recovery operations.

Thus, these investigations examined 1.3% of the total site area (of 147,600 ft<sup>2</sup>). However, if only the site core is considered (estimated to be approximately 8,000 ft<sup>2</sup>), then this study examined almost 24%.

## **Results of Excavations and Stripping**

### Western Brick Mound

This area is also known as Mound 2 or the Kitchen Area. Investigations in this area

Table 2. Brick and Shell Weights (in pounds)										
Unit	Unit Bricks Shells									
Western Brick Mound										
75R110 (5x10)	25									
100R100 (10x10)	2,161									
100R110 (10x10)	2,049									
110R105 (2.5x10)	643									
115R102.5 (2.5x10)	775									
135R110 (5x10)	118									
Subtotal	5,771	0								
Eastern Brick Mound										
90R260 (5x10)	1,230	5								
95R245 (2.5x10)	1,198	1								
97.5R235 (2.5x10)	30	13								
97.5R245 (2.5x10)	1,171	32								
97.5R255 (2.5x10)	625	57								
100R260 (5x10)	1,620	246								
100R270 (2.5x10)	617									
100R290 (5x5)	300	1								
105R250 (5x10)	365									
130R265 (5x10)	1,441									
Subtotal	8,597	355								
Southern Brick Mound										
-85R270 (5x10)	364									
Subtotal	364	0								
Total	14,732	355								

began with the excavation of two contiguous 10 foot units, 100R100 and 100R110, that were placed on the south edge of the clearly defined mound of brick. These units were placed to allow the brick mound to be approached from



Figure 18. Chimney exposed in the western brick mound, view to the northeast.

areas of less dense rubble in order to better understand the stratigraphy and observe the formation process.

These units immediately produced a brick wall oriented nearly east-west that measured about 9 feet in length and was a

double wythe of brick (about 1.1feet). The stratigraphy 1.2 evidenced two distinct zones. The upper, about 0.7 foot in depth, consisted of a black (7.5YY2.5/1) loamy sand with dense rubble. Below was a dark brown (7.5YR3/3) loamy sand with little or no rubble. Zone 1 represents building collapse or demolition, while Zone 2 likely represents original A horizon soils and sheet midden built up around the structure. Zone 2 graded into a brownish yellow (10YR6/6) sand that was frequently heavily mottled. This represents the subsoil at the site.

Since this wall was fully exposed and exhibited no corners, but neatly terminated at both ends, 110R105 and 115R102.5 were laid out in an effort to examine what lay under the remainder of the brick mound. These two 2.5x10 Artifact density in the mound area was high. Nails were limited to wrought specimens. A variety of building hardware, including a door lock, shutter dogs, and a wide variety of hinges, were recovered. Ceramics, glass, and animal bone were also abundant.

foot units revealed a parallel wall spaced about 5 feet to the north.

It would take stripping to expose the remainder of this brick feature, revealing it to be a double (back-to-back) brick hearth or fireplace. Both boxes or openings measured 4 feet in depth and 5 feet in width. The bricks were laid in English bond with alternating stretchers and headers. This is a verv strong bonding

pattern and is generally seen in early structures. Lounsbury, for example, attributes it to the eighteenth century, noting that it largely disappeared by the early nineteenth century (Lounsbury 1994:38).





additional units were excavated – 135R110 to the north and 75R110 to the south.

north and 75R110 to the south. Both units produced significantly lower artifact density than those units in the brick mound and only one feature was encountered.

**Feature 1**, identified at the base of Zone 1 in 135R110 centered at 135.5R105, was a well defined semicircle of very dark brown (10YR2/2) sand measuring about 2.0 feet by 0.9 feet. Excavation revealed the feature to contain

homogenous fill to a depth of 0.8 foot. Artifacts are present, but not abundant. No function can be ascertained. Soil was collected for flotation, and other studies if desired in the future.

**Feature 2**, a builder's trench, was situated on the south side of the chimney wall spanning 100R100 and 110R100. The feature was not excavated, but the fill was a brown (10YR5/3) sand with no artifacts observed during cleaning.

Feature 3 was found in 110R105 and was the builder's trench along the north side of the southern chimney arm. It, too, consisted of brown (10YR5/3) sand. Excavation revealed the feature to average 0.6 foot in width. It extended to a depth of 1.0 foot, revealing an additional three courses below grade. No footer was present and the lowest course was laid directly on the sand with only a small amount of mortar. The base of the wall extended to 8.68 feet AE. Artifacts were very sparse, consisting only of a few nails and fragments from a "black" case bottle.





found on both sides of the north chimney arm. This fill was also a brown (10YR5/3) sand. This trench averaged about 0.5 foot in width and extended to a depth of 8.72 feet AE. Again, three courses of brick were present below grade. No artifacts were recovered.

## **Eastern Brick Mound**

The eastern area, also known as Brick Mound 1 or the Main House, was found to consist of several small mounds with no discernable patterning, rather than one large

mound as was found to the Consequently, west. we selected the largest and laid in two 5x10 foot units, 105R250 and 100R260. Excavations in the latter once again revealed very dense artifacts, including a variety of architectural remains. Wrought nails were also abundant. Unit 105R250, to the northwest, contained abundant brick, including an obvious wall fall, but produced far fewer artifacts. Stratigraphy was simple, consisting of very dark brown (7.5YR2.5/3) loamy sand and dense brick rubble overlying a mottled brownish vellow (10YR6/6) subsoil sand.

Excavation in 100R260 revealed a brick wall pier, 1.1-1.2 feet in width and 6 feet in length. This (and other brick work) was laid in English bond (identical to the kitchen). Excavation in 105R250 produced only the wall fall, so that unit was thought to be on the outside of the structure. Given the size of the one identified pier, we also thought it likely that the structure was only one story, indicating that the wall fall was most likely associated with a nearby chimney.

Uncertain of structure dimensions and absent a corner, we began laying in units

chasing the one wall identified. These included 2.5x10 foot units 97.5R255, 95R245, 97.5R245, and 97.5R235 to the west, and 100R270 to the east. This work identified a series of three piers, each of a different length, and a corner (in 975.R235). The matching northeast corner, however, could not be located and we felt it was likely destroyed by several very large live oaks.

The excavations did, however, reveal a chimney base in 95-97.5R245. This base had an opening of 3.3 feet, suggestive of a typical modest room fireplace. It was also situated to



south.

account for the dense wall fall identified in 105R250.

Stripping was necessary to completely expose the structure. The western wall pier was found intact; piers for the southwest and southeast corners, as well as the south wall, were evidenced only by remnant stains. It appears that the piers in these areas had been robbed out. This robbing episode appears to correlate with differences in soil texture – indicating that the area south of about N80 line has been cultivated in the past. It is likely that the main house rubble was left largely intact at





the edge of an agricultural field, representing too much effort to clear the debris.

The stripping identified a structure measuring 43 feet east-west by 23 feet northsouth, for a total footprint of 989 ft<sup>2</sup>. It also produced a second, matching northeast fireplace. The fireplaces, situated on the north wall, were each set about 4 feet from the structure corners and were set on the interior of the wall.

Excavations in 90R260, a 5x10 foot unit in the northeast quadrant of the structure produced a remnant lime floor. Found in other plantation settings, the use of packed shell and lime about an inch in depth produced a satisfactory, albeit somewhat temporary, basement floor. This finding suggests that the structure may have been raised sufficiently above grade to allow 32 some storage space under the structure.

Yard units included 100R290 (5x5) and 130R265 (5x10). Both produced significantly reduced artifact collections. The 130R265 unit did reveal dense brick rubble. Although in line with the northeast chimney, this unit was over 50 feet removed from the main house, so it is uncertain if the rubble is a secondary deposit. Nevertheless, one interesting artifact associated with the rubble was an 8-foot section of 1-inch solid wrought iron lightning rod.

Although Franklin's experiments with electricity occurred in 1751-1752, it wasn't until the mid-nineteenth century that the benefit of lightning rods was beginning to be taken seriously. Moreover, it wasn't until the 1850s that the lightning rod evolved from a homemade device erected by knowledgeable farmers, mechanics, and blacksmiths to a commodity widely used (Krider 2002, Mohun 2002). Thus, the device identified from these excavations appears to be from the eighteenth century. Unfortunately, we have identified only the down conductor and are unable to comment on either the air terminal or the grounding system. The device, however, did appear to be fitted with a separate piece functioning as the air



Figure 25. Brick fire box in the southern brick mound exposed by stripping. The east (right) arm of the fire box was no longer in situ because of tree roots. View to the northeast.



terminal. This rod was associated with several large spikes that likely attached it to the wooden clapboard of the structure and it was most likely placed adjacent to the chimney.

#### Southern Brick Mound

This mound, also identified as Mound 3 and Slave Structure, produced somewhat more recent materials, so it was to receive the least intensive investigations. Although the mound in this area was the smallest of the three, a large pine was growing in its center. Consequently, a single 5x10 foot unit (-85R270) was laid out on the eastern edge of the mound.

The excavation produced a relatively low density of artifacts – a situation suggested by previous testing. Nails in this area were entirely machine cut, in contrast to the wrought nails elsewhere at the site. There was a very low density of brick, although over 300 pounds of oyster shell was recovered.

The unit revealed a foot or more of very dark brown (7.5YR2.5/3) loamy sand overlying a subsoil of mottled brownish-yellow (10YR6/6) sand. Some evidence of burning was present in the south profile, revealed by a lens of black (7.5YR2.5/1) sand and charcoal.

Stripping in this area, however, revealed that our excavation missed a brick fire box to the east by only a foot (it was situated just beyond the pine). The fire box, measuring 3.2 by 2.2 feet, is centered in the mound which represents fall associated with the structure. We were unable to identify any surrounding piers – probably because this site area has been previously cultivated.

## Architectural Remains

#### Main House

The 43 by 23 foot size of the structure is ample for four rooms, but the location of the two internal chimneys set at the northern exterior wall suggests that the floor plan is one room deep, either with two rooms as a hall-parlor or two rooms with a central passage.

The hall-parlor is a structure one room deep and two rooms wide. The plan derives from medieval Welsh and English types and was common in seventeenth- and eighteenthcentury Virginia. However, the 38CH2091 example is not entirely typical since most Virginia hall-parlor structures had fireplaces on their gable ends. The traditional hall-parlor form contained two rooms of unequal size. The hall was the larger of the two and was the center of household activity, used for sitting and eating. The parlor (or chamber as it was sometimes called) was more private and used primarily for sleeping. Often the hall area would have a stair providing access to an upper floor or loft. In the South Carolina low country this asymmetric hall-parlor plan is seen as a double pile plan with gable-end chimneys at Hanover (ca. 1720) which historically was in the Pinopolis vicinity (Stoney 1989:52-53, 112-114; cf. Lane 1989:24). Other early mansions such as Brick House, Crowfield and Fenwick Hall continued the hall-parlor pattern in a four-room plan, locating the stair in a rear passageway. Brick House had two internal chimneys, each heating two rooms on each level; Crowfield and Fenwick Hall had four chimneys set at the outside walls, one per room.

If we consider the possibility of two rooms and a central passage, it seems reasonable that the two rooms would each measure about 15 feet in width (with a length of 23 feet), while the central passage would have been 13 feet. This leaves ample room for a stair to the loft or rooms above the roof line.

Both reconstructions are ambiguous regarding the roof form, as well as the number of floors. Likewise, no evidence of a front (i.e., southern) porch exists since this area had been cultivated. Certainly one is reasonable, perhaps not a full-facade run, but only a portico. As a result, any reconstruction would be little more than pure conjecture. It also seems reasonable, given the oyster lime floor, that the house was raised.

We have few remaining examples of early eighteenth century structures in South Carolina. Smith (1999:76, 89) has attempted to reconstruct the colonial architecture, suggesting that a remarkably homogeneous South Carolina plan became established in the early decades of the eighteenth century. This "South Carolina type" is supposedly a double-pile plan with front rooms of unequal size, smaller rear rooms, and interior back-to-back fireplaces – with Otranto as a good model.

She suggests that the second quarter of the eighteenth century was characterized by four trends: increasing compactness of plan and massing (by which she means, "essentially symmetrical massing and façade elevations," the effort to preserve the Georgian ideal by enclosing as much as possible within "a rectilinear block"), expansion in size, a greater acceptance of wood, and the introduction of formal gardens and flankers (Smith 1999:106-107). From 1750 to the Revolution she notes that plantation houses – in reaction to the increasing importance of the urban townhouse – became less elaborate and more vernacular. Although size increased, architectural sophistication declined (Smith 1999:140).

Clearly, the 38CH2091 structure thought to have been constructed by at least 1750 - does not fit neatly into this evolutionary trend Smith projects. Although constructed in the relatively isolated reaches of St. Paul's Parish, we are not in a position to dismiss 38CH2091 as an exception. Rather, it seems that we simply don't have adequate data from which reasonable evolutionary trends can be created. The handful of standing structures are often ambiguous, with numerous additions and alterations. Archaeological examples are too often overlooked by architectural historians or the archaeologists fail to collect the data necessary to make the structures useful in comparisons.

It is worth noting that the location of this structure's two chimneys were not on the end walls and not outside the building, but also that they were not on an inside partition wall. Gene Waddell has observed that the use of these north-wall chimneys, a characteristic feature of the Charleston single-house, is very typical of nineteenth century Sea Island houses, and atypical elsewhere in the state or region. The low country's one-room deep plantation houses were not I-houses, but far more closely resemble the structure identified at 38CH2091. This chimney placement was seen in the ca. 1740 (?) Tom Seabrook house (Stoney 1989:42-43, 169; Fick 2005:386-387) and became ubiquitous, well represented by the Vanderhorst house on Kiawah (Trinkley 1993; Fick 2005:360-361, 404406). In this respect, the 38CH2091 structure provides an early example of what would become an important regional characteristic or style. This again emphasizes that in spite of considerable effort to unscramble the complex architectural heritage of the low country, we don't yet know enough to posit trends or characterize a particular style as dominant.

#### Kitchen

The only architectural data recoverable from the 38CH2091 kitchen involve the double fireplace, with each firebox measuring 4 feet in depth and 5 feet in width. Kitchen fireplaces were routinely constructed wider and deeper than those intended solely for heating in order to provide room for the various pots and meat roasting (Strasser 2000:33). Lounsbury notes that, "the most prominent feature of a detached kitchen was its chimney with its large cooking fireplace" (Lounsbury 1994:200). Within these generic statements, however, there seems to have been considerable variation.

The Vanderhorst kitchen on Kiawah, for

example, had a central fireplace measuring about 4 feet in depth by about 7 feet in width. An earlier, and temporary, kitchen had a firebox with an opening measuring 2.8 feet in depth and 6.4 feet in width (Trinkley 1993:264, 266). The Stoney/Baynard kitchen structure on Hilton Head measured only 14 by 18 feet, with an end chimney having an interior fire box opening of about 5 feet and a depth of about 3 feet (Adams et al. 1995:50).

Valch (1993:44) notes that plantation kitchen photographs document two basic kitchen forms. One is very similar to the Stoney/Baynard kitchen consisting of a single room with an end fireplace (also similar to the Middleburg kitchen illustrated by Stoney 1989:95). The other type is a two room structure, where there may be a central fireplace (as was the case at 38CH2091) or gable end fireplaces (such as the 1740 Oakland kitchen illustrated by Stoney 1989:62, 168). One room was used for food preparation, while he suggests that the other was often used as a residence for the slave cook.

While this is possible, the size of the chimney at 38CH2091 seems excessive. Valch does not discuss the occurrence of wash houses on plantations – the only other function that we can imagine requiring so large a fire. Certainly the wash house was a common sight on plantations, being documented at Mount Vernon, Monticello, and a variety of other locations. Photographs from Green Hill Plantation in Campbell County, Virginia show huge chimneys for both the kitchen and wash house (see Figures 27 and 28). In fact Lounsbury (1994:398) observes that most wash houses were contained in a building associated with a kitchen and lists a 1733 advertisement from the South Carolina Gazette for a plantation sale near Goose Creek that contained, "a brick Kitchen and Wash-House."



Figure 27. Photograph of the Refuge Plantation kitchen, Camden County, Georgia in 1880 (Historic American Buildings Survey Collection, Prints and Photographs Division).



Figure 28. Comparison of fireplace sizes for kitchen (left) and laundry/wash house (right). Both are at Green Hill Plantation, Campbell County, Virginia (Historic American Buildings Survey Collection, Prints and Photographs Division).

We believe the most likely explanation for this structure at 38CH2091 is a kitchen and wash house. Both require large fireplaces and there is an economy in placing both under one roof.

#### **Slave House**

We have identified only one slave structure at the plantation. Constructed well after the main house and kitchen/wash house, we presume that this nineteenth century addition was intended for slaves tending to the complex.

The location of the eighteenth century field slave settlement has not been identified on the study tract, but was probably in close proximity to the rice fields of Caw Caw Swamp to the north. They are perhaps located on an adjacent tract and future archaeological investigations should pay particular attention to the possibility of their discovery.

The one structure found contributes little architectural data to our knowledge of nineteenth century slave housing. The area surrounding the brick pile has been plowed and we were unable to find any evidence of the structure's (probably very shallow) brick piers. All that remains is a very small (3.2 by 2.2 foot) and poorly built fire box. The careful workmanship seen in the other structures is not present here, likely because of its relatively late date and limited plantation activities.

#### Bricks

Various efforts have been made to attribute brick sizes (or colors) to various

Table 3. Brick Sizes and Colors from a Random Sample of Intact Kitchen and Main House Bricks									
	Length	Width	Heigth	Color					
	8.500	4.000	2.625						
	9.000	4.000	2.625						
	9.000	4.250	3.750	10YR5/4					
	8.750	3.750	2.625						
	9.000	3.750	2.625						
	9.000	4.000	2.750						
	8.000	4.000	2.500	10YR3/4					
	8.875	4.125	2.125						
	8.875	4.250	2.625	2.5YR4/6					
	9.250	4.375	2.500						
	9.250	4.500	2.500						
	8.750	4.500	2.625						
	9.375	4.375	2.625	10YR4/4					
	7.500	3.500	2.500						
Average	8.795	4.098	2.643						

locations or periods (e.g., McKee 1973:53). Lounsbury (1994:46), however, observes that variations are the result of location, not time. This is certainly the case at 38CH2091, where we believe that the kitchen and main house represent a single building episode, yet the range in brick size (and color) is great.

Lounsbury (1994:46) is correct when he explains that bricks measure about 8 to 9 inches in length, 4 to 4½ inches in width, and 2½ to 3 inches in height, but the sample from 38CH2091 reveals the amount of variation that was possible from one kiln (we are assuming that all of the bricks were purchased from the same source). Likewise, the range in colors reveals considerable variation in the firing process (some bricks evidenced glazing).

#### INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

# ANALYSIS

## **Methods**

## **Processing and Conservation**

Processing began in the field during the field 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 finegrade 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  $\mu$ mhos/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  $\mu$ mhos/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 eighteenth-century British for 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 describing and characterizing for 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<sup>1</sup> 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, which 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 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

<sup>&</sup>lt;sup>1</sup> 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.

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 38CH2091 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 38CH2091 clearly dates from at least the mideighteenth century through the 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 this settlement in St. Paul's Parish, 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 timeline 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:

$$Pj/yr. = \underline{fj}$$
 where  $F \times Dj$ 

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 devise, pattern analysis has revealed and possibly seven, "archaeological five, 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).

## <u>Kitchen</u>

Excavations in this area examined what was determined to be the plantation kitchen,

perhaps paired with a wash house or some other structure requiring a large fire box.

The investigations produced 5,647 artifacts; most (nearly 72%) are kitchen artifacts, with architecture related items (primarily unidentifiable nail fragments) coming in a distant second at just over 28%.

#### Kitchen Group

The Kitchen Artifact Group consists of 2,934 specimens. Of these, ceramics account for 2,057 specimens or 50.8%. This assemblage is dominated by early nineteenth century pearlwares and late eighteenth century creamwares (781 and 651 respectively). These are primarily examples of tablewares used by the planter class.

There are a few examples of more expensive items, such as the Chinese and English porcelains, some of which are overglaze decorated. These would have been essential in the planter's tea ceremony, as would have been the black basalt ware, probably representing one or more tea pots.

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 1992:184).

The lead glazed slipwares, while relatively uncommon, are examples of "everyday necessities for the more humble table" (Cushion 1976:79). Erickson and Hunter (2001:95) comment that these wares were "a

#### ANALYSIS

	Artifa	cts Rec	T	able d froi	4. n the	Kitch	en Ar	ea			
	100R100	115R102.5	110R105	75R110	110R110	135R110	Fea. 1	Fea. 4	Stripping	Totals	%
Kitchen Group									00.FF	2934	62.52
Chinese porcelain, undecorat	ed 3	4	1		4	(	1		2		
Chinese porcelain, poly HPO	G 2	2	1	1	9	0	1		2		
White porcelain, undecorated	1 4	1	-	4		6			-		
White porcelain, HPOG	5	1			4	2					
White porcelain, blue hand p	ainted 1	3		1							
Black Basalt	2	1		1	1						
Delft, undecorated						2					
Lead glazed slipware	2	2	1	2		11	1				
Creamware, undecorated	111	75	34	72	87	202	4		13		
Creamware, mocha		1									
Creamware, transfer printed	1			1							
Creamware, blue hand paint	ed	1									
Creamware, poly hand paint Pearlware, undecorated	ed 4	14	15	30	3 78	21	3		14		
Pearlware, blue hand painted	1 2	4	15	2	3	1	5		2		
Pearlware, poly hand paintee	1 6	5	3	8	12	25			1		
Pearlware, mocha	-			-		1					
Pearlware, annular Pearlware, green edged	5 14	27	3	2 12	26	5 31			14		
Pearlware, blue edged	10	12	3	5	10	27			2		
Pearlware, blue transfer prin	ted 41	27	9	14	22	42			3		
Pearlware, other transfer prin	nted .				1						
Whiteware, undecorated Whiteware, blue transfer priv	ated 4					1 7					
Whiteware, black transfer pr	inted 1										
Gray SG SW	3			1	2	1					
Brown SG SW	36	4	3	1	17	2			2		
Coarse Red earthenware	14	9	4	4	8	1					
Red earthenware		6			1	1					
Burnt SG SW					37		1				
Burnt refined earthenware	197	29	13	11	63	15	1	1	5		
Glass, black Glass, aqua	89	45	38 2	24	20	/2	1	1	0		
Glass, light green	4	1	1	1	-	3					
Glass, clear	37	10	11	12	36	14	1		1		
Glass, other	1	1	40	2	3						
Glass, melted Glass, tableware	173	4	10	1	112	2					
Utensil	3	0	0		10	2					
Kitchenware	3	2	5		3						
Colono ware	6	3	1	4	1	11				4 (00	24.20
Window glass	51	20	26	14	27	12	1		3	1609	34.29
Hinge fragments	51	20	1	14	2	12	1		5		
Stepping/Paving Stones	5										
Tile	40	10	20		1	-			2		
Nails, wrought Nails, machine cut	48	18	38	4	50	3			2		
Nails, UID	395	137	139	23	436	32			4		
Furniture Group										6	0.13
Brass tacks	3		1		1						
Arms Group	1									12	0.26
Gunflint	3		2	1	2						
Lead flint wrap	2										
Lead sprue	1	1								47	1.43
Pine stems, 4/64-inch	7	1	2		5	1			1	0/	1.40
Pipe stems, 5/64-inch	11	1	5	2	4	4			1		
Pipe stems, 6/64-inch		1									
Pipe bowl fragments	7	2	4	1	5	3					
Clothing Group	1									25	0.53
Buttons	13	1		1	2	1			1		
Buckle	1	1			2						
Thimble	1		1								
Personal Group	1									5	0.11
Coin			1		1	1				2	
Brass accoutrement					1						
Counting slate					1					25	0.75
Tovs	1										0.75
Tools	1				1						
Fishing					1						
Storage Stable / Barro	5			1	3	1					
Misc. hardware	3				2	3			1		
Other	8			1	1				1		
TOTAL	100	550	200	205	1172		10	4.	1 74	4 402	
IUIAL	1537	558	382	285	11/3	660	13	1	. /4	4,093	

43

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. Their presence at the main house may reflect "everyday dining" or perhaps an earlier component that is not well represented. These wares account for only 19 examples or less than 1% of the total assemblage.

Curiously, colono wares, low fired earthenwares produced by African American slaves, are not especially common in the kitchen assemblage (where they might be expected to be used in food preparation or cooking). Only 26 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. Most revealing is that even modest planters in the St. Paul's area used little colono pottery.

A large quantity of container glass was recovered from this excavation (n=793), although much of this (42%) represents "black" glass. This collection includes one case bottle and six blown bottles with base diameters ranging from 72 to 106 mm. Jones (1986) suggests these may include both undersized beer and wine sizes, dating from the mideighteenth to early nineteenth centuries, fairly consistent with the ceramics identified.

The light green glass includes at least one container with a blown base measuring 39 mm in diameter and perhaps representing a medicine bottle. Clear glass included seven bottles. Melted glass accounts for 302 specimens.

The 40 tableware items include 13 clear glass tumblers, two goblets, two glass bowls, one serving vessel, and one footed vessel. The tumblers are largely plain, although there are two with ribbed bases and two that are etched, one in a floral pattern. Tumblers range from about 2 to 4 inches in diameter. The goblets have plain stems and blown feet. Tablewares also include five utensil fragments: one iron knife bolster and tang, one brass spoon bowl (which was originally plated), one two-tine iron fork, and two pewter handles.

The remaining kitchenware items include 11 kettle fragments, a fragmentary funnel, and an iron bowl or pan rim about 13-inches in diameter.

#### **Architecture Group**

The 1,609 architectural items in the Kitchen collection are dominated by nails, which consist of 262 specimens suitable for further analysis. There are, in addition, 1,162 fragmentary nails. Window glass accounts for an additional 162 specimens. The remainder of the architectural artifacts includes three hinge/pintle fragments, three stepping or paving stones, and one fragment of tile.

Of the identifiable nails 160 are wrought and 102 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). The majority (87 or 85.3%) 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 use the relative frequencies of nail sizes<sup>2</sup> to indicate building construction details.

<sup>&</sup>lt;sup>2</sup> 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.



Figure 28. Function of nails from the Kitchen Area.

Figure 28 shows the nails, combining the two head types for machine cut nails. This reveals an assemblage that contains nails sized primarily for small timbers, such as shingling. Framing nails are next in numbers, followed by sheathing. Virtually no nails sized for heavy framing are present in the assemblage. This suggests craft techniques were used in the kitchen construction. The structure was framed, had wood sheathing, and wood shingles.

#### **Furniture Group**

Little furniture would be expected in a kitchen context, and the six specimens account for only 0.11% of the assemblage. The most common items are the five brass tacks. These were used to decorate trunks and to attach upholstery.

#### Arms Group

The 12 arms-related artifacts comprise 0.26% of the collection – a relatively small proportion, but still surprisingly large for a kitchen or laundry context. Included are eight gun flints and two lead sprue. Also present are two lead flint wraps. The sprue may be the result of using the large kitchen fireplace to melt lead and cast shot. The flints may have been recycled from their original function to serve with strike-a-lights for starting fires. While the wraps may have been discarded from the flints, it is also possible that one or more guns were stored in the kitchen for the use of hunting by slaves.

While it is often reported that enslaved African Americans, under South Carolina law, were prohibited from possessing or using fire arms, this is only partially correct and misleading on its face. The Act of 1819 repealed the earlier Act of 1740 and made it illegal for any slave, unless accompanied by a white, to carry or use a firearm without a written permit. The Act, however, provided several exclusions. For example, it exempted

slaves employed to hunt game, as well as watchmen over the owner's fields (O'Neall 1848:25). Thus, it is entirely reasonable to expect that slaves on a relatively isolated plantation such as this one in St. Paul's Parish to possess fire arms for protection of the crops, as well as hunting.

#### **Tobacco Group**

The 67 tobacco artifacts in the kitchen excavations account for 1.43% of the assemblage. Most of these specimens (65) are either pipe bowls or, more commonly, stems. The most common bore diameter is 5/64-inch. Most of the pipe bowls are plain, three are ribbed, and one has a floral decoration. None exhibit maker's marks.

The use of tobacco was widespread among the African American slaves and owners tended to provide tobacco (and white clay pipes) as a luxury to the enslaved (Morgan 1998:374, 537). In Louisiana, where at least some slaves admittedly had more freedom than they found in Carolina, McDonald (1993:81) reports that they frequently purchased tobacco themselves. The presence of these pipes, then, is likely suggestive of the African American presence in the kitchen.

#### **Clothing Group**

Twenty-five artifacts were identified as clothing related, representing 0.53% of the assemblage. Included are 19 buttons, four buckles, one thimble, and one scissor fragment. The buttons are briefly described in Table 5. One is a militia artillery button identified as that used by the Artillery Corps between 1814 and 1821 (Albert 1969:55), although Tice (1997) places their use between 1802 and 1821. Also recovered was a button with a back mark of "Lewis & Tomes" which likely dates from the 1820s to 1830s (Luscomb 1967:78-79, 118).

Table 5. Buttons Recovered in the Kitchen Area									
South's Type	Description	Number	Measurements (in mm)						
7	Spun brass/white metal with eye cast in place	2	18, 20						
10	Cast brass, domed disc	1	18						
15	Bone disc, 1-hole	4	10, 12, 17, 19						
18	Stamped brass or white metal	6	14, 15, 19, 20, 21, 24						
19	Bone disc, 5-hole	4	14, 19, 21, 25						
22	Shell, 4-hole, flat back, sunken panel	1	12						
23	Porcelain, convex	1	11						

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 Kitchen collection seems to reflect an abundance of coats, with only a few examples possibly associated with shirts or pants. This distribution may reflect the shedding of outer ware as slaves entered the probably overheated kitchen or laundry rooms. Alternatively, this assemblage may reflect the repair of clothing taking place in association with the laundry room itself.

#### **Personal Group**

This is one of the more interesting kitchen collections, largely because of the three coins identified in the excavations. All three are George III halfpence coins, two with dates of 177\_ and 1781. The third is too worn to obtain a date. The 1781 specimen is known as the Irish Halfpenny or Hibernia – a coin which may have originated in Ireland, although local counterfeits were common.

Although British silver and gold coins were not allowed to be exported to the colonies, there was no restriction on the export of coppers. As a result, it has been estimated that  $\pounds 69,000$  in farthings and halfpence were exported to the American colonies from 1695 to 1795; as a result, they gained general acceptance throughout the colonies and continued to be heavily used after the Revolution.

## **Activities Group**

Activities-related artifacts comprise 0.75% of the collection. The single toy item is a clay marble fragment. In the tools category are a hammer head, as well as a lens, possibly from a microscope or binoculars. The lens element consists of two glass lenses a brace helder.

mounted in a brass holder.

Fishing gear consists of a single lead weight, probably for a net. The 10 storage items include two padlock fragments and eight strap fragments. In the stable category is a fragmentary horse shoe.

Miscellaneous hardware includes nuts, bolts, an eye bolt, a staple, a chain link, and a hand wrought "S" hook. The final category of "other" includes 11 specimens of melted lead, unidentifiable brass items, and brass fragments.

#### **Dating the Collection**

The mean ceramic date for the collection is shown in Table 6 below. For both the general collections and Feature 1 (the only feature with dateable ceramics), the date is at the end of the eighteenth century – 1797 for the general excavations and 1790 for Feature 1. This reflects the large number of creamwares and pearlwares, with very few later wares, but a small quantity of what may be heirloom ceramics.

Table 6.										
Mea	n Cerami	c Date for	the Kitcl	hen Area	1					
			Ka I A							
Ceramic Date Range Mean Date (xi) (fi) fi x xi (fi) fi x xi										
Overglazed enamelled porc	1660-1800	1730	14	24220	0	0				
Underglazed blue porc	1660-1800	1730	39	67470	0	0				
English porc	1745-1795	1770	0	0	1	1770				
Black basalt	1750-1820	1785	4	7140	0	0				
Lead glazed slipware	1670-1795	1733	21	36393	1	1733				
Plain delft	1640-1800	1720	2	3440	0	0				
Creamware, annular	1780-1815	1798	7	12586	0	0				
Creamware, hand painted	1790-1820	1805	44	79420	0	0				
Creamware, undecorated	1762-1820	1791	598	1071018	4	7164				
Pearlware, mocha	1795-1890	1843	1	1843	0	0				
Pearlware, poly hand painted	1795-1815	1805	60	108300	0	0				
Pearlware, blue hand painted	1780-1820	1800	15	27000	0	0				
Pearlware, blue trans printed	1795-1840	1818	155	281790	0	0				
Pearlware, edged	1780-1830	1805	196	353780	0	0				
Pearlware, annular/cable	1790-1820	1805	12	21660	0	0				
Pearlware, undecorated	1780-1830	1805	340	613700	3	5415				
Whiteware, blue trans printed	1831-1865	1848	7	12936	0	0				
Whiteware, non-blue trans printed	1826-1875	1851	1	1851	0	0				
Whiteware, undecorated	1813-1900	1860	5	9300	0	0				
Total			1521	2733847	9	16082				
Mean Ceramic Dates				1797.4		1786.9				
Combined Mean Ceramic Date		1797.3								

South's bracketing technique suggests an occupation range of 1790 to 1825, not too dissimilar to the mean date. Bartovics' probability distribution suggests that occupation began earlier, perhaps 1760, and continued later, to about 1840. The analysis shows the occupation beginning, and ending, abruptly, with no indication of sporadic or light use, although there is some decline in occupation intensity after 1820.

#### 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 the kitchen and laundry building is shown in Table 7.

This assemblage has a pattern that is very similar to the Revised Carolina Artifact Pattern, even though it represents a kitchen – not a domestic - context. We do see minor differences in the expected architectural, furniture, tobacco, and personal, activities groups. The differences, however, are not significant and can be readily explained bv the verv specialized function of this structure. It is perhaps more surprising that the patterns are so similar.

To expand on our understanding of the kitchen pattern, it is useful to examine the status of the ceramics in the assemblage. It will be of special interest to compare the status of the ceramics in the kitchen with those found more explicitly associated with the main house.

#### 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

#### Table 7. Artifact Pattern Comparison for the Kitchen Revised Carolina Georgia 38CH2091 Carolina Dual-Slave Slave Artifact Townhouse Function Artifact Artifact Yeoman Kitchen Pattern Pattern<sup>1</sup> Pattern<sup>2</sup> Pattern<sup>2</sup> Pattern Pattern<sup>1</sup> Pattern<sup>4</sup> Kitchen Group 20.0 - 25.8 62.52 51.8 - 65.0 58.4 63.1 70.9 - 84.2 40.0 - 61.2 Architectural Group 34.29 25.2 - 31.4 36.0 25.0 67.9 - 73.2 11.8 - 24.8 35.8 - 56.3 Furniture Group 0.13 0.2 - 0.6 0.2 0.1 0.0 - 0.1 0.1 0.4 Arms Group 0.26 01-03 0.0 - 0.2 01-03 0.3 0.2 Tobacco Group 143 19-139 2.8 6.0 03-97 24-54 Clothing Group 0.53 0.6 - 5.4 0.9 1.2 0.3 - 1.70.3 - 0.8 1.8

0.2

1.1

0.1

4.1

0.1 - 0.2

0.2 - 0.4

0.1

0.2 - 0.9

0.4

1.8

Personal Group Activities Group 0.11

0.75

0.2 - 0.5

0.9 - 1.7

<sup>2</sup> Zierden et al. 1988

<sup>3</sup> Singleton 1980

<sup>4</sup> Drucker et al. 1984

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

Table 8. Vessel Forms in the Kitchen								
Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian				
Porcelain	1	10	2	0				
Delft	0	0	0	0				
WSG Stoneware	0	0	0	0				
Lead Glazed Slipware	3	1	0	0				
Creamware	16	26	6	3				
Pearlware	32	92	9	0				
Whiteware	0	2	0	1				
Other Ceramics	0	0 0 0		0				
Total	52	52 131		4				
%	25.49	64.22	8.33	1.96				

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

Table 9. Proportion of Motifs in the Kitchen Assemblage								
Туре	Expensive Motifs (%)	Inexpensive Motifs (%)						
Creamware	6.8	93.2						
Pearlware	22.2	77.8						
Whiteware	33.3	66.7						

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 (Table 8), we see that overall the assemblage is dominated by flat wares – tablewares that we might expect to see on the planter's table. Hollow wares do comprise about a quarter of the collection, but even these are expected on a planter's table for soups and stews. They might also have been used in the kitchen for slave meals or for preparation. Fully 8% of the assemblage consists of serving vessels, with nearly 2% being utilitarian – both vessel forms that we expect in a kitchen setting.

We gain a somewhat different perspective if we examine the vessel motifs (Table 9). There we see that most of the ceramics – regardless of form – consist of relatively inexpensive designs. We also notice that the proportion of expensive motifs increases as we move from creamwares to pearlware to whiteware, suggesting that the status of the planter was improving over time. In addition, although we routinely include plain creamware as an inexpensive motif, when first introduced Queensware was actually very expensive and this may skew the table. Nevertheless, the simple conclusion is that the owner of the plantation was of modest means.

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 10.

The result is a relatively modest combined ceramic index value of 1.97. This tends to support our conclusion that the inexpensive motifs are indicative of a planter of modest means.

ANALYSIS

	Miller's	Cera	Table mic Ind	e 10. lices fo	or the	Kitcher	ı		
		Plates			Bowls		Cu	ps/Sauce	rs
		Index			Index			Index	
	#	Value	Product	#	Value	Product	#	Value	Product
Creamware/Pearlware									
Undecorated	23	1.00	23	7	1.20	8.4	9	1.00	9
Annular			0	6	1.60	9.6			C
Edged	80	1.33	106.4	1	1.60	1.6	1	1.80	1.8
Hand painted	2	1.50	3	7	2.00	14	11	1.80	19.8
Transfer printed	4	4.33	17.32	4	4.32	17.28	11	3.40	37.4
Average Value			1.37			2.04			2.13
Whiteware									
Undecorated			0			0	1	1.00	1
Transfer printed	1	3.33	3.33			0			(
Average Value			3.33			0			1.00
Combined Average In	dex Value	1.97							

porcelains being found in their primary context where they were routinely used by the plantation owner.

The proportion of burnt ceramics is nearly equal at both the kitchen (12.6%) and main house (11.2%), suggesting very similar terminal events at both locations.

Container glass is

abundant, representing 2,979 specimens. Most of this glass (n=1,786) is melted. However, the single largest collection is, again, black glass, represented by 832 specimens. Wine bottles are far more abundant in the refuse of the main house than the kitchen, with 19 bottles. One is a square case bottle, the remainder range in diameter from 65 to 128 mm, representing a range of beer and wine bottles. The abundance in the main house suggests disposal from the owner's table. Other bottles include five light green bottles, one aqua bottle, and five clear glass bottles. Most appear to represent medicine containers.

The glass tableware collection from the main house includes 22 tumblers, six goblets, three bowls, one plate, one bottle, one pitcher, one liquor glass, and one footed vessel.

The tumblers are either ribbed or plain; the goblets exhibit plain stems. Little can be discerned about the other items since the remains are fragmentary. None of the items exhibit very fine or ornate detailing; nevertheless the assemblage is both larger and more diversified than that found at the kitchen. This is as would be expected, with the main house assemblage more representative of the owner's status.

## Main House

Excavations in this area examined what was determined to be the main settlement or house. Excavations here produced 7,456 artifacts, nearly 2,000 more than found in the kitchen area. Most of the recovered materials, 5,572 specimens or nearly three-quarters of the collection, consist of kitchen-related materials such as ceramics and glass containers. These remains were likely refuse found under and around the house during its period of use. Architectural items associated with the structure itself account for 1,763 artifacts or nearly a quarter of the total assemblage.

#### Kitchen Group

Of the 5,572 kitchen items, 2,423 (43.5%) are ceramics. As with the kitchen structure, this assemblage is dominated by early nineteenth century pearlwares and late eighteenth century creamwares in nearly equal numbers (722 creamwares and 721 pearlwares). Middle nineteenth century whitewares are nearly absent, with only nine specimens recovered.

Porcelains are present, just as they were in the kitchen, except that at the main house they comprise nearly 5% of the kitchen assemblage, while at the kitchen they accounted for about 3%. The slightly higher abundance in the main house may be the result of the

#### INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

	Artif	acts Re	PCOVE	red fro	om th	ne Mai	in Ho	11se A	rea				
	1 11 111	acts IX			JIII U			use n	ica				
Kitchen Group	97.5R235 9	7.5R245 92	7.5R255 1	00R260 1	00270	90R260 10	0R290 1	05R250 9	5R245 13	30R265 Str	ripping	Totals 5572	% 74.73
Overglazed enamelled porcelain	11	11	5	5	2	1	2	21	32	1	4		
Underglazed blue porcelain	14	19	13	8	2	18	9	16	27	2	19		
White porcelain, blue hand painted	5	4	3	4	1	4		12					
White porcelain, blue hand painted White porcelain, transfer printed				1		1							
Black Basalt						-	1						
Delft, undecorated								2					
Delft, blue hand painted				1			1				2		
Lead glazed slipware	3	10	57	02	12	105	44	2	20	22	41		
Creamware, edged	75	10	57	65	15	165	44	127	20	25	41		
Creamware, annular	2	2						1					
Creamware, poly HPOG									5				
Creamware, transfer printed			_	9				1					
Creamware, poly hand painted	2	1	7			3	1	3		3	1		
Pearlware, undecorated	35	3	27	104	16	44	12	58	3	17	8		
Pearlware, molded		0	2,	101	10			3	0	.,	0		
Pearlware, blue hand painted	2			3			1	8					
Pearlware, poly hand painted	1		3	16	2		7	12		1			
Pearlware, annular	0		10	21		3		1			1		
r cariware, green edged Pearlware, blue edged	8 5		10	21	1	4 10	3	8 26		5	3		
Pearlware, blue transfer printed	21	2	22	30	2	8	11	18	1	51	14		
Pearlware, sponged						1							
Whiteware, undecorated	1			3	1	1							
Whiteware, poly hand painted	1	1											
Whiteware, purple transfer printed	1												
Yellow ware, undecorated	-								1				
Brown SG SW			11	7		5	2	3		1			
Coarse Red earthenware	2		5	7		3	3	5					
Burnt SW	2	9	79	20	2	27	E/	4	22	2	10		
Glass black	153	155	84	50 62	44	57 60	30 18	4 18	206	5	26		
Glass, aqua	3	100	01	14	1	7	13	9	6	0	20		
Glass, amber	2												
Glass, light green		4	1	13		15	3						
Glass, clear	46	13	10	42	21	38	30	36	12	16	3		
Glass, other Glass melted	69	450	94	270	26	431	227	3	191		25		
Glass, tableware	8	15	11	14	19	32	6	5	16	26	20		
Utensil			1										
Kitchenware		4	1			1	3						
Colono ware	3		2						1			17/0	aa (=
Architecture Group	27	F	0	47	10	26	(E	22	0	0	0	1763	23.65
Rim lock	37	5	0	1	10	20	00	22	0	0	2		
Hinge/pintle fragments			1	5	2			2					
Shutter hardware				2									
Stepping/Paving Stones									1				
Nails, wrought Nails, machina cut	10	30	65 16	62	42	205	13	8	43	8	1		
Nails, UID	12	24 56	111	243	98	191	68	58	51	5	2		
Furniture Group												14	0.19
Brass tacks				4		1							
Brass escutcheon							1						
Hook				1									
riandle Brass candle stick bolder		1	1		2						1		
Arms Group		1	-		-						1	2	0.03
Gunflint				1			1					_	
Tobacco Group												20	0.27
Pipe stems, 4/64-inch							3		1		1		
Pipe stems, 5/64-inch	1		1	2				1	1		1		
Fipe bowi iragments			3	1				3			1	0	0.17
Buttons			2	1		2	1					9	0.12
Eye			1	1		2	1						
Scissor			-	1									
Iron		1											
Personal Group												8	0.11
Brooch or locket				1									
Brass nancie Beads			2	1									
Slave tag			2	1									
Slate pencil	1												
Coin						1							
Pocket knife										1			
Activities Group												68	0.91
Tools		1	1	1									
Storage		1	1	1 Q		3	2	з					
Stable/Barn	1	1	1	1		5	4	3	1				
Misc. hardware	1	-	-	4	4	1	2	2		1			
			8			13		1	2		3		
Other													

50

Only one utensil handle was present in the collection. Similar to several in the kitchen collection, this item is pewter.

The kitchenwares include six kettle fragments and three iron or tin items having a rolled rim. The latter are probably inexpensive tin wares.

As with the kitchen collection, colono is nearly absent. All six specimens are small sherds and provide little data beyond helping to confirm that slave-made pottery was little used at this particular St. Paul's plantation.

#### **Architecture Group**

The 1,763 architectural items in the main house collection are dominated by the 1,496 nails. This collection includes 1,196 nails suitable for further analysis. There are nearly five times as many hand wrought nails as machine cut examples. This suggests that the main house may be somewhat older than the kitchen, where wrought and cut nails were nearly equal in number. As previously explained, cut nails may be further distinguished by determining if the



Figure 29. Function of nails from the main house area.

head was hand applied, indicating a pre-1836 date, or if the head was machine applied, indicating a post-1836 origin. With nearly twice the number of cut nails having machine applied heads, this also supports the relatively early construction of the main house. When nail sizes are examined as they were for the kitchen, we again see that small nails, 2-5d, were most common – suggestive of wood shingles. Here, however, the bulk are rose heads, with relatively few wrought T-heads. This is as we would normally expect since the Theads were something of a specialty nail, designed not to be particularly visible and often used with molding or trimming details. The relatively large numbers suggest that the main house did have some architectural detailing, perhaps wainscoting.

These same wrought T-headed nails were also used for wood sheathing, as were some machine cut nails (which may represent later repairs). Wrought T-heads are also found in relatively large numbers used for framing.

What is nearly absent – identical to the kitchen building – are nails 16d and larger that are generally associated with heavy framing. Their small numbers suggests that the main house relied on the craft traditions of mortise and tendon joinery.

Window glass consists of 253 specimens (although at least some of the previously discussed melted glass almost certainly represents window lights rather than containers). Also present in the assemblage was a fragmentary rim lock, 10 hinge and pintle specimens, two fragments of shutter hardware, and a worked stone step similar to several found at the kitchen.

These remains document a variety of architectural details – the use of rim locks, the presence of shutters over the windows, and the extensive use of strap hinges. The presence of the items also suggests that the structure burned either while occupied or at least prior to any extensive salvage efforts (since such metal details would be first to be removed).

## Furniture Group

The 14 furniture specimens account for only 0.19% of the assemblage. Included are five brass tacks, one brass escutcheon, a brass hook similar to those used to hang oil lamps, and a drawer handle. What are most common, however, are the remains of brass candlestick holders. Six specimens were found across four different proveniences. These represent at least three or four different candlesticks, including portions of bases, stems, and nozzle.

## Arms Group

Two gunflints were recovered from the excavations. Both are brown, likely representing French flints (Emory 1979:37-48; Noël Hume 1978:220). French flints tend to be the majority of flints found on colonial sites because of their superior quality.

The greater quantity of arms related items in the kitchen setting suggests that it was there, with the enslaved African Americans, that arms were maintained, not in the white dominated main house. This offers further support to the idea that these items were being used by the plantation blacks for hunting and protecting crops.

## **Tobacco Group**

The 20 artifacts in this category account for 0.27% of the main house assemblage – far less than found in the kitchen area. Included are 12 fragmentary stems and eight bowl fragments. All of the bowls were plain except for one ribbed example.

While there seems to be little doubt that alcohol was the drug of choice among European males, there was a great deal of tobacco consumption, either for smoking or as snuff. Many planters seem to have preferred cigars over pipes (see, for example, Rosengarten 1987:340,449-450,597). Morgan reports that one Carolina planter complained that he was unable to obtain a pipe for his own use since, "there are none but negro pipes now imported, which are too short to be serviceable" (quoted in Morgan 1998:374).

Thus, the reduced numbers of white clay pipes in the main house tends to support the supposition that these artifacts were almost exclusively used by African American slaves.

## **Clothing Group**

Nine specimens comprise the Clothing Group artifacts. Six of these are buttons, better identified in Table 12 below. Only two types are present and all but one were of a size that would have most likely been associated with outer

But	Table 12. cons recovered from the ma	in hou	se excavations
South's Type	Description	Number	Measurements (in mm)
7	Spun brass/white metal with eye cast in place	4	15, 19, 23, 24
15	Bone disc, 1-hole	2	12, 18

wear, such as coats. The one possible exception is the 12 mm bone button that is of a size more commonly associated with shirts or pants. None of the buttons are fancy and the collection is more suggestive of the African American slaves on the plantation than the owner.

Other clothing related items include a single eyelet, a fragmentary pair of sewing scissors, and a sad iron.

## **Personal Group**

The personal items recovered from the main house represent a diversified assemblage. Included are two beads. These can nearly certainly be attributed to African Americans on the plantation. One specimen is a Type 1f blue faceted tube bead (Kidd and Kidd 1970). The second does not have a Kidd and Kidd designation, but is a black rounded bead measuring 5.4 mm in length and 6.2 mm in width. Another item clearly associated with the African American community at the plantation is what is known as a slave tag. Beginning in 1760 the movement and hiring of slaves was regulated. By 1783 slaves and free persons of color were both required to annually purchase a badge. This law was repealed in 1789, but began again, at least for hired-out slaves, in 1800. By 1806 the laws were codified and badges continued to be issued until 1865 (Greene et al. 2004:65-66). Intended to track and help regulate the hiring out of slaves, these badges were first discussed by Singleton (1984).

The tag recovered from the main house excavations is typical of those issued during odd-numbered years, is diamond shaped and measuring 70 mm square. Stamped is Charleston across the top, No. (followed by the punched numerals 187), Mechanic, and 1815. On the reverse is stamped Lafar.

While we no longer can match this tag to its owner, we do know that in the fiscal year 1814-1815 there were 1,898 tags produced by John Joseph Lafar (1781-1849), who worked as a silversmith in Charleston.

Since the license required yearly renewal, this artifact is likely an intentional discard, but it does indicate that the owner of the plantation had a slave in Charleston who was hiring out as a mechanic.

The other items include a brass handle, a slate pencil fragment, a pocket knife, a brooch or locket fragment, and a coin. The coin is a silver, 1776 Spanish half-real. In colonial coinage the Spanish-American 8-real coin was the equivalent to a Spanish dollar. The half-real was equivalent to 1/16 Spanish dollar (Solomon 1976).

## **Activities Group**

The 68 artifacts in the Activities Group account for 0.91% of the total collection. Included in toys is a clay marble. The tools collection includes a 7/16-inch gimlet bit and a hoe blade. Storage items include 14 strap fragments; a padlock fragment; a keyhole cover, likely from a padlock; an iron meat hook, and a brass cock. Stable items include a horseshoe, two horse bridle bits, and two curry comb fragments. The hardware includes an "S" hook, a chain link fragment, and a variety of other hardware items. The miscellaneous category includes lead fragments, iron wire fragments, bits of melted lead, a brass ring, and other unidentifiable brass fragments.

Although these activity items comprise a small portion of the overall collection, they are distinguished by the range of items, especially some of the storage and stable items that we might not normally expect in a main house setting. It is possible to account for the storage items by speculating the structure was raised sufficiently for there to be storage in the basement. This might account for the presence of barrels, one with a brass cock, and perhaps even some cuts of hanging meat. The stable items, such as the bits and curry combs are more difficult to explain since we would not expect horse care to take place at the main house or tack to be stored there. It is possible, however, that these two might have been storage in a basement area.

#### **Dating the Collection**

The mean ceramic date for the collection, shown below in Table 13, is 1789. There have been several other datable items in the collection, including the 1776 coin and the 1815 slave tag, which nicely bracket the mean date. This is supported by South's Bracketing Dates of 1790 to 1825.

If we examine Bartovics' probability distribution we see some indication of very early occupation, perhaps extending to 1670. This may, however, represent heirloom ceramics and regardless appears faint. The intensive occupation began 1760 and extended to 1820, gradually declining to a terminal date of 1840.

#### INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Overglazed enamelled porc	1660-1800	1730	95	16435
Underglazed blue porc	1660-1800	1730	147	25431
Black basalt	1750-1820	1785	1	178
Lead glazed slipware	1670-1795	1733	9	1559
Decorated delft	1600-1802	1750	3	525
Plain delft	1640-1800	1720	3	516
Creamware, annular	1780-1815	1798	5	899
Creamware, hand painted	1790-1820	1805	32	5776
Creamware, undecorated	1762-1820	1791	678	121429
Pearlware, poly hand painted	1795-1815	1805	42	7581
Pearlware, blue hand painted	1780-1820	1800	14	2520
Pearlware, blue trans printed	1795-1840	1818	180	32724
Pearlware, edged	1780-1830	1805	149	26894
Pearlware, annular/cable	1790-1820	1805	5	902
Pearlware, molded	1800-1820	1810	3	543
Pearlware, undecorated	1780-1830	1805	295	53242
Whiteware, poly hand painted	1826-1870	1848	1	184
Whiteware, blue trans printed	1831-1865	1848	1	18
Whiteware, non-blue trans printed	1826-1875	1851	1	18
Whiteware, undecorated	1813-1900	1860	8	1488
Yellow ware	1826-1880	1853	1	185
Total			1673	29939

The intensive occupation coincides with the mean date, as well as South's bracketed dates. It is also the same range as suggested for the

kitchen, making the projected range more convincing for the plantation as a whole.

## Artifact Pattern

Table 14 illustrates the artifact pattern for the main house, revealing that while there is a general agreement with what we expect for an owner during the late eighteenth and early nineteenth centuries, there are distinct differences. Kitchen remains are noticeably higher than typical. Although architectural remains are slightly lower than might be

imagined, most of the differences are seen in the other categories, such as tobacco and clothing.

Curiously, the main house pattern has an even higher proportion of kitchen related artifacts than even the kitchen structure itself. In addition, the main house has a lower proportion of architectural remains.

Even if the kitchen and main house collections were combined, we would still not have a good fit with the Carolina Artifact Pattern. The kitchen collection would remain high, while the tobacco, clothing, and personal categories would remain low.

When a main house such as we have at 38CH2091 fails to confirm to pattern expectations, it is probably not that the pattern is in error, but rather that the data is specialized or in some way distinct from what we have, in general, been considering.

The explanation, beyond simple idiosyncrasy, may be related to the isolated location and economically depressed status of St. Paul's Parish. For example, while

# Table 14. Artifact Pattern Comparison for the Main House

	38CH2091 Main House Pattern	Revised Carolina Artifact Pattern <sup>1</sup>	Townhouse Pattern <sup>2</sup>	Dual- Function Pattern <sup>2</sup>	Georgia Slave Artifact Pattern <sup>3</sup>	Carolina Slave Artifact Pattern <sup>1</sup>	Yeoman Pattern <sup>4</sup>
Kitchen Group	74.73	51.8 - 65.0	58.4	63.1	20.0 - 25.8	70.9 - 84.2	40.0 - 61.2
Architectural Group	23.65	25.2 - 31.4	36.0	25.0	67.9 - 73.2	11.8 - 24.8	35.8 - 56.3
Furniture Group	0.19	0.2 - 0.6	0.2	0.1	0.0 - 0.1	0.1	0.4
Arms Group	0.03	0.1 - 0.3	0.3	0.2	0.0 - 0.2	0.1 - 0.3	-
Tobacco Group	0.27	1.9 - 13.9	2.8	6.0	0.3 - 9.7	2.4 - 5.4	-
Clothing Group	0.12	0.6 - 5.4	0.9	1.2	0.3 - 1.7	0.3 - 0.8	1.8
Personal Group	0.11	0.2 - 0.5	0.2	0.1	0.1 - 0.2	0.1	0.4
Activities Group	0.91	0.9 - 1.7	1.1	4.1	0.2 - 0.4	0.2 - 0.9	1.8
<sup>1</sup> Garrow 1982	-						
<sup>2</sup> Zierden et al. 1988							
<sup>3</sup> Singleton 1980							
<sup>4</sup> Drucker et al. 1984							

the absence of tobacco artifacts may be related to the plantation owner prefering cigars or snuff over pipes, the low frequency of clothing and personal goods may be related to the economic conditions in St. Paul's or even the use of the plantation as land speculation rather than as even a seasonal residence.

#### Status

As previously explained, to explore status we can examine the range of vessel forms: hollow ware, flatware, utilitarian, and serving vessels. Table 15 reveals that flat wares, typically

Table 15. Vessel Forms at the Main House						
Ceramic Type	Hollow Ware	Flat Ware	Serving	Utilitarian		
Porcelain	3	19	4	0		
Delft	0	0	0	0		
WSG Stoneware	0	0	0	0		
Lead Glazed Slipware	0	0	0	0		
Creamware	20	22	6	0		
Pearlware	18	52	5	0		
Whiteware	1	1	0	0		
Other Ceramics	0	0	0	0		
Total	42	94	15	0		
%	27.81	62.25	9.93	0.00		

associated with the more elaborate dining associated with the owners, account for almost two-thirds of the total assemblage. Serving vessels account for nearly 10%. There are no utilitarian vessel forms among any of the different ceramics represented in the collection. Overall, there is not a great deal of difference between the main house and kitchen – which is of course consistent with the kitchen preparing and serving the main house.

Table 16. Proportion of Motifs in the Main House Assemblage							
Туре	Expensive Motifs (%)	Inexpensive Motifs (%)					
Creamware	22.7	77.3					
Pearlware	30.3	69.7					
Whiteware	0.0	100.0					

When we examine the motifs present in the ceramic assemblage, however, we find that the bulk is classified as inexpensive. They are primarily annular, edged, or plain (the plain, in fact, account for the bulk of the collections). As previously explained, these undecorated wares are problematical since when both creamware and pearlware were initially introduced, the plain patterns were actually very expensive and the price declined only with time – a function that we cannot control with sufficient detail to allow meaningful observations.

Consequently, we can explain the observation in either of two ways – we can speculate that the data helps confirm the low prosperity of St. Paul's Parish or we can suggest instead that we are simply seeing a very large assemblage of early – and high status – plain wares. Of course we have no more evidence for one than the other.

There is, however, a third alternative and one that, we believe, should be given consideration. It is possible that the planter shifted his initially expensive – and later rather unimpressive – plain wares to the St. Paul's location where it would be rarely seen. In other words, the plantation was held for its land value, not its value as either a country retreat or show place. Thus, the goods present – while suitable for an owner – might not have been designed to impress his cohorts.

This tends to be supported by Miller's cost indices, illustrated in Table 17. The combined index for the main house assemblage is only 1.76 – lower than found for the kitchen. This figure, however, is affected by the value assigned to the plain wares and thus is dependent on when the wares were acquired.

## Slave Structure

During earlier survey work one area was identified as likely associated with enslaved African Americans, based on the artifacts recovered. In addition, given the small size and presence of only one brick pile, we believed that a single structure was present. This was borne out by the excavations, although limited. As a

Mille	er's Ce	rami	Tabl c Indic	e 17. Jes for	• the l	Main H	louse		
		Plates			Bowls		Cı	ips/Sauce	rs
		Index			Index			Index	
	#	Value	Product	#	Value	Product	#	Value	Product
Creamware/Pearlware									
Undecorated	17	1.00	17	11	1.00	11	3	1.00	3
Annular			0	2	1.60	3.2			0
Edged	39	1.67	65.13	2	1.60	3.2	1	1.80	1.8
Hand painted	4	1.50	6	8	3.75	30	8	2.50	20
Transfer printed	9	4.33	38.97	2	4.32	8.64	6	4.09	24.54
Average Value			1.84			2.24			2.74
Whiteware									
Undecorated	1	1.00	1	1	1.00	1			0
Annular			0			0			0
Edged			0			0			0
Hand painted			0			0			0
Transfer printed			0			0			0
Average Value			1.00			1.00			0.00
Combined Average Inde	ex Value	1.76							

result of work in this area we recovered 1,154 specimens. Most of these (626 or 54.2%) were kitchen related (see Table 18).

#### **Kitchen Group**

The artifacts present in the Kitchen Group are primarily container glass (342 specimens or 54.6%). Ceramics account for 273 items or 43.6% of the kitchen assemblage – a reversal of the situation found at the kitchen and main house where ceramics dominated the collection.

Also distinctly different is that the slave house ceramic assemblage contains primarily whitewares (169 specimens or 61.9% of the ceramics). Pearlwares, while the second most abundant ceramic, account for only 41 specimens and 15% of the ceramic total. There are only seven porcelains and a single delft – other early wares are entirely absent. Clearly the assemblage is more recent than either the kitchen or main house, although even here a noticeable proportion of the ceramic collection is burnt (11.3%).

Container glass is dominated by the black glass. Although this collection includes 146 specimens, there are only two identifiable containers – a case bottle and a 90 mm diameter bottle. Other containers identified in the collection include two light green bottles, one of

which is a pharmaceutical bottle and the other a possible soda water bottle. The aqua bottle measured 2<sup>3</sup>/<sub>4</sub> inches in diameter. At least one of the clear bottles was a South Carolina dispensary bottle. These bottles would have been used from 1893 through perhaps as late as 1907 (Huggins 1971; Teal and Wallace 2005). This alone, however, does not document use of the site into the postbellum since the container may simply have been discarded on the surface and become mixed with the collection.

The glassware included in the assemblage includes fragments of three tumblers and one goblet. These items are all similar to those found in the kitchen and main house assemblages and were likely scavenged from discard piles by the African American occupants. It was apparently not uncommon for chipped or cracked items from the master's table to find their way into the slave household.

The only other item present is a twotined iron fork that would originally have had a bone handle. Two-tine forks are more typical of the early eighteenth century and by the end of the century most would have had four (Taylor 1997:84). Thus, this specimen was likely discarded from the planter's table as "old fashioned" and out of style, being quickly taken up by the occupants of this slave structure.

#### **Architecture Group**

Architectural items include 17 fragments of window glass. The quantity, given the limited excavations, are sufficient to suggest that the structure had glazed windows. Also present are fragments of a lock box. While these may represent salvage from the main house, it is also possible that the slave cabin was fitted with a door lock – another indication of a Europeanstyle structure.

Artifacts Recovered from	the Slav	e House	Area
	-852270	Totals	-
Kitchen Group	-0011270	626	54.2
Underglazed blue porcelain	6		
Chinese porcelain, undecorated	1		
Delft, blue hand painted	1		
Creamware, undecorated	4		
Pearlware, undecorated	20		
Pearlware, blue hand painted	4		
Pearlware, annular	3		
Pearlware, blue edged	4		
Pearlware, blue transfer printed	10		
Whiteware, undecorated	86		
Whiteware, poly hand painted	10		
Whiteware, sponged	20		
Whiteware, annular	20		
Whiteware, cable	12		
Whiteware, blue transfer printed	14		
Whiteware, non blue transfer printed	10		
Vellow ware undecorated	, 1		
Yellow ware, mocha	1		
Refined red earthenware			
Refined earthenware, UID	1		
Brown SG SW	8		
Burnt refined earthenware	31		
Glass, black	146		
Glass, aqua	12		
Glass, green	7		
Glass, light green	33		
Glass, other	6		
Glass, milk	1		
Glass, clear	49		
Glass, melted	88		
Glass, tableware	10		
Utensil	1		
Architecture Group		488	42.3
Window glass	17		
Door lock box frags	3		
Hinge tragments			
Shutter dog			
Conditions never			
Naila urrought	7		
Nails, wrought	68		
Nails, IIID	203		
Furniture Group	393	2	0.7
Brass knob	2	2	0
Arms Croup	2	2	0.7
Lead shet	1	2	0
Cunflint	1		
Tohacca Crown	1	18	1.
Pipe stoms 4/64 inch	2	10	1.0
Pipe stems, 5/64 inch	10		
Pipe stems, 6/64-inch	10		
Pipe bowl fragments	1		
Clothing Group	1	4	0 3
Buttons	2	1	0
Aglet	1		
Eve	1		
Personal Group	1	3	0.3
Brass jewelry	1	5	0
Counting slate	2		
Activities Group	2	12	1 (
Stran fragments	n	12	1.0
Mice bardware	Z A		
Misc. Haluwale	4		
Other			

Nails are the most common architectural item recovered, although of the 468 nails only 75 (16%) are suitable for analysis. Of these specimens most are machine cut and of these most, 87.7%, have machine applied heads, indicating a post-1836 date. Figure 30 suggests that the few wrought nails present were used without much distinction for sheathing and framing. The very low numbers of large nails typically used in heavy framing suggests that the slave structure continue to be made using craft traditions. Most of the machine cut nails were used for either wood shingles or for sheathing.

#### **Furniture Group**

The only furniture related items are two, small brass knobs. The sizes range from  $\frac{1}{2}$  to 9/16 inches in length and from 3/8 to  $\frac{1}{2}$  inch in diameter. These are typical of small furniture knobs, although their association with furniture in a slave context seems unlikely. They may represent salvaged items valued for their material, rather than their intended function.

## Arms Group

The two arms artifacts include a black gunflint, the color typical of English flints (Emory 1979:37-48; Noël Hume 1978:220). As previously mentioned, the French flints are generally more common since they were of better quality.

The other item is a single lead shot measuring 7.6 mm (0.3 inch) in diameter. This is approximately the equivalent to #1 buckshot – typically used in hunting larger animals.

## **Tobacco Group**

The 18 tobacco artifacts account for 1.6% of the total assemblage. The most common bore diameter is 5/64-inch and the bulk of the collection consists of pipe stems (14 or 78%).



Figure 30. Function of nails from the slave structure.

The four pipe bowls present include two with ribs, one with molded leaves and stem at the mold seam, and one marked "T.D." The "TD" pipes have been discussed by Hopkins (1937), Humphrey (1969), and Walker (1966).

Whatever the origin of this mark might be, by the mid-nineteenth century several makers were using it as a style and the D. McDougall and Co. of Glasgow were advertising them as "Plain T. D. .. 1. 10 per gross" in ca. 1875 indicating that by then the term was considered generic (Sudbury 1980:45-46).

#### **Clothing Group**

Only four clothing related artifacts were identified in the assemblage. Two are buttons, including one South's Type 18 brass button measuring 19 mm and the other a South's Type 19 bone button measuring 17 mm. The sizes, like the bulk of the other buttons in this collection, are suggestive of coats.

The other clothing items include a brass aglet and a brass eye.

#### **Personal Group**

Only three artifacts were attributed to this category. Two are counting slate fragments. These two mend to create a small slate measuring  $1\frac{1}{2}$  by  $1\frac{3}{4}$  inches. The third item is a 58

brass disk that is likely a jewelry item. It measures 27 mm in diameter and is just under 2 mm in thickness. Off center there is a 4.4 mm hole. The exact function is, however, unclear.

## **Activity Group**

This collection includes 12 items comprising 1% of the total assemblage. Present are two strap fragments, four hardware items, and six specimens placed in the "other" category. The latter items include brass and lead fragments.

Table 19. Mean Ceramic Date for the Slave Structure									
Ceramic Date Range Mean Date (xi) (fi) fi x :									
Underglazed blue porc	1660-1800	1730	7	12110					
Decorated delft	1600-1802	1750	1	1750					
Creamware, undecorated	1762-1820	1791	4	7164					
Pearlware, blue hand painted	1780-1820	1800	4	7200					
Pearlware, blue trans printed	1795-1840	1818	10	18180					
Pearlware, edged	1780-1830	1805	4	7220					
Pearlware, annular/cable	1790-1820	1805	3	5415					
Pearlware, undecorated	1780-1830	1805	20	36100					
Whiteware, blue edged	1826-1880	1853	14	25942					
Whiteware, poly hand painted	1826-1870	1848	10	18480					
Whiteware, blue trans printed	1831-1865	1848	18	33264					
Whiteware, non-blue trans printed	1826-1875	1851	7	12957					
Whiteware, annular	1831-1900	1866	32	59712					
Whiteware, sponge/splatter	1836-1870	1853	2	3706					
Whiteware, undecorated	1813-1900	1860	86	159960					
Yellow ware	1826-1880	1853	6	11118					
Total			228	420278					
Mean Ceramic Date	1843.3								

#### **Dating the Collection**

There are regrettably no specimens of special note in the collection. Thus, dating must rely on the ceramics. South's mean ceramic date (Table 19) is calculated to be 1843, significantly later than either the kitchen or main house. This date is, however, consistent with the abundance of whiteware in the assemblage, as well as the prevalence of machine cut nails with machine applied heads.

South's bracketing technique dates the site very narrowly between 1825 and 1830, slightly earlier than the mean date itself. In contrast, Bartovics' probability distribution suggests occupation perhaps beginning about 1780, although the core occupation occurs between 1810 and 1900. This technique would have the slave dwelling occupied at the same time as the kitchen and main house, although occupation would extend far later. The late occupation is based entirely on the abundance and potential late dates for some of the whitewares.

None of the other artifacts tend to support the late date suggested by Bartovics. Had the occupation extended to 1900 we would expect significantly larger numbers of late glasswares, including manganese glass, as well as more metal kitchenwares, such as tin ware and tin cans. We would also have expected some wire nails, which were not found. We do not believe there are sufficient artifacts to indicate this dwelling was occupied into the postbellum. Thus, we are inclined to discount the Bartovics analysis.

It remains possible that the earlier end of the Bartovics scale is correct. The near absence of creamware, however, suggests to us that the slave settlement was constructed after the initial construction and occupation of the main settlement.

## **Artifact Pattern**

Given that none of the structures closely matched pre-existing patterns, it is probably no surprise that the slave settlement is also distinct from previously established patterns for both eighteenth and nineteenth century slave settlements (see Table 20).

The kitchen and architecture groups at the structure fall midway between the

Table 20.									
Artifact Pattern of the Slave House									
38CH2091 Revised Georgia Carolina Slave Carolina Slave Slave House Artifact Artifact Artifact Pattern Pattern <sup>1</sup> Pattern <sup>2</sup> Pattern <sup>1</sup>									
Kitchen Group	54.20	51.8 - 65.0	20.0 - 25.8	70.9 - 84.2					
Architectural Group	42.30	25.2 - 31.4	67.9 - 73.2	11.8 - 24.8					
Furniture Group	0.20	0.2 - 0.6	0.0 - 0.1	0.1					
Arms Group	0.20	0.1 - 0.3	0.0 - 0.2	0.1 - 0.3					
Tobacco Group	1.60	1.9 - 13.9	0.3 - 9.7	2.4 - 5.4					
Clothing Group	0.30	0.6 - 5.4	0.3 - 1.7	0.3 - 0.8					
Personal Group	0.30	0.2 - 0.5	0.1 - 0.2	0.1					
Activities Group	1.00	0.9 - 1.7	0.2 - 0.4	0.2 - 0.9					
	-								
<sup>1</sup> Garrow 1982									
<sup>2</sup> Singleton 1980									

eighteenth century Carolina Slave Artifact Pattern and the nineteenth century Georgia Slave Artifact Pattern. In addition, the furniture, personal, and activities groups are high. The pattern, however, is derived from data acquired from very limited excavations and these problems may be the result of sample bias.

#### Status

Status, while perhaps not quite as clear as might be hoped, is not as equivocal as the pattern data. Table 21 reveals that while the proportion of flat wares and hollow wares is

Table 21. Vessel Forms at the Slave Structure							
Ceramic Type Hollow Flat Ware Serving							
Pearlware	2	4	0				
Whiteware	17	14	1				
Total	19	18	1				
%	50.00	47.37	2.63				

nearly equal, the vessel forms typical of one-pot meals are slightly more common. There is a clear difference between the assemblage at this structure and that found at both the kitchen and main house.

In addition, Table 22 reveals that the assemblage is comprised almost entirely of low cost or simple motifs – plain, edged, and

banded. This is certainly consistent with a slave dwelling.

Table 22. Proportion of Motifs in the Main House Assemblage						
Туре	Expensive Motifs (%)	Inexpensive Motifs (%)				
Pearlware	0.0 100					
Whiteware	10.3	89.7				

Finally, when we examine Miller's ceramic indices for the assemblage, they are consistently very low – far lower than found at either the main house or kitchen (Table 23). The combined index of 1.31 places the assemblage below those of the main house and kitchen on this plantation and very low even when

Table 23. Miller's Indices for the Slave Structure									
		Plates			Bowls		Cı	1ps/Sauce	rs
		Index			Index			Index	
	#	Value	Product	#	Value	Product	#	Value	Product
Creamware/Pearlware									
Undecorated			0			0			0
Annular			0	1	1.20	1.2	1	1.50	1.5
Edged	3	1.33	3.99			0	1	1.80	1.8
Hand painted			0			0			0
Transfer printed			0			0			0
Average Value			1.33			1.20			1.65
Whiteware									
Undecorated	1	1.00	1	3	1.00	3	2	1.00	2
Annular			0	10	1.22	12.2			0
Edged	11	1.14	12.54			0			0
Hand painted			0	1	1.60	1.6	2	1.50	3
Transfer printed	1	2.11	2.11			0			0
Average Value			1.20			1.20			1.25
Combined Average Ind	ex Value	1.31							

compared to other known slave dwellings where we have conducted research.














# THE FAUNAL MATERIALS

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# Introduction

This research uses the faunal materials from a small St. Paul's Parish plantation to better understand the diet and food preparation associated with late eighteenth and early nineteenth century plantations in this portion of South Carolina. During the 2008 excavation of the site, three activity areas were discovered: a main house, a kitchen, and a probable house servant structure. The identification of these areas with particular occupations/activities provides an opportunity for comparative studies. The following questions guided this research:

- Are there major differences in subsistence patterns associated with the main house and house servants? For example, is there more dependence on wild game in one area over the other?
- If differences between the main house and house servant area occur, do they reflect wealth and status? Does the main house area have bone elements associated with better quality and meatier cuts?
- 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 the three activity areas, differential use of and access to animal foods, both wild and domestic, can be assessed. It is anticipated that the greatest variety of animal species will be identified at the kitchen area, where food preparation and discard occurred for the main house occupants. Since the more elite main house group would likely have had more access to foods than the house servants, more variety of animal foods are expected.

Higher frequencies of better and meatier cuts of meat, both domestic and wild, are expected to occur at the main house area when compared with the servant area. Differential access to specific cuts of meat has often been used to extrapolate status or prestige distinctions among different activity 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) (Weinand and Reitz 1996).

# **Methods**

Faunal materials recovered from this site were collected by dry screening unit soil through ¼ inch mesh. 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 Archaeological Resource Management Services labs 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 and area. Following the completion of the analysis individual tables were constructed for each activity area.

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

The MNI totals for the plantation's assemblage were established faunal bv combining horizontal and vertical stratigraphic divisions by activity area. In other words, each unit and associated level for each activity 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, the resulting MNI may be over or under represented (Casteel 1978; Grayson 1973; 1984). Information

gathered for each of the three activity 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 and Weinand 1995; Scott 1981; Thomas 1971; Welch 1991; Reitz 1986). Screening and recovery methods as well as poor preservation of small mammals and other animals will likely lead to biases in species representation. Another problem is that the representation of an animal does not presume its sole use at the site (Reitz and Weinand 1995). Certain cuts of meat may have been sold or traded off site (Scott 1981, Thomas 1971), or as mentioned earlier, choice cuts of meat may have been readily available to one group at the site but not others (Reitz 1986). MNI can be misleading as often the number of a species represented can seem more important than 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 problematical, 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 log 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).

One method for comparing similarities and differences in faunal assemblages 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. Comparisons are 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, hindguarter, forefoot, hindfoot, and foot) are valuable in identifying butchery and animal husbandry patterns. For this research the skeletons of deer, pig, and cattle were subdivided into seven categories: head, axial, forequarter, hindquarter, forefoot, hindfoot, 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 hindfoot the innominate, femur, tibia, and fibula elements while the foot category consists of only phalanges and metapodial elements.

The NISP of each segment category was counted for each species and each category's percentage of the total was calculated. Next log<sub>e</sub> X (X being the percentage of each category) was computed and log<sub>e</sub> 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) could be investigated.

If the value falls below the 0 line elements for this category are underrepresented 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 activity areas.

Descriptions of 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 ax.

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 the study site (readers may wish to refer to the first section of this report for additional area-specific environmental data). Tables 24-28 provide an inventory of the animal species identified in the collection for the entire site (Table 24) and by area (Tables 25-27). Eight mammal species, five bird species (one only to class), three turtle species, two fish species, and two shellfish species were identified in the collection (Table 24). A short description of animals identified from this site 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 and field grasses for weight gain. This means plenty of pasture land must be available or grain regularly provided. In the coastal areas of South Carolina planters frequently

allowed cattle to range over the marsh, the spartina providing an almost endless supply of graze. The second problem is that cattle, for their large size, only yield about 50-60% 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.

Robert Beverly, an eighteenth century Virginia historian, comments that in Virginia beef was inferior to English meat, largely because his countrymen's habit of starving young cattle. Even when penned and fed grain

Table 24.
Faunal Identification, MNI, NISP, Weight, and Biomass
Measures for 38CH2091

		MNI	MNI	NISP or	Weight	Biomass	Biomass
Species	Genius, Species	#	%	Count*	gms.	kg	%
Mammals							
Cattle	Bos taurus	2	5.5	25	429.12	6.1563	24.85
Pig	Sus Scrofa	8	22.2	113	493.39	6.9802	28.18
Sheep	Ovies aries	1	2.8	5	14.21	0.2866	1.16
Dog	Canis familiaris	1	2.8	1	1.14	0.0296	0.12
Deer	Odocoileus virginianus	4	11.1	53	356.36	5.2000	20.99
Raccoon	Procyon lotor	1	2.8	3	5.11	0.1141	0.46
Rice Rat	Oryzomys palustris	1	2.8	1	0.24	0.0073	0.03
Eastern Cotton tail	Sylvilagus floridanus	1	2.8	1	0.20	0.0062	0.03
Unidentified Mammal				182	208.94	3.2212	13.00
							88.82
Aves							
Turkey	Meleagris gallopavo	1	2.8	2	2.93	0.0543	0.22
Chicken	Gallus gallus	4	11.1	22	23.19	0.3568	1.44
Ring-Necked Duck	Aythya collaris	2	5.5	4	8.38	0.1413	0.57
Killdeer	Charadrius vociferus	1	2.8	2	0.69	0.0145	0.06
Ciconiiforme sp.		1	2.8	1	0.61	0.0130	0.05
Unid Bird				32	10.21	0.1691	0.68
							3.02
Reptile							
Box Turtle	Terrapene carolina	2	5.5	36	34.69	0.3403	1.37
River Cooter	Chrysemys concinna	3	8.3	82	337.35	1.5624	6.31
Snapping Turtle	Chelydra serpentina	1	2.8	1	0.71	0.0251	0.10
Unid Turtle				1	0.74	0.0258	0.10
							7.88
Pisces							
Bowfin	Amia calva	1	2.8	2	1.46	0.0401	0.16
Drum	Sciaenidae sp	1	2.8	1	0.43	0.0226	0.09
Unid Fish				1	0.17	0.0039	0.02
							0.27
Misc. Unidentified				13	6.34		
Tetel		26	100	504	1024 (1	24 7707	100.00
Total		30	100	584	1936.61	24.7707	199.98
Burned Bone				28	40.53		
Unhurnad hono				556	1806.08		
Cilbumed bone				584	1036.61		
Shell fish				004	1950.01		
Ouctor	Craccoctree nireiries	1		1	5 1 5		
Clam	Marcanaria marcanaria	1		1	36.84		
Unidentified shell	iviercentritti mercentirla	1		2	5 2		
Total		2		4	47 19		
		~		т	47.19		
* NISP refers to the nur	nber identified to species						

they were still lean and tough. In spite of this recipes for beef area common, and include such dishes as "caves head," "beef alamode," "collard'd beef," "beef collops," beef potted like venison, calves head dressed in imitation of turtle, and rump of beef (Horry 1984 [1770]).

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 they require little direct care, adapt well to either free-range life or being confined to a pen (Carson 1985:2), and can gain about two pounds from every 15-25 pounds of

Table 25.								
Faunal Identification, MNI, Number, Weight, and Biomass								
	Measures for	the K	itche	en Un	its			
Species	Conjus Species	MNI #	MNI %	NISP or Count*	Weight	Biomass	Biomass %	
Mammals	Genius, opecies	"	70	count	gnis	ĸБ	/0	
Cattle	Bos taurus	1		6	130.5	2.1088	14.32	
Pig	Sus Scrofa	4		91	357.22	5.2196	35.44	
Sheep	Ovies aries	1		5	14.21	0.2866	1.95	
Dog	Canis familiaris	1		1	1.14	0.0296	0.2	
Deer	Odocoileus virginianus	3		36	202.33	3.1293	21.25	
Raccoon	Procyon lotor	1		2	4.28	0.0973	0.66	
Rice Rat	Oryzomys palustris	1		1	0.24	0.0073	0.05	
Eastern Cotton tail	Sylvilagus floridanus	1		1	0.2	0.0062	0.04	
Unidentified Mammal				122	122.63	1.994	13.54	
Aves								
Chicken	Gallus gallus	2		10	15.59	0.2485	1.69	
Ring-Necked Duck	Aythya collaris	1		3	4.28	0.0766	0.52	
Unid Duck Sp.				1	0.74	0.0014	0.01	
Ciconiiforme sp.		1		1	0.61	0.013	0.09	
Unia Bira				15	6.88	0.1181	0.8	
Reptile	<b>T</b> 1:	1			0.01	0.0505	0.04	
Box Turtie	Terrapene carolina	1		3	2.01	1.0505	0.34	
Kiver Cooter	Chrysemys concinna	2		48	188.74	0.0251	8.49	
Snapping Turtle	Cheiyara serpentina	1		1	0.71	0.0251	0.17	
Pisces				-				
Bowfin	Amia calva	1		2	1.46	0.0401	0.27	
Drum sp.	Sciaenidae sp	1		1	0.48	0.0226	0.15	
Unid Fish				1	0.17	0.0039	0.03	
Misc. Unidentified				5	1.98			
Total		23		356	1056.4	14.7294	100	
Burned Bone				15	29.46			
Unburned bone				341	1026.94			
Shellfish Unidentified shellfish				1	0.89			
Chaenanieu sheilfish				1	0.09			
* NISP refers to the number identified to species								

feed. Because of their large size and weight gain, a dressed pig carcass can yield 65-80% meat (Towne and Wentworth 1950:7-8). While historians promote pork as a central dietary source along the coastal plain from Maryland to Louisiana, Reitz (1995) identified a greater frequency of cattle in the historic faunal collections from the east coast sites. Based on her findings, Reitz suggests that pork may have been reserved for exclusive occasions among the elite with poorer cuts provided to strangers traveling though the area (Reitz 1995).

In contrast, the early eighteenth century Virginia historian, Robert Beverly, remarked that swine was the best of all domesticated animals. He recounted that "hogs swarm like Vermine upon the Earth" largely because they "run where the list, and find their own Support in the Woods, without any Care of the Owner" (Carson 1985:2). Most period cookbooks concentrate on recipes for preserving the meat, typically listed as "For making Bacon," using salting and smoking to preserve the meat. While Harriott Pinckney Horry provides this advice, she also describes how to pickle hams (Horry 1984:90-91, 120,130 [1770]).

The third domesticated mammal found at the plantation assemblage 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. In fact, Horry fails to provide any recipe for mutton. The sheep identified in the Kitchen activity area (Table 25) was immature and may have been associated with a special meal.

# Wild Mammals

Several wild mammals presumably used for food were identified in the faunal collections. These include deer (Oldocoileus virginianus), raccoon (Procyon lotor), and eastern cottontail (Sylvilagus floridanus). 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. The eastern cottontail also occupies a variety of habitats particularly deciduous forests, overgrown fields, and forest

Table 26.									
Faunal Ide	entification, MP	NI, IN	umbei	r, Wei	ght, ar	ld			
DIOI	hass Measures I	or tr	ie Mai	п пот	ise				
MNI NISP or Weight Biomass Biomass									
Species	Genius, Species	#	Count*	gms	kg	%			
Mammals									
Cattle	Bos taurus	1	19	298.62	4.442	39.67			
Pig	Sus Scrofa	2	16	96.26	1.6036	14.32			
Deer	Odocoileus virginianus	1	17	154	2.4477	21.86			
Raccoon	Procyon lotor	1	1	0.83	0.0222	0.2			
Unidentified Mamma	1		54	67.73	1.1687	10.44			
Aves						02 10			
Turkev	Meleagris gallopavo	1	2	2.93	0.0543	0.48			
Chicken	Gallus gallus	2	12	7.6	0.1283	1.15			
Killdeer	Charadrius vociferus	1	2	0.69	0.0145	0.13			
Unid Bird			17	3.33	0.061	0.54			
Rentile						23			
Box Turtle	Terrapene carolina	1	33	32.68	0.327	2.92			
River Cooter	Chrysemys concinna	1	34	148.61	0.9021	8.06			
Unid Turtle			1	0.74	0.0258	0.23			
Misc. Unidentified			8	4.36					
Total		11	216	818.38	11.1972	100			
Burned Bone			13	11.07					
Unburned bone			203	807.31					
Shell fish									
Oyster	Crassostrea virginica	1	1	5.15					
Clam	Mercenaria mercenaria	1	1	36.84					
Unidentified shell			1	4.31					
Total			3	46.3					
* NISP refers to the number identified to species									

edge and has become commensal with humans around farms and in some urban areas (Choate et al. 1994).

Rabbits, raccoons, and opossums were certainly not sport animals, being ignored by William Elliott (1994 [1846]), yet they certainly provided meat on the planter's table. Mary Randolph provides a number of recipes for rabbits, including boiling as a soup, roasting with pudding, and using a curry sauce. Other game animals did not find much prominence in period cookbooks (although Bryan 1991 [1839] does provide recipes for fried and broiled squirrel). It is likely that such wild animals, while finding a place on the table, were not part of the *haute cuisine* which characterized the planter elite.

# Birds

# **Domestic Birds**

The only domestic bird species identified in the plantation faunal assemblage 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 1972:46-47) and feathers possibly used in bedding and other furnishings.

Like most meats during this period, chicken (and other domestic fowl) was primarily boiled (*à la braise*):

the fowl was trussed as for boiling. . ., placed in a large saucepan on top of thin layers of sliced veal, beef, and bacon, and then was covered with similar layers. Other seasonings were added – carrots, an onion stuck with cloves, mace, pepper, salt, sweet herbs - and the whole was stewed gently for an hour or so. When the fowl was tender it was recovered from the broth, which was then strained, thickened, and augmented with wine or cream and a selection of the traditional ingredients of made dishes: mushrooms, livers, sweetbreads, ox palates, cocks' combs, oysters, anchovies, artichokes, and celery. Favorite garnishes were forcemeat balls, barberries, and lemon (Carson 1985:99).

Fried chicken, while introduced about this time, was considered very low cooking, described as "a coarse and greasy Kind of Cookery" avoided by "genteel Families" (Mrs. Martha Bradley, quoted in Carson 1985:59-60).

Table 27. Faunal Identification, MNI, Number, Weight, and Biomass Measures for the Slave House Unit								
		MNI	NISP or	Weight	Biomass	Biomass		
Species	Genius,	#	Count*	gms	kg	%		
Mammals								
Pig	Sus Scrofa	2	6	39.91	0.726	76.79		
Unidentified			4	10.56	0.2194	23.21		
Total		2	10	50.47	0.9454	100		
Burned Bone								
Unburned bone			10	50.47				
* NISP refers to the number identified to species								

#### Wild Birds

The turkey (*Meleagris gallopavo*), ringnecked duck (*Aythya collaris*), killdeer (*Charadrius vociferous*), and an unidentified species possibly belonging to the Ciconiidai family (storks) represent the wild bird species

Table 28. Faunal Identification, MNI, Number, Weight, and Biomass Measures for Fauna Recovered from Stripping the Site								
		MNI	NISP or	Weight	Biomas	Biomass		
Species	Genius, Species	#	Count*	gms	kg	%		
<u>Mammals</u> Unidentified Mamma Aves	1		2	8.02	0.1713	69.92		
Ring-Necked Duck	Aythya collaris	1	1	4.1	0.0737	30.08		
Total		1	3	12.12	0.245	100		
Burned Bone Unburned bone * NISP refers to the number	identified to species		3	12.12				

identified in the St. Paul's Parish Plantation collection.

Wild turkeys prefer forest habitats, specifically oak woodlands and mixed pine-oak forest (Bull and Ferrand 1994).

The colonial importance of turkey, both in Europe where it was being raised commercially, and in America where it was found wild, is discussed by no less an authority

than Brillat-Savarin in La Physiologie du Goût. The bird was often stuffed with sausage, chestnuts, or truffles. Brillat-Savarin remarked that the American wild bird was "higher colored and more aromatic than the domesticated turkey," recommending that breeders, "give them all possible liberty, take them to the fields, and even the woods, to heighten their taste and make them approach as much as possible the original species" (quoted in Hess and Hess 1989:32). By the first half of the nineteenth century South Carolina planter William Elliott remarked that the turkey was still found in great numbers "and are not very sensibly diminished in numbers." He also noted that they could be both shot and also captured alive (Elliott 1994:241 [1846]). Timothy Silver (1990:101) has found that in South Carolina the birds were brought "many miles" to trade for goods worth but "two Pence Eng[lish]

goods worth but "two Pence Englis Value."

For the planter's daily table turkey might simply be boiled "in a good deal" of salted water, usually for an hour to an hour and a half. While this "could be delicious served with a simple sauce, it did not answer the requirements of interesting appearance" and colonial cooks elaborated by boiling the bird in white wine, dressing it with vegetables, stuffing it with bacon or vegetables, or serving it with stewed oysters or shrimps (Carson 1985:31, 35).

The ring-necked duck prefers wooded lakes, ponds, and rivers but may be found around marine habitats in the southern states (Bull and Ferrand 1994). Killdeer are found in open fields and prairie regions (Bull and Ferrand 1994). In South Carolina they are typically found in areas with limited vegetation such as fields, sandbars, or mudflats. The presence of the species in the collection is probably coincidental as its use as a food resource is unlikely (although it was a game bird until 1900). Ciconiiforme species are generally found inhabiting marshlands (Bull and Ferrand 1994).

# Reptiles

Three reptile species were identified in the St. Paul's Parish Plantation collection. These species included box turtle (*Terrapene carolina*), river cooter (*Chrysemys floridana*) and snapping turtle (*Chelydra serpentina*). Associated with all types of freshwater sources, these turtle species can be observed on land sunning or looking for areas to nest (Behler 1998). According to Hilliard (1972:89), the river cooter was part of the Southern diet during the eighteenth and nineteenth centuries.

It appears that turtle was primarily a West Indian dish, which arrived in the Middle Colonies by way of English cookbooks as early as the first half of the eighteenth century (Hess 1984:296). Considering the strong West Indian-Carolina connection, it seems likely that the taste was directly transplanted to Carolina by immigrants who had full knowledge of turtles. The taste was typically described as being "between that of Veal, and that of a Lobster" (Hess 1984:297). Randolph (1984:230-232 [1824]) describes how to kill and dress a turtle, while a number of cookbooks provide recipes. A consistent seems to be the use of cayenne seasoning. While turtles seem to have been accessible to the St. Paul's Parish residents, they were enough of a luxury to other cooks that several cookbooks provided recipes for mock turtle soup, using a calves head.

# Pisces

Identified fish species included two species, bowfin (*Amia calva*) and drum species (*Sciaenidae sp*). The bowfin is commonly found in sluggish clear waters off the Carolina Coastal Plain and averages between 45 and 87 centimeters in length (Lee et al. 1980:53). Drum are commonly found in bays and estuarine environments, as well as tidal shores (Boschung et al. 1983). Of the drum species, black drum is the largest weighing up to 109 pounds followed closely by red drum at around 92 pounds.

William Elliott, who lived on Beaufort's sea islands, discusses drum fishing at length (Elliott 1994:110-116 [1846]). Although the fish were available every month of the year except December and January, April (when they spawned) was the only month during which they could be taken by hook. He observed that in one season the Beaufort planters "succeeded in taking . . . at least twelve thousand of these fish; and when I add, that except the small number consumed in their families, the remainder were salted and distributed among their slaves" (Elliott 1994:112 [1846]). For the time, they were among the largest fish taken, with the average about three feet in length and weighing 30 to 40 pounds. A sport fish among those on the coast, drum may have been acquired through indirect behaviors such as trade or gift-giving since the study tract is not near any esturine system. Alternatively, drum was one of the few fish with any commercial value, and it may have been procured especially for the planter's table. Silver comments, in general, on the ability of slaves and masters to procure fresh fish:

> South Carolina colonists discovered that Africans were especially adept at using small dugout canoes to fish the numerous rivers and creeks of the low country. Slaves from coastal regions of West Africa were also skilled at casting large nets that could corral large numbers of migrating ocean species. Like Indians, slaves in South Carolina knew how to dam small creeks and saturate the water with herbal poisons to stupefy fish. Europeans and Africans also took fish with spears, gigs, and harpoons as well as with hooks and lines.

Lower water levels and stream obstructions in settled regions probably made it easier to concentrate fish within a smaller area where they could be killed in quantity, making such techniques more destructive than similar tactics employed by Indians (Silver 1990:135).

# **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 only canis species identified in the collection was a dog (Canis familiaris) which probably represented a pet. The other commensal species identified in the collection was the marsh rice rat (Oryzomys palustris). 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).

# **Results**

Table 24 provides a summary of the total MNI, NISP, weight, biomass weight and percentages of MNI and biomass weight for the St. Paul's Parish Plantation. A total of 584 bones weighing 1,936.61 grams were identified representing 18 animal species. Of this total, 355 (61%) fragments were identified to species, 216 (37%) to class, and 13 fragments (2%) could not be identified to class.

Most of the remains were mammalian totaling 88.82% of the total biomass weight. Cattle, pig, and deer dominated the mammal group. Pig MNI totaled eight, followed by deer with four, and cattle with two. Turtle represented the next greatest contribution based on biomass weight at 7.88%. Most of the turtle was river cooter which made up over 6% of the total site biomass percentage. Bird was the next greatest contributor to the biomass. Chicken (MNI 4; biomass 1.44%) and ring-necked duck (MNI 2; biomass 0.57%) contributed the most in this category.

Fish were the least represented group with a total of two MNI and 0.27% of the total biomass. The virtual absence of fish from the collection is not unexpected given the screening methods used. Small bones, such as fish bones, are less likely to be recovered when <sup>1</sup>/<sub>4</sub> inch screen is used. In addition to vertebrate fauna, oyster, *Crassostrea virginica*, and clam, *Mercenaria mercenaria*, were identified at the site (these, like the drum, would not have been available on the plantation and would have been brought in from elsewhere).

Before discussing the results of the analysis of the faunal assemblages by activity areas identified at the St. Paul's Parish Plantation, the sample size of the collection requires some discussion. Archaeological faunal collections should contain at least 200 individuals (MNI) or 1,400 identifiable bones (NISP number of identified specimens to species) to provide reliable interpretations (Grayson 1973, 1984; Wing and Brown 1979). An examination of Table 24 where the totals are presented for the entire site indicates that the faunal collection does not meet this criterion. In every activity area, (Tables 24-27) the MNI and NISP identified for each faunal sample are well below the minimum size suggested. Since there is the potential for bias and underrepresentation of the certain faunal species recovered and identified at the site, the conclusions offered are considered preliminary at best. Interpretation of the faunal data is necessary in order to address the proposed research questions and develop further questions concerning dietary patterns at the St. Paul's Parish Plantation site and for plantation sites in general.

#### The Kitchen Area

Excavation units associated with the Kitchen activity area that yielded faunal materials included 100R100 (levels 1 and 2), 100R110 (levels 1 and 2), 110R105 (levels 1 and 2), 115R102.5 (levels 1 and 2), and 135R110 (Level 1). Sixteen species (Table 25) could be identified from this area, comprising a total MNI of 23. Mammals were the most represented vertebrate category totaling 13 MNI, 265 grams, fragments weighing 832.75 and contributing 87.45% of the total biomass. Pig, deer and cattle dominated, in that order, the mammals by MNI and weight. Interestingly river cooter contributed 8.49% of the total biomass weigh for the area and represented the fourth greatest contributor in weight. Chicken also was well represented (MNI = 2; biomass percentage 1.69%). The only sheep, rice rat, dog, cottontail, and fish species identified in the collection were associated with this area. The higher diversity of species in the Kitchen locale is expected given that food preparation and discard took place here, and scavengers such as dogs and rodents likely fed in the vicinity.

# Main House

The analysis of the Main House showed a pattern of class contribution similar to the kitchen area (Table 26). Nine species could be identified with mammal contributing the most to the diet (86.49% of the biomass weight), followed by turtles (11.21% of the biomass weight) and birds (2.30% of the biomass weight). No fish were recovered from this area, although oyster and clam shell remains were identified in the collection.

The total bone count for the Main House area was 216 fragments weighing 818.38 grams. Cattle bones dominated the faunal materials recovered from the main house with 19 fragments weighing 298.62 grams and 39.67% of the total biomass weight. Chicken and turtle, particularly river cooter, were also well represented in this activity area. One unexpected bird species, killdeer, was associated with this area but as mentioned earlier, its presence at the site may not reflect its use for food. The units that contained animal remains and are associated with the Main House activity area include 90R260 (Level 1), 97.5R235 (Level 1), 97.5R245 (Level 1), 97.5R255 (Levels 1 and 2), 100R260 (Level 1), 100R270 (Level 1), and 105R250 (Level 1).

# **Slave House**

The sample from the House Slave area, Table 27, consisted of faunal materials recovered from unit 85R270 (Level 1) – the only unit excavated at this activity area. This activity area yielded the fewest bones, a total of 10 weighing 50.47 grams. Pig was the only species identified with a MNI totaling two (one immature and one mature were present in the sample).

# Stripping the Site

The only identified species found during stripping (Table 28) was a ring-necked duck sternum. In addition two unidentified mammal bones were found. Stripped fill, however, was not screened.

# **Faunal Category Patterns**

Figure 36 presents an inventory of faunal categories for the plantation. 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 for comparative purposes are Broomhall Plantation (Hogue et al. 1995), Seabrook Plantation (Hogue 1998), Youghal Plantation (Hogue and McCain 2006) and Tranquil Hill (Lowrey and Hogue 2008). Patterns established by Reitz (1986) for slave, rural, and urban collections are also included for comparative purposes.

For this study, the categories used are domestic mammal, wild mammal, domestic



bird, wild bird, reptiles, fish, and commensals. This latter category includes the dog and the rodent species identified at the kitchen area. For comparative purposes, percentages are calculated using MNI. For each activity area, MNIs were summed for all of the excavation units and associated features.

One obvious discrepancy observed among the collections shown in Figure 36 is the greater frequency of reptiles at this This site and Broomhall settlement. Plantation both contain a large number of reptiles compared to all the other patterns. Both of these sites are situated on interior fresh water swamp drainages, rather than in coastal estuarine locales. Specifically the St. Paul's Parrish has considerably less fish than Reitz's (1986) models and the other sites. Although this low frequency might be explained by the screening methodology, Reitz's model (Reitz 1986: 47) is based on sites examined using an identical strategy. This implies that there is a significant difference.

With the exception of fish remains, the pattern observed for the St. Paul's Parish Plantation is most similar to the urban pattern derived by Reitz (1986) where domestic and wild mammals are the dominate food source.

# **Differential Meat Portions**

As previously discussed, the skeletons of cattle, pig, and deer are subdivided into seven categories: head, axial, forequarter, hindquarter, forefoot, hindfoot, and foot. Only the collections associated with the Main House and Kitchen areas are compared due to the small sample size.

NI%. Although the NISP for each among the different activity areas is small, comparisons are made to observe major differences between the areas.

Meatier cuts are associated with the fore and hindquarters and to a lesser degree the axial skeleton. Less desirable cuts are elements

Table 29. Bone Modifications by Area								
	Sawed	Clean Cut	Burned	Chopped /Hacked	Gnawed	Total		
Modified Bones From the Ki	tchen Ar	ea						
Pig	2	1	-	1	-	4		
Sheep	-	-	2	-	-	2		
Deer	-	-	6	-	1	7		
Unidentified Large Mammal	-	-	7	-	-	7		
Total	2	1	15	1	1	20		
% of NISP (n = 356)	0.56	0.28	4.21	0.28	0.28	5.61		
Modified Bones From the M	ain Hous	e Area						
Cattle	-	-	1	-	-	1		
Unidentified Large Mammal	-	-	3	-	-	3		
Chicken	-	-	1	-	-	1		
Unidentified Bird	-	-	7	-	-	7		
Box Turtle	-	-	1	-	-	1		
Total	0	0	13	0	0	13		
% of NISP (n = 216)	0	0	6.02	0	0	6.02		
Site Total Site Percentage (n = 584)	2 0.34	1 0.17	28 4.79	1 0.17	1 0.17	33 5.65		

associated with the cranium, fore/hind foot and foot bones.

The NISP (number of identified specimens) of each segment category was counted and each category's percentage of the total 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



INVESTIGATION OF A ST. PAUL'S PARISH PLANTATION

percentage for each category) from log<sub>e</sub> 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 37, meatier cattle hindquarter sections were high in both activity areas. Few cattle bones (n=4) were associated with the Kitchen activity area so these comparisons are very limited. The logdifference scale graph also shows the cranial, hindquarter and foot bones present in higher amounts than all of the other categories in that area. This finding is unexpected, but may suggest on-site butchering where other cuts of beef were used elsewhere.

Pig bones are present in numbers sufficient for analysis and Figure 37 is a composite of their amounts. Most of the pig bones are associated with the Kitchen area (n =51) while fewer (n = 13) were identified for the Main House. Both areas show a high percentage of cranial bones with fore foot, hind foot, and foot bones being underrepresented. The meatiest forequarter and hindquarter cuts are associated with the Main House area and probably reflect the serving of these better portions to the wealthier occupants.

Figure 37 also presents the segments of deer compared between the Main House and Kitchen areas. As with cattle and pig, there is a much higher representation of forequarter and hindquarter portions in the Main House area, again indicating that the better cuts of meat were served in the Main House.

#### **Bone Modifications**

A summary of the modified bone elements is presented in Table 29. Each specimen was examined with modifications classified as sawed, clean-cut, burned, chopped/hacked, gnawed and worked into tools or artifacts such as awls or buttons. No worked bone was observed in the collection and only faunal materials recovered from the Kitchen and Main House activity areas had been modified.

Only burned bone modifications were observed among the Main House area faunal materials. Only 5.65% of the total faunal collection had modifications and of these most, 4.79%, were burned. Sawed, clean cut, and chopped/hacked bone modification were limited to pig. One deer bone had evidence of gnawing. The greater frequency of modified bone associated with the kitchen area is not unexpected given that this is where the animals were presumably processed.

#### **Conclusions**

The faunal remains recovered from the various activity areas and features at 38CH2091 provide an opportunity to examine faunal use at the site. A total of 1,160 bone fragments was recovered weighing 1,981.06 grams. Sample size for the site and the associated activity areas are relatively small and present possibilities for bias and under-representation of the faunal species identified at the site, particularly for fish elements. Despite the small sample size several identified patterns are discussed, but any inferences and explanations presented here are considered preliminary at best. It is logical that such interpretations are crucial in order to answer existing questions and develop further questions concerning dietary patterns for plantation sites in general.

Domestic mammals, specifically swine and cattle, dominated the assemblage. Pig bones were present in the highest frequency among the three activity areas. This finding does not appear to support Reitz's proposition that cattle may have been preferred over pork (Reitz 1995), however cattle *was* the second most prominent species represented by weight in the assemblage. The most diverse faunal assemblage was associated with the Kitchen area where 16 different species were identified in the collection. Overall, the site had 18 animal species representing a variety of wild game and domestic mammals and birds. Reitz's study on eighteenth and nineteenth century upper-class urban households document a more variable diet for this social class, including both wild and domestic species (Reitz 1986) coupled with a higher frequency of fish (Reitz 1986). Better cuts of beef, pork, and venison were identified with the Main House area, indicating its probable occupation by the more elite class.

Processing of large domestic mammals may have occurred elsewhere based on the logdifference scale model (Figure 37) where there is underrepresentation in the foot bone categories. Based on the comparisons of faunal categories (Figure 36) and percentages, the St. Paul's Parish Plantation site appears most similar to the pattern observed for Reitz's (1986) urban model and other plantations located in South Carolina.

Few bone modifications were observed in the collection. Burning was the most prevalent modification followed by sawing (Table 29). The remaining categories of modifications were observed in equal frequencies.

With additional research one may be able to document specific and different subsistence patterns in separate areas of a state or region. Although the faunal collection recovered from the site may be considered too small to make conclusive statements about the plantation, it is important to investigate individual plantations and other historic sites to identify the dietary patterns and differences among them.

# ETHNOBOTANICAL REMAINS

# **Introduction**

Ethnobotanical remains were recovered from a single feature flotation sample, 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. The one flotation sample weighs in excess of 36 grams, although most of the sample consists of trash.

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 38CH2091 the soil sample from Feature 1 was 5 gallons in volume (representing soil prescreened to remove artifacts and architectural debris to ¼-inch) and was 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.

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 environmental interpretation using charcoal that should be consulted by those particularly interested in this aspect of the study.

Another factor that is of special importance at this site is that the structures burned. Thus, the hand-picked samples may largely reflect architectural debris, rather than wood gathered for use in cooking or heating. Although the data is nonetheless useful, care must be taken in the resulting interpretations.

#### **Procedures and Results**

The one flotation sample was prepared in a manner similar to that described by Yarnell (1974:113-114) and was examined under low magnification (7 to 30x) to identify carbonized plant foods and food remains. Remains were

	Pinus	Quercus	Gleditsia	Celtis	Hickory	UID
Provenience	sp.	sp.	tria can thos	occidentalis	Nutshell	Wood
Kitchen						
100R100, Lv. 1	4.11					2.20
100R100, Lv. 2	9.22					
115R102.5, Lv. 1	2.22					1.43
115R102.5, Lv. 2	0.90	0.35				0.25
110R105, Lv. 1	33.23					0.24
100R110, Lv. 1	1.86					
100R110, Lv. 2	4.64					
135R110, Lv. 1	0.59					1.20
stripping	8.35					
Feature 3	0.36					
Feature 4	0.14					
Main House						
97.5R235, Lv. 1	0.91	1.15				
95R245, Lv. 1	1.80	0.83				
97.5R245, Lv. 1	0.73		3.20			
90R260, Lv. 1	0.56					
100R260, Lv. 1	3.75					
130R265., Lv. 1	0.81	2.17				
Slave Structure						
-85R270, Lv. 1	3.16			0.30	0.70	)
Total Weight	77.34	4.50	3.20	0.30	0.70	5.32

Table 30.

Analysis of Hand-Picked Samples

identified based on gross morphological features and seed identification, had any been present, would have relied on Schopmeyer (1974), United States Department of Agriculture (1971), Martin and Barkley (1961), and Montgomery (1977). The float sample consisted of the charcoal obtained from 5 gallons of soil (by volume). The entire sample from this floated amount was examined.

Feature 1 in the kitchen area, while well defined, had no identifiable function and artifacts were sparse. The total flotation weight was 36.20 grams. Only 12.28 grams (33.94%) consisted of wood charcoal. The remainder included small bone (1 gram, 2.77%), shell (0.23 gram, 0.64%), brick and soil (3.27 gram, 9.04%), and uncarbonized organic material (19.41 grams, 53.62%). No food remains or seeds were present.

Turning to the wood species, the most abundant was pine (*Pinus* sp.). Excluding unidentifiable woods, 10 of the 11 kitchen handpicked samples include only pine. In contrast, only two of the six main house samples contained only pine. We believe that much of

the pine identified in the collections came from architectural timbers. This is supported by both the density of the pine and the very large fragments recovered.

Other species include oak (*Quercus* sp.), honeylocust (*Gleditsia triacanthos*), and hackberry (*Celtis occidentalis*). While the oak is typical of maritime forests and will be found on well-drained sandy soils, the honeylocust and hackberry, while tolerant of a wide range of soils, prefer moist bottomlands.

Both hackberry and honey locust are fairly heavy, straight grained woods, but they were not extensively used historically. Honey locust was used for wagon wheels, as well as fence posts and rails but was not common. Both were occasionally used for furniture.

The hand-picked samples from the slave settlement did yield a single, large fragment of hickory nutshell. With only one sample it is uncertain if this was a food resource used by the African Americans or simply an accidental inclusion.

#### **Discussion**

The only possible food remains from 38CH2091 is the hickory nutshell from the slave settlement. Its function, however, is ambiguous. Other more definitive food remains and seeds are absent. This is likely related to the focus on architectural details coupled with the destruction of the structures by fire. Under these circumstances finding food related items would be very difficult.

The pine found in abundance in virtually all of the samples was likely contributed by the structures themselves. Some of the samples consisted of very large charred timbers and in each case these large fragments were easily identified as pine.

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 might be found in a variety of settings.

The other woods include oak, hackberry, and honey locust. While the latter two are trees that might well be found in close proximity to the swamp margin, the oak is suggestive of a drier setting. 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 (presented as the percent of short-ton coal value). Honey locust is also an excellent fire wood, having a heat index of 87. Hackberry, in contrast, is similar to pine, with a heat index of 73 (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

# **Research Design**

Much of our testing phase was borne out by the more intensive excavations. For example, the abundance of flat wares, the presence of primarily less expensive motifs, the mean ceramic dates, and the absence of colono ware were all supported by the data recovery excavations.

Unfortunately, our suspicion that the site consisted of an overseer's house with some utility building was incorrect. This illustrates the hazard of speculating on site functions with only survey level data and inadequate understanding of the historical context. With additional investigations (both in the field and in the history of the site) we found not an overseer, but a main house (although a very modest main house). And we found not a utility building, but a kitchen.

Our belief that we could adequately investigate the two structures with only 150 square feet of excavation per structure was, at best, naïve. This level of excavation did nothing to elucidate the nature of either structure and it required readjusting our plans by combining the architectural and yard excavations in order to adequately explore the structural remains.

Had we not made this adjustment our understanding of the two structures would have been compromised and it is unlikely that we would have been able to make sense of the resulting data. Had the architectural data not been adequately understood we would have failed to recognize the unusual nature of the plantation house. The result would have been another "compliance" report that offered little of substance. As it is, we have been able to identify the complexity of this particular plantation and offer some recommendations for future work in St. Paul's Parish. In addition, we can comment on an important architectural trend that has not been previously recognized.

Thus, while we were not able to expand our excavations in the yard areas, we believe that the data recovery plan was immensely successful. The combination of architectural data, artifactual analysis, historical research, faunal and ethnobotanical research all helps us better understand a portion of the South Carolina low country that heretofore has been largely ignored by archaeological research.

# **Historical Research**

One of the most difficult aspects of both this work and any future research in St. Paul's Parish will be the large amount of missing data. While the reasons are not entirely clear at least one problem is that this portion of Charleston County was, between 1868 and 1911, combined with Colleton County. Another may be that the loss in property value at the end of the eighteenth century may have resulted in less concern over accurate recordation of deeds and plats. Regardless, the historical research for this plantation was very complex and time consuming.

In spite of considerable uncertainty we believe that the property, probably known as Richmond Hill Plantation, was owned by James Sommers (d. 1792) and continued to be owned by the Sommers family through at least 1838. James Sommers was a successful planter who owned not only plantation lands and slaves, but considerable Charleston property and at least four ships as well. He made at least occasional trips to England, where he died and was buried.

By the early antebellum much of St. Paul's was being abandoned by planters as a result of the collapse of inland rice planting. By the late antebellum the area was being described as poor and "almost abandoned." The lands were still owned, but apparently many tracts were held as an investment with their owners hoping that economic conditions would improve and the land would again have value.

John Withingham Sommers, heir to the property and an accountant – not a planter – appears to have been more interested in disposing of the tracts than hoping for a future revival. Whether the property was sold is uncertain, but the 1838 advertisement does tell us that the 1,000 acre Richmond Hill tract included a one-story frame house.

Little more could be identified about the owners and subsequent activities on the parcel. While Sherman's troops marched through the area no mention is made of any plantation houses, much less their owners or if the structures were destroyed.

# Architectural Findings

Excavations focused on the two largest structures - as originally proposed. What was originally called Brick Pile 1 was identified as a main house. Through hand-excavations and mechanical scraping the structure was found to measure 43 by 23 feet. Coupled with archaeological investigations we can determine that it was frame, constructed using craft traditions, set on brick piers. It likely had an oyster shell paved floor under the structure, perhaps allowing storage. The structure was almost certainly only one-story (based on the nails and window glass recovered), consistent with the 1838 advertisement. Supporting the one-story reconstruction is the very unusual recovery of a lightening rod - perhaps the first such recovery in South Carolina.

The structure was constructed by at least 1750 based on artifacts and probably continued until perhaps the turn of the century, but was very likely no longer occupied by the time of 1838 efforts to sell the property.

The structure was one-room deep, but it may have had either two rooms as a hall-parlor plan or two-rooms with a central passage. Of considerable interest to architectural historians is the presence of the two chimneys on the north wall.

The Richmond Hill plantation house is an early example of what would become an important regional style. This alone helps the importance emphasize of detailed archaeological research since only this effort can fill in the many gaps in the extant architectural Efforts to develop evolutionary record. reconstructions of South Carolina's plantation architecture will continue to be doomed to archaeological failure without additional research that focuses on structural remains.

Unfortunately our efforts at what was earlier called Brick Pile 2 were not as successful. We were able to identify and document back-toback brick fire boxes measuring 4 feet in depth and 5 feet in width, but were unable to find any piers associated with this structure. It is likely that the ephemeral piers were destroyed by cultivation which is documented in aerial photography from the first third of the twentieth century.

Like the main house, however, the kitchen was of frame construction. Artifacts suggest that it was contemporaneous and that both were destroyed by fire at the same time.

The presence of two large fire boxes suggests the building was a combined kitchen and laundry – a structure type that while documented historically has received little archaeological study.

The one slave structure, probably associated with a house servant, was also frame. Construction of the fire box, however, was considerably less careful than anything seen in the main house or kitchen. The fire box was also very small, measuring about 3.2 feet in width by 2.2 feet in depth. The structure was frame, probably set on shallow brick piers that were entirely plowed out.

# Archaeological Assemblage

The archaeological collection produced a diverse collection of over 12,000 specimens. These provided excellent dating of the assemblages and reveal that the kitchen and

Table 31. Comparison of Dates Derived from the 38CH2091 Collections							
	Kitchen	Main House	Slave House				
Mean Ceramic Date	1797.3	1789.5	1843.3				
South's Bracket Dates	1790-1825	1790-1825	1825-1830				
Bartovics' probability distribution	1760-1840	1760-1840	1810-1900				

main house are essentially contemporaneous. They were likely constructed about 1760 and

were abandoned sometime between 1825 and 1840. The creation date coincides with the probable acquisition of the property by James Sommers and the terminal date seems consistent with the efforts by John Withingham Sommers to sell the property in 1838. Whether the sale was successful or not is uncertain, but it does appear that activities on the plantation largely ceased, except for the maintenance of a slave structure, perhaps to provide some minimal maintenance and protect the property.

While the dating is fairly consistent with the historical evidence, the

artifact patterns from the different site areas are more ambiguous. Table 32 compares the patterns from the kitchen, main house, and slave settlement with the patterns previously derived

from British colonial settlement, as well as eighteenth and nineteenth century slave settlements. In a perfect world the patterns would slip into their appropriate categories but that is not the case at 38CH2091.

At least some of the disparity for the kitchen and main house may be explained by emphasis on the physical - and specialized structures. But even if we combine the main house and kitchen to examine the artifact pattern, the result still does not very clearly resemble a British colonial occupation. The kitchen artifacts are very high and the remains anticipated from architectural detailing are low. Tobacco remains are very low and the remains of clothing, personal items, and activities are also low.

Given the historical context for St. Paul's Parish and the abandonment of many properties, including 38CH2091, we may be seeing a distinctive pattern – one that reflects simple architecture with little detailing, coupled with either a simple lifeway on the part of the owner or else only occasional occupation of the structure (resulting in the appearance of a simple lifeway). This is certainly supported by

Table 32. Comparison of Artifact Patterns								
		38CH2091	1					
	Kitchen	Main House	Slave Structure	Revised Carolina Artifact Pattern <sup>1</sup>	Georgia Slave Artifact Pattern <sup>2</sup>	Carolina Slave Artifact Pattern <sup>1</sup>		
Kitchen Group	62.52	74.78	54.20	51.8 - 65.0	20.0 - 25.8	70.9 - 84.2		
Architectural Group	34.29	23.88	42.30	25.2 - 31.4	67.9 - 73.2	11.8 - 24.8		
Furniture Group	0.13	0.19	0.20	0.2 - 0.6	0.0 - 0.1	0.1		
Arms Group	0.26	0.03	0.20	0.1 - 0.3	0.0 - 0.2	0.1 - 0.3		
Tobacco Group	1.43	0.27	1.60	1.9 - 13.9	0.3 - 9.7	2.4 - 5.4		
Clothing Group	0.53	0.13	0.30	0.6 - 5.4	0.3 - 1.7	0.3 - 0.8		
Personal Group	0.11	0.11	0.30	0.2 - 0.5	0.1 - 0.2	0.1		
Activities Group	0.75	0.62	1.00	0.9 - 1.7	0.2 - 0.4	0.2 - 0.9		
<sup>1</sup> Garrow 1982b	-							
<sup>2</sup> Singleton 1980								

the simple ceramics (flat wares with simple, relatively inexpensive motifs).

In looking for some historical support of the archaeological data, Edelson (2006) examines city, hinterland, and frontier (or core zone, secondary zone, and frontier zone). He observes that while the colonial rice frontier was a place of unrelenting field labor, the profits allowed planters to make the core area of Charleston and the area immediately surrounding it a refined, diversified place to live. St. Paul's was at the fringe between the core and secondary zone – representing a secondary zone of settlement "into which planters moved next in their search for new rice lands" (Edelson 2006:130).

Even the slave structure does not conveniently fall into either an eighteenth century pattern (with minimal architectural remains and abundant kitchen items) or the nineteenth century pattern (with a dramatically larger architectural assemblage representing better housing). The 38CH2091 slave structure appears mid-way between the two. This may be the result of a very small assemblage (just over 1,100 artifacts). Alternatively, it may represent a temporal indicator, characteristic of the

Table 33. Status indicators for 38CH2091							
	Kitchen	Main House	Slave Structure				
Flat Wares	64.2%	62.2%	47.4%				
Hollow Wares	25.5%	27.8%	50.0%				
Expensive Motifs	20.8%	17.7%	5.2%				
Inexpensive Motifs	79.2%	82.3%	94.8%				
Miller's Combined Index	1.97	1.76	1.31				

transition from one to the other. Or it may be another indicator of the unusual circumstances of St. Paul's Parish.

Table 33 provides information on several status indicators frequently used by archaeologists, including the proportion of flat wares and hollow wares, the proportion of expensive and inexpensive decorative motifs, and Miller's ceramic indices for the different site loci. In general, planter's sites will exhibit a high proportion of flat wares, indicative of fancier prepared foods. In contrast, lower status individuals, who often ate stews and one-pot meals, would have assemblages with larger proportions of hollow wares. Nearly two-thirds of the ceramics in the kitchen and main house are flat wares, compared to just less than half at the slave structure. This is indicative of higher status foodways and dining.

Similarly, owners typically had fancier ceramics – motifs that, because of their complexity, were more expensive, such as transfer prints. In contrast, slaves ate off inexpensive ceramics, such as banded or edged wares. At 38CH2091 roughly four out of every five ceramics in the kitchen and main house areas exhibited either no motif or an inexpensive motif – a seemingly low proportion of expensive motifs. On the other hand, nearly 95% of the ceramics in the slave assemblage were inexpensive – so there is a clear distinction between the two assemblages.

We have explained the difference by pointing out that in this remote parish, the planter perhaps saw no reason to have an elaborate table – resulting in simple or no decorations. Nevertheless, the foodways were not substantially different, so vessel forms were still dominated by flat wares, even if they were inexpensive.

Miller's indices range from 1.97 to 1.31, with the lowest index representing the slave structure's ceramics. Figure 38 compares the indices of 37 different archaeological assemblages and, placed in this context, the indices for the 38CH2091 main house and kitchen are not especially low – especially for a parish where entertaining was probably unlikely.

While the ethnobotanical remains from the plantation were not especially revealing, largely because few features were encountered in areas dominated by architecture and further



affected by subsequent plowing, the faunal remains were far more revealing. Although the assemblage was small, it provides an interesting account of a rural plantation.

One of the most interesting observations is that contrary to Reitz's predictions, pig rather than cattle was the most common domesticated mammal present in the assemblage. Unfortunately we have no colonial data specific for St. Paul's. The 1850 and 1860 data seem of questionable suitability for comparison to conditions 50 to 75 years earlier. Nevertheless, they reveal cattle and hogs in nearly equal proportions. Sheep, on the other hand, were about half as plentiful as cattle. The parish means of cattle:swine:sheep in 1850 were 41:39:22 and by 1860 were 40:44:22.

The plantation also exhibited considerable diversity, with 16 different species identified from the kitchen assemblage. Thus, while perhaps remote and rarely visited by the owner, when present on-site it seems clear that foodways consistently high were status. A variety of meaty cuts are present, supplemented by a range of wild foods (perhaps accounting for the seemingly large arms assemblage in the kitchen structure).

# **Future Research**

The investigations at this small, isolated St. Paul's Parish plantation reveal the need to examine plantations in a variety of different ecological, historical, environmental,

and social settings across South Carolina. Lumping plantation contexts may hide differences that could help archaeology refine our understanding of owner and enslaved lifeways. To simply refer to how a plantation owner lived is to mask differences and distinctions that were vivid and important historically.

Research in St. Paul's late colonial archaeology is especially interesting since while we have focused on the wealth brought by inland rice cultivation – as well as the rise of tidal rice cultivation – we have largely ignored what happened as South Carolina planters abandoned the overgrown swamp rice fields. Just as Coclanis (1989) documents the demise of tidal rice, Edelson (2006:266) observes that the inland swamp rice cultivation "was poorly calibrated to sustain economic growth in the long term." The late colonial plantations of St. Paul's provide a unique opportunity to examine, in Coclanis' words, the "shadow of the dream" presented by inland swamp rice cultivation.

# SOURCES CITED

Adams, Natalie, Michael Trinkley, and Debi Hacker

1995 In the Shadow of the Big House: Domestic Slaves at Stoney/Baynard Plantation, Hilton Head Island. Research Series 40. Chicora Foundation, Inc., Columbia.

Albert, Alphaeus H.

- 1969 Record of American Uniform and Historical Buttons. Boyertown Publishing, Boyertown, PA.
- Allston, R.F.W.
  - Essay on Sea Coast Crops. A.E. 1854 Miller, Charleston.
- Bartovics, Albert
  - 1981 The Archaeology of Daniels Village: an Experiment in Settlement Archaeology. Unpublished Ph.D. dissertation, Department of Anthropology, Brown University, Providence.
- Behler, John L.
  - 1998 National Audubon Society Field Guide to North American Reptiles and Amphibians. Alfred A. Knopf, New York.

Boschung, H.T., J.D. Williams, D.W. Gotshall, and D.K. Caldwell

> 1983 National Audubon Society Field Guide to North American Fishes, Whales, and Dolphins. Alfred A. Knopf, New York.

Bryan, Lettice

1991 [1839] The Kentucky Housewife. Shepard and Stearns, Cincinnati. 1991 Facsimile ed. University of South Carolina, Columbia.

Bull, J. and J. Farrand

1994 National Audubon Society Field Guide to North American Birds. Alfred A. Knopf, New York.

- Bushman, Richard L.
  - 1992 The Refinement of America: Perhaps, Houses, Cities. Random House, New York.

#### Calhoun, Jeanne A.

1983 The Scouring Wrath of God: Early Hurricanes in Charleston, 1700-1804. Leaflet 29. The Charleston Charleston, South Museum, Carolina.

#### Carlson, David L.

1981 Computer Analysis of Dated Ceramics: Estimating Dates and Occupational Ranges. Southeastern Archaeology 2:8-20.

# Carr, Lois Green and Lorena S. Walsh

1994 Changing Lifestyles and Consumer Behavior in the Colonial Chesapeake. In Of Consuming Interests: The Style of Life in the Eighteenth Century, edited by Cary Carson, Ronald Hoffman, and Peter J. Albert, pp. 59-165. University Press of Virginia, Charlottesville.

# Carson, Jane

1985

Colonial Virginia Cookery: and Procedures, Equipment, Ingredients in Colonial Cooking. Colonial Williamsburg

Foundation,	Williamsburg,
Virginia.	

Casteel, R.W.

1978 Faunal Assemblages and "Wiegemethode" or Weight Method. Journal of Field Archaeology 5:72-77.

Chaplin, Joyce E.

1993 An Anxious Pursuit: Agricultural Innovation and Modernity in the Lower South, 1730-1815. University of North Carolina Press, Chapel Hill.

Cheek, Charles D., Amy Friedlander, Cheryl Holt, Charles H. LeeDecker, Teresa Ossim

1983 Archaeological Investigations at the National Photographic Interpretation Center Addition, Washington. D.C. Navy Yard Annex. Soils Systems, Inc., Alexandria, Virginia.

Choate, J., J. Jones, and C. Jones

1994 Handbook of Mammals of the South-Central States. Louisiana State University Press, Baton Rouge.

Coclanis, Peter A.

1989 The Shadow of a Dream: Economic Life and Death in the South Carolina Low Country, 1670-1920. Oxford University Press, New York.

Cooke, C. Wythe

1936 Geology of the Coastal Plain of South Carolina. Bulletin 867. U.S. Geological Survey, Washington, D.C.

Cushion, John P.

1976 *Pottery and Porcelain Tablewares.* Studio Vista, London. Drucker, Lesley, Ronald Anthony, Susan Jackson, Susan Krantz, and Carl Steen

1984 An Archaeological study of the Little River-Buffalo Creek Special Land Disposal Tract. Carolina Archaeological Services, Columbia, South Carolina. Submitted to U.S. Army Corps of Engineers, Savannah District, Savannah Georgia.

Edelson, S. Max

2006 Plantation Enterprise in Colonial South Carolina. Harvard University Press, Cambridge.

Edgar, Walter B., editor

1972 *The Letterbook of Robert Pringle.* 2 vols. University of South Carolina Press, Columbia.

Edgar, Walter B. and N. Louise Bailey

1977 Biographical Directory of the South Carolina House of Representatives. Vol. 2. University of South Carolina Press, Columbia.

#### Ellerbe, Clarence M.

1974 South Carolina Soils and their Interpretations for Selected Uses. S.C. Land Resource Conservation Commission, Columbia.

#### Elliott, William

1994 [1846] William Elliott's Carolina Sports by Land and Water. University of South Carolina Press, Columbia. 1994 facsimile ed.

Emory, K.O. 1979 The Geology of Gun Spalls. In *Colonial Frontier Guns,* edited by T.M. Hamilton, pp. 148-153. Fur Press, Chadron, Nebraska.

#### Erickson, Michelle and Robert Hunter

2001	Dots,	Dashes,	and	Squiggles:
	Early	Engli	ish	Slipware

Technology. In *Ceramics in America, 2001,* edited by Robert Hunter, pp. 95-114. University Press of New England, Hanover, Connecticut.

#### Fick, Sarah

2005 Sea Island Cotton Architecture. In *The Story of Sea Island Cotton,* edited by Richard D. Porcher and Sarah Fick, pp. 359-486. Wyrick & Company, Charleston.

Garrow, Patrick H.

- 1982a Archaeological Investigations on the Washington, D.C. Civic Center Site. Soil Systems, Inc., n.p. Submitted to Historic Preservation Office, Department of Housing and Community Development, Government of the District of Columbia.
- 1982b Artifact Analysis. In Archaeological Investigations on the Washington. D.C. Civic Center Site, edited by Patrick Garrow, pp.57-167. Soil Systems, Inc., n. p. Submitted to Historic Preservation Office, Government of the District of Columbia.

Godden, Geoffrey A.

- 1964 *Encyclopaedia of British Pottery and Porcelain Marks.* Schiffer Publishing, Exton, Pennsylvania.
- 1985 *English China*. Barrie and Jenkins, London.

Graves, Henry S.

1919 *The Use of Wood for Fuel*. Bulletin 753. United States Department of Agriculture, Washington, D.C. Grayson, Donald K.

1973 On the Methodology of Faunal Analysis. *American Antiquity* 38(4):432-439.

1984 On Quantification of Vertebrate Archaeofauna. In *Advances in Archaeological Method and Theory,* vol. 2, edited by Michael B. Schiffer, pp. 199-237. Academic Press, New York.

Greene, Harlan, Harry S. Hutchins, Jr. and Brian E. Hutchins

2004 Slave Badges and the Slave-Hire System in Charleston, South Carolina, 1783 – 1865. McFarland & Co., Jefferson, North Carolina.

#### Hammond, Henry

- 1884 Report on Cotton Production of the State of South Carolina. In *Report on the Cotton Production in the United States,* edited by Eugene W. Hilgard, pp. 451-526. Census Office, Department of the Interior, Washington, D.C.
- Hanson, Lee H., Jr.
  - 1971 Kaolin Pipe Stems C Boring in on a Fallacy. *The Conference on Historic Site Archaeology Papers* 15(2):2-15.

Henderson, J.R. and F.B. Smith

- 1957 Florida and Flatwoods. In *Soils: The Yearbook of Agriculture -1957*, edited by Alfred Stefferud, pp.595-598. Government Printing Office, Washington, D.C.
- Hess, John L. and Karen Hess
  - 1989 *The Taste of America*. University of South Carolina Press, Columbia.

Hess, Karen

1985 Historical Glossary. In *The Virginia House-Wife*, by Mary Randolph. University of South Carolina Press, Columbia.

Hilliard, Sam B.

- 1972 Hog Meat and Hoecake: Food Supply in the Old South, 1840-1860. Southern Illinois University, Carbondale.
- 1984 Atlas of Antebellum Southern Agriculture. Louisiana State University, Baton Rouge.

#### Hogue, S. Homes

1998 Vertebrate Faunal Remains from Seabrook Plantation. In The Plantation Landscape: Slaves and Freedmen at Seabrook Plantation, Hilton Head, South Carolina. Edited by Rachel Campo, Michael Trinkley, and Debi Hacker., pp. 161-174. Research Series 34. Chicora Foundation, Inc., Columbia.

#### Hogue, S. Homes and R. L. McCain

Beef A Plenty: The Faunal 2006 from Remains Youghal Plantation. In Youghal: Examination of an Eighteenth and Nineteenth Century Plantation, Christ Church Parish, Charleston, South Carolina. Edited by Michael Trinkley, Debi Hacker, Nicole Southerland, Sarah Fick, and Julie Poppell., pp. 101-120. Research Series 65. Chicora Foundation, Inc., Columbia.

Hogue, S. Homes, Jack H. Wilson, and Jodi Jacobson

1995 Vertebrate Faunal Remains. In Broom Hall Plantation: "A Pleasant One and in a Good Neighborhood", Edited by Michael Trinkley, Debi Hacker, and Natalie Adams, pp. 261-274. Research Series 44. Chicora Foundation, Inc., Columbia.

#### Holcomb, Brent H.

1995Supplement to South Carolina<br/>Marriages,1688-1820.GenealogicalPublishing<br/>Company, Baltimore.

#### Hopkins, Alfred F.

1937 A Theory Regarding TO Pipes. Antiques Magazine 32 (5):234-235.

# Horry, Harriott Pinckney

1984 [1770] A Colonial Plantation Cookbook. University of South Carolina Press, Columbia. 1984 reprint of 1770 ms. edition.

Huggins, Phillip K.

1971 The South Carolina Dispensary: A Bottle Collector's Atlas and History of the System. Sandlapper Press, Columbia.

#### Humphrey, Richard V.

1969 Clay Pipes from Old Sacramento. *Historical Archaeology* 3:12-33.

#### Huneycutt, Dwight J.

1949 The Economics of the Indigo Industry in South Carolina. Unpublished M.A. Thesis, Department of Economics. University of South Carolina, Columbia.

# Jones, Olive R.

1986 *Cylindrical English Wine and Beer Bottles,* 1735-1850. National Historic Parks and Sites Branch, Quebec.

#### Jones, Olive R. and Catherine Sullivan

1985 The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures. National Historic Parks and Sites Branch, Parks Canada, Quebec.

#### Kidd, Kenneth E. and Martha A. Kidd

1970 A Classification System for Glass Beads for the Use of Field Archaeologists. Occasional Papers 1.Canadian Historic Sites, Ottawa.

#### Krider, E. Philip

2002 *The lightning rod - "an instrument so new"*. Paper presented at Taming the Electrical Fire: A Conference on the History and Cultural Meaning of the Lightning Rod. Bakken Library and Museum, Minneapolis.

#### Küchler, A.W.

1964 Potential Natural Vegetation of the Coterminous United States. Special Publication 36. American Geographical Society.

# Lane, Mills

1984 Architecture of the Old South: South Carolina. Abbeville Press, New York.

Lefler, Hugh T., editor

1967 Lawson's A New Voyage to Carolina. University of North Carolina Press, Chapel Hill.

# Lounsbury, Carl R.

1994 An Illustrated Glossary of Early Southern Architecture and Landscape. Oxford University Press, New York.

#### Lowrey, L. and S. Homes Hogue

2008 Faunal Analysis. In *Tranquil Hill Plantation: The Most Charming Inland Place*. Edited by Michael Trinkley and Debi Hacker, pp. 125-139. Research Series 66. Chicora Foundation, Inc., Columbia.

#### Luscomb, Salley C.

- 1967 *The Collector's Encyclopedia of Buttons.* Bonanza Books, New York.
- Martin, Alexander C. and William D. Barkley 1961 *Seed Identification Manual*. University of California Press, Berkeley.

# Mathew, William M., editor

1992 Agriculture, Geology, and Society in Antebellum South Carolina: The Private Diary of Edmund Ruffin, 1843. University of Georgia Press, Athens.

Mathews, Thomas D., Frank W. Stapor, Jr., Charles R. Richter, John V. Miglarese, Michael D. McKenzie, and Lee R. Barclay

> 1980 Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 1. Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

#### McDonald, Roderick A.

1992 The Economy and Material Culture of Slaves: Goods and Chattels on the Sugar Plantations of Jamaica and Louisiana. Louisiana State University Press, Baton Rouge.

# McKearin, George L. and Helen McKearin

1972 American Glass. Crown Publishers, New York.

- McKee, Harley J.
  - 1973 Introduction to Early American Masonry: Stone, Brick, Mortar and Plaster. National Trust for Historic Preservation, Washington, D.C.

#### McNally, Paul

- 1982 *Table Glass in Canada, 1700-1850.* Parks Canada History and Archaeology 60.
- Miller, E.N., Jr.
  - 1971 Soil Survey of Charleston County, South Carolina. U.S.D.A., Soil Conservation Service, Washington, D.C.
- Miller, George
  - 1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-40.
  - 1991a A Revised Set of CC Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1-25.
  - 1991b Thoughts Towards a Users' Guide to Ceramic Assemblages. Council for Northeast Historical Archaeology Newsletter 18:2-5.
- Mills, Robert
  - 1972 Statistics of South Carolina. Reprinted. The Reprint Press, Spartanburg, South Carolina. Originally published 1826, Hurlbut and Lloyd, Charleston, South Carolina.

Mohun, Arwen P.

2002 Lightning Rods and the Commodification of Risk in 19th Century America. Paper presented at Taming the Electrical Fire: A Conference on the History and Cultural Meaning of the Lightning Rod. Bakken Library and Museum, Minneapolis.

#### Montgomery, F.H.

1977 Seeds and Fruits of Eastern Canada and Northeastern United States. University of Toronto Press, Toronto.

Morgan, Philip D.

1998 Slave Counterpoint: Black Culture in the Eighteenth Century Chesapeake & Lowcountry. University of North Carolina Press, Chapel Hill.

#### Nelson, Lee H.

1968 *Nail Chronology as an Aid to Dating Old Buildings.* Technical Leaflet 48. American Association for State and Local History, Nashville.

#### Noël Hume, Ivor

- 1963 Clay Tobacco Pipe Dating in the Light of Recent Excavation. Quarterly Bulletin of the Archaeological Society of Virginia 18(2):22-25.
  - 1964 Archaeology: Handmaiden to History. North Carolina Historical Review 41:214-225.
  - 1969 Glass in Colonial Williamsburg's Archaeological Collections.
    Archaeological Series 1.
    Colonial Williamsburg Foundation, Williamsburg, Virginia.
  - 1978 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.

#### Norman-Wilcox, Gregor

1965 Pottery and Porcelain. In *The Concise Encyclopedia of American Antiques,* edited by Helen Comstock, p.132-161. Hawthorn, New York.

# O'Neall, John Belton

1848 *The Negro Law of South Carolina*. John G. Bowman, Columbia.

#### Peirce, Donald C.

1988 *English Ceramics: The Frances and Emory Cocke Collection.* High Museum of Art, Atlanta.

# Pfeiffer, Michael A.

1978 The Utility of Clay Tobacco Pipes and Stems as a Time Marker in the Pacific Northwest. Paper presented at the 31st Northwest Anthropological Conference, Pullman, Washington.

# Popper, Virginia S.

1988 Selecting Quantitative Measurements in Paleoethnobotany. In Current *Paleoethnobotany:* Analytical Methods Cultural and Interpretations of Archaeological Plant Remains, edited bv Christine A. Hastorf and Virginia S. Popper, pp. 53-71. University of Chicago Press, Chicago.

# Poston, Jonathan

1977 The Buildings of Charleston: A Guide to the City's Architecture. University of South Carolina Press, Columbia.

# Price, Cynthia

1979 19th Century Ceramics in the Eastern Ozark Boarder Region. Monograph Series 1. Center of Archaeological Research, Southwest Missouri University, Springfield.

#### Randolph, Mary

1984 [1824] The Virginia House-Wife. Davis and Force, Washington, D.C. 1984 facsimile ed. University of South Carolina, Columbia.

#### Reese, D.M.

1847 An Encyclopaedia of Domestic Economy. Harper and Brothers, New York.

#### Reitz, Elizabeth J.

1982 Application of Allometry to Zooarchaeology. Paper presented at the 39<sup>th</sup> Annual Meeting of the Southeastern Archaeological Conference, Memphis, Tennessee.

1986 Urban/Rural Contrasts in Vertebrate Fauna from the Southern Atlantic Coastal Plain. *Historical Archaeology* 20:47-58.

1995 Pork on the Coastal Plain: Nutrition or Symbol? In *The Symbolic Role of Animals in Archaeology.* Edited by Kathleen Ryan and Pam J. Crabtree, pp. 77-89. University of Pennsylvania Press, Philadelphia.

# Reitz, Elizabeth J. and Dan Cordier

1983 Use of Allometry in Zooarchaeological Analysis. In *Animals and Archaeology 2: Shell Middens, Fishes, and Birds.* Edited by J. Glutton-Brock and C. Grigson, pp. 237-252. BAR International Series 183, London.
- Reitz, E.J. and M. Scarry
  - 1985ReconstructingHistoricSubsistence with an Example from16thCenturySpecialPublicationSocietyforHistoricalArchaeology, Ann Arbor.

# Reitz, Elizabeth J. and Daniel C. Weinand

- 1995 Vertebrate Fauna from the Nathaniel Russell House. In *Initial Archaeological Testing: The Nathaniel Russell House.* Edited by Martha Zierden, pp. 145-164. Archaeological Contributions 24. The Charleston Museum, Charleston, South Carolina.
- Reitz, Elizabeth and Elizabeth S. Wing
  - 1999 Zooarchaeology. Cambridge University Press, Cambridge.
- Reitz, Elizabeth J. and Martha A. Zierden
  - 1991 Cattle Bones and Status from Charleston, South Carolina. In *Beamers, Bobwhites, and Bluepoints: Tributes to the Career of Paul Parmelee.* Edited by J.R. Purdue, W.E. Klippel, and B.W. Styles, pp 395-407. Illinois State Museum, Springfield.

Reitz, Elizabeth J., I.R. Quitmyer, H.S. Hale, S.J. Scudder, and E.S. Wing

- 1987 Application of Allometry to Zooarchaeology. American Antiquity 52:304-317.
- Rosengarten, Theodore
  - 1987 *Tombee: Portrait of a Cotton Planter.* McGraw-Hill, New York.

### Rouse, J.E.

1973 World Cattle III: Cattle of North America. University of Oklahoma Press, Norman.

### Salwen, Bert and Sarah T. Bridges

- 1977 Cultural Differences and the Interpretation of Archaeological Evidence, Problems with Dates. Research and Transactions of the New York Archaeological Association 17(1):165-173.
- Sandifer, Paul A., John V. Miglarese, Dale R. Calder, John J. Manzi, and Lee A. Barclay
  - 1980 Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 3. Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

### Schopmeyer, C.S., editor

1974 Seeds of Woody Plants in the United States. Agricultural Handbook 450. U.S. Department of Agriculture, Forest Service, Washington, D.C.

Scott, S.L.

1981 Economic and Organizational Aspects of Deer Procurement in the Late Prehistoric Period. Paper presented at the 38<sup>th</sup> Annual Southeastern Archaeological Conference, Ashville.

### Seabrook, Whitemarsh B.

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

# Silver, Timothy

1990 A New Face on the Countryside: Indians, Colonists, and Slaves in South Atlantic Forests, 1500-1800. Cambridge University Press, New York.

## Simpson, G.O., A. Roe, and R. Lewontin 1960 *Quantitative Zoology*. Harcourt, Brace and Co., New York.

#### Singleton, Theresa

- Archaeology 1980 of Afro-American Slavery in Coastal Georgia: A Perception of Slave Regional Household and Community Patterns. Ph.D. dissertation, Florida. University of University Microfilms, Ann Arbor.
- 1984 The Slave Tag: An Artifact of Urban Slavery. *South Carolina Antiquities* 16(1-2):41-65.

Smart, Tristine Lee and Ellen S. Hoffman

- 1988 Environmental Interpretation of Archaeological Charcoal. In Current Ethnobotany: Analytical and Methods Cultural Interpretation of Archaeological Plant Remains, edited bv Christine A. Hastorf and Popper, pp. 167-205. University of Chicago Press, Chicago.
- Smith, E. Ann
  - 1981 Glassware from a Reputed 1745 Siege Debris Context at the Fortress of Louisbourg. Parks Canada History and Archaeology 55:75-255.

### Smith, Shelley E.

1999 The Plantations of Colonial South Carolina: Transmission and Transformation in Provincial Culture. Ph.D. dissertation, Columbia University. University Microfilms, Ann Arbor.

Solomon, Raphael E.

1976 Foreign Coins in America. In Studies on Money in Early America, edited by Eric. P. Newman, pp. 25-42. American Numismatic Society, New York.

#### South, Stanley

- 1977 Method and Theory in Historical Archaeology. Academic Press, New York.
- Southerland, Nicole and Michael Trinkley
  - 2006 *Refuge at Ravenel Phase II Testing.* Ms. on file, Chicora Foundation, Inc., Columbia.
- Stoney, Samuel Gaillard
  - 1989 Plantations of the Carolina Low Country. Dover Books, New York.
- Strasser, Susan
  - 2000 Never Done: A History of American Housework. Holt, New York.

#### Sudbury, Byron

1980 White Clay Pipes from the Connellsville Dump, 36Fal40. In *Historic Clay Tobacco Pipe Studies*, vol. 1, edited by Byron Sudbury, pp. 23-46, n.p., Ponca City, Oklahoma.

### Sweeney, Kevin M.

1994 High-Style Vernacular: Lifestyles of the Colonial Elite. In *Of Consuming Interests: The Style of Life in the Eighteenth Century,* edited by Cary Carson, Ronald Hoffman, and Peter J. Albert, pp. 1-58. University Press of Virginia, Charlottesville.

Taylor, Dale

1996 Everyday Life in Colonial America. Writer's Digest Books, Cincinnati.

Teal, Harvey S. and Rita F. Wallace 2004 The South Carolina Dispensary and Emboseed S.C. Whickey

Printing,	Camden,	South
Carolina.		

Thomas, D.H.

1971 On Distinguishing Natural from Cultural Bone in Archaeological Sites. *American Antiquity* 36:366-371.

## Tice, Warren K.

1997 Uniform Buttons of the United States. Thomas Publishing, Gettysburg, PA.

Towne, C.W. and E.N. Wentworth

- 1950 *Pigs: From Cave to Cornbelt.* University of Oklahoma Press, Norman.
- 1955 *Cattle and Man.* University of Oklahoma Press, Norman.
- Trinkley, Michael (editor)
  - 1993 The History and Archaeology of Kiawah Island, Charleston County, South Carolina. Research Series 10. Chicora Foundation, Inc., Columbia.

## Trinkley, Michael and Nicole Southerland

2006 Cultural Resources Survey of the Refuge at Ravenel Tract, Charleston County, South Carolina. Chicora Research Contribution 448. Chicora Foundation, Inc., Columbia.

## Trinkley, Michael, Debi Hacker, and Sarah Fick

- 2003 Liberty Hall: A Small Eighteenth Century Rice Plantation in Goose Creek, Berkeley County, South Carolina. Research Series 62. Chicora Foundation, Inc., Columbia.
  - 2005 Investigation of An Eighteenth Century Overseer Site (38CH1278), Christ Church

Parish, Charleston County, South Carolina. Research Series 64. Chicora Foundation, Inc., Columbia.

#### U.S. Department of Agriculture

- 1971 Common Weeds of the United States. Dover Publications, New York.
- Valch, John Michael
  - 1993 Back of the Big House: The Architecture of Plantation Slavery. University of North Carolina Press, Chapel Hill.

#### Vose, Ruth Hurst

1975 *The Antique Collector's Guides: Glass.* Crescent Books, New York.

### Walker, Ian C.

1966 TD Pipes – A Preliminary Study. Quarterly Bulletin of the Archaeological Society of Virginia 20(4):86-102.

### Walton, Peter

1976 Creamware and Other English Pottery at Temple Newsam House, Leeds: A Catalogue of the Leeds Collection. Manningham Press, Bradford, England.

# Warren, Phelps

1970 Irish Glass: The Age of Exuberance. Faber and Faber, London.

# Weinand, D.C. and E.J. Reitz

1996 Further Studies of Vertebrate Fauna for the Nathaniel Russell House, Charleston, South Carolina. In *Big House/Back Lot: An Archaeological Study of the Nathaniel Russell House*, edited by M. Zierden, pp. 232-251. Archaeological Contributions 25. The Charleston Museum, Charleston, South Carolina.

Welch, P.D.

1991 *Moundville's Economy*. University of Alabama Press, Tuscaloosa.

# Wells, Tom

- 1997 Nail Chronology: The Use of Technologically Derived Features. *Historical Archaeology* 32(2):78-99.
- Wheaton, Thomas R., Amy Friedlander, and Patrick Garrow
  - 1983 Curriboo Yaughan and Plantations: Studies in Afro-American Archaeology. Soil Systems, Inc., Marietta, Georg.la. Submitted to National Park Service, Archaeological Services Branch, Atlanta, Georgia. Contract Number C-5950(79).

## Whitaker, J.O.

1997 National Audubon Society Field Guide to North American Mammals. Alfred A. Knopf: New York.

### Wiethoff, William E.

2006 *Crafting the Overseer's Image.* University of South Carolina Press, Columbia.

# Williams, George W.

1951 *St. Michael's, Charleston,* 1751-1951. University of South Carolina Press, Columbia.

Wing, E.S. and A.B. Brown

1979 Paleonutrition: Method and Theory in Prehistoric Foodways. Academic Press, New York. Yarnell, Richard A.

1974 Plant Food and Cultivation of the Salts Cavers. In *Archaeology* of the Mammoth Cave Area, edited by P.J. Watson, pp. 113-122. Academic Press, New York.

Zierden, Martha and Jeanne Calhoun

1983 An Archaeological Assessment of the Greenfield Borrow Pit. The Charleston Museum, Charleston, South Carolina. SOURCES CITED