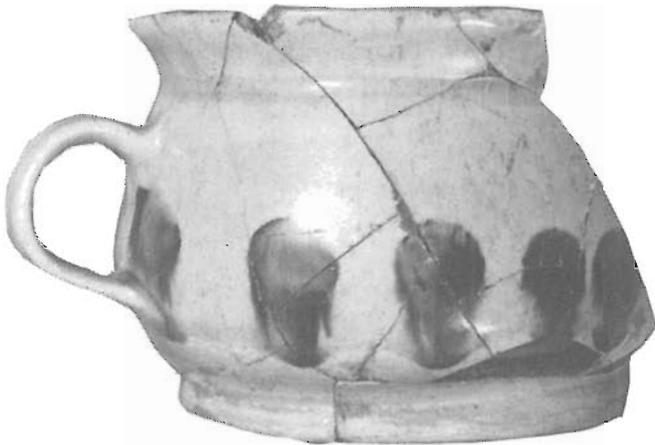


**BROOM HALL PLANTATION: "A PLEASANT ONE
AND IN A GOOD NEIGHBORHOOD"**



**BROOM HALL PLANTATION:
"A GOOD ONE AND IN A PLEASANT NEIGHBORHOOD"**

Research Series 44

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**Dedicated to the Memory of
Dr. Patricia Cridlebaugh**

Vivit post funera virtus.

ABSTRACT

Broom Hall, also known as Bloom Hall and Bloomville, is an eighteenth century plantation situated in the Goose Creek area of Berkeley County, South Carolina. Originally settled by Benjamin Gibbes, a Barbadian planter, Broom Hall was made into a thriving plantation prior to the American Revolution by Peter Taylor through a combination of ranching, indigo, and probably rice. In 1765 Broom Hall passed to Thomas Smith "of Broad Street," a wealthy and noted South Carolina merchant. Broom Hall gradually shifted from a working plantation to a country seat as Smith retired from merchant life and began a different life as part of Carolina's planter elite. Broom Hall survived the American Revolution, being taken into the nineteenth century under the ownership of Smith's son, Peter. During the nineteenth century the plantation gradually fades into obscurity.

Archaeological investigations were conducted at Broom Hall Plantation in 1988 by a consortium including the S.C. State Historic Preservation Office, the S.C. Institute of Archaeology and Anthropology, and non-profit Chicora Foundation. The work was conducted in response to the impending development of the plantation and the loss of the archaeological record. Participating in this work were also a number of volunteers, including both professional archaeologists and the general public. A number of institutions and firms provided assistance during, and after, the project.

The investigations at Broom Hall included both the eighteenth century slave settlement (38BK985) and a portion of the main plantation complex (38BK600). The research uncovered one of the most complete, and complex, eighteenth century plantations ever explored in South Carolina. Remains of nine different structures, a spring, and a formal garden were investigated. During this work a very large quantity of both "low status" remains, such as those associated with the Broom Hall slaves, and "high status" remains, such

as the porcelains found on Peter Taylor's table, were recovered.

Although the investigation of this site was hindered by inadequate funds and time, and the report has been delayed for six years until funding was provided by the S.C. Department of Archives and History through their State Preservation Grants, these studies represent a unique view of colonial South Carolina. Broom Hall was characteristic of the wealthiest plantations found in Carolina and offers a rural view of the wealth and power usually found in only Charleston's richest town houses.

Investigations have focused not only on the approaches and techniques common to historic archaeology -- calculating mean ceramic dates and pattern studies -- but have also explored different avenues. While Miller's ceramic indices are inappropriate for this time period, we have explored a broad range of ceramic characteristics to better understand the wealth and power of the Broom Hall owners. The Colono wares, thought to be slave made pottery typical of eighteenth century slave sites, have been carefully studied utilizing not only traditional typological approaches, but also ICP analysis of the paste and thin section petrological studies of the sherds. The porcelains have been examined by one of the leading experts in colonial porcelain. Combined, these different approaches help us to understand the lifestyle of Broom Hall's slaves and owners -- and help us to understand better colonial South Carolina history.

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INTRODUCTION

Broom Hall is an early eighteenth century plantation situated in the Goose Creek area of Berkeley County, about 18 miles north of colonial period Charleston. Situated in what was known as the St. James Goose Creek Parish, the plantation encompassed a large area of upland swamps associated with Huckhole Creek (Figure 1). Today the area has been overwhelmed by the sprawl of Charleston, with the vicinity becoming a bedroom community. Most of the plantations — The Elms, Crowfield, Otranto — have been incorporated within, or have destroyed by, modern housing projects.

Historically, however, Goose Creek was the home to some of the very wealthiest and most politically active of South Carolina's planters. It was an area dominated by African American slaves, who worked the plantations which made their masters rich, even by today's standards. Rice was grown using the water supplies of Huckhole Creek and the surrounding low swamp ground. Indigo was grown in the upland areas dominated by lighter sandy loams. Both fit well into the mercantile system established in the new colony — neither could be grown in England and very little indigo was grown in the British West Indies. Charleston became not only a thriving sea port, but one of the densest urban centers in colonial America.

George Rogers (1969) observes that the merchants of Charleston gradually developed from the factors sent to South Carolina from England as agents of those who traded with the colony. This merchant class helped propel Carolina into and through her golden age of commerce from the 1730s until perhaps as late as the 1820s. During this period phenomenal wealth was possible through planting, and trading in, rice and indigo. Peter Coclanis (1989:141) found that the annual net rate of return on rice cultivation by the 1760s was around 26.7%. By this time the average mean wealth of the colony's whites was £ 303.62 sterling,

or over \$34,292 in 1992 dollars (Coclanis 1989:89). Rogers notes that the merchants often fared even better and that, "in the 1740's it was the custom to go home once a fortune was made, and by that decade fortunes of ten to twenty thousand pounds sterling [\$1,163,383 to \$2,326,766 in 1992 dollars] were not uncommon" (Rogers 1969:14).

Not all planters or merchants went home with their fortune, some, making Carolina their new home, retired, becoming "gentlemen-planters." Rogers even observes that a "principal settlement of [gentlemen-planters] was at Goose Creek, eighteen miles up the Neck from the city, rather reminiscent of clusters of London merchants at Hampstead or at Newington Green" (Rogers 1969:15).

It is curious that in spite of the wealth, the power, and the prestige of the merchant and planter, Carolina failed to develop into what might be called a distinct cultural region, such as Tidewater Virginia. Of course, Coclanis would argue a Marxian interpretation, pointing out that the wealth and power was simply the "shadow of a dream" and that it could never be self-sustaining. David Hackett Fischer (1989:817-818) offers a somewhat similar interpretation. He observes that in spite of colonial wealth and dense population, South Carolina never developed into a cultural hearth area, at least partially because as late as 1790 there were only 29,000 whites living the South Carolina low country, compared to more than 300,000 whites in Tidewater Virginia or 450,000 whites living in the back country.

Regardless, Broom Hall provides a unique opportunity to see and explore some of that history. Owned by such men as Benjamin Gibbes, Peter Taylor, and Thomas Smith, the plantation offers a small microcosm of elite lifeways. It is possible, in one plantation, to study how both the wealthiest planter and the poorest slave lived side by side.

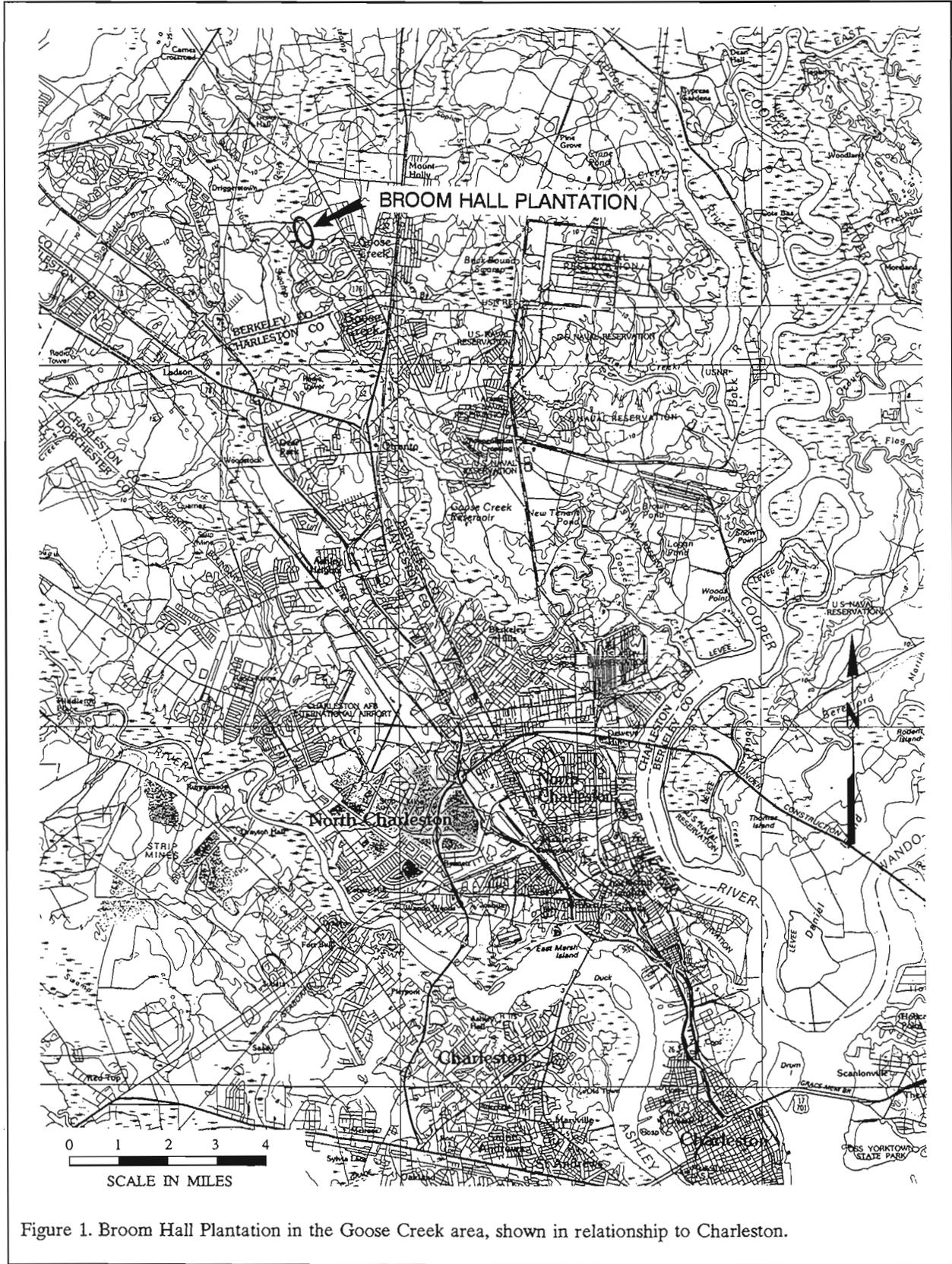


Figure 1. Broom Hall Plantation in the Goose Creek area, shown in relationship to Charleston.

The Natural Setting of Broom Hall

Broom Hall was situated in the St. James Goose Creek Parish of South Carolina. Established by the Church Act of 1706, the parishes of South Carolina were units of social, civil, political, as well as religious, importance. St. James (Goose Creek is added to distinguish it from St. James Santee at the mouth of the Santee River) included part of the Charleston Neck and was bounded on the east by Cooper River, extending north to the Back River. From the point where the Back River branches from the Cooper, the parish line follows the Back River to its source, then runs west, from south of Pimlico, Fairlawn Barony, to what was the unsettled Carolina frontier. The southern boundary, at the Charleston Neck, runs west-northwest parallel to the west-northwest boundary to the frontier. The western boundary was not defined at the time and the parish extended indefinitely into the frontier (Figure 2). Today most of the parish is subsumed by Berkeley County, although portions are also found in Charleston and Dorchester counties and Orangeburg County includes the unstated western boundary.

Today while some areas remains rural, dominated by farms and wooded acreage, much of the parish has been overtaken by suburban sprawl from Charleston and its once prosperous naval bases on the Cooper River.

Topography, Geology, and Soils

Berkeley County is in the southeastern part of South Carolina on the Atlantic Coastal Plain, in the area called the Atlantic Coast Flatwoods. Most of the county (and previously, the St. James Goose Creek parish), consists of broad areas of nearly level to gently sloping, dominantly loamy and clayey soils. Soils adjacent to creeks, in the flood plains of the rivers, and in low areas are subject to frequent flooding. Most are sedimentary and were transported from other areas by the ocean or streams.

The lower part of St. James Goose Creek Parish is dominated by Goose Creek, which runs northwesterly through the middle of the parish and flows into the Cooper River. At the headwaters of Goose Creek is the Goose Creek Swamp, which is

derived from Ancrum Swamp to the west and Huckhole Swamp which forms a more easterly branch. It is apparent from topographic maps that Huckhole Swamp has rather arbitrary boundaries, flowing into Goose Creek Swamp or what is sometimes called Bluehouse Swamp, and coming from King Branch, Daisy Swamp, and Laurel Swamp to the north. Bordering the swamps and creeks are relatively high, steep bluffs to the east and west. It was on these bluffs that plantations such as Crowfield, Persimmon Hill, and Broom Hall were situated (Figure 3).

Elevations throughout the county range from sea level in the vicinity of what is today Daniel's Island to a high of about 105 feet mean sea level (MSL) in the western part. Around Broom Hall, at a gross level, the topography is generally level. Huckhole Swamp is found to the west, with a generally steep slope to the east from about 10 feet MSL to 40 feet MSL. At a more localized scale, Broom Hall is situated on the edge of a terrace. The gardens are found from around 10 feet to perhaps 35 feet MSL. The artificial pond in the garden area is at an elevation of about 10 feet MSL, with an overflow running south to the westwardly flowing spring head. Plantation structures are found at elevations beginning at about 36 feet MSL, although the main complex is situated at the very highest elevations of 45 feet MSL. The slave settlement (38BK985) is also situated on a terrace above the swamp, at an elevation of between 35 and 40 feet MSL. Separating the two settlements, as previously mentioned, is a small natural drainage flowing westwardly into Huckhole Swamp.

Broom Hall is situated on Lenoir fine sandy loams — soils formed in clayey Coastal Plain sediments found on nearly level, deep, and somewhat poorly drained areas. A typical profile includes an A horizon of black to dark gray fine sandy loams about a foot in depth, overlying a B horizon of light yellowish brown very fine sandy loam. By a depth of about 1.4 foot the profile begins to include more clays. These soils may have seasonal high water tables 1.0 to 2.5 feet below the ground surface, typically from December through March (Long 1980:20-21, Table 13, Map 86.). The area around the plantation is dominated by swampland and poorly drained upland soils (Figure

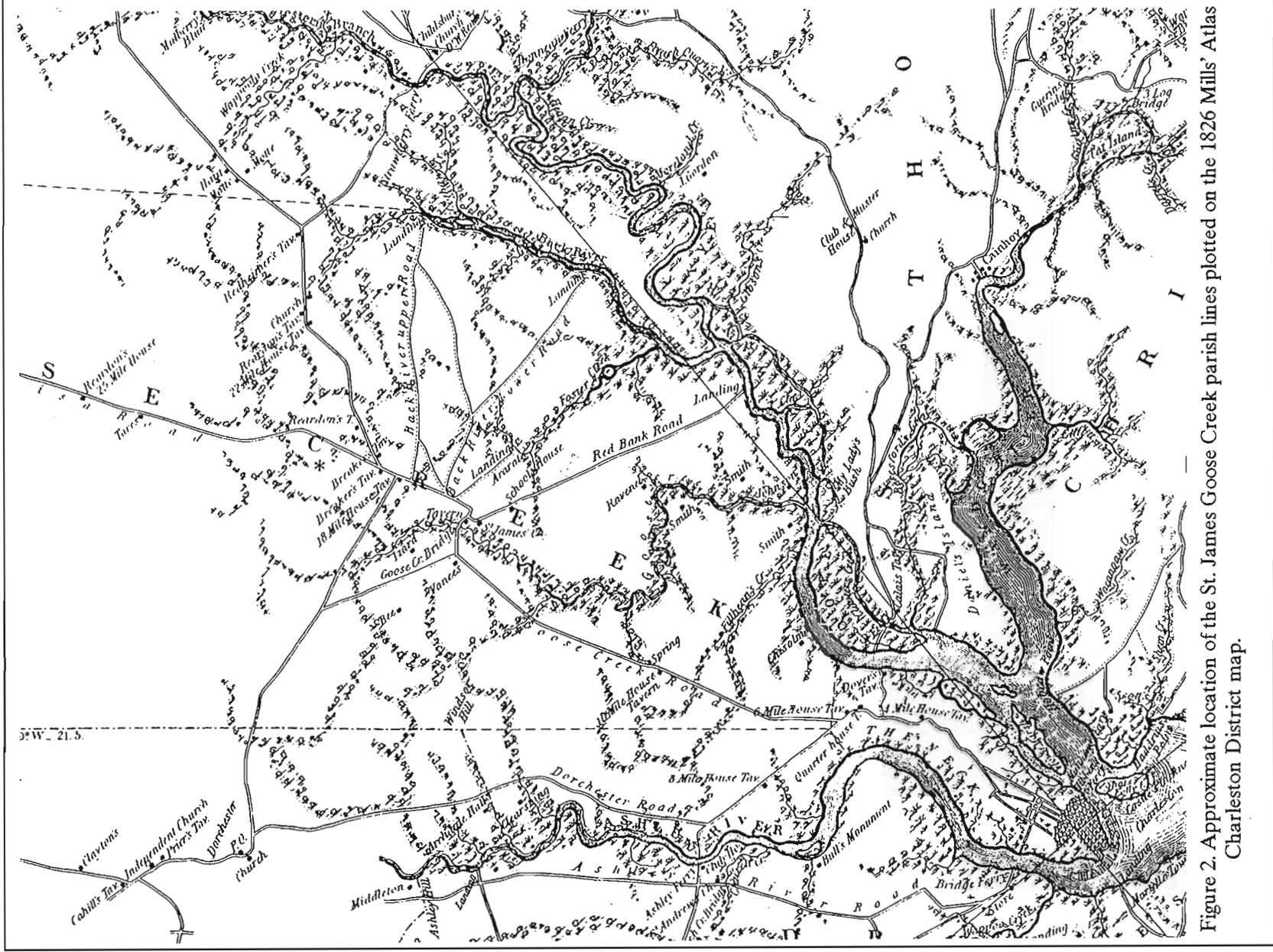


Figure 2. Approximate location of the St. James Goose Creek parish lines plotted on the 1826 Mills' Atlas Charleston District map.

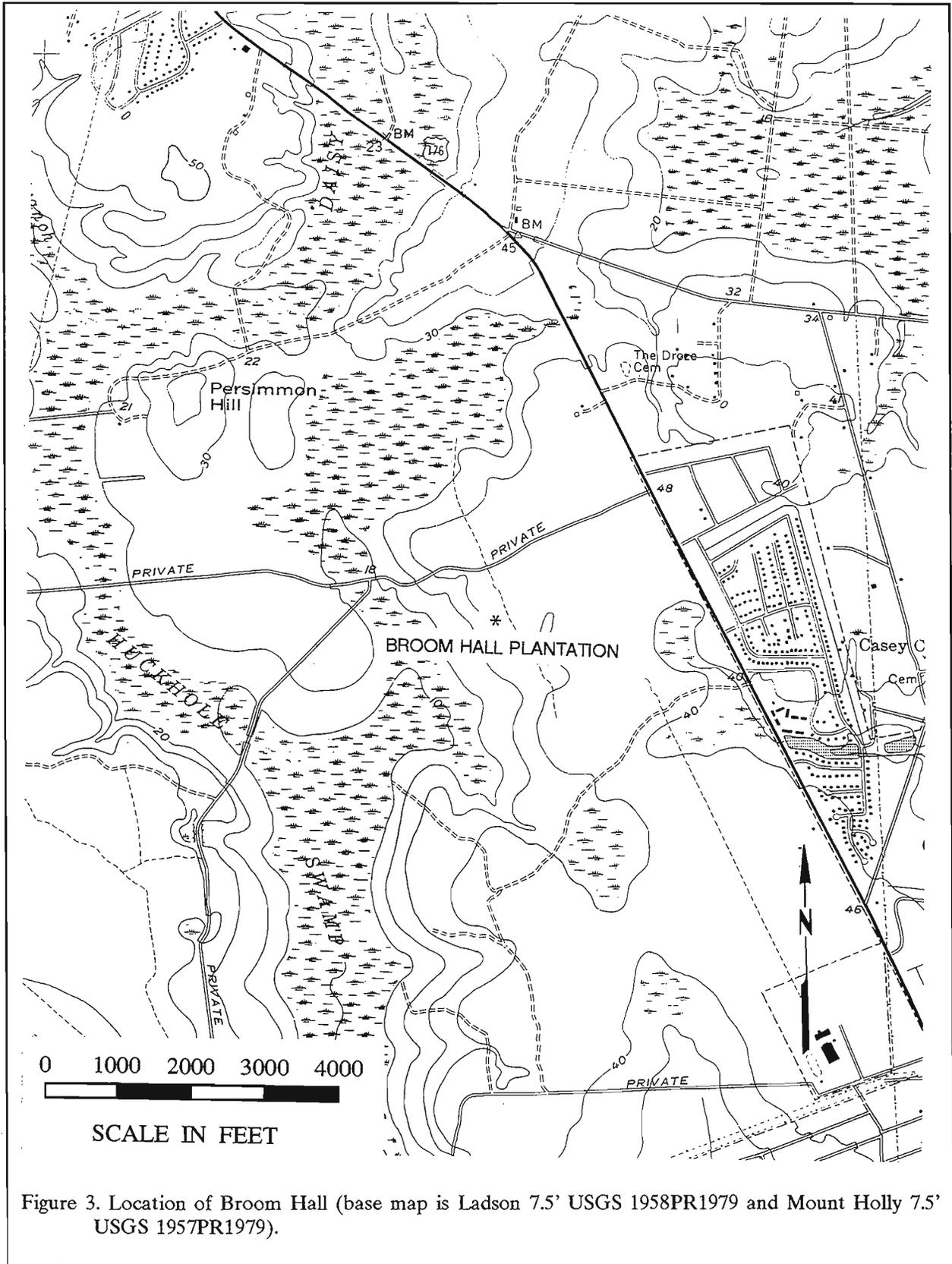


Figure 3. Location of Broom Hall (base map is Ladson 7.5' USGS 1958PR1979 and Mount Holly 7.5' USGS 1957PR1979).

4).

In the mid-nineteenth century Edmund Ruffin remarked that the soils of the area were generally poor, "& very sandy, & mostly on sandy subsoil. Some, however, has a sandy clay subsoil" (Mathew 1992:60). Closer to the river Ruffin found an increase in clays, at times "clay so much predominated in the soil as to be objectionable, the high land being very stiff & intractable under tillage." While Ruffin describes a variety of tidal rice fields:

nearly all the inland swamp lands formerly were under it [rice cultivation] — but have been thrown out, & are now under water (Mathew 1992:64).

Period historian David Ramsay noted that the soils of South Carolina could be divided into six broad categories: tide swamp, inland swamp, high river swamp, salt marsh, oak and hickory high ground and the pine barren. He noted that the tide swamp and inland swamp were suitable for rice; the high river swamps (such as those at Broom Hall) were best suited to hemp, corn, and indigo; while the oak and hickory high grounds were excellent for provision crops, indigo, and cotton. While the Pine Barrens were the least productive, they were recognized as the most healthy and an "indispensably necessary appendage to a swamp plantation" (Ramsay 1858:158).

Health and Climate

Promotional pamphlets of the late seventeenth and early eighteenth century were nearly all equally glowing in their accounts of Carolina. The reputed author of the 1710 *A Letter from South Carolina*, Thomas Nairne, described South Carolina as a vast "champaign Country," complete with a "well stock'd" forest and a sea coast "full of Island, Sounds, Bays, Marshes". (Greene 1989:37). Nairne explains that the "air of Carolina is generally very clear and fine, even when the greatest Rains fall, the Weather does not continue long cloudy, for the sun soon dissipates the Fogs, and restores the Air to its usual Serenity" (Greene 1989:42).

While less well known, John Norris offered similar recommendations in his *Profitable Advice for Rich and Poor*, commenting that:

The greatest Part of the Year round seems very pleasant and delightful, and is generally Healthful to most People that live Temperate. . . . Although the Summer Months seem burdensome to some People, yet the Conveniency of shady Groves, open Air, Arbours, Summer-Houses, and frequent cool Bathings makes amends sufficiently for the Inconveny(Greene 1989:89).

John Duffy (1952) counters these accounts of Carolina's health. He observes that the average European could expect to live to the age of about 30 in South Carolina during the first quarter of the eighteenth century. Yellow fever, smallpox, diphtheria, scarlet fever, malaria, dysentery all were at home in Carolina. Using the Society for the Propagation of the Gospel (SPG) records, Duffy found that from 1700 to 1750, 38% of the missionaries either died or were compelled to resign because of serious illness within the five years of their arrival. Within 10 years of arrival, 52% died or resigned because of health problems. After 15 years in the colonies, the combined death toll and resignations from sickness reaches 68% — two out of every three missionaries. Frank Klingberg (1941:154), using the SPG records, found that in a single four month period over 400 African Americans died of "distemper."

Roy Merrens and George Terry (1989) note that during the early period of Carolina's settlement its climate was "perceived and portrayed as a terrestrial paradise" (Merrens and Terry 1989:534). Often the descriptions are even more glowing than those given by Nairne and Norris quoted earlier. Consistently the climate is portrayed as healthful, the land fertile, the soil inviting, and the native plants and animals all beneficial to English exploitation. It is no wonder that the early colony existed on, in the words of Coclansis, "activities which included not only mixed agriculture but rudimentary extraction and plunder

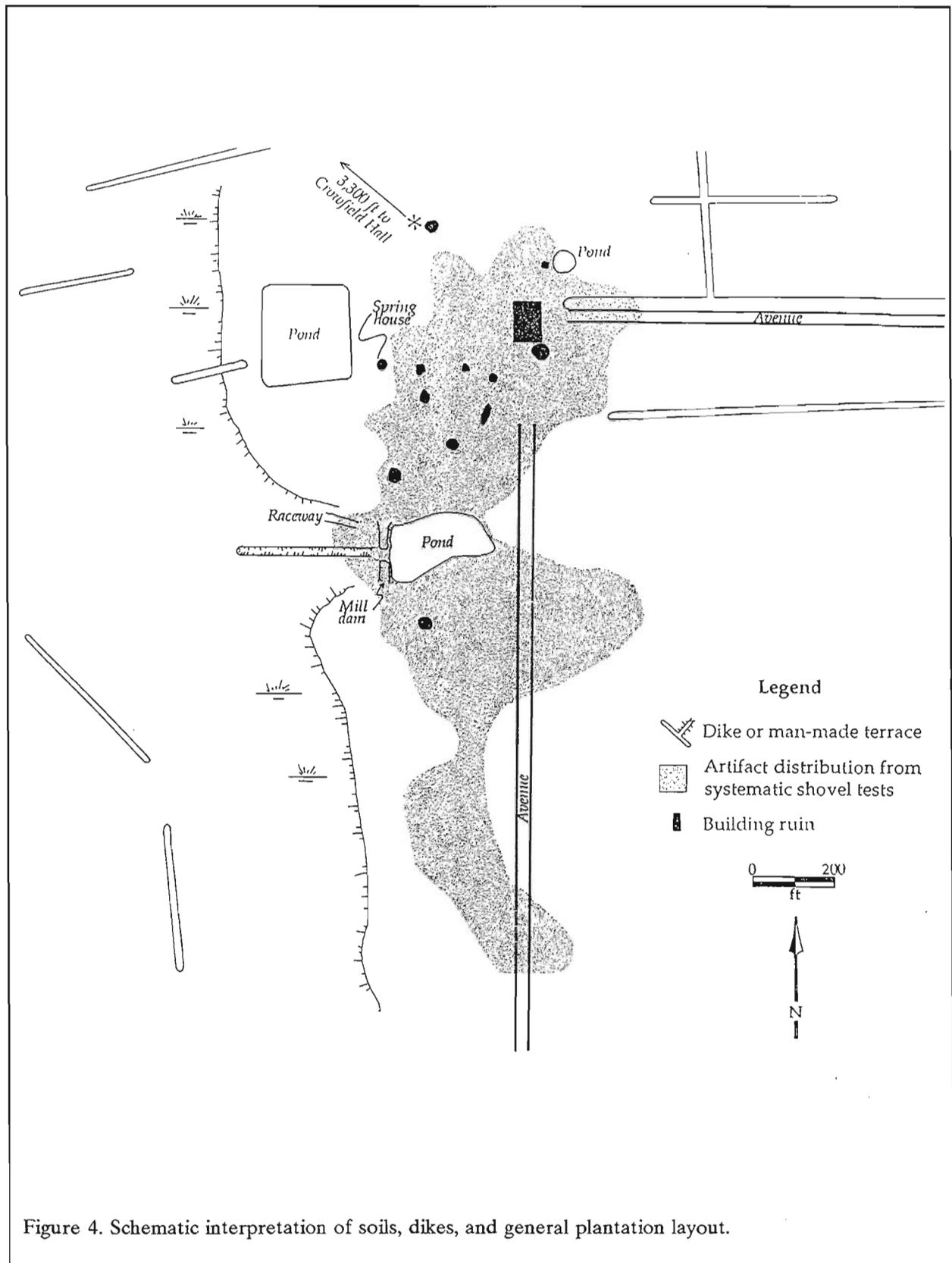


Figure 4. Schematic interpretation of soils, dikes, and general plantation layout.

— the stuff of Marxian primitive accumulation" (Coclanis 1989:58).

Yet, it is clear that there was a dark side to the Carolina climate. Merrens and Terry describe many of the accounts, noting that no less a notable physician and natural historian as Alexander Garden complained that, "Our long & hot summers enervate & unbrace the whole System" (Merrens and Terry 1989:539). As late as 1805, F.A. Michaux, whose father had established a plantation midway between Charleston and Goose Creek, observed:

on my return to Charleston in month of October 1802, . . . I did not meet, on the most populous road, for the space of three hundred miles, a single traveler that was either going to town or returning from it; and in the houses where I stopped there was not a person who conceived his business of that importance to oblige him to go there where the season lasted. . . . from the 1st of November till the month of May the country affords a picture widely different; every thing resumes new life; trade is re-animated; the suspended communications re-commence; the roads are covered in wagons (Thwaites 1904:119-120)

Merrens and Terry observe that in Christ Church Parish along the coast north of Charleston, 86% of all those whose births and deaths are recorded in the parish register, died before the age of twenty. A similar mortality pattern was found in St. Johns Berkeley, adjacent to St. James Goose Creek, in the interior of South Carolina.

Beginning in the last third of the eighteenth century the life expectancy began to increase. Merrens and Terry suggest that this was the result of the occupants beginning to understand the causes of malaria:

During the middle of the eighteenth century South

Carolinians' perception of the wholesome environment of the lowcountry swamps began to change. People no longer preferred these areas on the score of health as a place of summer residence. Instead, residents began to view the lowcountry as fostering both mosquitoes and death (Merrens and Terry 1989:547).

The cultivation of indigo and rice, as well as the swamp lands — all common to the Goose Creek area — were recognized as contributing factors.

The climate, however, not only affected the health and well-being of the settlers, it also affected the politics of Carolina. The summer climate of Carolina, while causing the Barbadian immigrants to feel that they had resettled in the tropics, also convinced most Carolinians that slavery was inevitable. Not only was slavery the accepted order to the planters from Barbados, Jamaica, Antigua, and St. Kitts, it was impossible for white Englishmen to work in the torrid heat — African American slaves were essential (Donnan 1928). Alexander Hewatt observed that:

with the introduction of rice planting into this country . . . the necessity of employing Africans for the purpose of cultivation was doubled. So laborious is the task . . . that though it had been possible to obtain European servants in numbers sufficient for attacking the thick forest and clearing grounds for the purpose, thousands and ten thousands must have perished in the arduous attempt . . . white servants would have exhausted their strength in clearing a spot of land for digging their own graves, and every rice plantation would have served no other purpose than a burying ground to its European cultivators. The low lands of Carolina, which are unquestionably the richest

grounds in the country, must long have remained a wilderness, had not Africans, whose natural constitutions were suited to the clime and work, been employed in cultivating (Hewatt 1971:I:120 [1779]).

The importance of blacks to Goose Creek can

two years (Mathews et al. 1980:56). These storms seemed capricious in occurrence to the early settlers:

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 1858, quoted in Calhoun 1983:2).

Date	Classification	Damage
August 25, 1686	Major	Flooding, wind damage
September 14/16, 1700	Great	Flooding, at least 97 deaths
September 5/6, 1713	Major	Flooding, perhaps 70 deaths
September 13/14, 1728	Major	23 ships damaged or lost, forests leveled
September 15, 1752	Extreme	Extensive flooding, damage, death
September 1784	Major (?)	Flooding, extensive property loss
August 27, 1813	Great	Severe winds, tides, crop losses
September 27, 1822	Major	Extensive crop losses, 300 deaths

hardly be overstated. As early as 1720 there were 80 white families in the parish, with over 1,500 African- American slaves (Klingberg 1941:54).

Another aspect of the climate not yet mentioned were the hurricanes which frequented the coast. Hewatt noted that, "hurricanes have also often visited the country, and through such low and flat lands have spread their desolation far and wide" (Hewatt 1971:I:83 [1779]). He describes the August 1728 hurricane which, "levelled many thousand trees in the maritime parts" (Hewatt 1971:I:317 [1779]), as well as the 1752 storm, which was so fierce that, "almost all the tiled and slated houses were uncovered . . . The fortifications and wharfs were almost entirely demolished: the provisions in the field, in the maritime parts, were destroyed, and numbers of cattle and hogs perished in the waters" (Hewatt 1971:II:181 [1779]). Concerning this storm, Ramsay quotes one eye witness who remarked that "one foot less in the height of the land, or one foot more in the height of the water" would have inundated every spot of ground in Charleston (Ramsay 1858:41-42).

One hundred sixty nine storms have been documented from 1686 to 1972, or about one every

Table 1 lists the major storms of the seventeenth, eighteenth, and early nineteenth centuries which may have affected the Broom Hall area.

Vegetation

Just as the early explorers described the climate as healthful, the Carolina vegetation was usually described as bountiful and fruitful. Catesby described the swamp lands, typical of the Goose Creek area in the first decade of the eighteenth century:

before they are prepared for rice, are thick, over-grown with underwood and lofty trees of mighty bulk, which by excluding the sun's beams, and preventing the exhalation of these stagnating waters, occasions the land to be always wet, but by cutting down the wood is partly evaporated, and the earth better adapted to the culture of rice (Catesby, quoted in Merrens 1977:93).

He also mentions that these swamps, filled with "a

profusion of flagrant and beautiful plants give a most pleasing entertainment to the senses, therein excelling other parts of the country, and by their closeness and warmth in winter are a recess to many of the wading and water-fowls" (Catesby, quoted in Merrens 1977:93).

Early naturalists, such as Catesby and Bartram, provided detailed lists of the vegetation. Mills (1972 [1826]:66-93) provides a detailed list of native plants known by the 1820s. The swamp lands included what today are known as Cypress-Tupelo Swamps and upland swamps. In both cases vegetation is affected by the wet, acidic soils and understory, shrub species, and herbaceous species are very similar. Upland swamps, however, contain pond cypress (*Taxodium ascendens*), pond pine (*Pinus serotina*), Atlantic white cedar (*Chamaecyparis thuyoides*), and slash pine (*Pinus elliotii*) as the canopy species. Cypress-Tupelo swamps tend to contain black cypress (*Taxodium distichum*) and water tupelo (*Nyssa aquatica*). Present are also water ash (*Fraxinus carolinianus*), red maple (*Acer rubrum*), black willow (*Salix nigra*), water elm (*Planera aquatica*), and swamp tupelo (*Nyssa biflora*). They may border areas dominated by water hickory (*Carya aquatica*), overcup oak (*Quercus lyrata*), and swamp chestnut oak (*Quercus michauxii*).

Understory vegetation may include red bay, sweet-bay magnolia, American elm. Shrubs may include viburnums, hollies, and Virginia willow. Herbaceous species, because of the flooding, are rather limited, but those present, such as poison ivy, arrowhead, false nettle, are usually found in very dense stands (Barry 1980:147-151).

Cattle Ranching

Many of the early planters engaged in cattle ranching, allowing cattle to free range, foraging for food. Hewatt remarked that:

cattle increased in an amazing manner, and thrived exceedingly well in their forest. Having little winter, the woods furnished them with both shelter and provisions all the year; neither houses nor attendants were provided for

them, but each planter's cattle, distinguished only by his mark, every where grazed with freedom (Hewatt 1971:I:95 [1779]).

Ruffin presents a very different picture, at least in the mid-nineteenth century, when he describes, "the abominable system of leaving all the stock to starve in winter & spring which cannot find enough food in the pine woods & bays or swamps to keep them alive" (Mathew 1992:210). He explains that if the rancher is fortunate the cattle will improve and:

become generally fat enough for beef by July or August. Then all the steers old enough & fat enough are driven to Charleston & sold; & that constitutes nearly the whole year's income from stock. For they furnish scarcely any milk or butter (Mathew 1992:210).

In spite of this Ruffin suggests that at least some manage to obtain a 15% return on their investment, largely he explains, since the land being use is so worthless that it sold for almost nothing.

Rebecca Starr, exploring the history of Daufuskie Island in Beaufort County, explored the transition from ranching to indigo production. She reasoned that if ranching were so easy, and consistently produced good returns, that there would be little motivation for changing productive strategies. While we won't repeat her lengthy methodology, suffice it to say that she suggests indigo production on a typical (ca. 625 acre plantation with perhaps 30 acres in indigo) might result in the gross return of perhaps £3150 about 1750. In comparison, she suggests an annual return of perhaps £500 for cattle production (Starr 1984). It is this difference she suggests, that spurred cattle ranchers to quickly shift into indigo (and we can presume also rice). Of course, this scenario makes several assumptions — for example Starr has not factored in the difference in costs, instead she offers only gross, not net, returns. It also seems that she ignores the likelihood that almost all successful planters incorporated a range of

pursuits, including both cattle and indigo, especially in the early period.

Rice Production

Rice and indigo both competed for the attention of Carolina planters. Although introduced at least by the 1690s, rice did not become a significant staple crop until the early eighteenth century. At that time it not only provided the proprietors with the economic base the mercantile system required, but it was also to form the basis of South Carolina's plantation system -- slavery.

At first, during the late seventeenth and early eighteenth centuries, rice was grown on inland swamps. It wasn't until the mid-eighteenth century, when slave labor became particularly abundant, that rice began to be grown in the swamps bordering the fresh-water tidal rivers and inland swamp cultivation was abandoned. The early planters had to solve two problems in inland swamp cultivation: first, they had to achieve adequate drainage and second, they had to find adequate water for irrigation.

Duncan Clinch Heyward explores the early inland swamp rice cultivation, offering a detailed account of the process:

To reclaim an inland swamp the first work to be done was to throw up a strong earth dam across its lower end. The purpose of this dam was to prevent salt water from overflowing parts of the swamp to be planted. Then, higher up in the swamp, smaller dams were built. The land between these dams was known as "squares," and each square was given a name by which it could be designated. All of the dams extended entirely across the swamp from the highland on one side to the highland on the other.

Through the dam at the lower end of the swamp one or more large sluice gates were placed. These sluice gates were known as

"trunks," a name brought to the province by the early English settlers, who had seen them used in the freshwater marshes of England. . . .

When the dams had been built and the trunks installed, the clearing of the swamp was begun. This was not, in most instances, a great undertaking, for very large trees seldom grew in the lower portions of these swamps, nor was the undergrowth very dense [cf. Hewatt 1971:I:118 [1779]]. When the land was cleared, canals and ditches were dug. This also was not difficult work, for the dark, alluvial soil yielded readily to the shovel. By means of these ditches the lands to be planted were drained to the greatest possible extent. The smaller of the ditches ran across the swamp, and were known as "quarter" ditches, while the larger, running in both directions, were called "face" ditches. These names continued to be used during the life of the industry in South Carolina and Georgia.

Nearly equal in size to the large dam at the lower end of the swamp was another dam, the highest up in the swamp. This dam held the water in the upper unreclaimed portion of the swamp and made it a reservoir, to be used for irrigation. These reservoirs were, however, most uncertain, for the amount of water they contained was dependent upon rainfall, and a long dry season meant the failure of a crop. . . .

It was principally this lack of water at one time and too much water at another that caused, in later years, the inland swamp plantations to be gradually

abandoned, and the cultivation of rice transferred to the much larger swamps adjacent to fresh-water rivers, in which the fall of the tides could be depended upon for irrigation and drainage (Heyward 1993:12-14; see also Meriweather 1940 and Sellers 1934 for additional accounts).

The process of planting and tending inland swamp rice was in many ways different than tidal rice. Thomas Drayton noted the inland swamp rice was planted several weeks later than the tidal rice (usually first or second week in April), "as their soils are of colder nature" (Drayton 1802:117). Unlike tidal rice, which was flooded immediately after planting, inland swamp rice was rarely covered, since the planters didn't want to exhaust their reservoirs so early in the season. Instead, the rice was allowed to come up naturally. This, of course, created situations where the grain might rot in the ground. Alternatively, it might also be overgrown with grass and weeds, requiring extensive hoeing.

The inland swamp rice planter continued his slaves hoeing through the "branching" of the rice. Typically water was not applied to the fields until the rice began to "joint, blossom, and form the ear," usually in August, at which time "whenever it can be thrown on from rivers, or reservoirs, it is so done: and it is retained thereon, with a change of water, if convenient, until a few days before harvest" (Drayton 1802:119).

However different planting was, the collecting and processing seems identical for tidal and inland swamp rice. The process, according to Drayton, involved several steps:

After harvest, the crop is placed in the open barn yards, either in stacks or in large ricks. It is then threshed out by hand-flails, on a level barn yard or floor, made of rammed clay, or of portions of sand and tar; and being winnowed from the straw, is ready for beating. This operation was formerly performed by manual labour, with a pestle and mortar;

and is still so done, in some parts of the state. . . . rice mills in this state are now arrived to a perfection Three kinds of rice mills, called *pecker*, *cog*, and *water* mills are used in this state. . . . The water mills are put in motion by undershot wheels; the level situation of the lower country, not allowing an head of water to be raised for doing otherwise. In general they are of simple construction, performing the operation only of beating; with the addition, sometimes, of a grinding and winnowing part, similar to the annexed engraving [Figure 5]; but, of late years, some have been erected with complicated mechanism; whose movements proceed with perfect harmony, carrying the grain through a variety of changes, until it be finally delivered into the barrel, and is there packed for market (Drayton 1802:121-124).

Such a mill has been suggested for Broom Hall by the initial survey (although its existence could not be confirmed by our subsequent excavations). Regardless, Drayton mentions that, "Some inland plantations, having extensive reservoirs of water, beat out crops also by these complicated mills; but generally speaking, they use those working with oxen, as being less expensive, and more suitable to small crops of rice" (Drayton 1802:124).

Coclanis (1989:97) suggests that in the first quarter of the eighteenth century rice yields averaged around 1,000 pounds of clean rice per acre, although by the time of the American Revolution even inland swamp rice yields were upwards of 1,500 pounds per acre. Correspondingly, whereas James Glen, writing in 1748, explained that a good slave would produce about 2,250 pounds of rice, by the second half of the eighteenth century that figure had increased to 3,000 to 3,600 pounds yearly by an *average* worker.

During this period rice prices fluctuated

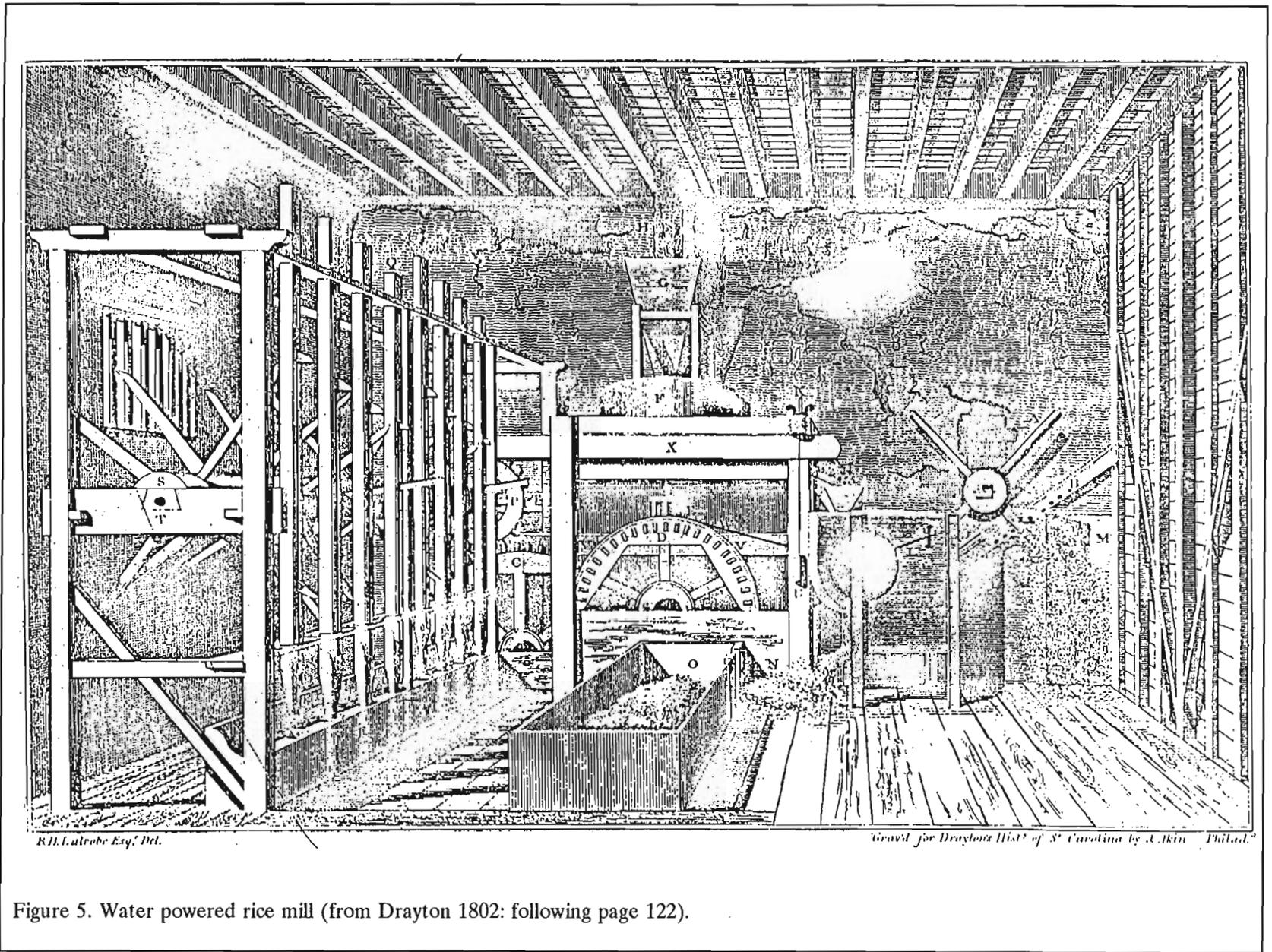


Figure 5. Water powered rice mill (from Drayton 1802: following page 122).

from a low of 2.24 shillings sterling per hundredweight in 1746 to over 12 shillings sterling per hundredweight in 1772. In 1722 rice prices were at 5.17 shillings or about \$30.06 per hundred pounds of cleaned rice in 1992 dollars. By 1734 the price had jumped to \$50.26 (again in 1992 dollars per hundredweight), only to fall to about \$36.58 by 1742 (Coclanis 1989:106).

During this same period African American male slaves typically sold for £250 currency, or about \$4120 in 1992 dollars (Donnan 1928:820). While there were fluctuations, this figure seems relatively stable for much of the colonial period. Even considering the very high prices paid for slave labor, during the period from 1740 through 1770, the annual net rates of return on investment in rice agriculture ranged from a low of about 13.5% to a high of 33.5% (Coclanis 1989:141).

These observations are sufficient to illustrate that rice and slaves were inseparable. And with rice and slavery came, to many, unbelievable wealth. Coclanis notes that:

on the eve of the American Revolution, the white population of the low country was by far the richest single group in British North America. With the area's wealth based largely on the expropriation by whites of the golden rice and blue dye produced by black slaves, the Carolina low country had by 1774 reached a level of aggregate wealth greater than that in many parts of the world even today. The evolution of Charleston, the center of the low-country civilization, reflected not only the growing wealth of the area but also its spirit and soul (Coclanis 1989:7).

Indigo Production

Problems associated with the upland growth of rice, coupled with a dramatic decline in rice prices (see Coclanis 1989:106), provided the incentives necessary for serious consideration of

indigo by planters. Table 2 lists the top ten South Carolina exports in 1747. The economic motive for indigo was clear. Carman noted:

Mr. Glen's account is that one acre of *good land* will produce 80 lb. and one slave may manage two acres and upwards, and raise provisions besides, and have all the winter months to saw lumber and be otherwise employed: 80 lb. at 3s., the present price, is 12£ per acre; and 2½ acres at that rate amount to 30£ per slave, besides lumber, which is very considerable: but I should observe, that there is much indigo brought now from Carolina which sells in London for from 5s. to 8s. a pound, some even higher, though the chief part of the crop may not yield more than 3s. or 4s.; this will alter the average price (Carman 1939:281-290 [1775]).

Copenhaver (1930) suggests that 80 pounds/acre was high and a better average was 30 to 40 pounds per acre. Eight slaves could cultivate, harvest, and prepare the dye from a 40 acre plot -- with returns of from 30¢ to \$2.25 per pound (assuming Copenhaver was using 1930 dollars, this is \$2.51 to \$18.85 per pound in 1992 dollars). Coclanis (1989:107) reports prices ranging from 2.43 shillings sterling (\$14.14 in 1992 dollars) per pound in 1747 to 4.33 shillings sterling (\$25.19 in 1992 dollars) per pound in 1755.

The industry also flourished because of its unusual advantages -- an indirect bounty, a protective tariff, and a monopoly on the British market during the various wars which cut off access to the better Spanish and French indigo supplies (Sharrer 1971). Winberry, however, suggests that South Carolina's love affair with indigo ran hot and cold, unlike its commitment to rice. At the end of King George's War in 1748, many Carolina planters returned to rice. Indigo cultivation continued, but it was always of poor quality, typically the cheapest "copper indigo" quality. Carolina planters failed to pay close attention to

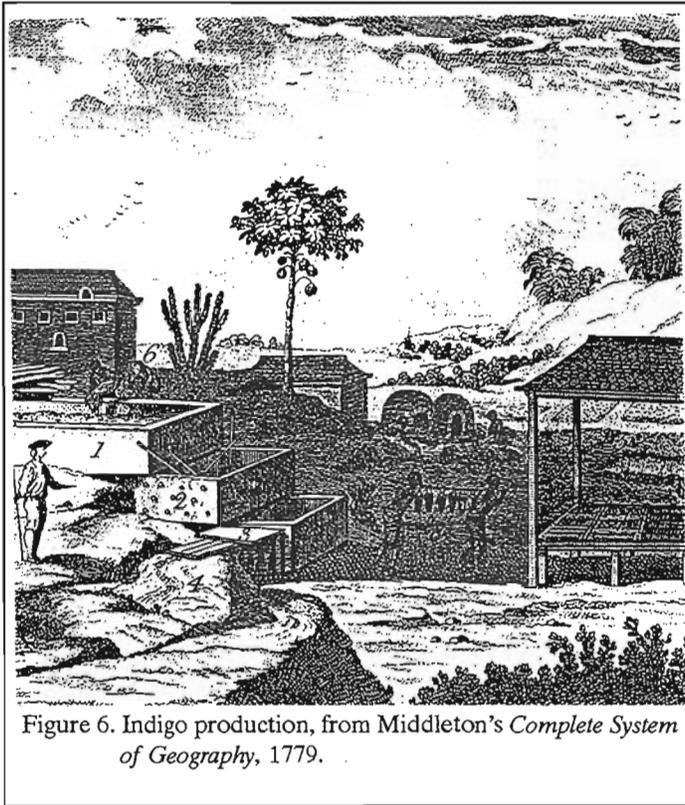


Figure 6. Indigo production, from Middleton's *Complete System of Geography*, 1779.

the exacting requirements of processing, and the result was disastrous. According to Winberry, "importers also noticed that in many of the casks there was nothing but a black spongy substance producing a muddy effect, as if the indigo were mixed with soil" (Winberry 1979:248).

If processing was difficult, cultivation was fairly simple. The crop was planted from seed in middle April, with a preference for dry, loose soil typical of "hickory lands and pine barrens" — the lands typical of the upland at Broom Hall. The plant was harvested in late June or early July, immediately after it blossomed, by cutting it off at ground level. This allowed the roots to produce a second, and sometimes a third, crop before it was killed by frost.

The plants were hauled to the indigo vats and placed in a steeper made from pine or cypress planks measuring 16 feet square and 3½ to 5 feet deep (Figure

6.). The plants were weighted down, covered with water, and allowed to ferment for 10 to 14 hours to remove the dye. The "liquor" was drained off to the wooden beating vats, which were typically 15 feet long, 8 feet wide, and 5 feet deep. There the solution was oxidized by beating. After visible precipitation began limewater was added from the adjacent lime vat to aid coagulation of the dye and agitation continued for about an hour. Afterwards the liquid was drained from the vat and strained through woolen cloth to catch the dye. As Carman notes, "indigo has a very disagreeable smell, while making and curing; and the fœces, when taken out of the steeper, if not immediately buried in the ground (for which it is excellent manure) breeds incredible swarms of flies" (Carman 1939:288 [1775]).

The wet dye was carried to the curing shed where it was pressed to remove as much water as possible and cut into cubes about 2 inches square. It was dried on trays in the shade, then placed in barrels with damp moss, where it was allowed to mold for several days. Afterwards it was brushed off and graded into four categories -- fine blue, ordinary blue, fine purple, and ordinary copper, the least desirable (Copenhaver 1930:895).

The ultimate fate of indigo, like rice, was oblivion. Ruffin observed in 1843 that:

Table 2.
Top Ten Charleston Exports, 1747-1748
(adapted from Coclanis 1989:Table 3-12)

Commodity Exported	Amount of Value in S.C. Currency (nearest £)	Percentage of Total Export Value
Rice	618,750	54.78
Deer Skins	252,000	22.31
Indigo	117,353	10.39
Pork	31,140	2.76
Naval Stores	24,548	2.17
Lumber Products	23,490	2.08
Indian Corn	19,654	1.74
Leather, tanned	18,123	1.60
Beef	11,466	1.01
Peas	3,053	0.27
	£ 1,119,577	99.12%

Indigo, once the almost sole sale crop of S.C. has long been abandoned every where except in Orangeburgh district. . . . Since the begining [sic] of the revolutionary war, & the production of better indigo in India, the price has been so low that it was abandoned universally in S.C., except as stated in part of this district. But even here it will soon disappear, as there is scarcely any sale for the article & some planters now have their last two crops on hand (Mathew 1992:235).

Development of the Project

Review of Compliance Procedures

The Broom Hall project has a long, convoluted history, having traveled a very torturous path beginning in 1978. It is important to understand this particular site, and the excavations which were eventually conducted, in the context of the failure of the compliance system, in the context of the times, in the context of at least the partial success of a collaborative effort, and in a wider context which includes not only Broom Hall, but also neighboring Crowfield Plantation. Focusing on one, and ignoring the others, no matter how well intentioned, does a disservice to our efforts to preserve and protect the past.

Consequently, our understanding of this project must begin in March 1978 when the S.C. Institute of Archaeology and Anthropology (SCIAA) conducted a reconnaissance level survey of the 2800 acre Westvaco tract being called Crowfield Development. The letter report resulting from this initial incursion into Goose Creek recommended that the Crowfield house ruins (38BK103) be nominated to the National Register of Historic Places. It is impossible to determine from the letter report whether Broom Hall was actually visited, but regardless it was not recorded as an archaeological site. The Broom Hall site area was one of several which the report recommended as a "high potential area" requiring "further work, at the intensive survey level" (letter from Dr.

Robert Stephenson, Director, S.C. Institute of Archaeology and Anthropology to Mr. E. Carey Ayres, Crowfield Project Engineer, Westvaco Development Corporation, dated March 27, 1978; memo outlining chronology developed by Dr. Patricia Cridlebaugh, ms. on file, Chicora Foundation, Inc.). It is regrettable that this early recommendation was not heeded.

On December 12, 1978 a representative of the Department of Housing and Urban Development (HUD), which was apparently providing loan guarantees and mortgage insurance for the Crowfield project, contacted the S.C. State Historic Preservation Office (SHPO). The SHPO recommended that HUD formally consult regarding the eligibility of Crowfield, as well as *other possible sites in the area.*

HUD then wrote the SHPO on two occasions, January 8, 1979 and February 1, 1979 concerning the Crowfield development and specifically concerning the eligibility of Crowfield ruins. On February 7, 1979 the SHPO responded that the Crowfield ruins were indeed eligible for inclusion on the National Register, but notes that the site boundaries cannot be determined based on the initial SCIAA reconnaissance survey.

The next documentation concerning the process occurs on April 30, 1979 when a HUD memorandum of a site visit confirms once again that the attention is directly solely at Crowfield. HUD and the SHPO continue to agree that the site is eligible and that HUD is preparing a National Register nomination for the site. A representative of Westvaco suggested that an appropriate preservation effort might be to tear down the ruins and use the bricks to build the proposed club house. The SHPO suggested that the ruins should be preserved in their current state.

A May 17, 1979 meeting between the SHPO and HUD representatives found HUD still determined to nominate the Crowfield ruins site to the National Register, although the SHPO recommended that its eligibility alone was sufficient to invoke Section 106 procedures of the National Historic Preservation Act. HUD explained that the nomination "would strengthen their position in obtaining HUD funds for further survey and possible mitigation work" (memo

outlining chronology developed by Dr. Patricia Criddlebaugh, ms. on file, Chicora Foundation, Inc.).

The next indication that there was any interest in the Crowfield Development on the part of the federal agency came in August 1979 when HUD explained that other matters had delayed the nomination, although it was still "pending." In September of that year the SHPO received a draft environmental impact statement (EIS) concerning the Crowfield Development. Although the draft EIS notes that Crowfield is present and potentially eligible, the document mentions no other archaeological sites. An October 4, 1979 letter from the Advisory Council on Historic Preservation (ACHP) notes that Crowfield will likely be affected, but the draft EIS failed to fulfill HUD's Section 106 compliance responsibilities. A November 1, 1979 letter from SCIAA failed to note the presence of any other sites, instead focusing on Crowfield, noting that the site was potentially eligible and should either be preserved or a professional excavation should be funded. The SHPO wrote a letter on November 13, 1979, also focusing on Crowfield and the treatment of that specific property.

Nearly three years passed with no further attention given to Crowfield — much less any of the other sites which might be in the proposed Crowfield Development. On August 23, 1982 the SHPO received what was then known as an A-95 Clearinghouse review sheet for Crowfield Plantation (called RichWood Subdivision, later Brixton Wood). On September 8, 1982 the SHPO wrote HUD noting that the environmental form for RichWood — which indicated that no archaeological sites were known within a mile of the project other than Crowfield — was incorrect. The SHPO also commented that, "We have no record that the determination of eligibility [for the Crowfield ruins] was ever requested from the Keeper or that the Advisory Council was provided additional opportunity to comment. Until such procedures have been followed, we are unable to adequately assess whether a potentially eligible site will be affected by the proposed subdivision project."

Several months later, on March 13, 1985

the SHPO has a brief telephone log indicating that a representative of Westvaco had called and indicated that the EIS for Crowfield had been approved, based on the 1978 SCIAA reconnaissance study, although it would be two years before the development began. Even this phone call, however, did not send up any real alarm in the archaeological community and the issue lapsed, once again.

In July 1986 the SHPO and SCIAA met with a concerned citizen, Mr. William Starnes of Ladson, who pointed out that Broom Hall Plantation was being destroyed by the Crowfield development. On July 17, 1986 the SHPO also received another A-95 notice, this time for Planters Walk. Again the notice reported that the EIS for the development was approved by all of the commenting agencies. This resulted in a forceful letter from the SHPO to HUD. The SHPO noted that once again the Clearinghouse notice incorrectly reported the EIS was complete and approved — in spite of the failure to complete Section 106 compliance requirements. The SHPO again asked for an updated status report on compliance and reminded HUD that significant archaeological resources were involved. The SHPO recommended, after years of letters, that an archaeological survey be conducted to determine the boundaries of Crowfield, assess the significance of Broom Hall, and determine what other sites might be in the project area. In sum, the letter noted that Crowfield and Broom Hall, as well as "any unrecorded sites, must be documented and evaluated by a professional archaeologist in consultation with our office and the Advisory Council."

On August 22, 1986 Westvaco wrote the SHPO expressing an interest in clearing up issues over compliance and requesting a meeting. On September 11 the SHPO wrote HUD tersely pointing out that there was no response to their July 31 letter and requesting a meeting.

The Broom Hall site was formally recorded (as 38BK600) with SCIAA on August 25, 1982 by Mr. Carl Steen. The site report, providing the most detailed information concerning the site during this early period, is worth quoting at length:

the most obvious features of this site are an extant section of foundation, a tremendous amount of brick rubble from the walls (which fell during the 1886 earthquake) and landscaped grounds . . . artifacts recovered tend to support an early to mid 18th century through early 19th century occupation. . . . Two subsurface features were located. One had been potted but it partially intact, the other, a large circular depression, is undisturbed. Firm site limits have not been determined to the north and east of the site. 38BK601, an historic site from the same period, is about 1000 feet south along the north-south road. . . . [cultural features at the site included] foundation, large brick pile, well or springhouse, landscaped gardens with non-native flora (38BK600 site form, S.C. Institute of Archaeology and Anthropology).

A drawing which accompanied the site form is reproduced here as Figure 7.

Also in the files and presumably collected by Steen during this initial visit are sketches which show that a fireplace in the south wall of the main house. The opening measured about 4 feet in width and 2.3 feet in depth. The wall appear to be about 19 to 24 inches in thickness and another drawing indicates that the building was laid up in Flemish bond (with alternating rows of headers and stretchers).

Recorded at the same time is site 38BK601, about 1000 feet south of the main Broom Hall settlement (although on the accompanying topographic map the two sites are shown as basically in the same location) and was described as a "plantation settlement dependency." Elsewhere it was noted that, "this site may represent an element of the slave settlement or be an early home site of the plantation owner or manager" (38BK601 site form, S.C. Institute of Archaeology and Anthropology). A drawing with

accompanied the site form is reproduced here as Figure 8.

A September 14, 1986 memorandum by Mr. Carl Steen (38BK600 site file, S.C. Institute of Archaeology and Anthropology) reported that individuals had been looting Broom Hall, according to a hobby diver. Some of the more "memorable" artifacts included a brass fleam or bleeding bowl and a large lump of what might have been melted silver or pewter. Steen reports that his visit to the site found about half of the main house had been destroyed by road construction. He also observed a large area which might have represented a "detached kitchen" and several areas of intact brick foundation eroding from the road cuts. At this point he recommended "a complete excavation of the main house, and at least a couple of the outlying structures. In the interest of maintaining a decent relationship with Westvaco a sampling plan could be contrived that would minimally satisfy everyone."

A meeting was held on October 21, 1986 between the SHPO, HUD, and Westvaco. While there are relatively few minutes of this meeting it seems that it was largely informational, with the SHPO again recommending that a survey of the Crowfield Development be undertaken to identify and assess the eligibility of archaeological resources. There must have been a continued effort on the part of either Westvaco or HUD to rely on the 1978 reconnaissance report of SCIAA, since on November 25, 1986 the SHPO wrote HUD that compliance efforts, to date, had been inadequate. SCIAA's 1978 report was specifically reviewed, with the letter stating the report was inadequate for compliance. Once again archival research and a compliance survey were recommended.

A request for survey proposals was prepared for Westvaco by the SHPO in January. Westvaco contracted with Garrow and Associates of Atlanta, Georgia for an archaeological survey of the proposed development. The study was conducted by Mr. Daniel Elliott during the spring of 1987, with a draft report on the survey (excluding Broom Hall) issued on May 31, 1987 (Elliott 1987) and a management summary of the Broom Hall work issued on April 4, 1987 (Bryne 1987). Regrettably no final reports of either the overall survey or the Broom Hall study were ever

prepared. The Garrow and Associates management summary is more fully discussed in a following section.

The SHPO reviewed the Broom Hall management summary and submitted a letter to HUD on April 27, 1987 noting that while they were waiting for the final report, they did concur with the recommendation that Broom Hall was eligible for inclusion on the National Register. The SHPO recommended that HUD proceed with a Memorandum of Agreement (MOA) for data recovery and/or green spacing at Broom Hall.

Several months later, on June 10, 1987 HUD wrote the SHPO that both the Broom Hall Plantation (38BK600) and the Broom Hall Slave Site (38BK985) would be adversely affected by development. In spite of this finding, neither HUD nor the National Park Service (NPS) had the funds to do data recovery. Further, it was HUD's position that they could not force Westvaco to fund this work as a private party. HUD noted that construction was imminent, but that "Westvaco, Inc. is willing to allow 90 days for any private group to undertake (at the public group's expense) any further surveys, testing and recovery."

A day after this letter, the SHPO received a draft copy of the Crowfield Survey prepared by Garrow and Associates, although there was no request from HUD for either a review, comments, or concurrence with the eligibility findings. On August 13 the SHPO received an MOA from HUD covering the green spacing of Crowfield.

On August 24, 1987 the SHPO sent a letter to the Advisory Council recommending four sites (including Crowfield, Broom Hall, and the Broom Hall slave settlement) as eligible, nine sites as potentially eligible, and 21 sites as not eligible. The letter also commented on HUD's failure to assume their compliance responsibilities. A second letter from the SHPO to the Advisory Council was dated August 31, again focusing on the SHPO's opinion of eligibility and the disagreement with HUD.

This resulted in an on-site meeting on November 19, 1987 with the Advisory Council, Westvaco, and SHPO, although there is no record that HUD representatives were in attendance. Out

of this meeting was developed an MOA (dated March 29, 1988) in which Westvaco agreed to fund \$20,000 of excavations at Broom Hall and the associated slave settlement.

While the MOA was being prepared a meeting was called of the archaeological community by the SHPO February 29, 1988. Led by Dr. Patricia Cridlebaugh, the importance, and status, of Broom Hall was explained. The SHPO sought the assistance of professional archaeologists in developing a data recovery, or "salvage" excavation for the two Broom Hall sites within the allotted budget of \$20,000. The request was nearly unanimously rejected, with most groups indicating that the funds were far too little to allow any adequate data recovery.

This, of course, was certainly true. Enough information had been generated concerning Broom Hall by this time to indicate that it was likely one of the most significant eighteenth century plantations ever identified in South Carolina. Even the initial site survey form evaluated the site as potentially eligible at a national level of significance. Unfortunately, the sequence of events surrounding the compliance process left no alternatives — the Broom Hall sites could either be investigated with the available funds, or alternatively they could be "written off" and allowed to be destroyed by development. Short of expensive legal action there were no other viable alternatives.

Consequently, the SHPO, SCIAA, and Chicora Foundation developed a consortium to undertake the excavation of the sites. Chicora Foundation was requested to become the lead partner, with both the SHPO and SCIAA providing technical expertise and administrative support.

A proposal for excavations at the two Broom Hall sites (dated March 22, 1988) was prepared by the consortium partners and submitted to Westvaco Development Corporation. It was approved on April 5, 1988. Westvaco Development Corporation agreed to increase the funding to \$22,000 and, in addition, agreed to provide additional support, ranging from surveying assistance to the donation of field and laboratory

supplies. They also provided a field laboratory where specimens were processed and stored.

Once the decision to move forward with data recovery was made by the consortium partnership, the next serious question was how the funds could best be used. Even with exceptional volunteer support, the funds were a serious limiting factor. With the approval of the ACHP, the consortium decided to channel the majority of the funds into the field work, with the hope that additional funds could be found for analysis, conservation, and eventually report production.

Dr. Patricia Cridlebaugh requested the support of the archaeological community at several Council of South Carolina Professional Archaeology meetings. A number of firms and organizations contributed both supplies and field assistance. The field investigations were undertaken by Chicora Foundation from May 15 through June 11, 1988, for a total of 1044.2 person hours (nearly a third of which were provided by volunteers).

As a result of the investigations two different areas of the slave settlement, 38BK985, were examined through close interval auger tests, and the excavation of 200 square feet in one area (termed Area AA) and 100 square feet in a second (termed BB). These investigations, while identifying a range of features and a large quantity of artifacts associated with the slave occupation, were found to have been heavily, and deeply, disturbed by postbellum cultivation.

A hard decision was made to focus the investigations on 38BK600 — the main plantation settlement, where above ground architectural remains suggested that the site was in much better condition and was likely to contribute not only artifactual, but also architectural, evidence. Consequently no additional investigations were conducted at the slave settlement, known as 38BK985.

The SHPO Archaeologist, Mr. Lee Tippet, has offered a synopsis of the compliance efforts at Broom Hall which is worth considering at length:

Dozens of letters, memorandums,

phone messages, and meeting transcriptions indicate that all of the parties to this affair were aware of their responsibilities under Section 106 of the National Historic Preservation Act (NHPA). Unfortunately, officials at the lead federal agency, the Department of Housing and Urban Affairs (HUD), believed that their jurisdiction was insufficient to require compliance with federal historic preservation law.

Another federal agency, the U.S. Army Corps of Engineers (Corps) has issued numerous permits for the filling of wetlands associated with the construction of roads and other facilities at Broom Hall. Officials at the Corps have also been unwilling to assert jurisdiction over this project for the purpose of compliance with the NHPA. There can be little doubt that personnel from both agencies were influenced by the attitude of the corporate property owner and its attorney.

The lesson is a simple one. Meaningful compliance with Section 106 is impossible without the full cooperation of the lead federal agency. The relative impotence of the President's Advisory Council on Historic Preservation and the State Historic Preservation Office in the face of property owner resistance and federal indifference is illuminated by this particular case. It strongly suggests that we are dealing with a fundamentally flawed process which guarantees inconsistent interpretation and implementation of Section 106 (Lee Tippet, personal communication 1995).

Regardless of how the circumstances surrounding the enforcement of federal historic preservation law are viewed, it is sadly clear, especially as this study is examined, that the loser in this interplay of agencies, owner, attorneys, and preservationists were the site of Broom Hall Plantation and the citizens of South Carolina. While eventually *some* work was conducted, and extraordinary finds were made, much more was lost and can never help explain to us the history, and heritage, of Broom Hall, its owners, or its slaves.

The Garrow and Associates Survey of Broom Hall

Presumably because of the interested generated in Broom Hall late in compliance process, Garrow and Associates chose to conduct the survey of Broom Hall (encompassing a survey area of about 144 acres) independently from the survey of the remainder of the Crowfield tract. The study was conducted by Stephen Bryne from March 9 through 22, 1987. Specifically the work included an intensive survey testing survey, site mapping, and excavation of test units at selected features (Bryne 1987). In addition, a historic synopsis of the plantation, generated largely from secondary sources, was provided.

A total of 329 shovel tests were excavated at 25 foot intervals (Figure 9). The density of architectural group, architectural window glass, architectural brick, kitchen group, kitchen glass, animal bone, kitchen ceramics, eighteenth century ceramics, nineteenth century ceramics, colono ware ceramics, clothing artifacts, and tobacco group artifacts were all examined using simple plots (Bryne 1987:Figure 9-22). Maps for architectural group artifacts, kitchen group artifacts (excluding animal bone), and colono ware ceramics have been prepared using the Garrow and Associates published data combined with GeoView™ computer density mapping (Figures 10-12).

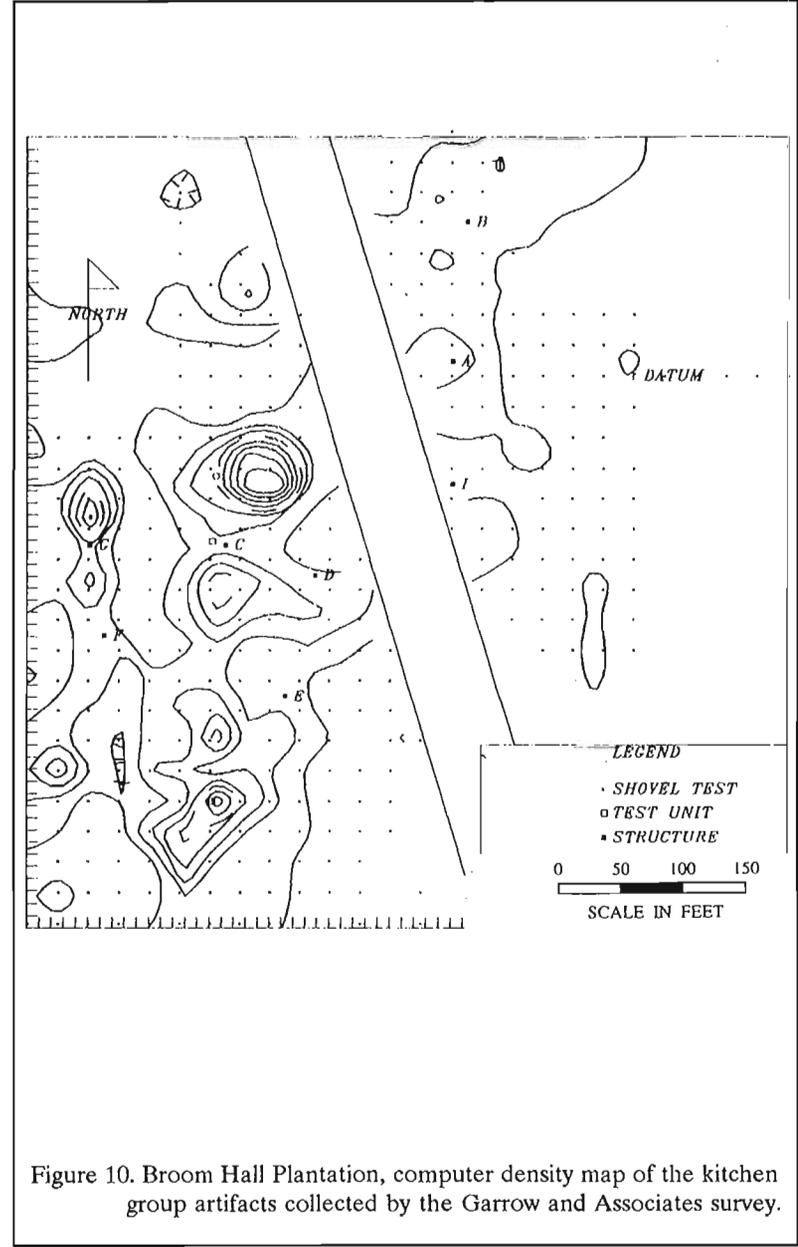
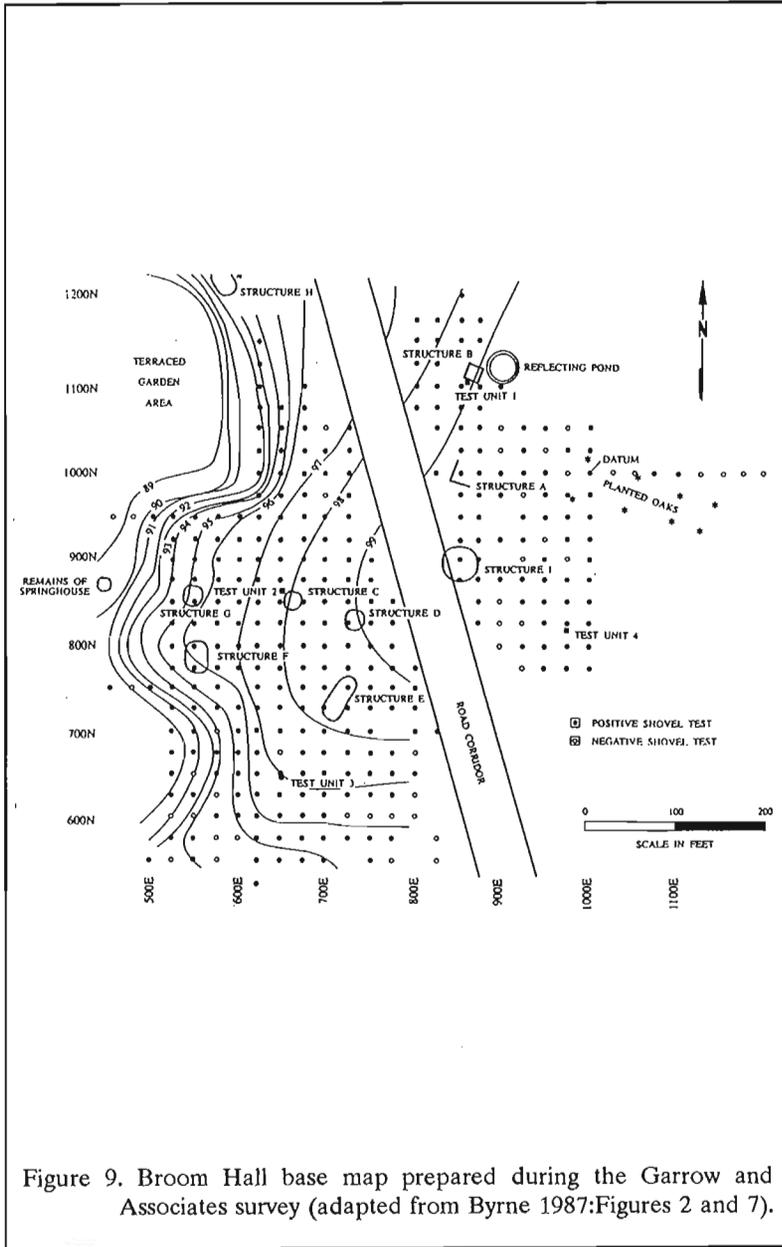
This research, combined with a pedestrian survey revealed the presence of nine structures:

- Structure A represented the main house, which had been damaged by the construction of Westview Boulevard. A portion of the structure, at the time of the

survey, was "exposed in the ditch adjacent to the eastern edge of the roadway" but was not further recorded or photographed (Bryne 1987:4).

- Structure B was a northern flanking brick structure measuring about 25 feet square.
- Structure C was reported as a brick pile which appeared to be a chimney fall. The scatter measured about 20 feet long by 10 feet wide. Bryne suggested that the building might be a domestic slave structure.
- Structure D was a brick pile, also thought to be a chimney fall. A domestic slave structure was suggested.
- Structure E was a linear brick pile measuring nearly 50 feet in length, with a particularly dense concentration of brick at the eastern end. Two slave houses were postulated for this pile.
- Structure F was a brick pile with an intact chimney base at the southern end. Bryne (1987:9) reported that the structure was being looted, but suggested that it was a slave house.
- Structure G was represented by a circular brick pile measuring about 20 feet in diameter. It was interpreted as a single chimney fall and was thought to represent a slave house.
- Structure H was represented by an irregular brick spoil pile with an approximate diameter of 25 feet. No function was offered for this structure.
- Structure I was reported to represent the remains of the southern flanker associated with the main house. It, like the main house, had been damaged by road construction.

Bryne and his colleagues also remarked on the oak-line drive which approached the main



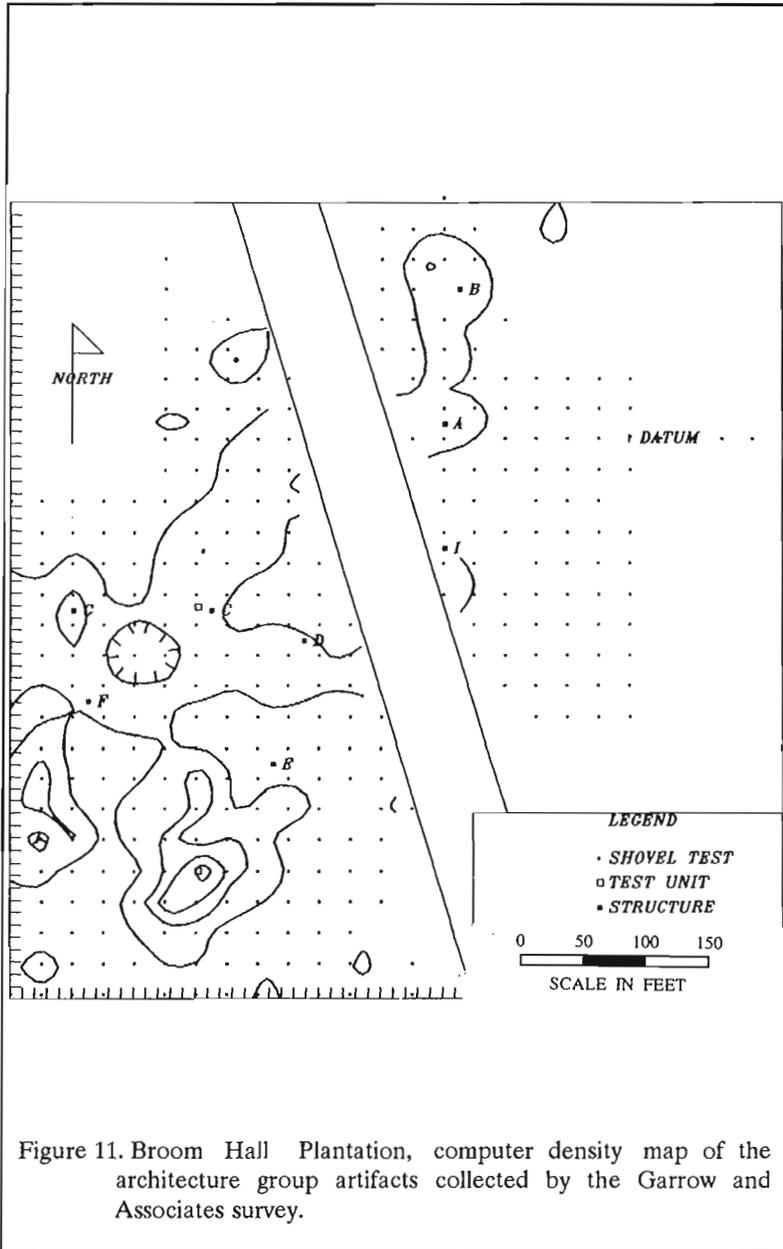


Figure 11. Broom Hall Plantation, computer density map of the architecture group artifacts collected by the Garrow and Associates survey.

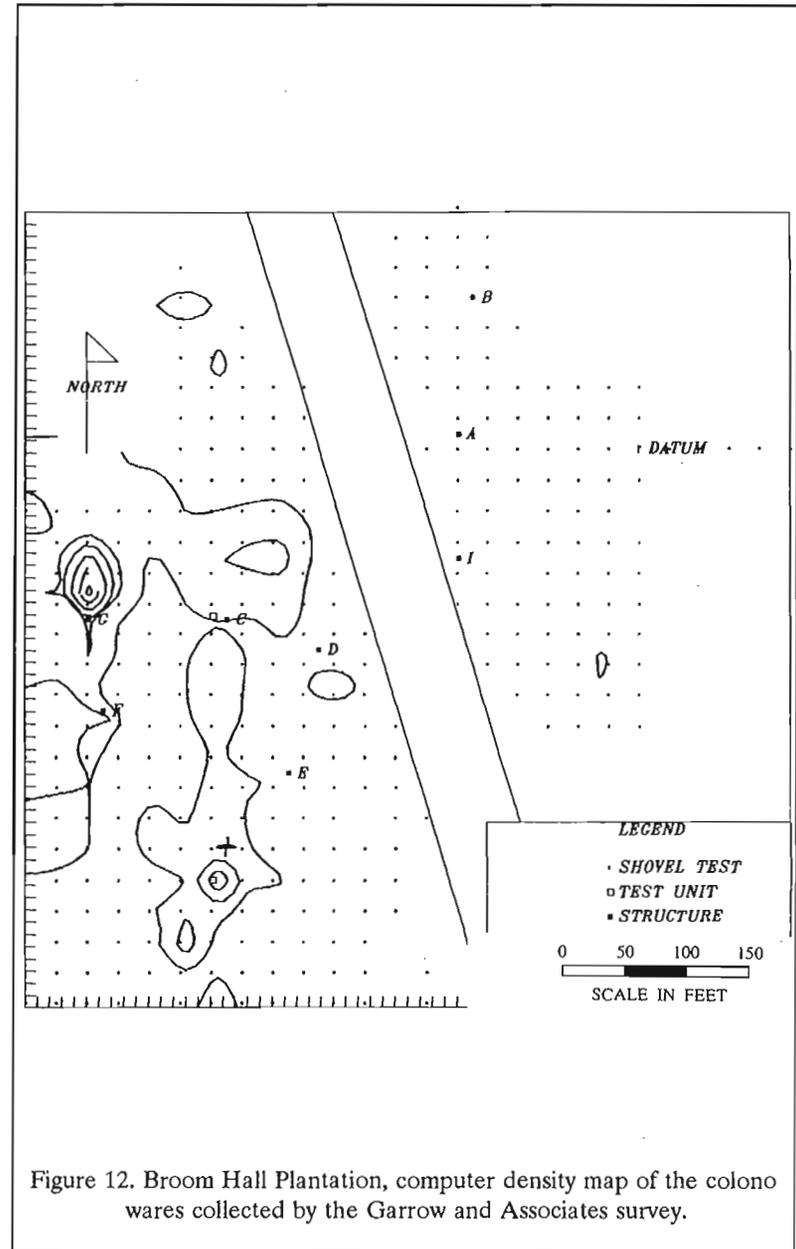


Figure 12. Broom Hall Plantation, computer density map of the colono wares collected by the Garrow and Associates survey.

the oak-lined drive which approached the main house (Structure A) from the east, noting that it was flared, becoming wider as it reached the main house. They mentioned that the "terraced formal garden area" had two distinct terraces and was associated with a "reflecting pond." This pond, according to Bryne (1987:9) was "designed to reflect on Structure B." Finally, they noted the remains of a springhouse on the western slope, recognized by a light scatter of bricks and the presence of a small water flow.

In addition to the shovel tests, this survey also incorporated the excavation of five test pits, each 5-foot square and removed in arbitrary six-inch levels (see Figure 9).

Test Pit 1 (the southwest corner of which was at 110N/857E) was placed on the southwest corner of Structure B, the northern flanker of the main house. The unit revealed a large amount of architectural remains, including brick rubble, architectural stone (likely stone steps or floor fragments), and slate roofing material. What was reported as an original ground surface was encountered at 20 inches below grade. The unit also revealed the corner of Structure B. The southern wall was apparently laid up with alternating whole and half stretchers to resemble a wall with headers and stretchers and was about 9-inches thick. The western wall, about 13½-inches thick, was laid up in headers and stretchers.

Regrettably the builder's trench on the exterior of the wall was not excavated to provide a construction date for Structure B. Examination of the artifacts associated with the fill, however, suggests that the structure dates from no earlier than 1700 and perhaps as late as the 1740s. Occupation apparently continued at least into the 1840s.

Test Pit 2 (the southwest corner of which was at 865N/650E) was placed west of Structure C. While not discussed by Bryne (1987), the field notes for this unit reveal the presence of a plow scar and evidence of extensive root disturbances. Although four post holes are mentioned by Bryne (1987:33), the field notes suggest some ambivalence on the part of the excavators, who suggested at least one might be a root, and another was badly disturbed by roots and/or rodent burrows.

What best translates into the plowzone from this unit reveals a mean ceramic date of about 1777,

although the terminus post quem date is 1889 and when all levels are combined the mean ceramic date is about 1792. This suggests, as would be expected, occupation from the late eighteenth century through much of the nineteenth century. While the assemblage could be characterized as utilitarian (i.e., stonewares, slipwares, redwares, colono wares, delft), it would be difficult with the evidence available to document this as a slave dwelling.

Test Pit 3 (with southwest corner coordinates of 650N/650E) was placed to explore a high incidence of colono wares identified through the shovel testing. In addition, the shovel test at this location, according to Bryne, "encountered intact structural evidence of either a wall trench or post hole" (Bryne 1987:33). This shovel test produced brick fragments, 11 nails, six ceramics, four bottle glass fragments, 10 colono ware sherds, one clay pipe fragment, and four iron fragments. The field notes indicate that a portion of the shovel test produced what were described a "disturbed mix" of soils, leading to the conclusion that a post hole or wall trench might be present. Excavation of the unit revealed a series of five posts forming a north-south line, with two additional posts "at right angles to this alignment," interpreted as the "remains of a wooden building wall" (Bryne 1987:37). In addition, the artifact content of this unit was very high, with 690 specimens recovered from this one unit.

The mean ceramic dates for this unit (by zone) range from about 1803 to 1843 with terminus post quem dates of 1840 and 1890. This is suggestive of a nineteenth century occupation. The prevalence of colono wares and undecorated earthenwares tends to support a possible slave dwelling.

Test Pit 4 (the southwest corner of which was placed at 825N/975E) was excavated in an area where the shovel tests revealed dense colono ware pottery, although no structural remains were noted in the field notes. The unit produced only 15 artifacts and no features. The only observation worthy of note seems to be how quickly the unit filled with ground water during the excavations.

Test Pit 5 (the southwest corner of which was at 1225N/595E) was placed to the west of the brick mound called Structure H. This unit produced a single post hole with an intact post (which was not removed). The artifact assemblage is rather spartan, although not nearly as sparse as that found in Test

Pit 4. The mean ceramic date for the unit was calculated to be 1855, with a terminus post quem of 1820, suggesting an antebellum occupation period.

Although the original report did not contain any overall tabulation of recovered artifacts, it was possible to reconstruct this information from the original catalogs. Table 3 offers the pattern analysis for Broom Hall. The pattern very closely resembles the Revised Carolina Artifact Pattern developed by Patrick Garrow (1982), based on Stanley South's (1977) original work. It is typical of what might be expected on an eighteenth century plantation.

Based on this research Bryne and his colleagues suggested that Broom Hall was clearly eligible for inclusion on the National Register of Historic Places, probably at the state level of

significance. They observe that the site offered the "potential for the examination of an entire plantation complex, rather than merely one or two structures associated with a plantation" (Bryne 1987:43). In addition, Broom Hall was found to be in very good condition during this survey, suffering only from occasional looters' holes and some damage from road construction.

Several potential research questions were proposed, including:

- Intrasite spatial patterning — with excavations suggesting how the plantation layout conformed to the "Georgian World View" which typified architectural planning of the period. They point to the terraced gardens and the seeming symmetry between the various structures.

- Exploration of the associated slave village — with excavations focusing on the order and pattern of the nearby "slave village." This research would further explore the settlement pattern of the plantation. In addition, there was the suggestion that the village was occupied by house, rather than field servants, providing an opportunity to explore a different aspect of slavery. Bryne (1987:44) also suggested that investigation of this portion of the site might reveal information on "the evolution of Afro-American house forms."

In addition to the investigations of 38BK600, the Crowfield survey (Elliott 1987:112) identified what was called the Broom Hall slave settlement (Garrow's site 1; 38BK985; Figure 13). Explored by 39 shovel tests at 20 meter (ca. 65 feet) intervals, it was situated "immediately south of the Broom Hall Plantation" and was separated from the main settlement by a small drainage thought to be associated with a mill dam and silted-in pond area. Also present was evidence of the slave settlement, as well as a non-domestic area, perhaps representing a plantation work area with barns (Elliott 1987:115).

The mill site was "marked by a breached dam, a partially silted mill pond, and a linear depression that may have served as the wheel pit for an undershot mill wheel" (Elliott 1987:115). The dam was described only as "a raised earthen structure that crosses the small intermittent branch,"

Kitchen			
Ceramics	299		
Colono ware	208		
Bottle glass	220		
Pharm bottle glass	12		
Utensils	2		
	741	65.3%	
Architectural			
Nails	204		
Window glass	83		
	287	25.3%	
Furniture			
Lamp glass	1		
Bird cage fragment	1		
	2	0.2%	
Arms			
Lead ball	3		
	3	0.2%	
Clothing			
Scissors	1		
	1	0.1%	
Personal			
Bead	1		
Button	1		
	2	0.2%	
Tobacco			
Pipe stems	30		
	30	2.6%	
Activities			
UID metal	67		
Strap metal	2		
	69	6.1%	

although Elliott noted that "a rich array of artifacts was recovered from the mill pond area." In fact, the survey reported a midden nearly three feet in depth from this area and Elliott comments that, "the mill and the trash deposits within the mill pond could represent significant archaeological resources" (Elliott 1987:115). The study suggested that the mill dated from the eighteenth century, although no additional data was offered.

South of the mill was the posited slave settlement. Shovel tests in this area consistently recovered colono wares. The European ceramics indicated a date range of about 1750 to the 1840s, with a mean ceramic date of 1821.

Even further south was an area which produced very few domestic artifacts, but a thin smear of more utilitarian materials, primarily brick and nail fragments. This area was interpreted to represent a portion of the plantation containing barns and storage facilities.

It appears, based on the overall map prepared by Elliott (1987:Figure 1) that site 38BK601 was subsumed by 38BK985, although the report fails to explain why the numbering was changed. Regardless, the work resulted in a large area, measuring 2000 feet north-south by upwards of 1000 feet east-west, defined as Broom Hall under either site number 38BK600 or 38BK985.

Excavations at Broom Hall

The work by Chicora Foundation at the main plantation complex (Figure 14) was restricted to the area west of the road recently built by Westvaco, the plantation remains to the east being green spaced under provisions of the MOA. This meant that the main house (termed Area A) and at least one flanker (termed Area B) were not available for investigation (our structure designations follow the same order as developed by Garrow's survey). In addition, there was good evidence that a second flanker (Area I) had been destroyed by road construction (subsequently we found that several structures had either been destroyed or badly damaged by the development road). The reflecting pond, found east of Structure B was present, but found to contain only about a foot of water during the rainy season.

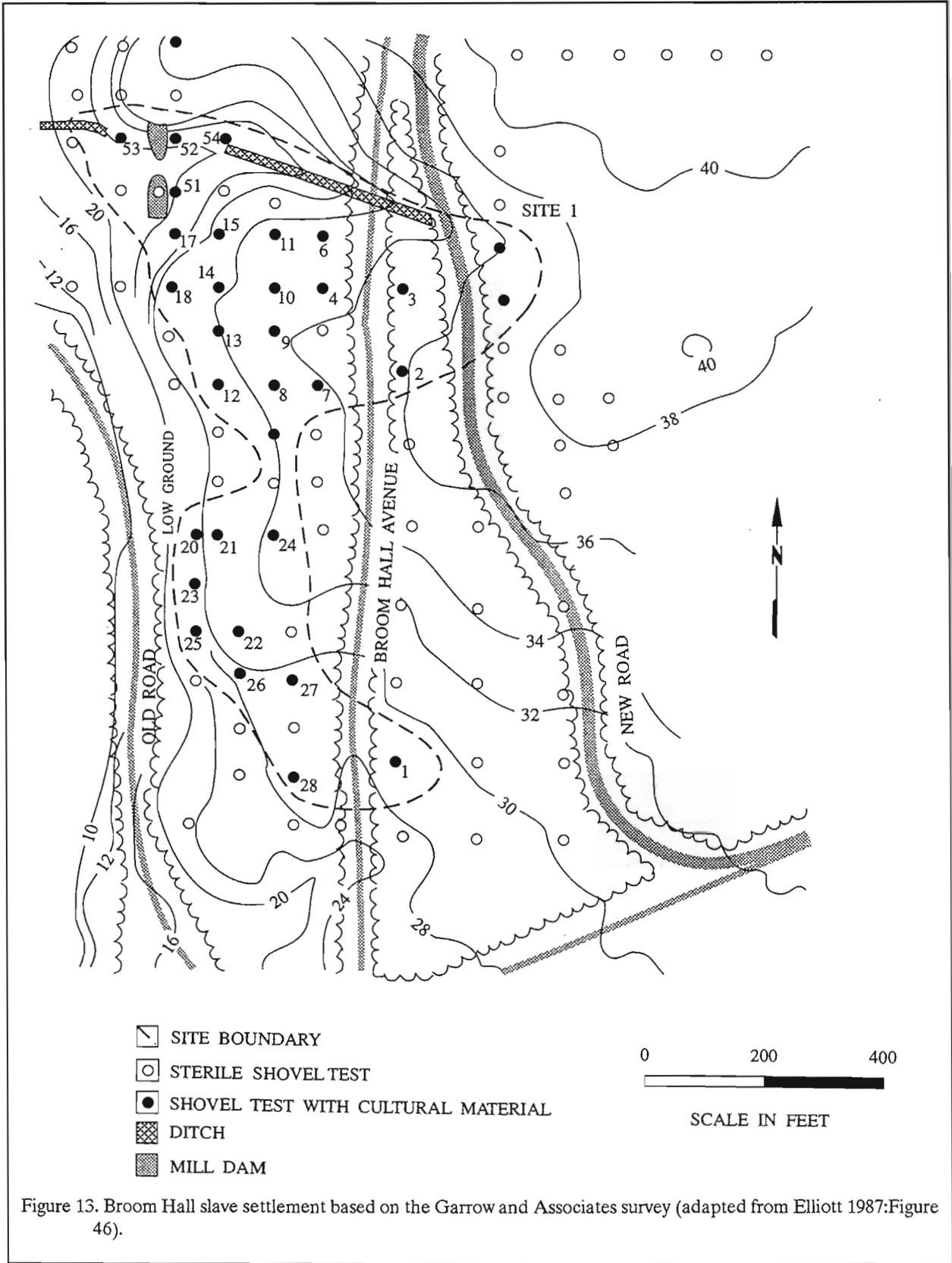
Excavations focused on seven different areas

of 38BK600. Area C was found to represent a refuse filled cellar and was investigated by a total of 375 square feet. Area D, investigated by the excavation of 400 square feet, revealed a brick wall, a series of post holes, likely representing landscape features. Area E represented a probable stable building which was investigated by the excavation of 400 square feet. Area F was a substantial brick pile on the western edge of the site. Time did not allow excavations in this area. Likewise, a large brick pile at Area G was not investigated. A total of 300 square feet were excavated at Area H, exposing most of a garden structure thought to be a green house. Area K represented a structure largely destroyed by Westview Boulevard. Excavations in this area amounted to 200 square feet. Area L was identified as a dense concentration of artifacts in the computer density maps and was investigated by a single 10 foot unit. Brick rubble was found along the road cut in the area identified as Area M. A single 10 foot unit was excavated to explore for any intact structural evidence.

At the slave settlement, 38BK985, Chicora first conducted an auger survey incorporating an area measuring 275 feet north-south by 200 feet east-west, situated within the densest portion of the settlement as identified by Elliott's survey work. The 108 auger tests were used to create artifact density maps suitable for guiding additional testings. Two areas, designated AA and BB (to avoid confusion with the structural areas at 38BK600) were selected for study. In area AA 200 square feet were excavated, while in Area BB only 100 square feet were excavated. Research in this area was, as previously mentioned, terminated since evidence was found of deep plowing, no evidence of intact architectural remains could be found, and the artifact density, while locally heavy, was in general very sparse.

In addition to the excavations, Chicora's research at Broom Hall also explored physical evidence of landscape features, such as the garden associated with the plantation. Two distinct elevational areas and an artificial pond were present, coupled with other features, such as a spring and a small variety of extralocal plants. Efforts to relocate the mill dam, however, were entirely unsuccessful. Nor was it possible to relocate Elliott's shovel test reported to contain 3 feet of cultural remains.

At the conclusion of the field work attention



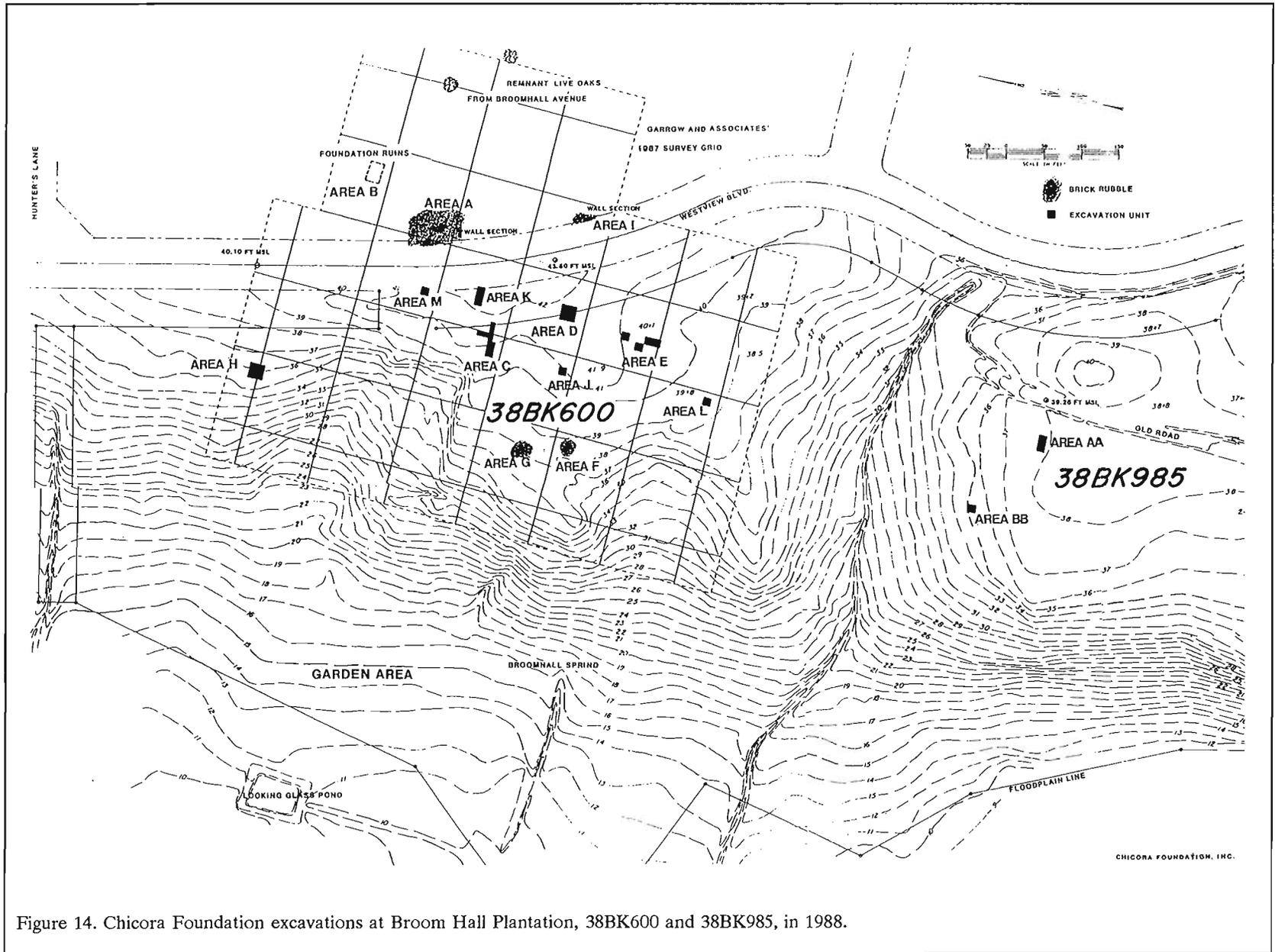


Figure 14. Chicora Foundation excavations at Broom Hall Plantation, 38BK600 and 38BK985, in 1988.

focused on two complementary goals — processing the recovered materials and securing funding for the analysis and report production. The vast majority of the initial washing was done by volunteers. Since we realized that the failure to provide conservation treatments would result in the rapid deterioration of the artifacts, selected Broom Hall artifacts were conserved as time would permit from 1989 through 1993.

In March 1993 a proposal was submitted for a S.C. State Historic Preservation Grant to cover the costs of completing the analysis and report production. The project was funded in its entirety by the S.C. Department of Archives and History and work, since that time, has focused on assuring that the results of the Broom Hall excavation would be widely available.

Goals and Research Objectives of the Project

The previous discussions have indicated the extraordinary promise of Broom Hall Plantation. Nearly intact, dating from the early eighteenth century, and consisting of a wide range of structures and activities areas it offered a possibly unique opportunity to explore an extraordinary range of historical and archaeological research questions. It would be less than honest to admit that some, perhaps much, of this research potential was unfulfilled because of the severely limited funding devoted to the project. The funding level limited not only our ability to open large areas and our ability to undertake specialized excavation techniques, but it also limited our ability to integrate interdisciplinary specialists, such as architectural historians and landscape architects, into the research.

The previous plantation research on which the 1988 excavations were designed did allow a variety of research questions to be framed prior to the field work. One major historic research concern involved an integrated and holistic examination of site specific plantation organization, settlement patterns, and lifestyles, including high and low status occupants. A second concern involved a further examination of the similarities and differences between urban and rural lifeways. A third concern involved the evolution of plantation agriculture and economy as exemplified by Goose Creek plantations such as Broom Hall. A fourth area outlined for research involved the more systematic examination of foodways on low country plantations. In

particular, both faunal and ethnobotanical remains were to be systematically collected and analyzed in order to better understand status differences.

Further topics of interest included the chronology, class structure, and function of colono wares. Another research topic was the critical examination and refinement of currently accepted archaeological artifact patterns. Although South's (1977) artifact pattern analysis had proven very useful as a heuristic tool, Joe Joseph (1987) had recently demonstrated that the creation of and reliance on patterns is not without problems, many created by inadequate, heterogenous, or specialized samples. It was hoped that the variety evidenced by Broom Hall would help refine the pattern anticipated at eighteenth century plantations. The work might even provide spatial and functional refinements for eighteenth century plantations. More intensive examination of the Broom Hall terraced garden area could be compared with the work by Zierden et al. (1985) at Archdale. Structure H at Broom Hall, based on the survey level work, was compared with Structure A at Archdale which is thought to have served either as a support structure for the formal gardens or as an administrative structure (Zierden et al. 1985:62). Evidence of overbank deposition of refuse into the mill pond was also seen as very significant, not only because it could provide an expanded artifact inventory, but also because it could provide information on refuse disposal practices at rural plantations. Finally, the presence of two slave settlements, in close proximity to one another deserved further investigation. These sites were thought to possibly reflect occupation by different status groups (i.e., house as opposed to field slaves), or the settlements may simply reflect dispersal of the majority of the black population. Given the limited amount of survey data, it was also possible that the two settlements reflected temporal changes in the settlement pattern on the plantation. As suggested by Bryne (1987:44) we recognized that it might be possible to document the flow of goods from the owner to the slave. This might be particularly important in distinguishing house servants from field slaves.

In our study of plantations, at the time of the Broom Hall excavations, the diachronic changes which occurred in plantations were also clear. In particular, we recognized the importance of examining the plantation from the perspective of its relative importance to the planter's portfolio of lands

(Friedlander 1985:2). and how the planter obtained his wealth and status in society. Amy Friedlander had begun to address the problem of why slave quarters may be dispersed, consolidated, or abandoned by a planter. She further suggested that the question of peripheral as opposed to core tracts is worthy of study. She had argued that historians needed to examine alternate labor arrangements found on eighteenth century plantations.

In the intervening years our focus on significant research questions has broadened to include additional topics and new ways of looking at old issues.

Understanding the daily activities of those living in South Carolina low country plantation society is essential to a fuller understanding of the economic and social factors which formulated and controlled that society. Obviously, the nature of a plantation system requires inequality and, thus, relationships of power.

Coclanis, in his study of the economic rise and fall of the South Carolina low country, sets forth not only his own thesis of rice being the "bitter harvest" of eighteenth century plantations, but also the topic of power as seen in plantation society:

one need not subscribe to Wittfogel's notion of "oriental despotism" to realize that a hydraulic agricultural regime in which labor and capital intensity is high — the South Carolina low country included — is likely to be characterized by asymmetrical and, thus, coercive power relationships and by relatively slow responses to seemingly unambiguous market signals and signs (Coclanis 1985:157; see also Braudel 1972:I:74).

This latter issue has increasingly interested archaeologists such as Charles Orser (1988; see also Pottery 1991), who are attempting to develop a Marxian model to understand both economic and power relationships. Power comes from the economic, social, or political control of one group by another. On Southern plantations the power of the owner was a combination of all three, and ultimately was the power of the owner over his chattel.

A central theme of this approach is that alienation of the slave population peaked as the gap between planter wealth and slave grew unbearably wide. As this gap is seen in the planter using the surplus of slaves' labor to purchase luxury items which came to symbolize the wealth and power of the planter class, while the slaves did not benefit from this increasing planter wealth.

While Orser suggests that what power the slaves had was bound up in the planter's reliance on their labor, Leland Ferguson takes a different view, suggesting that the power of the slaves was their ability to create and maintain a culture different from that of their masters (Ferguson et al. 1990:5-7). Ferguson's work emphasizes the potential for autonomy at some levels, perhaps unrecognized by the white Anglo-American owners of slaves.

Another orientation is the place of African-American slaves in this world dominated by the wealth and power of the owner. Broom Hall, because of its early date, and location inland from Charleston, offers the potential to examine the early development of the Black majority in the South Carolina low country, exploring the polarity of rich and poor, master and slave.

Cheryll Ann Cody has observed that the rice district of South Carolina offered slaves the greatest opportunities to create autonomous cultural systems (Cody 1977:457), a view echoed by Philip Morgan (1983:83) and demonstrated to some degree by the exemplary combination of archaeological and historical research at the eighteenth century Yaughan and Curriboo plantations (Wheaton et al. 1980). Such research is essential to explore the suggestion made by Ferguson that the slaves' power came from autonomy.

One factor contributing to this "freedom" was certainly the overwhelming Black majority. It appears that prior to the 1760s the major factor influencing the African-American population expansion in the study area was the importation of slaves from Africa. Only after the 1760s does there appear clear evidence of natural population growth (Terry 1981:151-159). It is possible that the nature of the slaves' social relations also changed in the 1760s. As Terry notes from neighboring St. John's parish, prior to the 1760s the male:female slave ration was nearly 2:1 and 50% of the male African-Americans never married. Only after the 1760s did the ration of

male to female slaves become nearly even, with nearly 80% marrying. The effects of this social change should be visible in the archaeological record. The expansion of the Black population in the early and mid-eighteenth century through importation would have kept the "native-born well acquainted with their cultural heritage" (Cody 1977:458) with neither acculturation or creolization becoming dominant until after the American Revolution. This suggests that slaves may have begun to lose their limited power at the same time that plantation owners significantly widened the economic gap — during the importation of the Georgian world view in the late eighteenth century. Just as power may be viewed in terms of the unequal distribution of wealth and possessions, the nature of slave autonomy and resistance may also be investigated by the slaves' differing use of readily available natural resources.

One aspect of this autonomy which may be particularly visible is in the production of low-fired earthenwares called colono ware. A number of researchers have explored this pottery, suggesting its affiliation with both slaves and Indians, documenting its demise during the early nineteenth century, and attempting to develop typological statements that would allow the ware to be better understood in a regional framework (see Anthony 1986; Ferguson 1978, 1980, 1985; Lees 1980; Wheaton et al. 1983). Colono ware may represent not only a tangible vestige of African culture, as suggested by Ferguson, but it may also be a concrete indication of the power struggle between slave and master. Curiously, colono ware declines in popularity at the same time as the plantation owners dramatically increase the economic gap between themselves and their slaves. The demise of colono ware in the nineteenth century may represent the success of the planters in curtailing highly visible African cultural practices.

Intimately tied into the concept of power is the outlook may Anglo-Americans shared in the mid- to late-eighteenth century termed the Georgian world view. Individuals such as James Deetz and Mark Leone have used this concept to attempt to demonstrate how society was driven by a world view of "balance, order, symmetry, segmentation, and standardization" (Deetz 1977:111-117; Leone 1988).

Noted historian Louis B. Wright expresses this same concept in somewhat different terms, commenting that:

Colonial planters may have come of humble origins themselves, but having acquired land — always the symbol of gentility — and having acquired prosperity, they set about imitating as best they could the behavior of the English country gentry. Indeed there is evidence that they idealized the English gentry and perhaps struggled harder to achieve that ideal than if they had been to the manor born. . . . In South Carolina, where the great planters frequently combined the business of a merchant with their agricultural pursuits, the aristocracy developed a more urban point of view. . . . The affluence of the aristocracies of the southern colonies was a means to an end, and that end was a life of cultivation and grace. the wealth of the great planters — a wealth based on credit rather than ready money — gave them the means to build handsome houses, fill them with good furniture, have their portraits painted, and lead lives that went beyond mere getting and spending (Wright 1966:11-14).

Even gardens and their use, increasingly coming under investigation by archaeologists (e.g., Kelso and Most 1990), are part of this Georgian world view. As Deetz observes, the cultural landscape is attracting more archaeological attention and there is an increasing recognition that this landscape was "shaped in a planned and ordered manner, for purposes ranging from food production through formal design of the environment to the more or less explicit statement of their position in the world" (Deetz 1990:3).

The arrangement of structures, their orientation, their construction methods, the location of garden walls and roads, the modification of the landscape for gardens, the placement of slave vs. master, all are visible with some degree of clarity at Broom Hall. And all offer an opportunity to expand on our limited examination of the eighteenth century low country cultural landscape. These changes to the cultural landscape represent not only an effort by late eighteenth century Anglo-Americans to reassert

pastoral values (see Tate 1990:310), but also an effort to mask the ugly reality of slavery (see Brooker 1991:2).

Essential to the research of Deetz and Leone are questions of how this new world order was *interpreted* by plantation owners and how it was imposed on the African-American slaves. Deetz has observed how aspects of English behavior and culture were modified (Deetz 1977), but it is perhaps George Kubler (Reese 1985:404) who provides the understanding of how these modifications took place, and why. The concept of "disjunction" is a powerful tool for anthropological research on plantations.

There were many aspects of the Georgian world view which could be integrated into plantation society, but not all were. Some were altered, presumably to fit the needs of the Anglo-American society in the colonies. Kubler views this process of disjunction as allowing society to follow the rule of "least effort," salvaging large parts of tradition and fitting the salvaged parts into a new interpretation (Reese 1985:404). Thus, not all forms and motifs of European or Chinese ceramics, or table glass, or even kitchenware, were integrated into plantation society — some were selected, others (very popular in England) were abandoned.

These broad concepts of economics and power are of particular interest in this study and provide several avenues of significant research.

The first involves the use of wealth by the plantation elite. Historical research has documented the stunning accumulation of wealth in the South Carolina low country during the eighteenth century. It has not provided a ready understanding of how that wealth was used, what items were chosen and what items were rejected to represent that wealth, or how owners chose to display that wealth to others (cf. Cohen 1953; Wright 1966). It is likely, in fact, that *only* archaeological investigations are capable of "fine-tuning" these broad historical concepts — or in giving real life to the dry economic history of plantations and their interaction in the global economy.

It is immediately obvious from the historical research that Peter Taylor, the early eighteenth century owner of Broom Hall, was one of the wealthiest individuals in South Carolina.

Archaeological research is not needed to document this fact. However, archaeological research is needed to demonstrate how this wealth was translated into everyday life and how this life was both different from, and similar to, that of others. Taylor had the opportunity to display his wealth in a variety of ways, some of which are described by George Terry from research in neighboring St. John's parish (Terry 1981:286). Of these options, which were chosen and how did the events of the world around him (such as the English wares of the 1740s, the introduction of Georgian ideas and values, and constant pressures of the world market) affect him?

Terry's historical research and economic model of adjacent St. John's parish provides an opportunity to explore the development of the plantation aristocracy in the regions surrounding early eighteenth century Charleston in a manner never before possible. His consumption index, and more detailed research on ceramics listed in inventories (Terry 1981:286, 289), coupled with the unique data from Broom Hall Plantation, provide an opportunity for archaeological research to expand upon, investigate, and refine historical questions relating to the use and display of wealth in eighteenth century low county plantation society. The wealth accumulated from the oppressive use of slave labor in rice production, on the surface, is the same as wealth accumulated from the growth of tobacco by more northern plantation owners. Yet, the patterns of labor are clearly distinct, indicating that the expression of that wealth may also be distinct. This is an area of research avoided by archaeologists, who tend to view their data in localized, site specific contexts.

The research at Broom Hall, while using common investigative techniques and methodologies, will break out of the normal parameters of archaeological research to explore the market economy and the use of planter wealth on eighteenth century rice plantations in the South Carolina low country, particularly as it relates to the concept of the Georgian world view and the causes and effects of power on plantations. The ultimate result will be a better understanding of how archaeological data can interpret the place of South Carolina in the eighteenth century world. The existence of complementary nineteenth century data at Broom Hall will allow both synchronic and diachronic examination of these topics. Specific questions relating to these research issues include:

▪ How the world market economy based on rice cultivation affected both planter and slave. How are patterns at Broom Hall different or similar to patterns in areas with a different economic staple? How did the intensive labor practices of the slave population at South Carolina rice plantations as opposed to the lighter labor practices in Virginia affect the material lifestyles of these slaves? How did world trends and events affect Peter Taylor's display of wealth and accumulation of personal possessions?

▪ How the Georgia world view developed among planters in the low country, and how this view ultimately affected the planters' slaves. How does the cultural landscape at Broom Hall reflect subscription to the Georgia "world view"? In what ways is this world view imposed on the slaves? How do artifacts (such as watches, toothbrushes, eating utensils, and similar items) at colonial plantations such as Broom Hall reflect this world view?

▪ How plantation wealth was used by the owner. Of the various ways in which Peter Taylor could have displayed his wealth (land, slaves, architecture, personal possessions), which did he choose? Do his choices exhibit a desire to display this wealth to all of the plantation elite, or rather to his peers immediately around him?

▪ How power and its use developed in eighteenth century plantation society. How wide was the economic gap between planter and slave during Peter Taylor's tenure? Does the gap between planter and slave narrow during the nineteenth century? If so, why did this change happen? What messages did the planter wish to convey to his slaves based on the arrangement and location of landscape features? Are colonowares different in planter and slave contexts? If so, do the types have meaning in terms of place of manufacture or decorative style? How are the differential distribution of types, forms, and styles indicators of slave autonomy, and what do they indicate about white perceptions of

"unwhite" artifacts?

We will return to the topic of research questions in a following section where we examine the archaeological literature on eighteenth century plantations. That section allows us to better understand the range of comparative literature available and also to realize how Broom Hall fits into what we know about eighteenth century plantations. A number of the research questions will again rise to the surface during our analysis of the material remains from Broom Hall. It is important, however, to emphasize that our primary goal in the Broom Hall excavations was relatively simple — we intended to collect as much well documented information as possible within the time frame allowed for the study.

Curation

Updated archaeological site forms for Broom Hall and the Broom Hall slave settlement have been filed with the South Carolina Institute of Archaeology and Anthropology and The Charleston Museum, although both sites have been destroyed by the surrounding housing development.

The field notes, photographic materials, and artifacts resulting from Chicora Foundation's investigations at Broom Hall (both 38BK600 and 38BK985) have been curated at The Charleston Museum under accession number 1988.49 and catalog numbers ARL 39272 through ARL 39454 (using a lot provenience system). The collections have been cleaned and/or conserved as necessary. Further information on conservation practices may be found in a following section. All original records and duplicate copies were provided to the curatorial facility on pH neutral, alkaline buffered paper and the photographic materials were processed to archival permanence standards.

Materials collected by the Garrow and Associates survey of Broom Hall were evaluated for curation by The Charleston Museum and rejected. We understand that they were subsequently forwarded to the South Carolina Institute of Archaeology and Anthropology for curation under the site numbers 38BK600 and 38BK985 with copies of the field notes. Duplicate copies of these field notes are also on file with Chicora Foundation. No conservation of the recovered artifacts was undertaken prior to curation.

SYNTHESIS OF EIGHTEENTH CENTURY PLANTATION ARCHAEOLOGY

Introduction

Very few purely eighteenth century plantation contexts have been examined in South Carolina. The primary reason for this is because these locations continued to be occupied up through the nineteenth century. Since material goods were much more easily obtained by the 1820s, the eighteenth century remains present at these plantations with later occupation tend to be swamped, usually not allowing those earlier remains to be clearly separated out.

The Charleston area, however, is a prime place for locating purely eighteenth century slave contexts because of its early settlement and the changes which occurred in rice agriculture. Beginning by about the 1760s, a system of dikes and canals made tidal rice agriculture possible and provided larger, and more fertile, planting areas than were possible in the previous uplands or inland swamps. As a result, early slave settlements adjacent to inland swamps were moved closer to the tidal rice fields. A prime example of this change in settlement pattern is at Middleburg Plantation on the East Branch of the Cooper River. Here, the Smoky Hill settlement was abandoned about 1800 and the slaves were moved to a larger slave row next to the plantation house adjacent to the river (Affleck 1990). However, this change did not happen everywhere in the rice growing region. Since many plantations in the Goose Creek area were located on swamps with no river access, shifts in slave settlements were less likely to occur. It may be very difficult under such a situation to find an early discrete slave settlement, and archaeologists may be left to sorting out artifact assemblages that span long periods of time, as well as sorting out subsurface features if they contain enough diagnostic artifacts to do so.

Main houses tended to be much less sensitive to changes in either agricultural

technology or staple crops; and as a result, it is rare to find purely eighteenth century main house contexts unless the house was destroyed by some catastrophic event (such as ravages of war or other vandalism, fires, earthquakes or hurricanes). At the Broom Hall plantation main house such an event occurred (although the historical records have not revealed what the event was), where the main house appears to have been cleaned out and its contents tossed into a large trash pit. In some instances, the houses were just abandoned for one reason or another. At neighboring Crowfield Plantation, historical documents and artifacts from the main house privy indicate that the plantation was not being lived in after about 1776 (Trinkley et al. 1992:49), probably because the owner of the property had his country seat elsewhere. Edmund Ruffin, travelling through the Low Country in 1843, noted a widespread abandonment of plantations along the Cooper River. He states, "For much of the greater part of the journey, the country appears like the former residence of a people who have all gone away, leaving their lands tenantless" (Mathew 1992:61). The abandonment that Ruffin and others (Moore 1967) had witnessed as early as the 1810s was primarily due to the collapse of the Low Country's economy about 1820 (Coclanis 1989:111; Smith 1958:45-52). Archaeologically, such abandonment has been suggested by the archaeological remains at "The Crawl" plantation where the main house and slave row appear to have been occupied from about 1765 to 1830 (Adams and Trinkley 1994).

This chapter will examine the state of knowledge about eighteenth century plantation archaeology in the Charleston area. Although a number of sites have been excavated in the Waccamaw Neck region and in the Beaufort-Hilton Head area, we believe that an intra-regional approach is needed to best examine issues such as how access to goods as well as economic orientation affected the "archaeological signature" of plantations. As has been pointed out by others

(e.g., Joseph 1988) and has been witnessed by the authors, sites in the Georgia Low Country, as well as the South Carolina Sea Islands in the Beaufort/Hilton Head area, produce an archaeological signature very different than plantations in the Charleston area. Trinkley (1993b) has suggested that this is due to the differing economies of rice and sea island cotton. This study will only examine plantations where the bulk of their occupation occurred before 1800. As Samuel Gaillard Stoney (1989) has pointed out, there was a clear change in architectural design by the late eighteenth century. This can also be extended to the way the planter class organized their physical world in the location and layout of gardens, slaves houses, and outbuildings. Many (see, for example, Brooker and Trinkley 1991) believe that these changes were brought about by a new social movement.

Main House Complexes

Probably the best source of information about plantation main house architecture in the region is Stoney's *Plantations of the Carolina Low Country*. Stoney (1989:44) notes:

In general there are several seemingly notable things about the Low Country plantation houses, among them their planning. Before the Revolution, most particularly for the length of the territory we cover, and from the opening years of the eighteenth century almost to its ending, one plan was used over and over again with only a slight variation. In point of time we find it first at Mulberry, where, if you will imagine away the towers, you have the scheme that is repeated at Hanover, Brick House, Fenwick Hall, Crowfield, Limerick and Lewisfield; at Fairfield and Hampton in their first condition; and after the Revolution at Eutaw. With its unequal division of the front of a house, and the central stair hall, it is also the plan of the upper story

of the Charleston Double Houses -- the scheme of most of the finer houses of the 1750's and '60's now found in the city.

He also suggests that after the American Revolution definite temporal and local schools of planning developed. These new styles were more adapted to the climate of the Low Country with many more windows and better cross ventilation (Stoney 1989:44-45).

Carson et al. (1988) have suggested that in the Chesapeake region that plantation main house development consisted of "hovel, house, home" where planters built a modest simple home until their financial situation allowed them to build a larger, more expensive, permanent house. This change from temporary housing to a permanent plantation house has been documented by Chicora Foundation at Stanyarne Plantation on Kiawah Island (Adams 1993; 1994). At this time, analysis is still underway for most of the collections so only cursory discussions of the results of the excavations can be offered. Regrettably, most of what we know about main house architecture is at the "home" stage of construction. Very little is known about the earliest phases of plantation development. When a permanent house was built varied due to factors such as when the property was settled and when the plantation became economically successful. In addition, Peter Coclanis (1989:56-57) has suggested that the shift from pioneer to plantation depended not only on economy, but also on structural continuities. As Coclanis states:

The transition from "pioneer" to "plantation" in South Carolina did not signal moral declension, then, as is sometimes implied, or a shift in *mentalité*. It represented rather an economically rational, indeed, quite predictable response by market-oriented whites to changing factor proportions and changing market possibilities. Though differences in production functions of various activities would eventually have great ramifications in South Carolina, the very fact that whites were

disposed to shift resources in a manner which we today deem to be economically rational is the most crucial explanatory variable of all (Coclanis 1989:57).

However, no one has actually pinpointed a date in time for which this occurred in South Carolina. Coclanis does state that:

Given the levels of effective demand for the various articles that the white hegemonists in the low country could supply between roughly 1725 and 1775, it should come as no surprise to see a shift from economic endeavors for which profit possibilities were relatively low to staple agriculture for which profit possibilities, under the prevailing relationships among land, labor, and capital, were relatively high. And so, agricultural staples -- rice and, after the mid-1740s, indigo as well -- were primarily responsible for shaping the contours of the low country's economy from the beginning of the second quarter of the eighteenth century to the time of the American Revolution (Coclanis 1989:63).

This obviously suggests that while the pioneering period was still in place in 1725, it was well over by 1775. It may not have been until the 1740s that the economy was stable enough to have shifted into a full fledged "plantation" stage. After the social and economic turmoil of the 1730s and 1740s, planters' wealth increased as rice prices began to rise in 1749 and the indigo industry expanded in the 1750s. Since these two products proved their value at the market, planting became more secure and profitable (Terry 1981:278).

As stated earlier, archaeological work at the Stanyarne Plantation on Kiawah Island has documented the shift from impermanent to permanent architecture. The first house was located on the east bank of Salt House Creek. Work at the site indicated that the earliest main house did not contain a large amount of

substantial architectural features. In fact, all that was located were a few posts and a portion of a poorly laid brick pier. No clear structural configuration was identified. Artifacts at the house suggested an occupation from about 1730 to the 1760s. In addition to this high status occupation, a portion of a low status structure with a robbed out brick foundation was also located adjacent to the house. It is possibly a kitchen and/or domestic slaves' house. In the 1760s the main house was abandoned and a new, much more substantial house was constructed on the opposite bank of the creek. The terminus post quem for the builder's trench at the new house was 1765 (Adams 1993). This house became the permanent residence throughout the remainder of the plantation's occupation.

Limited excavations at the Elfe Plantation (Trinkley 1985) in an area thought to contain the main house revealed early, relatively low status ceramics with no clear evidence of structural remains. It is possible that this site may have represented an initial main house settlement with no subsequent improvements. Comparison of this assemblage with the assemblage recovered from the early Stanyarne main house may help clarify the function of the structure at Elfe, and may help provide a better idea of what an early main house settlement should look like.

In addition, the University of South Carolina has done some limited testing at the Smoky Hill settlement of Middleburg Plantation (Affleck 1990). One interesting note is that the high status occupation at Smoky Hill was Benjamin Simons, Sr.'s son, who was an overseer serving as a "planter-in-training" since he was to inherit the plantation upon his father's death. Since the archaeological evidence at Smoky Hill suggests an occupation from 1700 to 1800 (Affleck 1990:144), it is possible that the settlement may have actually been the initial main house, which was quickly abandoned when the Middleburg main house was built in 1699. Smoky Hill may have housed an overseer until Benjamin Simons, Jr. was old enough to take over the duties. However, the presence of blue plaster, pewter artifacts, and high status ceramics indicate that the house was probably not the average overseer's house. The only eighteenth century overseer's house that has been excavated was at Willbrook Plantation on

Waccamaw Neck (Trinkley 1993b). The artifacts suggested a much lower economic position. However, since this is the only eighteenth century overseer's house excavated, it is unknown if it was average. According to A.S. Salley (1936) Benjamin Simon's first house was known as "Pimlica Maptica" where three of his children were born between 1695 and 1697. It is possible that Smoky Hill was originally Pimlica Maptica. However, it is puzzling that Simon's first land acquisition did not occur until 1697. Affleck (1990:21-22) offers alternative ideas as to the location of this early main house.

Work at Green Grove Plantation by Richard Carrillo (1980) uncovered three buildings associated with a main house complex. A structure with two end fireplace chimney bases and an overall dimension of 43 by 23 feet (including chimneys) was uncovered. The interior dimensions were 32 by 16 feet. In the center of the structure, a heavily burned area was evident. A wall dividing the structure into east and west portions was discovered revealing a two room house. Relatively large quantities of plaster were also found. The foundation was constructed using a method similar to tabby, using poured brick rubble and lime. The archaeological and historical evidence suggests that this structure was completed sometime between 1714 and 1738 and used up until the end of the eighteenth century. Archaeological evidence suggests that a fire burned part of the structure. The structure was allowed to decay in place and was subsequently used as a storage building for agricultural tools. Finally, the structure collapsed altogether.

A second structure was identified which was believed to be the main house based on its size (although no estimated measurements are provided). A considerable amount of damage had been done to the structure through plowing, however, portions of the foundation were found. This foundation consisted of brick piers with a posited frame superstructure. The entire structure was not uncovered, so the dimensions are unknown. This structure had also been destroyed by fire.

A third structure with a foundation similar to the first was uncovered measuring 14 by 18 feet. It was also burned. Carrillo believed that its

proximity to the second structure suggests that the two are related. However, it could be suggested that since its foundation was constructed using the same method as the first structure, that they are related.

Carrillo concluded that when the plantation was burned in the American Revolution the second structure comprised the main house, while the other two were dependencies. In addition, a possible plantation pond was identified, as well as a number of trash pits and a possible fence line. Carrillo suggests that the first structure was the original main house, but was later used as a storage building after the construction of the later main house. The vast majority of artifacts were recovered from this structure which suggests that the second main house had not been occupied for very long.

Other excavations have concentrated on aspects of the more permanent houses and main house complexes, and include Archdale Hall (Zierden et al. 1985), Crowfield (Trinkley et al. 1992), Drayton Hall (Lewis 1978; Wheaton 1989), Fairbanks (Zierden et al. 1986), Lesesne (Zierden et al. 1986), Limerick (Lees 1980), and Vanderhorst (Trinkley 1993a).

At Archdale Hall, excavations uncovered an administrative building and a possible slave hospital, both constructed circa 1750 (Zierden et al. 1985). The excavations at the administrative building uncovered a structure 25 by 35 feet, with a laid brick floor and a brick wall foundation. There was no evidence of doors or chimneys. However, the entire structure was not excavated. This building stood at least until the earthquake of 1886, and it is unknown how many alterations the structure went through and if its function changed through time. The posited slave hospital was 20 by 20 feet in size and was raised up on brick piers. A porch is believed to have been present measuring 10 feet wide.

Work focussing on the Crowfield Plantation main house has been restricted to survey level work (Elliot 1987) as well as testing in formal garden and some brief testing at the privy (Trinkley et al. 1992). Work at the garden revealed that the parterre had been raised about one foot above the original ground surface which had been

previously cultivated. Excavations on the earthen berms surrounding the parterre as well as excavations in the center of the parterre revealed no evidence for paths paved with shell, brick, or other materials. However, this does not rule out the existence of paths altogether. Excavations revealed that the central garden area and the associated earthworks received only a shallow dressing of top soil, except in the area along the interior edge of the berm where there was a linear planting bed several feet deep. Artifacts throughout the garden excavations were exceedingly sparse.

Daniel Elliot (1987:73) tested one of the garden structures and found primarily architectural debris. There was no evidence of any prepared floor. The absence of flooring and special purpose remains (such as glass bell jars or planters or agricultural tools) argues against a utilitarian interpretation. It is likely that the structure served as a folly or eyecatcher, typical of Theatrical Gardens (see Trinkley et al. 1992:58).

Testing in the upper level of the main house privy yielded a large quantity of high status remains. This testing was done primarily to yield temporally sensitive artifacts, since the garden excavations yielded very few remains. The privy artifacts had a mean ceramic date of 1751 (Trinkley et al 1992).

Work at Drayton Hall by Lynne Lewis (1978) focussed on a main house flanker constructed about 1765. Thomas Wheaton (1989) has also performed test excavations at Drayton Hall, focussing on an Orangerie built in the 1740s. Excavations at the main house flanker indicated that it continued to be occupied well into the nineteenth century. So, the architectural features which were constructed in the 1760s are of primary concern to this overview. Photos from the late nineteenth century show that the flankers were two-story brick structures with central chimneys. The first floor in each was raised above ground level and was entered from an outside staircase. Excavations revealed that fireplace opened only on one side and that there were two rooms on the first floor. The flanker measured 17 by 33 feet (Lewis 1978:34).

Wheaton's (1989) work at the Drayton

Hall Orangerie had the potential of yielding some interesting results, since it is the only orangerie excavated in the southeastern United States and could address questions about heating methods, since Drayton Hall is located in a much warmer winter climate than ones that had been previously examined (Mount Clare in Baltimore, the Calvert House in Annapolis; and the Belair Mansion in Bowie, Maryland). The archaeology at Drayton Hall revealed a structure measuring 32.5 by 17.5 feet with the door on the south wall. The floor was earthen and there was no evidence for a permanent heating system, although a possible small hearth feature was identified in the southwestern corner of the structure.

Excavations consisted of two five foot squares straddling the south wall of the building and a narrow slot trench to locate the western wall of the structure. Wheaton found that there was a large quantity of window glass in the two five foot squares along the south wall, confirming the presence of windows. No flower pots were found, although Wheaton suggests that wooden planters may have been used. There were also tools (chisel and plane blade) not related to gardening activities that suggested to Wheaton that the building "may have been used as something other than a Greenhouse during its long history" (Wheaton 1989:31).

Wheaton noted that work at other orangeries indicated that they were either connected to the main house or were clearly connected to the main house complex. The orangerie at Drayton Hall was 350 feet away and was oriented differently from the main house. All of the other orangeries had some permanent method of heating; however, the Drayton Hall orangerie did not. He suggests that a small burnt area in the corner of the structure was the only source of heat on the few days where actual heating in the lower South would have been necessary. Alternatively, Wheaton simply may have not located it, since very little can be said based on the excavation of two five foot squares on top of one wall. In addition to these differences, the other orangeries had attached gardener's rooms and/or shed rooms. It was from these rooms that the fireboxes were fed. The walls were plastered or whitewashed to increase the reflective ability of the walls. At Drayton Hall, there was no clear evidence

of plaster or whitewash. He does not mention if these other orangeries were floored.

Clearly, there are significant differences between the Drayton Hall orangerie and the orangeries in the mid-Atlantic states. The most likely explanation for these differences is climate, since there appears to be no formal heating system which would not require the constant attention of a slave and, therefore, there would be no need for an attached gardener's quarters. However, this does not explain the fact that the Drayton Hall orangerie apparently was not to be visually associated with the main house complex. Wheaton provides no map to show how the building relates to gardens, groves, or orchards. Its proximity to such features may explain its location so far away from the main house.

Work on the eighteenth century deposits at Fairbanks Plantation main house by Zierden and her colleagues (Zierden et al. 1986) focussed on the main house yard area. These investigations revealed a series of "backyard" features, including trash-filled pits and drainage ditches. In addition, a driven post fence was identified with a series of small, closely set posts within a narrow trench. The average size of the posts were approximately 2.5 inches in diameter. This feature was interpreted as a fence used to confine livestock or secure a garden area.

Perhaps the most interesting discovery at the Fairbanks main house and slave row was the distribution of early artifacts. A density map showing the distribution of seventeenth century remains (Zierden et al. 1986; Figure 7-11) are tightly clustered, suggesting that during the early period of occupation the planter and slaves lived in close proximity. The distribution of later artifacts indicate that the distance between the two settlements increased through time.

At Lesesne Plantation, Zierden et al. (1986) found evidence of an eighteenth century possible garden house as well as a possible trading post structure. The garden house consisted of a wall trench and post foundation measuring approximately 24 by 14 feet in size. Inside of the structure was a pit, possibly used for storage. Zierden et al. (1986:4-49) conclude that the configuration of the structural features "suggests a

wood frame or log structure, which was later rebuilt and modified or strengthened by a peaked roof and central doorway, similar to structures recorded in nineteenth century Afro-American communities (Vlach 1978)." It is more likely that the structure was wattled given the spacing of relatively small posts in a trench. Many Native American and Carribean groups use a system of primary and secondary support post for a thatch house. The primary posts are the most likely to show up as post hole features while secondary posts are merely small uprights woven between the larger posts (see Adams 1990 for a more detailed description). Although there were few domestic remains at the structure, Zierden (personal communication, 1990) suggests that it may have also been a short term domestic occupation by a slave who tended the garden. Although only 118 artifacts were recovered from the structure 67% were kitchen related. However, virtually nothing other than kitchen and architectural items were associated with the structure (Zierden et al. 1986:4-117). The conclusion that the building was a garden support structure is based primarily on its inclusion into the main house complex and refuse disposal area (Zierden et al. 1986:4-115).

The trading post structure consisted of a substantial continuous brick foundation measuring approximately 15 by 20 feet. The interior of the structure was filled to a depth of three feet with highly stratified early eighteenth century remains. The lowest level of remains appeared to be materials collected under the wooden floor while the structure was in use, while the upper levels are probably dumps of refuse after the structure was abandoned and destroyed. The occupational zone was exclusively seventeenth century. The conclusion that this building may have functioned as a trading post is based on the fact that the artifacts are very diverse. Zierden and her colleagues state:

The diversity of the Fea. 115 (structure interior) assemblage may reflect items destined for Indian trade. An informal trade between Indians and local planters is a well documented activity in the early years of the Carolina colony. . . . The early settlers of Daniel's Island, including the Lesesne family,

engaged in trade with, and enslavement of, Indians. A relatively high proportion of tobacco pipes, pins, beads, and ammunition recovered from the occupational contexts of Fea. 115 (Zones 2-4), along with other evidence of a general diversity of material goods at this location, is quite reminiscent of historically documented trading inventories and strongly suggests that this 4.9 x 6.6 meter structure represents an Indian trading post at Lesesne plantation (Zierden et al. 1986:106-107).

At Limerick Plantation, William Lees' investigation of eighteenth century remains focussed on the main house and a possible carriage house. However, the HABS drawings of the Limerick main house provided most of the evidence for the transformation of the house. The archaeology did uncover a 36 by 48 foot cellar divided into four equal sized rooms separated from a north-south central corridor. A double hearth was located on the east-west wall separating the two western rooms, with a firebox opening into each of these rooms. The basement floor was paved with flagstones. These stones were laid over a layer of sand several inches thick, which was in turn laid over subsoil. The exterior dimensions of the rectangular frame house measured 48 by 36 feet. The house was externally perfectly symmetrical except for the two internal chimneys which were of different sizes. Stoney (1989) provides additional details about the Limerick's internal layout.

The archaeology also discovered that the wrap-around porch was an addition to the original house, and the excavation provided evidence of a bricked up doorway where the basement's entrance had originally been, directly beneath the rear entrance to the first floor. As a result there was probably a portico or elevated porch (Lees 1980:80).

Although no architectural features were encountered, Lees (1980) investigated an area of concentrated artifacts which may have represented either an eighteenth century domestic occupation

or an early kitchen. Given the fact that a later kitchen has already been identified, Lees believed that it made the possibility that the area represented an earlier kitchen more likely. If it was a kitchen, then this work provided evidence of a shift in intra-settlement patterning at the site. Although Lees (1980) does not provide a table for a mean ceramic date of the structure, he gives a mean date of 1792 with a minimum occupational range of 1775-1800 (Lees 1980:112). He states that the kitchen located to the immediate rear of the main house contained primarily nineteenth century materials with a probable date of construction between 1797 and 1820 (Lees 1980:119).

At Vanderhorst Plantation on Kiawah Island, excavations uncovered deposits and structures relating to a main house complex built about 1772 and burned by the British in 1782 (Trinkley 1993b). A feature was uncovered containing a tan sand matrix, architectural rubble, and eighteenth century artifacts. It appears to be a feature related to the post Revolutionary War clean-up of the complex in preparation for the construction of a new main house. Excavations at Structure 3 found late deposits overlying a yellow sand cap. Excavation of this cap indicated that it covered an early structural burn. There was evidence of a very hot, intense fire with a concentration of plaster rubble and little else. This may also be associated with plantation clean-up. An early kitchen was also uncovered with a nineteenth century kitchen built directly on top of it. The site revealed two distinct deposition layers relating to each of the kitchens. The eighteenth century kitchen measured about 17 by 35 feet. During both periods the kitchen was double penned with a central brick chimney. The archaeology indicated that one of the pens was used as a wash house. Within the main house complex was also a concentration of low status eighteenth century artifacts (Structure 5) which is believed to be associated with house slaves. Unfortunately, no architectural features were located. A trash midden (Trash Midden 1) was discovered in a slough feeding into a larger slough. Excavations yielded a large quantity of kitchen related artifacts, and the trash midden was either deposited during the eighteenth century occupation or was thrown in the slough during clean-up activities after the plantation was burned. Since few burnt artifacts were recovered, the former is most

likely.

Slave Settlements

Natalie Adams (1990) has recently synthesized archaeological and historical data on eighteenth century slave settlements in the Berkeley County area. Although few examples of eighteenth century slave houses had been uncovered she concluded that they may have been typical for the time period, based on historical accounts and advertisements selling plantations in the *South Carolina Gazette*. Because of the value of bricks and lumber during this period, apparently few early eighteenth century slave houses were constructed from these materials.

Interestingly, houses which clearly predate 1740 are lacking in the collection of excavated slave houses in the Charleston area or, for that matter, anywhere else in South Carolina. It is quite possible that not only are these structures very ephemeral, but are masked by later settlement expansion and more intensive occupations since the quantity of slaves being shipped to the colonies had greatly increased by the 1740s (Wood 1974). Adams (1990:32) has suggested that these earliest houses consisted of quickly built, temporary houses such as the structure belonging to a cattle herder John Lawson observed on Bull's Island in 1709:

One side of the Roof of his House was thatch'd with Palmeto-leaves, the other open to the Heavens . . ." (Lefler 1967:14).

The first period of expansion probably occurred in the 1740s after the economy stabilized and rice and indigo became much more profitable. Not only was there a "step up" in slave and main house architecture, but also the physical distance between planter and slave increased as has been suggested by density maps of early remains at Lesesne Plantation (Zierden et al. 1986).

It was not until the late eighteenth century that slave housing began to change again in the Charleston area. This was due primarily to the switch to tidal rice agriculture, when new slave settlements were constructed closer to the new fields. At this time the old settlements, which were

often located adjacent to the inland swamp field, were abandoned. As previously discussed, such a change was documented at Middleburg Plantation on the East Branch of the Cooper River (Affleck 1990). The architecture most likely changed from the impermanent houses which will be discussed in following paragraphs, to brick houses or frame houses sometimes with brick piers and chimney. The square footage of these houses also increased during slavery (see Adams 1990:90; Table 3). Interestingly, the size of houses occupied by blacks decreased again after freedom, as has been demonstrated at Mitchelville on Hilton Head Island (Hamer and Trinkley 1989).

A third period of rebuilding also occurred perhaps due to the new focus on cotton production in the 1820s and 1830s. In addition, it has been suggested that pressures from the abolitionist movement also caused planters to improve the conditions of slave life (see, for example, Breeden 1980).

Of these phases of rebuilding, clearly the first two (pre-1740s, and 1740s to late eighteenth century) are of most concern to this discussion. As previously indicated, no slave houses which clearly pre-date the 1740s have been uncovered, so obviously, houses that date to the second half of the eighteenth century will be examined. While some of the structures have deposits dating into the nineteenth century, only those that were built before the American Revolution (pre-1780) or do not clearly post date a shift in agriculture economy will be examined. For instance, a slave house at Middleburg Plantation has been uncovered which appears to have a construction date somewhere in the 1760s. However, historical research indicates that the owner was already shifting his resources toward tidal rice agriculture at this time.

The excavated eighteenth century slave houses include structures from Yaughan and Curriboo Plantations (Wheaton et al. 1983), Lesesne Plantation (Zierden et al. 1986), Wappoo Plantation (Gardner and Poplin 1992), and Stanyarne Planation (Adams 1994). They are from both mainland and sea island settings and were involved in a variety of plantation activities.

The archaeology at Curriboo Plantation (Wheaton et al. 1983) uncovered two slave houses

through mechanical stripping of the site. According to the project architectural historian (Greene 1983) the construction method was interpreted to be cob-walling¹ with extra support lent by posts within the wall. However, Adams (1990:38-48) presents an alternative interpretation. She suggests that the structures may have been wattle and daub. Both of the structures at Curriboo had double bays with doors on the gabled ends. Interior post holes suggested that the structures may have had raised floors. The room sizes varied from 270 to 283 square feet in size or 13.5 to 14.0 by 19.5 to 20.5 feet. Given the rectangular configuration of each bay, Adams (1990:89) suggests that the structures may have had internal partitions and housed more people. In addition to these houses, two structures were located. Only one of these provided size and configuration information. This structure was much smaller and contained only 150 square feet or 10 by 15 feet; a little more than half of the other structures. This further bolsters the idea that the larger houses were internally partitioned and perhaps housed larger families. This smaller structure consisted of two parallel trench and post features with openings at either end. In addition to domestic structures, a number of other buildings were encountered including a barn and several sheds, and a large quantity of "random" posts and possible fence lines.

At Yaughan Plantation, Wheaton et al. (1983) found two slave settlements; one dating from 1740 to 1790 and the other from 1780 to 1820. This study will discuss the earlier settlement, while making brief references to the later settlement. The early settlement was uncovered through mechanical stripping. It contained structures with footprints similar to those found at Curriboo. Many contained parallel trench and post walls, some with end walls and or internal dividing walls. Also, two of the houses appeared to have

¹ Cob walling is accomplished by piling courses of clay mixed with sand and water. Each course is tamped with a heavy board and the sides are pared off straight. The next course is not laid until the previous one dries. Under the poorest conditions it can take as long as two to three weeks for a single course to dry. However cob is usually built during the drier months to expedite completing construction (Agorsah 1985; Williams-Ellis et al. 1919).

later post structures either attached to them or replacing the trench structure. Other buildings at the site were interpreted to be sheds. The structures at the early Yaughan settlement varied in size from 124 to 267.5 square feet, 9.5 to 12 feet by 13 to 18.8 feet in size. The variety in house sizes corresponds to those found at Curriboo Plantation. Again, this may be due to housing families of different sizes. Wheaton et al. (1983) and Adams (1990) have clearly shown that there are two house types at these two plantations (see Adams 1990:55, Figure 6).

The garden or gardener's house from Lesesne has been previously discussed in the main house complex area since it was in close proximity to the main house and since it was believed to be a "support" structure for the formal garden. But since it may have been associated with a slave, it should also be considered in this section. As previously discussed, the structure had a trench and post foundation measuring approximately 24 by 14 feet in size or 336 square feet. Inside of the structure was a pit, possibly used for storage. Few storage pits have been identified with early slave structures, but they are quite common in the Mid-Atlantic states. Normally, they are located in front of the hearth (Kelso 1984:105). An individual known only as "Tattler" states:

Many persons, in building negro houses, in order to get clay convenient for filling the hearth and for mortar, dig a hole under the floor. As such excavations uniformly become a common receptacle for filth, which generates disease, they should by no means be allowed (Tattler 1850:162).

None of the houses in South Carolina with storage pits have hearths (Zierden et al. 1986; Adams 1994), which may partially explain their rarity. Larry McKee (n.d.:29) suggests that environmental factors in the southeast discouraged their use. Zierden et al. (1986:4-49) conclude that the configuration of the structural features "suggests a wood frame or log structure, which was later rebuilt and modified or strengthened by a peaked roof and central doorway, similar to structures recorded in nineteenth century Afro-American

communities (Vlach 1978)." As previously stated, the possibility of wattle construction also exists. Very few artifacts were recovered from the structure which may indicate short term use. Alternatively, the structure may not have been domestic, but may have been a garden shed.

Another trench and post house has been uncovered at Wappoo Plantation on John's Island (Gardner and Poplin 1992). This structure was also uncovered through mechanical stripping. As a result, only two temporally sensitive artifacts (a colono ware and North Devon Gravel Tempered ceramic) were recovered, suggesting an early construction date. Unfortunately, only a portion of the foundation was visible after the stripping and so, there is no information regarding the size or configuration of the entire building. Features in the immediate vicinity of the structure included remnant shell midden and a possible pier or chimney base consisting of a large brick and mortar concentration. Its relationship to the structure is unclear. They suggest that the structures were constructed in the same manner as the slave houses from Yaughan and Curriboo Plantations. However, they describe the matrix of the trench as being very dark gray brown sandy loam and provide no additional explanation or evidence, other than its similarity to the Yaughan and Curriboo structures (Gardner and Poplin 1992:74-80).

Two eighteenth century (roughly 1750-1820) slave structures have recently been excavated on Kiawah Island (Adams 1994). Although report writing and analysis are still underway, some statements can be made about the houses. Neither of these were the "cob walled" structures believed to have been associated with some of the other slave structures. Rather, the structures are believed to be either thatched or wattled.² The thatched

² Thatching usually entails attaching brush such as palmetto to horizontal poles. Wattling involves placing a series of primary support posts in a trench and "basketweaving" vines or other brush between the primary support posts and secondary support posts that are held upright in the weaving processes. Sometimes these structures are plastered over with a clay mixture known as daub, and are then called "wattled and daub" houses.

structure measured about 9 by 9 feet (81 square feet), with a door on the northern half of the west wall. A stain suggesting heavy traffic was identified just outside of the door. The house was evidenced by four corner posts (and one additional post) and a shallow brown sand filled trench line which probably outlines the location of the actual walls. Surrounding the structure to north, south, and east was a thin shell midden. Artifacts were relatively abundant in the midden, but dropped off sharply west of the structure about five to seven feet from the door. Very few nails were recovered.

The wattled structure contained a number of small posts set in a relatively deep trench line at irregular intervals. The trench and posts contained few artifacts, suggesting that it may represent the first historic occupation of that specific portion of the site. There was also evidence for an internal partition and a storage pit. The pit contained at least two whole artifacts including a medicine bottle and a hoe blade. This structure measures 8 by 10 feet (80 square feet). No clear evidence for hearths were found at either structure, although at least one stain in the yard area of the thatch structure contained flecks of charcoal and a moderate quantity of animal bone.

Both of these structures were oriented with magnetic north and appear to be contemporary with one another. Yet both were constructed using different techniques and with different configurations. However, both contained roughly the same square footage. This strongly suggests that slave settlements did not always consist of rows of identical structures as is suggested by extant villages dating from the mid-nineteenth century (e.g. Boone Hall, McCloud). This is further verified by the structures at Yaughan and Curriboo where structures varied in size and configuration, although all were constructed using the same technique (Wheaton et al. 1983).

In addition to these sites, Carrillo (1980) excavated an area at Green Grove plantation where he uncovered what he believed was an early to mid-eighteenth century slave component. Although no clear structures were uncovered he located a possible hearth (Feature 5), piers, shallow stains, a portion of a trench (possibly a house or a fence line), and a possible pond

remnant.

So ... what do we know?

Because archaeologists are limited by funds and time and can only examine small percentages of settlements, we have very little understanding about what makes up an eighteenth century plantation. Primarily, we have focused on structural remains; and while they are very important we have often ignored aspects of the settlement such as how these structures related to one another on the landscape, road networks, fencelines, plantings, etc. In addition, it seems that archaeologists have done very little towards interpreting how the black and white world interfaced, through the locations of these roads, fencelines, buildings, etc. and how their location helped to control the vision of the plantation that the planter wanted to present to his peers (see, for example, Upton 1988). However, this may not necessarily be the fault of archaeology, but rather the nature of compliance archaeology in South Carolina where we are only given a very brief glimpse of sites.

Most of the main house excavations did not focus directly on main house architectural remains, but rather refuse dumps, outbuildings, or landscape features. As a result, Stoney's (1989) work stands as the authoritative statement about eighteenth century main house architectural design, particularly for the final stage of main house architecture representing the planter's economic stability. We still know very little about what the earlier houses looked like. Our best archaeological clue comes from Green Grove plantation where a two room rectangular house with end chimneys was uncovered measuring 16 by 32 feet. Architectural studies of colonial North Carolina architecture suggests that this is a very common configuration for early houses, known as the simple two room plan. Such a basic plan was used for the Newbold-White house, built circa 1700 in North Carolina (Lane 1985:15).

These excavations primarily reveal that brick was easily accessible in the Charleston area, mainly because many plantations had brick kilns or had neighbors with brick kilns. Even on Kiawah Island which has no nearby clay source, the earliest main house complex at Stanyarne Plantation had

buildings with either brick piers or continuous brick foundations (Adams 1994). This is in sharp contrast to plantations in the Beaufort area where brick was almost unknown, and tabby³ was the primary masonry. The only building which clearly had no brick in its construction was the garden or specialized slave house at Lesesne Plantation which contained a post and trench foundation. Given the suspected low status of the occupant this is not surprising, even though the structure is within the sphere of greatest planter control (see Zierden et al. 1986).

Combining the results of these studies indicates that a main house complex in the Charleston area might contain not only a main house, but a kitchen, administrative building (or office), carriage house, privy, orangeries (or greenhouses), a slave hospital, house slaves' quarters or housing for slaves with specialized skill. Unfortunately, we already knew that these types of support structures may have existed, but what might be more interesting is how these structures spatially related to each other, since there are few if any extant plantations that have not been spatially modified since the early to mid eighteenth century. Part of the problem is that we have done so little work on entire plantations that we don't know what to expect, nor do we know what the artifact patterns of different types of structures might be. In addition to these clearly tangible remains or remains more often examined (because of their artifact content), there are other buildings or aspects of main house complexes, mainly associated with the formal garden and garden structures (see Trinkley et al. 1992). The archaeological studies, then, must be taken as a whole to describe the architectural and archaeological profile of main house complexes in the eighteenth century. This is unfortunate since it does not allow us to note patterns, changes, or variability in building styles, main house complex make-up or organization, or economic position

³ Tabby is a mixture of lime, burnt oyster shells, sand, and water which is made as a slurry and poured into forms, created using boards held together using dowels or pegs. Once a layer dries, the forms are raised and another layer is poured, until the wall reaches its full height. Tabby is then protected from the elements by a finish coat.

changes through time.

Because slave houses are small and relatively simple, it seems that we know more about slave life. We know that the houses during this period were often small and relatively ephemeral, being constructed using impermanent materials. We know that they used a lot more colono ware than the planter did and that the European ceramics they had were either cheap or second hand.

Obviously, a slave's yard was not as extensive as the main house complex where there were a number of outbuildings (e.g. offices, kitchens, carriage houses, etc.), however, we should not assume that by excavating a slave site using methods we have used in the past, we will retrieve all the information that the site can provide. Clearly this is not the case, since of the five slave settlements examined, three were excavated through mechanical stripping. As will be explained more fully later, slaves probably did a lot of their living in their yards and tightly controlled yard excavations have the potential to yield significant information about how slaves used their yard spaces.

The mechanical stripping of the sites brings up the problem that we really have a poor collection of comparative data since most of the artifacts are pushed aside during stripping. In addition, we do not know very much about the diet of eighteenth century Charleston area slaves because of mechanical stripping. A number of historic and prehistoric plowzone sites have produced respectable amounts of animal bone. For example, at a Woodland Period plowzone site in central North Carolina bone was second only to pottery (N=11,332) and was more abundant than lithic debitage (N=9,018). The excavations there produced 10,953 bone fragments or over 34% of the artifact assemblage excluding fire cracked rock, shell, and daub (Mountjoy 1989:12). Another example is 31BN29 where the plowzone contributed 7230 fragments of bone. Feature contexts produced 9883 bone fragments (Ward 1980b; see also Ward 1980a). Given these examples, it should not automatically be assumed that plowzone sites will not produce significant information regarding the diet.

In addition, the bone recovered from the plowzone may become vital in instances where features alone do not produce enough bone for reliable interpretations. According to Grayson (1979) and Wing and Brown (1979) faunal samples must contain at least 200 individuals or 1400 bones for an accurate depiction of faunal diet.

So, why do we know so very little about the eighteenth century rural Charleston area? This is due to a number of factors including the lack of discrete early remains, the nature of compliance archaeology, the use of mechanical stripping, and the fact that archaeologists generally could do more with both the historical data and the archaeological collections. Archaeologists need to demand more information from their data. If not, then the profession will continue to painfully and slowly develop, since despite twenty years of plantation archaeology, we still know very little about eighteenth century life. The following section provides some suggestions for improving the returns of plantation archaeology.

Recommendations

As previously discussed, a review of the literature on eighteenth century archaeology in the Charleston area has shown that although a number of sites have been examined, the results from these studies have been relatively uninformative because of the nature of contract archaeology, the use of mechanical stripping, and the limited detailed archaeological and historical analysis. In addition, we know little about the earliest period of occupation from about 1670 to 1740 because we have been unable to locate discrete very early remains.

Lack of discrete early remains

Solving the problem of locating these discrete early remains is complex since standard archaeological survey and testing techniques are unlikely to pinpoint them. However, the archaeological testing techniques used at Stanyarne Plantation allowed us to locate structures that we would have otherwise missed. First we placed a 50 foot interval auger grid over the entire settlement to locate concentrations of artifacts and architectural materials. Second, we used a metal detector to locate concentrations of architectural

artifacts within larger concentrations. Even on structures with few nails (such as the thatched slave house) the metal detector provided enough concentrated readings to warrant our interest. However, this is really only feasible on unplowed sites such as Stanyarne. The use of a metal detector in the vicinity of a slave house at Seabrook Plantation on Hilton Head indicated that plowing had dispersed the nails across a roughly 100 by 100 foot area, making it very difficult to precisely pinpoint the structure using the metal detector. While the combined use of close interval testing and metal detecting may not solve the problem of identifying early remains, it appears to be the best method of locating small, discrete structures. In addition to a combined method of close interval shovel testing and metal detecting, a dramatic increase in sample size should also prove fruitful.

Compliance Archaeology in South Carolina

Unfortunately, we can not control the makeup of the area to be impacted by development. However, it could be successfully argued that if a portion of a plantation settlement is to be destroyed, then areas not affected should also be included in a study since a site can not be successfully interpreted without looking at the whole. In other words, if you excavate only parts of the whole, then the remains have to be interpreted out of context with the rest of the site. We should not have to accept examining only small percentages of only a few structures. The archaeological community should push regulatory agencies to require a larger percentage of these sites be excavated, since it appears that excavations at the level we have used in the past have yielded very little information about plantations as a whole. Presently, less than 1% of archaeological sites are normally examined in South Carolina and a much larger sample is needed. Unfortunately, South Carolina most likely falls very near the bottom of the scale in terms of how much excavation is being required at a site. For example, the amount of work being done at the data recovery stage at each site in the state of Delaware is outstanding. An archaeological data recovery excavation performed for the Delaware Department of Transportation at the Cazier site excavated a 25% stratified, systematic, unaligned random sample of the plow zone, using one five

foot square for every 10 ft. square of site (Hoseth et al. 1994:12). Afterwards, the site was stripped and all features were excavated. They concluded:

The combination of oral documentation, archaeological features, artifact frequencies, and soil analyses results provided a unique view of temporal yard usage and proxemics for the occupants of the Cazier site. Moir and Journey (1987:230) defined yard proxemics as the interpretations of the patterns of the yardscape around typical dwellings over time; in particular, the term referred to the "nature, degree, and effect of spatial separation between support structures, features, gardens, flower beds, fences, paths, and activity areas, around a primary structure" (Hoseth et al. 1994:86).

At the Cazier site, the excavation of a 25 percent random sample of the plow zone gave a reliable view of artifact distributions and spatial utilization patterns. This technique has proved invaluable to other excavated sites within the region as well (Shaffer et al. 1988; Catts and Custer 1990; Hoseth et al. 1990; De Cunzo et al. 1992). Future analysis at other sites using artifact distribution frequencies generated through a 25 percent sample can clarify diachronic spatial utilization of sites (Hoseth et al. 1994:101).

This approach would be ideal in the examination of South Carolina plantation settlements, since there is still so very little we know about the plantation landscape and how it changed over time, particularly since there are no or few detailed plats pre-dating the 1780s. The work by Angela Hoseth and her colleagues (Hoseth et al. 1994) is not unique in Delaware and apparently, a 25% sample is very common for the Delaware Department of Transportation given that it has been used in at least five studies over the past six years on

compliance related projects.

The Use of Mechanical Stripping

While it is true that mechanical stripping allows features to be examined that might not have been otherwise discovered, its use should only be decided under very specific circumstances since even disturbed sites can provide very valuable information. For instance, very little has been done toward understanding the eighteenth century African-American yard, primarily because it is perceived that these areas will produce very few artifacts. Although this is likely, these excavations can also reveal important features which will provide a great deal of information regarding eighteenth century African-American domestic life. Merrick Posnanski (1989:8) has noted that the extramural use of space is possibly the most important and pervasive aspect of West African life; and it is not out of the question to suggest that this practice was continued in the New World, especially given the hot South Carolina environment (see also, Wesmacott 1992). As a result, archaeologists should be able to locate hearths, trash pits, activity areas, garden fences, animal pens, etc. Some of these areas (particularly activity areas or places with shallow ephemeral features) are very "delicate" and should never be subjected to mechanical stripping as a primary means of excavation, particularly if they have never been plowed. There are instances where remnant A horizons still exist despite plowing (see Adams and Trinkley 1994; Gardner and Poplin 1992). The field methods used by the Delaware Department of Transportation are a very satisfactory combination of controlled excavation and mechanical stripping.

Historical Research and Its Application to the Archaeological Record

Although Wheaton et al.'s (1983) work at Yaughan and Curriboo has received some criticism, it has provided a great deal of information about changing African-American life, particularly because of the use of historical research to interpret the results of the archaeology. Amy Friedlander (1985a) was able to prove that the slave population during the eighteenth and early nineteenth centuries was relatively stable. As a result, the changes in the archaeological record through time were interpreted to support a change

within the slave community, not a change because of an unstable population. As a result of her work, she has strongly recommended taking advantage of historical documents in the formulation of research questions and interpretation of results (Wheaton et al. 1993; Friedlander 1985a). As Friedlander (1983) has suggested, historical documents should be looked upon as artifacts since they can help provide explanations for what archaeologists find or since they can help archaeologists know what to predict. In many instances, although historical research is done, the results are not used to interpret the data. Friedlander states:

If the thrust of social and cultural history for the past twenty years has been the study of past processes rather than individuals, an historian who works for archaeologists is in a rather curious situation, rather like a chicken among the foxes. Rather than extrapolating from a series of data to a conclusion, one brings to bear on an individual site what is known about the context. This is extremely important because it provides the interface between the investigation of the site and how an historian can understand it. In understanding what we have so to speak, we can adduce evidence to explain what the material culture appears to show. Although little used, this is the real power of historical argument, and it occurs when we get past describing what happened historically (Friedlander 1983: 9-10).

One of the problems with contract archaeology is that often the people who are interpreting the results of the archaeological and historical data are not historians. This does not mean that archaeologists are unable to interpret these data, it only means that they need to train themselves to look at how the context of the site may have affected what we find in the field. In other words, they need to develop an interface linking the two sets of data into one unit, rather than presenting them as two individual entities whose relationship

is never explained.

Analysis of Archaeological Materials

Charles Orser (1989) has warned against the use of Stanley South's (1977) pattern analysis for the characterization of site types and has actually called for its removal from plantation analysis. He states:

South's concept is flawed for two important reasons. First, the eclectically constructed concept does not provide an effective scale of analysis (after Marquardt and Crumley 1987:2) that is suited to the complexities of plantation organization; and second, the concept provides no mechanism for investigating historical change (Orser 1989:28).

Unfortunately, Orser fails to provide an alternative to pattern analysis; and to date, it remains the best means of providing comparative data. Orser is correct, however, in suggesting that historical archaeologists only use it for direct comparisons rather than trying to apply it in a diachronic fashion. As South has complained:

Although the search for patterning in the archaeological record has become a major focus in historical archaeology, pattern recognition as it is practiced today normally does not extend beyond particularistic, inductivistic exercises in identification and labelling. The failure of historical archaeologists to realize the potential of the pattern recognition approach is due to the nearly total absence of links connecting the patterns and the past cultural processes responsible for them (South 1988:25).

A diachronic approach can be taken on sites where there are relatively distinct temporal levels to determine changes in architectural design or function, foodways, wealth, etc. At a more regional level, it can also be used to determine how

different or shifting economic orientation affects plantation lifeways (see Joseph 1988; Trinkley 1993b). Joe Joseph (1988) has suggested that this shift in plantation artifact patterns occurred because of technological advances and greater availability of manufactured goods in the nineteenth century. Archaeologists need to concentrate more on interpreting these patterns, when possible, than they have in the past. While, as Orser (1989:2) has said, it "does not provide an effective scale of analysis that is suited to the complexities of plantation organization", it can be used to provide information on general changes through time, and with time and effort, can prove itself to address some of these complexities.

As for European ceramics, George Miller (1980, 1991) has complained about the use of his CC Index values on lump ceramic assemblages, since normally the collections span a very long period of time — many times up to 150 years. Since tastes and styles are quite sensitive (see Carr and Walsh 1994), and availability of ceramic types change through time, he believes that these status studies provide little valuable information about the economic position of the planter, since one decade he may do very well and the next decade he is close to selling some of his holdings to pay off debts. While it may be able to provide an "average" for the planter, it is not very sensitive to changes.

Miller (1991) has stated that this method of analysis can only be used on sites occupied for a maximum of 10 years. Therefore, the continued use of Miller's ceramic indices on sites occupied for longer periods of time can be considered problematic. However, we may be able to use his and Otto's (1984) concept of ceramic value to break apart assemblages into periods of time (such as pre-Revolutionary, National Period, Antebellum, etc.) to provide a rough estimate of changes in personal wealth. Such an attempt was made at the Vanderhorst Plantation on Kiawah Island (Trinkley 1994). This analysis suggested that transfer printed wares were much more common at the site after the Revolution. However, in general, the economic value of the assemblage decreased after that time period. While Miller's ceramic indices were calculated despite his warnings, it was believed to be useful since some of the contexts probably

represent only a 10 year period (1772-1782) between the time the first house was built and the time it was destroyed during the American Revolution.

The use of status studies should be promoted, particularly when an assemblage can be subdivided, representing smaller chunks of time. While the results may not provide a precise picture of a planter's economic position, lets say, in the 1790 decade, is may provide us with a general trend of a plantation's economic means. Tying the results into the historical research of period economic trends and planter wealth, could provide us with a means of understanding how reliable such ceramic analyses are. If useful, the methods can provide information when site specific history is sparse.

Another problem that faces plantation studies is the need for a better understanding of colono ware and River Burnished pottery. For instance, was colono ware exclusively made by African-American slaves and River Burnished by Catawba Indians? How was the production of colono wares organized? Did slaves of both sexes make the pottery? Did everyone know how to make the pottery? Was there a slave on each plantation whose "side line" was making colono ware? Was there a "community" potter? Other issues concerning colono ware will be discussed in a later section.

While issues concerning more detailed analysis have not by any means been exhausted here, this discussion has brought up some of the areas where more research is needed and where more detailed analysis might prove fruitful.

Conclusions

The conclusion is quite clear -- we have much yet to learn about eighteenth century plantations in the Charleston area and, for that matter, elsewhere in South Carolina. This chapter has attempted to provide some direction for future work that includes not only improving the way field work and analysis is done by the contracting companies, but also includes a request to state regulatory agencies for requiring substantially more work to be performed at each site.

While we can not change the conditions under which we excavated the Broom Hall site or the methods that were used nearly seven years ago, we hope that we can at least provide much greater detail and interpretive value to the archaeological features and artifact assemblage. Clearly, the Broom Hall site can not be used as a case-in-point study since only a small percentage of the site was examined and only a few buildings were only partially excavated. However, we hope that by attempting to do a little more with the artifacts than is normally done, we can illustrate that we can move on and begin providing new information.

LOST IN TIME: AN HISTORIC SYNOPSIS OF BROOM HALL PLANTATION

Fritz Hamer
South Carolina State Museum

Few places in colonial South Carolina mustered the reputation for political influence and wealth as the parish of St. James Goose Creek, a community of plantations located on a tributary of the Cooper River (Weir 1983:65-67, 94). While this plantation community lacked a town with shops and a main street, it was like many colonial communities outside of Charleston. Its parish church served as a center of social and political activity with the parish's most prestigious plantations serving as places for fairs, horse races, and religious celebrations (Waterhouse 1989:94, 125-126). Various accounts provide brief descriptions of the wealth and activities in the parish. In 1734 one anonymous traveler spent a night in St. James Goose Creek where he described ". . . passing by several beautiful plantations on each side of the road, and mostly brick houses" (Merrens 1977: 112). The *South Carolina Gazette* reported in November 1766 that at Steepbrook plantation, the seat of Peter Manigault, a celebration was held to honor the seventieth anniversary of the Glorious Revolution in the mother country. To honor the occasion Manigault "... gave ... an elegant entertainment to the Light Infantry Company ... 14 miles from Charles Town where the company arrived at 7 o'clock in the morning, Spent the day most agreeably, and returned before 9 at night" (Heitzler 1983: 102).

Following the American Revolution the community of wealthy planters had lost both its economic and political prominence. The ravages of war led to some of this decline but even before 1776 Goose Creek had lost a significant amount of political influence in the Royal Assembly (Morgan 1980:57-59). In spite of its wealth and influence, however, few descriptive accounts remain that are

more than cursory accounts of the parish's plantations. This is particularly the case for Broom Hall. Although owned and operated by two prominent members of colonial society, Peter Taylor, c. 1732-1765, and Thomas Smith, 1765-1783, neither man recorded a detailed description of its lands and buildings during their life time. Broom Hall's two neighboring plantations, the Elms and Crowfield, provide more detailed historical records which will help provide indirect evidence for the plantation that bordered them (Rogers 1962: 127). However, by the 1840s these plantations were in serious decline (Heitzler 1983: 141-159). In 1843 the Goose Creek plantations were described by the Southern agricultural reformer and future secessionist, Edmund Ruffin, "... as much a scene of desolation as any, formerly furnished residences . . . for many . . . wealthy planters" (Mathew 1992: 61). Consequently, to get a clearer picture of Broom Hall's splendor and later decline this historical examination will depend on biographical sketches of the plantation's owners, travelers' descriptions left of the estate, and official records, including wills and inventories.

Early Beginnings

Like most of the first settlers of St. James Goose Creek Parish during the early decades of Carolina's settlement, the early landholders of the future Broom Hall were emigrants from Barbados or had close connections with the sugar island. Within a decade of Charles Town's founding in 1670, Arthur Middleton was awarded a grant at the head of Goose Creek by the Grand Council, about eighteen miles north of the coast (Smith 1928: 275-276). Middleton was one of the two younger sons of a wealthy Barbadian planter who like many from the sugar island and the West Indies elite

sent their younger sons to Carolina to find land and opportunity no longer possible on the crowded islands (Waterhouse 1989:10-11). Four years later this land was transferred to Robert Mallock. Sometime before 1706, following the death of his father, the latter's son, Robert Mallock, the younger, instructed Richard Park, his attorney, to sell this property. Moses Medina acquired it for £200 sterling on September 25, 1708. Within a short time, the new owner conveyed it to Colonel Thomas Broughton (Smith 1928:274).

Although Arthur Middleton was able to gain influence and political office in the Proprietary government, Broughton is the first landowner of Broom Hall who left a significant, although controversial history in the colony. Originally from the West Indies, he came to Carolina in the 1680s and quickly became a prominent part of the fledgling new community. He first made his mark in the deerskin trade (Edgar and Bailey 1977:103-104; McDowell 1955:51, 112; Sirmans 1966:72, 101). However, in doing so he gained a reputation for unscrupulous practices, exploiting Indian hunters with rum and cheap goods and contributing to the growing friction between the English settlement and the native inhabitants which ultimately led to the 1715-1716 Yemassee War. When he failed to gain the support of the colonial assembly for a monopoly in the trade in 1702, Broughton turned his attention from deer skins to rice planting, the colony's new cash crop introduced a decade earlier (Coclanis 1989:63; Wood 1984:35-37). Sometime near the end of the decade the new planter gained title to the future Broom Hall land. However, he did not keep it long. Having acquired ownership of lands north of it in St. John Berkeley Parish, Broughton relinquished his Goose Creek tract to the land's first developer.

Sometime between 1710 and 1711 Benjamin Gibbes received a new grant for 1288 acres from Broughton (Smith 1928: 275). Until Gibbes gained title to this estate there is no evidence that any of the previous owners tried to cultivate and live on the property. As was rife throughout the early years of the colony, land speculation was extensive among many Carolinians, but few were eager to leave the confines of the fledgling port city of Charles Town to work the

frontier land (Ackerman 1977:54-55). As several scholars have shown, the early decades of the Carolina colony were hard with the only commerce of consequence based on the deer skin trade, food, and timber exports (Coclanis 1988:61-62; Menard 1994:659-661; Hamer 1982:20, 29-31; Sirmans 1966: 55-56). Things began to improve during the last decade of the seventeenth century when the colony began to experiment with rice and found it profitable. Even so, the relations with the native groups which still had a strong presence in the low country, made it precarious to invest extensively in new farming ventures. Friction between Indians and settlers was a constant problem and it would remain so until after the Yemassee War. Russell Menard's recent study of plantation investment in early Carolina suggests that while the slave population made a steady increase during the first two decades of the new century it paled when compared to the 1720s. During the second decade the average yearly slave importations hovered around 289 individuals. This rose dramatically in the following decade to about 900 annually (Menard 1994:661-666; Sirmans 1966: 111-115).¹

Since Gibbes was the nephew of the proprietary governor, Robert Gibbes (1711-1712), it is safe to assume that Benjamin had political influence in the proprietary government to support his position in the colony (Holmes 1911:100). Perhaps through the influence of his brother and the fact that he was a native of Barbados, Gibbes took some active part in the fledgling parish community. In 1714, the Anglican citizens of Goose Creek replaced their original wooden house of worship with a larger and stronger brick church to accommodate the seventy whites and eight black communicants. Gibbes was a member of the vestry which made the decision to replace the old church. While contributing to the construction of the brick edifice and its early upkeep, he was also provided a free pew with four other members as shown through records of the Anglican missionary organization, the Society for the Propagation of the Gospel in Foreign Places (Foster 1932 Vol. 3; Waring c.1909:9-10).

¹ As an extreme, Elizabeth Donnan (1928:807) suggests these numbers may be higher, with perhaps as many as about 3000 black slaves being brought into Carolina each year during the 1730s.

Yet while Gibbes did participate in parish affairs there is no evidence that he served in the proprietary assembly like several other parish planters (Sirmans 1966:76-78). Perhaps he was too busy creating Broom Hall. By 1721 this work had paid off. Waterhouse has shown that most wills in the colony between 1736 and 1745 and 1746-1755 had a total estate worth less than £300 sterling² (Waterhouse 1989:62). Gibbes' 1722 estate inventory indicates a wealth of more than £400 sterling³ (Charleston County Wills 1722-1724: Book 66). Contemporary estimates of what it took to develop a rice plantation in early eighteenth century South Carolina are conflicting. However, one experienced planter in 1710 calculated that to assemble a 1,000 acre estate one would need thirty slaves, fully equipped with tools and housing together with livestock (Menard 1994:663). By 1721 it appears that Gibbes had come close to achieving this although it seems that to help bring in capital he sold off parts of his estate. He first sold 100 acres to Thomas and Rebecca Baker in 1713, four years later he sold 110 acres to Arthur Middleton, and in the last transaction of 1721 John Gibbes bought 148 acres (Smith 1928:274). While creating his plantation Gibbes probably followed the practice of most early Carolina planters by erecting a small, wood framed house for his family, measuring less than fifty feet in length and forty feet in depth (Waterhouse 1989:98). The only direct evidence of the Gibbes era at Broom Hall comes by his will dated January 23, 1721 and proved after his death the next year.

In his estate inventory Gibbes left at least twenty slaves with two children. This human property, along with livestock that included six oxen and thirty-six other cattle of various sizes, was valued at £2,339.⁴ He also had a respectable inventory of furniture and cutlery that ranged from two feather beds, a "warm tub" with a capacity of

about thirty gallons,⁵ six cane chairs, two Bibles and two "oval" tables. The value of these along with a respectable number of farm tools, ranging from five axes, six hoes, and a mortar and pestle, had a total worth of just under £3,000 (Charleston Co. Wills 1722-1724: Book 66).

Based on this respectable inventory one can speculate confidently that Gibbes was on his way to creating a significant plantation at Broom Hall. Unfortunately, the inventory and will leave no descriptions of buildings or land development. The estate was left to his widow, Amarinthia Gibbes and their infant daughter, Elizabeth. It would be the widow's second husband who would take Broom Hall into its best years as a working plantation and place of some elegance (Charleston Co. Wills 1722-1724: Book 66; Smith 1928:274).

The Taylor Era

While Gibbes was establishing Broom Hall, Peter Taylor, an Irish native, came to South Carolina to make his fortune (*South Carolina Gazette*, October 5, 1765). Arriving in the colony in 1715, he quickly received a 500 acre land grant in St. Paul's Parish which he named War Hall (Smith-Carter Papers, February 20, 1766; Edgar and Bailey 1977:665). Sometime after Benjamin Gibbes' death Taylor married Gibbes' widow and made Broom Hall his home for the remainder of his life. Even though the records do not tell us, it is likely that Taylor and Gibbes knew each other before the latter's death. Based on South Carolina's small white population of only 18,300 individuals in 1720, and the relative closeness between War Hall and Broom Hall, both men probably knew the other (McCusker and Menard 1985:172; Wood

⁵ While the term "tub" today is often used for a bath-tub, in the early eighteenth century this seems unlikely, especially with the adjective "warming," and the size indicated. A more likely explanation is that this was a wooden tub used for planting, particularly for plants requiring "warming" in the winter, such as oranges or other delicate fruits. A 30-gallon tub would have measured perhaps 23-inches in diameter and about 30-inches in depth. See the following section, "Remnant Landscape Features at Broom Hall" for a discussion of green houses. Tubs for plants are illustrated by Richard Bradley in 1726 (Noël Hume 1974:Figure 40) and Thomas Fairchild in 1722 (Bisgrove 1990:113).

² This is about \$34,900 in 1992 dollars.

³ This is about \$46,500 in 1992 dollars.

⁴ This is about \$272,000 in 1992 dollars.

1984:131).

During Peter Taylor's long life he established himself as a prominent member of Carolina and Goose Creek society, becoming both a Commissioner of parish affairs and a Representative in the Colonial Assembly eight times between 1733 and 1762. During his last years the Governor recommended him to an appointment on the Privy Council, the colonial governor's advisory board, but the Goose Creek planter declined to serve (Edgar and Bailey 1977:665-667, Foster 1932:5:660-661).

Waterhouse's comprehensive study of South Carolina colonial gentry shows that planters, merchants, lawyers, and physicians predominated as members in the colonial assembly. Within that body certain men were appointed to serve in prestigious committees and as speaker. Throughout his years as a member of the Assembly, Taylor served on committees, ranging from Privileges and Elections to Grievances. Soon after being elected to the Assembly in 1749 he was appointed Chairman of the entire body (Waterhouse 1989:163-174; Easterby 1962: 12, 13, 18, 22, 440).

The local government provided another level of prestige and importance in colonial society. Taylor also appeared conspicuously at this level of public service. His local offices ranged from regulating patrols in the parish (1734) to keeping the account book under the Revenue Act (1760). Early in the century the Assembly had also imbued the parish vestries with more authority than before. Waterhouse has called this group the most important institution at the local level (Waterhouse 1989:128). Responsible for the workings of the church, it also had authority to administer relief to the parish poor. Because of their secular, as well as religious duties, wealthy members of the parishes figured predominately on vestries. Even though the Colonial Assembly did not authorize them with the authority there is documentation that some also exercised police and judicial control. Taylor, as a member of the parish elite, frequently served on the St. James Goose Creek vestry from 1732 until his death (Foster 1932:5:660-661; Waring c.1909:13-14; Waterhouse 1989:128-130).

While serving as a public servant Taylor also had an interest in the budding cultural

activities of the colony, becoming a founding member of the Goose Creek Friendly Society (1740) and a member of the very exclusive Charleston Library Society, formed in 1748 (Edgar and Bailey 1977: 666-661). Although Waterhouse (1989:86) argues that through at least the first half of the 1700s the gentry had little interest in educational concerns because they were concentrated on making money, Taylor seemed one of the exceptions to this rule. During the 1730s he, along with several other Goose Creek residents, subscribed funds to the parish church for constructing a school. Not long after he subscribed £75 over three years to the Ludham School Fund along with more than thirty-five other prominent parish planters. Near the end of his life Taylor also set aside £500 to the Free School at Dorchester. He also believed that not just whites should be educated. In his will he designated a substantial sum to "educate and christen" Indian children (Foster 1932:1:178-179; SC Wills Vol. 10: 533).

Taylor was a busy man on both the local and colonial scene who was a respected man as indicated by the offices he assumed during his life. His station in the life of the colony made it important that he had a residence that bespoke his position in society. Yet the records from the Taylor period are silent about the developments he made to his plantation at Broom Hall. The few documents that survive provide, at best, indirect evidence about Broom Hall's growth but they do not leave any physical descriptions of the estate.

While Amaranthia lived, Taylor seems to have run the place in joint ownership with her. At her death, sometime in 1730 or 1731, he gained joint ownership of the estate with his wife's daughter, Elizabeth (SC Auditor General, Memorial Book 1:410-411).

Taylor's extensive will and inventory provide some clues about Broom Hall's prominence. The earliest record to compare with the will comes from a rare 1745 tax roll for St. James Goose Creek Parish. One of only three district tax returns for the colonial era known to exist, it seems to be incomplete but it still provides a significant piece of information about most of the planters in the parish. In Philip Morgan's analysis of the tax roll, he argues that it includes

about three-fourths of the parish's white inhabitants in that year (Morgan 1980:51-53). From it one can see that St. James Goose Creek was one of the wealthiest parishes of the colony. A total of fifty-nine households were recorded with an average of 43 slaves and 2,400 acres for each. By contrast, neighboring St. George's Parish averaged 24 slaves per household in 1741 (Morgan 1980:53-56). Although not the wealthiest planter in Goose Creek, Taylor was just three below the average with forty slaves at Broom Hall and an additional twenty-nine at his War Hall plantation in St. Paul's Parish. His assessed tax of just under £76 was about the median for the tax list of 59 households (Morgan 1980:53, 56, 60-65).

For contrast we can compare Taylor's holdings to that of his two neighbors, Henry Izard of the Elms and William Middleton of Crowfield. Izard had large holdings in three other parishes but listed all his 218 slaves at the Elms, located on the southeast border of Broom Hall. Middleton had a similar distribution. Although he had 23 slaves on his St. John's Berkeley Parish plantation, the rest, 100, were on his Crowfield estate, located on the eastern boundary of Taylor's holdings (Heitzler 1983:85; Morgan 1980:60). Both men significantly exceeded Taylor in land and slave holdings but they show that Taylor lived and worked among a powerful, wealthy set of neighbors. In 1740 a visitor to Crowfield left a detailed description of the Middleton holdings:

The house stands a mile from but in sight of the road, and makes a very handsome appearance; as you draw nearer new beauties discover themselves; first the beautiful vine mantling the wall, laden with delicious cluster, next the large pond in the midst of a spacious green presents itself as you enter the gate. The house is well furnished, the rooms well contrived and elegantly furnished . . . (Heitzler 1983:113).

Although such a detailed description is lacking for Broom Hall, an examination of Taylor's will and inventory indicate that he kept up with his wealthy neighbors.

Waterhouse argues that the emerging South Carolina gentry tried to emulate the English upper class more closely than any other colonial gentry. He attributes this in part to the large number of younger sons of the English upper classes who came to the colony in the seventeenth century. The South Carolina gentry, like their English forbearers, expected and acted the role of the ruling class. Not only did they monopolize government offices but they also made sure that they built the trappings of an estate that befitted their station in life (Waterhouse 1989:106-108). While the 1745 tax roll indicates improvements to Broom Hall since Gibbes' death, the Taylor will provides more detailed evidence of how much Broom Hall had prospered.

On his death in October 1765, the appraisers of Taylor's inventory must have taken several days to document his large estate. Beginning with a list of seventy slaves, the deceased planter had a vast collection of furniture, china, silver, and farm equipment. The total value of his estate was placed at nearly £21,000 South Carolina currency, or nearly £3,000 sterling,⁶ which Waterhouse observes was well above the average of £400 for the estates he studied for the period 1756 to 1775 (Waterhouse 1989: 62-63). Although this was Taylor's largest holding, his original plantation in neighboring St. Paul's Parish, was significant on its own. War Hall was appraised at a little more than £13,000 South Carolina currency⁷ at his death, including 50 slaves (Inventories of Estates, Charleston Probate Records, Vol 10, 1765-69:191-193).

A selection from the will at Broom Hall indicates the luxury goods accumulated in the house. Along with "12 chairs Leather bottoms"⁸

⁶ This is about \$349,000 in 1992 dollars.

⁷ This is about \$216,000 in 1992 dollars.

⁸ Even into the nineteenth century, the best parlor chairs were most frequently made of mahogany, often with "morocco leather" (Reese 1847:277). Morrison H. Heckscher and Leslie Greene Bowman note that "Mahogany, shipped in huge logs from Honduras and the islands of the Caribbean, was the preferred primary wood in both England and America during the second

valued at £60, Broom Hall had "Pavillon Window Curtains,"⁹ "19 sheets," and "7 Pillow bears."¹⁰ For entertaining guests he had "two Maho'g dining Tables,"¹¹ "16 China dishes 60 plates & a lot of China." It seems that Taylor had enough reading material that the appraisers simply listed "The library of books"¹² (Inventories of Estates, Charleston Probate Records, Vol 10, 1765-69:191-193).

The inventory also reveals the kind of staples cultivated at Broom Hall. Taylor's estate recorded 700 bushels of "ruff rice",¹³ 600 bushels of "Indian Corn," and 700 pounds of indigo. He also had a significant livestock inventory. It included

half of the eighteenth century. As well for its beauty and the ease with which it could be worked, it was chosen for its strength and imperviousness to rot and insect infestation" (Heckscher and Bowman 1992:133)

⁹ Pavilion gauze was a light fabric somewhat like mosquito netting (Garrett 1990:200). Alternatively, "pavilion" was also a reference to a "tented covering," perhaps a reference to a style of hanging (*Oxford English Dictionary*, pg. 572). Regardless, curtains were the prerogative of the wealthy and before the American Revolution window curtains, such as those specified for Broom Hall, were rare even among the elite compared to bed hangings (Garrett 1990:53, 120). They were typically taken down in the summer to promote the movement of air and put up again in the fall to impede the cool air.

¹⁰ A pillow bere, bear, or beer is a pillow case (*Oxford English Dictionary*, pg. 866).

¹¹ As previously mentioned, mahogany was the wood of choice for furniture. The tables were made in the Queen Anne style during the early eighteenth century, gradually evolving into the Chippendale "Gothick" form (Garrett 1990:85; Smith 1966).

¹² For an overview of books and reading in the eighteenth century, see Hall 1994.

¹³ Rough rice is that with the husk still on, also known in the nineteenth century as "paddy rice." Rough rice kept better for a longer period of time than did rice which had the husk removed (Reese 1847:739). Prepared rice also tended to become dirty through prolonged storage, such as when plantation owners held over a harvest for a better price.

eighty-one head of cattle, seventeen head of oxen, and seventeen horses. At War Hall there were "70 hogs" and "73 cattle."

The slave inventory indicates not only several families with children but that a few male heads of families had special crafts. Out of the 70 slaves listed three had skills that were useful on a rice or indigo plantation. Tommy, a cooper, and his wife Jenny, were valued at £650. Peter, a carpenter, was valued at £600. A second carpenter, Tom, was valued at £400 (Inventories of Estates, Charleston Probate Records, Vol 10, 1765-69:191-193).

Peter Taylor had created a significant estate but at his death he had no direct heirs. Despite two marriages after the death of his first wife, none of his offspring had survived. Consequently, he gave his business associate and close friend, Thomas Smith, a life interest in Broom Hall.¹⁴

The Smith Era

Thomas Smith was related to Taylor through marriage (Rogers 1962:29-30). Their paths must have crossed through business dealings as well, since Thomas Smith was one of the colony's prominent merchants along with his brother, Benjamin. Although Thomas did not achieve the political prominence of his brother, he became one of Charles Town's wealthiest merchants (Rogers 1962:29-30, 34). Born in 1720, Thomas Smith entered business in the port city in 1742, probably under the guidance of Benjamin (see Smith-Carter Papers, April 17, 1762). By the 1750s he had established his own mercantile business with other merchants (Hamer and Rogers 1970: 533; Hamer and Rogers. 1972:42; Rogers and Chestnutt 1974:102; Smith-Carter Papers, April 17, 1762). At the same time he owned several tenements in the city and loaned funds to individuals and other businesses, while investing in several slave cargoes brought to Charles Town in the 1750s and 1760s (Higgins 1964:207, 210; Rogers and Chestnutt 1974:309). Like his brother and many other

¹⁴ War Hall was bequeathed to his nephew, Thomas Taylor, in SC Wills, Vol. 10, 1760-1767, p. 533.

prominent members of South Carolina society, Thomas earned income from administering the estates of others (Howe 1915-16: 449; Rogers 1962:30-31).

Not only did he earn income through independent enterprises but Thomas Smith used his position as one of the directors of the Cherokee Trade to supply goods to the Indians. In one transaction he received more than £8,000 for miscellaneous goods acquired for the "use and service" of the trade (McDowell 1992:525, 557). Thus like most successful merchants, Thomas Smith had an eclectic array of business interests which also led to responsible leadership roles in his local community and the colonial assembly (Rogers 1962:27; Coclanis 1991: 7).

Waterhouse has shown that while planters always held the majority in the colonial assembly, by the 1740s merchants became the second largest group to hold seats in the assembly (Waterhouse 1989:167-170). He was elected for the first time to the colonial assembly in 1769, eventually serving in six assemblies, two for St. Helena Parish and four for St. James Goose Creek Parish. As with Peter Taylor, Smith began his public service in local government capacities, including Commissioner of the Work House & Markets & Poor of Charleston (1746-47), church warden for St. Philip Parish (1750-51), and Commissioner of the Streets three times (Edgar and Bailey 1977:642). Although he showed some political interest up to the American Revolution, Thomas did not achieve the political power of Benjamin Smith who served as speaker of the assembly in the 1750s and was involved in several major issues, including the Stamp Act crisis, in the mid-1760s (Rogers 1962: 39-54). Thomas Smith fulfilled his public obligations as a member of the South Carolina gentry but his major interests seemed focused on business, and later, with his new estate in St. James Goose Creek (Rogers 1962:53; Waterhouse 1989:125-126, 140-141).

On assuming the ownership of Broom Hall, Smith observed to a relative in Boston that Taylor had left "a pleasant [seat, 19 miles from Charleston] . . . in a good neighborhood." He planned to spend from May through July on the Goose Creek estate where he would employ about

"30 hands which will afford me some employment and amusement." All he desired on his new manor was enough produce to supply his family and work force; he had no desire to continue his predecessor's profitable rice and indigo production (Smith-Carter Papers, February 20, 1766).

From these tantalizingly vague descriptions the image of Broom Hall becomes a little clearer than during the Taylor era. Smith chose to make Taylor's plantation a country retreat. If Waterhouse's assumptions are correct, Taylor left Smith a brick estate which he probably built sometime in the 1730s or 1740s (Waterhouse 1989: 98). Smith followed a tradition common among merchants by the mid-eighteenth century of acquiring a rural retreat for relaxation and a place to pursue hobbies and entertain. St. James Goose Creek seemed to attract many other merchants, since by the 1760s the political and economic predominance of the parish was reduced from a decade before (Morgan 1980:57-59; Weir 1977b: xii; Rogers 1962:125). Like his brother, Thomas Smith hoped to travel, to grow less concerned with "Worldly affairs" and put his mind in a "devout frame" (Rogers 1962:29-31; Smith-Carter Papers, May 16, 1766, February 20, 1766).

While Smith provided a vague picture of Broom Hall, details of the grounds and buildings remain a mystery. Although the Charles Town merchant wrote numerous letters to northern relatives that are now housed at the Massachusetts Historical Society, none of the several letters examined devolved any descriptions of Broom Hall buildings or grounds. Despite this lack of detail Smith did stay there on a regular basis through the decades of the 1760s and the 1770s, generally spending April through July or August in St. James Goose Creek (Smith-Carter Papers, February 20, 1766, August 1, 1770).

Although Smith may not have stationed slaves on the road to invite travellers in for refreshments, dinner, and lodging, as one European visitor described, the merchant probably entertained many guests visiting the colony, one of whom left a brief account of his stay at Broom Hall (Waterhouse 1989: 125). William Dillwyn, a New Jersey merchant visiting South Carolina in 1772, accepted an invitation from Thomas Smith to visit his Goose Creek estate. After an early

"dinner" with Smith in Charleston, Dillwyn set off for Broom Hall with Smith and his son Peter and another friend. They arrived at Broom Hall just after dusk, "passing a very long Avenue of wood and a part of it stately *Live oaks* we got to his Seat — which has a neat outside appearance, but a better inward appearance, being comfortably and neatly furnished wt. all Conveniences — . . ." (Ryan 1946: 254). Such a description seems to parallel with the observations of other visitors to other parish plantations during the colonial era and afterward (see the descriptions of the Broom Hall landscape in a following section of this report entitled, "Remnant Landscape Features at Broom Hall"; also Heitzler 1983: 91-93, 99, 103-104).

As Thomas Smith tried to divest himself of his business responsibilities, his hopes for a peaceful retirement were short lived. The growing feud between Britain and her American colonies soon effected the Smith family and its business success. Smith's personal feelings about the conflict are imprecise but it appears that he was one of several who took a moderate position during most the conflict, avoiding support for either side until the British occupied Charleston in 1780. However, before the war, during the nonimportation crisis (1769-70), when the colonies carried out a trade boycott with the mother country, Smith seemed to support the colonial position. Writing to his cousin in Boston, Thomas Smith hoped that the New England city would maintain its resolve to not compromise with the London government (Weir 1977a:34-38; Smith-Carter Papers, August 1, 1770). When John Mackenzie, one of the leaders of the colony's nonimportation party (as well as Smith's son-in-law), spent several months at Broom Hall, the assumption is strengthened that Smith opposed British regulations (Weir 1977b: xii). But when the crisis deteriorated into open revolt in 1775 Smith remained conspicuously absent. After serving for the last time as a representative of St. James Goose Creek in the first provincial assembly, the merchant left the city to wait out the war at Broom Hall. From here some historians claim he developed moderate sympathy for the Crown (Edgar and Bailey 1977: 642-643; Rogers 1962:124-125).

At the end of the conflict, Thomas Smith wrote his cousin in Boston that he ". . . was truly in

the way of both parties [Patriot and Loyalist] . . ." causing distress and trouble for both himself and his family (Smith-Carter Papers, August 19, 1783). How truly difficult it was for the Smiths can only be surmised from what happened to South Carolina as a whole. Lambert has shown that until the British occupied Charleston in 1780 the state was relatively quiet. The Patriot government under John Rutledge maintained state control with two short periods of anxiety when British forces made unsuccessful efforts to take Charleston in 1776 and tried again three years later. However, in May 1780 Lord Cornwallis' British forces finally captured the port city on the third try. Many patriots that stayed true to the cause either escaped to the back country or were imprisoned by the King's soldiers (Lambert 1987: Chapter 3-7). After a brief period of tranquility, South Carolina became a hot bed of conflict, where a civil war ensued for the next two years. Although most of this savage fighting occurred in the upstate, the low country was not spared the violence and destruction of the war. Forces for both sides carried out savage attacks on the other, often for personal reasons rather than political ones. How much Broom Hall was involved is hard to determine. However, St. James Goose Creek Parish was the scene of skirmishes and property destruction (Heitzler 1983:134-135,138-140; Lambert 1987:198-212).

However, Smith hinted that his estate suffered from marauding parties in an early post-war letter. Although he wrote that "God was pleased . . . [to support him] . . . in a most extraordinary manner and carried us in Safety through much danger and distress . . ." he lost much of his property (Smith-Carter Papers, August 19, 1783). Whether this property refers to his estate in Goose Creek or his tenements and warehouses in Charleston, or both, Smith never was specific. Based on the losses suffered by others, it is likely that Smith was referring to property in both places. One South Carolina patriot claimed that "black dragoons" came through St. James Goose Creek destroying some property (Rector 1971:62). Ralph Izard, Smith's neighbor at the Elms, apparently spent the remainder of his life after the war trying to reestablish his estate that he found in a "most deplorable state of dilapidation" when he returned from his diplomatic duties to the Continental Congress in 1783 (Deas 1844: xi; Izard Papers, June 9, 1789). Perhaps in an

effort to mitigate some of the destruction occurring around him Smith may have turned to the British for protection. One distinguished South Carolina patriot heard that Broom Hall's owner had provided funds for a loyalist regiment during the occupation.

Edward Rutledge, South Carolina representative to the Continental Congress, signer of the Declaration of Independence, and member of the controversial Jacksonborough Assembly in early 1782, was one of the principle supporters of the bill to banish or punish people in the state who had provided moral and material support to the British occupiers (Lambert 1987: 237-238). Although the King's forces would not leave South Carolina until the end of 1782, enemy troops were largely confined to Charles Town and its immediate environs by the end of 1781 (Nadelhaft 1981:72-74). To restore legitimate government to the new state and to decide on how to deal with disloyal citizens, elections were held in November 1781 and the new body convened in the small village of Jacksonborough, 35 miles west of Charleston (Nadelhaft 1981:73,74-75; McCowen 1972: 132-133).

This assembly devoted most of its deliberation to establishing lists of citizens who the assembly thought had been disloyal to the state. Those determined to have provided both moral and material aid to the enemy were subject to the complete confiscation of their estates and banishment. Those who had shown only moral support to the enemy would be subject to a lesser punishment of having a portion of their estate amerced (fined). Six separate lists were declared in the confiscation law of February 26, 1782. These lists ranged from those British subjects who had property in South Carolina to those who were natives of the state but had accepted British protection in the aftermath of the fall of Charleston or had given material and personal aid to the enemy (Lambert 1987: 239-240; McCowen 1972: 136-138; Coker 1987: 14-56).

While the assembly was deliberating on the lists, Rutledge wrote to Henry Middleton that rumors were circulating within the body that Smith had provided funds for a Loyalist cavalry regiment in Charleston. Although the South Carolina patriot believed strongly that Smith should be amerced

30% of his property if the accusation proved true, it appeared that the rumors were not confirmed (Barnwell 1926: 8). Even if Smith had provided open support for the enemy, it is likely that he had enough support among the members of the Jacksonborough body to have his name removed from the final list. Examination of the prospective lists drawn up during the debate, as well as the final one, do not list Thomas Smith.¹⁵

As indicated earlier, Smith was part of the South Carolina gentry, cultivating both professional and personal relations with prominent men of the state before the war, many of whom became leaders during the war for independence. These included Henry Laurens, Christopher Gadsden, and Arthur Middleton, the first two were prominent merchants while the last was related to the Middletons of Crowfield and had served in the Assembly four times before the Revolution. Having had business relations with the first two and served with Middleton in the assembly, Smith must have had influential people speaking on his behalf in 1782 (Hamer and Rogers 1970:462, 466; Hamer and Rogers 1972:4, 31, 177-178). Although Smith's case lacks documentation, other South Carolinians who had taken British protection in May 1780 used their influential friends to avoid penalties. One was Henry Middleton, one of Smith's plantation neighbors, who had accepted the protection of the British when Charleston fell. Despite his act of disloyalty, Middleton had been a patriot before 1780, had served on the Continental Congress and contributed £100,000 to the state until Cornwallis' triumph. In addition to his previous support Middleton's son, Arthur, had served with distinction for the patriot cause and had suffered imprisonment with other rebels when he had refused the King's protection. With this in his favor, Henry Middleton was never penalized even though his name appeared on the preliminary amercement lists (Edgar and Bailey 1977: 456-460;

¹⁵ In going through the lists and checking for other sources there is a Thomas Smith that appears on the list, but this is probably not the owner of Broom Hall. According to the partial document, Confiscated Estates of S.C. Loyalists, this Thomas Smith left the state when the British evacuated Charles Town; also see Cornwallis Papers, vol. II: 107 where loyalists purchased nine cows from a "Thomas Smith").

Nadelhaft 1981: 83).

Thomas Smith also had a son who served the patriots with distinction. Roger Moore Smith followed in the wake of his father, becoming a prominent merchant before the war and a politician. He loaned large sums of money to the state government (more than £170,000) and served in the state's militia until Charleston fell. Because of his continued "rebel" sympathies he was banished from the state by the British in the summer of 1782. (Edgar and Bailey 1977:635-636).

But if Smith had managed to avoid state penalties for disloyalty, the effects of the war still took a heavy toll. With Britain having accepted American Independence in 1783, the new nation was faced with many economic as well as political problems. The economic situation was as desperate as it had been during the war. Although independent, the new nation was more dependent than ever on British trade and its debts to the old mother country grew alarmingly in the post-war era. Furthermore, the treaty permitted the Crown's loyal subjects, particularly merchants, to reclaim debts owed to them by American citizens, both prior to and during the war (McCusker and Menard 1985:366-368; Nadelhaft 1981:144-146; Weir 1983:337).

American merchants who had done so well before the conflict found themselves in dire economic circumstances in the post-war years. They were forced to compete with growing numbers of British merchants who entered Charleston offering lower prices and credit terms that most native merchants could not compete against (Rogers 1962:99-102). Thomas Smith appeared to heavily rely on rents and interests on loans to maintain his life style before 1775. Now this source of income was severely eroding. Writing to his New England cousin, Smith lamented in the summer of 1783 that if people who owed him would pay up he would be contented. However, most could not pay and those that might have received better credit terms from the influx of new British merchants. Furthermore, while Smith appeared to have had many debtors who would not or could not pay him back, he also found that the depreciation of money caused in the wake of the war throughout the former colonies had cost his

own estate £20,000 sterling (Smith-Carter Papers, August 19, 1783, July 8, 1786, Rogers 1962:117). Faced with these serious financial problems, Smith decided to quit Broom Hall for good in 1783 and turn it over to his son, Peter (Smith-Carter Papers, August 19, 1783).

Broom Hall's new owner probably assumed control of an estate in precarious financial situation. Although one writer has argued that the Goose Creek planters never recovered from the impact of the Revolutionary war, it appears that certain plantations returned to some of their previous splendor (Heitzler 1983:141). Peter Smith was, like his brother and father, a merchant who dealt in loans, rental property and other business endeavors (Rogers 1962:127). Although Peter Smith seemed to support the British during the occupation he managed to escape any penalty (Barnwell 1926:8). In spite of rumored disloyal activity he was elected to the General Assembly in 1784 and was returned again in 1788 to represent St. James Goose Creek along with five other prominent parish residents. He also served two terms in the state Senate in the first half of the 1790s (Bailey, Morgan and Taylor 1986:1505; Rogers 1962: 126-127).

While Peter Smith served in local government offices, ranging from tax collector for St. James Goose Creek in 1779 to warden for Charleston Ward Two (1810-15), his financial situation seemed precarious through much of his life after the Revolution. In spite of the financial difficulties he faced, Broom Hall seemed to eventually recapture its pre-war splendor. Perhaps Broom Hall mirrored Ralph Izard's restoration of the Elms' and Manigault's efforts at Steepbrook. The most detailed account of Broom Hall came from a traveler in the early nineteenth century who described splendid grounds with exotic plants and a manor home.

Abiel Abbot, a unitarian preacher from New England, was visiting the state for his health. On his way to Savannah in the spring of 1818 he left a detailed description of the estate's fine flower gardens and manicured, tree lined grounds. Claiming that he had seen nothing to compare it to "in this country" he observed that:

The garden or pleasure grounds occupy 30 acres. In the center stands a handsome brick house. From the entry you look up an extensive avenue of 60 rods, shaded by various forest & flowering trees. Near the house is a regular flower garden, divided into compartments by well grown & shorn box Seville orange trees in fullbearing take the protection of the south wall of the house (Abiel Abbot Journals, Essex Institute Library, Salem, Massachusetts; see appendix 1 for the full text).

Although descriptions of the estate's buildings are vague, it seems likely that if Smith could maintain these luxury gardens he must have had a sumptuous house with an income to maintain them.

Details for Broom Hall neighbors show similar resurrections from the war's ravages. In the 1840s, Deas wrote that while Izard restored his estate to "some order" he was never able to live in the sort of elegance he had grown accustomed to in pre-Revolutionary days (Deas 1844: xii). However, Rogers has indicated that Izard still ran four different properties on which more than 200 slaves were employed. The Elms appeared to remain a retreat in which only thirty slaves were employed but many improvements were made by the 1790s. As early as 1789, Izard commented to a friend that his estate was improving along with the "neighborhood" (Izard Papers, June 9, 1789). Further details from a foreign visitor at the end of the century observed that Izard grew corn, barley and potatoes, while 100 acres was "well situated for rice culture" (La Rochefoucauld-Liancourt:1799: 429-430).

Nearby at Steepbrook plantation, Gabriel Manigault was reported to have improved his "place" with "Temples and Chinese Bridges" just as the war came to an end (Manigault Papers, October 24, 1783; see Figure 78 in a following section).

The mystery is that while Broom Hall appeared resurrected by the second decade of the

new century, Smith seemed plagued by unpaid debts. From the late 1780s until his death in 1821 his name appears on judgement rolls on almost a yearly basis. Some of these were small debts for less than £100. Many others were for hundreds or even thousands of pounds. In one 1819 case, the Bank of South Carolina alleged that Peter Smith had debts over a 26 year period to fifty-eight different people, ranging as high as £8,695 to just one creditor (for examples see SC Judgement Roles 1787: 184A; 1790:812A; 1812:271A; 1826:434A).

In 1790, already in financial difficulties, Smith signed over his Goose Creek property to his mother to maintain his children and prevent it from being subject to his personal debts (Charleston County Register of Mesne Conveyances, DB I-6, pg. 208). For the first time the name of the estate is referred to as Bloom Hall. Nine years later, perhaps to provide her son with his inheritance but to keep it away from his creditors, Smith's mother signed the property back over in trust to Peter along with two lots on South Bay Street in Charleston to hold for "Her grand children" (Charleston County RMC, DB Y-6: 181).

Out of these legal documents the conflicting picture of Smith's residence at the turn-of-the-century grows clearer. The population census of Charleston District for 1800 and 1810 shows a declining household over ten years in the Peter Smith family. In the former year the census taker listed three white males and one white female on the St. James Goose Creek estate with fifty slaves. A decade later Peter Smith does not appear at all for the same parish although there are three Peter Smiths listed in the city of Charleston, one of whom has the same white household numbers but no slaves (see SC census for Charleston District 1800:65; 1810:154).¹⁶ It seems that Smith probably used one of the South Bay street lots provided him by his mother in the 1799 trust agreement some of the time.

The 1799 trust with his mother provided that Smith could regain legal title to the Goose

¹⁶The author wishes to thank Gordon Jones for his help in researching this information and the following material on the Broom Hall estate.

Creek estate for a sum of £6,734. It seems late in his life that he managed to do this because in his signed will he indicates that he desired his Bloom Hall lands be sold (Charleston County RMC, DB I-6, pg. 208; Charleston Wills, Vol 35, 1818-1824:389).

When he died in the early fall of 1821, despite all his debts, his estate inventory suggests the status of a prosperous planter. Along with a large collection of furniture ranging from a "Circular Dining table" to "1 Mahogany Settee and 33 Chairs Mahogany" Smith's inventory also included a large assortment of wines and ports in his cellar (Charleston Inventories, Book F, 1819-1824: 389; Charleston Wills, Vol 35, 1818-1826:538-544).

According to his will, Peter Smith demanded that his estate, "Bloomville," be sold. However, it seems that the sale never took place. His son, Henry Middleton, appeared to gain possession with his wife, Elizabeth Sully. In 1828, Abiel Abbot returned for a second visit to Goose Creek. He again described the Smith estate in glowing, if much briefer, words, noting it ". . . as the most interesting spot I had seen in Carolina." Accompanied by the owner, Mrs. Middleton Smith, Abbot further observed that the Smith holdings had ". . . beautiful grounds of infinite variety of trees & flowering shrubs, many blooming, & embowered walks. . ." (Moore 1967: 246). Broom Hall would stay in the Smith family until the middle of the century.

Unfortunately, Henry Middleton Smith apparently did not live many years after his father's death since his name disappears from the census after 1820. However, as indicated above, his wife appeared to be the mistress of the estate by 1828 and perhaps earlier. Mrs. Smith came from the theatrical Sully family who had emigrated to the United States in 1792. After spending a brief period in Richmond, most of the family moved to Charleston to work in the theater there.¹⁷ It is here

¹⁷ For a brief summary of the Sully family's early years in America see Monroe H. Fabian (1983), *Mr. Sully, Portrait Painter*. Elizabeth was the sister of the renowned American portrait artist, Thomas Sully (1783-1872). According to his meticulous account books, Sully

that Elizabeth Sully must have met the Smiths and eventually married Henry Middleton although no record of their marriage has been located. Little else is known of the new Mrs. Smith except for what Abbot reveals in his two accounts. Although we know nothing directly of her long life on the plantation, it seems that she had some management skills to maintain it nearly three decades after her father-in-law's death. But by 1850s it appeared that Mrs. Smith was either too old or financially destitute to maintain it any further. This seems to correspond with the general decline of the parish as noted by later visitors. As previously alluded to, Edmund Ruffin visited the parish in 1843, leaving a somber description of the conditions on the once proud planter estates, ". . . passed two abodes of former magnificence as well as wealth, as appeared from the still beautiful remains in avenues of . . . live oaks." One plantation, which had been profitable, had neither a resident or foreman and had been sold for \$3,000 to be used ". . . as a resource for timber for another place" (Mathew 1992: 61-62). Early in this century, writer Joseph I. Waring confirmed Goose Creek's economic woes during the 1840s. The social and religious center of Goose Creek, the brick episcopal church of St. James, had fallen ". . . into a deplorable state of ruin." From the description he gave the once proud edifice was virtually abandoned, with walls cracked, the bases of the pews rotted, and trees and brush grown up so close to the base of the building on the outside that thirty cords of wood were collected when the vegetation was cleared away. Even though the grounds and structure were restored during the middle of the decade it was not funded by the local parishioners but by St. Michael's in Charleston (Waring c.1909:18).

did at least two paintings of his sister, one in 1812 and another in 1828, see Biddle and Fielding (1970:275). The author contacted the National Portrait Gallery in Washington, D.C. to try and locate one of the portraits for inclusion in this study. Unfortunately, the last recorded address for the owner of the 1828 art work had changed and no forwarding address could be found by the staff of the Gallery (Susan Foster, personal communication 1995). This is common problem in historical research with so many valuable records in the hands of private collectors.

Although these descriptions give no specific reference to Broom Hall, they graphically portray the parish's decline which the Smith estate must have experienced. By 1853 Mrs. Smith could no longer support herself and the estate. Early in the year she signed over her life interest in the property to four neighbors for a life annuity of \$600 (Charleston County RMC, DB Y-12, p. 305). The neighbors were Arthur S. Gibbes, Nathaniel H. Gibbes, Samuel Hill and James M. Poole and their wives. Three years later they in turn sold their interest in "Bloomville" and a neighboring tract called Fredericks to Henry Arthur Middleton for \$5,250 (Charleston County RMC, Vol. P-13: 572).

Although Middleton owned the property, he was an absentee owner whose main residence and plantation was in Georgetown District at Weehaw Plantation. Nonetheless, he acquired several other tracts in St. James Goose Creek Parish including Crowfield, Magnolia and Eighteen Mill House tract as well as other land nearby in Colleton District (Lease to Jacob Minott 1874, file 18, Cheves-Middleton Papers;¹⁸ SC Census, 1860). For his plantation holdings beyond Georgetown, Middleton hired overseers to manage his properties. One of these was John Driggers who appeared in the 1860 census as a resident of St. James Goose Creek. Soon after Henry Middleton purchased Broom Hall, Driggers was hired to manage this and neighboring Crowfield and Magnolia, where he was given free planting privileges. It seems that Middleton wanted Driggers to primarily guard these lands against trespassers and squatters (Driggers to Middleton 6 October 1866, Cheves-Middleton Papers). There is no indication where on these two properties he set up his residence. In any case, his success as a farmer seems modest according to the 1860 Agricultural Census. The cash value of the "Farm" was estimated at \$1,000, with just twenty acres of improved ground and 227 acres of unimproved land. Along with fifteen cows and twenty swine, the census taker recorded 500 bushels of Indian corn

¹⁸ The author would like to thank Mr. Robert Cuthbart of Charleston for his help in locating this reference at the South Carolina Historical Society. This and the following references to the Cheves-Middleton Papers were all located through his knowledge of these records.

(SC Agricultural Census, 1860)¹⁹. It is evident that Middleton had no plans of making a quick profit off these former colonial plantations.

The modest nature of the agricultural pursuits for Broom Hall and its neighboring tracts suggests that Driggers was only making a subsistence crop for his personal use. Middleton seemed only concerned with Driggers' watchman duties: to prevent trespassing and the theft of timber and brick from the manor homes. There is no indication of how successfully he carried out this task during his first five years as manager, but by the end of the Civil War it seems his job became very difficult. Reports of illegal timber harvesting abound in the post-war record for the area (Schutz to Middleton, 16 October 1866, file 4, Cheves-Middleton Papers). Other reports stated that people were squatting on some of the Middleton lands. This seems to have been primarily freedmen. According to one of Middleton's agents in Summerville, one "negro, called Hall" claimed Middleton had given him written permission to occupy Broom Hall to plant and remove any timber he wanted (Schutz to Middleton 16 Oct. 1866, file 4, Cheves-Middleton Papers). The same correspondent noted that in the summer of 1865 Hall had sent some freedmen to clear and build on the same tract but were prevented from doing so by Driggers.

The ineffectiveness of Driggers as watchman becomes further apparent from the removal of brick from the structures on the various land tracts by residents of the area. Even intact buildings were not safe from salvagers' eyes. In 1866, it was reported that many bricks were knocked down and taken from the walls of the house at Crowfield (Schutz to Middleton, 16 October 1866, Cheves-Middleton Papers). Although there is no direct evidence to show that similar salvaging operations were going on at Broom Hall, there is the suggestion that it had, based on a lease agreement Middleton signed with a new tenant in 1874. The new tenant, Jacob

¹⁹ The author would like to acknowledge the research assistance of Gordon Jones, currently of the Atlanta History Center, for locating the information about Driggers and his business relationship with Henry Middleton.

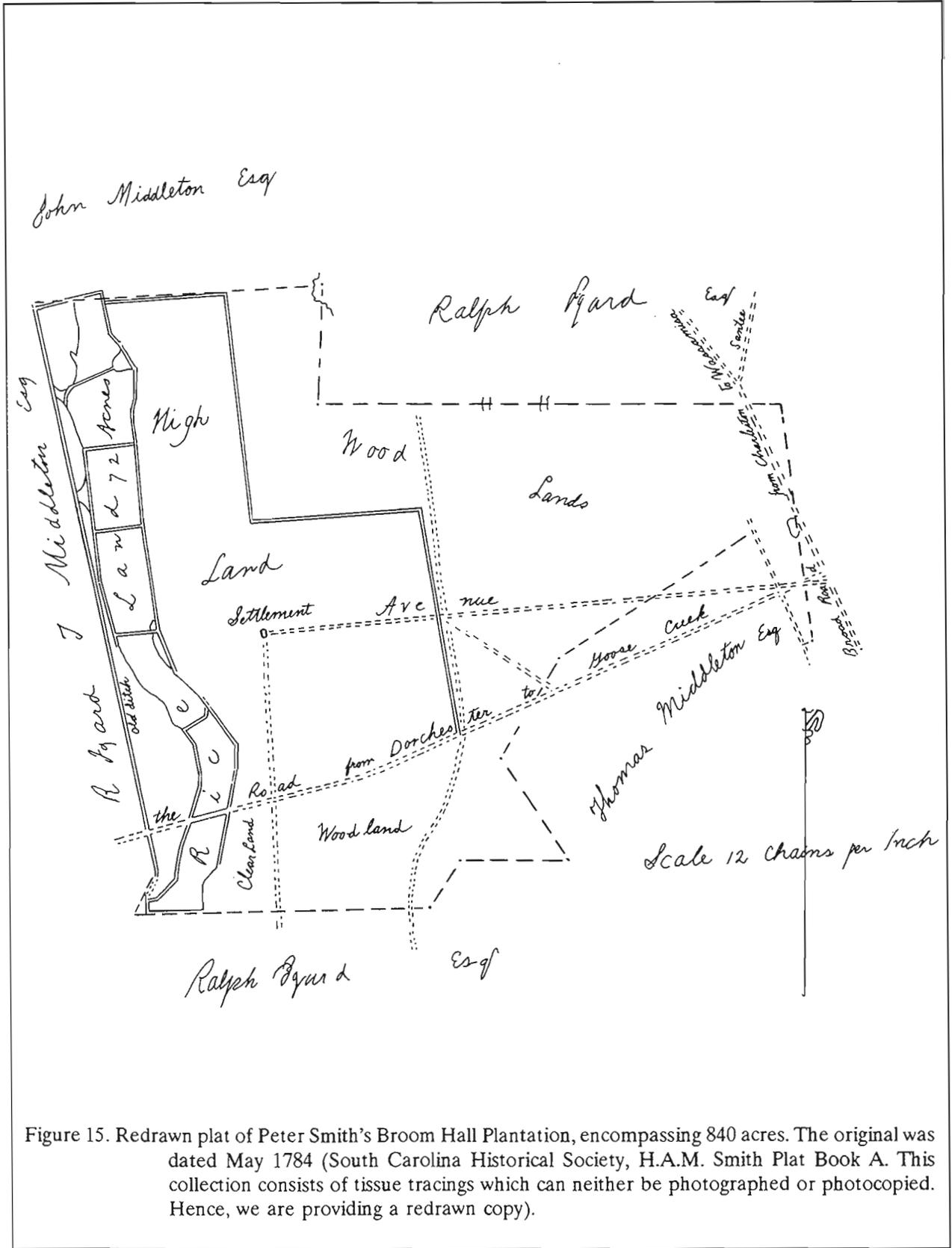


Figure 15. Redrawn plat of Peter Smith's Broom Hall Plantation, encompassing 840 acres. The original was dated May 1784 (South Carolina Historical Society, H.A.M. Smith Plat Book A. This collection consists of tissue tracings which can neither be photographed or photocopied. Hence, we are providing a redrawn copy).



Figure 16. Photograph of "the brick ruins of residence at "Bloomfield," St. James, Goose Creek," taken in the 1930s (South Carolina Historical Society, William Henry Johnson Scrapbook, 34-293/295).



Figure 17. Photograph of the "ruins of out building to south of residence" at Broom Hall, taken in the 1930s (South Carolina Historical Society, William Henry Johnson scrapbook, 34-293/295).



Figure 18. Out building south of the main house about 1920 (South Carolina Historical Society, 30-15-24).



Figure 19. Broom Hall about 1920. Photograph is labeled, "Bloomfield, big tree by artificial pond. Tile lined" (South Carolina Historical Society, 30-15-24).

Minott, was given generous rights by the owner to cultivate, raise stock, cut timber for market as well as make turpentine on the four major tracts in St. James Goose Creek. Minott was even granted rights to dispose of bricks on the various tracts except for "... Crowfield & Bloomville, the ruins of which he shall carefully protect from all depredations or injury" (Lease to J. Minott, 1874, file 18, Cheves- Middleton Papers).

In the wake of the disruption of the Civil War and the newly won freedom for thousands of Low Country slaves, it is not surprising that squatting and liberal interpretations of land rights were assumed by freedmen in the aftermath of war. Land managers such as Driggers often had little power to prevent the actions of these and other people from occupying lands such as Broom Hall. There were few people of authority that would support landowner rights for the next few years (Foner 1983:82, 85).

During the post-war period the Low Country was faced by turmoil as freedmen and their families tried to assert their claim to land. At the same time their former owners attempted to reestablish working relationships that had existed between master and slave prior to 1861. But as Eric Foner has so clearly shown, former slaves resisted all efforts at doing this during the Reconstruction era (Foner 1983: 80-82).

By the 1860s, St. James Goose Creek Parish was no longer the plantation haven that lands to the north and south of it still were. The turmoil that Henry Middleton faced on his Georgetown plantation after Appomattox must have been much greater. Here his former slaves demanded land and favorable contracts to work their former master's lands (Foner 1983: 87-89).

Thus while the freedmen population was probably much smaller along Goose Creek and the vicinity it is likely that some, if not most, of the structures that made up Broom Hall suffered extensive damage, if not complete destruction, by former slaves who came to salvage brick for their own use and, perhaps at the same time, wreak some havoc on their former masters' symbols of authority and wealth. Not far away, planters on the Cooper River described the way in which former slaves showed their independence. Charles

Manigault described how his former slaves "rushed in ... completely emptied the house... and carried off all the large furniture of every description..." on his Marshland manor on the Cooper river six miles from Charleston (Foner 1983:81).

Despite the "depredations" that Broom Hall and its neighboring land tracts may have suffered during Reconstruction, Middleton still possessed a vast landed estate in the Goose Creek area in the 1870s. He hoped to gain some financial benefit from the five year lease he signed with Jacob Minott in 1874, making sure that he was entitled to two-thirds of the profits, once the leasee's expenses were subtracted (Lease to J. Minott, 1874, file 18, Cheves-Middleton Papers).

The old colonial estate was included in a larger tract with Crowfield and the Oaks totaling 3,971 acres in an 1872 plat. Broom Hall's holdings contained 1364 acres (see Figure 15). An "old set" (old settlement) is listed on the plat with a small square where the colonial estate must have stood (Charleston County RMC, Plat Book B: 40).

Although the Broom Hall tract would continue to see some land use in which tenant farmers tried to scratch out an existence from its soil, the once proud colonial estate had disintegrated into the dust of history. Secondary accounts of H.A.M. Smith and Harriette Leiding claim that when they visited the site in the 1880s all that remained of the old home were a few oak trees, some flowers, and bushes. Smith stated that the manor house was still intact until some hunters accidentally set it on fire in 1865. When he visited the site in the late nineteenth century the walls of the brick manor home were partially intact (Leiding 1975:123; Smith 1928: 278). Based on four black and white photographs found in the South Carolina Historical Society (see Figures 16-19), parts of these walls still stood during the early twentieth century although one account claims they were entirely crumbled by the Charleston earthquake of 1886 (Heitzler 1983: 95).²⁰ Yet

²⁰ Although a review of various primary accounts of the Charleston Earthquake of August 31, 1886 failed to reveal specific mentions of Broom Hall, there is little doubt that the event was strongly felt in the Goose Creek area. Perhaps the most common

although the splendor of Broom Hall has long since disappeared from the surface, beneath lies the remains of a plantation estate and society that must have rivaled the wealth and activity of most colonial and antebellum estates.

photograph for the vicinity is that of the "St. James's Church at Goose Creek" taken by George L. Clark which reveals the collapse of the gable ends of the brick building and heavy cracking over windows (Peters and Herrmann 1986:Figure 62). Earl Sloan's report of the earthquake, while not mentioning Broom Hall, does report that at the adjacent Oaks plantation a "massive one story building with three gables all of wch were destroyed. Brick stable destroyed — all chimneys injured" (Peters and Herrmann 1986:58). At nearby Ortranto plantation Sloan found, "large building with N wing from middle, W gable destroyed & underlying wall severely cracked. E wall entirely destroyed collapsing to E — Piazza on S & W collapsed — N wing parted from building & inclined to N — W chimney fallen N — E chimney forced N" (Peters and Herrmann 1986:57).

EXCAVATIONS

Strategy and Methods

As previously discussed, both the main plantation (38BK600) and the associated slave settlement (38BK985) (Figure 9) had been previously examined by our colleagues at Garrow and Associates (Bryne 1987 and Elliott 1987). This initial work, as outlined in the **Introduction** to this study, consisted of relatively close interval shovel testing at the main plantation. Figure 4 reveals the placement of these tests, at 25 foot intervals, as well as the structures which were subsequently identified (largely on the basis of above ground rubble concentrations). At the time of both the initial survey and this latter work, ground cover was thick, but certainly did not preclude the ability

to identify structural remains (Figure 20). Site boundaries were defined both on the basis of artifact dispersal, the distribution of structural remains, and topographic features.

In contrast, the slave settlement (Figure 8) received considerably less attention, being investigated using shovel tests typically at about 100 foot intervals (although some closer tests were also excavated). The site was identified as having a rather amorphous shape, attributed to its incorporating both a settlement at the north end and probable farm or utilitarian units at the south end. The site also included what was interpreted as a mill race, dam, and associated pond, separating 38BK985 from the adjacent main settlement



Figure 20. Karrie Joseph and Natalie Adams screening auger tests at 38BK985, showing vegetation.

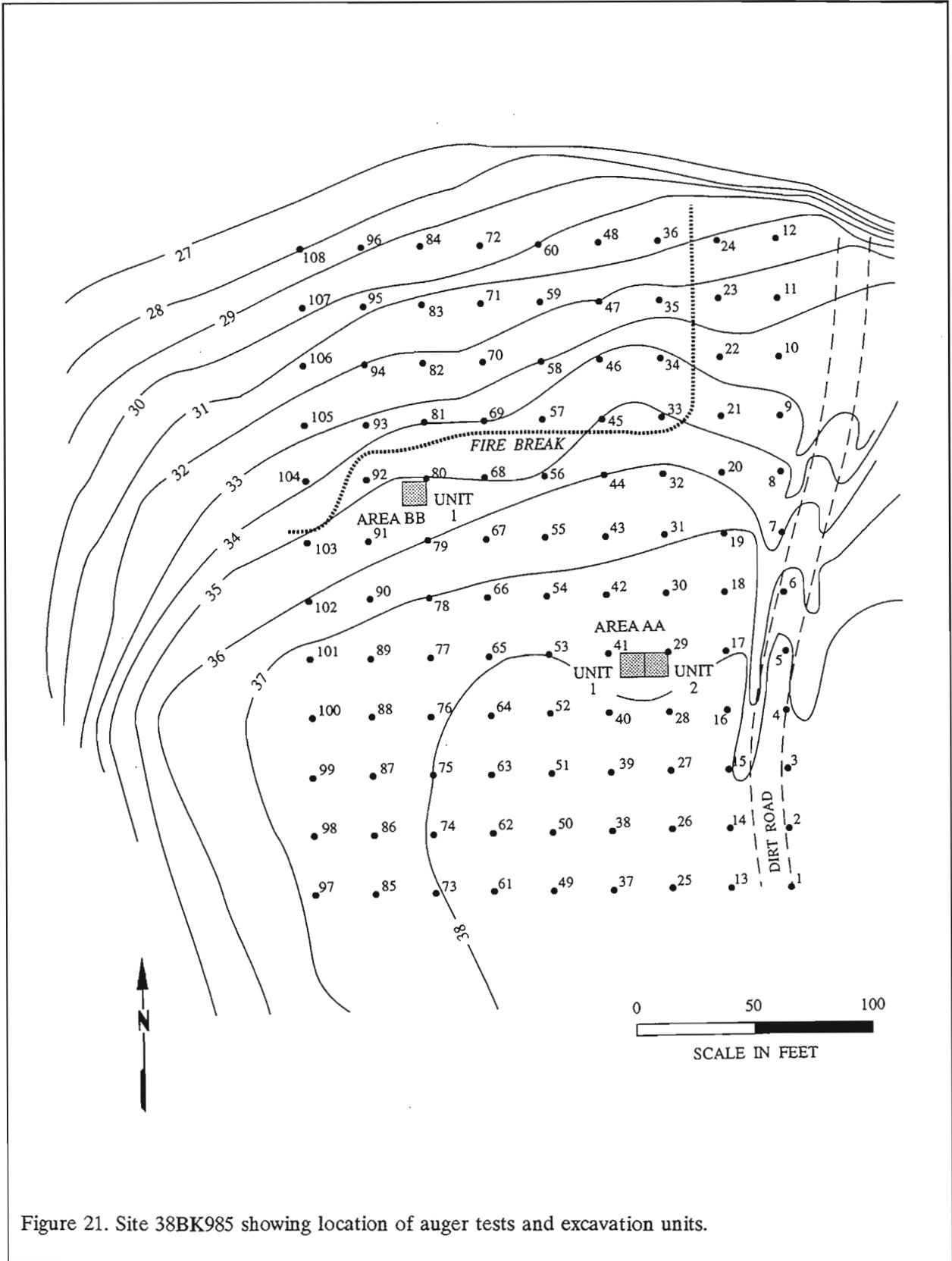


Figure 21. Site 38BK985 showing location of auger tests and excavation units.

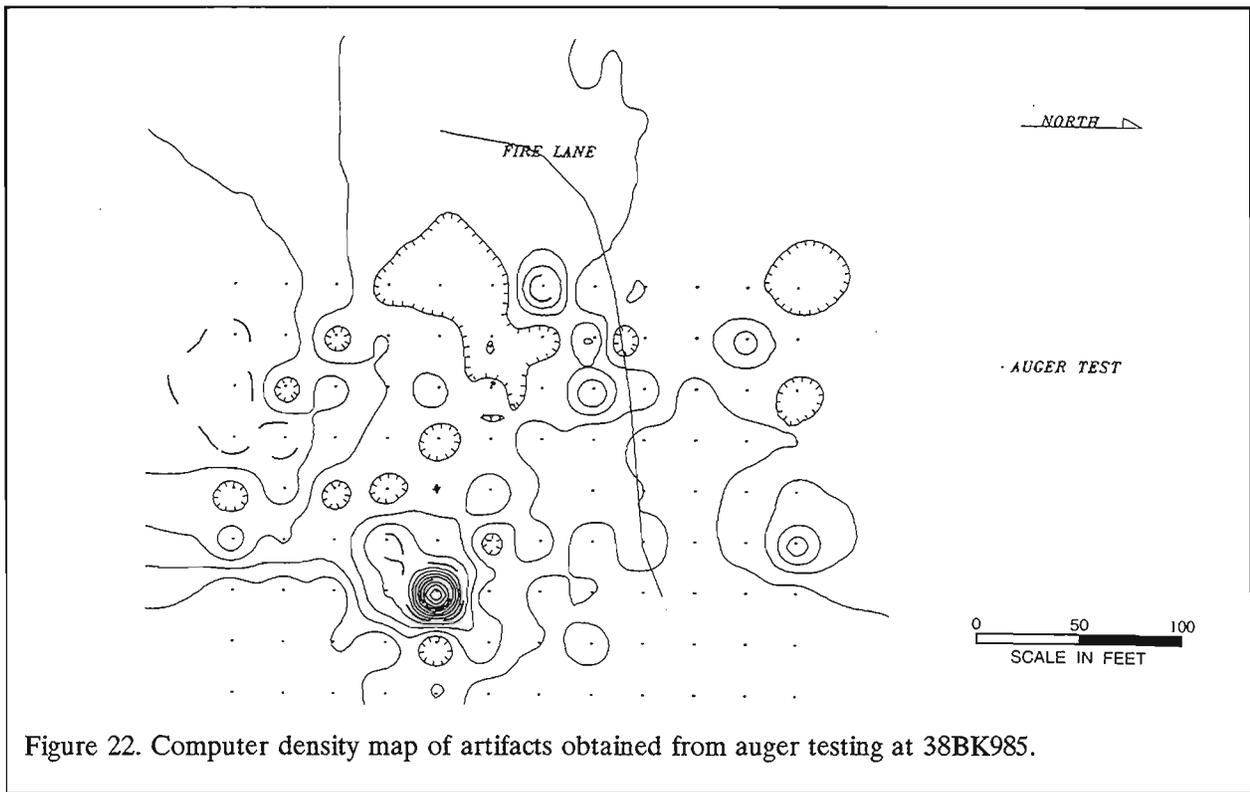


Figure 22. Computer density map of artifacts obtained from auger testing at 38BK985.

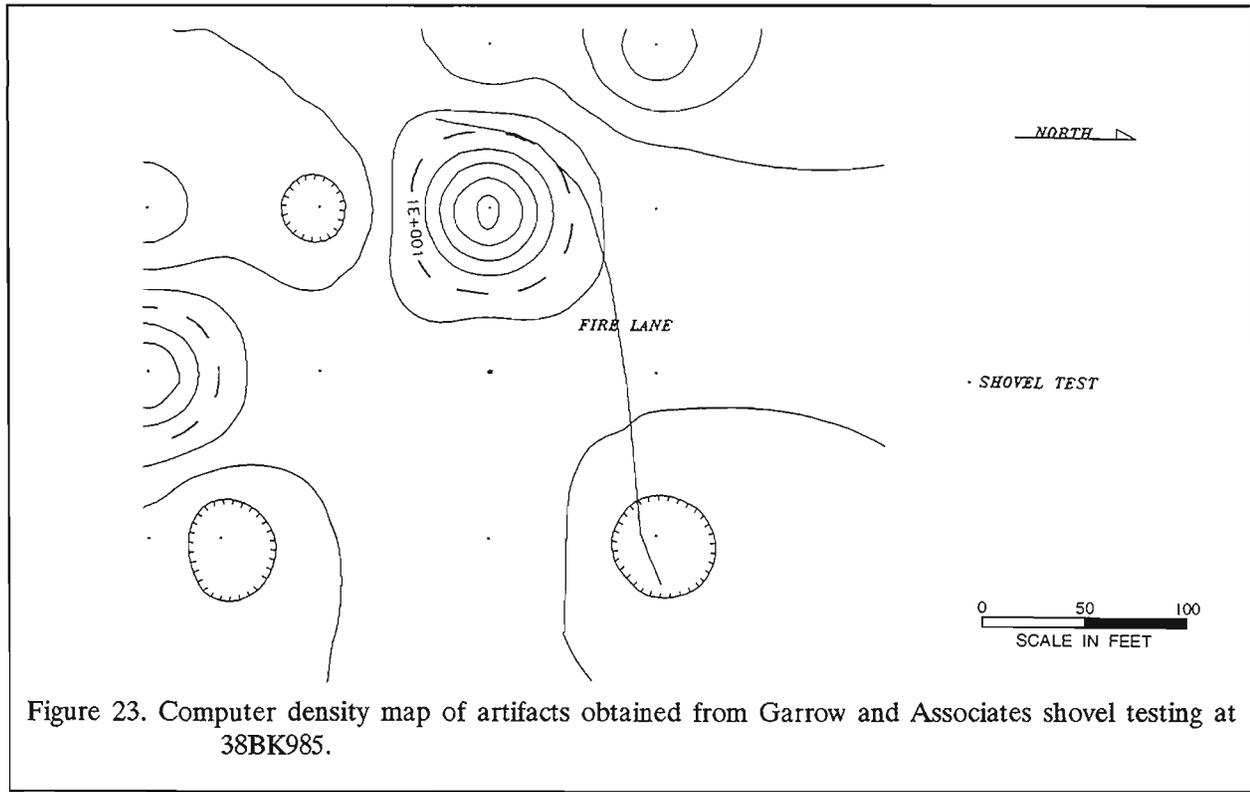


Figure 23. Computer density map of artifacts obtained from Garrow and Associates shovel testing at 38BK985.

(38BK600). Vegetation in this area was primarily second growth pine, as opposed to the mixed hardwoods and pines typical of the main plantation settlement. This provided the first clue that the slave settlement may have been disturbed by agricultural activities in the late nineteenth or early twentieth centuries.

The shovel tests at the main plantation resulted in a series of relatively detailed artifact density maps (Figures 5-7). These, in combination with the above ground remains, were felt to be adequate to guide excavations in this portion of the site. In addition, the time frame under which the work was conducted mitigated against additional survey. At the slave settlement, comprising the northern end of 38BK985, it was clear that additional tests would be necessary in order to effectively place excavation units and, hopefully, delimit structural remains. Consequently, the first phase of study at the slave settlement involved the completion of an auger test survey at 25 foot intervals. These data were intended to be used to generate computer density maps of the sites in order to guide the second phase of the investigations -- block excavations of significant site areas.

An auger survey was chosen over the more traditional shovel testing for several reasons. Auger testing has been found to be less destructive to the archaeological remains and to also be more efficient than individual shovel tests. The 25-foot interval was selected in order to be consistent with the available survey level data from the main settlement. In retrospect this was a fortuitous decision. Subsequent work at slave settlements with intervals ranging between 10 and 50 feet reveal that tests spaced at 50 or more feet provide very little structure specific data, allowing only gross site boundaries to be established. Intervals of 25 feet generally tend to provide adequate definition of structural remains, although decreasing interval distance tends to increase the definition capability.

Block excavations using hand dug and screened 10-foot units were chosen at both sites, rather than large scale stripping, for several reasons. The first involved the environmental and aesthetic damage caused by such operations in a development oriented area. It is both difficult and costly to restore large site areas after such

mechanized stripping. The most significant reason for avoiding this approach, however, relates to the nature of the archaeological record. It was possible that the bulk of the architectural evidence would be found in the upper foot of the soil, with very few data being found as features or post holes in the subsoil. The data which might be recovered included traditional artifacts, such as window glass and nails, which have long been used by historical archaeologists for structural reconstructions. In addition, structural evidence such as plaster, mortar with wattle or lath impressions, mortar log chinking, and similar materials tend to be largely confined to the upper zones of sites. Large scale stripping often removes much of the data with greatest interpretative value for architectural studies.

Auger Testing

At 38BK985 an auger grid was established with points marked at 25 foot intervals. Absent standing architectural remains, the grid was oriented with magnetic north-south, which also happened to follow the landform and topography. The grid was tied into nearby development markers for long-term horizontal control. Each auger test was numbered from south to north and west to east within the grid (Figure 21).

The tests were conducted with a two-person power auger equipped with a 10-inch bit. Each test was augered to a depth of 1.5 to 2.0 feet. All soil was screened through 1/4-inch mesh and all remains, including shell, brick, and mortar, were collected. Measured profile drawings of all auger tests were collected and the tests were then back filled.

Materials from these tests were sorted in the field laboratory, with brick, mortar, and shell weighed and discarded. Historic artifacts were counted, although no attempt was made to distinguish between artifact classes for the purpose of the computer map (primarily because the sample sizes tended to be small). Brick and mortar weights were equally small and not further utilized. The tabulated artifact data served as the basis for the computer density maps generated by Demiurge Electronics of Beaufort, S. C. (Figure 22).

In addition, Garrow and Associates' survey

data were also used for creation of a density map, shown as Figure 23. Comparing Figures 22 and 23 helps us to understand how the "picture" we have of a site is so clearly a function of the information available. There are some broad similarities between the two — there is an area of dense artifact south of the fire lane at its west end, an area of very low artifact density at the east end of the fire lane, and an area of relative density at the south edge of the site. Beyond these broad trends, the two maps suggest that survey level information may be appropriate for determining boundaries, but it provides little information concerning intra-site patterning and offers little opportunity for informed placement of excavation units. Figure 23, however, suggested two areas of dense remains worthy of investigation. The first was situated at AT 29 and the second was found at AT 80. These two areas were selected for the initial block excavations at 38BK985.

Block Excavations

The auger test grid at 38BK985 served as the basis for the general site grid. Excavation blocks were designated by double letters (e.g., Area AA), with individual units numbered sequentially within each area (e.g., Area AA, Unit 1, Unit 2). We chose not to use a modified Chicago grid system because of the time involved in setting up site-wide coordinate systems. Since the grid was tied into development points, this approach still allowed horizontal control of the excavations. At 38BK600 an effort was made to relocate the 1000N1000E point established by Garrow and Associates, but we found this point had been destroyed by development activities. Two other points, identified as 825N525E and 865N630E, were found and were used to recreate the original grid. During the course of the investigations, however, we discovered that the east coordinates were apparently off by 25 feet, making E525 actually E550 and E630 actually E655.

Vertical control at each site was maintained through the use of one or more elevation datums established in the site area by Chicora. Elevations are expressed as feet above mean sea level (AMSL) as determined by reference to the established datum. This system allows widely separated areas of the site (and the

two different sites) to be precisely compared and the vertical controls can be easily re-established in the future.

Soils from the block excavations were screened through ¼-inch mesh using mechanical sifters. Units were troweled at the top of subsoil, photographed in b/w and color film, and plotted. Excavation was by natural soil zones and soil samples were routinely collected. Features were usually bisected, with both small soil (approximately 2 quarts) and flotation samples (5 gallons) collected. Features were excavated by natural soil zones and were separately photographed, plotted, and profiles drawn during their removal. Feature fill was dry screened through ⅛-inch mesh to improve the recovery of small faunal remains.

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 curated at The Charleston Museum. All specimens have been evaluated for conservation needs and have been treated prior to curation (this process is discussed in greater detail in a following section of this study). The materials have Accession Number 1988.49 and are cataloged as ARL 39272 through 39382-108.

38BK600

Archaeological investigations were begun at 38BK600 by a crew of five on May 17, 1988 and continued until June 11, 1988. A total of 932.2 person hours were devoted to work at the main Broom Hall settlement. As a result of this work 2100 square feet of site area were opened and 1879.5 cubic feet of soil were moved in primary excavations, all screened through ¼-inch mesh.

Excavations

As previously discussed, we were unable to relocate the main Garrow and Associates datum, but were able to find several of their flagged points in order to reconstruct their original grid. This grid, oriented due north-south, was subsequently tied into several permanent Broom Hall survey markers in order to maintain long-term horizontal

control (Figure 9). Vertical control was maintained through the use of a several mean sea level datums. The first, station 50+37 right, 31.3 feet from the center line of Westview Boulevard, has an elevation of 43.84 feet AMSL; the second, station 55+44.17, has an elevation of 41.85 feet AMSL; the final permanent datum, station 57+72 right, about 9 feet from the center line of Westview, has an elevation of 38.50 feet AMSL and is marked with a nail driven into the pavement (the remainder of the datums were marked only with paint, but can be reconstructed through reference to the road plans).

The next phase of work at the site was to relocate the various structures initially identified by Garrow and Associates and flag them for visibility. Using the remnant Garrow and Associates grid points, a 25 foot grid was re-established over those portions of the site selected for further investigation — Areas C, D, E, H, J, K, L, and M. Only two primary areas at 38BK600 on the west side of Westview Boulevard were not investigated, due to a lack of time — Areas F and G (see Figure 9). Of course, three areas on the east side of Westview (Areas A, B, and I) were not incorporated into this study since they were to be green spaced by Westvaco Development Corporation.

Area C

Area C was identified in a zone of relatively low artifact density based on the computer density maps (see Figures 5-7). Although Garrow and Associates' survey reported structural remains at this location (thought to perhaps represent a chimney fall), our initial surface survey was unable to relocate any brick rubble. A few artifacts, however, were found on the surface and excavations, initially consisting of two 10-foot units, were placed in order to better explore these remains. The southwest corner of Unit 1 was at Garrow's N925E650 coordinate. A second 10-foot square was placed immediately to the east, forming a 10 by 20 foot block (Figure 24).

The complexity of this particular area was almost immediately realized. The stratigraphy revealed two distinct zones. Zone 1 consisted of a relatively loose organic sand representing disturbed

sand probably related to a light discing before pines were planted in this mixed hardwood area. Below this, Zone 2 was a brown sand, evidencing less disturbance than Zone 1. Together these two zones form the A horizon at the site. Below them was a yellow sand subsoil, termed Zone 3, which was essentially sterile.

Unit 2 produced a large quantity of material, including animal bone, colono ware, and European pottery. In comparison to Unit 1, the soil was darker, more charcoal was present, and the brick density was considerably higher (50 compared to 20 pounds). Observations in the field found a rather stark or abrupt change between the two units. A dark feature stain was found in the eastern third of Unit 2 at the base of Zone 2. Identified as Feature 1, this stain was followed eastward through the excavation of five 5-foot squares, numbered sequentially Units 3 through 7. As shown by Figure 24, the soils at the base of Zone 2 varied somewhat in these units, but the feature was distinct to the western edge of Unit 7, suggesting that we had identified both the eastern and western limits. An effort was made to locate the northern edge of the feature by excavating a series of three 5-foot units to the north, off Unit 4, and numbered from south to north Units 8 through 10. The posited north edge of the feature was found at the base of Zone 2 in Unit 10, yielding a feature approximately 21 feet east-west and about 17 feet north-south. Regrettably no southern boundary for the feature was identified.

Once the upper unit fill (Zones 1 and 2) had been removed, the feature was excavated by previously defined units with all fill being dry screened through 1/8-inch mesh. The feature fill revealed two internal zones — the upper, called Zone 1, consisted of black sand with abundant artifacts and the lower, called Zone 2, consisted of dense brick rubble. Microstratigraphy was identified in some areas, suggesting a series of deposits had been placed in the feature, including large amounts of burned organic material (although associated artifacts were not burned), lenses of especially dense domestic trash, and lenses of covering soil fill (Figure 25). The depth of these remains averaged about 1.4 feet, with the base or floor of the feature well packed and generally level (typically varying no more than 0.2

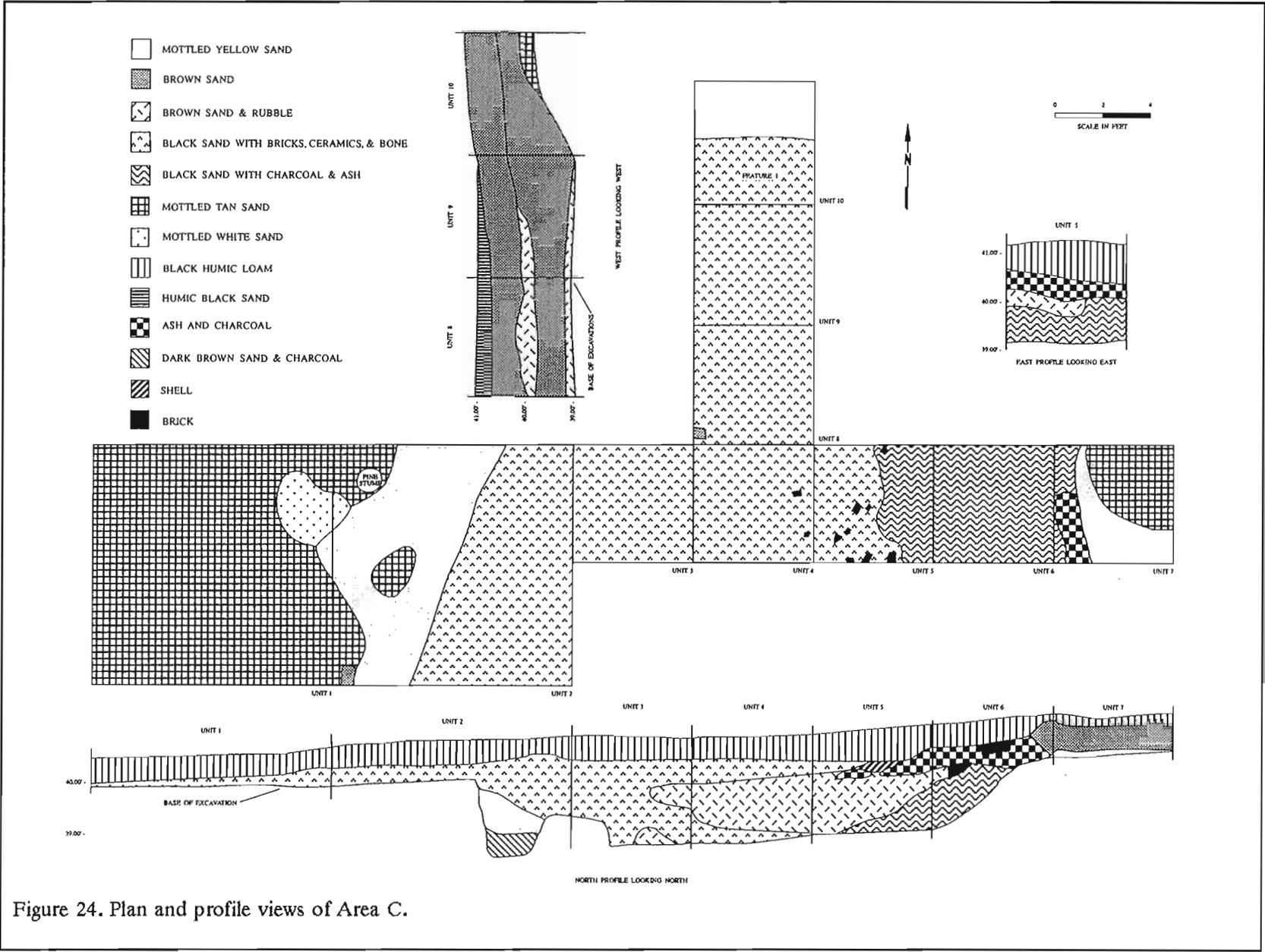


Figure 24. Plan and profile views of Area C.

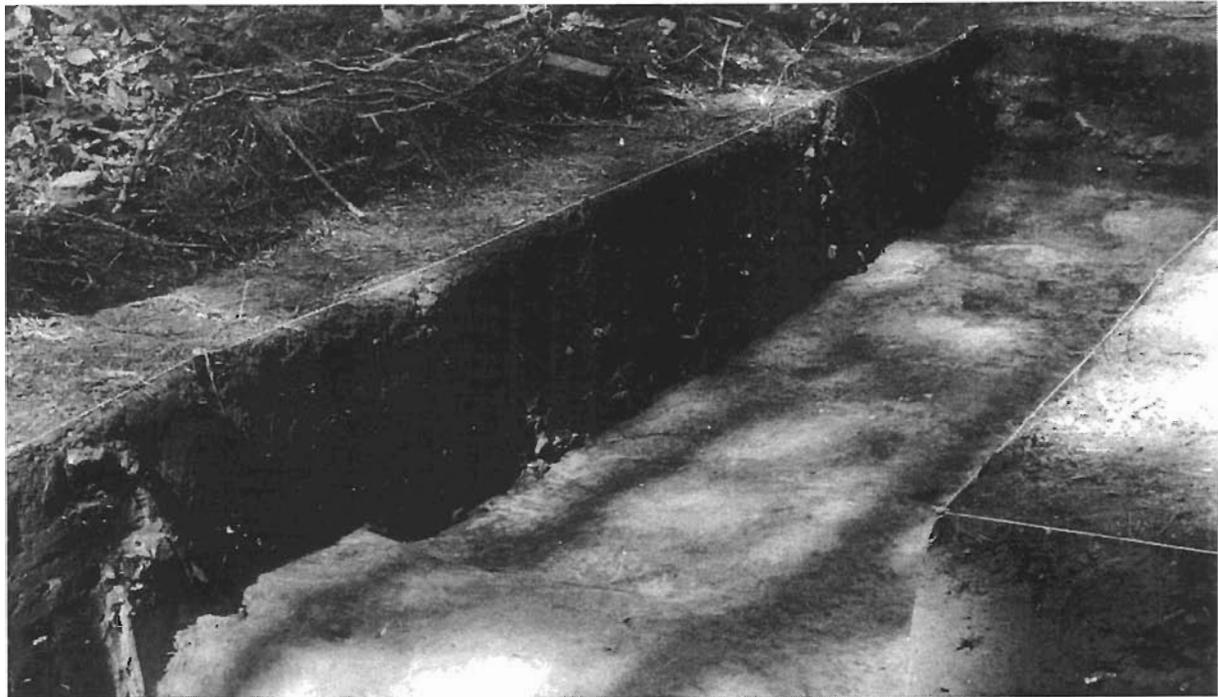


Figure 25. A portion of Feature 1 in Area C showing the typical stratigraphy. View to the northeast.

foot from one unit to another). A field check (using a soil test kit) found that the soils from the feature did not contain appreciably higher levels of either nitrogen or phosphate than the overlying A horizon soils, especially considering the large quantity of ash and charcoal found in the feature. This suggested that while artifacts are abundant, the soils were not particularly "midden-like," nor where they particularly rich in organic remains.

The feature, on its western boundary, was found to be oriented northeast-southwest — similar to the other architectural features associated with the main plantation complex. At the west edge the feature evidenced a steep drop into what appeared to be a thoroughly robbed foundation footing. No similar foundation evidence was found on either the north or east sides, where the feature evidenced a more gradual slope up to the base of the A horizon Zone 2 soils.

This feature has been interpreted as a cellar or storage area under a major brick building. The absence of clearly defined walls to the north and east indicates that the cellar was found under

only a portion of the structure (along its western wall). There is no evidence that the area was ever floored.¹ Consequently, it seems likely the space was rather crudely designed and was perhaps used only for storage of utilitarian items.² The robbed wall area suggests that the building was demolished, with much of the broken and useless brick simply thrown into the hole.³ A wide range

¹ The absence of a sand leveling zone coupled with the variable floor elevations largely precludes the possibility that brick was used. While wood flooring is a possibility, even this technique would likely have been placed on a sand fill. In addition, there was no evidence of either decayed wood or consistently spaced nails.

² While removed both spatially and temporally, Thomas Chaplin's antebellum diary from his St. Helena plantation reveals that his finished basement was used, at times, for nothing more than the storage of firewood, in order to keep the wood dry and easily available during the winter (Rosengarten 1987:543).

³ A total of 1,267 pounds of brick rubble were recovered from the feature (exclusive of brick rubble in the overlying Zones 1 and 2). This rubble was

of plantation trash was then used to complete the filling of this "hole," including burned material, soil, ceramics, and a range of metal artifacts. As will be discussed in a following section, the recovered artifacts include what appear to be sets of ceramics and stemware, suggestive of a very wide-ranging cleaning. It is tempting to suggest that this building was demolished, and the cellar filled, during a change in the plantation's ownership.

The mean ceramic date⁴ for the overlying Zones 1 and 2 is 1744.3, while Feature 1 itself has yielded a mean ceramic date of 1747.1. Although the feature has produced a date slightly later than the overlying deposits, the two are so close that the difference is likely inconsequential. The assemblage may be taken to suggest a *mean date* in the mid-1740s. It is, however, more useful to examine the *terminis post quem*, or TPQ, date for the feature.⁵ In this case the TPQ date is provided by the 36 pearlwares (representing 0.94% of the dateable wares present), all of which date to the 1790s. The TPQ date of about 1820 for the overlying Zones 1 and 2 is provided by four undecorated whitewares. There are three historic events which may be reflected by the vast quantity of materials discarded in Feature 1 and which occurred between about 1790 and 1820. In 1783 Thomas Smith turned Broom Hall over to his son, Peter Smith. Because of continuing financial problems, Peter turned the plantation over to his mother in 1790. In 1799 the plantation was returned to Smith, who died in 1821. It was during this 16-year period of continuing financial difficulties, from 1873 to 1799, that the structure represented

concentrated in close proximity to what is interpreted as the robbed out wall on the west edge of the feature.

⁴ The mean ceramic date calculations for this area, as well as for the others discussed in the rest of this section, are all discussed in a following section. We are briefly mentioning them here only to help place the excavations in a temporal framework. The technique itself is described by Stanley South (1977).

⁵ The TPQ is the date after which a layer or feature was deposited. It can, of course, be anytime after this date and the range can be narrowed only through investigation of the assemblage and, hopefully, overlying zones.

by Feature was apparently demolished and plantation trash, some of it of considerable antiquity (possibly heirloom items) were discarded.

Area D

Based on Garrow's survey, this area consisted of a low brick mound (like Area C, thought to represent a chimney fall) which was quickly re-identified during our pedestrian survey of the tract. A series of four 10-foot units were placed over this mound (Figure 26). Each revealed a stratigraphy identical to that found in Area C, with an upper Zone 1 consisting of unconsolidated sands apparently disturbed by the planting of pines, overlying a more compact brown sandy loam. Together these two zones represented the site's original A horizon. This was one of the few areas where broad smears, perhaps representing very shallow plow scars, were found at the base of Zone 1 and intruding into Zone 2. By the base of Zone 2 they were barely seen intruding into the yellow sands of Zone 3.

The most notable finding in this block was Feature 2, which includes both a shallow trench and an overlying brick wall. The trench originates at the east edge of the block and runs west-northwest for 12 feet. After a two foot gap or interruption, it continues again to the west edge of the block. The trench is from 0.8 to 0.9 foot in depth and about a foot in width (Figure 27). The sides were straight and the base was flat, lacking evidence of any internal posts. It does include a protrusion at its eastern end. The trench fill was a brown sand containing relatively few artifacts. The brick wall was constructed partially overlying the trench, indicating that whatever its function it had been abandoned or at least filled before the wall was constructed. The brick wall, laid as a stretcher face wall about 4-inches in thickness, includes a number of fragmentary bricks with a minimal amount of mortar in the joints. A thin coat of mortar on the upper surface indicates that the wall, while only one brick in width, was at least two courses in height. Several bricks were apparently intentionally placed out of alignment in the middle of the wall. The lack of bricks at the western end may be related to associated tree disturbance.

It is clear that the brick wall associated

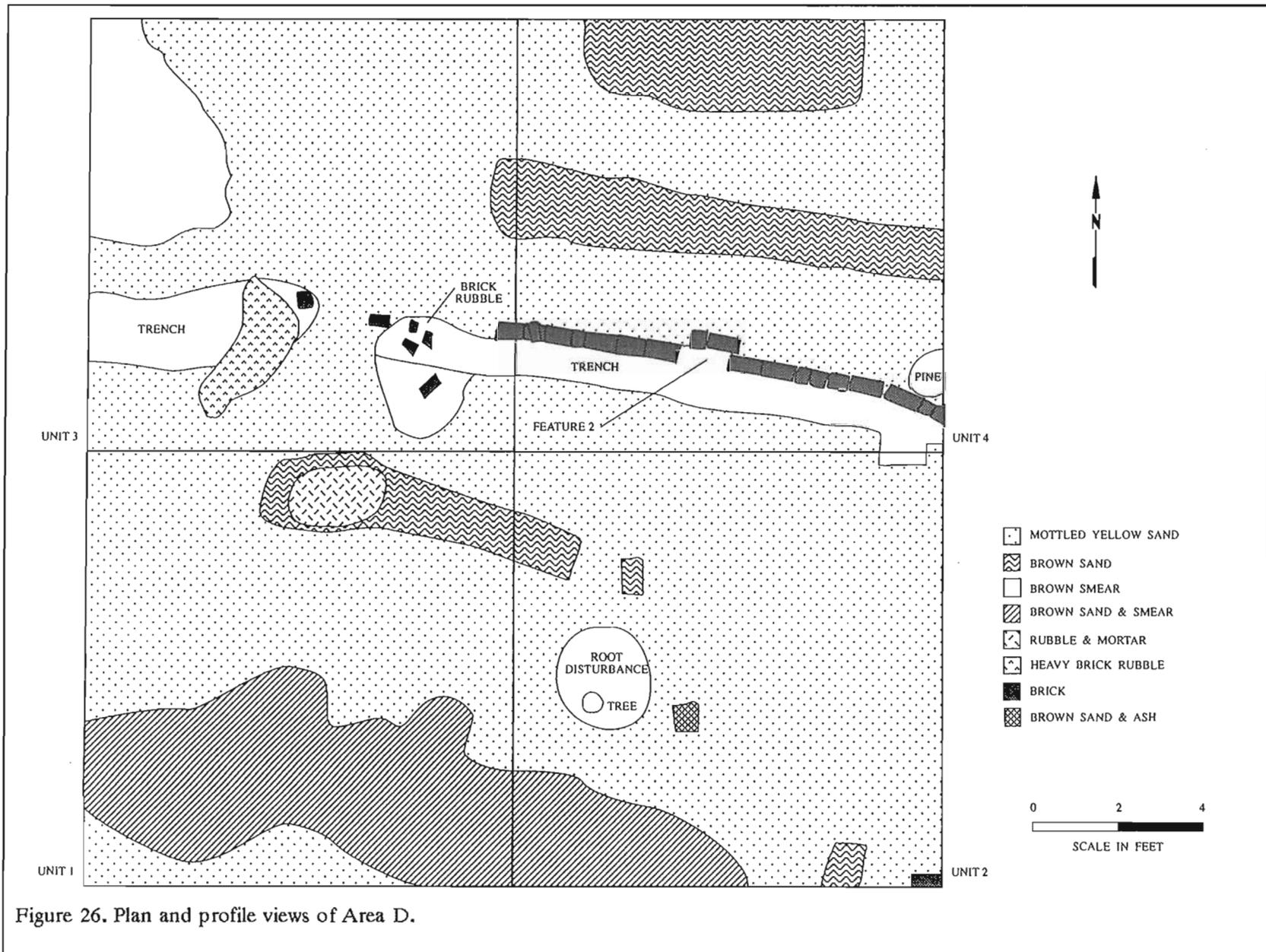


Figure 26. Plan and profile views of Area D.



Figure 27. Excavation of Feature 2 in Area D.



Figure 28. Brick floor of stable exposed in Area E.

with Feature 2 was not load bearing. More likely it served as a garden fence, or possibly even a border for a flower garden or parterre. The underlying trench may represent an earlier wall trench, or more likely it is simply a planting bed, distinguished as a feature because of its cultivation and heavily fertilization. The inset in the wall may be related to some unrecognized design pattern, or it may have provided additional space for a small tree or shrub. The gap in the trench may represent a narrow walkway or simply a gap in the plantings.

These excavations failed to identify any structural evidence, although a total of 995 pounds of brick rubble were found, 441 pounds of which (44%) came from the southwest quadrant of Unit 4. These bricks ranged in size from 8½ - 8¾ inches by 4⅛ - 4⅜ inches by 2¾ - 3¼ inches, although a very few paving bricks, measuring about 3½ by 1¾ inches were also found (no intact bricks were recovered to provide length). These bricks may represent robbed debris associated with Feature 2. Alternatively, there may have been a structure in the general vicinity which was not found through these investigations.

The mean ceramic date (MCD) for this area is 1758.4. Unlike Feature 2 in Area C, where the identification of a TPQ date is possible because of the feature's sealed context, Area D represents sheet midden deposition. Area D, however, does exhibit material dating into the early 1800s (such as decorated whitewares). The trench associated with Feature 2 yields a MCD of 1743.4 and a TPQ of about 1780 (based on a single edged pearlware).⁶ This suggests that Area D was "used" during the mid to late eighteenth century, with the posited garden wall perhaps dating as early as the 1760s (the TPQ of undecorated creamware), but certainly by the 1780s.

Area E

Area E, identified by Garrow's survey as the location of perhaps two slave houses, was

⁶ If, as suspected, the ditch associated with Feature 2 represents a planting area, it is possible that later ceramics were incorporated and that it does not truly represent a sealed context. If so, it is possible that the TPQ date could be much earlier.

found upon removal of vegetation to consist of a linear expanse of brick rubble, with three relatively discrete brick piles and an area of what appeared to be intact brick flooring. A series of four 10-foot units were placed along the general orientation of this brick, with two contiguous units placed to bisect the largest and most southerly brick pile, and incorporate the brick floor (Figures 28 and 29). Excavation of the brick pile revealed that all of the bricks were loose, generally intact, and lacked any evidence of mortar joints. In all regards they appeared to represent bricks removed from the floor and piled up for salvage.⁷ This pile likely protected the destruction of the underlying, intact floor, which was found to consist of bricks laid on-edge (that is as "soldiers"). Underlying the bricks was a brown sand. Artifacts were sparse, with domestic materials uncommon. The majority of the recovered items were metal, including unidentifiable fragments as well as several horseshoes. These two units contained 1341 pounds of brick rubble and 140 pounds of slate roofing tile fragments. No finished edge for the brick floor, or associated wall, could be found in either of the initial two units (designed Units 3 and 6, based on a grid incorporating an area 30 by 50 feet in extent). Consequently, Unit 15, 30 feet north of Unit 6, was excavated. This unit failed to identify any structural remains and contained only 61 pounds of brick rubble. Artifacts were sparse and the stratigraphy revealed only Zone 1 soils about a foot in depth. A final unit (Unit 8) was excavated to the northeast of Unit 6. Although the quantity of brick was higher, 246 pounds, no structural remains were found. The base of Zone 1, however, was a very compact brown sand, similar in color and texture to that found in Units 3 and 6, suggesting that at one time the brick floor may have extended in this direction.

Area E appears to represent a stable or carriage house constructed at least by the mid-eighteenth century and continuing in use at least

⁷ Both the bricks in the overlying pile and those still in situ forming the floor measured 8⅞ by 3⅞ by 2⅞ inches with very little variation.

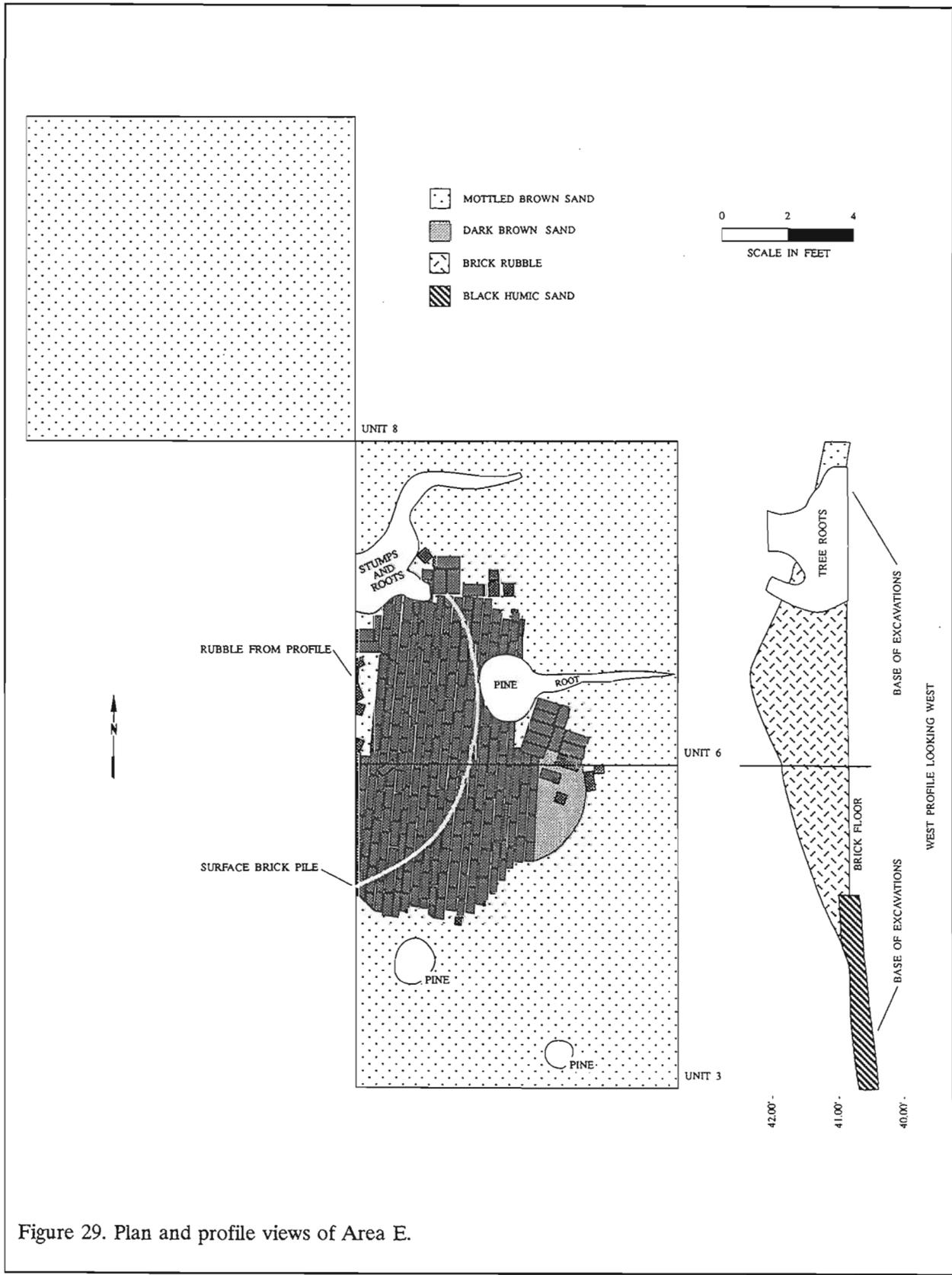


Figure 29. Plan and profile views of Area E.

through the mid-nineteenth century.⁸ The orientation of the brick floor, however, is distinct from that found elsewhere on the plantation. This may mean that the building was not part of the overall organized plantation landscape.

J.C. Loudon (1838) in *The Suburban Gardeners' and Villa Companion* recommended that the stable (often including a gig-house, hayloft or room, and harness room) should be carefully constructed of flooring which would keep it dry, could be easily cleaned, and which would drain well, brick being an obvious choice. Reese (1847) in *An Encyclopædia of Domestic Economy* related a variety of very similar advice, noting that the floor should be laid in a durable material, such as Dutch bricks laid edgewise. Stone was not recommended since the horses would slip. The brick floor found at Area E therefore seems consistent with period accounts. John Michael Vlach (1993:Figures 7.1, 7.14, 7.15) illustrates several very well built stables from antebellum plantations, noting that even when ornamentation was lacking, stables often were built to reflect "that horses were deemed the most valuable property on the plantation" (Vlach 1993:112). It may also be that it was not solely the horses which were important, but also the carriage or gig. Kevin Sweeney observes that during the colonial period, "Carriages, some imported from England, joined floor coverings, wallpaper, and fine mahogany furniture as *badges of distinction that set apart the very rich from the merely wealthy*" (italics added, Sweeney 1994:37). It seems that even a structure as "lowly" as a stable reveals the extraordinary wealth and prestige of Broom Hall's owners.

Area H

This was originally described by Garrow's survey study as an irregular pile of brick about 25 feet in diameter and it was interpreted, on the basis of a single unit excavated to the east, as a domestic structure. Like other areas at Broom Hall with above ground remains, our first work at Area H consisted of removing vegetation and cleaning

⁸ The MCD for the sheet midden found overlying the brick floor is 1793.4, although a very wide range of ceramics is present (delft and slipwares, for example, account for over 20% of the assemblage).

the extant pile. During this process we discovered in situ bricks forming the north wall of a structure thought to be about 13 feet square. Consequently, two structures were laid out to expose the western half of the building (Unit 1, at the southwest quadrant of the building, and Unit 3 at its northwest corner). Subsequently a third unit was excavated (Unit 4) to expose the northeast quadrant of the structure (Figure 30).

Stratigraphy here was different from elsewhere on the site. Zone 1 designated the loose rubble overlying the intact walls, interior fill, and adjacent ground level. Zone 2 designated the brick rubble outside the structure, typically mixed with a brown sand, and coming down on a mottled yellow sand. As excavations moved away from the building the brick density quickly declined and the soils were more similar to those found in Areas C, D, and E, with a loose humic zone overlying a more compact brown sand representing the A horizon. Within the structure the dense brick rubble fill was designated Zone 3. At the base of Zone 3 was a mottled brown fine powdery sand. Partial excavation of this sand revealed that it was sterile and overlaid the yellow sand subsoil common to the site.

Artifacts were very sparse, consisting almost entirely of flat glass⁹ and what was identified as bell jar glass — very thin, curved, and typically clear blown glass, with rolled edges forming large bell jars used to protect tender plants (see Noël Hume 1974:62-67 and the following section of this study for additional information). Temporally diagnostic remains were uncommon.

The walls of Structure H, which were found to measure 12.2 feet on a side, were laid up in English bond using a soft lime mortar and were

⁹ While these may have come from windows, especially if this structure served as a green house, it may also represent fragments of "hand glasses" — pans of glass set in lead or putty in frames of wood, iron, or zinc — and used on supports to protect tender plants (see Noël Hume 1974: 67 for a discussion of hand glasses). Richard Bradley's 1726 *New Improvements in Planting and Gardening* (Noël Hume 1974:Figure 40) illustrates the use of hand lenses.

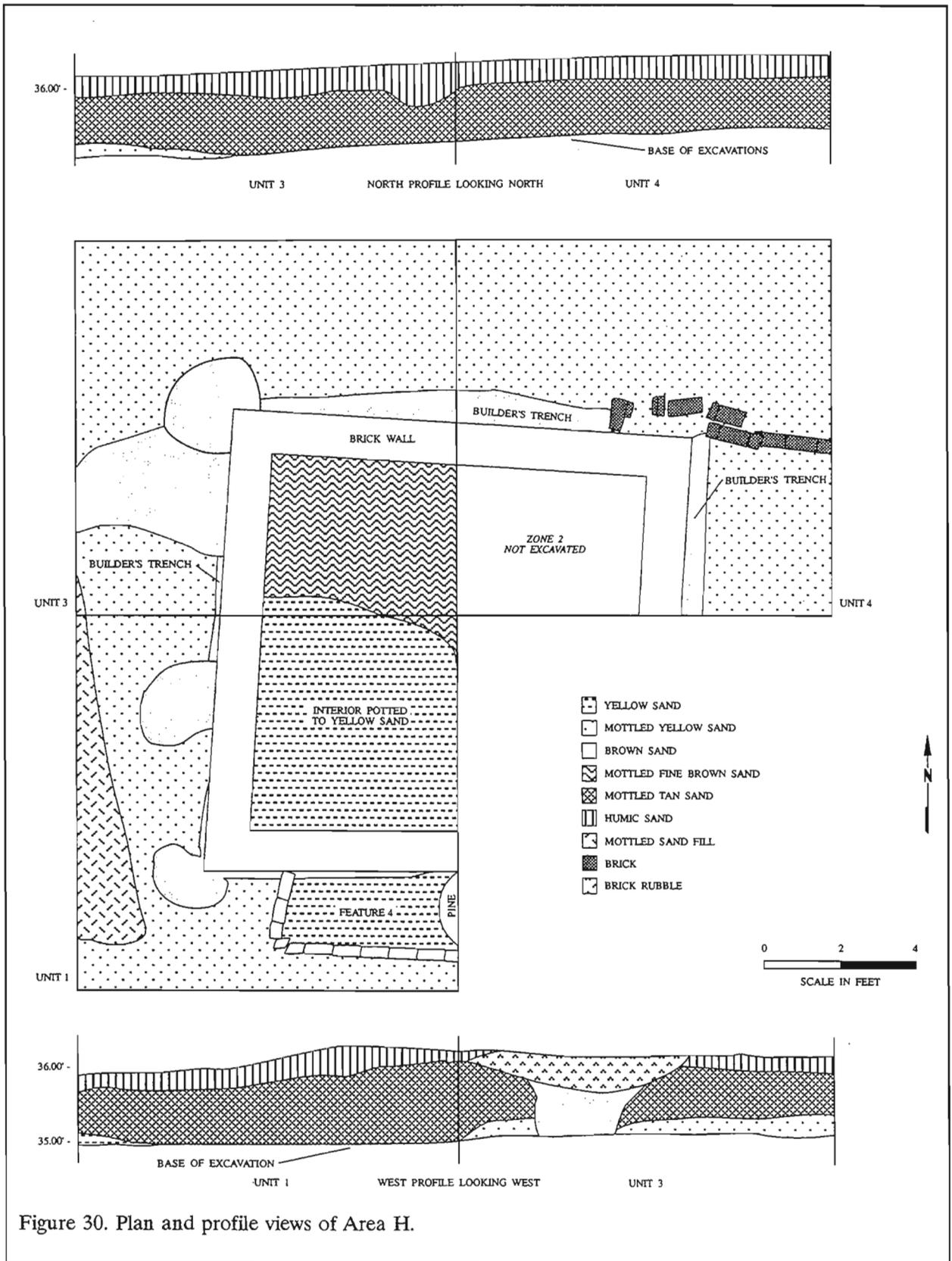
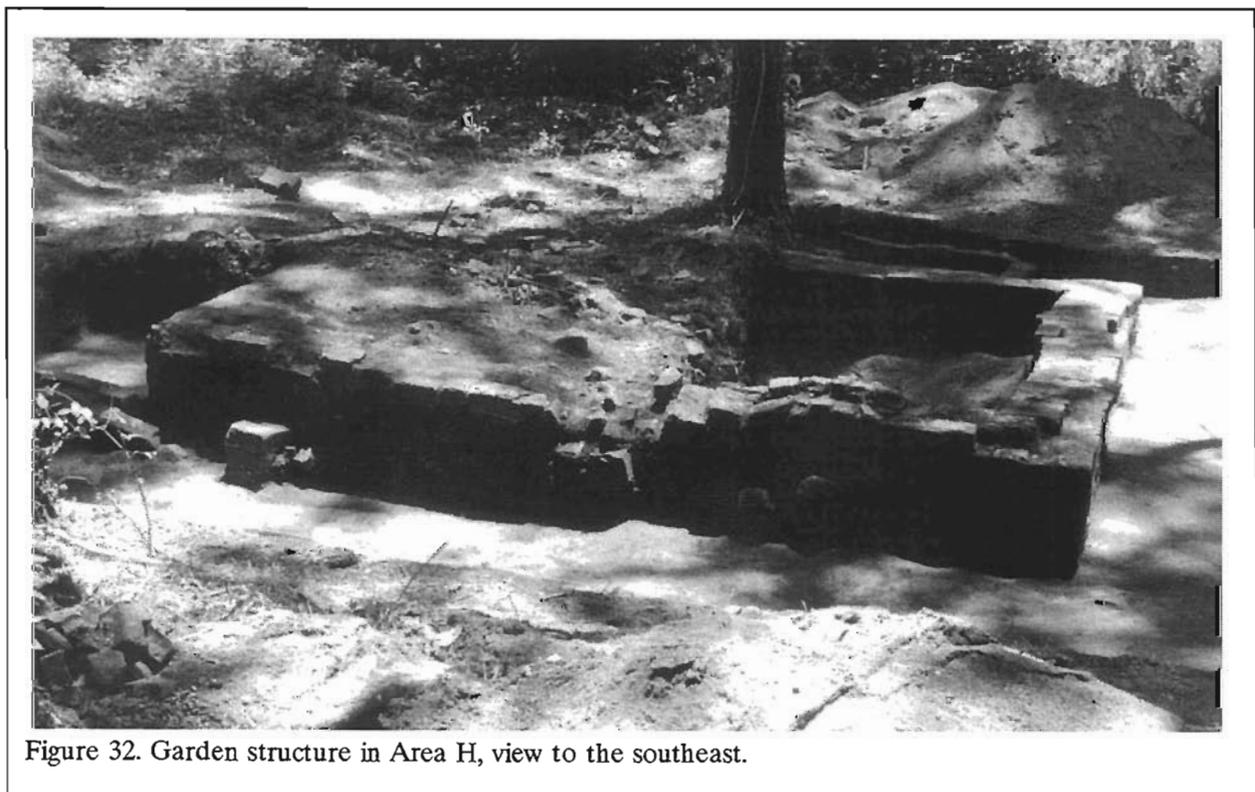
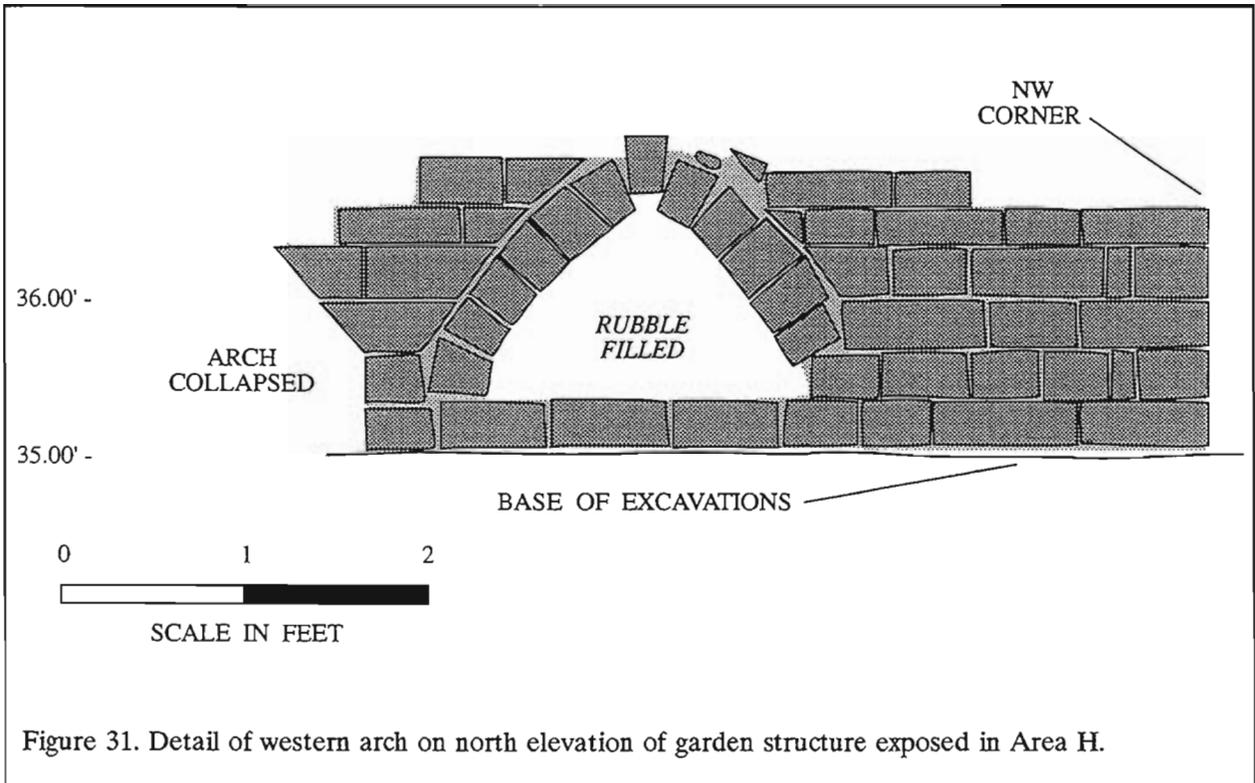


Figure 30. Plan and profile views of Area H.



a brick and a half thick (about 14 inches). Carl Lounsbury notes that English bond, consisting of alternating courses of stretchers and headers, was used throughout the seventeenth century and much of the eighteenth century, becoming a rare pattern of face decoration by the early nineteenth century (Lounsbury 1994:38). The interior of the structure evidenced a two coat plaster (an initial scratch coat and one additional coat) and was painted a blue-black.¹⁰ While Bernard Feilden observes that, "records of paintwork in the early eighteenth century show that the cost of white and black paint was far less than that of coloured tints" (Feilden 1982:318), there are few archaeological sites where paint has been found intact on architectural features and even fewer where the paint has been examined.

A total of 7143 pounds of brick rubble was recovered from this structure, most coming from within the confines of the wall. It appears that the structure was abandoned and later demolished, with a large portion of the rubble simply used to fill the semi-subterranean structure. Prior to this demolition, however, it appears that a large looter's hole was excavated in the southwest corner of the structure, penetrating the mottled brown (but sterile) sand floor and penetrating into the yellow sand subsoil.

Along the north elevation, at the base of the wall, three somewhat crudely formed arches were found (Figures 31 and 32). The one still intact had a rise of 1.0 foot and a span of 1.6 feet. The keystone and voussoirs were formed from the ends of bricks, only a few of which were shaped. These arches were apparently designed to provide ventilation for the structure, although it is not clear how they functioned. The interior floor of the building was apparently at about 35.05 feet AMSL, just below the base of the arch. The exterior ground surface, however, was at about 35.6 feet AMSL, about midway up the arch. There was not evidence of a ventilation well to hold back the soil. It is possible that the ground level was simply

¹⁰ The paint from this structure has been examined by George Fore, an architectural conservator. His report, included in its entirety as Appendix 3, identifies up to nine different layers of sizing and distemper paints or lime washes.

sloped to the openings, or alternatively, that they were partially covered. Regardless, several individuals, including Hugh Dargan, ASLA and Mary Palmer Dargan, ASLA, agreed that the structure appeared to be related to the propagation of plants and was likely a green house.¹¹

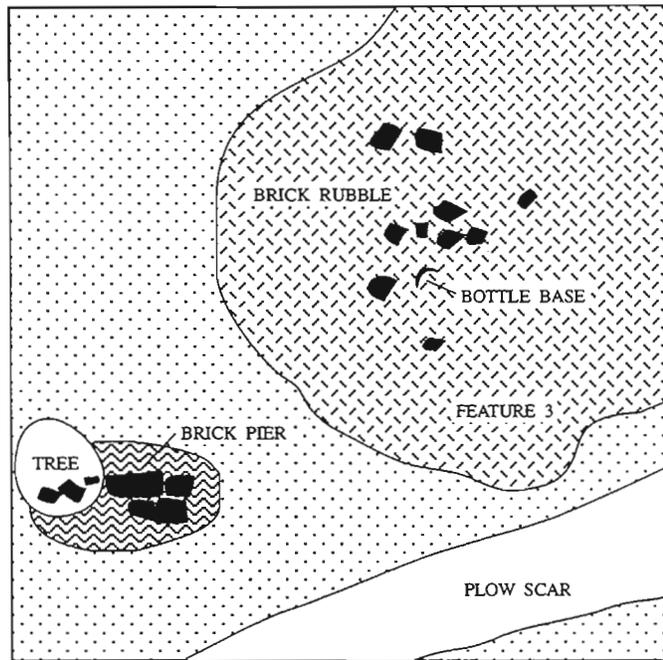
Feature 4, consisting of a brick wall containing humic soil, was identified along the south side of the structure. The bricks, laid on their face and only one brick high, evidenced old mortar (suggesting they were recycled from elsewhere), but were not mortared in place. They served as edging, forming what appears to be a planting bed about 2 feet in width. The interior of the bed was filled with humic sandy loam. When screened the soil yielded small, apparently crushed, calcined shell fragments. Since this was the only place investigated which yielded burnt shell, it seems likely that they were added to lime the otherwise acidic soils. Virtually no artifacts were recovered. This feature is located on the side of the structure providing the greatest shelter, where more tender plants might be located.

The structure produced only 53 ceramics useful in deriving the mean ceramic date of 1823.8. Present was a fragment of decorated delft, as well as 22 fragments of yellow ware, suggesting a rather lengthy occupation span.

Area J

This area had not been previously identified by Garrow's survey, but was revealed as an artifact concentration by the computer density plotting of their shovel test data (most clearly revealed in Figure 5, illustrating the density of kitchen artifacts). A single 10-foot unit was placed

¹¹ We offer this interpretation with some reluctance. Although convinced of its utilitarian use in plant propagation, the structure seems entirely too small to have served as a greenhouse if, for example, the descriptions offered by Lounsbury 1994:167-168) are representative. On the other hand, this is such an uncommon type of structure, it seems presumptuous to assume that we understand the typical range of variation. Perhaps a safer descriptive term might be garden house, potting house, or even propagation house, rather than "green house."



-  MOTTLED YELLOW SAND
-  BLACK SANDY CLAY
-  BLACK LOAM
-  BROWN SAND
-  BROWN SAND AND BRICK RUBBLE
-  BROWN SAND AND SHELL
-  MOTTLED BROWN SAND
-  BRICK

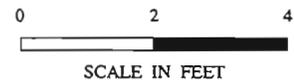
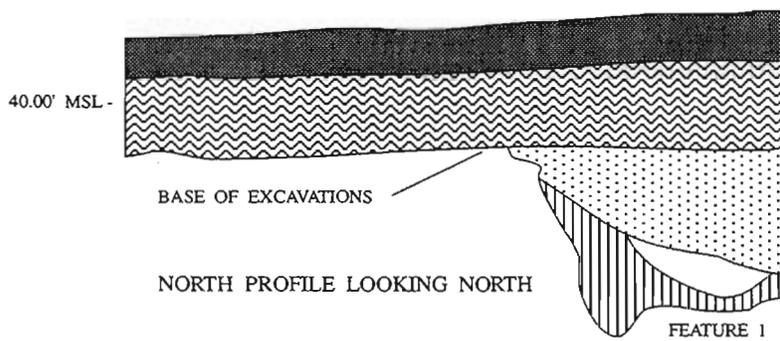


Figure 33. Plan and profile views of Area J.

in this area (Figures 9 and 33) to investigate the remains. Excavation revealed a simple stratigraphy consisting of only Zone 1 soils about a foot in depth overlying yellow sand subsoil. Zone 1 was a loose, black humic sandy loam containing abundant, primarily eighteenth century, artifacts. At the base of this zone the unit revealed a complex plan view which incorporated a plowscar along the southern edge of the unit, a remnant brick pier (recognized by brick rubble and, subsequently, several in situ mortared bricks) in the southwest quadrant of the unit, and a large stain in the northeast quadrant. Upon excavation we found it impossible to consistently separate these three intrusions. Consequently an arbitrary division was made between the plowscar and the other stains. The pier and large stain were excavated together and designated Feature 3.

The pier was shallowly set into the subsoil, with portions of only the bottom course still intact. It had been intruded into by a tree at its northwest corner. The pier, originally, would have measured about 1.2 feet by 0.7 foot and the long dimension was oriented east-west. This stands in contrast to the other architectural remains at the site, which are oriented northeast-southwest (except for the stable, which appears to also have a more north-south orientation). The stain in the northeast corner of the unit was found to represent a steep sided pit about 1.3 foot in depth. Based on the wall edges, it seems likely that about half of the pit was contained in Unit 1. Three distinct levels were found in the pit. At its base was mottled brown sand, perhaps representing loose sand left in the pit after its excavation, with a large mass piled up against the outer edge. Over this was a pocket of black sand and oyster shell. At the top of the feature, and accounting for the bulk of the fill, was a brown sand with dense brick rubble. The majority of the artifacts were recovered from this upper zone of rubble.

Time did not allow additional work in this area of the site, but it appears not only that structural remains were present, but that they were associated with a quantity of relatively high status eighteenth century artifacts. It is not clear if the feature represents only a trash pit, or alternatively, if it had some more defined function, perhaps representing a clay or sand extraction pit for construction, or a pit under the structure for

storage of household produce. Nor is it clear whether the pit was filled with construction debris or, alternatively, demolition debris. In sum, while this area has produced a large, and impressive, collection of artifacts, we have difficulty ascribing function.

The mean ceramic date for the unit is calculated as 1766.1, although the presence of 102 fragments of lead glazed slipware and 19 fragments of whiteware indicates that this portion of the site has a long occupation span. Feature 3, yielding a range of ceramics similar to the overlying Zone 1, produced a mean ceramic date of 1752.4, although it exhibits a TPQ, based on the presence of one whiteware ceramic, of about 1820.

Area K

This area was identified based solely on the presence of brick eroding from the cut ditch along the west side of Westview Boulevard (Figure 9). Examination of the computer density maps (Figures 5-7) reveal only a general smear of artifacts in this area, without any clear concentrations.¹² A series of three 10-foot units were excavated in this area, designated 1-3 from the east to west, with Unit 1 placed at the edge of the ditch (Figure 34). The stratigraphy in this area consisted of a single zone of brown sand overlying yellow sand subsoil.

The excavations revealed the presence of a brick and a half thick wall laid using a soft lime mortar and oriented west-northwest — east-southeast, with the eastern end sheared off by road construction. No clear corner or end was found to the west, although a line of dense rubble to the south was suggestive of a corner. Additional rubble to the west may represent the remains of a chimney fall. The brick was laid up in English bond. A foot wide builder's trench was found on the north side of the wall, with a narrow trench also found on the south side, confined to Unit 1. A perpendicular wall, also a brick and a half in width, was found in Unit 1, evidencing a cold joint with the west-northwest — east-southeast wall. These

¹² Close to the road, however, these maps must be carefully interpreted since relatively few shovel tests were placed adjacent to the ditch bank.

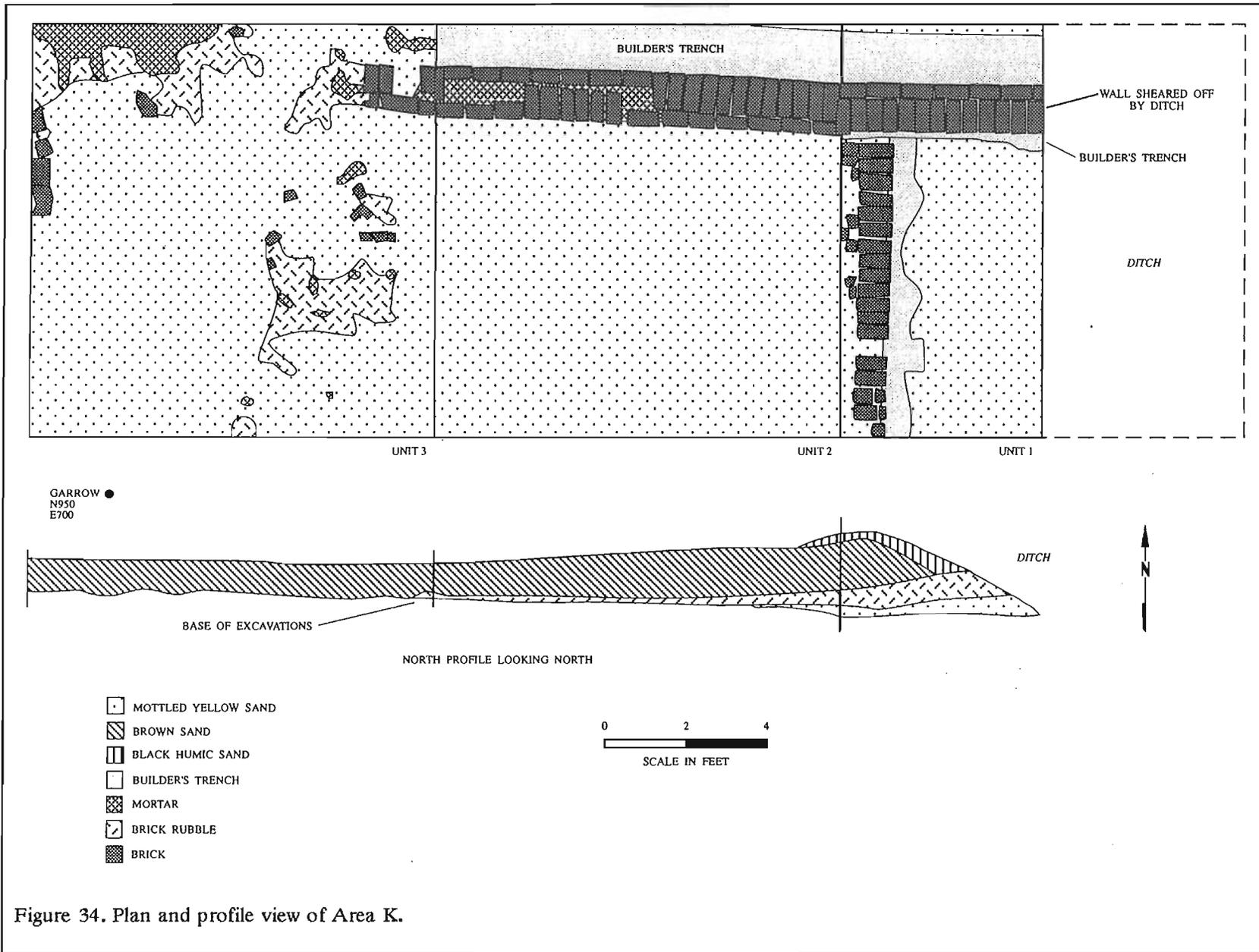


Figure 34. Plan and profile view of Area K.

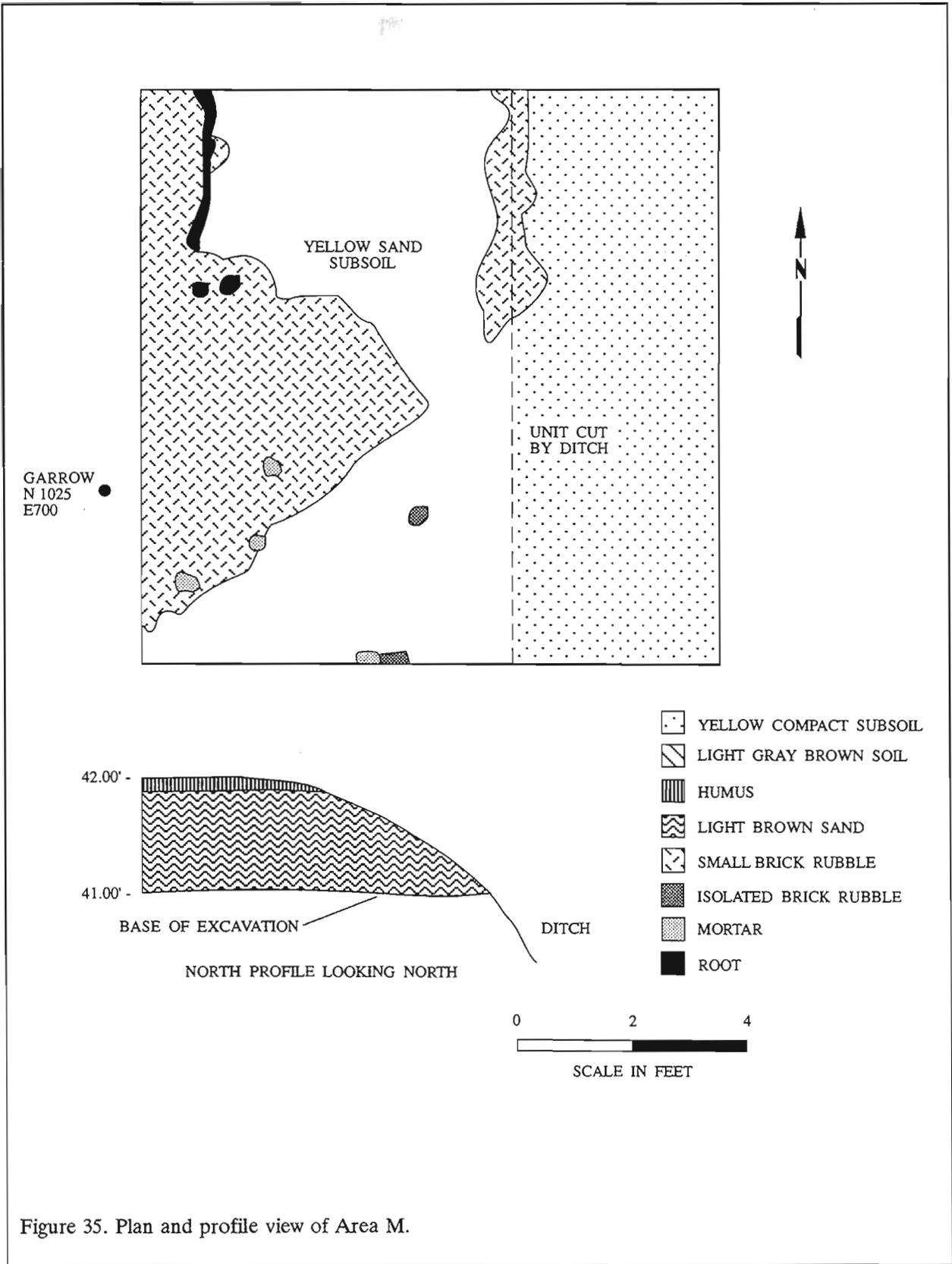


Figure 35. Plan and profile view of Area M.

remains are suggestive of a two bay structure, with at least the western bay measuring about 15 feet in length. Time was inadequate to continue the excavations to the west in order to obtain a depth on the posited structure. The proximity of this structure to the main house suggests use by house servants or other caretakers.

Like the other areas explored at Broom Hall, Area K yielded a mid-eighteenth century mean ceramic date (1754.8), although a very wide range of ceramics were present, including everything from North Devon Gravel Tempered and delft wares to whitewares and yellow wares.

Area L

While not designated as a specific area by Garrow's team, Test Pit 3 was excavated in this area. That investigation found either a post hole or evidence of a wall trench structure, according to the survey report (Bryne 1987:33). The computer density maps (Figure 5-7) revealed a clear concentration of artifacts in this area as well. One ten-foot unit was excavated in this area to explore these suspected remains (Figure 9). The stratigraphy in this area revealed a foot of brown, very compact sand, overlying a mottled yellow sand subsoil. No features or stains, excepting three pine tree tap root stains, were found at the base of the excavations. Although there was no evidence of plowing (i.e., plow scars were entirely absent), the artifacts recovered were all heavily fragmented, characteristic of those found in plowzone contexts.

Area L produced one of the later mean ceramic dates (only Area H yielded a later date), 1793.0, based largely on the significant collection of 85 whitewares. Even here, however, there is ample evidence of a long, and intensive occupation, with 63 creamware ceramics, 56 lead glazed slipwares, and 17 white salt glazed stonewares also being recovered.

Area M

This area, about 30 feet north of Area K, was also identified by brick rubble eroding out of the ditch bank of Westview Boulevard (Figures 9 and 35). A single 10-foot unit was placed to bisect the ditch and adjacent high ground surface. The excavation revealed about a foot of brown sandy A

horizon soils, over a yellow sand subsoil. While the unit produced 168 pounds of brick rubble, no intact or in situ brick was found. Instead the unit produced a smear of brick with no clear association. No additional work was conducted in this site area. The mean ceramic date for this excavation unit was 1758.3, only a year older than nearby Area K. Given the close proximity, it may be that these two excavations are related to the same structure.

38BK985

Archaeological investigations were begun at 38BK985, the slave settlement associated with Broom Hall plantation, by a crew of five on May 17, 1988 and continued until May 24, 1988. A total of 158.8 person hours were devoted this work. As a result, 108 auger tests were excavated and screened, 300 square feet of site area were opened, and 430 cubic feet of soil were moved in primary excavations, all screened through ¼-inch mesh.

Survey for the Mill Race and Dam

One of the more intriguing aspects of the Broom Hall slave settlement was the report by Garrow's survey team of a mill, mill pond, and wheel pit:

The apparent mill site is marked by a breached dam, a partially silted mill pond, and a linear depression that may have served as the wheel pit for an undershot mill wheel. The dam is a raised earthen structure that crosses the small intermittent branch that drains the ravine. A shovel test placed within the dam failed to yield artifacts. A rich array of artifacts was recovered from the mill pond area including eighteenth- and nineteenth-century ceramics, glass, and other items, and included Colono-ware ceramics. An artifact midden that extends at least three feet B.S. [below surface] was indicated in that area. The third feature linked to the mill was a linear depression

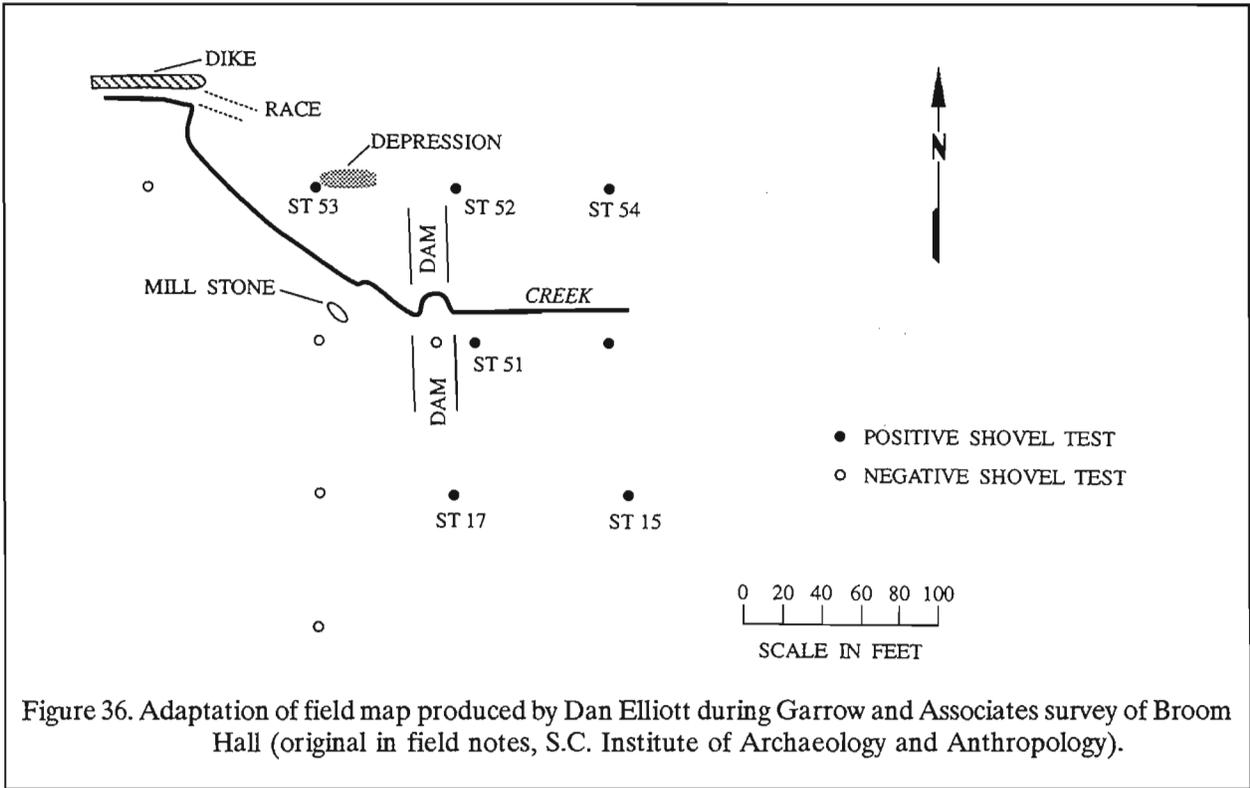


Figure 36. Adaptation of field map produced by Dan Elliott during Garrow and Associates survey of Broom Hall (original in field notes, S.C. Institute of Archaeology and Anthropology).

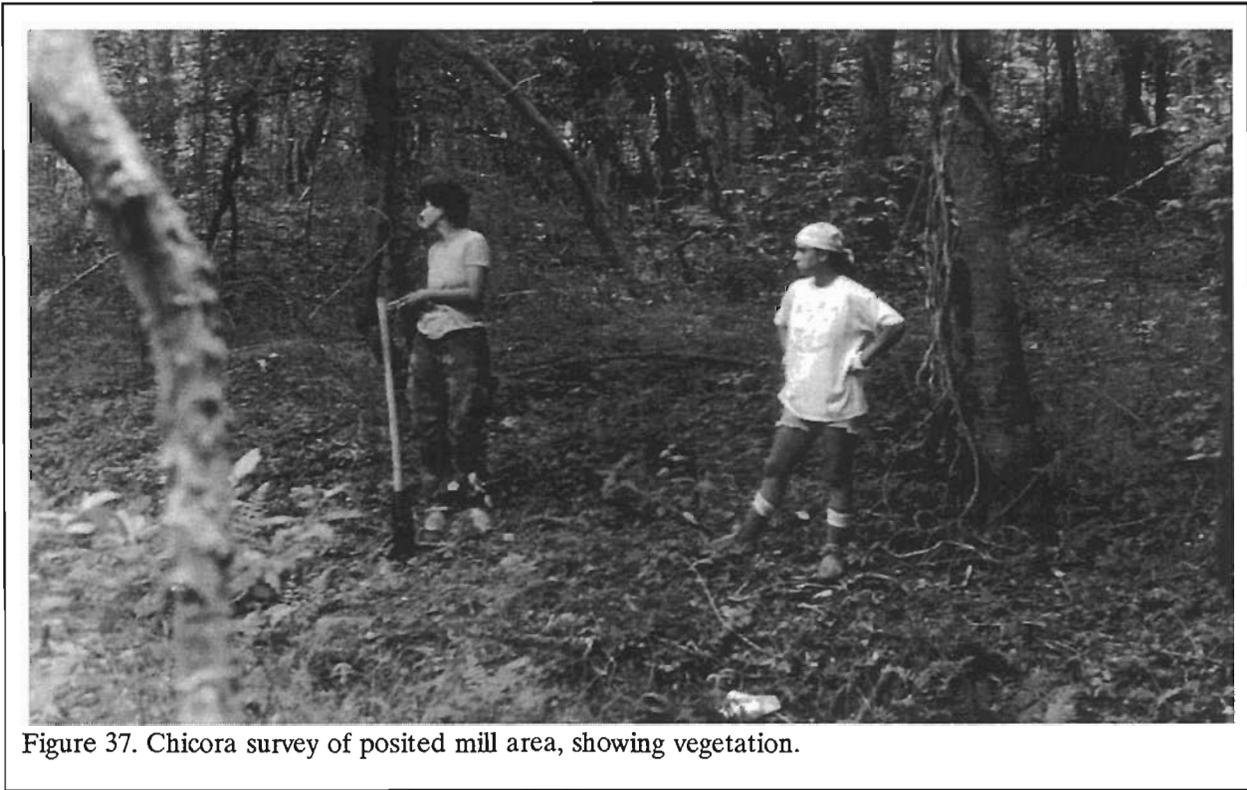


Figure 37. Chicora survey of posited mill area, showing vegetation.

located at the topographic break between the uplands and flood plain. That trench was located in what would have been the ideal location for a mill, and is interpreted as a wheel pit for an undershot wheel (Elliott 1987:115).

The remnant dam is shown on Figure 8, although neither the pond location nor the wheel pit was shown on Elliott's (1987:Figure 46) published map. A hand drawn field map, reproduced here as Figure 36, provides a little more information, showing not only the location of the dam, but also the posited race, a depression which, although not labeled as such, may be the posited wheel pit, and even the location of a fragmentary mill stone. The field notes also reveal that it was Shovel Test 51, located immediately east of the dam, which produced materials to nearly 3 feet.

A closer examination of the field records, however, calls into question at least some of this interpretation. While Shovel Test did apparently produce artifacts to 90 cm (2.9 feet), the artifact inventory reveals that from 0 to 40 cm, 2 ceramics, 2 small brick fragments, one unidentifiable metal fragment, and one sandstone fragment (possibly a flake) were recovered. No materials were recovered from 41 to 69 cm. From 70 to 90 cm, however, the analysis records indicate the presence of one "clear glass" fragment, further described as "looks modern" (38BK985 notes on file, South Carolina Institute of Archaeology and Anthropology and Chicora Foundation, Inc.). This assemblage hardly inspires great confidence. A shovel test 65 feet east of this produced no artifacts. Shovel Test 52, while upslope from the posited pond, produced only one artifact. And while Shovel Test 54 is shown on the various field and published maps as positive, it is not listed in the field notes, nor are there any artifacts identified in the analysis sheets. The field notes indicate that the mill stone was collected and placed in bag 68, but there is no further information concerning this particular bag in the analysis sheets, making it unclear whether the item was actually retained.

As a result of these various contradictions, additional survey was conducted in this area (Figure 37). Unfortunately the 15 months between the survey by Garrow's team and our investigation eliminated evidence of the various shovel tests. We were unable, for example, to identify the exact area of Shovel Test 51. None of our tests were able to identify any deep deposits. While the so-called dam was easily found, it is situated on a slope, and only about 3 feet in height, so that it could not have served to impound any substantial amount of water uphill (that is to the east). It is better described as a dike and might have served to prevent flooding further upslope. The race identified by the original survey was also relocated, but was found to very suddenly end. It fails to connect with the posited pond area. In our estimation, the "race" appeared to be an erosional gully, connecting with the more established creek bed. Finally, in spite of an intensive investigation, we were unable to re-locate the posited wheel pit. Nor were any additional mill stone fragments identified.

We are reluctant to dismiss the possibility that a mill might have been present. Certainly there is historical evidence that mills were occasionally used at upland rice plantations. Further, the reported recovery of a mill stone fragment lends credence to the possibility that a mill was built somewhere on the plantation. The physical evidence, however, fails to convincingly prove that a mill was located between the main settlement (38BK600) and the slave settlement (38BK985).

Auger Tests and Excavations

As previously discussed, we chose 25-foot interval auger tests as the best means of exploring artifact concentrations and densities at what had been posited to be the slave settlement (Figure 21). The results were rather discouraging, suggesting a generally sparse, and dispersed, distribution. In spite of this, two areas were selected for initial investigations, designated Area AA and BB. Vertical control was maintained by using the previously described datums, tied into various stations along Westview Boulevard. Horizontal control was maintained by reference to the auger test grid, which in turn was tied into previously established development control points.

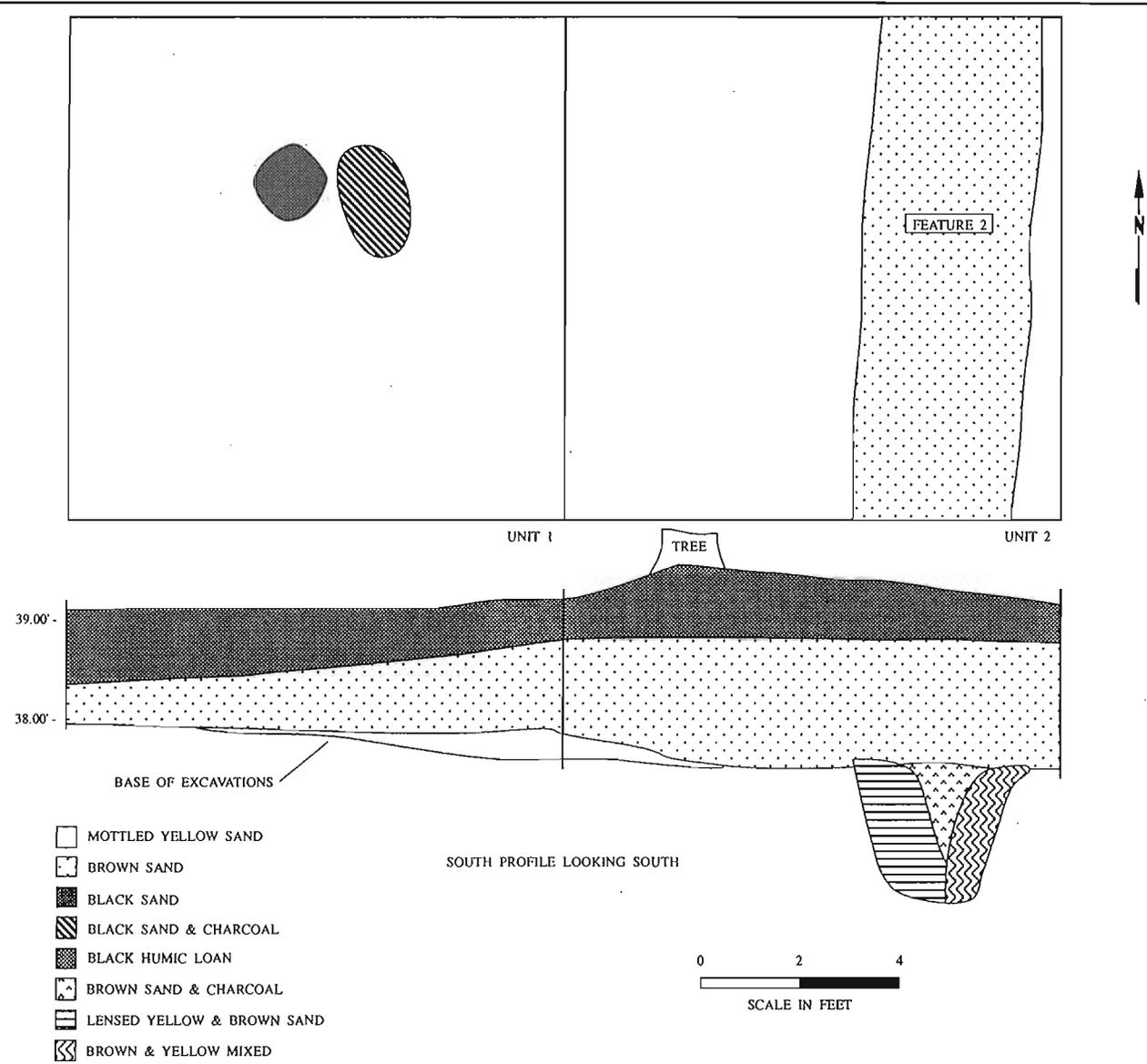


Figure 38. Plan and profile views of Area AA at 38BK985.

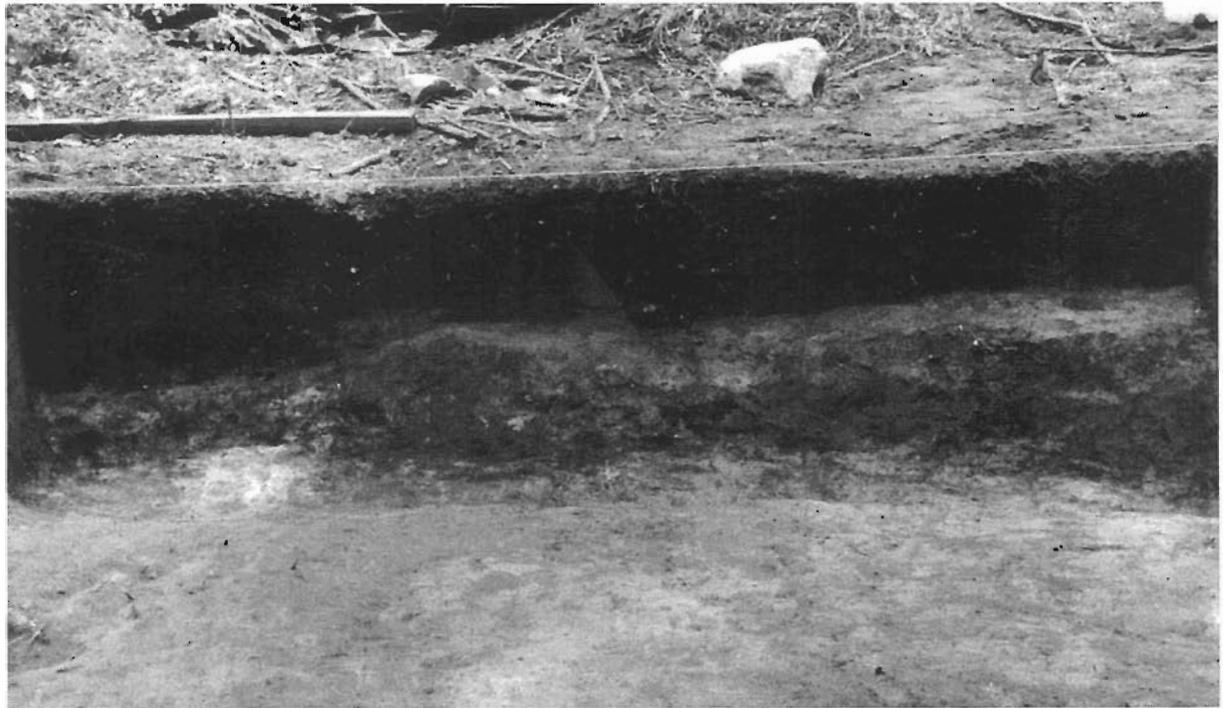


Figure 39. Feature 2 in Area AA, view to the east.

Area AA

This area was situated in the southeastern quadrant of the site, in an area evidencing very dense remains from the auger tests. A series of two 10-foot units were laid out, forming a 10 by 20 foot trench oriented east-west (Figure 38). The units revealed a stratigraphy almost identical to that found in Area C of 38BK600, with a loose, friable black humic sand (called Zone 1) overlying a more compact brown sand (called Zone 2). These, in turn, overlaid a mottled yellow sand subsoil. Unit 1 produced 12 pounds of crushed brick rubble (from both zones) along with an artifact assemblage consistent with heavily plowed soils (that is, the artifacts were consistently small fragments, often with evidence of plow impacts). Unit 2 produced 16 pounds of brick rubble, but otherwise suggests an identical assemblage.

At the base of Unit 1 two probable post holes were identified and plotted, but not excavated (primarily because they appeared to be isolated and not connected with any structural remains). A trench was found in Unit 2, running almost due north-south and about 3 feet in width.

Although first identified in the lower level of Zone 2, it was not excavated until the base of Zone 2 when it was clearly defined by the subsoil sand. Designated Feature 2 (Figure 39), it was excavated to reveal soils relatively similar to those found in Zone 2. Upon close inspection, however, it was determined that along the western edge of the ditch the soils were somewhat lensed, while along the eastern edge there was considerable mixing of brown and yellow sands (seemingly representing the Zone 2 and Zone 3 or subsoil sands). The center of the ditch yielded a brown sandy loam with occasional flakes of charcoal. Given the similarity of the soils, it was impossible to determine how high within Zone 2 the feature originated and these excavations included only the 1.2 feet found below the base of Zone 2. Feature 2 appears to represent an agricultural drainage ditch, kept open and clean during most of its life. It was apparently filled rapidly with soils common to the surrounding field. The lensing and mixing is consistent with soils from Zones 2 and 3 being pushed in on the sides, while the center is primarily filled by humic, A horizon soil. It is possible that the post holes found in Unit 1 represent the remains of a fence row, about 10 feet

to the west of the ditch.

The ceramics recovered from these excavations yield a mean ceramic date of 1745, very close to that determined from Area C of the main plantation settlement. Feature 2, however, produced a mean ceramic date of 1737.6 — the earliest from any provenance at Broom Hall. The TPQ for this feature, based on the presence of one undecorated creamware ceramic is 1762. This suggests that the ditch was filled in very early in the site's history.

Area BB

This locality was identified on the basis of the auger survey, which revealed an area of only modest artifact density, although this density was high compared to most of the other areas identified at 38BK985. A single 10-foot unit was laid out to explore this concentration (Figure 40). The stratigraphy was similar to that found in Area AA, although the soils were not nearly as deep, perhaps because the unit was situated on the edge of a side slope. Regardless, there was a relatively thin Zone 1 of black humic sand overlying the brown sand of Zone 2. Together, these accounted for about 0.8 foot of probable plowzone. Brick was very sparse in the unit, accounting for only 6 pounds of rubble.

At the base of Zone 2 two stains were almost immediately obvious. In the northeast corner there was an area of very hard, dry, red sand. While only about two-thirds of the area was exposed, it might have represented an oval measuring about 7 feet southwest-northeast by 4 feet northwest-southeast. The area appears to be burnt, suggesting that a very hot, relatively long burning fire, had been located directly above this spot of subsoil. Any number of activities might have resulted in this pattern of burning — firing of pottery, repeated cooking, making soap, or even boiling water for washing clothes.¹³ Little more can

¹³ The best ethnographic documentation concerns surface firing of pottery. Stern (1951:27) describes the coastal Virginia Pamunkey method of firing on the ground surface. Fewkes (1944) offers similar information for the Catawba. Postbellum photographs, however, commonly show an iron kettle in

be offered concerning this area, other than that it likely represents some domestic activity.

In the northwest corner of the unit, again at the base of Zone 2, Feature 1 was identified as an area of brown sand and charcoal (Figure 41). Upon excavation this pit was found to be nearly circular with steeply sloping sides and a conical shape. Its depth was 2.3 feet below the base of Zone 2. Stratigraphy was complex, consisting of a series of charcoal and soil lenses, with one large ash lens near the base. At the base of the pit and up along its lower sides there was a zone of loose, light brown sand containing very few artifacts. It seems likely that this zone represents slump from the original excavation. Although charcoal was abundant in the Feature, none of the artifacts or the adjacent feature sides evidenced any burning. Consequently, it appears that no burning took place in the pit. While the pit was used as a trash receptacle, it seems unlikely that the original site inhabitants would have dug a pit just for the disposal of trash. The woods and nearby slough offered more convenient, and less labor intensive, sources for trash disposal than an excavated hole. It, of course, may be that the pit was dug for some other purpose, perhaps clay extraction for pottery production (a zone of clay was found at the base of the excavation), and the hole became just a convenient spot for dumping trash.

The single excavation produced a mean ceramic date of 1816.3. Although three white salt glazed stonewares and six lead glazed slipware ceramics were found, the assemblage consists almost entirely of pearlwares and creamware. Although Feature 1 has a mean ceramic date of 1794.7, the TPQ for the feature is about 1820, based on the presence of whitewares. Since only two whitewares are found, in comparison to the 58 pearlwares and 65 creamwares, it seems likely that the feature was filled during the first quarter of the nineteenth century and not later.¹⁴

the yard, with the remains of a fire, used for various purposes (Westmacott 1992).

¹⁴ It is possible, as has been found at other sites, that the Broom Hall slaves were being given discarded ceramics, thereby resulting in MCDs which are older than the actual historic mean date of occupation.

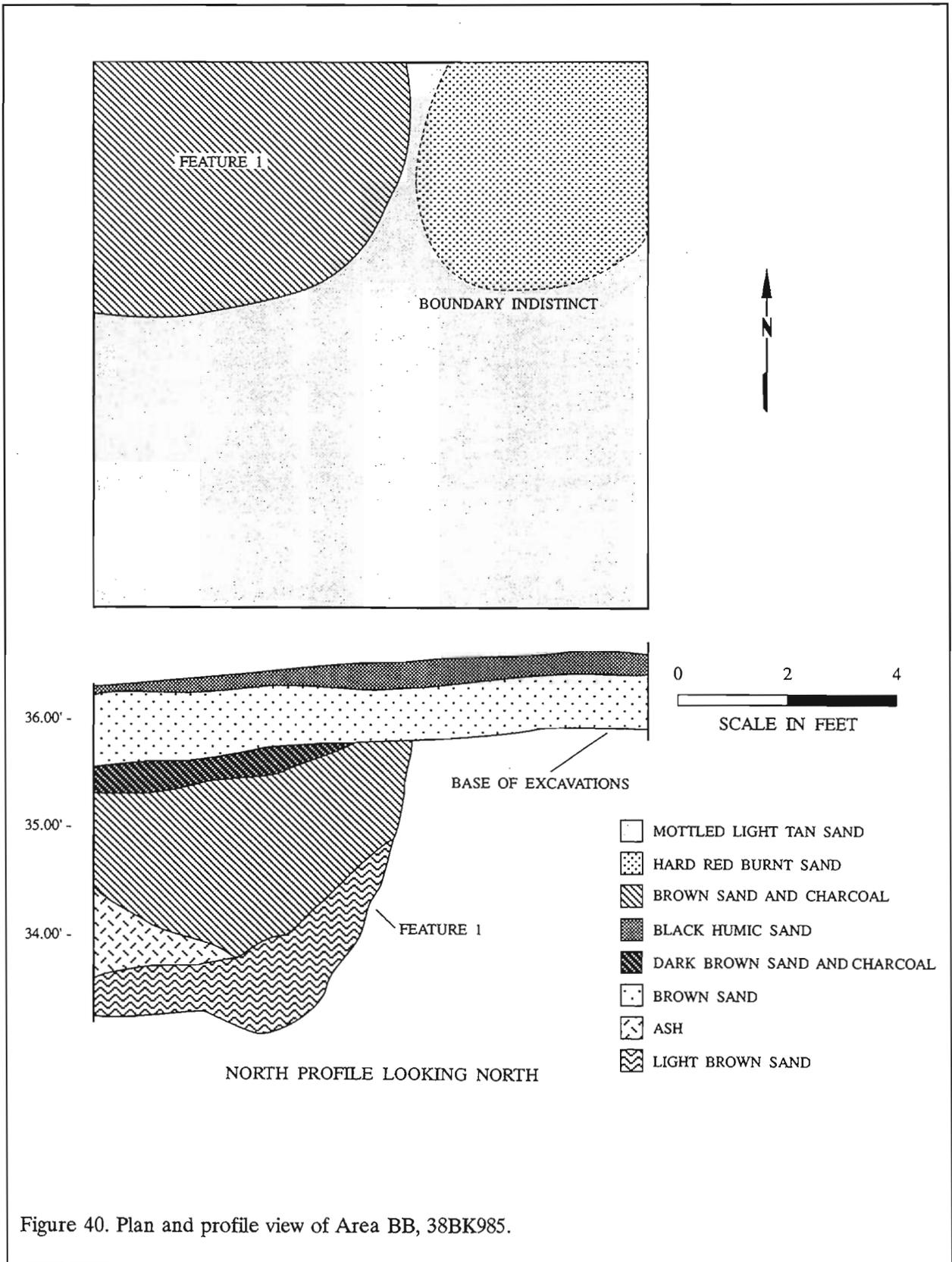




Figure 41. Feature 1 in Area BB excavated, view to the northwest.

Summary

Eight different areas of the main plantation complex were investigated by Chicora Foundation in 1988. These included six probable structures and two yard/garden areas:

- Area C was found to represent a structure built in the early eighteenth century and probably demolished between 1790 and 1820 with a semi-subterranean partial basement filled with demolition debris. Situated on the west edge of the building, the cellar measured at least 21 by 17 feet. This building was generally oriented with those still partially standing.
- Area D was found to be a possible garden area with a remnant parterre wall, also having the same orientation as the remanent structures. The wall was

apparently built after 1780, although it was constructed in an area of the settlement with abundant earlier remains.

- Area E, at the southwestern edge of the plantation, was found to be the stable or gig house. Built with a brick floor, the building was apparently used throughout the occupation of Broom Hall. It had, however, a different orientation than the structures in the main complex, perhaps because it was a peripheral building.
- Area H was identified at the northeast edge of the site and represents a small (about 12 foot square) garden structure, potting house, or possibly a green house. A massive brick structure laid up in English Bond, it contained three ventilation arches at the

base of its north elevation. At ground level on the south facade was a small garden, enclosed by brick. It is likely at least mid-eighteenth century in construction, although there is relatively little information on which to make such an evaluation. It was, however, used well into the first half of the nineteenth century.

- Area J represents a frame structure, based on a single remnant pier. Although artifacts in this area of the site date from the mid-eighteenth century, an associated feature, which appears to contain building debris, has a TPQ of about 1820. It seems likely that this represents one of the later additions to Broom Hall.

- Area K was found to be a two bay brick structure, laid up in English Bond, heavily damaged by the construction of Westview Boulevard. The western bay measured about 15 feet in width. Dating from the early to mid-eighteenth century, it has the same orientation as the main structure and may have served as servants' quarters.

- Area L appears to be a yard area. Although a number of artifacts were present, no structural remains or features were encountered.

- Area M, evidenced by a concentration of bricks and artifacts, may be associated with nearby Area K. The two areas have almost identical mean ceramic dates (1754.8 and 1755.8) and are separated by only 30 feet.

At the nearby slave settlement only two areas were examined. Both were found to have

been heavily, and deeply plowed. Although no in situ architectural features were found, both areas produced large numbers of artifacts. Area AA yielded ceramics with a mean date of 1745, comparable in age to those found associated with Area C at the main complex. In addition, a probable agricultural ditch was filled with artifacts exhibiting a mean ceramic date of 1738 and a TPQ date of 1762. Clearly Area AA is situated in the middle of the one of the earliest slave settlements at Broom Hall. Area BB, in contrast, exhibited ceramics with later mean date, nearly 1817, and a pit feature yielded a mean date of about 1794 and a TPQ date of 1820, suggesting occupation well into the later years of Broom Hall's history. In addition to the pit was an area of burnt sand, suggesting an intensive fire of some duration.

ARTIFACTS

Introduction

This section is intended to provide an overview of the material culture present at Broom Hall. Since the excavations were conducted by designated blocks at both the main plantation and the slave settlement, these discussions are also organized in this manner. A general overview of the recovered artifacts, their contribution toward architectural or feature reconstructions, mean ceramic dating, artifact pattern analysis, and exploration of status indicators (including, where appropriate, Miller's indices) are provided for each block. The only artifacts not included in the detailed discussions (but, for example, included in mean dating and artifact patterns) are the Colono wares and the porcelains, both of which are discussed in greater detail in following sections of this study. At the conclusion of this section there is a summary, which draws together the different areas at Broom Hall and offers more generalized observations concerning the artifacts and their contribution to our understanding of early and mid-eighteenth century occupation at Broom Hall.

Laboratory Processing, Conservation, and Analysis

The cleaning of artifacts was conducted in Columbia, after the conclusion of the excavations. Cataloging of the specimens was conducted intermittently during 1989 through 1991. The analysis of the specimens was conducted as part of the current project, during late 1994. Conservation treatments have been conducted by Chicora personnel at the Columbia laboratory intermittently from 1991 through late 1994.

Brass items, if they exhibited active bronze disease, were subjected to electrolytic reduction in a sodium carbonate solution with up to 4.5 volts for periods of up to 72 hours. Hand cleaning with soft brass brushes or fine-grade bronze wool followed the electrolysis. Afterwards, the surface

chlorides were removed with deionized water baths (until a chloride level of no greater than 1 ppm or 18 μ 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 treated in one of two ways. After the mechanical removal of gross encrustations, the artifacts were tested for sound metal by the use of a magnet. Items lacking sound metal were subjected to multiple baths of deionized water to remove chlorides. The baths were continued until a conductivity meter indicated a level of chlorides no greater than 1.0 ppm (18 μ mhos/cm). The specimens were dewatered in acetone baths and given an application of 10% (w/v) acryloid B-72 in toluene, not only to seal out moisture, but also to provide some additional strength. Items which contained sound metal 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 20 days. When all visible corrosion was removed, the artifacts were wire brushed and placed in a series of deionized water soaks, identical to those described above, for the removal of soluble chlorides. When the artifacts tested free of chlorides (at a level less than 0.1 ppm, or 2 μ mhos/cm), they were air dried and a series of phosphoric (10% v/v) and tannic (20% w/v) acid solutions were applied. The artifacts were air dried for 24 hours, dewatered in acetone baths, and coated with a 10% solution (w/v) of acryloid B-72 in toluene.

Some of the large ferrous objects received different treatment. After electrolytic reduction, soaking in deionized water to remove soluble chlorides, and dewatering using acetone, a vapor phase or volatile corrosion inhibitor (VCI) manufactured by Cortec Corporation of St. Paul, Minnesota, was used to coat the specimens. The exact nature of the specific bonding between the

metal and inhibitor is not precisely understood, but the simplest explanation is that the outer surfaces of metals are composed of a metal oxide. The VCI attaches itself to the oxides through weak chemical bonding and shields the metal from penetration by corrosion materials, such as water vapor. Most VCIs, such as those produced by Cortec, are proprietary compounds of mixed amine salts.

Typically conservators are opposed to proprietary products since the ingredients are not known, may change without notice, and there is often little scientific study of their effect on the materials being treated. Obviously these are valid concerns, however, we chose to use several Cortec products since there is relatively good information that the current formulations are reversible and do not adversely affect the metals to which they are applied (Miksic 1983; Miksic et al. 1989).

Two products were used. The first was Cortec VCI-337, a clear water based concentrate intended for indoor use. The product was reported to leave a thin, non-tacky, self-healing film up to 0.5 mil in thickness. The film can be removed with either water or solvents. This product was used on some copper specimens. The second product was Cortec VCI-368, a dark brown thixotropic liquid which dries to a waxy film. A semi-dry, translucent film, it will not transfer to your hands and will not absorb dust or dirt. This particular product is intended to be used in concentrate form to provide protection up to 24 months of outdoor environments, including exposure to salt spray. It was used on some ferrous objects.

Hand painted overglazed enamelled porcelains were treated by carefully cleaning adhering soil using small cotton wads, with the enamel then protected by a 20% (w/v) solution of B-72 in toluene.

As previously discussed, the materials have been accepted for curation by The Charleston Museum as accession number 1988.49. 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 with these

facilities. All materials have been delivered to the curatorial facility.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric pottery was so uncommon in these investigations (and outside the scope of the research plan) that it is not included in the study. The temporal, cultural, and typological classifications of the historic remains follow such authors as Cushion (1976), Godden (1964, 1985), Miller (1980, 1991), 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, especially for the porcelains and Colono wares 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 which could reflect behavioral categories. Initially developed for eighteenth-century British colonial assemblages, this approach appears to be an excellent choice for the Broom Hall collection. Although criticized for problems in sample comparability (see, for example, Joseph 1989), even the system's detractors note that:

whatever its flaws, the value of artifact patterning lies in the fact that it is a universally recognized method for organizing large collections of artifactual data in a manner which can be easily understood and which can be used for comparative purposes (Joseph 1989:65).

The functional categories of Kitchen, Architecture, Furniture, Personal, Clothing, Arms, Tobacco, and Activities provide not only the range necessary for describing and characterizing most collections, but also allow typically consistent comparison with other collections.

Another important analytical technique used in this study is the minimum vessel count, as

both an alternative to the more traditional count of ceramics¹ 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 which would indicate matches with previously defined vessels. Those which fail to match either mended vessels or other rims are counted as additional vessels. Where there were multiple units or proveniences from a block, all were combined for this analysis, using a minimum distinction method for the MNV, which tends to provide a relatively conservative count. This also seems appropriate since all of the block excavations were relatively dispersed and there seems to be little likelihood that frequent cross-mends would occur over large portions of the site.

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

¹ Although counts are used in this, 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 affect the study, or comparison, of different assemblages which may have a different level of brokenness.

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.

Two methods were used to determine the occupation span of the various excavation areas at Broom Hall. The first method is South's (1977) bracketing technique. This method consists of creating a time line where the manufacturing span of the various ceramics are placed. The left bracket is placed by determining where at least half of the ceramic type bars touch. The right bracket is placed the same way, however, it is placed far enough to the right to at least touch 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 which have high counts are poorly represented in the ceramic assemblage. Because of this valid complaint a second method was used to determine occupation spans. The second method used is a ceramic probability contribution chart. 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:

$$P_j/\text{yr.} = \frac{f_j}{F \times D_j} \quad \text{where}$$

P_j = partial probability contribution
 f_j = number of sherds in type j
 F = number of sherds in sample
 D_j = duration in range of years

The observant reader will also note that both metric and English units of measurement have been used in the analysis. We recognize that this departure from consistency may be troubling, and may require some conversion back and forth. We have, however, tried to ensure an internal consistency. Where the artifact was likely described

by its maker or user in English measurements, they have been retained. The only exception to this is when there has been extensive research on the artifact class which uses metric measures (one example being the work on English "wine" bottles by Olive Jones). When the maker or user of the object probably had no reason to refer to a specific measurement (such as the length or diameter of a pencil), we have used metric units.

In the following discussions, the first time a particular artifact type, or class, is encountered, it will be discussed in greater detail than when it is found in subsequent contexts. While this may cause some difficulty for those interested in only one particular area of the site, it will reduce the sheer volume of text and will make these discussions flow in a more readable fashion.

38BK600, The Planter and The Plantation

Area C

Area C, defined on the basis of a thin brick scatter and artifact concentration, produced 8042 artifacts (excluding those recovered from Feature 1) from 400 square feet, yielding an artifact density of 19.9 artifacts per square foot or 29.8 artifacts per cubic foot.

Kitchen Group Artifacts

A total of 5623 Kitchen Group artifacts was recovered, most (2779 or 49.4%) representing ceramics or glass (1765 or 31.4%). Recovered were a wide range of eighteenth and early nineteenth century ceramics, including porcelains, white salt glazes stonewares, lead glazed slipwares, delft, clouded wares, creamwares, and pearlwares. Also present were a few ceramics typically considered to be early eighteenth century wares, such as North Devon Gravel Tempered. As discussed below, the latest ceramics recovered, which provide the TPO date for the sheet midden at Area C, are four undecorated whitewares.

The major types of ceramics are shown in Table 4, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for

96.8% of the ceramics. Utilitarian wares,² such as the North Devon Gravel Tempered and Buckley wares, account for about 3.2% of the collection.

Porcelain	893	41.0%
Stoneware	351	16.1%
Brown	15	
Blue/Gray	50	
White	286	
Earthenware	933	42.9%
Slipware	355	
Refined	78	
Coarse	19	
Delft	194	
Creamware	236	
Pearlware	47	
Whiteware	4	

The most common eighteenth century pottery was Chinese porcelain. Of the 893 fragments identified, 551 (61.7%) were underglazed blue and 342 (38.3%) were overglazed enamelled. Until the early nineteenth century Chinese porcelain was an expensive, very fine, thin ware usually associated with the tea ritual (and therefore found in tea forms).³ Its presence is

² Utilitarian wares are those used in food preparation and storage. They typically include stonewares and coarse earthenwares, but exclude Colono ware, because of the possible ethnic differences in food preparation and consumption practices.

³ James Deetz (1977:60-61) observes that at least by 1780 the porcelain found in colonial inventories "is largely limited to "tea sets, and probably demonstrates the adoption of the full-blown English tea ceremony for the first time. This custom can be considered a good indicator of the re-Anglicization process that was at work at the time." He points out that porcelain is therefore a socio-technic artifact and therefore less likely to be broken, and enter the archaeological record, than more technomic artifacts. Henry Hobhouse (1987) describes this ritual, as well as the ceramics associated with it, "The eighteenth century Europeans, like the Japanese but unlike the Chinese or the Russians, regarded tea making as a ceremony. There was the

considered an indicator of high status (Lewis 1985; Stone 1970:88). During the nineteenth century the quantity exported into the United States increased and the quality declined dramatically, making it a poor indicator of status or wealth during this later period.

In Area C, no fewer than 44 porcelain plates, 18 bowls, 18 cups, 23 saucers, one platter, and one pitcher were identified, for a MNV of 105. Plate forms included 10, 11 and 14-inch varieties, as well as an angular form. Saucer diameters included 4½, 5, and 6-inches. The single measurable bowl was 6-inches in diameter, while another exhibited a scalloped lip. Cup diameters ranged from 2½ to 3-inches.

The next most common ware is the lead glazed slipware, accounting for 355 examples. Slipware was a traditional eighteenth century form of pottery decoration in which a white or cream-colored slip is trailed over an buff or red earthenware body. A clear lead glazed slip is then applied before firing. Examples of pink and buff fired-clay bodies were encountered. Seven (MNV) examples of slipware plates were encountered, all

boiling water, not boiled for too long. There was the specially warmed pot. There was the infusion time. There was the pouring, a little bit of a ceremony all on its own" (Hobhouse 1987:111).

Richard Waterhouse (1989) explores the structure of values in Carolina society, noting that "the behavior patterns of the wealthy eighteenth-century Carolinians were based on luxurious living and imitation of upper-class English taste and manners" (Waterhouse 1989:103). The reasons for this "exaggerated imitation of the . . . English gentry" (including the adaptation of the tea ceremony) were complex, but seem to involve the high mortality of the new colony, the long-established links between Carolina's elite and the English gentry, the close trading (and economic) ties between the two groups, and the desire for the Carolina elite to establish itself as a ruling class which was rigidly hierarchical and mobility was severely limited. Waterhouse also contends that the "black majority" of Carolina "deepened the psychological need for South Carolinians to adhere to the normative values of English culture" (Waterhouse 1989:108). The tea ritual, and the associated very expensive imported porcelains were one aspect of this overall process.

but one exhibiting the characteristic "piecrust" rim. A minimum of seven bowls were identified. One measured 3½-inches in diameter and two exhibited the same "piecrust" rims as the plate forms. Four slipware cups, one mug with a handle, and one pitcher were also identified in the Area C collection.

White salt glazed stoneware accounts for 286 fragments. These wares were more durable than the earlier style delft, which they replaced, and the creation of block molds allowed the creation of such intricate relief patterns as "dot, diaper and basket" and "barley." At Area C, 9 undecorated bowls were encountered, with diameters of 4½, 7, 8, and 9-inches. Four undecorated cups (one of which had a diameter of 3½-inches) were encountered. One 3½-inch saucer and one pitcher were also present, both of undecorated white salt glazed stoneware. Molded patterns accounted for three plates (including one example each of the dot, diaper, basket; barley; and feather edged), and one bowl (which had horizontal stripes). In addition, the collection included one scratch blue bowl, and two scratch blue cups.⁴

Almost as common as the white salt glazed stoneware are examples of creamware. Developed in the 1750s by Josiah Wedgwood, this cream colored earthenware was considered a revolution in ceramic production. It provided a fine glazed ware at a relatively inexpensive cost, and came in sets with a wide variety of vessel forms and styles. In Area C, the vast majority are undecorated (229 or 97%), although four annular creamware sherds, two polychrome hand painted creamwares, and one cable creamware fragment were also identified. These creamwares represent four undecorated creamware bowls (one 8-inches in diameter), two undecorated cups (one with a handle), and one teapot. Molded creamware vessels included four

⁴ Scratch blue is white salt glazed stoneware which was incised and filled with cobalt prior to firing, resulting in a white body with thin blue lines. These examples are typical of early (i.e., prior to ca. 1760) examples where the lines ornament cups, saucers, and bowls. Later the style expanded onto chamber pots and mugs, in a effort by the English potters to take the market held by German utilitarian wares.

plates (two in what is known as the Royal pattern and 2 feather edged). The polychrome hand painted creamware represented a single 9-inch plate.

While comprising a small percent of the ceramics present, both the Elers ware and Jackfield ware each contributed one teapot to the collection, while the clouded wares contributed two. The Westerwald stonewares included an 8-inch bowl, a pitcher, and a small jug. The delft examples, including both undecorated and blue handpainted varieties, were found as three plates (one with a 10-inch diameter), six bowls (ranging in size from 9 to 16-inches, and one cup. The pearlwares account for four plates and two cups, while the whiteware fragments were too small to allow any MNV reconstructions.

The collection, therefore, included 69 plates, 57 bowls, 34 cups, 24 saucers, two mugs, one platter, four pitchers, five teapots, five jugs, and two jars. Table 5 illustrates this distribution, revealing the dominance of tablewares, and (within this category) flatware. Teaware accounts for over a fifth of all vessels, while utilitarian wares, such as jugs and jars, account for only 3.4% of the total assemblage.

From Area C, 942 fragments of Colono wares were recovered. If these are included in the

Shape	#	%
Tableware	155	76.4
Plates/saucers	93	45.8
Bowls	57	28.1
Serving	5	2.5
Tea and Coffeeware	41	20.2
Utilitarian	7	3.4

Table 6.
Mean Ceramic Date for Area C

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	342	591,660
Undeglazed blue porcelain	1660-1800	1730	551	953,230
Nottingham stoneware	1700-1810	1755	15	26,325
Westerwald	1700-1775	1738	50	86,900
White SGSW	1740-1775	1758	257	451,806
White SGSW, scratch blue	1744-1775	1760	29	51,040
Lead glazed slipware	1670-1795	1733	355	615,215
Jackfield	1740-1780	1760	42	73,920
Clouded wares	1740-1770	1755	36	63,180
Decorated delft	1600-1802	1750	79	138,250
Plain delft	1640-1800	1720	115	197,800
North Devon	1650-1775	1713	6	10,278
Buckley ware	1720-1775	1748	13	22,724
Creamware, cable	1790-1820	1805	1	1,805
annular	1780-1815	1798	4	7,192
hand painted	1765-1810	1805	2	3,610
undecorated	1762-1820	1791	229	410,139
Pearlware, blue hand painted	1780-1820	1800	4	7,200
blue transfer printed	1795-1840	1818	5	9,090
edged	1780-1830	1805	6	10,830
undecorated	1780-1830	1805	32	57,760
Whiteware, undecorated	1820→	1860	4	7,440
			2177	3,797,394
				$3,797,394 \div 2,171 \approx 1744.3$

ceramic group, they would account for 25.3% of the total, suggesting either a strong African occupation at the site, or minimally, a strong contribution by these local, low-fired earthenwares. They are further described in a following section of this report.

The mean ceramic date for Area C is shown in Table 6. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area C is about 1820 and is based on the four whiteware ceramics (two fragments found in Units 6 and 8 each). Since Area C likely represents sheet midden deposits, this approach offers relatively little insight, except to suggest the long occupation

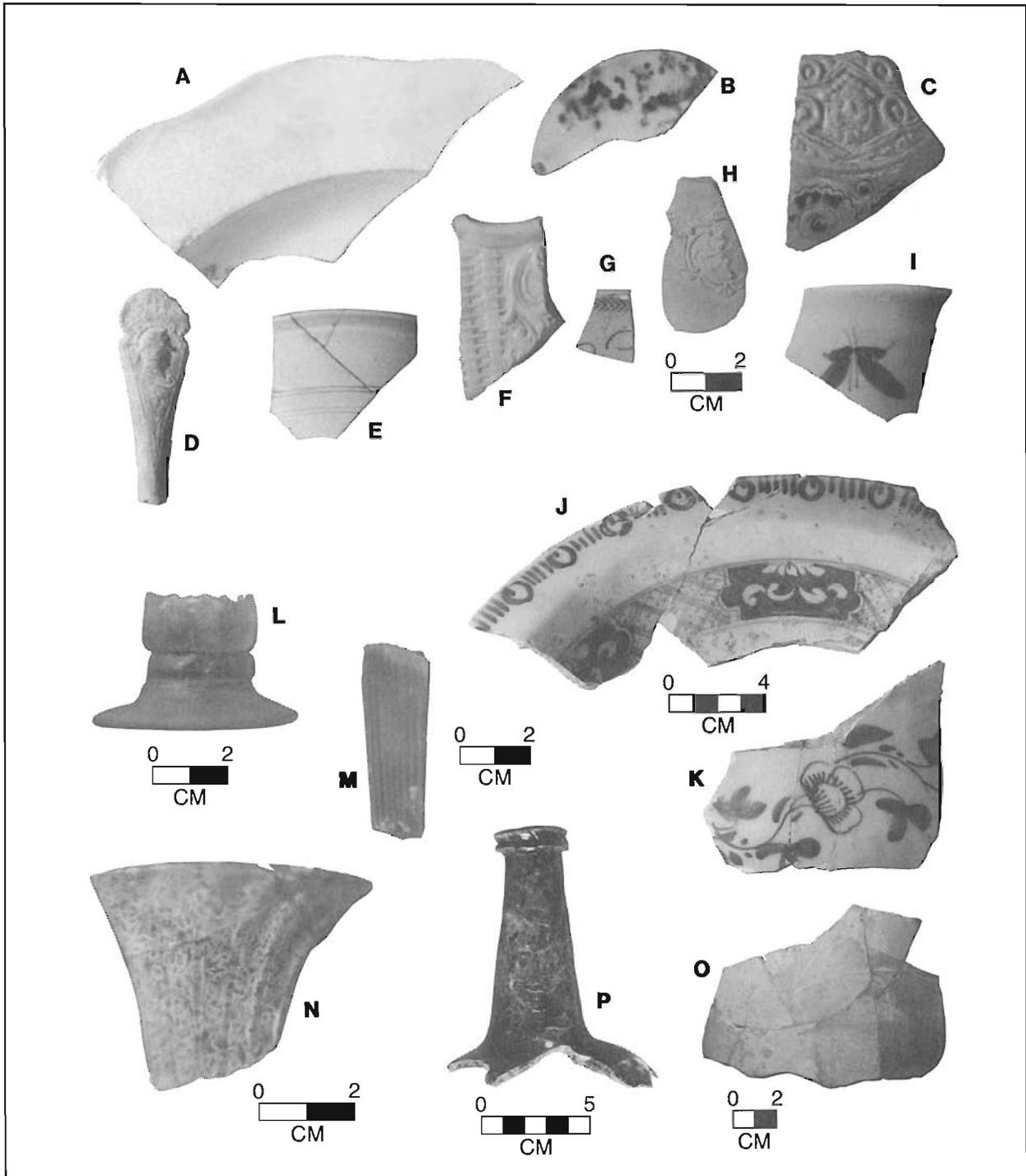


Figure 42. Kitchen Group artifacts from Area C. A, creamware (Royal pattern); B, clouded ware, lid; C, Westerwald; D, pewter spoon fragment; E, white salt glazed stoneware; F, white salt glazed stoneware (basketweave pattern); G, scratch blue white salt glazed stoneware ; H, Elers ware (griffin motif); I, blue hand painted delft; J-K, polychrome hand painted delft; L, goblet stem (example of baluster form); M, pitcher handle of clear glass; N, ribbed goblet body; O, Madeira decanter fragment; P, "black" wine bottle neck.

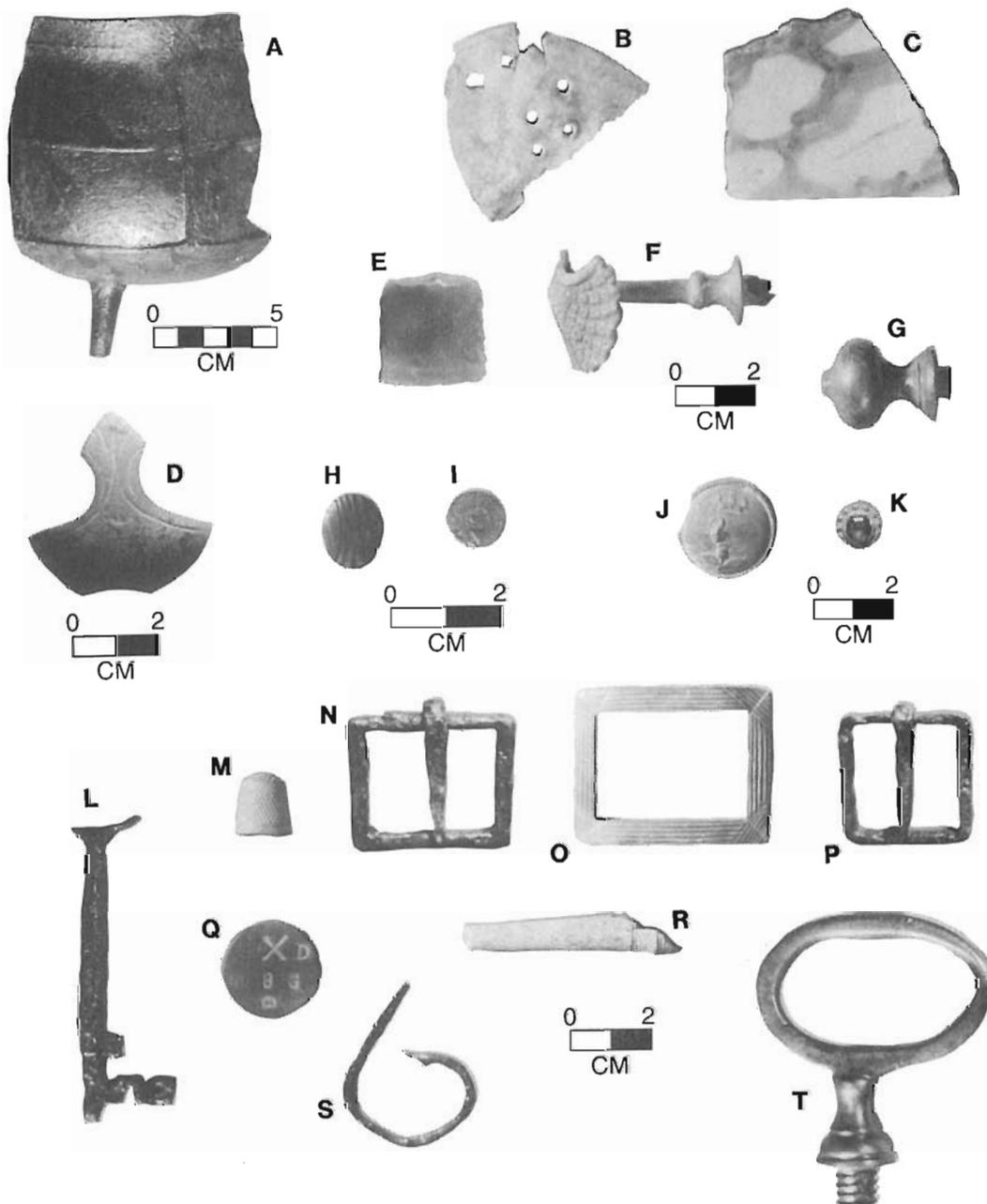


Figure 43. Artifacts from Area C. A, iron kettle fragment; B, pierced metal lid; C, delft tile; D, brass butt plate for pistol; E, gunflint; F, drawer pull with shell motif; G, brass drawer pull; H, abalone jewelry insert; I, blue glass jewelry insert; J, white metal British military button; K, brass button with green glass insert; L, iron key; M, brass thimble; N, iron buckle; O, brass shoe buckle; P, iron buckle; Q, brass scale weight; R, bone bobbin; S, fish hook; T, terret.

span present at Broom Hall.

Container glass accounts for 1765 fragments or 31.4% of the Kitchen Group total. The most prevalent glass type is that commonly called "black," which is actually dark green in transmitted light, comprising 82.7% of the glass found in Area C (n=1459). These represent "wine" bottles commonly used in Europe and North America. Olive Jones (1986) has conducted extensive research on this bottle style, discovering that the cylindrical "wine" bottle represents four distinct styles — two for wine and two for beer — linked to their size and intended contents. These four styles, however, were not just used for wines and beers. Other products, such as cider, distilled liquors, vinegar, and mineral waters might also have been sold in these bottle styles. In addition, they would have been used by private individuals as containers for decanting, storing, and serving beverages either bought in barrels or made at home.

At Area C, 21 bottles were identified: one with a basal diameter of 89 mm, two with a diameter of 95 mm, nine with a diameter of 102 mm, two with a diameter of 108 mm, five at 114 mm, one at a diameter of 121 mm, and one at a diameter of 127 mm. These represent beer, probable undersized beer, and wine style bottles, dating from the 1730s to as late as about 1810.

The next most common container glass was represented by 228 fragments of clear glass, including only two identifiable vessels — a large bottle and a small medicine bottle. Fifty-three aqua fragments were recovered, representing a medium size bottle and two small bottles, perhaps medicinal. Seven fragments of light green glass, 15 fragments of green glass, one purple glass and two fragments of milk glass were recovered. Manganese dioxide, producing what is called purple glass, was more often used as a decolorizing agent, it was also intentionally added to produce a purple color. Likewise, while it was most commonly used between about 1850 and 1910, its use was well known to the Venetian glass houses. As it spread into other parts of Europe, it was commonly described as "*à la façon de Venise*" and was widely imitated (Jones and Sullivan 1985:14; Vose 1975:73-74). Consequently, at Broom Hall, the

presence of this glass cannot reliably be used to provide a TPO date. Milk glass, or opaque white glass, was usually produced by using tin oxide or bat guano. It was redeveloped by the Venetians in the early sixteenth century and continues to the present day (Jones and Sullivan 1985:14).

One hundred thirteen tableware items were recovered from Area C, representing about 2% of the Kitchen Group artifacts. Included are one pewter plate fragment, about 12-inches in diameter, and a pewter utensil handle, consisting of the stem end of what was probably a spoon. Lacking the trifid end common prior to about 1715 (Noël Hume 1978:183), this spoon likely dates from the second or third quarter of the eighteenth century. Kovel and Kovel (1961:114) suggest that the shape dates from about 1720. The portion present lacks a *touche*, suggesting that it was made by an American pewterer, rather than a master pewterer of England who had a registered *touche* (de Jonge 1958: 98). The somewhat spatulate end is intricately decorated with a male's profile, fine stamping, and "*Colayn of Go*." Also recovered was a worked bone utensil handle and an iron knife blade (which originally would have had a bone or wood handle).

The bulk of the tableware items, however, were clear glass, representing (as MNV) nine goblets, six undecorated tumblers, one ribbed tumbler, one floral engraved tumbler, two bowls with folded rims, two pitchers, and at least one (possibly two) decanters. Two of the goblet fragments, consisting of partial feet and stems, exhibit a design described by Noël Hume (1969) as having, "heavy, and largely solid, baluster stems." Bickerton (1971:9-10) likewise notes that these heavy balusters were produced for a short period, ranging from about 1685 to about 1710 and describes them as, "the finest drinking glasses this country has seen, pleasing to eye, comfortable to grasp, sturdy, strong, splendidly epitomizing the qualities admired by an Englishman." These are characteristic of the late seventeenth and early eighteenth centuries. Another goblet exhibits a single air twist,⁵ typical of the second quarter of

⁵ In air twisted stems air bubbles are encased in the hot glass and the glass stem is drawn out to elongate and twist the bubbles. These styles, usually divided into

the eighteenth century (Noël Hume 1969:19; see also McNally 1982). Another goblet has a spiral gauze opaque white twist within a two ply twist. The bowl itself has a tapered round funnel shape. Fragments of one decanter are wheel engraved "MADEIRA" and the surrounding design, incorporating grapes, vine leaves, and flowers, appears almost identical to that illustrated by Noël Hume (1969:Figure 16) from a 1760 context.

A number of small fragments of engraved glass with bits of floral or foliate motifs have been recovered. Noël Hume remarks that:

The English engravers, never able to match the formal baroque splendor of the Nuremberg and Augsburg products, developed their own floral and foliate motifs. The best known was the heraldic rose and two buds associated with the 1745 Jacobite Rebellion and emblematic of the Old Pretender "James III" and his sons, Henry and Charles Edward Stuart (Noël Hume 1969:24-25).

He notes that a number of these "flower'd" glasses reached American colonies and that the engraving was found on both stemware and tumblers.

Only 13 Kitchenware items were found in Area C. These include a fragment of white metal foil, which may once have served as a cover for a corked bottle; a pierced brass lid, perhaps representing a shaker top; a fragment of an iron utensil fragment, such as might be used at the kitchen hearth; two fragments of cooking vessel handles; five kettle handles; one kettle foot; and one kettle body fragment.

Architecture Group Artifacts

A total of 1811 architectural fragments (excluding brick and slate) was recovered from Area C, representing about 22.7% of the total artifact assemblage.

The single largest category is that of nails, with the 1059 specimens accounting for 58.5% of the collection. Of these 625, or 59.0%, can be discounted since they could not be either measured or identified as to type. Four hundred seven nails (38.4% of the nails) were identified as hand wrought, meaning they were individually forged by blacksmiths, either in America or England.⁶ The wrought nail shank can be distinguished from machine cut nails (introduced about 1780) by their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). These nails, while largely replaced by machine cut nails at the beginning of the nineteenth century, continued in specialized use far longer. Two head styles are present in the collection. Rose heads (accounting for 38.7% of the wrought nails; n=147) have a distinctive head created by four strikes of a hammer, giving it the form of a four-leaf clover. Lounsbury (1994:412) notes that this style was most commonly used in rough framing and attaching exterior cladding. The other style present at Area C is a clasp head (sometimes called a "T-head"), accounting for 232 specimens (61.3% of the wrought nails). This style was produced like the rose head, but was struck two additional times on either side of the head, to form the characteristic T-shape. These nails were usually used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412).

Twenty-six cut nails were also found in Area C. These were produced by a machine that cut each shaft from a sheet of iron, tapering the nail along its length on only two, instead of all four, sides. Although this machinery was invented in the 1780s, nails produced by machine were slow to reach the South, not becoming widely available until the first quarter of the nineteenth century. Lounsbury (1994:107) suggests that the most widely available variety from the 1790s through the early 1820s were those whose heads were still hand forged (that is, a machine cut nail with a hand forged head). After about 1815 machines capable of both cutting and heading the nails were

single and double twists, are described by Bickerton (1971), McNally (1982), and Noël Hume (1969).

⁶ Lounsbury (1994:239) notes that while nails were certainly manufactured locally in the South, "a sizable proportion of the nails used in buildings through the late 18th century were imported from England."

introduced and hand forged heads gradually declined in significance. Of the machine cut collection, 84.6% have forged heads, suggesting their use during this earlier period. In fact, only four machine cut nails with cut heads were recovered.

Because different size nails served different self-limited functions, it is possible to use the relative frequencies of nail sizes⁷ to indicate building construction details. Table 7 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as the function of various nail sizes. The table reveals that the clasp headed wrought nails (T-heads), normally used for moldings, are primarily found in larger sizes. This suggests perhaps larger, heavier moldings. It may also suggest their use in window and door fenestration. Rose headed nails are most commonly found in relatively small sizes, perhaps relating to their use to attach the slate shingles (discussed below). Relatively few wrought nails of either head style were recovered above 8d, the larger sizes most often associated with siding. The near absence of nails associated with heavy framing is likely an indication of a structure using traditional peg construction. The machine cut nails generally resemble the distribution and use of the clasp headed wrought nails, reflecting greatest use for sheathing and siding and relatively limited use for roofing, attachment of plaster lathe, or attachment of molding. Since these nails likely reflect later repair work, it seems reasonable that they would be less used on interior and hidden work than on the repair of exterior detailing which received considerable weathering. The relatively low density of nails in the 6d to 8d range may also suggest that the building at Area C was brick with only limited wood detailing (such as fenestration).

⁷ 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.

Table 7.
Wrought and Cut Nails Recovered from Area C

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
2d	1"	24	1		
3d	1¼"	70	7	3	
4d	1½"	30	20		1
5d	1¾"	5	31	2	
Small timber, shingles		129	59	5	1
%		87.8	25.4	22.7	25.0
Combined %		49.6		23.1	
6d	2"	7	20	2	2
7d	2¼"	4	55	4	
8d	2½"	4	47	7	1
Sheathing and siding		15	122	13	3
%		10.2	52.6	59.1	75.0
Combined %		36.1		61.5	
9d	2¾"		20	1	
10d	3"		20	3	
12d	3¼"		5		
Framing			45	4	
%			19.4	18.2	
Combined %		11.9		15.4	
16d	3½"	1	5		
20d	4"	1	1		
30d	4½"	1			
Heavy framing		3	6		
%		2.0	2.6		
Combined %		2.4			

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 40.6% of the group (n=735). Until the modern period, window glass was either crown or cylinder, with crown glass dominating the eighteenth and early nineteenth century market. Regardless, it is usually difficult to distinguish the two unless certain, usually large, parts of the glass are present (Jones and Sullivan 1985:171). At Broom Hall all of the fragments are small, suggesting considerable fragmentation of the panes prior to their disposal. All of the glass, however, had a greenish tint, common to eighteenth century specimens (Noël Hume 1978:233).

Four door lock parts were recovered from Area C, including three lock box fragments and two plain brass disk-roses. Although two of the lock boxes were so fragmentary that they could

provide no additional information⁸ concerning type or size, one was identified as an iron rim drawback latch-lock, dating from the late eighteenth century. This style is described as a combination latch and dead bolt lock with a sliding knob. The latch was spring actuated, as with other typical rim locks, but it could be operated only from within the protected room (or lock side) (Streeter 1974b:51, 60). A turn of the key sends the bolt to deadlock position. As such it would have been used as an entry door lock, although its very plain appearance suggests a rather humble entrance. The disk rose went around the door knob shaft, covering the hole through the door on the side opposite the lock box (Streeter 1974b:54). Although these items were used for long periods of time and are not particularly time sensitive, Streeter does note that:

With most early knobs, round and oval, the rose was a simple disk of thin cast brass, with a round hole in its center to fit the found iron shaft (which was squared only where it entered the lock and knobs) and attached to the door with brass pins, nails, or screws. When rose stamping was developed toward the end of the 18th century, roses were made which, by their embossed form, supported the knob base at its circumference, and hence avoided the wear of door and rose which the disk encouraged (Streeter 1974b:53).

This suggests that the two examples from Area C date from the first three-quarters of the eighteenth century.

Nine fragments of construction hardware (loosely interpreted to include four delft tile

⁸ This is only partially true. Streeter (1974b:51) notes that in the eighteenth century lock cases were made of hammered sheet, rolled sheet iron not being available until the early nineteenth century. Although the two specimens are badly deteriorated, at least one and possibly both, appear to be made from hammered, rather than rolled iron, indicating at least an eighteenth century date.

fragments) were also recovered from Area C. The tile fragments were all too small to provide information on the scene portrayed. They range in thickness from just under ¼-inch to almost exactly 5/16-inch. Noël Hume (1978:285) notes that tiles of this thickness were almost exclusively used for fireplace and wall skirtings (as opposed to flooring tiles which were substantially thicker). Lounsbury (1994:374) notes that "Dutch tiles" were most commonly applied to the jambs of fireplace openings, resulting in them also being called "chimney tiles." He places their peak in popularity around mid-eighteenth century. Four strap hinges were also identified in the collection, with lengths of 2½, 4, and 5¾-inches (representing only one leaf). Strap hinges were simple to make, inexpensive, and therefore widely used. The larger strap hinges were used for hanging doors, although its purpose was not only to swing the door, but also to help hold it true (Streeter 1974a:15-16). Consequently, the size of the strap may often provide some information concerning the weight and size of the door. A dovetail hinge, measuring 2⅞-inches, was also recovered. This style of hinge, consisting of two flaring, wedge-shaped leaves pinned together at the center pivot is also known today as a butterfly hinge. In the eighteenth century it would have been used on trap doors, casement windows, closets, and furnishings such as buffet doors (Lounsbury 1994:118).

While not included in the Architecture Group tabulations, samples of slate were collected from the excavations at Area C. All of these specimens are of a uniform brownish black color (5R2/1, using the Munsell Rock-Color Chart). Based on the thickness, ranging from ¼ to ⅜-inch, these are almost certainly roofing slates. The origin of this material is unknown. As Francis Dimes notes, "the identification of slates used for building and particularly for roofing, presents complex problems, partly because few slates have been microscopically studied and compared" (Dimes 1990:140). In addition, optical microscopes cannot resolve thin-sections of slate and XRD reveals essentially uniform mineralogy.

Samples of somewhat physically similar slate (from Kiawah Island's late eighteenth/early nineteenth century Vanderhorst and Shoolbred mansions with a color of dark gray, N3) were sent

to Francis Dimes, the foremost authority on building and decorative stones. He observed that the dark gray slates were, solely on the basis of macroscopic examination, similar to North Wales slates. However, he also observed that such an assessment would be more reliable if possible United States slate sources could be ruled out (Francis G. Dimes, personal communication 1993). To that end, a sample was provided to George Fore, an architectural conservator specializing in Southeastern structures. He suggested that the material may represent what is called Buckingham slate, quarried from Virginia during the late eighteenth century (George Fore, personal communication 1993). Lounsbury offers generally similar comments, but notes that the Buckingham quarries were not active until the last decade of the eighteenth century and are best known for providing early nineteenth century slates. Prior to that time, most slates came from Wales, the west country of Devon and Cornwall, and the northwest Lake district. Based on this limited information, it seems likely that the Broom Hall slate was not locally procured, but was more likely imported.

Furniture Group Artifacts

Ten furniture artifact items, representing 0.1% of the total collection from Area C, were recovered. These include three flat glass mirror fragments, four brass tacks, one cabinet slide bolt, one brass knob, and one brass drawer pull.

All of these items have relatively wide temporal spans. The mirror glass was recognized based on remnant silvering and all occurred on thin glass, similar to window glass. No evidence of plate or polished glass mirrors were present, suggesting that these specimens may have been at the lower end of cost and quality. The cabinet slide bolt has the typical form, but there was evidence of adhering black paint. Both the drawer pull and brass knob are rather delicate. The face of the pull was cast in the form of a sea shell.

Arms Group Artifacts

Arms artifacts are uncommon in Area C, with only six being recovered (accounting for 0.1% of the total assemblage). These include four gunflints (one brown, two gray, and one gray-brown), one lead shot (having a diameter of 9.7

mm or 0.38 inch), and a brass butt plate.

A review of research concerning gunflints is provided by Davis (1986). In general, however, both Emery (1979:37-48) and Noël Hume (1978:220) agree that English flints tend to be gray or black, while French flints tend to be brown or honey-colored, with the majority of flints found on colonial sites coming from France because of their superior quality. This appears to be the case at Area C. The lead shot, while too small for a longarm ball, is an appropriate size for what was known in the eighteenth century as swan shot (buck and swan shot ranged from 0.471 to 0.35 inches). The butt plate, from a longarm, is likely English and its detailing suggests a relatively early period characterized by a simple design motif on the short finial (Hamilton 1980:91).

Tobacco Group Artifacts

Area C produced 403 tobacco artifacts (representing 5.0% of the total assemblage), including 314 pipe stem fragments and 89 pipe bowl fragments.

Of the 89 bowls, 85 were plain (although 5 did have feet), one exhibited vertical ribs and a foot⁹ marked with "T/C," one was the classic "TD" bowl, and two exhibited rouletting at the rim. The "TD" pipes have been discussed by Hopkins (1937), Humphrey (1969), and Walker (1966). Originating in the eighteenth century,¹⁰ this pipe style continued to be made well into the mid-nineteenth century.

The most common diameter pipestem is 5/64-inch, accounting for 61.5% of the collection (n=193), followed by 4/64-inch (n=116, 36.9%). Most have no decoration or information on their manufacturer. One of the 4/64-inch stems is covered with a brown (likely lead) glaze. Three others include portions of the bowl foot, with two feet marked "T/C" and "G/W." The third is marked with "65" on one side and a crown on the

⁹ These are also known as "spurs" or "heels."

¹⁰ One of the earliest references we have found is a Williamsburg, Virginia context of about 1750, reported in Atkinson and Oswald (n.d.:46).

opposite. One of the 5/64-inch diameter stems is decorated with dancing greyhounds and is stamped, "MAN.NT_____BRINH."

Clothing Group Artifacts

This category includes 18 buttons and 8 other clothing items, accounting for 0.3% of the total assemblage from Area C. The buttons, classified by South's (1964) types, are listed in Table 8. Most (specifically Types 1-15, 13 or 86.7% of the intact buttons) are thought to date from the first three-quarters of the eighteenth century. The remaining two buttons are suggested by South to date from the nineteenth century.

While the collection is fairly typical of the period, one button in particular stands out. One of the Type 11 buttons, recovered from Zone 1 of Unit 7, is a molded white metal. The button has a cable border. In the interior is a crown over the numeral "2," over a thistle. Unfortunately, while it appears that there is no numeral following the 2, this cannot be determined with certainty given the condition of the button. The best comparison with known buttons suggests that the number may originally have been 21. The 21st regiment, a Scottish corps, is now known as the "Royal Scots Fusiliers." The particular button design likely belonged to a private soldier (Calver and Bolton

1950:55, 97, 112-113). While we have been unable to document the impact the American Revolution played at Broom Hall, this artifact suggests that at least British troops were present sometime during Charleston's occupation.

Other clothing items are less exciting and include two shoe buckles (one iron and one brass), four clothing buckles, one clothing buckle fragment, and a child's brass thimble. The brass shoe buckle measures 2-inches at top and bottom, and 1½-inches on the sides. It has straight corners and straight edges but has a slight curvature and solid pin terminals. In all respects it is identical to the Type II buckles identified by Abbitt (1973:32). The buckle has intricate incised lines decorating its face. The backpiece, however, is missing. This particular style likely dates from after 1730 (before which few had elaborate designs) and prior to the last quarter of the eighteenth century (when buckle sizes increased significantly). The size is appropriate for a man's shoe. The other buckle represents an ogee-sided and curved-ended shape, probably dating from the second half of the eighteenth century based on collections from Colonial Williamsburg (Abbitt 1973:50; see also Noël Hume 1978:85-86).

Personal Group Artifacts

Only three specimens were found in Area C which could be classified as Personal Group items (representing 0.1% of the total Area C assemblage). These included one skeleton key, one bone lace-making bobbin, and one faceted colorless sapphire (identified by Sylvan and DuBose Jewelers). The iron key shaft and bit measures 2¾-inches in length (the bow is missing) — this is an appropriate size for an 8-inch rim lock, typical of the period (Streeter 1974b:48). The lace-making bobbin was of bone, although ivory and wood examples were also common during the period. Regardless of material, they were designed to both hold the lace thread and allow the different threads to form the lace patterns (Whiting 1928:180-182,

Table 8.
Buttons Recovered from Area C

Type	Description	#	Other (measurements in mm)
3 or 4	embossed brass face (floral) reverse missing	1	16.1
4	embossed brass	1	-
7	spun brass/white metal with eye cast in place	4	16.5, 17.0, 17.1, 27.9
8	molded white metal with eye boss	1	23.3
11	pewter/white metal, one-piece cast	4	15.2, 16.6, 17.5, 24.3
13	cast, faceted blk. glass	1	12.0
15	bone disc, 1-hole	1	18.5
25	plain brass face, iron back and eye	2	20.6, 28.7
31	brass, spun back with drilled eye, green glass inset	1	11.2
-	blue glass insert with molded 5-point star	1	(11.0)
-	oval abalone shell insert	1	(14.3 by 11.5)

214).¹¹ The sapphire is also known as corundum and the typical colors are the result of metal oxide impurities. Corundum without impurities (and therefore without color) is rare (Hall 1994:96). Virtually all come from Sri Lanka and this particular stone measures about 6.37 by 4.48 mm.

Activities Group Artifacts

This final artifact group includes a total of 87 specimens (or 1.1% of the total Area C assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96). At Area C, tools included a file fragment and a scale weight. Fishing gear included a iron fish hook. Storage items included 14 items of strap metal, probably barrel hoop fragments. The single stable and barn item is cast brass saddle terret,¹² the style of which Noël Hume (1978:242) suggests is characteristic of the eighteenth century. The item measures 56.4 mm across the eye and 59.6 mm in height (not including the brass screw threads, which measure an additional 10 mm). Under miscellaneous hardware are two iron hooks (lengths measuring 125 and 150 mm), one fragment of wire (diameter of 3 mm), three brass rings or ring fragments, one iron staple, two bolts (48.5 and 115 mm in length), and four wood

screws. "Other" includes 21 flint cobbles or flakes, 13 fragments of unidentifiable iron, one fragment of unidentifiable brass, two fragments of stamped white metal, one fragment of stamped brass, nine brass strip fragments, three lead strips, one fragment of pewter, one lump of melted pewter, and four lumps of melted lead.

The only item worthy of any specific attention is the one scale weight, found in Zone 2 of Unit 5. Formed from cast and worked brass, it measures 24.2 mm in diameter and 4.2 mm in thickness. It weighs 15.94 g. On both faces are stamped "X D" above "8G." Below this is a touche, that of the "lion rampant," a common devise in the eighteenth century before the Revolution. The meaning of the other stamps is unclear and the weight does not correspond to any common pharmaceutical factors.

Feature 1 of Area C

Underlying the excavation of Area C was a cellar, containing 17,239 artifacts, excavated as Feature 1. This feature yielded a density of 72.6 artifacts per cubic foot. While excavated in several zones, these are combined in this discussion since they appear to be roughly contemporaneous.

Kitchen Group Artifacts

Feature 1 produced 12,439 Kitchen Group artifacts, representing 72.1% of the total assemblage from the feature. The most common Kitchen Group artifact is glass, accounting for 5771 specimens (46.4% of the group total), followed by European ceramics (4616 specimens or 37.1%). Colono wares contributed 1611 specimens (accounting for about 13.0% of the collection) and will be discussed in a following section. Four hundred seven tableware items were recovered along with 34 kitchenware specimens.

The pottery recovered encompasses a wide range of eighteenth and early nineteenth century ceramics, including porcelains, white salt glazed stonewares, lead glazed slipwares, delft, clouded wares, creamwares, and pearlwares. Also present were a few ceramics typically considered to be early eighteenth century wares, such as North Devon Gravel Tempered. As previously mentioned,

¹¹ Reese describes the process:

Lace made by hand, or, as it is called, *pillow lace* and *bone lace*, is worked upon a pillow or cushion, upon which a piece of stiff parchment is stretched, having a number of holes pricked through it to form a pattern of the intended lace. Through these holes pins are stuck into the pillow; and the fine threads, wound upon small bobbins made of ivory or bone, are woven around the pins, and twisted round each other in various ways, to form the required pattern (Reese 1847:974).

¹² Terrets were upright rings fixed on the saddle and the hames, through which the driving reins passed (see also Vince 1982:62-63).

the latest ceramics recovered, which provide the TPQ date for Feature 1, are two undecorated whitewares (which represent 0.05% of the dateable wares). In general this assemblage is very similar to the overlying Area C wares.

The major types of ceramics are shown in Table 9, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 92.7% of the ceramics. Utilitarian wares, such as the North Devon Gravel Tempered, Buckleywares,

Porcelain	1571	34.7%
Stoneware	984	21.7%
Brown	52	
Blue/Gray	217	
White	690	
Other	25	
Earthenware	1979	43.6%
Redware	21	
Slipware	511	
Refined	146	
Coarse	231	
Delft	434	
Creamware	598	
Pearlware	36	
Whiteware	2	

Iberian ware, and red earthenware, account for about 7.3% of the collection.

The most common eighteenth century pottery was Chinese porcelain. Of the 1571 fragments identified, 726 (46.2%) were underglazed blue and 561 (35.7%) were overglazed enamelled. The remainder include 270 undecorated porcelains (17.2%) and a small quantity of other porcelains. In Feature 1, no fewer than 157 vessels (MNV) were identified, including four of undecorated porcelain (2.6%), 104 of blue hand painted porcelain (66.2%), and 49 of overglazed enamelled porcelain (31.2%).

The plain, white porcelain included three cups (with diameters of 2½ and 3-inches) and one mug with a handle (diameter of 3½-inches).

The blue hand painted porcelain includes 40 plates. Seven of these could not be measured, although two had scallop edges and three had angular edges. Of those which could be measured, one was 7-inches, seven were 8-inches, 3 were 8½-inches, 14 were 9-inches in diameter, three were 10-inches, two were 11-inches, two were 13-inches, and one was 14-inches. Twenty bowl forms were also recovered, ranging in diameter from 4½-inches to 8-inches. The most common size (n=9) was 5-inches and the range from 4½ to 5½-inches accounts for 65% of the reconstructed vessels. Twenty-six cups were identified and 24 were measurable. The majority (14, or 58.3%) measured 3½-inches in diameter. One measured 2½-inches, six measured 3-inches, one measured 3⅛-inch, and two measured 4½-inches. The saucer form was not as abundant, with only 11 identified from the feature, 10 of which could be measured. These include one at 5-inches, one at 5¼-inches, four at 5½-inches, three at 6-inches, and one at 6½-inches. Six platters, all exhibiting angular edges, and one teapot were also identified.

The hand painted overglazed porcelains include 22 plates, including two with 8-inch diameters, 1 measuring 8½-inches, 10 at 9-inches, two at 10-inches, one at 12-inches, two at 14-inches, and one at 16-inches. In addition two oval plates were also identified in the minimum vessel count. Only three bowls were encountered, measuring 6-inches, 6½-inches, and 8-inches. Five cups were found, including one measuring 2½-inches, one 2¾-inches, two measuring 3-inches in diameter, and one at 4½-inches. Saucers, in contrast, were relatively abundant, with 19 identified in the collection. These included 10 measuring 5-inches in diameter, two measuring 5½-inches, six measuring 6-inches, and one measuring 7-inches.

The next most common ware was the white salt glazed stoneware, accounting for 628 fragments (or 32 vessels), with an additional 62 specimens of scratch blue (accounting for 13 vessels). The undecorated white salt glazed stoneware included 14 bowls with diameters of 4, 4½, 6½, 7, 8, 9, and 10-inches. Also found were

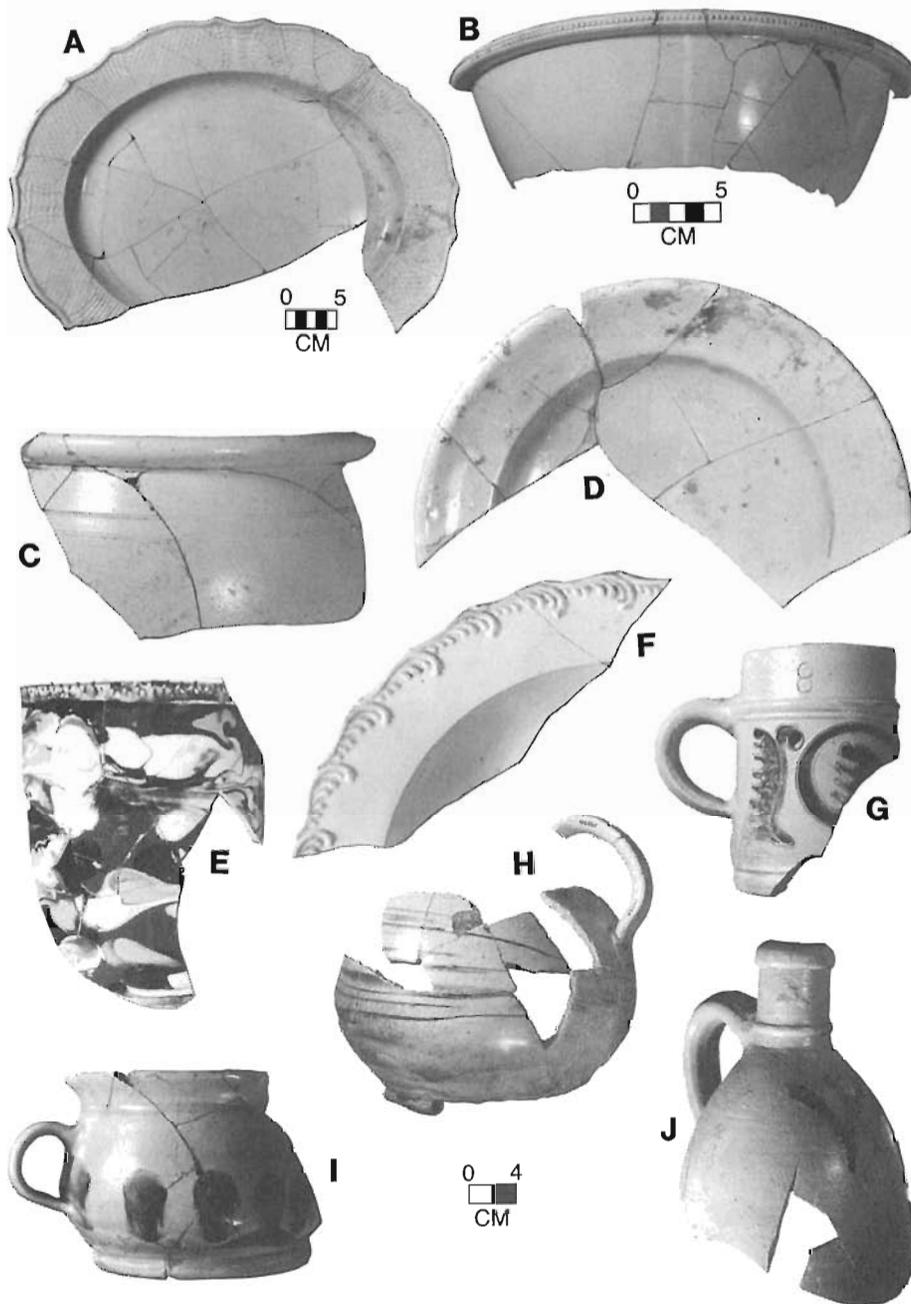


Figure 44. Kitchen Group artifacts from Feature 1 in Area C. A, white salt glazed stoneware platter (barley and basketweave pattern); B, creamware bowl (beaded rim); C, white salt glazed stoneware with horizontal bands; D, plain delft plate; E, creamware mug, cable decoration; F, feather edged creamware plate condiment ring; G, Westerwald mug; H-I, lead glazed slipware handled bowls; J, gray salt glazed stoneware jug with cobalt blue W on body.

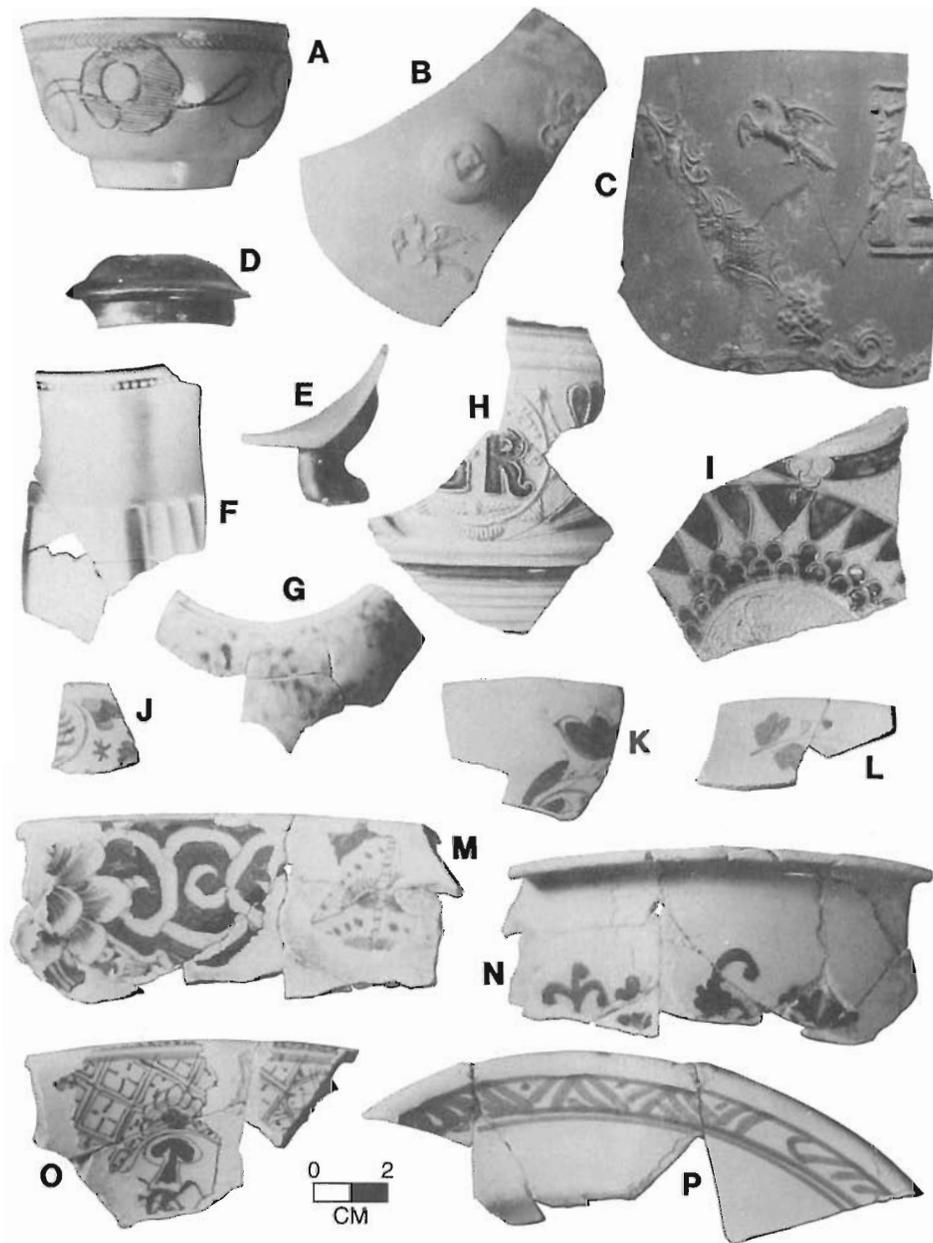


Figure 45. Kitchen Group artifacts from Feature 1 in Area C. A, scratch blue white salt glazed stoneware bowl; B, Elers ware teapot lid with griffin motif; C, Elers ware teapot with griffin motif; D, Jackfield teapot lid; E, Jackfield footed ware; F, clouded ware, beaded rim; G, clouded ware teapot; H, Westerwald with "GR" motif; I, Westerwald with crown motif; J, polychrome hand painted delft bowl; K, blue hand painted delft bowl; L, polychrome hand painted delft saucer; M-N, blue hand painted delft bowl (interior and exterior); O, interior of blue hand painted delft bowl; P, blue hand painted delft plate.

Table 10.
Shape and Function of Ceramic
Vessels from Feature 1 in Area C

Shape	#	%
Tableware	233	72.8
Plates/saucers	141	44.1
Bowls	83	25.9
Serving	9	2.8
Tea and Coffeeware	77	24.1
Utilitarian	10	3.1

three cup forms, measuring 1¾, 2½, and 3-inches in diameter. The molded white salt glazed stonewares included nine plates, including one at 8-inches, two at 9-inches, two at 10-inches, one at 11-inches, and two at 15-inches, all about evenly distributed between the major patterns. Five molded bowls were found, all exhibiting either two or four horizontal rings. Two had mouth diameters of 3½-inches, two measured 4-inches, and one measured 7-inches. One oval platter, measuring 13 by 17-inches with scalloped edges was also identified in the assemblage. The scratch blue fragments, while less common, revealed the presence of three bowls (two with drape motifs, measuring 5½ and 6-inches in diameter, and one with a drape and floral motif, measuring 5½-inches). Eight cups were encountered, measuring 2¾ through 3½-inches. Two saucers, both having a diameter of 5½-inches, were also found.

Creamware was the next most common ceramic, accounting for 598 fragments (13.2% of the entire ceramic collection and contributing 17 vessels). Of these 582 (97.3%) were plain, with only 12 specimens of cable creamware, three fragments of annular creamware, and one fragment of blue transfer printed creamware. The undecorated creamwares include one 7½-inch bowl. Molded creamwares, however, were found to include eight plates, seven of which were of the feather pattern (one measuring 9-inches and another measuring 10-inches) and one (measuring 10-inches) was of the Royal pattern. Six bowls, all with beaded decoration, were recovered. Two measured 5-inches in diameter, two measured 8-inches, and one measured 7½-inches. One mug, also with a beaded decoration, was found in

Feature 1. Its diameter was 2½-inches. The only other identifiable creamware vessel was one cable decorated mug, measuring 4½-inches in diameter.

Almost as common as the creamwares are the lead glazed slipwares, accounting for 511 examples. As in the overlying Area C proveniences, examples of pink and buff fired-clay bodies were encountered in Feature 1. Twenty-nine vessels were identified, including 12 plates, all with piecrust edges. These included one 7-inches in diameter, one 8-inches, two 10-inches, one 15-inches, and one in excess of 16-inches (which may have been a serving platter). Eight bowls were also recovered, including four with 5-inch diameter rims, two measuring 6-inches, one measuring 8-inches, and one measuring 12-inches. Eight cups were found, three measuring 3-inches, four measuring 3½-inches, and one measuring 4-inches. Finally, one pitcher form, with an opening of about 3-inches was also identified from the collection.

Delftware, both plain and decorated, is the last of the large collections recovered from Feature 1, contributing 434 fragments or 34 vessels. Plain delft included four plates, with three measuring 8½-inches in diameter and one measuring 10-inches in diameter; seven bowls, with sizes of 4½, 6, 8, and 10-inches; and seven cups, including 2½, 2¾, 3, and 3½-inch sizes. The decorated delft, with very few examples of polychrome designs, included seven plates. One had a diameter of 8-inches, one 9-inches, three had diameters of 10-inches, and two measured 11-inches. Five bowl forms were identified, four of which could be measured and included 4½, 5½, 6, and 10-inch sizes. Two decorated delftware cups were found, measuring 3 and 3½-inches in diameter. Finally, two saucers, measuring 5½ and 6-inches, were recovered from Feature 1.

While comprising a small percent of the ceramics present, the Elers ware contributed two teapots, and Jackfield and clouded wares each contributed one teapot to the collection. The Iberian ware, consisting of 26 fragments, yielded five storage jars, three with a green glaze and two with an orangish buff glaze. Measurements included 4½, 14, 16, and 17-inches. The various coarse and refined earthenwares were found primarily as plates and bowls, typically fairly large.

For example, one was likely a milk pan, measuring about 17 inches in diameter. The bowls ranged in size from as small as 4½-inches to more than 19-inches in diameter, confirming their utilitarian nature. The Westerwald stonewares include two bowls and one mug.

The collection, therefore, included 107 plates, 83 bowls, 63 cups, 34 saucers, nine mugs, seven platters, two pitchers, five teapots, five jugs or jars, and five storage jars. Table 10 illustrates this distribution, revealing the dominance of tablewares, and (within this category) flatware. Teaware accounts for nearly a quarter of all vessels, while utilitarian wares, such as jugs and jars, account for only 3.1% of the total assemblage. This distribution is almost identical to the overlying Area C collection, suggesting that the two assemblages probably represent one episode.

From Feature 1, 1611 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 26.2% of the total (again, virtually the same as found in Area C), suggesting either a strong African occupation at the site, or minimally, a strong contribution by these local, low-fired earthenwares. They are further described in a following section of this report.

The mean ceramic date for Feature 1 is shown in Table 11. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Feature 1 is about 1820 and is based on the four whiteware ceramics (two fragments found in both Units 6 and 8). The MCD for Feature 1 is only 3.1 years later than that derived for the overlying collections in Area C,

further supporting the similarity of the two assemblages.

The distribution of mending ceramics may tell us something about the formation of this feature. We would expect that if the broken ceramics were in a preexisting dump and were simply included in the refuse transported to fill the cellar after the demolition of the structure, that there would be much mixing of material and that mends might be separated by some considerable distance — the function of the broken pieces being first scatter in the primary dump location and then further scattered during their movement to Feature 1. The analysis, however, suggest otherwise, at least for the porcelains. While there are mends from distant units, the vast majority of the mends come from contiguous, or nearly contiguous, units. This

Table 11.
Mean Ceramic Date for Feature 1 in Area C

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	561	970,530
Underglazed blue porcelain	1660-1800	1730	726	1,255,980
Nottingham stoneware	1700-1810	1755	4	7,020
Westerwald	1700-1775	1738	145	252,010
White SGSW	1740-1775	1758	628	1,104,024
White SGSW, scratch blue	1744-1775	1760	62	109,120
Lead glazed slipware	1670-1795	1733	511	885,563
Jackfield	1740-1780	1760	41	72,160
Clouded wares	1740-1770	1755	75	131,625
Luster wares	1790-1840	1815	15	27,225
Decorated delft	1600-1802	1750	166	290,500
Plain delft	1640-1800	1720	268	460,960
North Devon	1650-1775	1713	9	15,417
Buckley ware	1720-1775	1748	11	19,228
Creamware, cable	1790-1820	1805	12	21,660
annular	1780-1815	1798	3	5,394
blue transfer print	1765-1815	1790	1	1,790
undecorated	1762-1820	1791	582	1,042,362
Pearlware, blue hand painted	1780-1820	1800	2	3,600
blue transfer printed	1795-1840	1818	2	3,616
edged	1780-1830	1805	7	12,635
annular/cable	1790-1820	1805	1	1,805
molded	1800-1820	1810	10	18,100
undecorated	1780-1830	1805	32	57,760
Whiteware, undecorated	1820→	1860	2	3,720
			3858	6,741,314

6,741,314 ÷ 3858 ≈ 1747.4

suggests that Feature 1, for the porcelains, was the original dump location. In contrast, the distribution of mends for white salt glazed stoneware and delft, suggests that there was somewhat greater dispersion of these remains — somewhat more reflective of moving preexisting trash to the feature.

Container glass accounts for 5771 fragments or 46.4% of the Kitchen Group total. The most prevalent glass type is "black," comprising 84.2% of the glass found in Feature 1 (n=4857). In Feature 1, 43 bottles were identified: one with a basal diameter of 83 mm, eight with a basal diameter of 89 mm, 10 with a diameter of 95 mm, eight with a diameter of 102 mm, two with a diameter of 108 mm, seven at 114 mm, and seven at a diameter of 127 mm. These represent beer, probable undersized beer, and wine style bottles, dating from the 1730s to as late as about 1810. Figure 3 compares the size distribution of Feature 1 with that of overlying Area C. While bottles with a basal diameter of 102 mm dominate the Area C collection, the underlying feature includes a relatively even distribution of the sizes from 89 through 127 mm (108 and 121 mm diameters being the exceptions).

Other black bottles present include a snuff or blacking bottle, a case bottle, and a wide mouth jar, likely for bottling fruit. Case bottles had square cross sections, typically widening from the base to the shoulder with a short neck and an indented base. Designed to fit easily into a compartmented case or crate, they date from as early as the 1740s, but Noël Hume (1978:202) remarks that they were most common in the third quarter of the eighteenth century (although they continued to be produced into the nineteenth century). The wide-mouthed bottle was designed to store fruit or slow-pouring semi-liquids. Examples from Colonial Williamsburg were thought to contain cherry brandy or brandied cherries (Noël Hume 1969:40, Figure 34).

The next most common container glass was represented by 685 fragments of clear glass, including eight blown bottles, three flanged lip

pharmaceutical bottles, and one blown into mold¹³ bottle identified as a counterfeit of a Turlington's Balsam bottle, used for cologne. The eight clear bottles include one with a basal diameter of 1-inch, one at 1¼-inches, two at 2-inches, one at 2¼-inches, one at 3-inches, and two at 3½-inches. These might have been used for essential oils, medicine, food, or condiments. One of the most interesting examples is a counterfeit Turlington's bottle, with balsam spelled "balsom." Noël Hume (1969:43-44) indicates that these counterfeits provide a TPQ date of 1754.

One hundred twenty-four fragments of aqua glass were recovered from the feature. In spite of the quantity, however, only one container with a blown base and small diameter, could be definitely identified. It was likely a pharmaceutical vial. Eighty-nine specimens of light green glass were also recovered, representing at least one blown base container with a diameter of 1½-inches and a round pharmaceutical bottle with a diameter of about 1¼-inches. Feature 1 also produced 12 fragments of green glass, accounting for two containers, and four fragments of dark aqua glass.

Four hundred seven tableware items were recovered from Feature 1 at Area C, representing about 3.3% of the Kitchen Group artifacts. Included are four fragments of a pewter bowl, two plain bone utensil handles, three iron knife blades, and one two-tine iron fork fragment. While silver cutlery was widely used by the wealthy, Noël Hume (1978:180) understandably comments that they are rarely found archaeologically. Instead, examples such as these from Feature 1, tend to be found on even the wealthiest sites.

Like in the overlying Area C, the bulk of Feature 1 tableware items were made of clear glass. As MNV, these include nine goblets, three cups, eight tumblers, 10 bowls, and three decanters. The goblets represent extensive variety, but all were clearly well made and expensive items. The stems include one "two-ply corkscrew" design, two

¹³ In this technique, also known as contact molding, glass was blown into a full-size mold to form at least part, and at times all, of the vessel to finished size, shape, and pattern. (Jones and Sullivan 1985:23). The technique was widely used in the eighteenth century.

four-ply air-twists, one multiple spiral, one two-ply gauze with two-ply opaque strips, one spiral white opaque gauze twist within a two-ply twist, and two plain (see Bickerton 1971; McNally 1982). These are all examples of mid-eighteenth century stemware.

At least one of the cups appears to be a blown into mold punch cup with a net-like pattern.¹⁴ The other two, while less intact, evidence patterns of thin and thick ribs. The tumblers include three plain varieties with basal diameters of 2¼, 2½, and 3½-inches; one blown into mold tumbler with a net design measuring 2¼-inches at the base; and four blown into mold tumblers with a starburst design on their bases, measuring 2¼, 2½, 2¾, and 3-inches. Plain tumblers were common during the eighteenth and nineteenth centuries, although they were not necessarily "cheap," since glass was often sold by weight and tumblers, especially the leaded glass common at Broom Hall, tended to be very heavy (McNally 1982:63). The net design is described as "pattern-moulded diamonds" by McNally, who also remarks that:

I have found no parallel examples in the literature on glass history, but the excavation context at Fort Beauséjour suggests deposit during the first British occupation there, 1755-68, and similar tumblers found at Michilimackinac (Brown 1971:Figs. 13g, h) were presumably deposited between 1760 and 1781 (McNally 1982:64).

A similar time range seems reasonable for Charleston and its vicinity. The starburst design has rays radiating from a common center with no central facet (such as is found in the sunburst

¹⁴ McNally notes that "in Georgian England, male drinkers normally consumed their spirits in the form of punch (Francis 1972:156), a drink named after the Hindustani word for five because there were five standard constituents: rum, citrus juices, sugar, water and spices" (McNally 1982:95). While any glass would do, the wealthy tended to use specially designed punch glasses such as those recovered from Broom Hall.

pattern) and is illustrated by Jones and Sullivan (1985:Figure 49).

The 10 bowls found in Feature 1 include examples with both plain rims (and diameters of 4½, 5, and 6-inches) and rolled rims (and diameters of 4½, 4¾, and 5-inches). Such bowls might be used for serving food, mixing food, or holding water at the table. The sizes present in Feature 1, however, all appear to fall into the category of "finger bowls." Also called "wine glass coolers" or "wine glass rinsers," these forms were common at eighteenth and early nineteenth century high status sites.¹⁵

¹⁵ Warren notes that these vessels are often referred to as finger bowls, sometimes tumblers (which they are not), or mixing glasses. He notes that they:

have been variously used or thought to have been used for: (1), rinsing the mouth after eating; (2), rinsing the fingers after eating; (3), cooling wine glasses in chilled water at the table; (4), rinsing wine glasses at the table. It has been called a finger basin, a water glass and a wine cooler.

It is entirely possible that the bowl in question served all the purposes mentioned, with the period of one use overlapping the period of another. Also, one stratum of society might have adopted a secondary use earlier than another, or the changes may have been adopted in one locale sooner than in another (Warren 1970:137).

He goes on to cite several period accounts of using these bowls, typically in the mid- to late-eighteenth century. While he dismisses the possible use for cooling, claiming that use would imply the improbable dearth of glasses, this ignores the cost of ice and the Southern climate. It may be that chilling glasses was more economical of scarce resources than chilling bottles. Further, Jones and Sullivan (1985:132) observe that eighteenth century paintings of dining frequently show stemware upended in similar bowls. Roberts (1976:65 [1827]) suggests that the use of "cooler or finger glasses" was reserved for the most formal of diner parties. While a form not recovered from Broom Hall, Mudge et al. (1985:16) illustrate a monteith, commonly used to chill wine glasses, with the stems fitting in the troughs of "waves"

Two of the three decanters recovered from Feature 1 are elaborately engraved, "MADEIRA," similar to the one found in Area C.¹⁶ The third had a blown into mold net pattern, similar to that discussed earlier.

Thirty-four Kitchenware items were recovered from Feature 1. The most common were 18 fragments of thin iron containers having bowl forms. Too thin to be kettles, they were nevertheless associated with cooking. Ten kettle fragments were also recovered. One iron sieve or colander fragment was recovered. Also recovered were one large butcher knife blade, one fireplace hook, one fireplace trivet, one candle snuffer, and a lead seal marked with a face and "PEN//DEFEN". This seal measures 21 mm in height by 16 mm in width and consists of an oval lead disk and the remnant narrow band of lead. The trivet is a common three legged style of wrought iron and open face, characteristic of the eighteenth century. Kathryn McNerney notes that these were "used to hold hot dishes away from damage to (wood) surfaces, keep food warm at fireside and beside a table" (McNerney 1991:12).

Architecture Group Artifacts

A total of 3925 architectural fragments (excluding brick and slate) was recovered from Feature 1, representing about 22.8% of the total artifact assemblage.

along the border of the vessel.

¹⁶ The Island of Madeira in the Azores produced several wines, although that usually known by the name Madeira was a white wine. While out of fashion by the nineteenth century, it was still described as, "one of the richest wines in the world, having great strength, dryness, and delicacy of flavour. It is extremely durable in all climates, and is improved by age" (Reese 1847:622). Madeira was especially suited to Carolina, since it was improved by warm weather and was not to be stored in cold, under-ground cellars, but in warm parts of the house. Lounsbury (1994:407), describing the term "wine room," quotes an 1801 Charleston newspaper advertisement offering property for sale on the east side of Church Street with a wine room "over the carriage house," confirming the tendency to store at least some wines, like Madeira, in warmer locations.

The single largest category is that of nails, with the 2849 specimens accounting for 72.6% of the collection. Of these 1329, or 46.6%, can be discounted since they could not be either measured or identified as to type. One thousand two hundred eighty one (44.9% of the nails and 84.3% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 59.2% of the wrought nails; n=580), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 400 specimens or 40.8% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412).

Two hundred thirty nine cut nails were also found in Feature 1, 62 of which were intact. Of the intact machine cut collection, 90.3% have forged heads, suggesting their use during the period from about 1790 through 1820. Only six machine cut nails with cut heads were recovered.

As previously discussed, because different size nails served different self-limited functions, it is possible to use the relative frequencies of nail sizes to indicate building construction details. Table 12 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes.

The table reveals that the clasp headed wrought nails (T-heads), normally used for moldings, are primarily found in larger sizes in the Feature (as they were in Area C). This suggests perhaps larger, heavier moldings. It may also suggest their use in window and door fenestration. Rose headed nails are most commonly found in relatively small sizes, perhaps relating to their use to attach the slate shingles (discussed below). A greater quantity of wrought nails above 8d were found in the Feature than in the zones above, perhaps providing some greater evidence of framing. The number, however, is still so small that it may only indicate wood framing at the gable ends of an otherwise brick structure. The near absence of nails associated with heavy framing is likely an indication of a structure using traditional

Table 12.
Wrought and Cut Nails Recovered
from Feature 1, Area C

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
2d	1"	52	5		
3d	1¼"	292	16	1	
4d	1½"	193	45	2	
5d	1¾"	30	53	2	
Small timber, shingles		567	178	5	
%		97.8	29.7	8.9	
Combined %		70.0		8.1	
6d	2"	4	44	5	
7d	2¼"	5	62	18	1
8d	2½"	3	71	9	2
Sheathing and siding		12	177	32	3
%		2.1	44.3	57.1	50.0
Combined %		19.3		56.4	
9d	2¾"		47	9	3
10d	3"		25	5	
12d	3¼"	1	22	3	
Framing		1	94	17	3
%		0.1	23.5	30.4	50.0
Combined %		9.7		32.3	
16d	3½"		10	1	
20d	4"			1	
Heavy framing			10	2	
%			2.5	3.6	
Combined %		1.0		3.2	

peg construction. The machine cut nails generally resemble the distribution and use of the clasp headed wrought nails, reflecting greatest use for sheathing and siding and relatively limited use for roofing, attachment of plaster lathe, or attachment of molding. Since these nails likely reflect later repair work, it seems reasonable that they would be less used on interior and hidden work than on the repair of exterior detailing which received considerable weathering. While suggested originally based on the Area C assemblage, the additional information provided by Feature 1 still suggests, based on the relatively low density of nails in the 6d to 8d range, that the building at Area C was brick with only limited wood detailing (such as fenestration).

The next most common Architecture Group artifact is flat glass (all of which appears to represent window glass), accounting for 26.7% of the group (n=1043). Glass within the feature was

heavily fragmented, but like that found in the overlying Area C, exhibited a greenish tint, common to eighteenth century specimens (Noël Hume 1978:233).

Seven door lock parts were recovered from Feature 1, including three lock box fragments and one plain brass disk-rose. One was a rim lock fragment, measuring 2½ by 4¼ by ¾-inches, while the other two were lock box fragments (measuring 2¼ by 3½ by ¾-inches and 3½ by 6¾ by ⅞-inches). In each case we find that the basic proportions of English locks for the eighteenth century were maintained (that is, the length was typically one and half to one and three-quarters the width of the box) (Streeter 1974b:41). All three are rather small, suggesting use on closets or interior doors. Also recovered was the thumb latch assembly of cast iron from a Suffolk door latch. Associated with main entrances, this hardware likely appeared in the late eighteenth or early nineteenth century (Streeter 1971:12-13). Also included in the door lock category was one broken latch. It was too fragmentary to determine if it was also associated with a Suffolk, or possibly Norfolk, door latch assembly, or if it was perhaps a shutter latch.

Twenty-six fragments of construction hardware (loosely interpreted to include nineteen delft tile fragments) were also recovered from Feature 1. Like those from Area C, they range in thickness from just under ¼-inch to almost exactly 5/16-inch, indicating use for fireplace and wall skirtings (as opposed to flooring tiles which were substantially thicker). Seven strap hinges were also identified in the collection, three of which were intact and yielded leaf lengths of 2½, 3, and 4-inches.

While not included in the Architecture Group tabulations, samples of slate were collected from the excavations in Feature 1. All of the samples are identical to those recovered from Area C. The quantity, and size, of this material suggests that the structure was roofed in slate, most of which had been salvaged before the demolition of the building. Also present were six fragments of red paving tiles, typically used as flooring for kitchens, dairies, and hearths. They measure 3



Figure 46. Artifacts from Feature 1 in Area C. A, goblet stem with 4-ply air twist stem; B, goblet stem with spiral gauze opaque white twist within a 2-ply twist; C, lead seal; D, goblet base; E, punch cup; F, Madeira decanter; G, bone utensil handle; H, two-tine fork; I-J, brass finials; K, brass drawer pull; L, furniture catch; M, kaolin pipe, foot with T and D below hearts; N, kaolin pipe bowl with "WG" motif; O, kaolin pipe bowl with "TD" motif.

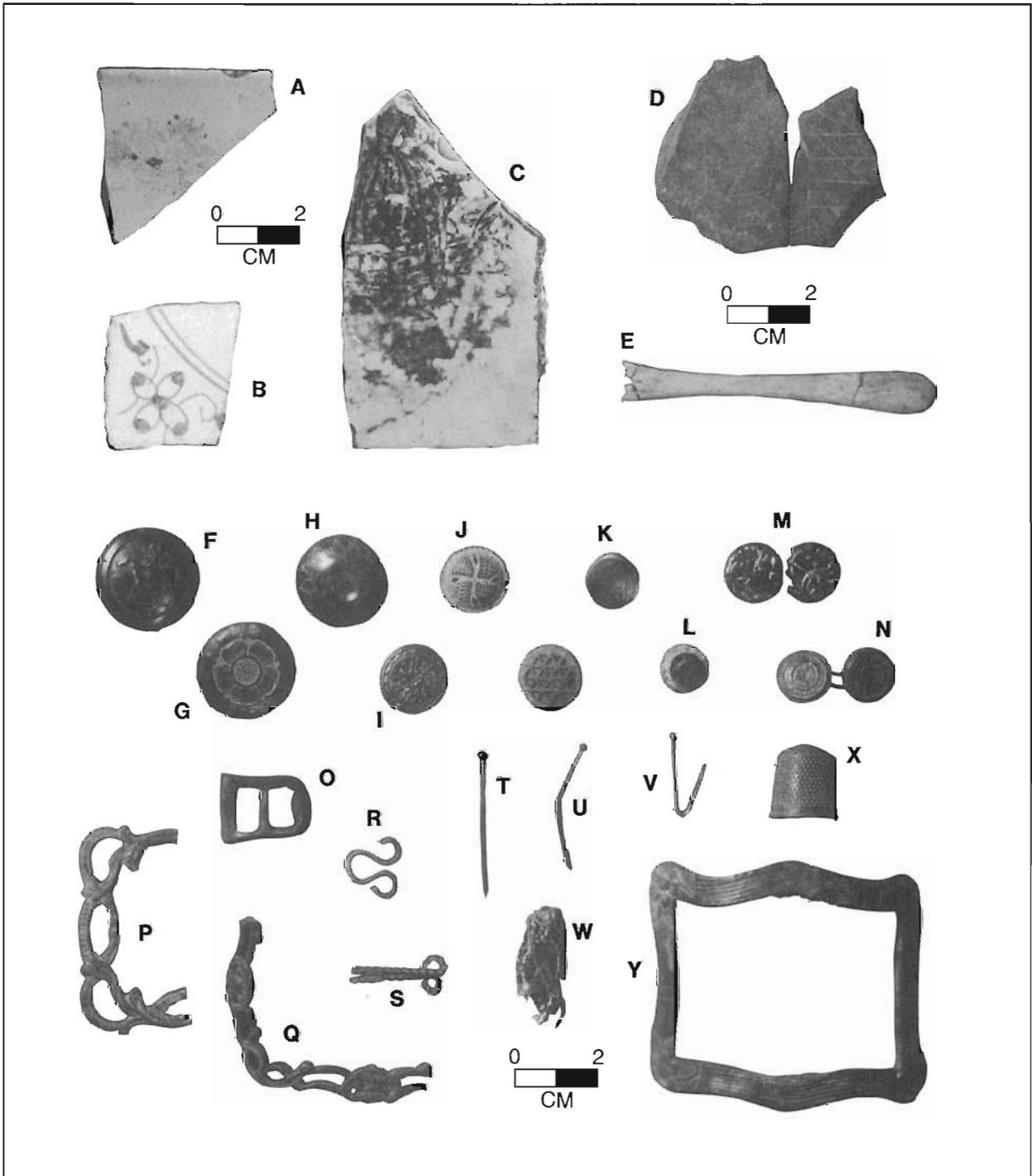


Figure 47. Artifacts from Feature 1 in Area C. A, delft tile with remnant overglaze decoration; B, delft tile with "bug" or "spiders head" motif; C, delft tile with female figure (note mortar grout on edges); D, counting slate; E, bone toothbrush handle; F-K, examples of brass buttons; L, brass button with glass insert; M-N, brass cuff buttons; O, brass buckle; P-Q, brass shoe buckles; R, brass clothing eye; S, brass clothing hook; T-V, silvered brass pins; W, tassel; X, thimble; Y, brass shoe buckle.

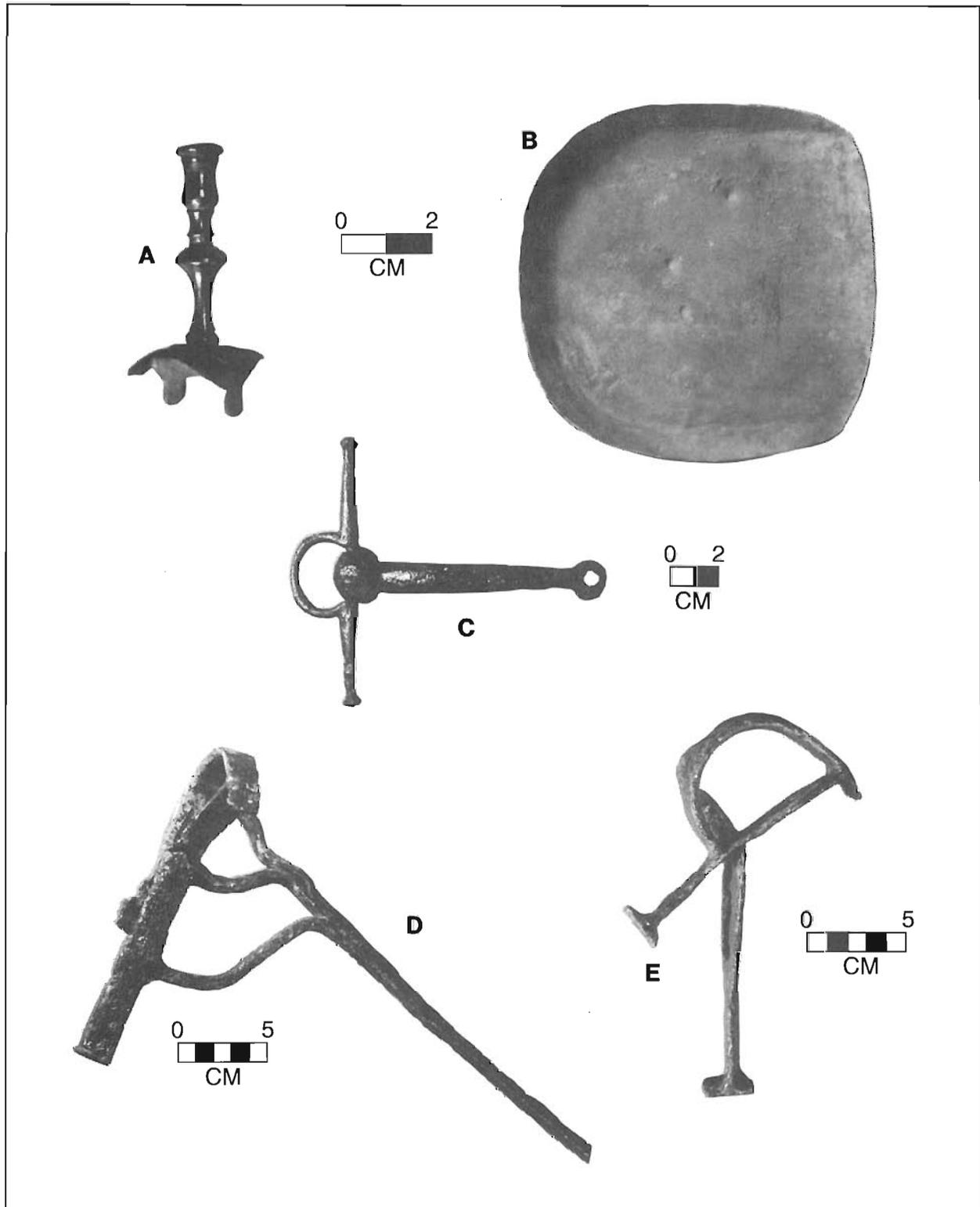


Figure 48. Artifacts from Feature 1 in Area C. A, toy brass candlestick; B, brass scale tray; C, snaffle bit; D, branding iron, view from side; E, branding iron, view of brand.

9/16-inches in width and 1 $\frac{5}{8}$ -inches in thickness. They are a dark reddish brown (10 R 3/4) in color. Given the context of this building, it seems likely that they were used around the hearth, although this is entirely supposition.

Furniture Group Artifacts

Thirteen furniture artifacts items, representing 0.1% of the total collection from Feature 1, were recovered. These include one flat glass mirror fragment, four brass tacks, two iron tacks, one iron handle, three brass knobs, and two fragments of a brass furniture latch which mend.

The handle is an angular bar (similar to that illustrated by Stone [1974:Figure 120a]), measuring 4-inches in length, from a swing bale handle. This style was most common on furniture in the period from 1740 through 1790, but of course continued later, especially on utilitarian items. The associated lugs were not recovered. The three brass knobs include one round, or ball shaped, brass knob almost certainly used as a drawer pull. This example, measuring 1 $\frac{1}{4}$ -inches in height and 1 $\frac{3}{8}$ -inches in diameter, would have been attached using a central screw passing through the knob and into the wood. The other two examples are more likely decorative finials. One measures 1 $\frac{7}{8}$ -inches in height and would have been attached using a pin or screw passing through the knob or finial. The other, highly decorative, measures about 3 $\frac{1}{2}$ -inches in height. At its base is a threaded hole $\frac{3}{8}$ -inch in diameter. The latch, of cast brass, measures 3 $\frac{1}{2}$ -inches in length and 1 $\frac{7}{8}$ -inches in width. It represents what is often called a cupboard latch and it has a central knob which, when pulled out, releases the catch. The keeper was not recovered.

Arms Group Artifacts

Arms artifacts, like in the overlying Area C deposits, are uncommon in Feature 1. Recovered was one lead shot, measuring 15.5 mm (0.61-inch) in diameter. Also recovered was what originally appeared to a pistol barrel. Upon closer examination, however, the specimen, measuring 223 mm in length, was discovered to be a longarm which had been cut down. The piece was examined by Dr. Jack Meyer (personal communication 1995)

who identified it as a British flintlock musket, commonly known as a "Brown Bess." These were produced from 1730 through the Napoleonic Wars and all had a caliber of approximately .75. This particular weapon was likely a second or third model, suggesting a date after 1768.¹⁷ Meyer also noted that the cut was very crude, almost certainly indicating that it was done by someone not familiar with gunsmithing. The resulting cut and burr was so pronounced that had the weapon been shortened for use, it would no longer have fired true. While it is possible that a weapon with a burst barrel had been cut down simply to fire powder (perhaps to frighten birds from rice fields), it seems more likely that the barrel was removed for some other function.

Tobacco Group Artifacts

Feature 1 produced 642 tobacco artifacts (representing 3.7% of the total assemblage), including 521 pipe stem fragments and 121 pipe bowl fragments.

Of the 121 bowls, 120 were made of kaolin clay and one was made of red clay. This one item, perhaps made by a local potter, was decorated with molded ribs, called "pillars" by Noël Hume (1978:307), who places the style from the late eighteenth century. Of the 120 kaolin pipe bowls, 99 were plain, three were plain but had feet without any markings, and one was plain with a foot marked "W/G." Stone (1974:Figure 78) illustrates an identical pipe, but offers no additional information concerning its origins. Its

¹⁷ There were basically four models of the "Brown Bess." The first pattern was a graceful weapon with a 46-inch barrel and distinctive brass furniture, first produced between 1710 and 1720. Not long afterward the second model appeared. In most respects it was similar, but the barrel was reduced to 42-inches. During their time they were known as the Long and Short Land muskets. In 1768 the short musket became the standard arm, with the long model disappearing from use. A shortage of longarms at the outbreak of the war with France led to the adoption in 1794 of the East India Company's inexpensive and easily made musket with a 39-inch barrel. Known as the India pattern, it was produced to about 1815. The last model "Brown Bess," a better made weapon called the New Land musket, was introduced about 1802 (Patterson 1964:67).

presence at Fort Michilimackinac, however, suggests an eighteenth century date for this style. One was plain except for a foot marked on either side with a shield, while on the base of the pipe was a crown and the number "65." Thirteen examples of the "TD" pipe bowls were found and one was marked "2/TD." Another pipe bowl was marked on opposite sides with "W" and "G." One bowl had a floral design.

The most common diameter pipestem is 5/64-inch, accounting for 61.4% of the collection (n=320), followed by 4/64-inch (181, 34.7%). Thirteen examples had bores measuring 6/64-inch and seven were too fragmentary to measure. Most have no decoration or information on their manufacturer. However, on those having a 5/64-inch bore, one has a partial bowl stamped "N/G." Two include partial "T/D" bowls with plain feet. Two have feet, one of which is marked "T/D" and another is similarly marked, except that a small heart appears over the letters. One example of a foot exhibiting a fleur-de-lis on its base was recovered from the feature. Two stems were decorated were rouletting. The 4/64-inch bore stems include one with a foot, four with plain bowl fragments, and one with a ribbed foot. There were two examples of "T/D" bowls with plain feet attached to the stems.

A very few (1%) of both the 4/64 and 5/64-inch stems exhibit glaze at their tips. Three were recovered with a green glaze, one with a gray glaze, and one with red-brown glaze. Noël Hume notes that glazed stems "appear[s] to have been an eighteenth-century innovation and were by no means common" (Noël Hume 1978:302).

Clothing Group Artifacts

This category includes 39 buttons or fragments and 38 other clothing items, accounting for 0.4% of the total assemblage from Feature 1. The buttons, classified by South's (1964) types, are listed in Table 13. Most (specifically Types 1-16, 29 or 82.9% of the intact, typed buttons) are thought

Table 13.
Buttons Recovered from Feature 1

Type	Description	#	Other (measurements in mm)
1	cast brass face, spun back	1	22.5
7	spun brass/white metal with eye cast in place	6	2-13.0 (representing matching cufflinks), 16.5, 2-17.0, 24.0,
9	brass flat disc, hand stamped face, no foot	2	13.5, 14.0
11	pewter/white metal, one-piece cast	3	16.0, 16.5, 18.0
15	bone disc, 1-hole	12	11.5, 2-14.5, 3-15.0, 15.5, 16.0, 2-20.0, 2-25.0
16	brass, face crimped on flat back, soldered eye	5	14.0, 16.0, 16.5, 23.0, 24.0 (1 with silver plate)
25	plain brass face, iron back and eye	2	17.0, 25.0 (pattern matches)
26	machine stamped brass face and back, eye loose	1	22.0
31	brass, spun back with drilled eye, green glass inset	3	13.0, 2-14.5
-	iron, badly corroded	1	28.0
-	white metal with faceted green glass inset	1	11.5
-	brass eye only	2	-

to date from the first three-quarters of the eighteenth century. The remaining six typed buttons are suggested by South to date from the nineteenth century.

Two of the buttons have identical face designs, suggesting the presence of a matched set. In addition, one of the buttons still evidenced a silver plate or wash. While this process of plating is more typical of the nineteenth century, it clearly had its origins in the eighteenth century. Two of the Type 7 "buttons" actually represent matched cufflinks, one of which still has the attached link, while the other is missing its eye.

Other clothing items include 16 buckles (made of iron, brass, white metal, and pewter), five brass grommets, one brass hook, one brass eye, one brass thimble, eight intact straight pins, seven straight pin fragments, and one medallion.

At least seven of the buckles are identifiable as shoe buckles, while one is likely a small strap buckle. The others are too fragmented for more positive identification. Of those called

shoe buckles, two are identified as Type V buckles made of all openwork brass frames which are rectangular in form with rounded corners (Abbitt 1973). Two are Type II buckles, with a decorated frame and right-angle corners. Unlike typical Type II buckles, however, one is made from a white metal. The other is identical to a shoe buckle illustrated by Calver and Bolton (1950:Plate B) as found at the Revolutionary War site of Fort Maldimand, Carleton Island. One brass buckle is of a form not typed by Abbitt and consists of a solid decorative cast brass frame with a bar between the buckle sides. It appears that both the leather, or strap, and the tongue were attached to this center bar. The size (1½ by 1-inches) suggests a woman's shoe. Two buckles, both of iron, represent backpieces for buckles.

The brass medallion measures 25 mm in diameter and has a post on the reverse. Cast on the face is a rider and horse (facing to the left), with the rider holding a whip. No similar item has been identified in our research.

Personal Group Artifacts

Twenty-six Personal Group artifacts were found in Feature 1, accounting for 0.1% of the assemblage. These items included 11 fragments of counting slate, two iron skeleton key fragments, six bone toothbrush fragments (representing three toothbrushes), one bone lace bobbin fragment, one brass bar pin fragment with a floral motif, one blue glass jewelry setting, one brass link (probably from a watch chain), two brass rings, and one tassel.

The counting slate fragments represent probably one slate, with two prepared edges identified during the reconstruction. This was distinguished from the roofing slate based on its color, texture, thickness, and edge finish. One key was nearly intact, measuring 6½-inches in length and was probably associated with a large rim lock, likely to an exterior entrance. The other key was more likely for an inner door or closet. Barbara Mattick has produced one of the few archaeological studies of toothbrushes commonly available. She notes that while toothbrushes were introduced into Europe in the mid-fifteenth century, the bone handled brush was not invented until 1780 (Mattick 1993:162). One of the brushes

is limited to 76 mm of the handle and neck, with four rows of holes apparent. The second example consists only of handle fragments. The third example is unusual, and is classified as a toothbrush for lack of better identification. A bone head, measuring 11.5 mm in width and 39.0 mm in length, was found with two rows of drawn bristles, seven tufts per row. There was no handle, although a hole was present on the long side for inserting some sort of narrow (3.5 mm) handle.

The glass setting has a diameter of 6.5 mm and was probably set in a finger ring. The upper surface is round and worn smooth. That part originally in the setting has eight facets. The height of the stone is 4 mm. The two brass rings are 12 and 13 mm in diameter and about 1 mm in thickness. Based on their size and wear, they appear to be either jewelry or possibly watch parts. The tassel recovered from the Feature 1 excavations consists of an unidentified fabric intertwined with silver thread. It measures 29 mm in length and is 6 mm in diameter. Although this is classified as a clothing item, it is possible that it represents either an upholstery or curtain ornament.

Activities Group Artifacts

This final artifact group includes 115 specimens (or 0.7% of the total Feature 1 assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96).

Tools include a scale tray, a bone backed brush, a hammer head, an ax head, and a sickle. The brass scale or balance tray measures 77 by 78 mm and may be associated with the weight found in Area C. The brush, found in three pieces, measures at least 59 mm in length and contained at least three rows of 12 holes. The hammer head measures 127 mm in length and the striking face is about 25 mm across. It does not have a two prong claw, but is more similar to a countersink hammer used by a farrier or a pick hammer used in slate making (see Mounted Service School 1910:Plate I-17; Seymour 1984:51; see also Stone 1974:Figure 187B). The axe head measures 185 mm from bit

to poll. The bit measures 108 mm, and the poll measures 75 mm. The style is common to the late eighteenth century. The sickle measures 318 mm in length (including the handle bit) and has a height of 140 mm. It closely resembles the rice hook from The Charleston Museum collections illustrated by Doar (1936: figure preceding page 19).

Toys, relatively uncommon, include only an iron jews harp, a bone die, and a toy candlestick. The first two are just as likely to be used by adults as children. The fragment of forged jews harp frame measures 40+ mm in length and 52 mm in width. The iron vibrator or tongue was not present. The bone die would originally have measured ½-inch square. The candlestick is made of white metal and, when intact, would have stood 2¼-inches high. This is a miniature form of a Queen Anne or baroque style, typical of the early eighteenth century, but dropping out of favor during the last half of the eighteenth century (Carpenter 1958:226).

The single fishing gear item was an iron hook measuring 1¾-inches in length. The hook had a flattened shank end and was barbed. While this example falls about midway in the size range reported by Stone (1974:244) from Fort Michilimackinac, it is somewhat narrower in width (⅝-inch or 16 mm as opposed to the reported range of 18.9 to 22.1 mm).

Storage items include 14 fragments of strap iron. Stable and barn items include a fragment of a pair of sheep shears, two branding irons, a stirrup fragment, and a snaffle bit fragment. Shears differ from scissors in that they are made from only one piece of metal; the two blades being connected by a strong spring bent like a bow. The example from Feature 1 consisted of one blade and the connecting spring, measuring overall 9¼-inches. These were most commonly used for shearing sheep (Reese 1847:345), a common task on Carolina plantations. One branding iron measures 5½-inches in length, 4¼-inches of which is handle. The brand, an "R," measures 1¼-inches in width and 3-inches in height. This specimen seems rather small, especially when compared to the other brand found in the feature. It may have been used for

branding barrels or other items prior to shipment. The second branding iron, also hand wrought, measures 17-inches in length, with the handle comprising 12½-inches of that length. The handle begins as a rectangular bar measuring ½ by ⅜-inch and tapers to a point, suggesting that this iron was also mounted on a wood handle for use. The brand is an intricately created, and reinforced, "PT," measuring 5½-inches in height and 6-inches in width. The "PT," it would seem, stands for the plantation's early owner, Peter Taylor. The size of the iron suggests use on animals, cattle being the most likely, since ranching with free roaming cattle was an early venture in Carolina. The stirrup fragment measures 102 mm in height and 128 mm in width. Noël Hume comments that stirrups have received little typological attention, but notes that:

In the latter years of the seventeenth century the principal type ... had a solid rectangular plate for the platform while the sides described what was left of a circle; the strap loop emerged from it in a shallow rectangle, with the top bar being a little longer than the width required by the sides ... The same basic stirrup shape continued through the eighteenth century, though later in the period the sides curved less while the square-ended platform became oval (Noël Hume 1978:242-243).

Consequently, the specimen recovered from Feature 1 probably dates from the first three-quarters of the eighteenth century. The final item was half of a snaffle bit (see Noël Hume 1978:240). This form of bit was used throughout the eighteenth and nineteenth centuries.

Hardware items included two staples, one brass nail, two wood screws, two lengths of chain, and 11 brass rings. Brass nails were perhaps most often used in shipbuilding, although this one fragment may also be part of a large brass rivet. The 11 brass rings may have served any number of purposes, including pulls for furniture. Absent any clear functional association, they are included in this miscellaneous hardware category. "Other"

includes 28 flint cobbles, 2 fragments of copper wire, 3 fragments of iron wire, 17 unidentifiable or unidentified iron fragments, six unidentifiable or unidentified brass items, three unidentifiable lead fragments, two strips of lead (possibly fragments of turned lead for windows¹⁸) two brass strips, four lumps of melted lead, and three fragments of worked bone (one of which may represent a gaming piece).

Area D

Area D has been defined as a yard area, through which passed a brick wall and planting bed, probably part of the parterres found behind the main house. Excavation of four 10-foot units yielded 6161 artifacts or 15.4 artifacts per square foot or 15.8 artifacts per cubic foot of primary excavation.

Kitchen Group Artifacts

Area D produced 3493 Kitchen Group artifacts, representing 56.7% of the total assemblage from the block excavation. The most common Kitchen Group artifacts are ceramics (accounting for 2026 specimens or 58.0% of the group total), followed by glass (820 specimens or 23.4%). Colono wares contributed 595 specimens (accounting for about 17.0% of the collection) and will be discussed in a following section. Thirty seven tableware items were recovered along with 15 kitchenware specimens.

The pottery recovered encompasses a wide range of eighteenth and early nineteenth century ceramics, but is dominated by lead glazes slipwares and creamwares. Relatively few examples of clouded wares, Westerwald, white salt glazed stonewares, or delft were recovered from this particular site area. The latest ceramics recovered, which provide the TPO of about 1820 for this particular excavation block, are the 11 whitewares (which represent 0.65% of the dateable wares).

¹⁸Noël Hume (1970:233) notes that while the lead strips into which window glass was set are often known as "comes," this actually applies only to the lead prior to its use in the window.

Table 14.
Major Types of Pottery in Area D

Porcelain	294	14.5%
Stoneware	296	14.6%
Brown	98	
Blue/Gray	71	
White	120	
Other	7	
Earthenware	1436	70.9%
Slipware	483	
Refined	77	
Coarse	154	
Delft	135	
Creamware	389	
Pearlware	168	
Whiteware	11	
Other	19	

The major types of ceramics are shown in Table 14, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 87.2% of the ceramics. Utilitarian wares, such as the North Devon Gravel Tempered, Buckleywares, and red earthenware, account for about 12.8% of the collection.

The most common eighteenth century wares in Area D were the lead glazed slipwares, accounting for 483 examples. As elsewhere on the site, examples of pink and buff fired-clay bodies were encountered in Area D. Nineteen vessels were identified, including eight plates, only five of which have piecrust rims. Only one of these was sufficiently intact for an accurate vessel diameter of 11-inches. Seven bowl forms, two cups, and two mugs were recovered.

Creamwares were the next most common wares present, accounting for 389 specimens and 20 vessels. Of these, 352 or 90.5% were undecorated, with three examples of cable creamware, 30 annular wares, two hand painted wares, and two blue transfer printed examples. The undecorated wares include four plates, four bowls (one of which was 6-inches in diameter), two cups, one ointment jar form, and one pitcher. Molded examples include three plates, one bowl, one saucer, and a lid to a serving vessel. The hand painted wares included one plate and one bowl. While the ointment or apothecary jar form is

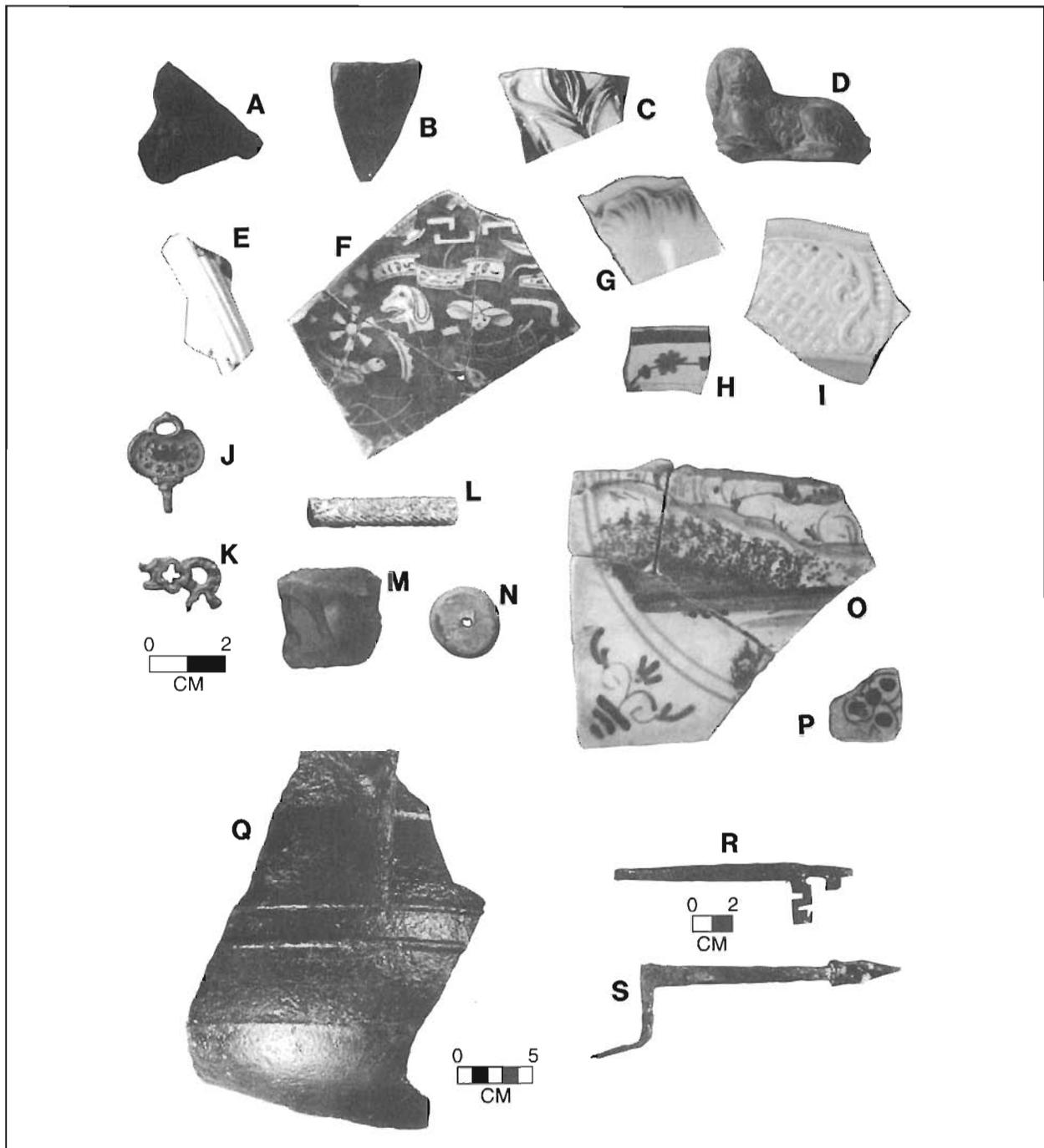


Figure 49. Artifacts from Area D. A, black basalt (drape and cord motif); B, Astbury ware; C, Rhenish ware; D, black basalt dog knob; E, intertwined handle for creamware teapot; F, blue transfer printed pearlware; G, green edged pearlware; H, polychrome hand painted pearlware; I, white salt glazed stoneware (star and diaper pattern); J, brass key fragment; K, brass shoe buckle fragment; L, kaolin pipe stem; M, gunflint; N, lead fishing weight; O, delft tile (landscape and "ox-head foliate" pattern); P, delft tile ("bug" or "spider's head" pattern); Q, kettle; R, key fragment; S, shutter dog.

unusual for creamwares, Walton (1976:197) does illustrate a mustard jar form of creamware, suggesting that such utilitarian forms were available.

Chinese porcelains, previously the most common of the eighteenth century wares, rank third in Area D. Of the 294 fragments identified, 168 (57.1%) were underglazed blue and 43 (14.6%) were overglazed enamelled. The remainder include 83 examples of a plain white porcelain. Forty vessels were identified, including four of undecorated or plain porcelain (10.0%), 32 of blue hand painted porcelain (80.0%), and four of overglazed enamelled porcelain (10.0%).

The plain, white porcelain included two bowls and two saucers. The blue hand painted porcelain included 10 plates, 17 bowls, and five saucers. The overglazed enamelled porcelains included one plate, two bowls, and one cup.

Nineteenth century pearlwares are the fourth most common ceramic in Area D, accounting for 168 fragments and 25 vessels. Although plain pearlware was the most common (78 specimens or 46.4%), 37 edged wares, 20 blue hand painted wares, 20 annular or cable wares, five polychrome hand painted, and eight blue transfer printed fragments were also recovered. The plain pearlwares include one plate and one bowl; the blue hand painted pearlwares include five bowls; and the polychrome hand painted pearlware and annular pearlware both account for one bowl. Green edged pearlwares include 11 plate forms (one of which may represent a platter) a pitcher, and two bowls.¹⁹ The blue transfer printed pearlwares include one plate and one bowl.

¹⁹While "edged wares" are generally confined to flatwares, the motif is also found on sauce boats, tureens, and butter boats (Miller 1991a:6). Colonial Williamsburg has at least one edged tea cup in its collection. Cushion (1976:234) also illustrates asparagus stands, a compotier, and oval salad bowl with this motif. Feild (1987:32) illustrates an "elegant leaf-moulded early 19th century Davenport dinner service" which is edged. The specimens from Broom Hall are typically oval, 1 to 1½-inches in depth and perhaps 6-inches in length. They appear to represent what some call salads.

Delftware, both plain and decorated, contributed 135 fragments or nine vessels. Plain delft is represented by one ointment jar, while the decorated delft include five plates (one with a diameter of 8-inches), two bowls, and a lid to a jar (perhaps an ointment jar). The last of the large collections from Area D is a collection of 120 white salt glazed stonewares, accounting for 13 vessels. These include five plates (two plain, two molded, and one scratch blue), five bowls (two plain and three scratch blue), one plain saucer, and two plain jar forms.

This is one of the few proveniences at the site which contained black basalt stonewares. The five specimens account for one (MNV) teapot with a 4-inch diameter.

The collection, therefore, included 52 plates, 57 bowls, six cups, nine saucers, two mugs, two jars, two teapots, three lids (one to a serving vessel), two ointment containers, and two pitchers. Table 15 illustrates this distribution, revealing the dominance of tablewares. Within this category flatware and hollowwares are nearly equal (accounting for 44.5% and 41.6% respectively). Serving vessels are limited to, at most, four examples (depending on the function ascribed to several of the lids). Teaware accounts for less than 8% of the collection, standing in dramatic contrast to the contribution of these forms in Area C and Feature 1. Utilitarian wares appear relatively consistent with the other areas examined,

Table 15.
Shape and Function of Ceramic
Vessels in Area D

Shape	#	%
Tableware	122	89.0
Plates/saucers	61	44.5
Bowls	57	41.6
Serving	4	2.9
Tea and Coffeeware	10	7.3
Utilitarian	5	3.7

accounting for about 4% of the collection.

From Area D, 595 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 22.7% of

Table 16.
Mean Ceramic Date for Area D

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	43	74,390
Underglazed blue porcelain	1660-1800	1730	168	290,640
Nottingham stoneware	1700-1810	1755	33	57,915
Westerwald	1700-1775	1738	36	62,568
White SGSW	1740-1775	1758	97	170,526
White SGSW, scratch blue	1744-1775	1760	23	40,480
Black basalt	1750-1820	1785	5	8,925
Lead glazed slipware	1670-1795	1733	483	837,039
Jackfield	1740-1780	1760	34	59,840
Clouded wares	1740-1770	1755	3	5,265
Luster wares	1790-1840	1815	11	19,965
Decorated delft	1600-1802	1750	79	138,250
Plain delft	1640-1800	1720	56	96,320
North Devon	1650-1775	1713	3	5,139
Buckley ware	1720-1775	1748	70	122,360
Creamware, cable	1799-1820	1805	3	5,415
annular	1780-1815	1798	30	53,940
blue hand painted	1790-1820	1805	2	3,610
blue transfer print	1765-1815	1790	2	3,580
undecorated	1762-1820	1791	352	630,432
Pearlware, blue hand painted	1780-1820	1800	20	36,000
poly hand painted	1820-1840	1805	5	9,025
blue transfer printed	1795-1840	1818	8	14,544
edged	1780-1830	1805	37	66,785
annular/cable	1790-1820	1805	20	36,100
undecorated	1780-1830	1805	78	140,790
Whiteware, undecorated	1820→	1860	8	14,880
blue transfer printed		1848	2	3,696
non-blue transfer print		1851	1	1,851
			1713	3,012,123

$3,012,123 \div 1713 \approx 1758.4$

the total. This is very close to the figures found for Area C and underlying Feature 1 and continue to suggest either a strong African occupation at the site, or minimally, a strong contribution by these local, low-fired earthenwares. They are further described in a following section of this report.

The mean ceramic date for Area D is shown in Table 16. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact

present in the assemblage. The TPQ date for Area D is about 1820 and is based on the 11 whiteware ceramics. The MCD for Area D is only about a decade later than that derived for the Area C assemblages, seemingly consistent with these areas being used at about the same time.

Container glass accounts for 820 fragments or 23.5% of the Kitchen Group total. The most prevalent glass type is "black," comprising 75.7% of the glass found in Area D (n=621). This assemblage, however, accounts for only five "wine" bottles. The next most common container glass was represented by 91 fragments of clear glass, including three blown bottles: one under an inch in diameter, one 2-inches in diameter, and one three-inches in diameter. A fourth base, measuring 4½-inches in diameter was also present, but its manufacturing technique is not obvious. Fifty-three fragments of green glass were recovered, accounting for at least two bottles, one with a basal diameter of 1¼-inches and one with a diameter of 3½-inches. Light green glass accounted for 37 fragments, including one probable pharmaceutical vial. Eleven fragments of aqua glass, four fragments of blue glass, two pieces of emerald green glass, and one amber sherd were recovered from the excavations.

Thirty-seven tableware items were recovered from Area D, representing about 1.1% of the Kitchen Group artifacts, noticeably less than found in nearby Area C or Feature 1. Included are one fragment of a pewter utensil, the tip of an iron knife, and an iron spoon fragment which originally would have had a bone or wood handle.

The bulk of Area D tableware items were made of clear glass. As MNV, these include five goblets, one punch cup, five tumblers, one bowl, and an unidentified vessel with molded panels. The goblets, in comparison in Area C and Feature 1, are all plain stemmed and rather fragmentary. The tumblers include two with etching, including

one floral pattern and one with wavy lines. One tumbler had a cut geometric design.²⁰

Fifteen Kitchenware items were recovered from Area D. The most common were 8 kettle fragments. Related to cooking, however, were two iron container lid fragments, one iron pot handle, and one iron plate (i.e., griddle) fragment. Also recovered were two fragments of lead foil and a brass container fragment.

Architecture Group Artifacts

A total of 2059 architectural specimens (excluding brick and slate) was recovered from Area D, representing about 33.4% of the total artifact assemblage.

The single largest category is that of nails, with the 1655 specimens accounting for 80.3% of the collection. Of these 789, or 47.7%, can be discounted since they could not be either measured or identified as to type. Eight hundred sixty-five nails (52.3% of the nails and 99.9% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 51.4% of the wrought nails; n=221), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 209 specimens or 48.6% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). Only one cut nail was recovered from Area D and it has a hand forged head, suggesting manufacture during the period from about 1790 through 1820.

As previously discussed, because different size nails served different self-limited functions, it is possible to use the relative frequencies of nail sizes to indicate building construction details. Table 17 lists nails by both penny weight sizes and

Table 17.
Wrought and Cut Nails Recovered from Area D

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
2d	1"	42	6		
3d	1¼"	88	14		
4d	1½"	14	13		
5d	1¾"	15	24		
Small timber, shingles		159	57		
%		71.9	27.3		
Combined %			50.2		
6d	2"	22	38		
7d	2¼"	13	25		
8d	2½"	12	40		
Sheathing and siding		47	103		
%		21.3	49.3		
Combined %			34.9		
9d	2¾"	5	21		
10d	3"	2	21	1	
12d	3¼"	3	7		
Framing		10	49	1	
%		4.5	23.4	100.0	
Combined %			13.7		100.0
20d	4"	2			
30d	4½"	3			
Heavy framing		5			
%		2.3			
Combined %			1.2		

the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes. The results of this analysis, however, must be carefully interpreted since Area D fails to reveal clear evidence of any structural remains (excepting the relatively large quantity of slate present in the excavations). Consequently, the nails (and other architectural items) may simply reflect sheet midden — items which became incorporated in yard areas because they were relatively small. Some of the architectural items may also be associated with garden features — such as fences and gates. Alternatively, this area may reflect an earlier building episode, prior to the creation of the garden parterre.

²⁰Cut designs are produced on the glass surface using wet sand and grinding wheels, with most being geometric (see Jones and Sullivan 1985:56).

The table reveals that the clasp headed wrought nails (T-heads), normally used for moldings, are primarily found in larger sizes in the excavation block (as they were in Area C and Feature 1). When associated with buildings, this suggests their use in window and door fenestration. Rose headed nails are most commonly found in relatively small sizes, perhaps relating to their use to attach slate shingles, found throughout the plantation setting. The low quantity of nails associated with heavy framing is consistent with structures using pegged construction techniques. The presence of larger nails, in a yard context, may also relate to the presence of fences or sheds. The near absence of machine cut nails suggests that the architectural debris predate about 1790.

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 17.9% of the group (n=369). Door lock parts include one door latch catch. Construction hardware includes 29 fragments of delft tile (exhibiting both pink and buff bodies), one fragment of worked white marble,²¹ one brown sandstone fragment (measuring 6 by 5 by 1½-inches and possibly representing a fragment of a step), one shutter dog, one hinge fragment, and one drive pintle fragment.

Two mending fragments of window glass have two parallel lines engraved on them. These resemble initial scribe marks were not cut. The delft tiles in this area are somewhat more intact than found in Area C. One exhibited a sponged decoration, another was blue handpainted, while a third was polychrome. None, however, were sufficiently intact to allow reconstruction of specific designs. The wrought latch bar catch, also known as a keeper, would have been driven into the door frame to catch, or secure, the latch itself (similar examples are illustrated by Stone (1974:Figure 147; Streeter 1971:18). It may have been associated with a Norfolk thumb latch assembly and is typical of eighteenth century hardware. The wrought

²¹This is an example of what is usually called English marble, which is actually a relatively soft limestone which can be easily polished. It was often used for flooring, tombstones, fonts, and chimney pieces (Lounsbury 1944:224).

hinge fragment is the terminal end of what was probably a strap or pintle hinge. The single shutter dog found in Area D was a spring type, measuring 150 mm in length and 50 mm in height. Streeter (1975:53) notes that this style, being more difficult to manufacture to the close tolerances necessary for easy operation, was likely to be more expensive than the more common swivel types.

The brownstone step, white marble, slate fragments, and plaster remains found in Area D add another dimension. These remains, plus those previously discussed, are consistent with the types of debris likely to be found associated with a structure. However, lacking any feature remains, these materials may represent items scattered from Area C, or anywhere else on the plantation (including a nearby, but undiscovered, structure).

Furniture Group Artifacts

Fifteen furniture artifacts items, representing 0.2% of the total collection from Area D, were recovered. These include 10 brass tacks, one decorative tack head (minus its shank), two brass drawer pulls, one worked marble fragment, and one iron escutcheon.

The decorative tack head is large (15.9 mm) and has a stamped starburst pattern. The marble box top fragment is 4.8 mm in thickness and is made from a mottled purple, brown, and white marble which was highly polished. The iron escutcheon might have been associated with a simple swing bale handle. The two brass pulls are more elaborate. One is a small wire pull with iron screw thread for attachment on the reverse of the drawer. The size (35.7 mm in length and 10.2 mm in clearance or height) suggests that it might have been used with a very delicate piece. The other is a small, fixed, drop knob, measuring 17.8 mm in length.

Arms Group Artifacts

Arms Group artifacts account for 0.1% of the total Area D assemblage and include five gun flints and three lead shot. The flints include two which are typically classified as English (being black and gray in color) and two usually classified as French (being tan and honey colored). The fifth specimen is burned and spalled. The lead

shot included one specimen 6.8 mm in diameter and two measuring 8 mm in diameter. These sizes closely approximate what today are known as No. 2 and No. 0 buckshot (used for larger game). Hamilton (1980:135) notes that both sizes were historically used in deer hunting.

Tobacco Group Artifacts

Area D produced 436 tobacco artifacts (representing 7.1% of the total assemblage), including 353 pipe stem fragments and 83 pipe bowl fragments.

Of the 83 bowls, 68 (81.9%) were plain. Of the 15 decorated examples, nine had molded vertical ribs, one was decorated with a floral motif, one had an incised design, one was rouletted around the bowl rim, one had a molded "TD" cartouche, and the design on the final example was not identifiable.

The most common diameter pipestem is 5/64-inch, accounting for 62.9% of the collection (n=222), followed by 4/64-inch (112, 31.7%). Seventeen examples had bores measuring 6/64-inch, one had a bore diameter of 7/64-inch and one was too fragmentary to measure. Only nine specimens have any form of decoration and none provide information on their manufacturer. Three specimens (two 4/64 bores and one 5/64-inch bore, accounting for 0.6% of the total collection) exhibit brown glaze on the tips. As previously discussed, this seems to be limited to eighteenth century examples (Noël Hume 1978:302). Three have molded designs, one is scalloped, one has vertical ribs, and a final example is rouletted.

Clothing Group Artifacts

This category includes 24 buttons and five other clothing items, accounting for 0.5% of the total assemblage from Area D. The buttons, classified by South's (1964) types, are listed in Table 18. Most (specifically Types 1-15, 19 or 82.6% of the intact, typed buttons) are thought to

Table 18.
Buttons Recovered from Area D

Type	Description	#	Other (measurements in mm)
7	spun brass/white metal with eye cast in place	11	14.0, 14.4, 15.3, 16.0, 16.3, 16.9, 17.5, 18.3, 18.4, 21.6
8	molded white metal with eye boss	2	22.0, 32.0
9	brass flat disc, hand stamped face, no foot	4	12.2, 12.5, 14.0, 23.2
15	bone disc, 1-hole	2	13.0, 23.0
18	stamped brass	1	19.0 (reverse, "ROBSON")
28	brass, concave back, stamped	1	19.0 (reverse, "Gilt" with wreath)
31	brass, spun back with drilled-eye, green glass inset	3	19.7
-	iron with four recessed holes	1	16.7
-	clear glass inset	1	-

date from the first three-quarters of the eighteenth century. The remaining three typed buttons are suggested by South to date from the nineteenth century.

Other clothing items include two iron buckles, one white metal buckle, and two fragmentary scissor blades. The iron buckles measure 39 by 33 mm and 33 mm square. The white metal buckle is a Type II in Abbitt's (1973) classification. The length cannot be determined, but the height is 32 mm. Like those recovered in Feature 1, the size is consistent with a woman's shoe.

Personal Group Artifacts

Four Personal Group artifacts were found in Area D, accounting for 0.1% of the assemblage. These items included four key fragments and one glass bead. The bead is milk, or opaque, glass. It measures 12 mm in length and 7.2 mm in diameter. One of the keys is made of brass and was probably used with a clock. A second key consists only of the bow, which is intricately stamped brass. The size and design suggests use with a furniture lock or perhaps a clock. The third key, made of iron, includes only the stem and bit.

The size of this key suggests use in a padlock or hasp lock (see Stone 1974:229).

Activities Group Artifacts

This final artifact group includes 117 specimens (or 0.7% of the total assemblage.) The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96).

Tools include four triangular file fragments, two wood-working gouges²² (both with handle shafts), a crowbar fragment, a trowel blade, and a hoe blade. The single fishing gear item was what may be a lead weight. The specimen has the shape of flat, round disk, measuring 18 mm in diameter and 8 mm in thickness, perhaps being a reworked lead ball. A central hole is surrounded by 11 unequally spaced rays scratched into the lead. Storage items include nine iron strap fragments.

Hardware items include what appears to be a wrought nail with a large, round head; a wrought nail fragment with a brass head; two brass weights; and a chain link. While the nails are unusual (meaning that we could not immediately identify similar items in the literature), they likely represent specialized components of unrecognized artifacts. One brass weight, conical in shape, measures 8 mm in height and 16 mm in diameter. Somewhat similar weights are illustrated by Neumann and Kravic (1975:237), who also note that some weights were simply improvised items. The other is rectangular, measuring 18 by 7 by 7 mm. Identical weights are illustrated by Jackson (1981:10), Neumann and Kravic (1975:237), and Stone (1974:Figure 197), suggesting that they were among the most common. Curiously, both a weight and a scale pan were recovered from the excavations at Area C and Feature 1. The abundance of measuring related items at Broom Hall suggests that one of its occupants may have been skilled at preparing medicines. The practice of homeopathic medication by plantation owners was not uncommon and domestic medicine chests

²²These are also known as round chisels.

might include scales, a minim measure, glass slabs for mixing ointments, perhaps a mortar and pestle, and common ingredients. In this regard, it is interesting to note that a collector has reported finding a brass fleam, or bleeding bowl, at the site.

"Other" includes 27 flint cobbles and flakes, some likely representing the reworking of gunflints, or perhaps some even representing efforts to produce gunspalls from ballast stones. Examples of honey, black, gray, and olive green flints and cherts are present. Also recovered were 12 brass items, including five unidentified brass fragments, three brass strips (one of which is embossed), two brass rings (which may represent drawer pulls), one brass wire fragment, and one cut brass sheet fragment. Iron objects include 43 unidentifiable items and one iron cap, such as might be found on either a tool handle or perhaps a furniture leg. There were also recovered from Area D five lead puddles and one puddle of white metal. Finally, this category also includes four redware flower pot fragments.

Feature 2

Feature 2 in Area D represents a ditch, thought to be a planting bed, along a narrow brick wall. The feature contained 77 artifacts, including 46 Kitchen Group artifacts (59.7% of the assemblage), 26 Architecture Group artifacts (33.8%), and five Tobacco Group artifacts (6.5% of the assemblage.)

The Kitchen Group includes 18 ceramics, representing three plates (one blue hand painted porcelain, one undecorated delft, and one feather edged creamware) and one probable bowl (green edged pearlware). The mean date for these ceramics is 1743.4 (Table 19). The TPQ, however, is about 1780, based on the presence of the single pearlware ceramic. Also included in the Kitchen Group are 14 fragments of "black" wine bottle and 14 fragments of Colono wares.

The Architecture Group artifacts include one fragment of window glass, 17 unidentifiable nail fragments, and seven wrought nails (three rose heads 3d to 5d in length and two "T" heads, 10d and 12d in length), and one delft tile fragment. The only other artifacts present were three pipe stems with bore diameters of 5/64-inch, one with a

Table 19.
Mean Ceramic Date for Feature 2 in Area D

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Undeglazed blue porcelain	1660-1800	1730	5	8,650
White SGSW	1740-1775	1758	2	3,516
Lead glazed slipware	1670-1795	1733	3	5,199
Decorated delft	1600-1802	1750	1	1,750
Plain delft	1640-1800	1720	2	3,440
Creamware, undecorated	1762-1820	1791	1	1,791
Pearlware, edged	1780-1830	1805	1	1,805
			15	26,151

$26,151 \div 15 \approx 1743.4$

bore of 4/64-inch, and one undecorated kaolin pipe bowl fragment.

This assemblage, bearing a strong resemblance to that of the overlying zones, likely represents materials from the upper level which were incorporated into the feature during its creation. There is little evidence that the feature predates the upper zones or reflects any unusual depositional pattern.

Area E

Area E, recognized on the basis of several above grade brick piles, was identified as a probable stable or gig house. The excavations produced 1408 artifacts from 400 square feet, yielding an artifact density of 3.5 artifacts per square foot or 5.8 artifacts per cubic foot.

Kitchen Group Artifacts

A total of 925 Kitchen Group artifacts were recovered, most (422 or 45.6%) representing ceramics or glass (376 or 40.6%). Recovered were a range of eighteenth and nineteenth century ceramics, which while including porcelains, white salt glazed stonewares, lead glazed slipwares, and delft, was dominated by pearlwares and whitewares. The latest ceramics recovered, the whitewares, provide the TPQ date for Area E of about 1820. However, since the excavations represent sheet midden, there is clearly a long range of occupation.

The major types of ceramics are shown in Table 20, revealing that tablewares, such as the porcelains, white salt glazed stonewares, delft, creamwares, pearlwares, and whitewares account for 82.7% of the ceramics. Utilitarian wares, such as the brown stonewares and coarse earthenwares, account for about 17.3% of the collection, one of the highest percentages encountered at the main plantation settlement of Broom Hall.

The most common pottery found at Area E were the pearlwares, accounting for 23.5% of the ceramic collection. Of the 99 specimens, 38 (38.4%) were undecorated, 33 (33.3%) were blue transfer printed, 18 were annular or cable decorated, six were edged wares, three were blue hand painted, and one had a mocha motif. These accounted for 11 vessels

Table 20.
Major Types of Pottery in Area E

Porcelain	29	6.8%
Stoneware	72	17.1%
Brown	47	
Blue/Gray	11	
White	14	
Earthenware	321	76.1%
Redware	1	
Slipware	33	
Refined	4	
Coarse	20	
Delft	36	
Creamware	38	
Pearlware	99	
Whiteware	85	
Yellow ware	2	
Other	3	

(23.9% of the identifiable vessels from this area). These include two transfer printed plates, one blue edged plate, three green edged plates, one hand painted bowl, and four annular ware bowls.

Whitewares account for 85 specimens (20.1% of the total ceramic assemblage), including 37 (43.5%) blue transfer printed wares, 24 (28.2%) undecorated wares, 18 (21.2%) annular wares,

three blue edged, two green edged, and one polychrome hand painted. The whiteware yields a minimum of 10 vessels, including six plates (three blue edges, one green edged, one transfer printed, and one undecorated) and four annular ware

Creamwares, which include 37 fragments of undecorated ware and one specimen of an annular ware, produced a minimum count of two molded plates (feather edge pattern), one 8-inch diameter plain bowl, and one annular ware bowl.

Table 21.
Shape and Function of Ceramic Vessels from Area E

Shape	#	%
Tableware	39	84.8
Plates	24	52.2
Bowls	14	30.4
Serving	1	2.2
Tea and Coffeeware	5	10.9
Utilitarian	2	4.3

In all, Area E produced 24 plates, four cups, 15 bowls, one mug, one jug, and one lid (probably to a storage vessel), for a total of 46 vessels. Table 21 illustrates this distribution, revealing the dominance of tablewares, and (within this category) flatware. Teaware accounts for just over 10%, while utilitarian wares contribute just over 4% of the assemblage. While the teawares are not as abundant as in Area C and Feature 1, and the utilitarian wares are more common, this still appears to be a relatively high status collection of pottery.

Table 22.
Mean Ceramic Date for Area E

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	8	5,190
Underglazed blue porcelain	1660-1800	1730	26	44,980
Westerwald	1700-1775	1738	1	1,738
White SGSW	1740-1775	1758	14	24,612
Lead glazed slipware	1670-1795	1733	33	57,189
Jackfield	1740-1780	1760	3	5,280
Decorated delft	1600-1802	1750	10	17,500
Plain delft	1640-1800	1720	26	44,720
Creamware, annular	1780-1815	1798	1	1,798
undecorated	1762-1820	1791	37	66,267
Pearlware, mocha	1798-1890	1843	1	1,843
blue hand painted	1780-1820	1800	3	5,400
blue transfer printed	1795-1840	1818	33	59,994
edged	1780-1830	1805	6	10,830
annular/cable	1790/1820	1805	18	32,490
undecorated	1780-1830	1805	38	68,590
Whiteware, green edged	1811-1830	1828	2	3,656
blue edged	1811-1880	1853	3	5,559
poly hand painted	1826-1870	1848	1	1,848
blue transfer printed	1831-1865	1848	37	68,376
annular	1831-1900	1866	18	33,588
undecorated	1820→	1860	24	44,640
Yellow ware	1826-1880	1853	2	3,706
			340	609,794

$609,794 \div 340 \approx 1793.5$

From Area E, 119 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 22.0% of the total, only slightly less than found in Area C and Feature 1 and about the same percentage as found in Area D. This consistency in the main plantation settlement area will be discussed in a following section of this report.

The mean ceramic date for Area E is shown in Table 22. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area E is about 1830, based on several of the whiteware types. Consequently, this area has both a late MCD and late TPQ date, compared to the other areas investigated. However, it must be remembered that the materials being dated are from a sheet midden context and probably represent deposition over a long period of time.

Container glass accounts for 376 fragments or 40.6% of the Kitchen Group

bowls.

total. The most prevalent glass type is that commonly called "black," which comprises 83.2% (n=324) of the glass assemblage. This collection contains only 6 "wine" bottles. Clear glass contributes 19 fragments, light green glass, 11 fragments, and green glass, 10 fragments. One of the green glass containers is an eight-sided bottle, somewhat like a snuff or blacking bottle. Aqua glass accounts for eight fragments, manganese for two, and blue and pale blue for one fragment each. The pale blue bottle has a hand blown base, 1-inch in diameter.

Four Tableware items were recovered, including one iron utensil handle (likely a fork) and three clear glass fragments. The glass artifacts include two goblet bases and one panelled tumbler body. Four Kitchenware items were recovered, including three kettle fragments and one fireplace hook fragment.

Architecture Group Artifacts

A total of 397 architectural specimens (excluding brick and slate) was recovered from Area E, representing about 28.2% of the total artifact assemblage.

The single largest category is that of nails, with the 272 specimens accounting for 68.5% of the collection. Of these 202, or 74.3%, can be discounted since they could not be either measured or identified as to type. Twenty-four nails (8.8% of the nails and 34.3% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 56.3% of the wrought nails; n=9), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for seven specimens or 43.7% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). Forty-six cut nails were recovered from Area E, nine of which were measurable and all of which had hand forged heads, indicating manufacture during the period from about 1790 through 1820.

Table 23.
Wrought and Cut Nails Recovered
from Area E

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
4d	1½"	1			
5d	1¾"	2	1		
Small timber, shingles		3	1		
%		33.3	14.3		
Combined %		25.0			
6d	2"	1	1		
7d	2¼"	1	1		
8d	2½"	1	3	1	
Sheathing and siding		3	5	1	
%		33.3	71.4	11.1	
Combined %		50.0			11.1
9d	2¾"	1	1	2	
10d	3"			5	
12d	3¼"	2			
Framing		3	1	7	
%		33.3	14.3	77.8	
Combined %		25.0			77.8
16d	3½"			1	
Heavy framing				1	
%				11.1	
Combined %					11.1

Table 23 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes. This analysis, however, must be carefully interpreted since, first and foremost, the sample is very small. Perhaps of equal importance is that the excavations took place primarily within the posited building, rather than around the sides, where nails might be more likely to be recovered.

The table reveals that both the clasp headed wrought nails (T-heads), and rose headed wrought nails are primarily found in larger sizes, typically used for siding, in Area E. Even the cut nails suggest a similar distribution. While the evidence is somewhat flimsy, this would seem to suggest a frame stable or gig house (with, of course, a brick floor). This may be consistent with the absence of large quantities of brick and the efforts taken to salvage the brick floor. The presence of slate in the excavations, however,

indicates that the building had a slate roof, and there are few nails of the size typically associated with slate. This may be explained by the salvage process, or possibly the location of the block excavations. The absence of small nails also suggests that the structure lacked plaster, the lathe for which would have been attached using 4d or 5d nails probably not worth the effort to salvage. In support of this, no plaster samples were identified in the excavations.

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 30.7% of the group (n=122). Construction hardware includes 1 fragment of delft tile, one 3/4-inch roofing nail, and one strap hinge fragment. The rather sparse construction debris tend to confirm our suspicion that the excavations in the middle of the structure tended to produce few building remains. The round, flat headed roofing nail (a variety of wire nail) post-dates 1850 (Nelson 1968).

The bricks from this building measure 8 3/4 by 4 1/4 by 3-inches on average. Although the color varies depending on firing conditions, most range from a moderate brown (5 YR 3/4) to dark yellowish brown (10 YR 2/2).

Furniture Group Artifacts

Seven furniture artifacts, representing 0.5% of the total collection from Area E, were recovered. These include six brass tacks and one brass tack head.

Arms Group Artifacts

Arms Group artifacts account for 0.3% of the total Area E assemblage and include four lead shot. Three of these can be measured, the fourth has been impacted and is too distorted to provide an accurate measurements. Those measured are 6.5, 7.5, and 15.2 mm in diameter. The first two roughly equate with No. 3 and No. 1 buckshot respectively. Today these are used for larger animals, such as deer. The third is a 0.60-inch diameter ball, which Hamilton (1980:134) notes is found on eighteenth century sites and was probably associated with a 28 calibre longarm.

Tobacco Group Artifacts

Area E produced 37 tobacco artifacts (representing 2.6% of the total assemblage), including 25 pipe stem fragments and 12 pipe bowl fragments.

Of the 12 bowls, 6 (50.0%) were plain. Of the six decorated examples, two had molded vertical ribs, one was decorated with a floral motif, one had a crosshatch pattern, one had an armorial shield motif, and one had what appeared to be large molded fish scales. The most common diameter pipestem is 5/64-inch, accounting for 60.0% of the collection (n=15), followed by 4/64-inch (n=4, 16.0%). Four examples had bores measuring 6/64-inch. Only one specimen, with a bore diameter of 5/64-inch, had any decoration — "T/D" molded on the foot.

Clothing Group Artifacts

This category, which accounts for 0.1% of the total assemblage, includes only two buttons. One is a Type 7 brass button measuring 11.8 mm in diameter, while the other is a molded black glass domed button measuring 13.9 mm in diameter and 7.7 mm in height.

Personal Group Artifacts

The three Personal Group artifacts recovered from Area E account for 0.2% of the total assemblage and include one bead, a key, and a coin. The glass bead is a green drawn tube form measuring 13 mm in length and 35 mm in diameter. The key was likely used for a padlock or hasp lock. The coin is a badly worn 1771 "Spanish dollar" or 8 reales.²³

²³Raphael Solomon notes that "the milled peso duro of eight reales, known as *dos mundos* or *columnaria*, authorized in June 1728, first minted in Mexico in 1732, was called the Spanish milled dollar by the American colonists. It and its fractions became the most important coins to circulate in Colonial America" (Solomon 1976:31).

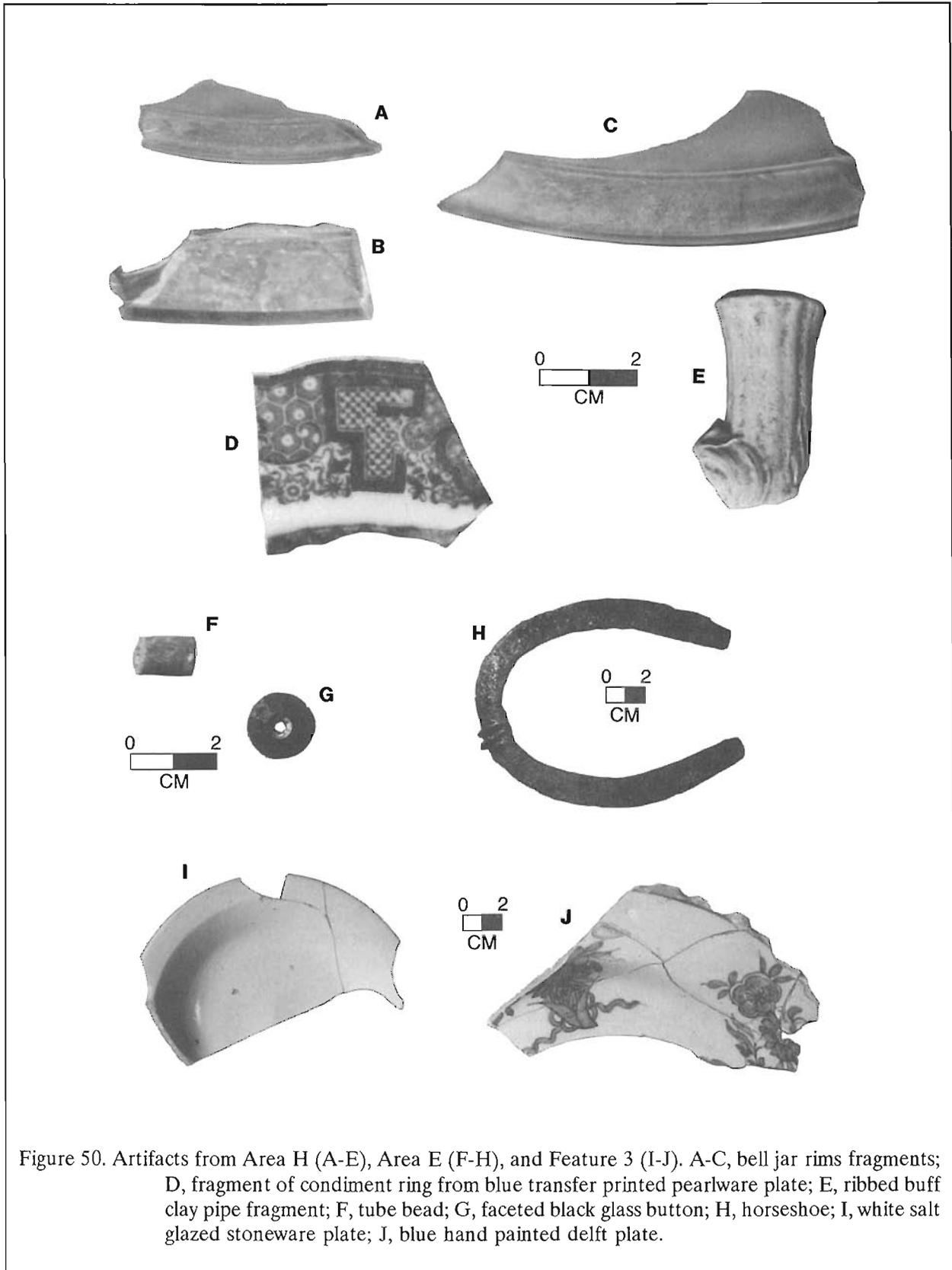


Figure 50. Artifacts from Area H (A-E), Area E (F-H), and Feature 3 (I-J). A-C, bell jar rims fragments; D, fragment of condiment ring from blue transfer printed pearlware plate; E, ribbed buff clay pipe fragment; F, tube bead; G, faceted black glass button; H, horseshoe; I, white salt glazed stoneware plate; J, blue hand painted delft plate.

Activities Group Artifacts

This final artifact group includes 33 specimens (or 2.4% of the total Area E assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96).

Tools include one flat file fragment. Stable or barn items include two horseshoes. The first is a normal shoe measuring 5-inches in length, 4-inches in width at its widest point, and 2½-inches at the heel. It exhibits wear and was likely replaced and discarded. The second is also a standard shoe, measuring 5⅛-inches in length, 4½-inches in width, and 3⅛-inches at the heel. Little wear is evidenced on this shoe, although its asymmetrical shape suggests that it was fitted to a particular horse.

Hardware items include a chain fragment composed of three dissimilar sized links, one chain link, a bolt fragment, two brass nails, one wood screw fragment, one iron tack, one thumbscrew, a brass strapping slide, and one staple. "Other" includes 16 fragments of unidentifiable iron, one unidentified brass object, and one lead fragment.

Area H

Excavations in Area H identified a small structure, thought to be a garden house, potting or propagation shed, or perhaps a greenhouse. The work recovered 3,211 artifacts from 300 square feet, yielding an artifact density of 10.7 artifacts per square foot or 8.0 artifacts per cubic foot.

Kitchen Group Artifacts

A total of 146 Kitchen Group artifacts were recovered, most (59 or 40.4%) representing ceramics or glass (51 or 34.9%). Recovered were almost exclusively late eighteenth and early nineteenth century wares, such as creamwares, pearlwares, and yellow wares. Only one mid-eighteenth century ceramic was recovered — a blue hand painted delft.

The major types of ceramics are shown in Table 24, revealing that tablewares, such as the

Table 24.
Major Types of Pottery in Area H

Stoneware	4	6.8%
Brown	3	
Blue/Gray	1	
Earthenware	55	93.2%
Refined	1	
Coarse	1	
Delft	1	
Creamware	7	
Pearlware	22	
Whiteware	1	
Yellow Ware	22	
Other	1	

delft, creamwares, pearlwares, and whitewares account for 54.2% of the ceramics. Utilitarian wares, such as the brown stonewares, coarse earthenwares, and yellow wares account for about 45.8% of the collection, one of the highest percentages encountered at the main plantation settlement of Broom Hall.

The most common pottery found at Area H were the pearlwares and yellow wares, each accounting for 37.3% of the ceramic collection. Of the 22 pearlware specimens, 14 (63.6%) were undecorated, four (18.2%) were blue transfer printed, and four were edged wares. These contributed eight plates, three undecorated, four green edged, and one blue transfer printed. While an equal number of yellow ware ceramics were recovered, they represent only one pitcher.

Table 25.
Shape and Function of Ceramic Vessels from Area H

Shape	#	%
Tableware	11	100.0
Plates	9	81.8
Bowls	1	9.1
Serving	1	9.1

The single whiteware represents a plate form, while the single delft fragment came from a bowl. No MNV could be reconstructed from the remainder of the fragments found associated with Area H. In all, however, Area H produced nine plates, one bowl, and one pitcher, for a total of 11 vessels. Table 25 illustrates this distribution, revealing the absence of both teawares and utilitarian vessels. Only tablewares were recovered and, of these, flatwares overwhelm the collection, especially for the later period.

Table 26.
Mean Ceramic Date for Area H

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Decorated delft	1600-1802	1750	1	1,750
Creamware, undecorated	1762-1820	1791	1	1,791
Pearlware, blue transfer printed	1795-1840	1818	4	7,272
	edged	1780-1830	4	7,220
	undecorated	1780-1830	14	25,270
Whiteware, blue transfer printed	1831-1865	1848	1	1,848
Yellow ware	1826-1880	1853	22	40,766
			53	96,663
$96,663 \div 53 \approx 1823.8$				

From Area H, only 13 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 18.1% of the total, only slightly less than found elsewhere in the main plantation complex, suggesting a general uniformity of their distribution across the site.

The mean ceramic date for Area H, based on 53 of the 59 available ceramics, is shown in Table 26. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area H is about 1830, based on the single whiteware specimen. Consequently, this area has both a late MCD and late TPQ date, compared to all of the other areas investigated, including the stables at Area E. More careful inspection of the proveniences, however, reveals that all of the late wares (i.e., the yellow wares and the whiteware) came from either Zone 1 (the surface rubble) or Zone 2 (found outside the building itself). The only ware found within the garden structure is a single fragment of pearlware, providing a TPQ of 1795.

Container glass accounts for 51 fragments or 34.9% of the Kitchen Group total. The most prevalent glass type is that commonly called "black," which comprises 52.9% (n=27) of the glass assemblage. However, in terms of MNV this

collection amounts to only one vessel. Clear glass contributes 20 fragments, one fragment is emerald green, and three specimens are aqua. One of these aqua specimens is an olive oil bottle seal embossed, "JOHN DURAND BORDEAUX/SUPER FINE OLIVE OIL • CLARIFIED." We have been unable to find a reference to this particular brand.

Two tableware items were recovered, both fragments of clear glass tumblers, yielding a MNV of two. The Kitchenware items include what appear to be 21 badly deteriorated can fragments, found both within (i.e., Zone 3) and outside (i.e., Zone 2) the structure. Rock (1984) notes that the tin canister, made from tin plate, was first produced about 1810, with the technology patented in the United States in 1818. By about 1820 improvements in the cap design had reduced can failures, improving marketability. It seems likely, therefore, that these fragments can be used to suggest that the structure continued in use at least into the 1820s (which is consistent with the historical documentation for the plantation itself).

Architecture Group Artifacts

A total of 1432 architectural specimens (excluding brick and slate) was recovered from Area H, representing about 44.6% of the total artifact assemblage.

The single largest category is that of flat glass, the 822 fragments accounting for 57.4% of

the architectural items in the block excavations. All of this glass is highly fragmented, but most has a light green color, typical of eighteenth century specimens. There is no way to determine whether this glass came from windows or hand-glasses associated with protecting tender plants.

The next largest category is that of nails, with the 609 specimens accounting for 42.5% of the collection. Of these 178, or 29.2%, can be discounted since they could not be either measured or identified as to type. Two hundred ten (34.5% of the nails and 48.7% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 45.9% of the wrought nails; n=74), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 87 specimens or 54.1% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). Two hundred twenty-one cut nails were recovered from Area H, 138 of which were measurable and all but four of which had hand forged heads, indicating manufacture during the period from about 1790 through 1820. The four machine cut and machine headed nails post-date 1820.

Table 27 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes. The table reveals that both the clasp headed wrought nails (T-heads), and rose headed wrought nails are primarily found in smaller sizes. The rose heads were probably used for attaching slate roofing, while the T-heads were likely used for moldings and trim. Nails in the range of 6d to 8d may have been used for window and door treatments. The cut nails reveal a reverse trend, with most being found in the larger sizes, perhaps suggesting repair to exposed areas through time. Alternatively, the cut nails may be largely associated with an interior floor for the structure. Only one nail is found in the size range typically associated with heavy framing, suggesting that the timbers in this structure, like elsewhere

Table 27.
Wrought and Cut Nails Recovered
from Area H

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
2d	1"	3		1	
3d	1¼"	32	10	4	1
4d	1½"	14	10	10	
5d	1¾"	20	24	23	2
Small timber, shingles		69	44	38	3
%		93.2	50.6	28.4	75.0
Combined %			70.2		29.7
6d	2"	3	16	22	
7d	2¼"	1	5	33	1
8d	2½"	1	15	13	
Sheathing and siding		5	36	68	1
%		6.8	41.4	50.7	25.0
Combined %			25.5		50.0
9d	2¾"		7	13	
10d	3"			13	
12d	3¼"			1	
Framing			7	27	
%			8.0	20.2	
Combined %			4.3		19.6
16d	3½"			1	
Heavy framing				1	
%				0.7	
Combined %					0.7

investigated, were pegged.

The one remaining architectural item is the male part of a cast brass 4-inch butt hinge with four attachment holes. On the reverse of the hinge is the mark, "62P," likely a part number, since these cast hinges were most likely produced either in England or at a Northeastern foundry. Streeter (1973:43) notes that they were introduced about 1775, becoming more common at the turn of the century. Lounsbury (1994:56) cautions that the butt hinge did not displace the strap or side hinges until the second quarter of the nineteenth century.

While not tabulated in the Architecture Group, Area H also produced a quantity of plaster, slate, and a single pink bodied, unglazed, pantile. While the specimen is not complete, these roofing tiles were typically rectilinear, and transversely

curved into an S-profile. Lounsbury (1994:374) notes that this type of tile provides a more watertight covering than flat tiles. Regardless, these appears to be too few fragments to suggest that they were used for roofing, even with subsequent salvage. This is also the only structure where roofing tiles are found. It is possible that they were used to shelter tender plants, in much the same way boards were used during this time period. The slate is identical to that found in Area C and all have a uniform brownish black color (5R2/1, using the Munsell Rock-Color Chart).

The plaster was all applied directly to the brick and consisted of two coats — a rough coat and a smooth final coat. As previously discussed, this plaster had multiple coats of a blue-gray (likely bone black) or black distemper wash. Microscopic examination of the samples was conducted by George Fore, an architectural conservator, and is included in this study as Appendix 3. It seems likely that the choice in color may be directly related to use of the structure as a propagation or forcing shed. This is supported by the presence of bell jars (discussed below) and also the pollen analysis by Dr. Art Cohen (discussed in a following section).

Tobacco Group Artifacts

Area H produced only two tobacco artifacts (representing less than 0.1% of the total assemblage), including one pipe stem fragment with a bore diameter of 5/64-inch and one bowl fragment of buff clay and molded vertical ribs. Noël Hume (1978:303) notes that these buff bodied clay pipes were probably made by local potters.

Clothing Group Artifacts

This category, which also accounts for less than 0.1% of the total assemblage, includes only one button. The recovered specimen is a bone Type 19 button measuring 15.5 mm in diameter.

Personal Group Artifacts

The one Personal Group artifact recovered from Area H accounts for less than 0.1% of the total assemblage and consists of a brass finger ring

with an internal diameter of 14.5 mm and a band thickness of 1.9 mm.

Activities Group Artifacts

This final artifact group includes 1629 specimens (or 50.7% of the total Area H assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96).

Stable and barn items include 1609 items. Six of these are fragments of barbed wire, likely intrusive from relatively late use of the site since all came from Zone 2 (the area outside the structure). The remaining 1603 items are bell jar fragments. Noël Hume provides a lengthy description of these items:

The glass domes used to protect seedlings were known as bell glasses; being of larger size, they were fragile and when broken often shattered into a multitude of pieces. English bell glasses were blown from the same green metal used for making bottles and, as the name suggests, were shaped like a bell. Excavated examples have been found to measure approximately 2' in diameter, but it is known that they were made in at least two sizes. . . .

English bell glasses flared at the mouth, the rims of which were folded outward onto themselves to form a band about 1¼" in width. The thickness of the glass itself ranged from about ⅛" in the midsection to more than ½" at the dome. To the top of the latter a heavy glass knob was attached, crudely trailed around itself to create a shape resembling a doughnut; it measured about 3½" in diameter and about 1½" in height (Noël

Hume 1978:225-226).

He notes that they were in use by at least the first quarter of the eighteenth century and continued in production throughout the nineteenth century, often with the glass becoming paler through time.

At Area H, a minimum of 16 bell glasses were recovered, all of a light green glass (perhaps mid- to late eighteenth century in origin). Rims were folded back in on themselves as much as 20 mm and as little as 10 mm. One specimen was found where at least part of the rim was folded to form a right angle, rather than being folded over the body of the glass. Noël Hume is correct that several sizes exist; from this structure nine different sizes were identified, ranging from as little as 6-inches to as much as 16-inches (1-6", 1-9", 2-10", 2-11", 3-12", 1-13", 1-14", 3-15", and 1-16"). These items alone would seem to seal the function of the structure at Area H. Taken in combination with the dearth of domestic materials, there seems to be little doubt that the purpose of this building was to propagate plants.

Hardware items include 10 tacks, one tack fragment, and two items which appear to be masonry anchors, typically used to fasten woodwork to masonry walls. Both are linear bands of metal. At the distal end, which is flattened, there are holes for screw attachment to wood. The proximal end is pointed with what appears to be a thumb press. Similar items are illustrated by Donald Streeter in "The Historical Development of Hand Forged Iron Builders' Hardware" and are identified as anchors for wooden downspouts. If this identification is correct, these items were used throughout the eighteenth and nineteenth centuries and tell us more about the building than about its construction date. Since they are unusual items, which are only tentatively identified, they are included here, rather than in the architecture category. "Other" includes 6 fragments of unidentifiable iron and one fragment of lead which may represent a fragment of turned lead used either to glaze the windows or perhaps the hand-glasses used in gardens to protect plants. Noël Hume quotes an 1840 description:

Portable frames or covers, formed of iron, zinc, or wood, and glazes. These glasses differ from bell-

glasses in being longer, and composed of numerous small pieces of glass, which are fastened together by narrow strips of lead. Hand-glasses are generally square, but they may be made of an octagon, or any other shape that may be found convenient; and they are sometimes made with a pane to open to admit air, or with the upper part of take off (Noël Hume 1978:227).

Feature 4

Associated with the structure at Area H is what has been suggested to be a planting bed. The soil was found to be enriched with burned shell, but otherwise curiously few artifacts were present. Those recovered include one Colono ware sherd and two hand wrought nails (4d and 5d). It seems that, for whatever reason, the soil in this bed was specially prepared and kept clean of trash. One reason for this care, of course, might be that the plants being grown require an especially loose, deep, and well prepared soil. Examples of such a plants are asparagus and onion, the pollens of which have been recovered from Area H.

Area J

Area J has been defined as a probable structural area, based on the recovery of pier feature, although only one 10-foot unit was excavated in this site area. The total of 2174 artifacts recovered from the excavation yields 21.7 artifacts per square foot or 21.5 artifacts per cubic foot.

Kitchen Group Artifacts

Area J produced 1303 Kitchen Group artifacts, representing 59.9% of the total assemblage from the unit. The most common Kitchen Group artifacts are ceramics (accounting for 599 specimens or 46.0% of the group total), closely followed by glass (568 specimens or 43.6%). Colono wares contributed 130 specimens (accounting for about 10.0% of the collection) and will be discussed in a following section. Three tableware and three kitchenware items were recovered.

The pottery recovered encompasses a range of eighteenth and early through mid-nineteenth century ceramics, but is dominated by lead glazed slipwares and creamwares. Relatively few examples of Westerwald, white salt glazed stonewares, or delft were recovered from this particular site area. The latest ceramics recovered, which provide the TPQ of about 1911 for this particular excavation block, are the two fragments

include five plates, six bowls (one 5½, two 6, one 10, and one 12-inches in diameter) and one teapot. Molded examples include one plate and two bowls (both with diameters of 11-inches).

The next most common wares were the lead glazed slipwares, accounting for 102 examples. As elsewhere on the site, examples of pink (or salmon) and buff fired-clay bodies were encountered in Area J. Nine vessels were identified, including three plates, four cups, and two bowls.

Chinese porcelains, as a group, rank third in Area J. Of the 115 fragments identified, 25 (21.7%) were overglazed enamelled and 75 (65.2%) were hand painted blue. The remainder include 15 examples of a plain white porcelain. Twenty-one vessels were identified, including three of undecorated porcelain (14.3%) and 18 of blue hand painted porcelain (85.7%). The plain, white porcelain included three saucers. The blue hand painted porcelain included five cups, five bowls, and eight saucers.

Nineteenth century pearlwares are the fourth most common ceramic in Area J, accounting for 87 fragments and nine vessels. Although plain pearlware was the most common (40 specimens or 50.0%), 17 annular wares, nine edged, nine blue hand painted, six molded forms, three blue transfer printed, and three polychrome hand painted were also recovered from the excavations. The plain, undecorated pearlwares included one bowl with a 6-inch diameter. Annular wares include two bowls and one mug. Green edged pearlwares account for four plates, and blue transfer printed wares yielded a MNV of one plate.

White salt glazed stonewares (39 specimens) and scratch blue (four examples) account for two plain bowls, one plain platter, three molded plates, and one cup (the only scratch blue item present in Area J). The last of the "larger" collections, 35 fragments of delft were recovered. Undecorated delft contributed one plate, while the blue hand painted delft includes one bowl and one platter.

The collection included 18 plates, 24 bowls, 10 cups, 11 saucers, one mug, five jars, two

Table 28.
Major Types of Pottery in Area J

Porcelain	115	19.2%
Stoneware	78	13.0%
Brown	13	
Blue/Gray	22	
White	43	
Earthenware	406	67.8%
Redware	5	
Slipware	102	
Refined	1	
Coarse	14	
Delft	35	
Creamware	138	
Pearlware	87	
Whiteware	19	
Other	5	

of tinted glaze whitewares (which represent 0.4% of the dateable wares).

The major types of ceramics are shown in Table 28, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 97.4% of the ceramics. Utilitarian wares, such as the Buckley wares and brown stonewares account for about 2.6% of the collection.

The most common eighteenth century wares in Area J were the creamwares, accounting for 138 specimens and 16 vessels. Of these, 131 or 94.9% were undecorated, with six examples of annular creamware and one specimen of blue hand painted creamware. The undecorated wares

Table 29.
Shape and Function of Ceramic
Vessels in Area J

Shape	#	%
Tableware	55	75.3
Plates/saucers	29	39.7
Bowls	24	32.9
Serving	2	2.7
Tea and Coffeeware	13	17.8
Utilitarian	5	6.9

teapots, and two platters. Table 29 illustrates this distribution, revealing the dominance of tablewares (which account for three-quarters of the collections). Within this category, flatwares and hollow wares are nearly equal (accounting for 39.7% and 32.9% respectively). Serving vessels are limited to the two platters, although this number could be increased (and the hollow ware number decreases, by moving the large bowls into the serving category). Teaware accounts for nearly 18% of the collection, not greatly different than the 20 to 24% range found in Area C and Feature 1. Utilitarian wares are somewhat higher than many other areas of the site, accounting for nearly 7%.

From Area J, 130 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 17.8% of the total. We have previously mentioned the surprising consistency of Colono wares over the entire main plantation complex.

The mean ceramic date for Area J is shown in Table 30. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is

based on the latest dated artifact present in the assemblage. The TPQ date for Area J is surprisingly late, about 1911, and is based on the two tinted whiteware ceramics. In spite of this late date, the MCD for Area J is relatively early, 1766.1, indicating the considerable occupational time span found at Broom Hall.

Container glass accounts for 568 fragments or 43.6% of the Kitchen Group total. The most prevalent glass type is "black," comprising 82.9% of the glass found in Area J (n=471). This assemblage, however, accounts for only six "wine" bottles, one case bottle, and one snuff or blacking bottle. The next most common container glass was represented by 56 fragments of clear glass, including two small pharmaceutical bottles. The 28

Table 30.
Mean Ceramic Date for Area J

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Overglaze enamelled porcelain	1660-1800	1730	25	43,250
Underglazed blue porcelain	1660-1800	1730	75	129,750
Nottingham stoneware	1700-1810	1755	1	1,755
Westerwald	1700-1775	1738	13	22,594
White SGSW	1740-1775	1758	39	68,562
White SGSW, scratch blue	1744-1775	1760	4	7,040
Lead glazed slipware	1670-1795	1733	102	176,766
Decorated delft	1600-1802	1750	18	31,500
Plain delft	1640-1800	1720	17	29,240
Buckley ware	1720-1775	1748	1	1,748
Creamware, annular	1780-1815	1798	6	10,788
blue hand painted	1790-1820	1805	1	1,805
undecorated	1762-1820	1791	131	234,621
Pearlware, blue hand painted	1780-1820	1800	9	16,200
poly hand painted	1820-1840	1805	3	5,415
blue transfer printed	1795-1840	1818	3	5,454
edged	1780-1830	1805	9	16,245
annular/cable	1790-1820	1805	17	30,685
undecorated	1780-1830	1805	46	83,030
Whiteware, blue transfer printed	1831-1865	1848	3	5,544
annular	1831-1900	1866	6	11,196
tinted glaze	1911-1970	1941	2	3,882
undecorated	1820→	1860	8	14,880
			539	951,950

$951,950 \div 539 \approx 1766.1$

aqua specimens include one probable medicine bottle. The remainder of the glass includes seven

fragments of light green glass, five fragments of green, and one blue glass fragment — the vessel forms for these could not be confidently determined.

Three tableware items were recovered from Area J, representing about 0.2% of the

Penny Wt.	SAE	Wrought	
		Rose	T
2d	1"	8	
3d	1¼"	17	2
4d	1½"	5	4
5d	1¾"	3	17
Small timber, shingles		33	23
%		66.0	21.5
Combined %		35.7	
6d	2"	2	14
7d	2¼"	6	19
8d	2½"	4	30
Sheathing and siding		12	63
%		24.0	58.9
Combined %		47.8	
9d	2¾"	3	8
10d	3"		10
12d	3¼"	1	1
Framing		4	19
%		8.0	17.7
Combined %		14.6	
16d	3½"		2
40d	5"	1	
Heavy framing		1	2
%		2.0	1.9
Combined %		1.9	

Kitchen Group artifacts. Three clear glass fragments are attributed to one tumbler and one goblet. Kitchenware items are equally scarce, and represent one kettle fragment, one pot handle, and one unidentifiable utensil handle.

Architecture Group Artifacts

A total of 753 architectural specimens (excluding brick and slate) was recovered from Area J, representing about 34.6% of the total artifact assemblage.

The single largest category is that of nails, with the 652 specimens accounting for 86.6% of the collection. Of these 478, or 73.3%, can be discounted since they could not be either measured or identified as to type (this represents one of the highest percentages of unidentifiable nails found at Broom Hall and is likely associated with the very damp soils of Area J). One hundred sixty-nine nails (25.9% of the nails and 97.1% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 31.8% of the wrought nails; n=50), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 107 specimens or 68.2% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). Only five cut nail fragments were recovered from Area J, and these provide no information on either head type or length. The near absence of machine cut nails, however, suggests a structure built prior to the turn of the century.

As previously discussed, because different size nails served different self-limited functions, it is possible to use the relative frequencies of nail sizes to indicate building construction details. Table 31 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes. The results of this analysis, however, must be carefully interpreted since Area J consists of only one unit.

The table reveals that the clasp headed wrought nails (T-heads), normally used for moldings, are primarily found in larger sizes. When associated with buildings, this suggests their use in window and door fenestration. Rose headed nails are most commonly found in relatively small sizes, perhaps relating to their use

to attach slate shingles, found throughout the plantation setting. The low quantity of nails associated with heavy framing is consistent with structures using pegged construction techniques (although two spikes were identified in this collection). The near absence of machine cut nails suggests that the architectural debris predate about 1790.

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 12.7% of the group (n=96). No door lock parts were recovered, although three construction artifacts were found. These include two delft tile fragments and one strap hinge fragment. Also recovered from this excavation, but not included in the totals was a sample of slate, identical to that reported from elsewhere on the site (specifically at Areas C, D, E, and H).

Furniture Group Artifacts

One furniture item was recovered from Area J. The item was a brass tack, the head of which measured 1½-inches in diameter and was stamped with a flower design. While the majority of the smaller tacks found throughout the main plantation complex were likely found on upholstered furniture or as decoration on trunks, the larger tacks, such as the one found here in Area J, may have been used on a coach or sedan chair (Noël Hume 1978:228).

Arms Group Artifacts

The Arms Group accounts for less than 0.1% of the total Area J assemblage and consists of a single lead shot, measuring 7.4 mm in diameter, about the size of No. 1 Buckshot, suggesting use in hunting larger animals.

Tobacco Group Artifacts

Area J produced 81 tobacco artifacts (representing 3.7% of the total assemblage), including 66 pipe stem fragments and 15 pipe bowl fragments. Of the 15 bowls, 12 (80.0%) were plain. Of the three decorated examples, all evidenced vertical ribs. The most common diameter pipestem is 5/64-inch, accounting for

63.6% of the collection (n=42), followed by 4/64-inch (15, 22.7%). Five examples had bores measuring 6/64-inch, one had a bore diameter of 7/64-inch; three were too fragmentary to measure. None were decorated and only two had feet.

Clothing Group Artifacts

This category includes four buttons and six other clothing items, accounting for 0.4% of the total assemblage from Area J. The buttons, classified by South's (1964) types, include two Type 7, measuring 17.4 and 28.3 mm; one Type 29, measuring 16.5 mm; and one Type 31, measuring 24.6 mm. The former two are typical of the eighteenth century, while the latter two are more often found in nineteenth century contexts.

The other clothing items include six buckles. One is an iron shoe buckle backpiece (see Abbitt 1973). Four others are square iron frames, measuring 1 or 1½-inches square, with a movable iron tongue attached. These are often considered to be harness buckles, largely because of their simplicity and use of iron. They may, however, have been used for belts and similar clothing items. The last buckle is of brass and include a cast hinge bar, with the hook missing. This type of buckle is typically considered to be a clothing item, again because of its construction and use of brass, rather than iron (see Stone 1974:26, 297). Regardless, all are placed in the clothing category, absent any better information concerning use.

Personal Group Artifacts

Only one Personal Group artifact was recovered from Area J, a polished red translucent stoned heart, measuring 27.0 mm in height and 25.6 mm in width. Given the size, it may have been used either as a pendant or brooch, although no evidence of attachment or fittings were identified.

Activities Group Artifacts

This final artifact group includes 24 specimens (or 1.1% of the total assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous

hardware, and a rather general class called simply, "other" (South 1977:96).

Tools include one triangular file fragment. Storage items include two fragments of strap iron. Miscellaneous hardware includes one iron hook fragment. "Other" includes three flower pot fragments, two pieces of scrap brass, one unidentified brass object, three fragments of lead, and nine unidentifiable iron objects. The final Activity Group artifact is typically placed in the toy category and is a clay marble fragment with a diameter of 14.3 mm.

Feature 3

Feature 3 represents a mixed collection, including both the builder's trench associated with

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	3	5,190
Underglazed blue porcelain	1660-1800	1730	26	44,980
Nottingham stoneware	1700-1810	1755	1	1,755
Westerwald	1700-1775	1738	22	38,236
White SGSW	1740-1775	1758	36	63,288
White SGSW, scratch blue	1744-1775	1760	2	3,520
Lead glazed slipware	1670-1795	1733	14	24,262
Decorated delft	1600-1802	1750	5	8,750
Plain delft	1640-1800	1720	11	18,920
Creamware, undecorated	1762-1820	1791	36	64,476
Pearlware, blue hand painted	1780-1820	1800	1	1,800
undecorated	1780-1830	1805	1	1,805
Whiteware, poly hand painted	1826-1870	1848	1	1,848
			159	278,830
$278,830 \div 159 \approx 1753.6$				

a structural pier and also what appeared to be a trash pit. The feature produced 614 artifacts, or about 14.6 specimens per cubic foot.

The bulk of the remains belong to the Kitchen Group (452 or 73.6%). Primarily eighteenth century wares were recovered, although one polychrome hand painted whiteware ceramic provides a TPQ date of 1826. The mean date of

Shape	#	%
Tableware	21	77.8
Plates/saucers	13	48.2
Bowls	8	29.6
Serving	-	-
Tea and Coffeeware	6	22.2
Utilitarian	-	-

1753.6 is illustrated in Table 32.

The bulk of the ceramics are earthenwares (80, or 44.4%), followed by stonewares (62, 34.5%) and porcelains (38 specimens, accounting for 21.1%). Of these, 93.3% are tablewares, with only 6.7 representing utilitarian items. A total of 27 vessels were identified from the feature, including 13 plates, eight bowls, four cups, one teapot (of Nottingham) and one mug (see Table 33). Tablewares dominate the collection, with flatware being more common than hollow ware in the feature. Tea and coffeeware is more common in the feature than in the overlying Area J collection and utilitarian vessel forms are absent from the collection.

Also included in the Kitchen Group are 213 fragments of "black" glass (representing four large blown bottles), one fragment of aqua glass, one light green glass, and one clear glass. Tablewares include six fragments of clear glass, yielding one tumbler and one goblet. Kitchenware remains include an iron handle, likely to a pot, and four thin iron fragments, possibly representing can fragments. In addition, there are 44 Colono ware sherds. If these are included in the ceramic group, they would account for 19.6% of the total.

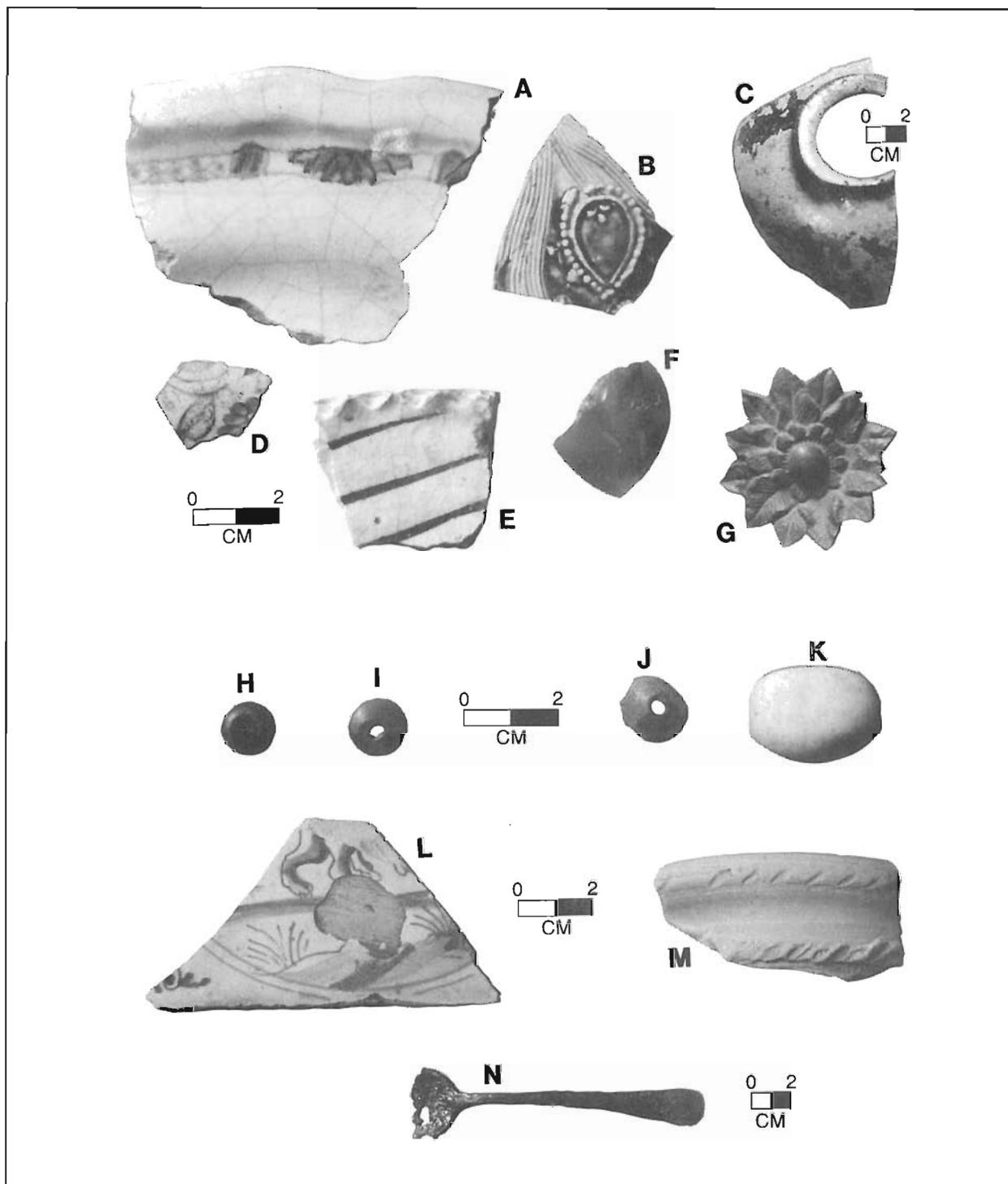


Figure 51. Artifacts from Areas J (A-G) and K (H-N). A, blue hand painted delft plate fragment; B, Rhenish ware; C, fruit jar rim; D, polychrome hand painted creamware; E, lead glazed slipware with piecrust rim; F, polished stone jewelry heart; G, decorated brass furniture tack; H, glass button; I-K, glass beads; L, delft tile; M, flower pot rim; N, iron spoon fragment.

The Architecture Group artifacts include nine fragments of window glass, 93 unidentifiable nail fragments, and 24 wrought nails (eight rose heads 3d to 10d in length and 16 "T" heads from 5d to 12d in length), and 8 machine cut nail fragments. The only other artifacts present were 15 pipe stems with bore diameters of 5/64-inch, six with bores of 4/64-inch, four with bores of 6/64-inch, and three pipe bowl fragments, all plain.

This assemblage, bearing a strong resemblance to that of the overlying zones, likely represents materials from the upper level which were incorporated into the feature during its creation. There is little evidence that the feature significantly predates the upper zones or reflects any unusual depositional pattern.

Area K

Area K has been defined as a probable structural area, based on the recovery of foundation walls suggesting a two bay structure. A total of 2515 artifacts were recovered from the excavation of three 10-foot units (although one unit was partially within a ditch, yielding a square footage of 250), yielding 10.1 artifacts per square foot or 13.4 artifacts per cubic foot.

Kitchen Group Artifacts

Area K produced 1572 Kitchen Group artifacts, representing 62.5% of the total assemblage from the block. The most common Kitchen Group artifacts are ceramics (accounting for 828 specimens or 52.7% of the group total), closely followed by glass (565 specimens or 35.9%). Colono wares contributed 159 specimens (accounting for about 10.1% of the collection) and will be discussed in a following section. Seventeen tableware and three kitchenware items were recovered.

The pottery recovered encompasses a wide range of eighteenth through mid-nineteenth century ceramics, but is dominated by porcelains, lead glazes slipwares, and creamwares. Relatively few examples of later pearlwares or whitewares were recovered, nor were particularly large collections of eighteenth century white salt glazed stonewares, North Devon Gravel Tempered, or Westerwalds found in this area. The latest ceramic

recovered, which provides the TPO of about 1911 for this particular excavation block, is the one fragment of tinted glaze whiteware (which represents 0.04% of the dateable wares).¹

The major types of ceramics are shown in

Porcelain	293	35.4%
Stoneware	119	14.4%
Brown	20	
Blue/Gray	13	
White	86	
Earthenware	416	50.2%
Redware	3	
Slipware	127	
Refined	28	
Coarse	31	
Delft	54	
Creamware	117	
Pearlware	16	
Whiteware	36	
Other	4	

Table 34, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 93.0% of the ceramics. Utilitarian wares, such as the coarse wares and brown stonewares account for about 7.0% of the collection.

The most common eighteenth century ware in Area K were the Chinese porcelains. Of the 293 fragments identified, 27 (9.2%) were

¹A nearly identical ware was identified in Area J. Both have a green tint on a white body. Since, in both cases, they were recovered from what amounts to plow zone or disturbed contexts, it is doubtful that they reflect the true occupation range of either area. It is also possible that these specimens represent what Bartovics (1978) calls Green Glazed CC Ware. For this pottery he suggests a mean date range of 1761-1775. Since no comparative specimens were available, we have taken the conservative approach and classified these wares as late intrusions. It remains possible, however, that they date from the primary period of site occupation.

overglazed enamelled and 158 (53.9%) were hand painted blue. The remainder include 78 examples of a plain white porcelain. Forty-three vessels were identified, including two of undecorated porcelain (4.7%), seven (16.3%) of overglaze enamelled, and 34 of blue hand painted porcelain (79.1%). The plain, white porcelain included one cup and one bowl. The enamelled wares include four plates (one of which had a diameter of 8-inches) and three cups. The blue hand painted porcelain included 22 plates, nine bowls, and three cups.

The next most common wares were the lead glazed slipwares, accounting for 127 examples. As elsewhere on the site, examples of pink (or salmon) and buff fired-clay bodies were encountered in Area K. In spite of the large sample, the sherds were highly fragmented and the MNV for this area is only three — one plate with the pie crust rim and two cups.

Creamwares, as a group, rank third in Area K accounting for 117 specimens and seven vessels. All of these were undecorated. One plain plate and one plain bowl were identified, as were two molded plates, two molded bowls, and one 4½-inch molded lid.

White salt glazed stonewares (82 specimens) and scratch blue (four examples) account for five plain bowls (one measuring 6-inches in diameter and another measuring 9-inches), one plain cup, and one plain saucer, two molded plates, one molded cup, and one scratch blue bowl.

While relatively insignificant in the collection, Elers ware accounts for the lid of a bowl. The delft included two bowls. One Jackfield teapot was identified, as well as two transfer printed whitewares plates, and one undecorated whiteware bowl.

The collection included 34 plates, 22 bowls, 11 cups, one saucer, three lids, one jar, and one pan form. Table 35 illustrates this distribution, revealing the dominance of tablewares (which account for 82.2% of the collections). Within this category, flatwares are somewhat more common than hollow wares, accounting for 48%

Table 35.
Shape and Function of Ceramic
Vessels in Area K

Shape	#	%
Tableware	60	82.2
Plates/saucers	35	48.0
Bowls	22	30.1
Serving	3	4.1
Tea and Coffeeware	11	15.1
Utilitarian	2	2.7

compared to 30.1%. Serving vessels are rather uncommon. Teaware accounts for just over 15%, while utilitarian vessels comprise less than 3% of the collection.

From Area K, 159 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 16.1% of the total. We have previously mentioned the surprising consistency of Colono wares over the entire main plantation complex and these wares will be discussed in a following section of this study.

The mean ceramic date for Area K is shown in Table 36. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area K is surprisingly late, about 1911, but is based on one tinted whiteware ceramic. In spite of this late date, the MCD for Area K is relatively early, 1754.8, indicating the considerable occupational time span found at Broom Hall.

Container glass accounts for 565 fragments or 35.9% of the Kitchen Group total. The most prevalent glass type is "black," comprising 79.6% of the glass found in Area K (n=450). This assemblage, however, accounts for only five "wine" bottles. The next most common container glass was represented by 72 fragments of clear glass, including one bottle, with a basal diameter of 1½-inches. The 16 green specimens include one blown bottle, also with a basal diameter of 1½-inches.

Table 36.
Mean Ceramic Date for Area K

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Overglaze enamelled porcelain	1660-1800	1730	57	98,610
Underglazed blue porcelain	1660-1800	1730	158	273,340
Nottingham stoneware	1700-1810	1755	7	12,285
Westerwald	1700-1775	1738	7	12,166
White SGSW	1740-1775	1758	82	144,156
White SGSW, scratch blue	1744-1775	1760	4	7,040
Lead glazed slipware	1670-1795	1733	127	220,091
Jackfield	1740-1780	1760	16	28,160
Clouded wares	1740-1770	1755	3	5,265
Decorated delft	1600-1802	1750	23	40,250
Plain delft	1640-1800	1720	31	53,320
North Devon	1650-1775	1713	2	3,426
Buckley ware	1720-1775	1748	1	1,748
Creamware, undecorated	1762-1820	1791	117	209,547
Pearlware, blue transfer printed	1795-1840	1818	2	3,636
annular/cable	1790-1820	1805	3	5,415
undecorated	1780-1830	1805	11	19,855
Whiteware, blue transfer printed	1831-1865	1848	10	18,480
non-blue transfer print	1826-1875	1851	1	1,851
annular	1831-1900	1866	3	5,598
tinted glaze	1911-1970	1941	1	1,941
undecorated	1820→	1860	21	39,060
Yellow ware	1826-1880	1853	3	5,559
			690	1,210,799
$1,210,799 \div 690 \approx 1754.8$				

Other glass includes nine fragments of aqua, 14 fragments of light green, three pieces of milk glass, and one fragment of amethyst glass.

The 17 tableware items include examples of three goblets, two tumblers, and one bowl (likely a finger bowl or wine cooler). Also present is one iron spoon fragment, one iron utensil handle fragment, and one pewter utensil handle. This latter item exhibits a rat tail. Although this design feature had almost completely died out on silver by end of the second quarter of the eighteenth century, Noël Hume (1978:183) notes that it lasted considerably longer on pewter examples. Kitchenware items include one kettle fragment and two kettle handle fragments.

Architecture Group Artifacts

A total of 774 architectural specimens (excluding brick and slate) was recovered from Area K, representing about 30.8% of the total artifact assemblage.

The single largest category is that of nails, with the 601 specimens accounting for 77.6% of the collection. Of these 396, or 65.9%, can be discounted since they could not be either measured or identified as to type. One hundred forty-five nails (24.1% of the nails and 70.7% of the identifiable nails) were identified as hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Two head styles are present in the collection, rose heads (accounting for 37.6% of the wrought nails; $n=47$), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 78 specimens or 62.4% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance

(Lounsbury 1994:412).

Sixty cut nails were also found in Area K, 58 of which were measurable. Of these, 20.7% ($n=12$) have forged heads, suggesting their use (or at least manufacture) during the period from about 1790 through 1820. Forty-six (79.3%) nails have machine cut heads, suggesting their production after the first quarter of the nineteenth century.

As discussed for the other block excavations, because different size nails served different self-limited functions, it is possible to use the relative frequencies of nail sizes to indicate building construction details. Table 37 lists nails by both penny weight sizes and the Standard Average European (SAE) size, as well as characterizing the function of various nail sizes.

Table 37.
Wrought and Cut Nails Recovered
from Area K

Penny Wt.	SAE	Wrought		Machine Cut	
		Rose	T	Hand	Machine
2d	1"	11	1		
3d	1¼"	26	2	2	
4d	1½"	4	3	1	2
5d	1¾"	1	5	2	4
Small timber, shingles		42	11	5	6
%		89.3	14.1	41.7	13.1
Combined %		42.4		19.0	
6d	2"	1	14	2	15
7d	2¼"	1	26	1	11
8d	2½"		9	1	4
Sheathing and siding		2	49	4	30
&		4.3	62.8	33.3	65.2
Combined %		40.8		58.6	
9d	2¾"	1	10		4
10d	3"		2	3	6
12d	3¼"		4		
Framing		1	16	3	10
%		2.1	20.5	25.0	21.7
Combined %		13.6		22.4	
16d	3½"		1		
30d	4½"		1		
40d	5"	2			
Heavy framing		2	2		
%		4.3	2.6		
Combined %		3.2			

The table reveals that the clasp headed wrought nails (T-heads), normally used for moldings, are primarily found in the larger sizes. When associated with buildings, this suggests their use in window and door fenestration, and possibly heavier moldings. Rose headed nails are most commonly found in relatively small sizes, perhaps relating to their use to attach slate shingles, found throughout the plantation setting. The low quantity of nails associated with heavy framing is consistent with structures using pegged construction techniques. The presence of both cut nails with forged heads and cut nails with machine formed head suggests that the structure associated with these excavations was in use, and undergoing repair, into the mid-nineteenth century. The distribution of nails is suggestive of roof repairs,

replacement of siding or other light wood work, as well as perhaps some light framing repairs. There is little evidence, however, that the structure received major renovations or expansion.

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 21.6% of the group (n=167). No door lock parts were recovered, although six construction artifacts were found — all fragments of delft tiles probably used as fireplace or wall skirtings.

Also recovered from this excavation, but not included in the totals was a sample of slate, identical to that reported from elsewhere on the site (specifically at Areas C, D, E, H, and K). In addition, a fragment of what *superficially* appears to Purbeck "marble" was also recovered from this excavation (Colin Brooker, personal communication 1995). The stone, once "black," has weathered, taking of a rough gray appearance. Larson (1990:190) notes that Purbeck marble, as it weathers and loses its polish, can almost appear to be like concrete. Upon closer examination, however, the stone lacks the characteristic small fossilized gastropods which characterize the Purbeck beds (see Dimes 1990:113-114 for a description of this stone). It is possible, however, that architects were not as geologically inclined and that Purbeck marble was taken to be any marble-like stone in black or gray. Lounsbury, for example, notes only when discussing English marble that, "much of this material was the dark gray *Purbeck marble* quarried in the south of England" (Lounsbury 1994:224). The stone from Area K, under an encrustation of salts, is well polished and has a grayish black color (Munsell Rock Color Chart N2).

Furniture Group Artifacts

Six furniture items were recovered from Area K. These include five brass tacks and one brass coat hook. The tacks are all the size associated with furniture or trunks. The coat hook fragment measures about 20.6 mm in length and represents the distal end (or the ornamental terminal) of the hook, which is a faceted design.

The item resembles a hook illustrated by Noël Hume (1978:229) dating from about 1745 to 1775.

Tobacco Group Artifacts

Area K produced 134 tobacco artifacts (representing 5.3% of the total assemblage), including 100 pipe stem fragments and 34 pipe bowl fragments. Of the 34 bowls, 32 (94.1%) were plain. Of the two decorated examples, one evidenced vertical ribs, the other had a molded circle enclosing the letters IH on the bowl. The most common diameter pipestem is 5/64-inch, as it has been at every other block excavation, accounting for 64.0% of the Area K collection (n=64), followed by 4/64-inch (28, 28.0%). Three examples had bores measuring 6/64-inch, one had a bore diameter of 7/64-inch; four were too fragmentary to measure. One of the 5/64-inch stems also included a fragment of a bowl with vertical ribs and a foot.

Clothing Group Artifacts

This category includes three buttons and three other clothing items, accounting for 0.2% of the total assemblage from Area K. The buttons, classified by South's (1964) types, include one Type 7 spun brass, measuring 17.7 mm; one Type 15 one-hole bone button, measuring 13.4 mm; and one dome shaped black glass button measuring 11.3 mm in diameter and 5.4 mm in height, which originally had a brass eye molded in the glass. The identified types are both consistent with eighteenth century examples.

The other clothing items include two iron buckles and a small scissor handle fragment. One buckle measures 1¾-inches square and consists of the frame and a movable iron tongue. The other frame measures 2¼ by 2¾-inches.

Personal Group Artifacts

Four Personal Group artifacts were recovered from Area K, accounting for 0.2% of the block excavation's assemblage. Three of these items are beads, including two amber beads (one measuring 5.9 mm in length, 12.2 mm in width, and 3.3 mm in diameter, the other 14.1 mm in length, 6.6 mm in width, and 3.2 mm in diameter)

and one white bead (measuring 26.0 mm in length, 19.5 mm in width, and 3.6 mm in diameter). The other item is a slightly oval faceted black glass jewelry setting, measuring 14.0 mm by 13.5 mm.

Activities Group

This final artifact group includes 19 specimens (or 0.7% of the total assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply "other" (South 1977:96).

Tools include one flat file fragment. Storage items include two fragments of strap iron. One item, a silver plated brass decorative strip, is listed under Stable and Barn since the item appears to be molding used on coaches. Spivey (1979:80) illustrates "metal molding, half round, lead filled, silver plated," which appears identical to this item. Although the item is illustrated in a turn of the century catalog, it seems likely that similar molding would have been used on eighteenth and early nineteenth century carriage. Miscellaneous hardware includes one tack, one eye bolt (2½-inches in length), one "S" link of chain, and one hook (measuring 2½-inches in length). "Other" includes two flower pot fragments, three flint fragments, two puddles of lead, two fragments of turned lead, one unidentifiable iron fragment, and one brass ring (which, like the others found at Broom Hall, may represent a drawer pull).

Area L

Area L was originally defined based on a concentration of artifacts in the shovel testing, but excavation failed to identify structural remains. One 10-foot unit was excavated in this area, with the recovery of 1383 artifacts. This yields 13.8 artifacts per square foot or 13.0 artifacts per cubic foot.

Kitchen Group Artifacts

Area L produced 864 Kitchen Group artifacts, representing 62.5% of the total assemblage from the unit. The most common Kitchen Group artifacts are ceramics (accounting

for 440 specimens or 50.0% of the group total), closely followed by glass (565 specimens or 35.9%). Colono wares contributed 259 specimens (accounting for about 30.0% of the collection) and will be discussed in a following section. Two tableware and six kitchenware items were recovered.

The pottery recovered encompasses a wide range of eighteenth through mid-nineteenth century ceramics, with no collection clearly dominating the assemblage. Whitewares,

Porcelain	38	8.6%	
Stoneware	47	10.7%	
Brown	16		
Blue/Gray	14		
White	17		
Earthenware	355	80.7%	
Redware	1		
Slipware	56		
Refined	6		
Coarse	23		
Delft	15		
Creamware	63		
Pearlware	77		
Whiteware	85		
Other	29		

pearlwares, and creamwares are the most common, but combined they account for just over half of the collection. Relatively few examples of porcelains or white salt glazed stonewares, so common elsewhere in the main complex, were found at this excavation. The major types of ceramics are shown in Table 38, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 89.8% of the ceramics. Utilitarian wares, such as the coarse wares and brown stonewares account for about 10.2% of the collection.

The collection included 14 plates, 14 bowls, seven cups, and one teapot. Table 39 illustrates this distribution, revealing the dominance of tablewares (which account for 77.8%

Shape	#	%
Tableware	28	77.8
Plates/saucers	14	38.9
Bowls	14	38.9
Serving	-	-
Tea and Coffeeware	8	22.2
Utilitarian	-	-

of the collections). Within this category, flatware and hollow ware forms occur evenly. In spite of this comparatively low status assemblage, teawares are relatively common, accounting for over 20% of the collection. From Area L, 259 fragments of Colono wares were recovered. If these are included in the ceramic group, they would account for 37.1% of the total — a considerably higher proportion than found elsewhere on the site and seemingly appropriate for the relative importance of hollow ware vessels. We hesitate, however, to make too much of the assemblage since it represent only one unit.

The mean ceramic date for Area L is shown in Table 40. This table also provides information concerning manufacturing date for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest artifact present in the assemblage. The TPQ date for Area L is in the 1830s, based on some of the whitewares recovered from the excavation. The unit, however, represents sheet midden or yard scatter, so it likely represents materials from the site's long occupational history.

Container glass accounts for 157 fragments or 18.2% of the Kitchen Group total. The most prevalent glass type is "black," comprising 68.8% of the glass found in Area L (n=108). This assemblage, however, accounts for only three "wine" bottles. The next most common container glass was represented by 33 fragments of clear glass, which has a MNV of one bottle. Also recovered were 10 fragments of green glass, and six fragments of aqua glass. Tableware items include

Table 40.
Mean Ceramic Date for Area L

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Overglaze enamelled porcelain	1660-1800	1730	8	13,840
Underglazed blue porcelain	1660-1800	1730	16	27,680
Nottingham stoneware	1700-1810	1755	1	1,755
Westerwald	1700-1775	1738	1	1,738
White SGSW	1740-1775	1758	16	28,128
White SGSW, scratch blue	1844-1775	1760	1	1,760
Lead glazed slipware	1670-1795	1733	56	97,048
Jackfield	1740-1780	1760	2	3,520
Clouded wares	1740-1770	1755	3	5,265
Decorated delft	1600-1802	1750	6	10,500
Plain delft	1640-1800	1720	9	15,480
Creamware, annular	1780-1815	1798	3	5,394
undecorated	1762-1820	1791	60	107,460
Pearlware, poly hand painted	1790-1820	1805	2	3,610
blue hand painted	1780-1820	1800	25	45,000
edged	1780-1830	1805	3	5,415
annular/cable	1790-1820	1805	23	41,515
undecorated	1780-1830	1805	24	43,320
Whiteware, green edged	1811-1830	1828	1	1,828
blue edged	1811-1880	1853	5	9,265
poly hand painted	1826-1870	1848	1	1,848
blue transfer printed	1831-1865	1848	7	12,936
annular	1831-1900	1866	23	42,918
mocha	1831-1900	1866	2	3,732
undecorated	1820→	1860	42	78,170
Yellow ware	1826-1880	1853	5	9,265
			349	625,744

$625,744 \div 349 \approx 1793.0$

(14 with rose head and 23 with "T" heads were recovered intact. All are 10d or less in size, with the rose heads all representing very small nails (2d to 5d), suggesting use for shingles. Eleven intact cut nails, three with wrought heads and eight with cut heads, were recovered. These cluster in the range of 2d to 4d (three nails) and from 7d to 10d (eight nails). The sample size in Area L is so small that it seems unlikely that a structure existed in this immediate area. More likely, these remains reflect general yard scatter, especially considering the proximity of this structure to others on the grounds.

The next most common Architecture Group artifact is that of flat glass (all of which appears to represent window glass), accounting for 14.6% of the group (n=60). No door lock parts or Construction Hardware items were recovered, further suggesting that this was not a structure location.

Furniture Group Artifacts

The only furniture item identified from Area L is an iron escutcheon, probably associated with a drawer pull or similar item.

two glass fragments, yielding a MNV of one goblet. Kitchenware included five kettle body fragments and one kettle handle fragment.

Architecture Group Artifacts

A total of 412 architectural specimens (excluding brick and slate) was recovered from Area L, representing about 29.8% of the total artifact assemblage.

The single largest category is that of nails, with the 352 specimens accounting for 85.4% of the collection. Of these 283, or 80.4%, can be discounted since they could not be either measured or identified as to type. Thirty-seven wrought nails

Arms Group Artifacts

The single arms related item is a black gunflint. Based on the color of the material, this is likely an English flint (Emery 1979:37-48; Noël Hume 1978:220).

Tobacco Group Artifacts

Area L produced 76 tobacco artifacts (representing 5.5% of the total assemblage), including 54 pipe stem fragments and 22 pipe bowl fragments. Of the 22 bowls, 12 (54.5%) were plain, nine (40.9%) had molded vertical ribs, and one had a floral pattern at the mold seam. The most common diameter pipestem is 5/64-inch, as it

has been at every other block excavation, accounting for 61.1% of the Area L collection (n=33), followed by 4/64-inch (14, 25.9%). Six examples had bores measuring 6/64-inch and one was too fragmentary to measure. One of the 5/64-inch stems also included a fragment of a bowl with vertical ribs and a foot.

Clothing Group Artifacts

This category includes four buttons and one other clothing item, accounting for 0.4% of the total assemblage from Area K. The buttons, classified by South's (1964) types, include two Type 7 spun brass, measuring 15.3 and 21.6 mm; one Type 28 brass button, measuring 19.1 mm and stamped "GILT" with a wreath; and one fragment of a glass inset for a Type 35 button. These types span the eighteenth and nineteenth centuries. The other clothing item is an iron buckle frame measuring 1 1/8 by 1 3/8-inches.

Personal Group Artifacts

The one Personal Group artifact identified from Area L is a fragment of a key, likely used in a padlock or hasp lock.

Activities Group Artifacts

This final artifact group includes 23 specimens (or 1.7% of the total assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply "other" (South 1977:96).

Storage items include three fragments of strap iron. "Other" includes two brass rings (possibly drawer pulls), one cut brass strip, four flower pot fragments, one fragment of unidentifiable iron, and eight fragments of flat iron.

Area M

Area M was originally defined based on the presence of brick rubble eroding from the edge of the road. Excavations failed to identify intact architectural remains, although the proximity of

this unit to the block excavations at Area K suggests the two may be related. A single 10-foot unit was excavated (half of which was in the adjacent ditch), producing 304 artifacts. This yields 6.1 artifacts per square foot or 6.3 artifacts per cubic foot.

Kitchen Group Artifacts

Area M produced 236 Kitchen Group artifacts, representing 77.6% of the total assemblage from the unit. The most common Kitchen Group artifacts are ceramics (accounting for 132 specimens or 55.9% of the group total).

Porcelain	35	26.5%
Stoneware	25	19.0%
Brown	2	
Blue/Gray	6	
White	17	
Earthenware	72	54.5%
Slipware	16	
Refined	4	
Coarse	5	
Delft	16	
Creamware	19	
Pearlware	4	
Whiteware	4	
Other	4	

Three tableware and one kitchenware items were also recovered.

The pottery recovered encompasses a range of eighteenth through mid-nineteenth century ceramics, with no collection dominating the assemblage. In fact, porcelains, accounting for 35 specimens, comprise over a quarter of the collection, while the next most abundant ceramic, creamware, accounts for just over 14% of the collection. Other wares, such as delft, white salt glazed stoneware, and slipware, account for just over 10% each. The major types of ceramics are shown in Table 41, revealing that tablewares, such as the porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 89.8% of the ceramics. Utilitarian

Table 42.
Shape and Function of Ceramic
Vessels in Area M

Shape	#	%
Tableware	12	57.1
Plates/saucers	8	38.1
Bowls	3	14.3
Serving	1	4.7
Tea and Coffeeware	9	42.9
Utilitarian	-	-

wares, such as the coarse wares and brown stonewares account for about 10.2% of the collection.

The collection included eight plates, three bowls, nine cups, and one platter. Table 42 illustrates this distribution, revealing the dominance of tablewares (which account for 57.1% of the collections). Within this category, flatwares are more common and the collection also contains one serving vessel. Teawares account for 42.9% of the collection. Based on 21 vessels from only one unit, this information should be carefully interpreted.

The mean ceramic date for Area M is shown in Table 43. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area M is in the 1830s, based on some of the whitewares recovered from the excavation. The unit, however, may represent sheet midden or yard scatter (there is little indication of any intact architectural feature), so it likely represents materials from the site's long occupational history.

Container glass accounts for 70 fragments or 29.7% of the

Kitchen Group total. The most prevalent glass type is "black," comprising 67.1% of the glass found in Area M (n=47). This assemblage consisted entirely of body fragments, so it was impossible to obtain a consistent MNV estimate. Blue glass, contributing only four fragments, includes one small blown bottle with a diameter of 1 3/4-inches. Other glass includes 12 clear fragments, four light green, and three aqua.

Tableware items include one fragment of milk glass and two fragments of clear glass, none of which are adequate for evaluation of forms or MNV. The only kitchenware item recovered is an iron knife blade fragment.

Architecture Group Artifacts

A total of 51 architectural specimens (excluding brick and slate) was recovered from Area M, representing about 16.8% of the total artifact assemblage.

The single largest category is that of window glass, with the 31 specimens accounting for

Table 43.
Mean Ceramic Date for Area M

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	13	22,490
Underglazed blue porcelain	1660-1800	1730	12	20,760
Westerwald	1700-1775	1738	1	1,738
White SGSW	1740-1775	1758	12	21,096
White SGSW, scratch blue	1744-1775	1760	5	8,800
Lead glazed slipware	1670-1795	1733	16	27,728
Jackfield	1740-1780	1760	2	3,520
Decorated delft	1600-1802	1750	12	21,000
Plain delft	1640-1800	1720	4	6,880
Creamware, undecorated	1762-1820	1791	19	34,029
Pearlware, blue hand painted	1780-1820	1800	2	3,600
edged	1780-1830	1805	1	1,805
undecorated	1780-1830	1805	1	1,805
Whiteware, blue transfer printed	1831-1865	1848	1	1,848
undecorated	1820→	1860	3	5,580
Yellow ware	1826-1880	1853	2	3,706
			107	188,133
188,133 ÷ 107 ≈ 1758.3				

60.8% of the collection. The next most common Architecture Group artifact is that of nails, with the 18 specimens accounting for 35.3% of the collection. These include nine intact wrought nails, ranging in size from 2d to 12d, and one machine cut nail (8d). The sample is so small that it seems unlikely that further analysis will be of assistance in understanding the presence of any structural remains in the general vicinity.

No door lock parts were recovered and the only Construction Hardware items recovered are two delft tile fragments. While not included in the counts, this location did yield a number of slate roofing fragments identical to those others found on site.

Tobacco Group Artifacts

Area M produced 13 tobacco artifacts (representing 4.3% of the total assemblage), including 11 pipe stem fragments and two pipe bowl fragments (both of which were plain). The most common diameter pipestem is 5/64-inch, as it has been at every other block excavation, accounting for 63.6% of the Area M collection (n=7), followed by 4/64-inch (3, 27.3%). One example had a bore measuring 7/64-inch.

Personal Group Artifacts

Two Personal Group artifacts were identified from Area M, including a black glass jewelry insert and a brass jewelry fragment.

Activities Group Artifacts

The only Activities Group artifacts recovered from this unit were two flint flakes, possibly spalls from efforts to resharpen or produce gunflints.

38BK985, The Slave and the Slave Settlement

Area AA

Area AA, defined on the basis of a relatively dense concentration of artifacts, was explored by the excavation of two 10-foot units. Although no intact architectural remains were encountered, the excavations did reveal what

appears to be an agricultural ditch, designated Feature 2. A total of 3728 artifacts were recovered from the primary excavations, yielding 18.6 artifacts per square foot or 11.1 artifacts per cubic foot.

Kitchen Group Artifacts

Area AA produced 2918 Kitchen Group artifacts, representing 78.3% of the total assemblage from the block. The most common Kitchen Group artifact is Colono wares, which account for 2234 specimens, or 76.6% of the assemblage. The next most common item is container glass, which contributes 408 artifacts, or 14.0% of the collection. European ceramics account for only 273 items, or 9.4% of the total Kitchen Group assemblage. One tableware item and two kitchenware items are also included in this group.

If the 2234 Colono wares were included with the European ceramics, the two would account for 89.8% of the group total. The Colono wares will be discussed in a following section of this study.

The European wares recovered encompass a diverse range of eighteenth through mid-nineteenth century ceramics, including porcelains, white salt glazed stoneware, delft, even Jackfield, but are dominated by lead glazed slipwares, which account for nearly half of the collection (46.9%),

Porcelain	29	10.6%
Stoneware	73	26.7%
Brown	17	
Blue/Gray	16	
White	40	
Earthenware	171	62.7%
Redware	1	
Slipware	128	
Refined	4	
Coarse	8	
Delft	10	
Creamware	6	
Pearlware	6	
Whiteware	8	

n=128). No other single ware comes even close to the quantity of slipwares found in these excavations. In spite of their abundance, only six vessels could be identified in the collection, largely because the materials are heavily fragmented (and seemingly dispersed). The identified slipware vessels include three plates, all with piecrust rims, and three bowls (with diameters of 4½, 5, and 6-inches).

The major types of ceramics are shown in Table 44, revealing that tablewares, such as the slipwares, porcelains, white salt glazed stonewares, Jackfield, delft, creamwares, and pearlwares, account for 90.5% of the ceramics. Utilitarian wares, such as the coarse wares and brown stonewares account for about 9.5% of the collection.

White salt glazed stonewares contribute 40 specimens to the assemblage. These represent two molded plates and one 3-inch diameter cup. The porcelains, including seven overglazed enameled and 17 underglaze blue hand painted specimens, represented two overglazed enameled plates, three underglaze blue hand painted plates (with diameters of 9 and 12-inches), and three underglaze blue hand painted bowls (including two with diameters of 4½ and 5-inches). The Westerwald, which was evidenced by only 16 sherds, was identified as coming from two mugs (3½ and 4½-inches in diameter) and a large jug. Creamwares, pearlwares, and whitewares combined account for 20 specimens, including two plates, and two bowls.

Shape	#	%
Tableware	20	83.3
Plates/saucers	12	50.0
Bowls	8	33.3
Serving	-	-
Tea and Coffeeware	3	12.5
Utilitarian	1	4.2

The collection included 11 plates, eight bowls, one cup, one saucer, two mugs, and one large jar. Table 45 illustrates this distribution, revealing the dominance of tablewares (which account for 83.3% of the collections). Within this category, flatwares are somewhat more common than hollow wares, accounting for 50.0% compared to 33.3%. Serving vessels are absent. Surprisingly, tea and coffeewares account for 12.5%, white utilitarian and storage containers account for only 4.2% of the assemblage. Of course, these figures reflect only the European ceramics and do not include the abundant Colono wares present in the block excavation.

The mean ceramic date for Area AA is shown in Table 46. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area AA is surprisingly late, about 1830, based on one tinted whiteware ceramic. In spite of this late date, the MCD for Area AA is relatively early, 1745, indicating that the considerable occupational time span found at the neighboring Broom Hall main plantation, is also present in the slave settlement.

Container glass accounts for 408 fragments or 14.0% of the Kitchen Group total. The most prevalent glass type is "black," comprising 86.8% of the glass found in the excavations (n=354). This assemblage, however, accounts for only four "wine" bottles. The next most common container glass was represented by 24 fragments of amethyst glass, which represent one soda water bottle, probably dating from the first half of the nineteenth century. Eighteen fragments of clear glass, five aqua glass, four light green glass, and three green glass fragments were also recovered from the block excavations.

The one tableware item is a fragment of clear glass, consisting of a small handle typical of eighteenth century punch cups. The kitchenware items include one kettle rim and one iron handle fragment. The kettle is relatively large, at least 24-inches in diameter.

Table 46.
Mean Ceramic Date for Area AA

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Overglaze enamelled porcelain	1660-1800	1730	7	12,110
Underglazed blue porcelain	1660-1800	1730	17	29,410
Nottingham stoneware	1700-1810	1755	7	12,285
Westerwald	1700-1775	1738	16	27,808
White SGSW	1740-1775	1758	40	70,320
Lead glazed slipware	1670-1795	1733	128	221,824
Jackfield	1740-1780	1760	1	1,760
Decorated delft	1600-1802	1750	4	7,000
Plain delft	1640-1800	1720	6	10,320
Creamware, annular	1780-1815	1798	1	1,798
undecorated	1762-1820	1791	5	8,955
Pearlware, edged	1780-1830	1805	2	3,610
undecorated	1780-1830	1805	4	7,220
Whiteware, poly hand painted	1826-1870	1848	2	3,696
blue transfer printed	1831-1865	1848	1	1,848
tinted		1911	1	1,911
undecorated	1820→	1860	5	9,300
			247	431,175
$431,175 \div 247 \approx 1745.6$				

cut nails may suggest that the bulk of the building occurred prior to about the first quarter of the nineteenth century, which is not totally inconsistent with the TPQ and is well supported by the MCD.

Although nail sizes range for 2d to 30d, all but one nail are 10d or under, with the rose heads found primarily in very small (2d to 4d sizes). The "T" heads are found primarily from 5d to 10d. The small size rose headed nails may have been used for attaching wood shingles (presumed to have been used since no slate samples were recovered from anywhere in the slave settlement area), while the clasp headed or "T" headed nails were perhaps used for siding and flooring. The near total absence of larger nails suggests the supposition that the structures were of a date when peg construction was the norm. Although the sample is very small, the large number of

fragmentary or heavily corroded nails does suggest that the excavation was placed in, or at least near to, the structure location.

Architecture Group Artifacts

A total of 566 architectural specimens was recovered from Area AA representing about 15.2% of the total artifact assemblage.

The single largest category is that of nails, with the 550 specimens accounting for 97.2% of the collection. Of these 488, or 87.3%, can be discounted since they could not be either measured or identified as to type. Of the remaining 62 nails, all are hand wrought, based on their taper on all four sides, instead of only two (see Howard 1989:54; Nelson 1968). Thirty-nine were intact. Two head styles are present in the collection, rose heads (accounting for 51.3% of the wrought irons; $n=20$), typically used in rough framing and attaching exterior cladding, and clasp or "T-heads" (accounting for 19 specimens or 48.7% of the wrought nails), typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). The absence of

Thirteen fragments of window glass were found in the area. While this suggests the presence of glazed windows, it should be noted that the other architecture related items found in Area AA are three fragments of the delft tiles used as fireplace or wall skirtings. Since it seems unlikely that slave quarters would have had either, and that these tiles were probably scavenged from the main plantation complex, it is possible that the window glass was likewise salvaged, perhaps seeing alternative or secondary uses. If glazing was used, the sparse quantity suggests that there was perhaps only one or two windows in the structure.

Furniture Group Artifacts

The one furniture item was a brass escutcheon, perhaps associated with a drawer pull. This accounts for less than 0.1% of the total assemblage.

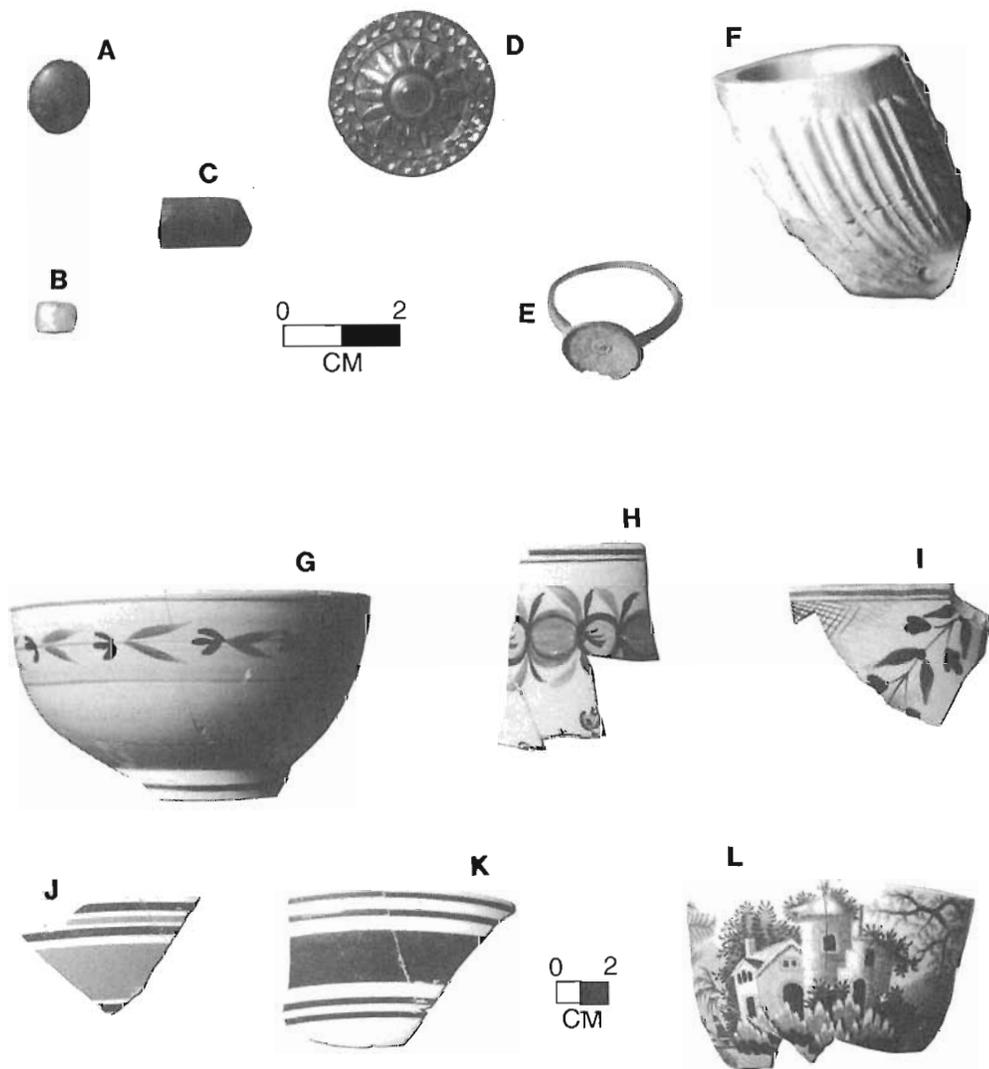


Figure 52. Artifacts from the Broom Hall slave settlement. A, green stone jewelry setting; B-C, glass beads, D, stamped brass button; E, brass finger rim; F, ribbed kaolin pipe bowl; G, polychrome hand painted pearlware bowl; H, polychrome hand painted pearlware mug; I, polychrome pearlware hand painted bowl; J-K, annular creamware bowls; L, blue transfer printed pearlware bowl.

Arms Group Artifacts

The single Arms Group item is a gray gunflint. Based on the color of the material, this is likely an English flint (Emery 1979:37-48; Noël Hume 1978:220).

Tobacco Group Artifacts

Area AA produced 216 tobacco artifacts (representing 5.8% of the total assemblage), including 114 pipe stem fragments and 102 pipe bowl fragments. Of the 102 bowls, 98 (96.1%) were plain. Decoration on the remaining four was limited to three with "T/D" molded on feet, and one with "W/G" on the foot. As in the main plantation complex, the most common diameter pipestem is 5/64-inch, accounting for 68.4% of the Area AA collection (n=78). Two of these have partial bowls with feet. On one the foot is marked "T/D," while on the other is "W/G." The next most common bore diameter is 4/64-inch (34, 29.8%). Decoration on these included three with mold seams embellished with a floral motif, one incised bowl, and one with an unidentifiable molded design. One specimen had a bore of 6/64-inch and one was too fragmentary to measure.

Clothing Group Artifacts

This category includes three buttons and two other clothing items, accounting for 0.1% of the total assemblage from Area AA. The buttons, classified by South's (1964) types, include one Type 1 brass button with a spun back and a cast face measuring 16.0 mm and one Type 11 cast pewter button (which was too fragmentary to measure). Both likely date to the eighteenth century. In addition, one brass suspender button was also identified. The face of this item was stamped, "HEAD/LIGHT," a brand name which likely dates from the second half of the nineteenth century.

Two other clothing items were also recovered. One was a buckle measuring 1-inch square, consisting of an iron frame and an iron hook (attached to the frame). These are often classified as harness buckles (see Stone 1974:299) although they seem to have also been used on very simple clothing items. The other buckle, of brass, measured about 1-inch in height and 1¼-inches in

length. It consists of the frame and a hinge bar. The hook is no longer present. This type of buckle is almost always considered a clothing item, with Stone (1974:29) suggesting use as stock, belt, or knee buckles.

Personal Group Artifacts

Three Personal Group artifacts were recovered from Area AA, accounting for 0.1% of the block excavation's assemblage. One of these items is a green opaque glass bead, measuring 6 mm in diameter and 24 mm in length. Also recovered is a copper coin, identified as a British half penny dating from either 1806 or 1807. The final item was a fragment of a counting slate, with scratching indicating tallies clearly visible.

Activities Group Artifacts

This final artifact group includes 18 specimens (or 0.5% of the total assemblage). The category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general glass called simply "other" (South 1977:96).

Miscellaneous hardware includes one decorative nail. In the other category are two fragments of what appear to be turned lead, likely used in a window; one fragment of flat cooper; five fragments of flat iron, perhaps originally pan fragments; and nine unidentifiable iron fragments.

Feature 2

Feature 2 appears to be an agricultural ditch cutting through the Area AA block excavation. A total of 621 artifacts were recovered, or about 17.3 artifacts per cubic foot. Based on the archaeological evidence, the remains from Feature 2 should closely resemble those found in the overlying plow zone (previously discussed). In fact, the artifact pattern, the mean ceramic date, and the general nature of the assemblage does closely resemble the overlying deposits.

The bulk of the remains belong to the Kitchen Group (476 or 76.7%), with Colono wares

Table 47.
Mean Ceramic Date for Feature 2, Area AA

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	2	3,460
White SGSW	1740-1775	1758	4	7,032
Lead glazed slipware	1670-1795	1733	26	45,058
Creamware, undecorated	1762-1820	1791	1	1,791
			33	57,341
$57,341 \div 33 \approx 1737.6$				

comprising 78.4% of the collection. If these are included with the European wares, they would account for 86.6% of the total. All of the European wares recovered date primarily from the eighteenth century, and the latest item for a TPQ is 1762, provided by one undecorated creamware ceramic. The mean date of 1737.6 is illustrated in Table 47.

Also included in the Kitchen Group are 64 fragments of "black" glass (representing a single large blown wine bottle with a 128 mm base, what Jones [1986] classifies as a probable beer or undersized beer sized bottle).

The Architecture Group includes 103 unidentifiable nail fragments comprising 16.6% of the total assemblage. While many, if not most, of these appeared to be wrought, they were too corroded to permit firm identification. No window glass was recovered from the feature.

The one furniture item found in the feature is a brass furniture tack. The single Arms Group artifact is a lock plate and portion of the broken cock from a flint lock. Tobacco items include 15 stems and 23 bowls. Of the bowls, 21 or 91.3% are plain, one is a "TD" pipe, and one exhibits foliage on the mold seam. As elsewhere, the 5/64-inch bore stems are the most common, accounting for 80% of the collection. The one clothing item is a Type 16 white metal and brass button measuring 16 mm in diameter. The single Personal Group Artifact is a tubular blue glass bead, measuring 15.5 mm in length and 8 mm in diameter.

Area BB

Area BB, defined on the basis of a scatter of artifacts found during the auger survey of the slave settlement, was explored by the excavation of a 10-foot unit. Although no intact architectural remains were encountered, the excavations did reveal what appears to be a burned area and also a large "trash" pit, designated Feature 1. A total of 987 artifacts were recovered from the primary excavations, yielding 9.9 artifacts per square foot or 12.8 artifacts per cubic foot.

Kitchen Group Artifacts

Area BB produced 641 Kitchen Group artifacts, representing 64.9% of the total assemblage from the unit. The most common Kitchen Group artifacts are Colono wares, which account for 279 specimens, or 43.5% of the assemblage. The next most common items are the European ceramics, which account for 267 specimens, or 41.7% of the collection. If the 279 Colono wares were included with the European ceramics, the two would account for 85.2% of the group total. The Colono wares will be discussed in a following section of this study. Container glass contributes 91 fragments to the Kitchen Group, along with two tableware and two kitchenware items.

The European wares recovered encompass a rather limited range of somewhat early eighteenth century wares (such as slipwares) and late eighteenth to mid-nineteenth century styles (such as pearlwares and whitewares). The most common pottery is the pearlware, accounting for 101 specimens, or 37.8% of the ceramics present in the unit. Whitewares are the next most common, accounting for 76 fragments or 28.5% of the assemblage. The 40 examples of creamwares account for 15.0% of the collection. None of the remaining wares account for more than about 4%.

A range of pearlwares are present with no one motif dominating the collection. Recovered were two mocha patterns, 19 polychrome hand painted fragments, one blue hand painted, 27 blue

transfer printed, 10 edged wares, 11 cable and annular wares, and 31 undecorated specimens. These account for a total of 18 vessels, including three blue edged plates, three green edged plates, two polychrome hand painted bowls, six annular ware bowls, three blue transfer printed plates, and one blue transfer printed bowl.

The whitewares recovered from Area BB include three green edged sherds, seven blue edged fragments, six polychrome hand painted, 24 annular wares, two sponge decorated, eight mocha, and 26 plain wares. The whiteware MNVs include one undecorated plate, four blue edged plates, two green edged plates, and nine annular ware bowls.

Porcelain	14	5.2%	
Stoneware	14	5.2%	
Brown	10		
Blue/Gray	1		
White	3		
Earthenware	239	89.6%	
Redware	5		
Slipware	6		
Coarse	11		
Creamware	40		
Pearlware	101		
Whiteware	76		

The only other vessels identified include one hand painted overglazed porcelain bowl with a diameter of 5½-inches, two undecorated creamware plates, and two annular creamware bowls (one of which had a diameter of 6-inches).

The major types of ceramics are shown in Table 48, revealing that tablewares, such as the slipwares, porcelains, white salt glazed stonewares, creamwares, pearlwares, and whitewares account for 90.2% of the ceramics. Utilitarian wares, such as the coarse wares and brown stonewares account for about 9.8% of the collection.

As previously discussed, the collection included 18 plates and 21 bowls for a total of 39

Shape	#	%
Tableware	39	100.0
Plates	18	46.2
Bowls	21	53.8
Serving	-	-
Tea and Coffeeware	-	-
Utilitarian	-	-

MNV. Table 49 illustrates this distribution, revealing that only tablewares were present in the collection. Within this category bowls are somewhat more common than plates, but the collection is very close to being evenly divided between these two forms. As cautioned for Area AA, this analysis includes only the European ceramics and does not include the abundant Colono wares present in the unit.

The mean ceramic date for Area BB is shown in Table 50. This table also provides information concerning manufacturing date range for the various ceramics. The *terminus post quem* (or TPQ) date is that date *after which* the zone was deposited. It is based on the latest dated artifact present in the assemblage. The TPQ date for Area BB is surprisingly late, about the mid-1830s, based on the sponged whiteware ceramics. Corresponding to this relatively late TPQ date, the MCD for Area BB is 1816. This, combined with the relative scarcity of early eighteenth century wares, suggests that this portion of the slave settlement was not established until the late eighteenth century.

Container glass accounts for 91 fragments or 14.2% of the Kitchen Group total. The most prevalent glass type is "black," comprising 67.0% of the glass found in the excavations (n=61). This assemblage, however, accounts for only one "wine" bottle — most likely an Imperial wine style bottle post-dating about 1825 (Jones 1986). The next most common container glass was represented by 10 fragments of green glass. Clear glass accounts for seven fragments, light green for eight specimens, and milk glass for two fragments. The

Table 50.
Mean Ceramic Date for Area BB

Ceramic	Date Range	Mean Date (xi)	# (fi)	fi x xi
Overglaze enamelled porcelain	1660-1800	1730	6	10,380
Underglazed blue porcelain	1660-1800	1730	5	8,650
White SGSW	1740-1775	1758	3	5,274
Lead glazed slipware	1670-1795	1733	6	10,398
Creamware, annular undecorated	1780-1815 1762-1820	1798 1791	11 29	19,778 51,939
Pearlware, mocha	1795-1890	1843	2	3,686
poly hand painted	1790-1820	1805	19	34,295
blue hand painted	1780-1820	1800	1	1,800
blue transfer printed	1795-1840	1818	27	49,086
edged	1780-1830	1805	10	18,050
annular/cable	1790-1820	1805	11	19,855
undecorated	1780-1830	1805	31	55,955
Whiteware, poly hand painted	1826-1870	1848	6	11,088
green edged	1811-1830	1828	3	5,484
blue edged	1811-1880	1853	7	12,971
annular	1831-1900	1866	24	44,784
sponge	1836-1870	1853	2	3,706
mocha	1831-1900	1866	8	14,928
undecorated	1820→	1860	26	48,360
			237	430,467

430,467 ÷ 237 ≈ 1816.3

three fragments of emerald green glass include a blown base measuring 1¼-inches in diameter.

The two tableware items consist of two fragments of clear glass. One represents a plain tumbler, the other, a fragment of painted glass, represents an unidentified container. McNally (1982) notes that enamel painting was present on eighteenth century English glassware brought into North America. These wares, however, seem rather uncommon, perhaps because of cost, taste, or failure to survive archaeological conditions. Noël Hume (1978:193-194), like McNally, comments on the seeming absence of this style in archaeological collections. He also remarks that enamelled glass, while popular in Europe, found relatively little favor in England. This may explain its seeming absence at colonial American sites — and at Broom Hall. The kitchenware items include one iron kettle body fragment and one iron kettle foot.

Architecture Group Artifacts

A total of 285 architectural specimens was recovered from Area BB, representing about 28.9% of the total artifact assemblage.

The single largest category is that of nails, with the 259 specimens accounting for 90.9% of the collection. Of these 233, or 90.0%, can be discounted since they could not be either measured or identified as to type. Of the remaining 26 nails, there are 11 measurable wrought examples and five measurable machine cut examples (all with cut heads). Ten of the 11 wrought nails had clasp or "T-heads", typically used in trim work where the holding power of the larger head was not needed and the head would distract from the appearance (Lounsbury 1994:412). The sizes range from 4d to 10d. Only one (a 6d nail) had a rose head, the style typically used in rough framing and attaching exterior cladding. Although the sample is very small, the large number of fragmentary or heavily corroded nails does suggest that the excavation was placed in, or at least near to, the structure location.

Twenty-four fragments of window glass were found in the area. While this suggests the presence of glazed windows, it should be noted that the other architecture related items found in Area BB include two drive pintles, typically used with strap hinges for shutters. These suggest that the windows were shuttered, not glazed. In addition, the very small quantity of glass (probably less than that found in one square) argues against the glass being commonly used in the slave quarters. The one other architectural item is a brownstone fragment, such as might be found in a hearth or used as a step. Its presence in the salve row may suggest salvage and re-use from the main plantation.

Table 52.
Shape and Function of Ceramic
Vessels in Feature 1, Area BB

Shape	#	%
Tableware	12	80.0
Plates	5	33.3
Bowls	7	46.7
Serving	-	-
Tea and Coffeeware	2	13.3
Utilitarian	1	6.7

category is broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply "other" (South 1977:96).

Storage items include four iron strap fragments and one brass strap fragment with a rivet. Miscellaneous hardware includes one brass ring and one screw fragment. In the other category are seven flint cobble fragments and one folded brass strip.

Tobacco Group Artifacts

Area BB produced 44 tobacco artifacts (representing 4.5% of the total assemblage), including 26 pipe stem fragments and 18 pipe bowl fragments. Of the 18 bowls, 15 (83.3%) were plain, two have molded vertical ribs, and one has a floral pattern at the mold line. As in the main plantation complex and at Area AA, the most common diameter pipestem is 5/64-inch, accounting for 69.2% of the Area BB collection (n=18). Three of these have molded decorations on the stems, including narrow ribs, ribs and dots, and dots and bars. The next most common bore diameter is 4/64-inch (six specimens, accounting for 23.1%). One specimen had a bore of 6/64-inch and one was too fragmentary to measure.

Personal Group Artifacts

Two Personal Group artifacts were recovered from Area BB, accounting for 0.2% of the unit's assemblage. One of these items is an oval green glass jewelry setting, measuring 13 by 10 mm and 4 mm in height. The other item is a clear faceted glass bead.

Activities Group Artifacts

This final artifact group includes 15 specimens (or 1.5% of the total assemblage). The

Feature 1

Feature 1 is a pit, perhaps originally used

Table 51.
Mean Ceramic Date for Feature 1, Area BB

Ceramic	Date Range	Mean Date (\bar{x}_i)	# (f_i)	$f_i \times \bar{x}_i$
Overglaze enamelled porcelain	1660-1800	1730	1	1,730
Underglazed blue porcelain	1660-1800	1730	3	5,190
Nottingham stoneware	1700-1810	1755	1	1,755
White SGSW	1740-1775	1758	2	3,516
Lead glazed slipware	1670-1795	1733	8	13,864
Creamware, annular	1780-1815	1798	7	12,586
hand painted	1790-1820	1805	2	3,610
undecorated	1762-1820	1791	56	100,296
Pearlware, poly hand painted	1790-1820	1805	26	46,930
blue hand painted	1780-1820	1800	1	1,800
blue transfer printed	1795-1840	1818	19	34,542
edged	1780-1830	1805	7	12,635
annular/cable	1790-1820	1805	2	3,610
undecorated	1780-1830	1805	8	14,440
Whiteware, annular	1831-1900	1866	1	1,866
undecorated	1820→	1860	1	1,860
			145	260,230
$260,230 \div 145 \approx 1794.7$				

for clay extraction and into which trash was subsequently thrown. A total of 1039 artifacts were recovered, or about 21.5 artifacts per cubic foot. Based on the archaeological evidence, the artifacts from Feature 1 should not only closely resemble those of the overlying zone in Area BB, but should also provide a sealed context dating the bulk of the occupation in this particular site area

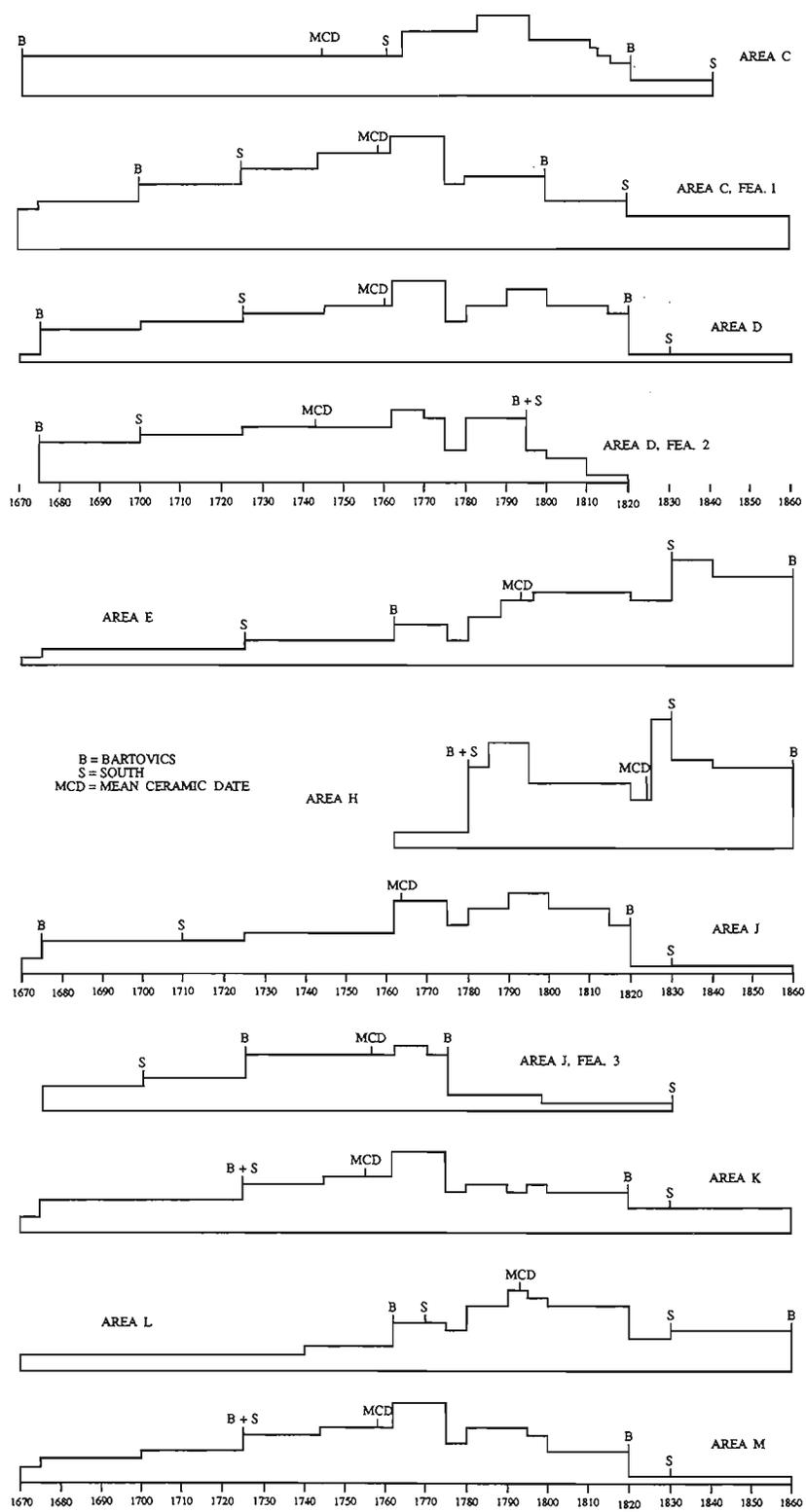
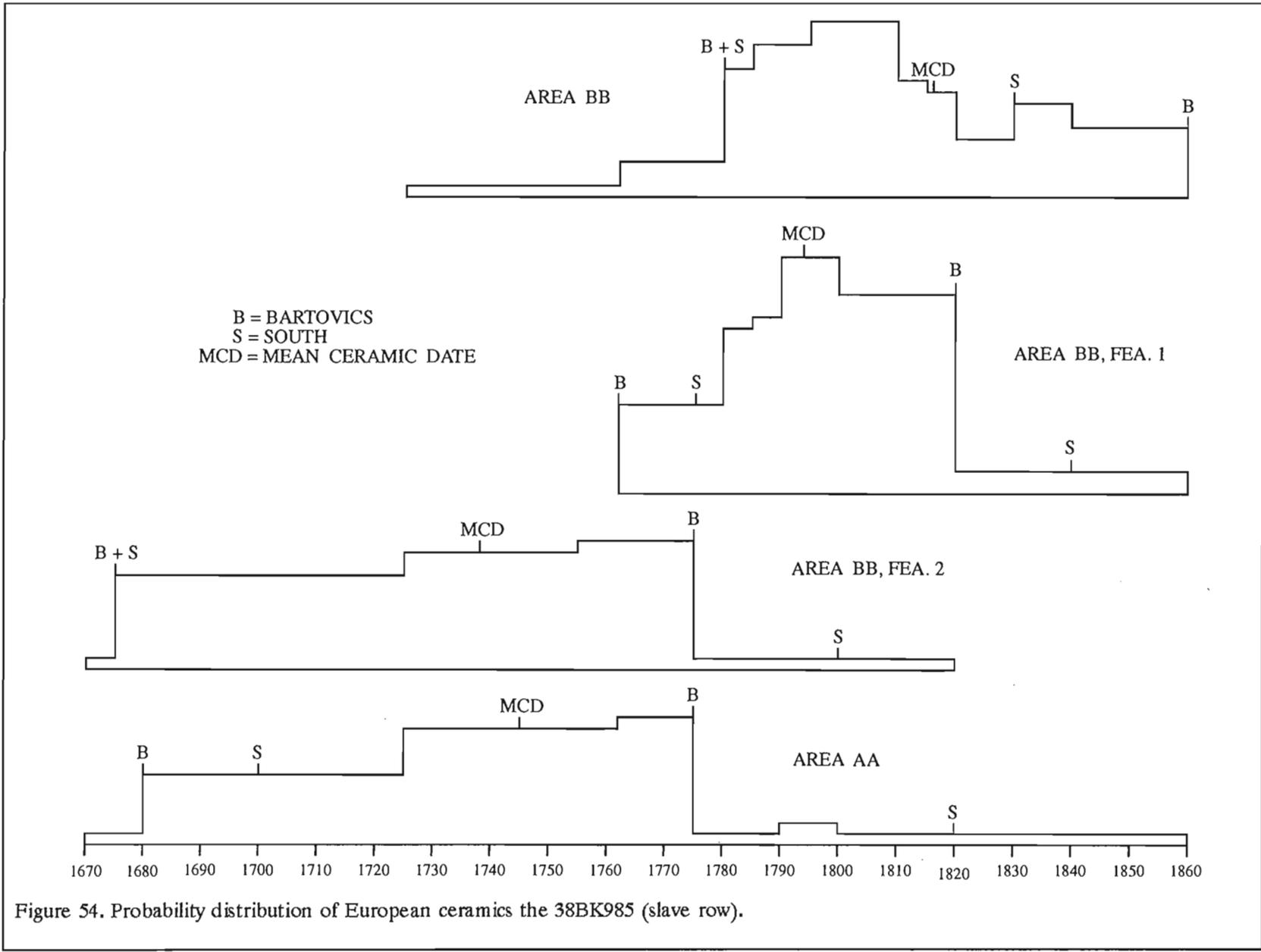


Figure 53. Probability distribution of ceramics at 38BK600 (main house complex).



Of these areas, Area C and Feature 1 appear to be exclusively associated with Peter Taylor. Other areas, while containing some early ceramics may not have been built until Thomas Smith's ownership. These would include a structure area (Area J), a concentration of artifacts (Area L), the stable/gig house (Area E), and the garden house (Area H). After Thomas Smith's son Peter died and Henry Middleton took over the plantation, he clearly took advantage of Thomas Smith's stable and garden house.

The trends illustrated by the Bartovics' method clearly illustrate how sensitive main house complexes are to changes in ownership and plantation reorientation and reorganization. Not only are European ceramics sensitive to changes at the main house complex, but Colono wares also appear to be sensitive. However, they seem to be more sensitive to economic changes (see the following chapter, Colono wares from Broom Hall). European ceramics and Colono wares from the slave settlement (38BK985) suggest that slaves' world was not nearly as strongly affected by change as the planter's world. Ferguson et al. (1990:9) have suggested that "the slave/non-slave distinction [was] so strong that it cleave[d] the group into two sub-cultures, interacting at some points and developing independently in others". At Broom Hall there is a strong indication that there were two worlds which existed and influenced each other only at certain points in time.

Turning to the slave settlement, the earliest occupations are Area AA and Feature 2 which functioned as an agricultural ditch. Based on this, it appears the earliest occupation of the Broom Hall slave row took place at Area AA where trash was deposited in a nearby agricultural field. Based on the similarity in time spans, the ditch was in use as a trash repository throughout the occupation of the early slave row.

This early slave settlement began around 1680 and terminated about 1775. Although Benjamin Gibbes, who obtained the property in 1715, is believed to have been the first owner to have his residence there, it is possible that slaves were living on the tract before that time.

Bartovics' dating method shows that there was no overlap in the occupation of the slave

settlements from Area AA and Area BB (Figure 54). The move to a different area (Area BB) sometime between 1775 and 1780 corresponds with the period that Thomas Smith reorganized the plantation into a country retreat after Peter Taylor's death in 1765. He probably had the old settlement razed and a new one built which was more in accord with his ideals of what a country retreat should look like. It was also during Smith's ownership that there was a significant reduction in the slave population.

The ceramics from Area BB suggest that the settlement was abandoned during the Civil War era. Feature 1 at Area BB, which is interpreted to be a trash pit, appears to have been used between 1762 and 1820.

Pattern Analysis

The various artifact patterns for the major proveniences of the main plantation complex are illustrated in Table 54. A range of previously defined artifact patterns are provided in Table 55 for comparative purposes. Clearly Broom Hall very closely resembles the Revised Carolina Artifact Pattern. Since this pattern was developed by Stanley South, and slightly revised by Pat Garrow, to reflect middling status eighteenth century Anglo-American deposits, this comes as no real surprise. What is more interesting is the range evidenced by this one plantation. While the Kitchen and Architecture groups evidence considerable range, these are accounted for by two structures (Area H, the garden structure and Area M, representing a possible servant's quarter behind the big house). What this indicates, of course, is what archaeologists have realized for a long time — that the artifact pattern will reflect the portion of the site excavated (see Joseph 1989). In the case of Broom Hall, enough different portions of the plantation landscape were sampled to ensure that the resulting artifact pattern was a valid representation of the site as a whole.

What is perhaps more surprising is that there is so little range within the total plantation. For example, of the nine areas examined in Table 54, only the garden structure is significantly outside the range of variation expected. The rest are within the range that we would expect from an eighteenth

Table 54.
Artifact Patterns at the Broom Hall Main Plantation Complex (numbers in percents)

Group	Area C	Fea. 1	Area D	Area E	Area H	Area J	Area K	Area L	Area M	Mean	Range
Kitchen	70.6	72.1	56.7	65.7	4.5	59.9	62.5	62.5	77.6	60.6	4.5-77.6
Architecture	22.7	22.8	33.4	28.2	44.6	34.6	30.8	29.8	16.8	28.6	16.8-44.6
Furniture	0.1	0.1	0.2	0.5	-	<0.1	0.3	<0.1	-	0.1	0.0-0.5
Arms	0.1	<0.1	0.1	0.3	-	<0.1	-	<0.1	-	<0.1	0.0-0.3
Tobacco	5.0	3.7	7.1	2.6	<0.1	3.7	5.3	5.5	4.3	4.2	<0.1-7.1
Clothing	0.3	0.4	0.5	0.1	<0.1	0.4	0.2	0.4	-	0.2	0.0-0.5
Personal	0.1	0.2	0.1	0.2	<0.1	<0.1	0.2	0.1	0.7	0.2	<0.1-0.7
Activities	1.1	0.7	1.9	2.4	50.7	1.1	0.7	1.6	0.6	6.1	0.6-50.7

century main plantation complex. Of equal interest is that two areas — Area C and Feature 1 underlying Area C — exhibit patterns which superficially resemble those expected at slave settlements, with very quantities of kitchen items and a relatively low proportion of architectural remains. In spite of the kitchen:architecture ratio the assemblage is certainly high status. In these two cases the anomaly is best explained by the specific nature of the archaeological context — a trash

recognition lies more in sampling large areas of the plantation than in obtaining a large sample from any one area.

Turning to the slave settlement at Broom Hall the artifact patterns illustrated in Table 56 also exhibit considerable range. Area AA and the underlying Feature 2 fall within the Carolina Slave Artifact Pattern (see Table 54), with kitchen items dominating the collection and architectural materials relatively uncommon. This pattern is

Table 55.
Previously Published Artifact Patterns (numbers in percents)

	Revised Carolina Artifact Pattern ^a	Charleston Townhouse Profile ^b	Carolina Slave Artifact Pattern ^c	Georgia Slave Artifact Pattern ^d
Kitchen	51.8-65.0	58.4	70.9-84.2	20.0-25.8
Architecture	25.2-31.4	36.0	11.8-24.8	67.9-73.2
Furniture	0.2-0.6	0.2	0.1	0.0-0.1
Arms	0.1-0.3	0.3	0.1-0.3	0.0-0.2
Tobacco	1.9-13.9	2.8	2.4-5.4	0.3-9.7
Clothing	0.6-5.4	0.9	0.3-0.8	0.3-1.7
Personal	0.2-0.5	0.2	0.1	0.1-0.2
Activities	0.9-1.7	1.1	0.2-0.9	0.2-0.4

^aGarrow 1982

^bZierden and Grimes 1989

^cGarrow 1982

^dSingleton 1980

deposit into which considerable quantities of kitchen trash were thrown.

Since even the limited shovel test survey of the plantation complex completed by Garrow's team in 1987 (Table 1) reveals a pattern closely resembling that of the Revised Carolina Artifact Pattern, it is likely that the key to viable pattern

typically explained, especially on eighteenth century sites, as the result of the slave dwellings being both rustic and also using relatively impermanent materials. Therefore, they contribute little to the total pattern, allowing the kitchen items to dominate the collection. The only real differences are that

clothing items contribute fewer specimens than would be anticipated and tobacco items (i.e., broken pipes) are more common than might be expected.

Area BB and underlying Feature 1, however, less clearly fit the expected slave profile. In fact, the assemblage from these two areas is a

Table 56.
Artifact Patterns at the Broom Hall Slave Settlement
(numbers in percents)

Group	Area AA	Fea. 2	Area BB	Fea. 1	Mean	Range
Kitchen	78.3	76.7	64.9	52.2	68.0	52.2-78.3
Architecture	15.2	16.6	28.9	37.8	24.6	15.2-37.8
Furniture	<0.1	0.2	-	-	0.1	0.0-0.2
Arms	<0.1	0.1	-	-	<0.1	<0.1-0.1
Tobacco	5.8	6.1	4.5	6.6	5.7	4.5-6.6
Clothing	0.1	0.1	-	1.8	0.5	0.0-1.8
Personal	<0.1	0.2	0.2	0.2	0.2	<0.1-0.2
Activities	0.5	-	1.5	1.4	0.9	0.0-1.5

near match to the Revised Carolina Artifact Pattern. We have previously noted that the later date for this site area suggests the slave settlement was moved by Thomas Smith to better fit into his overall plan of the plantation. It may be that this

Broom Hall. While the approach would be useful for at least a portion of the collection, such as the 634 sherds or 21 vessels of creamware and pearlware from Area C's Feature 1, it would leave unaddressed the much larger eighteenth century assemblage (including 3900 sherds and 299 vessels from Feature 1 alone).

There are, however, alternative approaches to exploring what the ceramic assemblage can tell us about the status of the Broom Hall occupants. For example Table 57 compares the types of ceramics present at the different areas. Clearly there is considerable difference between areas (as reflected the by relatively large standard deviations).

Table 57.
Major Types of Ceramics by Percent

	Area C	Fea. 1	Area D	Area E	Area H	Area J	Area K	Area L	Area M	Mean	SD
Porcelain	41.0	34.7	14.5	6.8	-	19.2	35.4	8.6	26.5	20.7	13.6
Stoneware	16.1	21.7	14.6	17.1	6.8	13.0	14.4	10.7	19.0	14.8	4.2
Earthenware	42.9	43.6	70.9	76.1	93.2	67.8	50.2	80.7	54.5	61.1	20.8

move involved substantially "up-grading" the living conditions of his slaves, providing more substantial architecture. It may also be that this site area reflects an overseer occupation, rather than a slave. Since only one unit was excavated in this area, providing a variety of tantalizing but contradictory clues, it is likely that this is one of the many questions which will remain unresolved.

Ceramics and Status

One of the most powerful tools for analysis of the economic value of archaeological ceramic assemblages is George Miller's (1980, 1991a) CC Indices. The technique provides a rough approximation of the economic position of the plantation owner depositing the discarded ceramics. Unfortunately, the indices are only appropriate on collections which date from the last two or two decades of the eighteenth century through the mid-nineteenth century. The indices have not been developed to deal with early eighteenth century assemblages such as those at

Regardless, there are several places on the plantation, such as Areas C, K, and M, where porcelains account for more than a quarter of the European ceramics. Nowhere on the plantation, other than at the garden structure, do porcelains account for less than about 7% of the assemblage. The mean contribution of porcelain is 20.7%. Compared to other eighteenth century assemblages this represents a very high proportion of the ceramics. At plantations of reduced wealth, such as Elfe (Trinkley 1985:27), Magnolia (Wayne and Dickinson 1990:11-10), and Green Grove (Carrillo 1980:Table 2), porcelains range from about 6% to 9%. At the early nineteenth century Oatland Plantation on the Waccamaw Neck, this drops as low as about 4% (Trinkley 1993b:43). At Drayton Hall, certainly one of the wealthier plantations along the South Carolina low country, porcelains are reported to account for only 9.7% of the European ceramic collection (Lewis 1978:199). At the nearby Archdale Hall Plantation, Zierden et al. (1985:103) report the porcelains account for about 13% of the ceramic collection. Even closer

Table 58.
Shape and Function of Ceramic Vessels at Broom Hall (by percent)

Shape	Area A	Fea. 1	Area D	Area E	Area H	Area J	Area K	Area L	Area M	Mean	SD
Tablewares	76.4	72.8	89.0	84.8	100.0	75.3	82.2	77.8	57.1	79.5	11.2
flatware	45.8	44.1	44.5	52.2	81.8	39.7	48.0	38.9	38.1	48.1	12.7
hollow ware	28.1	25.9	41.6	30.4	9.1	32.9	30.1	38.9	14.3	27.9	9.9
serving	2.5	2.8	2.9	2.2	9.1	2.7	4.1	-	4.7	3.4	2.3
Teaware	20.2	24.1	7.3	10.9	-	17.8	15.1	22.2	42.9	17.8	11.4
Utilitarian	3.4	3.1	3.7	4.3	-	6.9	2.7	-	-	2.7	2.2

to Broom Hall, of course, is its neighbor, Crowfield. An assemblage from this plantation reveals that porcelains account for nearly 17% of the collection (Trinkley et al. 1992:46). The overall impression, therefore, is that the porcelains at Broom Hall, if not unprecedented, are certainly at the high end of the spectrum.

Table 59.
Shape and Function of Vessels
in the Broom Hall Slave
Settlement (by percent)

Shape	Area AA	Area BB	Mean
Tablewares	83.3	100.0	91.7
Flatware	50.0	46.2	48.1
Hollow ware	33.3	53.8	43.8
Serving	-	-	-
Teaware	12.5	-	6.3
Utilitarian	4.2	-	2.1

Broom Hall also compares very favorably to the colonial and early antebellum townhouse assemblages of Charleston's townhouses — the social refuge of the wealth planters away from their plantations during the sickly season. Zierden and Grimes (1989:97) observe that porcelains and transfer printed CC wares *combined* account for about 22% of the ceramics at townhouse sites. Zierden and Grimes observe that the quantity of John Rutledge house porcelain, which accounts for 27.6% of the ceramic assemblage, is high even for wealthy households (Zierden and Grimes 1989:95). Even the Gibbes House, characterizing "Georgian opulence," evidenced an assemblage consisting of 10.6% porcelain (Zierden et al. 1987:76). It seems that Broom Hall, with its large quantities of Chinese porcelains, was intended to successfully compete with Charleston's society.

Even the Broom Hall slave settlement exhibits a relatively high proportion of porcelain. At Area AA, for example, porcelains comprise 10.6% of the European ceramic assemblage. Although the proportion drops to 5.2% at Area BB, this is still a relatively large amount of porcelain for a slave occupation. The most reasonable explanation for these figures is that the Broom Hall slaves were using cast-off ceramics. Since the porcelains were abundant in the main settlement, it is reasonable to find a relatively large quantity of these wares being used by slaves.

Another way of examining potential status is by comparing the form of the ceramics present at the site, broken into categories of tableware, teaware, and utilitarian wares. This is revealed for Broom Hall in Table 58. Tablewares, especially flatwares, tend to dominate almost every excavation area (the sole exception being Area L, where although tablewares account for 77.8% of the ceramic vessels, it is evenly divided between flatware and hollow ware. While Tablewares account for a mean of nearly 80%, the teawares account for a mean of nearly 18%, although nearly a quarter of some proveniences, such as Feature 1, consist of teawares and nearly 43% of the ceramics in Area M are teawares. Throughout the site utilitarian vessels, such as storage containers, are relatively uncommon, typically accounting for less than 4% of the collection.

Although the Archdale assemblage incorporates teawares and tablewares, combined they account for 63% of the ceramic assemblage, with utilitarian wares accounting for roughly 33% (Zierden et al. 1985:75). At Crowfield the combined tablewares and teawares account for 80.2% of the collection, with utilitarian wares accounting for the remaining 19.8%. Similarly, the utilitarian ceramic collection at the Gibbes site in

downtown Charleston comprised about 23% of the assemblage (Zierden et al. 1987:56). Although calculations are somewhat problematic, it seems that European utilitarian wares account for about 19.9% of the Drayton Plantation collection, while tablewares and teawares account for about 80.1% (Lewis 1978:65).

While there are fewer comparative collections, it seems that very high status collections have significantly higher proportions of teaware (allowing participation in the ritualized tea ceremony) and lower proportions of utilitarian wares. Zierden and Grimes (1989:65) note, correctly we believe, that the reduction in utilitarian ware represents the increased availability of new tableware styles, not necessarily an actual decrease in the use of utilitarian wares. We anticipate, however, that wealthy owners would more quickly take advantage of these new tableware forms. Flatwares will predominate the tableware collections, especially compared to lower status sites, where "one-pot meals" dominated cooking. The very low proportion of European food preparation and storage vessels at Broom Hall stands in contrast to many other wealthy sites. It suggests a reliance on Colono wares not found at the other sites examined. This may be an unusual feature of this particular plantation or its social setting, or it may reflect the ease of which Colono wares could be procured.

When the English ceramic forms at the slave settlement are examined, tablewares are again the dominant form, accounting for an overwhelming 91.7% of the vessels recovered. Flatwares and hollow wares are about evenly divided, in contrast to the nearly 2:1 ratio found at the main settlement. Although this is more typical of eighteenth century slave settlements, where bowl forms likely reflect the importance of stews, soups, and similar one-pot meals (see Otto 1984:68-69),

the ration at many eighteenth century slave sites reflects an even stronger reliance on bowl forms. For example an eighteenth century slave structure at Cotton Hope on Hilton Head Island revealed a flatware:hollow ware ratio of 1:2 (Trinkley 1990:98). It seems likely that the Broom Hall assemblage is influenced not only by the wealth and prestige of the owner, and the use of cast-off wares by slaves, but also by the use of Colono wares and even the work regime of the slaves. Comparing the slave and owner assemblages it is possible to immediately determine that wares from the main house, such as the overglazed enamelled porcelain, the white salt glazed stonewares, and the creamwares, were being used by slaves as well. As there are more of these available, it seems likely that more will be incorporated into the slave holdings. Further, the examination of vessel form fails to incorporate the Colono ware vessels, the vast majority of which are hollow ware forms. If these were added to the analysis, the contribution of flatwares would be minor.

Another potentially revealing analysis concerns the surface decoration of ceramics at Broom Hall. In particular wares with transfer printing and hand painting tended, through time, to be more expensive, than those with more simple decoration such as annular and edged wares (see Otto 1984:61-65; see also Miller 1980, 1991a for discussions of pricing). Table 60 reveals that overall, these decorative motifs occur in about equal proportions — there are relatively few proveniences (Areas E, H, and K) where transfer printed wares account for more than half of the assemblage. Since the wares on which these decorations are found date primarily from the nineteenth century, it is likely that by the time they became available, the plantation was in a reduced state of prosperity and/or use and relatively few new wares were purchased. This generally corresponds with the period of Peter Smith's

Table 60.
Surface Decoration of Creamwares, Pearlwares, and Whitewares (by percent of sherds)

Decoration	Area C	Fea. 1	Area D	Area E	Area H	Area J	Area K	Area L	Area M	Mean	SD
Cable/annular	22.7	57.1	40.8	29.7	-	50.9	31.6	52.7	-	31.7	20.1
Edged	27.3	25.0	28.5	9.1	44.4	15.8	-	9.7	25.0	20.5	12.5
Hand painted	27.3	7.2	20.7	3.3	-	22.8	-	30.1	50.0	17.9	15.9
Transfer printed	22.7	10.7	10.0	57.9	55.6	10.5	68.4	7.5	25.0	29.8	22.7

ownership. The ceramics which were purchased more closely resemble what we might expect at a middling status occupation, somewhat akin to Otto's overseer's assemblage.

At the slave settlement, both Areas AA and BB exhibits a nearly equal distribution of annular, edged, hand painted, and transfer printed wares — proportions reminiscent of the main plantation complex. This is most likely explained by the use of cast-off wares in the slave settlement, although the assemblage for Area BB is consistent with what would be expected for an overseer's settlement.

Other Archaeological Indicators of Status

Zierden and her colleagues have noted that in the urban setting table glass (expressed as a percent of the Kitchen Group artifacts) is a status indicator. Late eighteenth century townhouse settings may have ranges around 1% to 2.3%, while more middling status sites have ranges under 1%. Although this had tended to be an urban indicator of wealth, it seems reasonable to expect a similar distribution of table glass at a site such as Broom Hall, where it seems that wealth and gracious living were important, at least in the

38BK600		38BK985	
Area C	2.3	Area AA	0.1
Feature 1	3.7	Feature 2	-
Area D	0.4	Area BB	0.6
Area E	0.5	Feature 1	0.8
Area H	1.5	Mean	0.4
Area J	0.3	SD	0.3
Area K	1.1		
Area L	0.5		
Area M	1.5		
Mean	1.3		
SD	1.0		

eighteenth century. Table 61 reveals that five of the nine proveniences at the site do exhibit table glass at levels above 1%, ranging up to 3.7%. The mean for the site is 1.3%, clearly within the range

proposed to represent high status occupation at urban sites. Those areas with low table glass percentages include the posited stable, an unidentified (probable slave) structure, and several of the sheet middens — all areas where table glass would either not be expected or might not be preserved. High percentages are found in Area C (the posited basement), Area H (the garden structure), and Areas K and M (the posited servant's quarters).

At the early slave settlement (Area AA) table glass is very uncommon, typical of low status urban occupations and, we presume, slave occupations. In Area BB, which has consistently evidenced a more middling status, table glass is within the range expected for middle status occupations in Charleston. This may lend support to the interpretation that this area was used by an overseer. Alternatively, the area was occupied into the mid-nineteenth century and we know that the quantity of table glass, relative to other Kitchen Group artifacts increased during this period as a result of its lower cost and greater availability. Zierden and Grimes (1989:96) note that the quantity of table glass at middle glass suburban nineteenth century sites is greater than that found at eighteenth century high status sites. The increase seen at Area BB may therefore simply reflect its latter occupation.

Zierden and her colleagues have also used a combination of the Clothing, Personal, and Furniture Artifact groups as an indicator of status, noting that combined these three groups account for over 1.1% at high status sites and under 0.9 at low status sites. While this is not a great difference, it seems to indicate the greater numbers of non-essential artifacts. The categories will include items such as cuff buttons, shoe buckles, watch parts, coins, drawer pulls, and brass tacks. At Broom Hall the numbers range from a low of less than 0.1% at the garden structure to a high of 0.8% at Areas D and E (Area C and Feature 1 yielded number of 0.5 and 0.7% respectively). The site produces a mean of 0.6% in these three categories, with a standard deviation of 0.2%.

At the slave settlement the combined totals range from a low of 0.2% at Areas AA and BB to an unexpected high of 2.0 in Feature 1. The

resulting mean for the slave settlement is 0.7%. In spite of this seemingly high number, the standard deviation of 0.7 reveals this to be an anomaly.

Although the main settlement mean hardly fits the high status of urban sites, it is considerably higher than that identified at the slave settlement when Feature 1 is excluded (0.6% compared to 0.3%). So, while there is a clear difference between master and slave, there is also a considerable difference between plantation resident and town dweller. This of course may reflect simply the larger area over which to lose or discard relatively small artifacts on the country estate compared to the town lot. But it may also indicate a difference in rural and urban lifestyles, and how wealth and status were displayed.

While not defined quantitatively, a number of authors (see, for example, Breen 1994 and Sweeny 1994) offer accounts which also help us to understand and place archaeological assemblages within the context of eighteenth century society. Sweeny explains that:

the shining surfaces of walnut or mahogany tea tables and other specialized tables, sets of chairs, oriental and English ceramics, imported wine glasses, and dozens of other new furnishings did more than mark status. These goods also served to convey character. In eighteenth-century America possessions became tools for actively cultivating a distinctive, genteel style of life that set off "polite society" from the "meaner sort" (Sweeny 1994:6).

The glue holding "polite society" together increasing focused on social gatherings and the "matched sets of chairs, of glasses, and of plates, rounded, less hierarchical tables, individual eating utensils, and individual drinking vessels" (Sweeny 1994:8). The tables and sets chairs (with admittedly few archaeological indicators beyond perhaps tacks) turning eating into dining; the increased quantities of ceramics and glass (which have left ample archaeological evidence, especially at sites such as Broom Hall) provided the proper appearance for the new rituals. One of these was

drinking alcohol, especially Madeira, which required special glasses, decanters, and coolers. The other was tea, which required an even more elaborate assemblage of containers of utensils, such as tea pots, tea caddies, strainers, teacups, saucers, teaspoons, spoon trays, slop bowls, and even a special table on which to serve the tea.

In addition, conspicuous consumption extended to housing, where genteel interiors became increasingly important as an indicator of social status. Floor coverings and wall papers, while leaving few archaeological traces, became increasingly important. Paint, especially with pigments other than white or black, are equally good indicators of wealth. John Adams, describing the home of a wealthy Boston merchant, described the furniture alone:

which cost a thousand Pounds sterling. A seat it is for a noble man, a Prince. The Turkey Carpets, the painted Hangings, the Marble Table, the rich Beds with crimson Damask Curtains, and Counterpins, the beautiful Chimney Clock, the Spacious gardens, are the most of any Thing I have ever seen (quoted in Breen 1994:452).

Outside the main house, Sweeny observes that "carriages, some imported from England, joined floor coverings, wallpaper, and fine mahogany furniture as badges of distinction that set apart the very rich from the merely wealthy" (Sweeny 1994:37).

Added to this a range of personal items, such as pocket watches, silver buckles, gold sleeve buttons, silver clasps, rounded off at least some of the trappings of extraordinary wealth in the eighteenth century. All represent an Anglicization of the American market, and an increasing demand for consumptions and display. Sweeny observes that by the 1760s achievement and display of appropriate social status — such as might be expected at Broom Hall — could cost "£500 to £1,000 sterling annually, more than the net worth of many country gentlemen" (Sweeny 1994:31). Indeed, one agriculturalist offering advice to the

Table 62.
 Compilation of the minimum number of vessels identified at the Broom Hall main plantation settlement.

	Plate	Saucer	Bowl	Cup	Mug	Platter	Pitcher	Teapot	Jug	Jar	Lid	Pan
Porcelain, HPOG	43	22	10	17								
Porcelain, blue HP	115	42	67	44		7	1	1				
Porcelain, undecorated	2	7	6	7	1							
Nottingham					1			1				
Elers ware								6			1	
Tortoiseshell	1		1		1							
Westerwald			5		2		1		1			
Agateware	1											
Gray SGSW					2				4	1		
Green SGSW					1							
Refined red EW	3		7						1	1		
Coarse red EW	4		9		1					1		1
White SGST, undec.	2	3	35	11		1	1					2
White SGSW, molded	29		6	1		1						
White SGSW, scratch blue	1	2	8	15							1	
Black Basalt								1				
Brown SGSW					1				5	3		
Iberian ware										5		
Slipware, pale yellow	4		4	3	1							
Slipware	31		24	23	2		2					
Jackfield			1	1								
Clouded wares			1	1			1	3		1		
Luster wares			1									
Delft, decorated	17	2	15	2		2					1	
Delft, undecorated	6		10	8						1	1	
Buckley wares			3									
Creamware, undec.	11		18	5			1	2		1		
Creamware, molded	24	1	15	1	1						2	
Creamware, cable/annular			2		1							
Creamware, blue TP	1											
Creamware, HP	1		1									
Pearlware, undec.	5		2	1								
Pearlware, cable/annular			12		1							
Pearlware, edged	31		4				1					
Pearlware, blue TP	6		1									
Pearlware, blue HP			8	3								
Pearlware, poly HP			1									
Whiteware, undec.	2		3	2								
Whiteware, molded	1											
Whiteware, annular			4									
Whiteware, edged	7											
Whiteware, blue TP	4											
Whiteware, black TP	1											
Yellowware			1				1					
Totals	353	78	285	145	16	11	9	17	11	17	5	1

young planter cautioned that he should be willing to live on "£100 or £150 a year" and that if "he frequents the taverns and concerts of Charles Town more than his plantation" he will court economic ruin (Carman 1939:292-303 [1775]).

These artifacts of Broom Hall help us to understand the wealth. The previous descriptions have been replete with accounts of leaded wine glasses with fancy twisted stems, wine coolers, punch bowls and cups, Madeira wine decanters, leaded glass tumblers with intricate designs, painted or enamelled glass, pewter and bone handled utensils, pewter bowls, candle snuffers, door locks and keys, slate roofing, mirror fragments, brass furniture latches and hinges, plain and decorative tacks, finials, drawer handles and pulls, brass escutcheons, tassels from furniture upholstery gilt buttons, cuff buttons, buttons with glass insets, a wide range of shoe buckles (many of which were elaborately decorated), lace bobbins, toothbrushes, a wide range of men's and women's jewelry items, and stone settings.

The ceramics have included an exceptional range of wares. While most of the items recovered have been plates, saucers, cups, mugs, and bowls, we have also identified octagonal serving platters, tea and coffee pots, strainers, sauce boats, and other forms not immediately recognized. An equally wide range of high status wares, such as overglazed enamelled porcelains, white salt glazed stoneware, scratch blue, black basalt, elers ware, and creamware, are also present on the site, reflecting the wide range of domestic taste. This diversity is examined in Table 62.

CHINESE TRADE PORCELAINS

Nearly two decades ago one of the leading authors on Chinese pottery, Margaret Medley, observed that, "The enormous range of shapes and decorations of the porcelain exported to Europe from the seventeenth to the end of the nineteenth century is a subject for special study in its own right and one which still has seriously to be undertaken" (Medley 1976:263). The statement is equally true today. Much of the information available to archaeologists is filtered through the less than objective perspective of collectors. Other information amounts to little more than popular folklore. And still other information, while essentially correct, fails to convey the complexity of the subject. We are fortunate to have had the assistance of Ms. Amanda Lange, Assistant Curator of Historic Deerfield, who has specialized in Chinese porcelains and has had the opportunity to study a wide range of collections during her work at the Winterthur Museum. With her assistance, we have examined not only all of the porcelains at Broom Hall, but have conducted extensive background research, developing a starting point for future archaeological investigations by illustrating the complexity — and potential — of detailed porcelain studies.

History of the Chinese Trade and Its Study

While the first Chinese porcelain to reach America came during the sixteenth century on Spanish ships from the Philippines (Deagan 1987:96; Palmer 1976:25), it seems likely that the joint English-Dutch venture at the turn of the century (combining the English East India Company and the Dutch counterpart, the Vereenigde Oestindische Compagnie [VOC]) also contributed wares to their respective colonies in the "New World." In fact, by 1657 the VOC had shipped more than 3 million pieces of porcelain to Europe. This trade not only satisfied the European taste for something "new," but it also provided the large sums of capital the Ming emperors needed to ward off the Manchu threat on China's northern

border. S.J. Vainker notes that it was this foreign involvement which provided the impetus for the "vigorous new painting style of blue-and-white wares . . . in the second quarter of the seventeenth century" (Vainker 1991:145). This trade, however, was halted during the political upheavals in China from 1657 to 1683, during which period the kilns at Jingdezhen (previously known as Ching-tê Chên) were destroyed (Palmer 1976:10).

The English were the first to re-open trading offices in China, in the first two decades of the eighteenth century (Vainker 1991:153). Prior to this time most foreign ships were not permitted to dock at Chinese ports, nor were Chinese captains allowed to trade with foreigners at overseas ports. After the internal wars which marked the founding of the Qing dynasty (1644-1912), the principal porcelain kilns at Jingdezhen were once again opened to foreign trade. During the first quarter of the eighteenth century Jingdezhen was described by a French priest:

this village, in which are collected the best workmen in porcelain, is as populous as the largest cities of China. It is reckoned to contain a million of inhabitants. . . . it extends a league and a half along the banks of a beautiful river . . . the people complain that the buildings are too crowded and that the long streets which they form are too narrow This village . . . is now an asylum for a great number of poor families, who could not subsist anywhere else. Children and invalids find employment here, and even the blind gain a livelihood by pounding colors Ching-tê Chên contains about five hundred furnaces for making porcelain . . . the flames and clouds of smoke

which rise from them in different places, show even at a distance the extent and size of this celebrated village; to those who approach it by night it has the appearance of a large city on fire (quoted in Godden 1979:112).

During this early period the British traded ginseng for porcelain — in and of itself an interesting story of mercantile greed. American ginseng was gathered by Native Americans for sale to the VOC, which in turn was sold to the British East India Company at a 500% profit. The ginseng was then transported to China where it was held in very high regard to relieve fatigue and infirmities of old age. So great was the plant esteemed in China that the native species could be gathered only under the privilege of the Emperor. The American ginseng offered an alternative, although it was prone to gluts and was always seen as inferior to the Chinese species (Millsbaugh 1974:277; Schiffer et al. 1980:15).

While providing a less interesting story, silver and furs were the mainstay of the China trade. Silver was always in demand by the Chinese, although the Europeans found it heavy to transport, expensive, and a temptation to pirates. In addition, there were many in Europe who argued that trading silver for tea and porcelain was a poor bargain. Fur, while initially popular, had lost some of its appeal by the first quarter of the nineteenth century (see Howard 1984:25-26 for an account of the China trade).

English colonies in North America received Chinese porcelains almost exclusively through English factors. Under the terms of the 1651 Navigation Act, merchants of British North America were obliged to purchase Chinese goods¹ on the London market, where goods were deposited by the British East India Company. Between 1708 and 1802 the British made at least 790 voyages to China (Palmer 1976:11).

David Howard recounts how, "after

¹ Although porcelains have survived archaeologically, the heart of the China trade included teas, spices, and silks.

decades of searching for something they could exchange for tea [and porcelain], western merchants began to recognize a substantial demand for opium, a demand which they nourished" (Howard 1984:41). While always a medicinal plant in China, the European practice of smoking various plants lead to opium becoming an addictive narcotic (Howard 1984:44; Schiffer et al. 1980:15). By the first quarter of the nineteenth century the opium trade was firmly established, with the British East India Company purchasing about three-quarters of all Chinese exports. Vessels purchased opium in India, sailing on to Canton, where they would weigh anchor just outside the port and trade the opium to smugglers for silver. Only then would the British ships sail into the harbor, claiming they legitimately sought to exchange silver for porcelain (Schiffer et al. 1980:16). During this same period, England imposed a 100% duty on imported porcelain in order to protect their own fledgling porcelain industry. Consequently, most of the Chinese porcelains began shipping directly to the United States, joining America's own Chinese fleet sailing from New York, Baltimore, Salem, Philadelphia, Providence, and Boston. Just as the British East India Company traded opium for porcelain, so too did the Americans, although typical cargoes also included tar, turpentine, rosin, varnish, tobacco, snuff, and furs (Howard 1984:41-46; Palmer 1976:25).

The study of Chinese porcelain is made more difficult by changes in spelling. The early missionaries and traders poorly understood the phonetic spelling of the places they visited. The Wade-Giles system of romanization resulted. It was only after China opened again in the last 50 years that the *pinyin* system was officially adopted in 1979 by the government of The People's Republic of China. For example, the town originally called Ching-tê Chên, located in the Province of Kiangsi or K'ang-hsi, is today more correctly known as Jingdezhen and is in the Province of Kangxi.

Many archaeologists, following the lead of collectors, have misunderstood the terminology of Chinese porcelain. For example, Noël Hume explains that blue and white porcelain with border designs of "daggers or spearheads below the inner edge" is known as "Nanking," while those styles with "mere swags" are called "Canton" (Noël Hume

1978:263). Stanley South (1977) apparently adopted a similar approach with the term "Canton porcelain." In general, these represent collector's terms which often have little or no real meaning to porcelain scholars and probably even less historical significance.

South outlines, but does not further describe, four principal types of Chinese porcelain (as well as earlier Ming dynasty porcelain, English porcelain, and "Littler's Blue"): Canton (c. 1800-1830, \times 1815), overglaze enamelled China trade porcelain (c. 1790-1825, \times 1808), overglaze enamelled Chinese export porcelain (c. 1660-1800, \times 1730), and underglaze blue Chinese porcelain (c. 1660-1800, \times 1730).² Ann Brown (1982:8-9) develops a slightly different scheme:

Overglaze Chinese Trade ("Oriental Lowestoft") made expressly for European market. Some with elaborate European engraving type motifs & with chain or spear-head borders in red or gold. Overglaze deteriorates in soil & often all that remains is a matt trace visible at an oblique angle. (South) [c. 1660-1800, \times 1739]

Underglaze Blue with overglaze red & gilding. Often in very busy patterns inspired by Japanese "Imari" porcelain. (Hume) [c. 1700-1780, \times 1740]

² The use of "China trade" verses "China export" is likely intended to express both a time and quality distinction, with the China export wares earlier, thinner, and better executed, while the China trade wares were later, thicker, and less well painted. The same view is presented by Noël Hume (1978) who argues for a decline in the quality of Chinese porcelain over time. While such a decline did occur, this is not to say that thick, poorly executed pieces were also not available very early. There was, as Amanda Lange puts it, "plenty of room in the market for a wide range of wares" (Amanda Lange, personal communication 1995). To equate quality with time, especially on a per fragment basis, is a mistake.

"Famille Rose" decoration of large pink peonies high-lighted in white with drab green leaves. On American sites usually found on tureens & large dishes. (Hume) [c. 1750-1800, \times 1775]

Armorial Wares: made in China in the shapes of European silver services & bearing a particular family's coat of arms. (Charleston) [c. 1750-1800, \times 1775]

Deteriorated Chinese Trade: decoration limited to thin swags, wiggly lines or dots & dashes in black, orange, pink & blue around rims. Some with small floral decoration in center. (South) [c. 1790-1825, \times 1808]³

Blue Willow: 3 figures, 2 birds, house bridge & boat. Early pieces well done. (Hume) [c. 1792-early nineteenth century]⁴

"Canton" Blue Willow: heavier body with grayish-green glaze. Border of dark blue hatching under lighter blue band. (South) [c. 1800-1830, \times 1815]

Some of these bare a strong resemblance to descriptions recognized and validly used by collectors and museum curators. Others are better described as vague interpretations. In a following section we will describe the wares identified at Broom Hall.

³ As previously mentioned, associating specific "deteriorated" motifs or techniques with a late time period may result in over-simplification. It is likely that even the early Chinese export market contained poorly executed and technically inferior wares. While large assemblages may be accurately classified, it seems unlikely that individual sherds can be so identified.

⁴ Although "Blue Willow" is typically used to describe a British earthenware, Brown has taken the term and applied it to a Chinese motif.

Distinguishing Chinese and English Porcelains

Although porcelain production in Europe began in the first decade of the eighteenth century, it remained very expensive compared to Chinese wares and wasn't until the nineteenth century that European wares really became a commercially viable product, as opposed to an item of extraordinary luxury (Medley 1976:261). English porcelain (typically known among collectors as "soft paste" porcelain) was first made about 1745 at Edward Heylin's glassworks at Bow, Middlesex.⁵ Beginning about 1749 the addition of bone ash produced a whiter, more satisfactory paste. About this same time a pottery at Chelsea began making a pottery using a glassy frit paste, and some time later wares were also being produced at Liverpool, Longton Hall, Derby, and Lowestoft (Feild 1987:74-75).

One the major stumbling blocks for all of these potteries, however, was the inability of so-called soft paste porcelain to withstand the heat of boiling water — making it useless for teaware. The Worcester Porcelain factory was successful in producing teawares by using a soapstone body which resisted heat changes. Many of the factories, however, produced figurines and ornamental items not likely to be found at American archaeological sites. Some, however, such as the Chelsea factory (operating between about 1745 and 1769) produced large quantities of tableware. The Chelsea artists, in particular, relied on imitating Japanese, rather than Chinese styles, especially the Japanese Kakiemon-style (Peirce 1988:68-74).

In the late 1750s or early 1760s this problem of producing a paste which could resist heat change was overcome by Bow and wares began to be produced for tea and coffee. The Bow China Manufactory was also known as "New Canton" and in 1754 had a turnover of £18,715.85.9, described by Donald Peirce as "a fortune in trade" (Peirce 1988:100).

⁵ It is important to realize that English porcelain shows considerable variation in body composition. While the majority of eighteenth century English porcelain is soft paste, hard pastes also present, with bone China introduced after about 1794.

Distinguishing Chinese and English porcelains has always been difficult, in spite of a broad range of collector hints. As in most endeavors, there is no simple single approach. Distinguishing between Chinese and early English imitations depends on observing a broad range of features or characteristics.

One of the more concise and reliable approaches is provided by Battie (1990:66). In Chinese porcelain the paste is fully vitrified, while eighteenth century English specimens (regardless of what they are called) typically have a soft paste. On Chinese examples the glaze is thin, hard, and close-fitting, while on English examples the glaze tears or pools. English porcelains may exhibit glaze bubbles and the glaze may stain or discolor. crazing and cracking is rather common. As a whole, the Chinese examples are more thinly potted and the edges, being thin, are prone to chipping or "glaze nibbles." The underglaze blue, all of which is hand painted, will be sharp and static. Any overglaze painting will sit on the surface. In English porcelains the decoration may be printed and the overglaze enamels tend to "sink" into the glaze. On the English specimens gilding is thick, often tooled into a design, while on Chinese porcelains it is thin, almost watery in appearance. Chinese examples have very carefully turned foot rims, often with the body scooped away to form the ring, while plates of English porcelain may rock back and forth on the foot ring which is typically applied as a separate step. The central section of the foot ring often exhibits lathe-like thinning marks on Chinese specimens and the glaze has been carefully cleaned away from the foot prior to firing. The unglazed foot ring may be tinted green or a light brown. A final characteristic of the Chinese porcelains is an absence of spur marks or signs of stilts or other kiln furniture. The English were not nearly so careful in their production techniques.⁶

⁶ Of less use were techniques intended to distinguish intact pieces. For example, Chinese teapots have the glaze trimmed away from the filling aperture and the inside flange of the covers is also free of glaze (to allow the covers to be fired on the pots without the glaze sticking them together). Likewise, Chinese handles were made hollow with small vent holes to allow air to escape during firing.

All of the Broom Hall specimens clearly were Chinese. Even fragments consistently exhibited fully vitrified paste with very tight fitting glazes. All were thinly potted, although it was difficult to distinguish characteristic edge chipping from more aggressive damage. Careful examination of the overglaze wares reveal that the pigments are sitting on the glaze in clear relief. Where gold gilt was present, it did appear thin, almost like a wash. Foot rings, where present, were likewise consistent indicators — they were carefully produced, glaze was carefully cleaned away, and lathe-like marks were visible on a great majority of the specimens. No firing flaws or evidence of kiln furniture were found on any of the specimens.

Developing a New Understanding of Chinese Trade Porcelains in the Eighteenth Century

Virtually all of the accounts, be they archaeological, collector, or curator, agree that Chinese pottery during the eighteenth century incorporated two broad styles: one was an underglaze blue and the other was an overglaze polychrome. Likewise, for our discussions we can specify that all of the wares were produced during the Qing Dynasty. While earlier Ming items may occasionally be found at archaeological sites, they do not appear to be present in the Broom Hall collections

Blue and White

The bulk of the export wares for European trade were the common blue and white porcelains, often known by collectors as Nanking, Nankeen, or Nankin, after the port on the lower Yangtse River from which it was shipped (see Godden 1979:129).⁷ However, Medley (1976:261) notes that much of this ware was also shipped out of Canton, after an overland passage. Godden (1979:111) observes that this style was made from at least the fourteenth century and far outnumbers all other types present. It was produced by decorating the bisque porcelain

⁷ It should be remembered that this port was not opened until the nineteenth century (see Howard 1989), again illustrating the problem of using rather vague collector's terms in scholarly studies. In addition, Nankeen is also a term applied to Chinese woven cottons.

with cobalt prior to firing.

While the beginning date for this ware can be quite early, what is seen at most American archaeological sites probably does not predate the English re-opening of the China trade, about 1715. Godden suggests that this style is relatively rare from the 1740s through the 1770s, when overglazed forms were more popular. However, by the 1770s they begin to dominate the collections, remaining popular to at least 1795 (Godden 1979:148). Godden also observes that while production continued well into the nineteenth century, relatively few blue and white dinner services were sent to England after 1800, since British potters had largely captured the market and were beginning to do the same in the United States (Godden 1979:144).

A decoration added by the Chinese, and very popular prior to about 1750, was a thin brown band or line edge at the rim. This can be seen on bowls, cups, and plates (Godden 1979:138). At least some of these blue and white forms were embellished by English factories — a form of "value added" merchandising — typically by adding gilding to the plain vessels (Godden 1979:149). Battie notes that the addition of gilt borders post-dates 1780 and observes that this was:

a fashionable way of making a somewhat mundane Chinese blue-and-white tableware a little more upmarket, and to lend individuality to a dealer's stock when all were displaying much the same repetitive patterns (Battie 1990:66).

Godden (1979:114) mentions that early in the eighteenth century plates of this ware were valued by the British East India Company at a shilling each, but sold for upwards of two shillings each.

Motifs incorporated the spotted deer, cranes, peacocks, phoenixes, butterflies, dragonflies, ponds, rocks, and clouds (Schiffer et al. 1980:7). Other decorations include landscapes with buildings in a variety of compositions. One typical decoration includes branches of blossoming cherry reserved on a field of cracking ice, intended

to signify the end of winter and coming of spring (Valenstein 1989:220). Another typical motif of the blue and white wares is called Fitzhugh. Named after one of the East India Company representatives, this is a relatively common border pattern which incorporates butterflies, diaper, and plant forms. The spearhead or dagger border is equally common and Susan Gray Detweiler comments that it "may have developed from the *ju-i* or ceremonial scepter form used in Chinese frieze decorations or from the European *fleur-de-lis* or both" (Detweiler 1982:53).

There seems to be some confusion regarding the origin of the willow pattern.⁸ Noël Hume (1978:260-261 suggesting that a Chinese antecedent provided the inspiration for the English

⁸ Most loosely interpreted this may include just about any landscape scene, typically in underglaze blue on white (Godden 1979:148). The pattern appears to have dominated tea sets after about 1770. More strictly speaking, the term "willow" is applied to a pattern which shows a pagoda with pavilion or tea house on the right, backed by an apple tree. In the center a willow tree leans over a three arched bridge across which three figures are crossing to the left. In the top left is usually a covered boat, crewed by one man, which is floating in front of small island. Two doves fly overhead. The English legend concerning the pattern is described by A.W. Coysh and R.K. Henrywood:

the story concerns a Chinese mandarin, Li-Chi, who lived in a pagoda beneath an apple tree. He had a beautiful daughter, Koong-Shee, who was to marry an elderly merchant named Ta Jin. However, she fell in love with her father's secretary, Chang, who was dismissed when it was discovered that they had been having clandestine meetings. Koong-Shee and Chang then eloped and, helped by the mandarin's gardener, they are seen crossing the bridge which spans the river. The boat is used to approach Chang's house but the furious mandarin discovers their retreat. They are pursued and about to be beaten to death when the Gods take pity on them and turn them into a pair of doves (Coysh and Henrywood 1982:402).

versions found so commonly on whiteware ceramics during the nineteenth century. Vainker however, disagrees, asserting that the willow pattern originated in England and that, "neither the motif nor even the legend is known in China, although it has represented the essence of Chinese art and literature to many Europeans" (Vainker 1991:158). It seems likely that the style was introduced from England for the Chinese porcelain makers to copy.

Chinese Imari

This style began at the beginning of the eighteenth century and represents a Chinese copy of the Imari wares made at the Arita kilns in Japan. The Japanese versions were decorated in a dark underglaze blue, "enlivened with overglaze iron-red enamel and gold" (Valenstein 1989:236) and were exported to Europe in large quantities during the last quarter of the seventeenth century.⁹ The Chinese copy was intended to capture this market and the two wares are often difficult to distinguish. Occasionally the Chinese examples will have overglaze colors added to the basic blue, red, and gold color scheme.

It seems unlikely that most archaeologists could distinguish Japanese from Chinese Imari, although Deagan admits only that it "is not always easy." She notes that:

the body, which on Chinese porcelain is generally thinner and "crisper" than the Japanese forms, may show slight variations in thickness and finish. The background glaze on the Chinese wares have a faint bluish or violet

⁹ The Japanese wares will have stilt marks and square foot rims, unlike the beveled foot rims of Chinese vessels. The body of a Japanese vessel is slightly darker in color and the decoration is more elaborate, not restrained like the Chinese examples. Regardless, it is very unlikely that Japanese wares will be found in the context of eighteenth century Southern plantations. The wares were almost never exported to the American market, with only very limited examples being found in Dutch settled areas like the Hudson River Valley (see Howard 1989).

tint to them, whereas the Japanese examples have a flat white or grayish white hue. The Japanese porcelains, furthermore, often exhibit a slightly grainy surface texture. The shades of blue used to decorate Chinese and Japanese porcelains also differ somewhat: the Japanese examples tend to have a dark, flat, and sometimes cloudy blue in contrast to the deep sapphire blue found on Chinese porcelains of the eighteenth century (Deagan 1987:103).

Batavian Ware

Characterized by a glaze which ranges from an "old-gold" tint to a dark bronze hue, these wares may also include what have been described as "the popular shades of chocolate, 'dead leaf,' and café au lait" (Valenstein 1989:242). The ware took its name from the Dutch post at Batavia on the island of Java, from where much of this particular pottery was shipped to Western ports (Palmer 1976:18).

Famille Rose

About 1720 an opaque rose-colored enamel was introduced into the pallet of overglaze colors. While in the past linked to European methods of producing a similar color, recent studies (see Vainker 1991:205-206) suggest that the European and Chinese techniques were vastly different, with the Chinese grinding up a ruby glass produced using gold and using this as a pigment to dispersed in a clear medium. This technique was cheaper than the European approach since it used far less gold (Vainker 1991:205). Medley has remarked that:

Rose enamels were used at first rather sparingly, and a study of eighteenth century porcelain reveals that on early pieces the colour was often muddy and sometimes a weak lilac, although the other colors might be quite good (Medley 1976:246).

As time passed, the enamel became more stable, the wares better fired, and this new style allowed meticulous treatment of detail, delicate shading of tones, and a wide range of color combinations. On plates the decoration typically appeared only on the inside. Bird and flower subjects, along with figural themes are most common, often surrounded with a diaper pattern (Medley 1976:247, 263).

But this pink, allowing tones from the palest blush of pink to deep ruby red was only one aspect of this the *famille rose* wares. Added to it, and some claim to be even more important, was a lead-arsenic, opaque white pigment. Using this base, the artist could add other pigments and achieve a wide color palate. By 1730 the *famille rose* style became the dominant decorative motif in overglaze enamelled wares (Valenstein 1989:247).

Blue and White with Overglaze Enamel

Collectors (and some archaeologists) have long called the blue and white porcelain with added overglazed enamelled decoration "Canton," apparently because much (though not all) of the ware had overglaze decoration added at the port city of Canton (Detweiler 1982:53 and Noël Hume 1978:262).¹⁰ It seems equally likely, however, that much of this decoration was done at the point of initial manufacture, probably Jingdezhen.

Formation of Sets and Vessel Forms

At least initially the China trade was by bulk, not by sets. Godden noted that:

The Company's china-ware is, in part at least, shown by the buying instruction given each year to the departing *Supra-cargoes*. Typical orders including wording such as "we would have you provide china ware as far as twenty tons in useful sorts, which stow close" (1704); "Ten tons china ware to

¹⁰ This is not a universal convention. Amanda Lange (personal communication 1995), for example, uses the term "Canton" to describe a blue and white pattern with Asian landscapes and a rain/cloud border.

be mostly brim-plates, and a good part of them blue and the rest tea cups and saucers because they stow close" (1709); and "800 chests useful china ware, of which bowls, dishes and plates of all sizes — as many as you can get" (1722) (Godden 1979:113).

During the first quarter of the eighteenth century cargoes were auctioned off as groups of different components. Godden (1979:119), for example, illustrates one such auction of "1,080 blue and white tea cups and saucers, 1,120 large blue and white tea cups, and 195 teapots, blue and white, 2 sorts," which the English retailer would then convert into sets for sale to the home and American markets. By the 1750s this practice ceased and tea sets become standardized by the last half of the eighteenth century, with blue and white sets often consisting of 43 pieces: a teapot, cover and stand, sugar bowl, cover and plate, slop bowl and plate, tea canister and cover, milk pot and cover, spoon tray, twelve tea bowls, six coffee cups, and twelve saucers. Godden notes that this standard set might be altered to suit personal tastes, but that a coffee pot was usually not supplied (Godden 1979:131). Modest-sized dinner services or "table services" might include:

a tureen, cover and stand, two smaller ditto, 16 oblong dishes, 8 various dishes, 74 plates, 12 soup plates, 4 sauce-boats, 4 salts. Other sets included two tureens, rather more plates, and often the sauce-boats had under-dishes (Godden 1979:133).

What, however, is perhaps most impressive is the exceptional variety which was possible. For example, "salad dishes" could be had in 9, 10, 11, and 12-inch varieties, bowls could be obtained in sizes ranging from 1½ pints through 2 gallons, "round dishes" might be ordered in sizes of 10, 11, 12, 14, 16, 18, or 21 inches. Other vessels might include "water plates," coffee cans, spoon boats (what we might call spoon rests), milk ewers, long dishes, patty pans (small, shallow bowls) custard cups, fruit dishes, mugs, sneakers (small bowls, just a little larger than tea bowls), punch bowls,

breakfast bowls (very deep forms, almost identical to slop bowls), as well as a range of more ornamental objects, such as "candle sticks, garden pots, scalloped dishes, covered mugs, porringers, patch-boxes, chamberpots, large blue and white jars, vases, fountains, and bottles" (Godden 1979:122).

The original tea cups were most likely what we would call "tea bowls" lacking handles and were actually Chinese wine cups. Coffee cups were often, but not always handled. Then, as now, they tended to be taller and narrower than either the tea cup or a bowl. They might, in archaeological collections, be classified as mug fragments. It is also clear from the period accounts that saucers were sometimes called "dishes" and that not all cups also had saucers. In addition, what might be called a saucer today could also be an "under-dish" for a sauce boat, creamer, or sugar bowl. Likewise, chocolate cups were also a common item, and were used without saucers, being placed on and handed around on, a salver. Godden (1979:119) notes that prior to the second decade of the eighteenth century, coffee and chocolate were considerably more popular than tea and these cups were consequently more likely to comprise large proportions of the cargoes. Since tea itself was expensive, the tea pots tended to be small, some holding no more than a cup (enough for four tea bowls or cups).

Unlike other plates which had foot rings, the "long dishes," or octagonal meat-dishes lacked foot rings and were flat, often with a dusting of parting material such as flint chippings (Godden 1979:141). Examination of cargo records also suggests that round plates were gradually replaced by octagonal varieties beginning in the 1750s, with this new style lasting until the 1780 or 1790s (Godden 1979:142). At this time the under-dishes took on an oval form, while plates returned to the circular form, although Godden (1979:144) suggests they became somewhat thinner, with the condiment ring being more dished or concave.

There is good evidence that the Chinese copied a variety of styles for English consumption. We have previously mentioned that there is some evidence that the willow pattern was introduced by the English to the Chinese. In addition, there are examples of blue and white porcelain with a blue

edged border copied from creamware examples (see, for example, Godden 1979:155). In addition, the Chinese copied silver examples of sauce boats, their culture having no such item prior to European contact.

Although porcelains produced during the Ming dynasty often exhibit date marks, this practice largely ceased during the following Qing dynasty, at least on vessels intended for western export. Mudge et al. (1985:11) note that during the rule of Kangxi the reign mark was not used, even on imperial wares, in order not to diminish his dignity should the porcelain be broken. They note that instead a wide range of Buddhist and other symbols were used. A conch shell, for example, represented the trumpet of victory and was a sign of good fortune. The sacred fungus, with or without grass, was a symbol of longevity. Noël Hume (1978:263) illustrates a pair of fish over a knot, meaning wealth, and a coin or cash mark (a square within a circle), meaning wealth.

The Broom Hall Collection

The Broom Hall porcelains, as an assemblage, date from as early as 1750 to perhaps as late as 1770, based on the range of decorative options (opaque overglaze enamels, Imari decoration, underglaze blue patterns, Batavia ware), the shapes of the objects (such as the sauceboat taken from a common silver form), the spearhead or dagger border, and the Fitzhugh border. Also, the assemblage lacks the armorial styles, especially those with eagles, which became very common in the 1780s. This suggests that past this date little new porcelain was brought into Broom Hall, indicating the plantation owner's gradual economic decline.

When the collection is compared to previously identified archaeological porcelain "types," it is clear that no Ming porcelains are present. Likewise, while some of the forms present have been called "Canton," it seems likely that South's use of this term (further described by Brown [1982]) is intended to describe the late trade wares — again items not found at Broom Hall. South (based on Brown's [1982] descriptions) seems to use "overglaze enamelled Chine trade porcelain" to also describe the latter wares, more

typical of the American trade after the Revolution. Consequently, the blue and white porcelains from Broom Hall are best described by South's "underglaze blue Chinese porcelain (c. 1660-1800, \approx 1730), while the overglazed wares (principally the enamelled wares, but also the Imari) are best incorporated in South's "overglaze enamelled Chinese export porcelain (c. 1660-1800, \approx 1730).

Brown (1982) perhaps offers a refinement, suggesting at a site such as Broom Hall the collections be divided into what she terms "overglaze Chinese trade" (c. 1660-1800, \approx 1739), "famille rose" porcelain (c. 1750-1800, \approx 1775), "underglaze blue with overglaze red and gilding" (Imari ware) (c. 1700-1780, \approx 1740), to which would be added South's underglaze blue porcelain.

We have chosen to use South's types, since first, we believe that they are easier to use in archaeological collections (where you may suffer color loss from "famille rose" specimens or may not have sufficiently large fragments to consistently identify Imari wares) and second, we believe the dating range is sufficiently accurate, accurately reflecting the independent morphological traits observed in the collection.

Curiously, none of the pieces are English. All represent Chinese wares designed especially for the export trade. It is likely that this is significant not only from a temporal standpoint, but also as a status indicator. Since English porcelains satisfactory for tea and coffee were unavailable prior to the late 1750s and early 1760s, they would have been found only toward the end of the assemblage's period of accumulation. In addition, these early English porcelains were very expensive — it was far less expensive to obtain Chinese porcelains than to procure English wares immediately before and after the American Revolution.

Notwithstanding the gradual decline in fortunes, the porcelains from Broom Hall were clearly more expensive than either English wares (such as white salt glazed stoneware or the later creamware) or locally made American wares. Although no one has provided a detailed examination of porcelain pricing similar to the work by George Miller (1980, 1991a), Godden

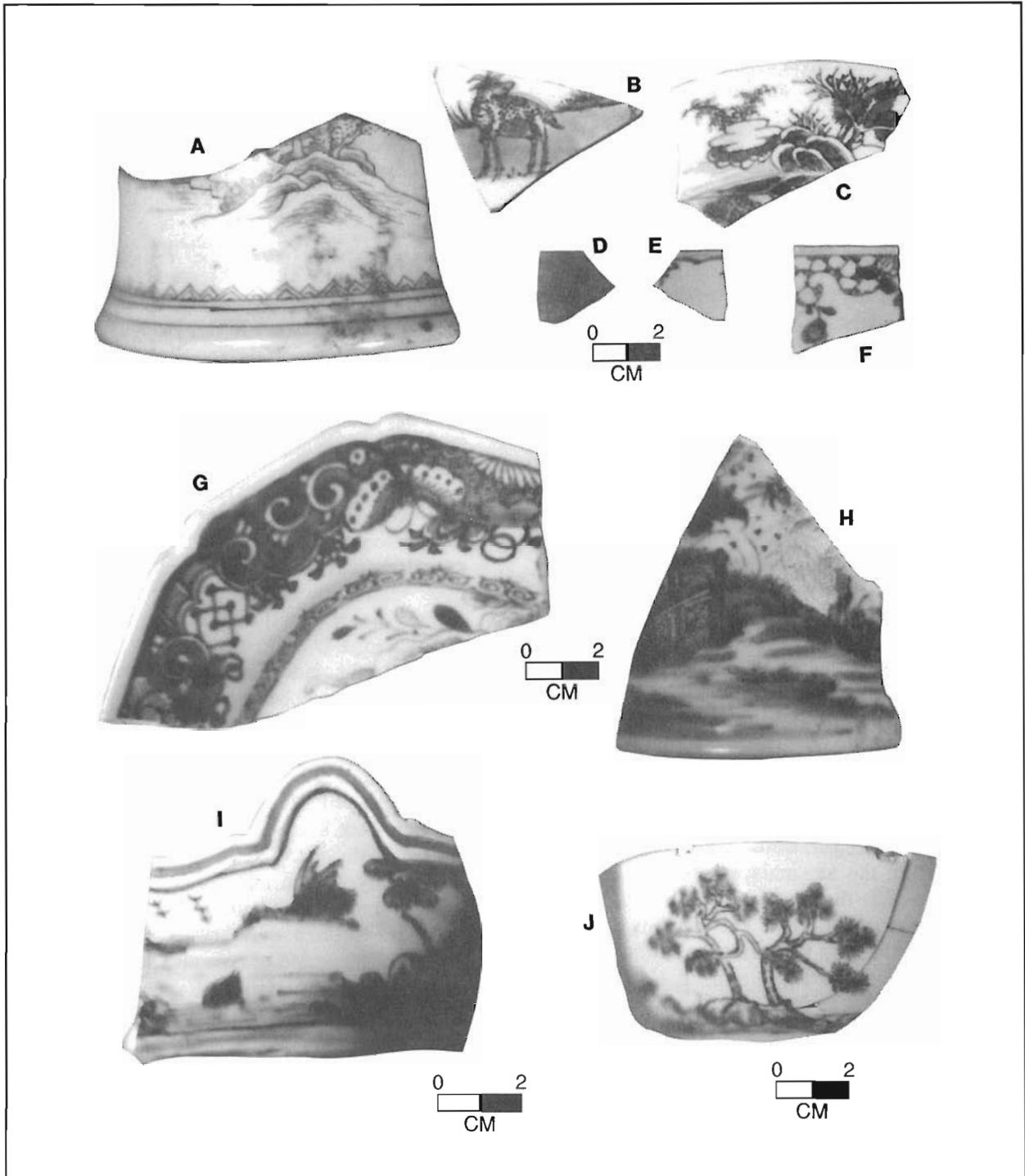


Figure 55. Examples of porcelains recovered from Broom Hall. A, red enamelled overglaze vase or mug with rocky landscape; B, blue and white spotted deer motif; C, blue and white plate with rocky landscape motif; D, exterior of Batavia ware, cup form; E, interior of Batavia cup shown in D; F, blue and white bowl with cracked ice motif; G, blue and white platter with Fitzhugh motif; H, blue and white vase or mug with landscape and lattice fence motif; I, blue and white sauce boat from silver form with cranes as motif; J, blue and white bowl with knarled fir tree motif.

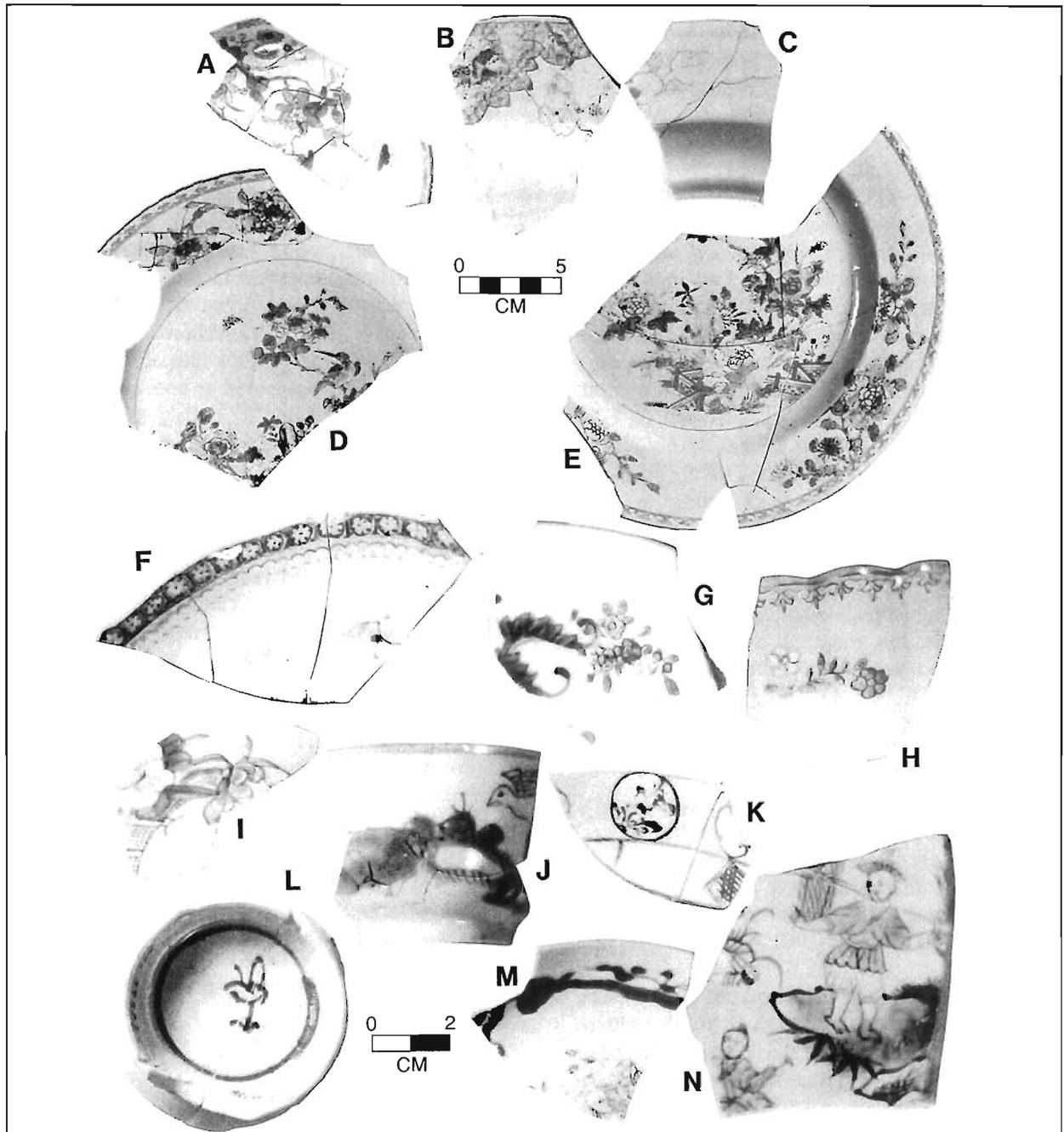


Figure 56. Porcelains from Broom Hall. A, Imari palette on saucer with floral motif; B, interior of plate with red enamelled overglaze with floral motif; C, exterior of plate in B with red enamelled overglaze with floral motif; D, possible *famille rose* enamelled overglaze on plate with bird and peony tree motif; E, possible *famille rose* enamelled overglaze on plate with lattice fence, bird and peony tree motif; F, enamelled overglaze border on saucer; G, enamelled overglaze on blue and white saucer with floral motif; H, enamelled overglaze on bowl with dagger border and floral sprigs; I, blue and white bowl with basket of flowers motif; J, blue on white cup with brown rim and bird motif; K, enamelled overglaze on saucer, unidentified design; L, base of blue and white cup illustrating mark; M, enamelled overglaze on blue and white saucer with floral motif; N, blue and white on bowl with figure motif.

(1979) does provide some wholesale pricing information. He notes that in 1706 a blue and white plate was valued by the East India Company at about a shilling, "but they fetched at auction between eleven pence and two shillings," suggesting that wholesale prices were about doubled for sale to the retailers (Godden 1979:114). Beginning in 1755 the price per blue and white plate was perhaps about £0.0.3, while it increased to 1 shilling by 1760. These prices, however, were down by about 50% from those in the first half of the eighteenth century. Godden (1979:129) observes that this fall was likely due to the increased competition among the traders and the large quantity of porcelain flowing into England. Another rise in wholesale price is seen in 1766 when plates were valued at £0.2.6. Although the 1768 prices provided by Godden (1979:133) are in tales (3 tales = £1), the price seems to have dropped to about 2 shillings, rebounding to about £0.3.4 by 1777.

It is also possible to examine some of the retail prices of tea and table sets as a gauge of their value and status. Detweiler notes that:

Washington's blue and white table service, shipped April 1763, cost an even twelve pounds for fifty-six pieces and was somewhat more expensive than the comparable but less complete service of forty-eight pieces shipped earlier by Richard Washington in August 1757 (Detweiler 1982:51).

Godden reports that blue and white tea sets, wholesale, ranged from £3 3s to £6 10s in 1789, to which about an additional third should be added for the retailer's profit. Blue and white tea sets, in 1792, ranged from about £5 5s to £7 7s (Godden 1979:157).

The 70 blue and white plates found in Area C and Feature 1 *alone* would have had a retail value of at least £11.13.4. The 35 blue and white cups suggest the presence of perhaps as many as five tea sets (most of which had either eight or six cups), accounting for £31.10.0.

The patterns which exist at Broom Hall

are extremely varied. From Area C and Feature 1 alone, we have identified borders on the condiment rings of cross-hatching (also called lattice), diaper, honeycombed diaper (octagons with central star burst designs), cross-hatch with reserves of plum-like scrolls (scroll pattern emanating from a four petal plum flower), dashed lines (representing rain) and scalloping (representing clouds), fish roe (small circles with central dots), T-pattern fret, double scroll, rolled scroll, grapevine, and Fitzhugh. Interior designs include floral patterns (such as veined leaves, a "tobacco" leaf pattern, the loquat tree, or pines), plum/cherry blossoms (the "prunus" leaves typically look like small bubbles or balloons), peony (illustrated as both blossoms and trees), lotus (illustrated by both giant leaves and also as blossoms), springs of flowers, foliage, bamboo (the symbol of integrity), cranes, birds, spotted deer, village scenes, landscapes (often including islands, pagodas, cherry trees, and sampans), rocky landscapes, figures (the most common illustrate Chinese customs for Westerners, such as a mounted official, protected by his umbrella-bearing servant being presented with gifts), and a village with a river scene. Enamelled wares include border designs of daggers, diaper patterns, cross hatching, and fish scales. Interior designs include birds, bamboo, florals, sprigs of flowers, peony, lotus, figures, rocky landscape, and a lattice fence in the landscape.

One marked piece, the base of what was probably a cup, was recovered. Although this mark has yet to be identified, it is not a reign mark.

Amanda Lange, in reviewing samples of these wares, remarked:

I have never seen most of these patterns before. During their day they must have been extremely common, but now they are relatively unknown and do not survive in public collections with regularity. I have found similar examples in books, but very few exact matches. What most museums have and what is still available on the market are the elaborately decorated porcelains. Very few of these simple blue and

white patterns survive and even fewer with above ground provenances. . . .

I was surprised at the range of different blue and white and enamelled patterns in the Broom Hall site, but the types of decoration and range of stylistic options were quite narrow. None of these porcelains look as if they were special ordered. No armorials, no initials, no mottoes, Perhaps at this time (before direct American trade with China) there were limited options for Chinese export purchases. Even with the financial resources, you may have just been able to buy the bulk porcelains coming off the Company ships. The same story can be seen in the pre-Revolutionary objects/fragments found at George Washington's Mount Vernon [Detweiler 1982].

These are consistent with the range and types of wares that I expect from a wealthy plantation. . . . The more expensive porcelains would be in tea and table wares in large matching services. For the most part the Chinese export porcelains should be decorated in underglaze blue and white patterns. These wares would be used for formal entertaining. [As a curator] I have been trained to know and understand the very top 5% of Chinese export porcelain manufacture. I was pleased to have the opportunity to examine what a wealthy American actually owned (Amanda Lange, personal communication 1995).

COLONO WARES FROM BROOM HALL

Introduction

There are a number of studies and descriptions of South Carolina Colono wares including Ron Anthony (1986), Leland Ferguson (1980, 1989, 1992), William Lees (1980), William Lees and Kathryn Kimery-Lees (1979), Richard Polhemus (1977), and Thomas Wheaton et al. (1983). Probably the best description has been provided by Wheaton et al. (1983:225-250), who, like Ferguson (1975), suggest that most Colono wares were produced by black slaves for their own use, while a minor pottery called River Burnished or Catawba is believed to have been produced by Indians for sale or trade (see Ferguson 1989). While there are a number of attributes separating the two wares, thickness and surface treatment appear to be of primarily utility in the gross separation of the two types. Table 63 provides a summary of the attributes as provided by Wheaton et al. (1983:229).

That some Colono wares are locally made is evident based on the presence of spalls on the pots which occur during the firing process. Normally, if a pot had such an imperfection it would not have been marketable and would therefore, not be a product of trade or sale (see, for example, Ferguson 1992:31, Figure 28). Clay lumps have also been found at plantation sites and were unlikely trade or sale items (Garrow and Wheaton 1989). In addition, a Colono ware vessel with the mark MHD was found at Drayton Hall Plantation and may have been made for Mary Henrietta Drayton who lived there from the 1780s to the 1840s (Lewis 1978:65). Patrick Garrow and Thomas Wheaton (1989) state that perhaps the most convincing argument for local manufacture is the sheer quantity of these sherds at plantation sites. The slave narratives have also provided evidence that clay pots were made by African-American slaves. Although details were not provided in the published interview, Uncle Albert Carolina of Murrell's Inlet gave Genevieve

Chandler a description of how his grand-parents built a kiln of clay pots and baked them (Rawick 1972:198). Albert Carolina was born in 1850, and since he remembers his grandparents making pots, it indicates that they were being made as late as the mid-nineteenth century. Archaeologically, a late use of these low fired earthenwares has been suggested by its presence in the freedmen's village of Mitchellville (Trinkley 1986).

The River Burnished or Catawba wares are believed to have been made as trade wares by Catawba Indians. Ferguson believes that the ceramics should be termed "River Burnished" instead of "Catawba" because:

If we are planning to use artifacts to help interpret political and ethnic negotiations, we should not begin by using the name of the group of people we want to study to define a poorly understood collection of artifacts (Ferguson 1989:189-191).

Wheaton and Garrow (1989) have pointed out that collections from Yaughan and Curriboo Plantations were thought to be Catawba because the Catawbas were known to have travelled to the coast to sell pottery in the early nineteenth century, the pottery from the excavations were similar to modern Catawba vessels, and it is similar to a specimen of Catawba pottery in the Charleston Museum that was reportedly purchased at Yaughan Plantation from a Catawba woman in 1805. As a result, they contend that the use of the term "Catawba" is appropriate. However, Ferguson (1989:186-187) believes that archaeologists need to look at historic Catawba sites in the upcountry to better understand the development of the pottery because the Catawba Nation was made up of a number of different Indian groups and also included some African-Americans; all of whom could have influenced the style and manufacture of the

Table 63.
Attribute Summaries for Colono ware and River Burnished or Catawba Potteries
(from Wheaton et al. 1983)

	Yaughan	Catawba
<i>Thickness</i>	Average .725 cm thick up to very uneven on individual vessels and even single sherds.	Average \pm .5 cm thick; 1.1 cm, regular and even.
<i>Form</i>	Generally open incurving bowls and small flared mouth jars, lips were crudely rounded, or flattened with a finger or stick.	Generally straight sided, open, outflaring bowls, and small well made jars, lips were tapered and well finished.
<i>Body</i>	Wide variation in size, amount and type of non-plastics, generally various water-washed sands, oxidation was usually not complete, leaving a dark core.	Limited variety of nonplastics, generally fine particle size and completely oxidized or completely reduced.
<i>Surface</i>	Ranged from crudely smoothed to polished with obvious evidence of the polishing tool, generally interiors of bowls and exteriors of jars were polished, color ranged from black to dark brown to reddish orange, great variation on individual vessels and sherds.	Usually highly polished on interior and exterior of bowls and wide mouthed jars, polish marks were often evident, color ranges from black to gray to buff, little variation on individual sherds, some vessels were intentionally reduced.
<i>Decoration</i>	.3% had decoration on interior of bowls including prefiring notched rims, reed punctate, thimble impressed, incised lines; post firing incision in the form of a cross in a square and a circle occurred on the interior bottoms of a few bowls.	3.5% of Catawba had undulating "day-glo" red painted lines on the exterior of jars and the interior of bowls applied after preliminary or final firing of the vessel; occasionally red dots were placed around the undulating line, or around small regular facts taken out of the interior lip; or both.
<i>Method of Manufacture</i>	Bases occasionally coil made and body was hand modelled, poor control over firing temperature and firing time, handles appeared to be attached to the surface of the vessel.	Evidence supports hand modelling but sample is too small for definite conclusions, firing temperature and time were well controlled, reduction when it occurs was intentional, handles had plugs on the end which were inserted in the wall and smoothed from the inside.

Table 64.
Attribute Descriptions for River Burnished Pottery
(from Ferguson 1989)

<i>Surface finish:</i>	Burnished with a tool that leaves horizontal marks approximately 1-3 mm wide. The burnishing produces a non-uniform luster. (The rounded shape of these marks suggests burnishing with a smooth stone).
<i>Thickness:</i>	Side walls are relatively thin ranging from 3-7 mm. The average thickness is approximately 5 mm. Basal sections may be more than 1 cm thick.
<i>Color:</i>	Many vessels appear to have been intentionally reduced during firing to produce an even, black finish. A variety of colors resulting from reduction (blacks and grays) and oxidation (buff through reddish brown) occur.
<i>Body:</i>	Fabric consists of fine-grained materials including mica. Major non-plastics are small particles of sand.
<i>Decoration:</i>	Lips of bowls are often decorated with small facets. (Replication experiments indicate that these facets may be produced by a burnishing stone when the vessel is leather hard). A small number of the vessels are painted with black and red lines and dots. The red paint is sometimes a "day-glo" hue. Painting is usually on the interior rims of bowls and on the exterior shoulder and neck of jars and pitchers. One vessel, a bowl from Cooper River, has a "J" incised into the fired body on the interior base.
<i>Shape:</i>	Straight sided, unrestricted bowls with flat bottoms. Globular jars with relatively straight necks. Pitchers with spouts and handles.
<i>Method of manufacture:</i>	Modelling was used. (Small bowls show profiles that are thicker in the center of the base and thinner at the basal edges. Replication experiments have shown that this effect is reproduced by modelling bowls on a flat surface. The length of the vessel walls is determined by the length of the fingers, and the interior is modelled with the thumbs. The thinner section at the extremities of the base is produced by the thumbs). The size of some vessels suggests that coiling was also used. Handles were put on with plugs which were inserted into holes in the vessel walls and smoothed on the inside. Vessels are well-fired.
<i>Distribution:</i>	River Burnished ceramics have been recovered from sites in Dorchester, Charleston, and Berkeley Counties in the low country, with the largest extant collections coming from excavations at Drayton Hall in Dorchester County (Lewis 1978) and Yaughan and Curriboo Plantations in Berkeley County (Wheaton et al. 1983). A small collection of this material was also recovered from excavations at the Brattonville site in York County by Carolina Archaeological Services, Inc. (Ron Anthony, personal communication 1985).
<i>Date Range:</i>	Late eighteenth century to early nineteenth century.

pottery. He states, "our goal is not to classify ceramics but to understand the interaction of people in the past" (Ferguson 1989:187). According to William Gilmore Simms (1841), the sale of pottery by Catawba Indians in the low country stopped about 1820. The reason that researchers have separated these wares from Colono wares is because "there are easily observable similarities in surface finish, body, decoration, and shape that set

this group of ceramics apart from other specimens of Colono Ware" (Ferguson 1989:186).

In Garrow and Wheaton's 1989 publication on low fired earthenwares, they delete their earlier descriptions of the two wares as "types", and refer to them as "type varieties". In other words, they call the slave made pottery "Yaughan" and the Catawba made pottery "Catawba" as type varieties

of Colono ware (1989:181). Ferguson (1989:185) states that by changing the two types into type varieties, it creates one overall type which has never been defined, but since archaeologists now have more data than they did when Wheaton et al. (1983) published their typologies, Ferguson believes that:

we are now at the point where we need, and can construct, an explicit type definition for some of these ceramics. Specifically, ceramics described as "Catawba variety" by Garrow and Wheaton have a distribution over three counties (Berkeley, Dorchester, and Charleston) in the lowcountry, and we have sufficient information to class them as a ceramic "type" (Ferguson 1989:186).

Ferguson (1989) states that the type should be one without the ethnic interpretation in its name and description. Table 64 provides Ferguson's (1989:188) description of his "River Burnished" type. He calls his type "polythetic" meaning that all of the criteria do not have to be met for inclusion in the category. Unfortunately, there is still no real type description for Colono ware and it still remains unclear if two actual "types" exist, in the traditional sense of the word.

An artifact type is generally a homogenous population of artifacts which share a consistently recurrent range of attribute states within a given polythetic set (Clark 1968:191). Others (e.g., Brockington 1974) have defined a pottery type as a group of specimens that may be distinguished from all other pottery specimens within that ware on the basis of a single, identifiable set of attributes of surface treatment or technologically distinct decorative types, or both. For non-functional attributes, cultural values are reflected.

In his analysis of the low fired earthenwares from Daniel's Island, Anthony (1986) noted that there was a great deal of variability in the low fired earthenwares and that there were wares that seemed to represent an intermediate between the two "extremes" of Yaughan and River Burnished ware. These intermediate types were

termed Lesesne Smoothed and Lesesne Lustered. Both type varieties did not have grainy surface textures like the Yaughan wares, exhibiting varying degrees of smoothing or burnishing. These varieties of Colono ware were not used in this study since we believe it is most important to fully understand the two types we have rather than bring in variations within a type which has not even really been defined. During the original rough sorting of low fired earthenwares from Broom Hall, we found that we had included some of these intermediate varieties into the River Burnished category and the collection had to be resorted to pull out sherds that were more strictly of the River Burnished variety. This situation in itself indicates that sometimes the two wares are very difficult to categorize and brings into question the existence of two "types". While some sherds appeared to be distinctively River Burnished, others could have been "either/or". The variety recognized by Anthony (1986) existed in the Broom Hall collection, and in our sorting of sherds into two types, sometimes there was confusion which resulted into designating a sherd by impression rather than any real, measurable attributes. *Given the variability and overlap present in low-fired earthenwares, the type variety system is more appropriate — at least for this collection.*

The primary goals of the type-variety system are cultural-historical in orientation, that is, they are directed toward temporal and/or cultural identification. Varieties in the type-variety system reflect variability within the type that is itself of some cultural historical significance (Phillips 1970, Smith et al. 1960). According to Phillip Phillips (1970:26-27), since type-varieties intergrade, they do not necessarily have to be sortable. In addition, the varieties do not have to have the same areal and temporal distributions. While they may overlap, spatially and temporally, they need not always co-exist.

In this study, we have chosen to use the term "River Burnished" instead of Catawba because we feel, as does Ferguson (1989), that there has not been enough research in the subject to fully understand who and what exactly influenced the development of the pottery. The term "Yaughan" is used to refer to what appear to be the locally made ceramic variety, and when both

the Yaughan and the River Burnished potteries are discussed together, they are referred to as Colono ware.

Previous Research

In the introduction, we have provided definitional terms for the two wares in question, the reasoning for the terms used, and have discussed typological problems. Here, we will discuss what previous research into these low fired earthenwares has suggested about trends in use.

Ferguson (1992:8-9, Figure 14) and others have noted that, quite logically, Colono wares are found in larger amounts at slave settlements than at main houses, and more frequently at plantations than cities. At Limerick Plantation, Lees and Kimery-Lees (1979:9) noted that the use of Colono ware decreased through time. From the period 1701 to 1725, these wares represented 94% of all ceramics. The percentages steadily decreased to 27% for the period 1826 to 1850. This decrease has been noted at a number of other plantation sites and the quantity varies depending on the presence of a high status occupation. Table 65 provides a summary of information on some Charleston area plantation slave sites. This table supports their contention, although there are some deviances. For instance, the Tanner Road settlement at Limerick Plantation had a very large percentage of Colono wares (Babson 1990). This may be a result of the site being more self sufficient since it was a peripheral settlement.

Garrow and Wheaton (1989:178) noted at Yaughan and Curriboo Plantations that by comparing the relative frequencies of Yaughan to River Burnished pottery there is an indication that while Yaughan wares declined through time, the River Burnished wares increased. Whether this is a site specific occurrence or a regional (i.e., Charleston area) pattern is unknown and future research should focus on determining if larger proportions of River Burnished wares are distinctive of later sites.

They also found that the relative frequencies of Yaughan ware attributable to "cups/bowls versus cooking/storage vessels" within the slave quarters changed through time. The percentage of cooking and storage vessels declined, while cups and bowls increased. They suggest that:

The material culture during the early period appears to have been based on West African and/or Caribbean models, and changed as time passed to become more like the prevalent Euro-American models of the South Carolina coast (Garrow and Wheaton 1989:179).

Again, more research is needed to determine if this is a regional trend. Both the decrease in Colono wares and the decrease in cooking and storage vessel was seen as evidence for the acculturation of the African-American population at Yaughan and Curriboo Plantations (Garrow and Wheaton 1989).

Table 65.
Colono wares and European Ceramics from
Charleston Area Slave Sites

Site Name	Colono wares	European Ceramics	Date Range	Context
Smoky Hill ¹	74%	26%	1705-1798	MH/SR
Early Yaughan ²	90%	10%	1740-1790	SR
Curriboo ²	88%	12%	1740-1800	SR
Middleburg ¹	60%	40%	1760-1820	SR
Late Yaughan ²	71%	29%	1780-1820	SR
Lexington ³	88%	12%	1800*	SR
Spiers Landing ⁴	56%	44%	1792-1830	IS
Tanner Road ⁵	78%	22%	1780-1850	SR
Halidon Hill ¹	36%	64%	1795-1850	SR

Key: MH=Main House; SR=Slave Row; IS=Isolated Slave House; *=no range provided.

¹Afleck 1990

²Wheaton et al. 1983

³Wayne and Dickinson 1990

⁴Drucker and Anthony 1979

⁵Babson 1990

Another trend which may exist is the preference of one ware over another by the planter class. For instance, did planters prefer River Burnished ceramics over Yaughan wares? William Gilmore Simms noted in the first quarter of the

nineteenth century that Indian pots were highly valued and were:

considered by most of the worthy house-wives of the past generation, to be far superior to any other. I remember, for example, that it was a confident faith among the old ladies, that okra soup was always inferior if cooked in any but an Indian pot. . . . Certainly an iron vessel is one of the last which should be employed in the preparation of this truly southern dish (Simms 1841:122)

Identification of planter preference in Colono ware may be difficult to find since slaves tended to do all the cooking on plantations and it is likely that if there was a planter preference, it will be masked.

It is also possible, if not highly likely, that some of these River Burnished wares were made locally, that is, within a roughly 30 mile radius and therefore, the pastes between Colono ware and River Burnished ware may not be highly variable. For instance, Carl Steen has recovered clays at Pine Grove Plantation on the Back River that, when fired, can produce pottery similar to vessels made by both African-American slaves and free Native Americans. This clay even had a small quantity of mica-like mineral in it which is a characteristic of River Burnished pottery according to Ferguson (1989; Carl Steen, personal communication 1994). Since it seems overly labor intensive for the Catawbias to bring fired pottery or even raw clay all the way from their upcountry villages to the Charleston area, they may have been searching out plastic micaceous clays, similar to what they used near their own settlements.

A number of Yaughan vessels have pre- or post firing incisions consisting of some variation of an "X", including an "X" alone, within a square or a circle, or some other encirclement located on the bottom interior or exterior of the vessels. The marks were all found on Yaughan bowls and none were found on jars. Often these bowls had ring bases (Ferguson 1992:113). Archaeologists had initially believed that these marks were maker's or owner's marks, however, there was not enough

variety for them to be owner's marks. While they may be maker's marks, Ferguson (1992:114) states that since many of them are found adjacent to or in water, the marks have some sort of link with water. He suggests that the marks are associated with Bakongo religion since they closely resemble the Bakongo sign of the cosmos (see Ferguson 1992; Thompson 1983). Given the ubiquitous emphasis on water spirits and circularity in West African religion, the presence of these marked vessels adjacent to water may indicate that they are a part of some sort of religious ritual. If this is indeed the explanation for these markings, then they will most often be found at sites on rivers, and will be uncommon, if not absent, on sites without a major water course. However, more research is needed to understand the meaning behind these markings. Perhaps mapping the locations of their occurrence will provide more insight.

Research Questions

The primary goal of this analysis was to determine if Yaughan and River Burnished wares are distinctly different enough to be defined as types or if they should be considered type varieties. Our questions regarding the traditional analyses include:

- Are there consistently macroscopically observable differences in the two wares?
- Are the wares consistently tempered in the same fashion and are the two wares tempered differently? For instance, are the quantity and size of inclusions consistent? Are they consistently water washed sands? Does this have any potential implications for clay sources?
- Are there distinctive decorative and morphological differences in the two potteries?

Other research questions include:

- What is the ratio of Colono

ware to European ceramics at the two sites and how do these ratios fit into previous ideas about changing reliance on Colono wares?

- Is there evidence for a change in the relative frequency of Yaughan to River Burnished wares from the eighteenth to the nineteenth century? As previously mentioned, at Yaughan and Curriboo Plantations Garrow and Wheaton (1989:178) noted that the amount of River Burnished wares increased through time.

- Does the relative frequency of Colono ware appear to increase the closer the plantation is to Charleston and perhaps to Indian trading paths?

- Is there evidence for a change in the relative frequency of cups/bowls versus cooking/storage vessels through time? Again, at Yaughan and Curriboo, Wheaton and Garrow (1989) found that the percentage of cooking and storage vessels declined, while cups and bowls increased.

- Did planters prefer one ware over another?

- Were River Burnished wares locally manufactured?

- What does the presence or absence of "X"s on the base of Yaughan vessels at Broom Hall suggest about previous theories regarding its meaning?

Analytical Methods

The Colono wares from Broom Hall (38BK600 and 38BK985) were analyzed using the following traditional variables:

- Sand Temper Size, based on the U.S.D.A. standard sizes for sand grains, defined as very fine (up to 0.1 mm), fine (0.1 to 0.25 mm), medium (0.25 to 0.5 mm), coarse (0.5 to 1.0 mm), and very coarse (1.0 to 2.0 mm);

- Sand Temper Shape, also known as degree of rounding, defined as angular (convex shape and sharp corners), subangular (convex shape with rounded-off corners), and rounded (convex shape and no corners);

- Frequency of Sand Inclusions, using a three point scale of abundant, moderate, or sparse. These can be estimated by reference to percentage inclusion estimation charts (see Mathew et al. 1991), with 30% or more being abundant, ranges of 10 to 20% being moderate, and 5% being sparse;

- Temper type: mica, quartz, shell, and voids;

- Surface treatments: smoothing, identified when the sherds had a regular but not glossy surface, and burnishing, identified when the sherds had a semi-glossy finish;

- Core Cross-Sections, consisting of a visual observation of a freshly broken edge. Sherds were characterized as (1) oxidized with no core, (2) oxidized with an interior core margin, and (3) reduced, being dark throughout with no core;

- Rim diameter, measured in centimeters when a reliable arc was present;

- Rim form;

- Thickness, measured in millimeters and taken 3 cm below the lip of the rim. When this portion of the vessel was not present sherd thickness was taken as a distinct measurement;
- Vessel form;
- Presence of charring or sooting;
- Evidence of use (i.e. cutlery marks or spoon scrapes);
- Decoration; and
- Appendages.

After formal and morphological attributes were determined, rim sherds were examined to determine the minimum number of vessels (MNV) as well as range of vessel sizes, shapes, and styles.

In a following section Dr. Michael Smith (University of North Carolina at Wilmington) discusses the results of petrographic, chemical, and mineralogical analyses of the two wares. It was our goal to determine if the potteries were made from different clay sources. While we may not be able to provide any solid answers with the limited test results, these analyses may be used in the future for provenience studies or, perhaps, determining potting communities. The chemical and petrographic analyses used in this study were relatively inexpensive, and it is essential that low country archaeologists can begin building a data base, including chemical characterization and petrographic analysis, of the various wares.

Results of Traditional Analytical Techniques

Proportions of Colono wares and European Ceramics at Broom Hall

The proportion of Colono ware to European ceramics were examined at the two sites to examine changing reliance on Colono wares. At the eighteenth and early nineteenth century main house complex (38BK600) Colono wares represented 24.5% of the ceramic collection while

European ceramics represented 75.5% of the collection. At the eighteenth and early nineteenth century slave row (38BK985) Colono wares represented 79.5% of the ceramic collection while European ceramics represented 20.5% of the collection. The two sites, both spanning approximately the same time period, contained inverse proportions of Colono wares and European ceramics. The preponderance of Colono wares at slave sites is to be expected (Ferguson 1989) while relatively low quantities of Colono ware at main house sites is relatively common. Table 66 provides comparative information from Charleston area eighteenth century plantation main houses. This table illustrates that although Colono ware percentages are low, there is a wide range in frequency. This may be a factor of occupation span or perhaps more likely, the strength of the African-American presence in the main house complex.

Previous research by Lees (1980) at the Limerick plantation main house plotted the frequencies of Colono ware through time. This work illustrated that during the earliest period (1726-1750) Colono ware dominated the ceramic collection, dropped off somewhat during the second quarter of the eighteenth century, rose again around the turn of the century, and dropped off almost entirely by the third quarter of the nineteenth century (Figure 57). This suggests that perhaps when the plantation was pioneered, planters may have relied on Colono wares since manufactured items were difficult to come by, especially the further one was from a trade center. Limerick was at the very headwaters of the east branch of Cooper River; and although the east branch carried heavy boat traffic, Limerick was at the far end of this traffic artery. During the 1740s, rice prices plunged which caused plantations to become more self sufficient (Terry 1981:164). It is likely that this could also account for the larger quantity of Colono wares during this period. When the low country economy became more established by the mid-eighteenth century, money was more abundant and manufactured items were easier to obtain. This may account for the drop in Colono wares at this time. The increase in use around the turn of the century is perhaps due to the effects of the American Revolution. Again, the economy was in ruins since during the war the exportation of both rice and indigo were drastically curtailed

(Lees 1980). After the war, the indigo market never recovered and it was not until the turn of the century that a new staple crop was identified. Eventually, as European ceramics became cheaper, the need for Colono wares diminished.

The pattern at the Limerick main house is also evident at Broom Hall (Figure 58). While the percentage of Colono wares through time is much lower at Broom Hall, this is perhaps due to the planter's wealth, to the plantation's proximity to the Charleston markets, or to planter/slave relations. There is some indication that during the early occupation of Broom Hall there is a heavier reliance on Colono wares. Mean dates in the 1740s contain the highest quantities of Colono wares for the eighteenth century. From the 1750s to the turn of the century the use of Colono wares remains steadily low. Colono wares peak to their highest use around 1800 and then drop off again by the 1820s.

It could also be argued that the increase in Colono ware use correlates to increases in the importation of slaves directly from Africa. The patterns in importation roughly approximate the patterns in Colono ware use at Broom Hall (Figure 59) although there appears to be a lag effect. The low importation of Africans in the 1740s did not have an effect on Colono ware production until the 1750s. Africans were being imported in substantial quantities in the 1730s, but a prohibitive duty caused imports to drop drastically in the 1740s (Littlefield 1981; Donnan 1928). According to Daniel Littlefield (1981:163) there were 11,666 African slaves imported into South Carolina in the 1730s as opposed to only 1,412 in the 1740s. Imports continually rose up to the American Revolution from 13,024 in the 1750s to 17,429 in the early 1770s (Littlefield 1981:163). During the first two decades after the Revolution, there was a demand for more slaves because of the introduction of cotton agriculture. According to Phillip Morgan (1983:129-131) one or two African regions dominated the trade which may have allowed for more cultural cohesiveness. From 1804 to 1807, 21,027 African slaves were brought in to South Carolina. After 1808, slaves were primarily brought in from other portions of the South, such as Maryland and Virginia and the African slave trade became negligible (Wallace 1957). In general, it appears that the

only major lull in importation up through 1820 was in the 1740s. Since in the early nineteenth century, slaves were primarily imported from other parts of the South, this may have aided in the decline and eventual demise of Colono wares.

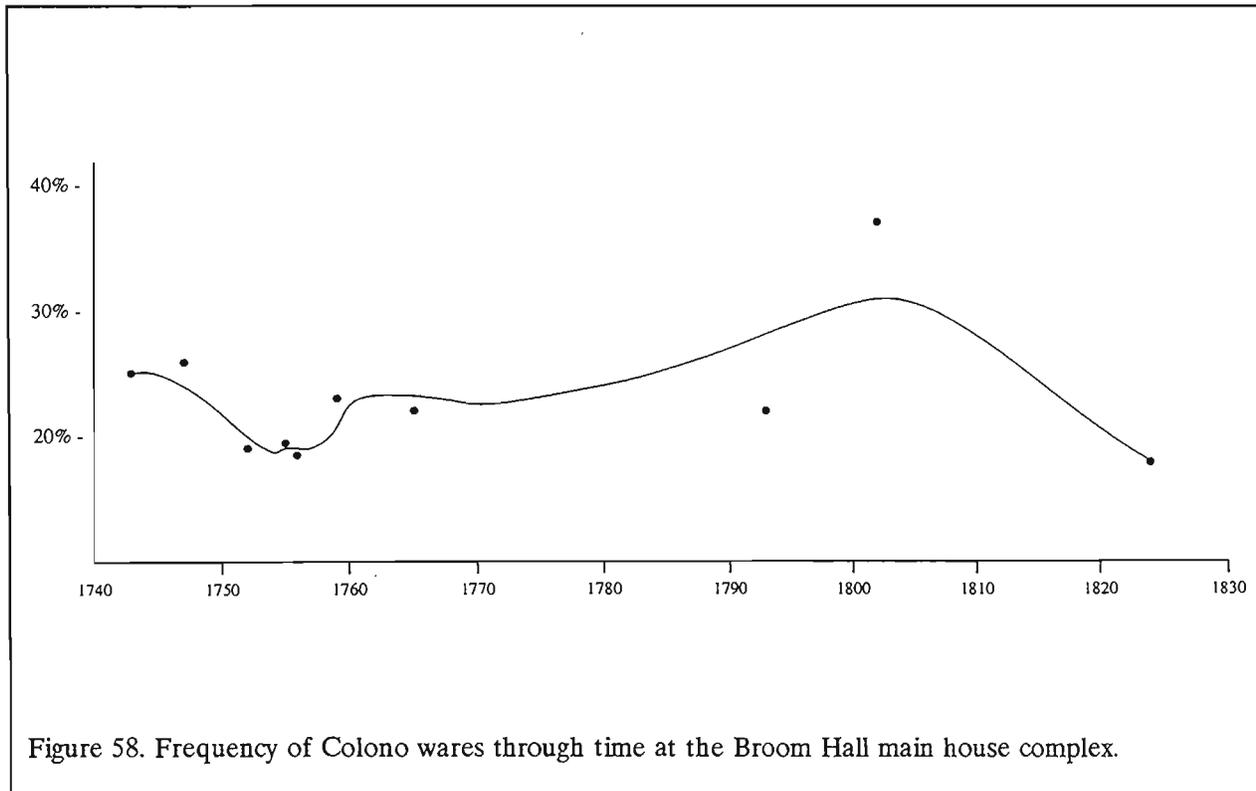
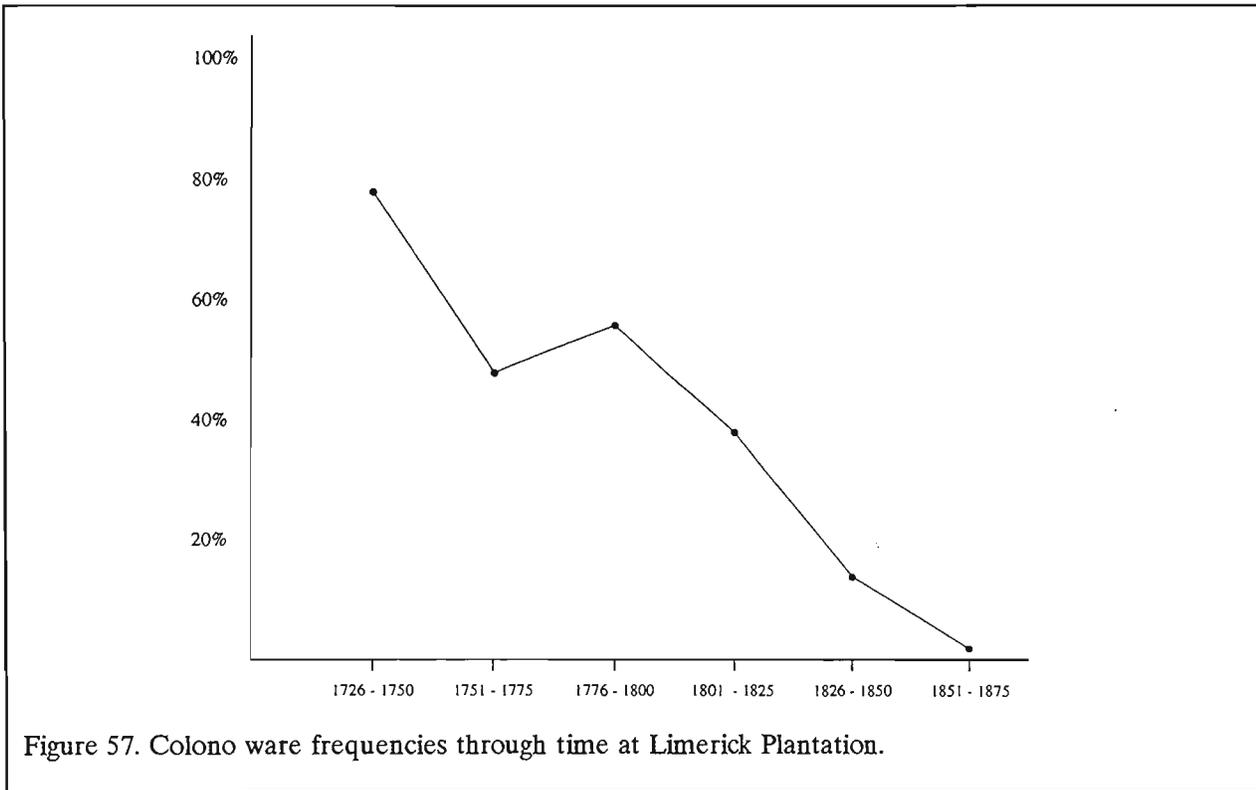
At Broom Hall, slave demographics do not reflect the fluctuations in Colono wares seen at the main house, but perhaps the cultural makeup of the slaves at Broom Hall and/or the surrounding region influence the use of Colono wares at this location. In 1722, 22 slaves are reported and the population increases to 70 in 1765. Shortly after 1765 it appears that more than half of the slaves were probably sold, bringing the population back down to about 30 slaves. Again, the population increases somewhat to 50 by 1800 (see Hamer's historic synopsis of Broom Hall in this study for more details).

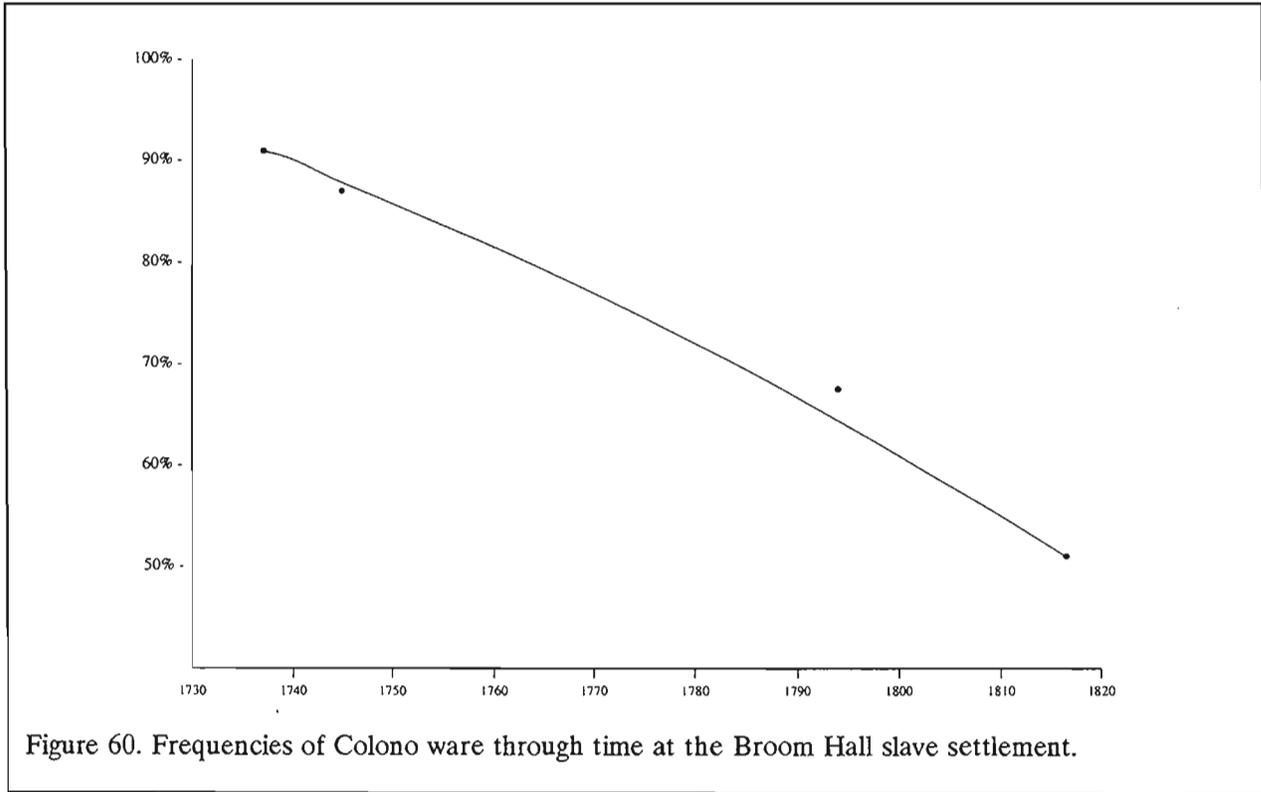
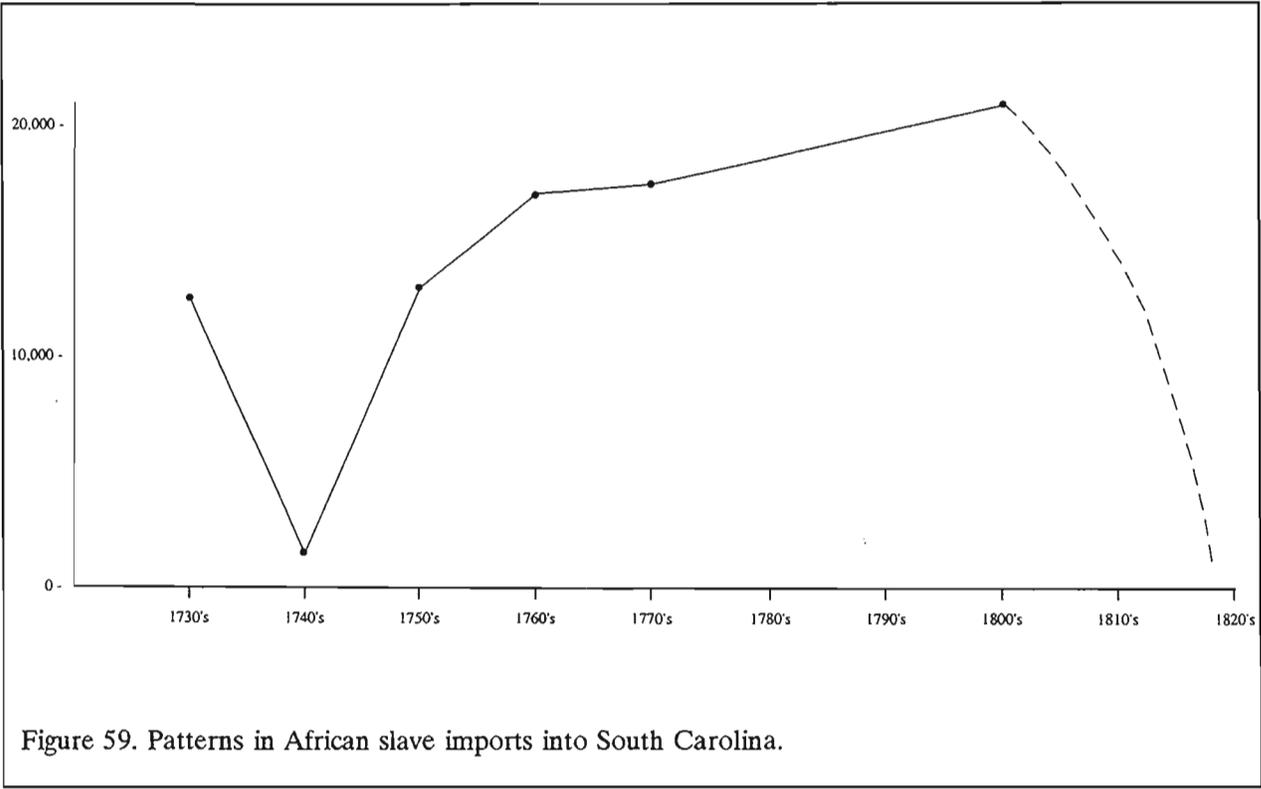
Patterns in Colono ware use at the Broom Hall slave row (38BK985) do not appear to be influenced by economic trends or demographic changes as did the main house (Figure 60). This is not very surprising, since slaves were living somewhat marginally all the time and being self sufficient may have been the only way to "get ahead". During the 1730s Colono ware percentages are at their highest (around 90%) and steadily drop to their lowest about 1815 (around 50%). The pattern was also not affected by changes in the slave population or possible changes in the cultural makeup of the population. This argues against cultural makeup being responsible for differential uses through time at the main house. However, it could also be argued that the economic conditions of slavery prevented any discernable changes in Colono ware use.

The sherds from both 38BK600

Table 66.
Percentages of Colono Wares and European Ceramics
at Eighteenth Century Plantation Sites

Plantation	European Ceramics	Colono wares
Elfe	97.6	2.4
Green Grove	89.1	10.9
Broom Hall	75.5	24.5
Archdale Hall	57.4	42.6
Limerick	52.3	47.7
Crowfield (main house privy)	46.0	54.0





(eighteenth century main house complex) and 38BK985 (early to mid- nineteenth century slave row) were sorted into categories of Yaughan and River Burnished ware using the attributes listed before and their correlation with previously analyzed collections. At 38BK600, 500 sherds were suitable for analysis (greater than one inch) while 155 sherds were suitable for analysis at 38BK985. At both sites, Yaughan ware was by far the most prevalent type of low fired pottery (Table 67). At

River Burnished percentages will peak at sites with mean ceramic dates around the turn of the century.

It is possible that areas closer to trade centers, such as Charleston, had greater access to the wares and for a wider range of time than areas on the Santee. As a result, not only would these areas have higher proportions earlier and later than areas further from trade centers, but might also have higher proportions during the peak of trade.

Table 67.
Percentages of Colono wares

Type	38BK600	38BK985	38BK985 w/o Fea. 1
Yaughan	85.2	71.0	91.6
River Burnished	14.8	29.0	8.4

38BK600, 85.2% of the pottery was Yaughan, while 14.8% was River Burnished. The percentage of River Burnished pottery at 38BK985 was substantially higher (29%), but a large portion of the River Burnished wares at the site were recovered from Feature 1, a trash pit, and is likely related to an isolated occurrence of breakage or disposal of a number of River Burnished vessels. If the collection from Feature 1 is removed, the River Burnished wares represent 8.4% of the collection, while Yaughan represents 91.6%.

Analysis of Colono wares from different areas of the plantation with different temporal associations have produced a rough picture of the changing importance of River Burnished wares. Interestingly, River Burnished ceramics are present in relatively large quantities in the mid-

eighteenth century at both the main house and slave row. River Burnished wares consist from 8.5% to 18% of Colono wares from contexts dating to the 1740s with a large enough quantity of analyzable sherds. The large percentage of River Burnished sherds at the main house may reflect the planter's preference for these wares. The lowest percentage was found at the Broom Hall

Wheaton (1993) presents relative frequencies of the different ceramic types from Yaughan and Curriboo Plantations as well as from a number of historic sites tested in the Francis Marion National Forest. This comparison was made based on a hypothesis that the use of River Burnished wares would begin in the late eighteenth century and increase through time (Wheaton et al. 1993). In general, this hypothesis is supported through the examination of sites from the same locale through time (Table 68). As Wheaton (1993:72) states, it appears that the use of River Burnished wares increased greatly sometime between 1775 and 1789. The drop in the percentage from 13% to 0.2% for the sites in the Awendaw area is probably due to the fact that by the 1820s it is believed that the Catawba Indians stopped trading their wares in the low country (Simms 1841). Therefore, it is likely that

Table 68.
Proportions of River Burnished wares
from different areas of the low country

Location	MCD	% River Burnished
Santee Area		
38BK245	1760.5	.005
38BK76A	1761.6	.01
38BK76B	1775.7	.01
28BK75	1789.7	10.00
Wambaw Area		
38CH581	1797.2	28.60
38CH587	1800.6	15.40
Awendaw Area		
38CH812 (early)	1742.8	.02
38CH812 (late)	1766	13.00
38CH1214	1820	.02
Goose Creek Area		
38BK600 (main house)	1744	17.80
38BK985 (slave row)	1745	9.50
38BK985 (slave row)	1816	0.00

slave row in an early nineteenth century context (MCD=1816.5) where River Burnished wares were completely absent.

Temper

Through macroscopic examination, both pottery types were found to be tempered with varying degrees of quartz, while the River Burnished vessels contained, in addition, quantities of mica. A small quantity of pottery identified as Yaughan also contained mica, although this was relatively rare and tended to be more sparse. Often this material was not clearly identifiable in the sherd interiors, but was only visible on the surface. In many cases a dissecting microscope was needed to determine whether flecks of the material were present or whether they were small highly reflective portions of quartz inclusions visible on the surface. As a result, the mica-like material was only noted as present or absent, while the quartz tempering was examined in more detail. Anthony (1986:7-32-7-33) states that both the Lesesne Smoothed and the Lesesne Lustered wares

sometimes contained flecks of mica, which again indicates that sorting can be difficult, particularly on small body sherds.

Figure 61 illustrates the distribution of temper size of the low fired earthenwares at each site. This analysis suggests that slaves used clays for their vessels which included fine grains of sands. The analysis of the River Burnished vessels gave different results. At the main house site (38BK600), vessels included primarily fine grains of sand in the clay, while at the slave row the paste was dominated by moderate size sand grains, although the percentage of fine grains was also relatively high. While the reason for this difference can not be determined in this study, it may be that the Indians, having greater freedom of movement, accessed a range of different clays for their pottery. It may be that they had exhausted one source, and moved on to another area with larger grains of sand.

Temper shapes in Yaughan sherds are

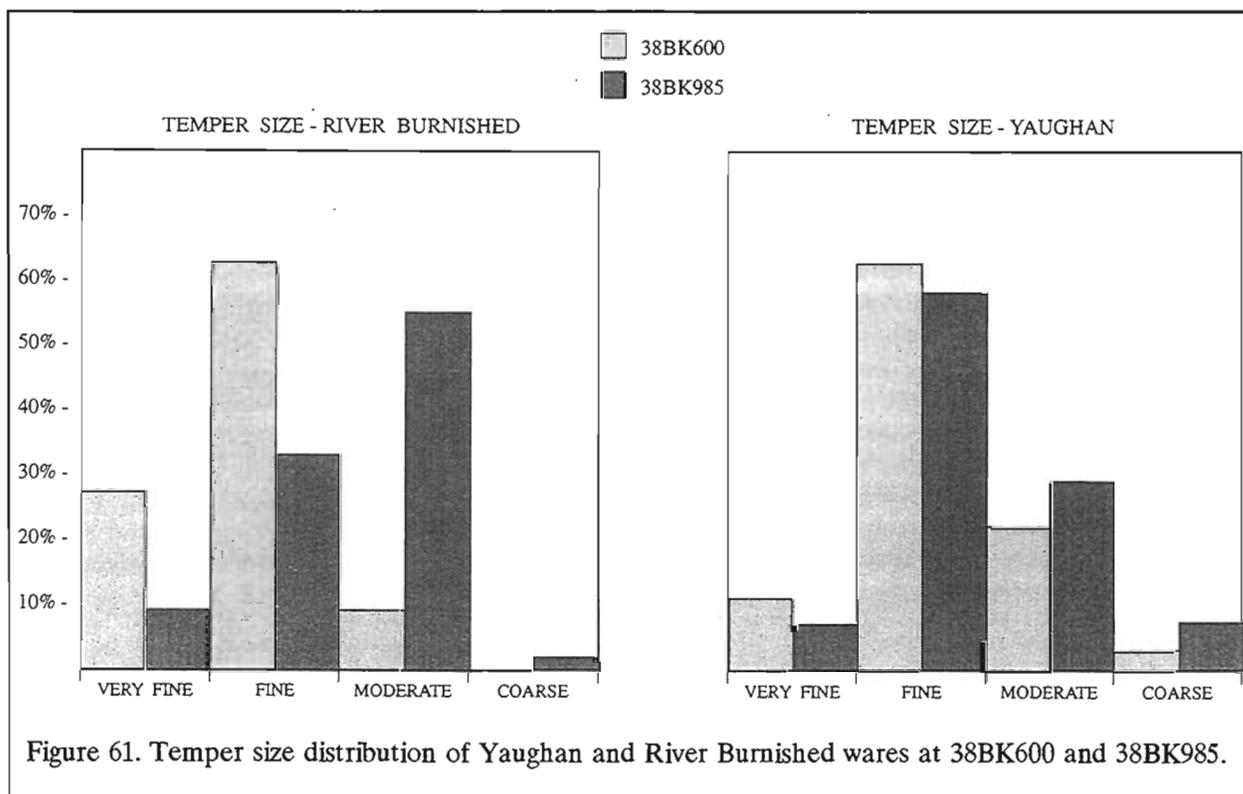


Figure 61. Temper size distribution of Yaughan and River Burnished wares at 38BK600 and 38BK985.

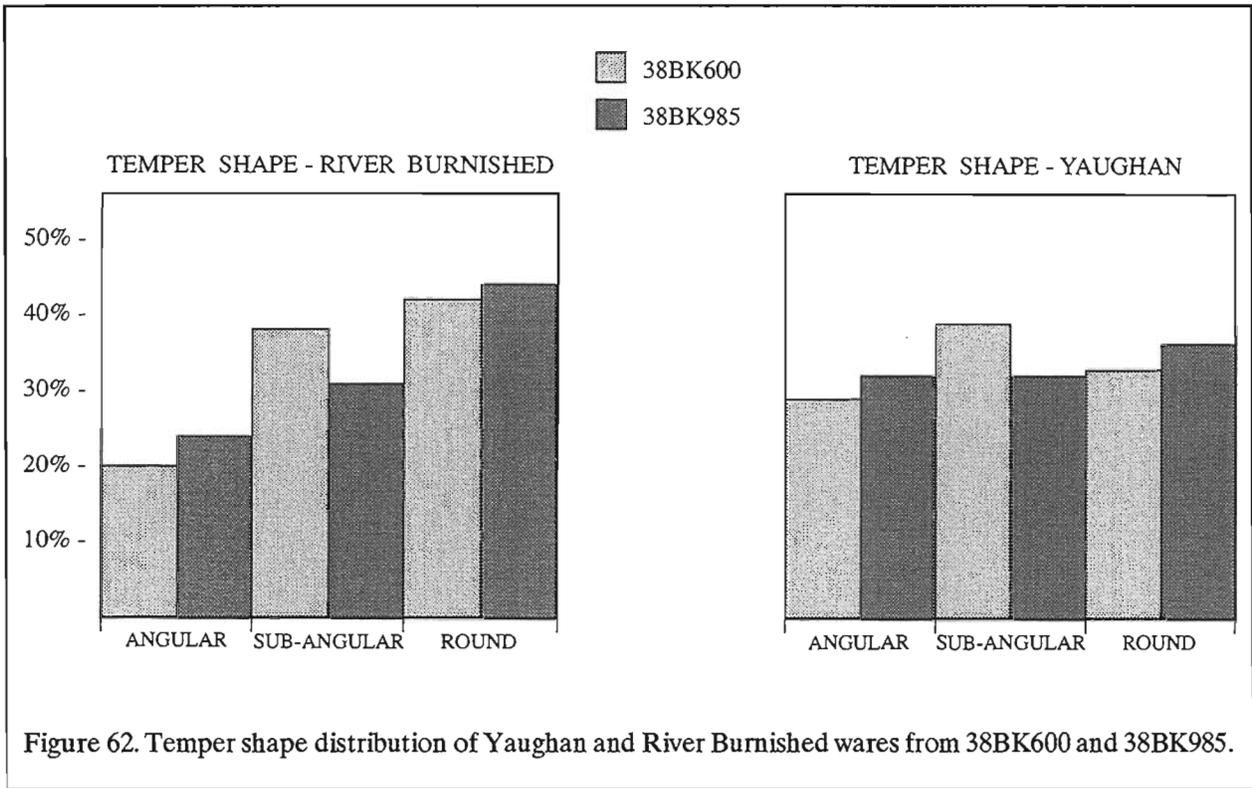


Figure 62. Temper shape distribution of Yaughan and River Burnished wares from 38BK600 and 38BK985.

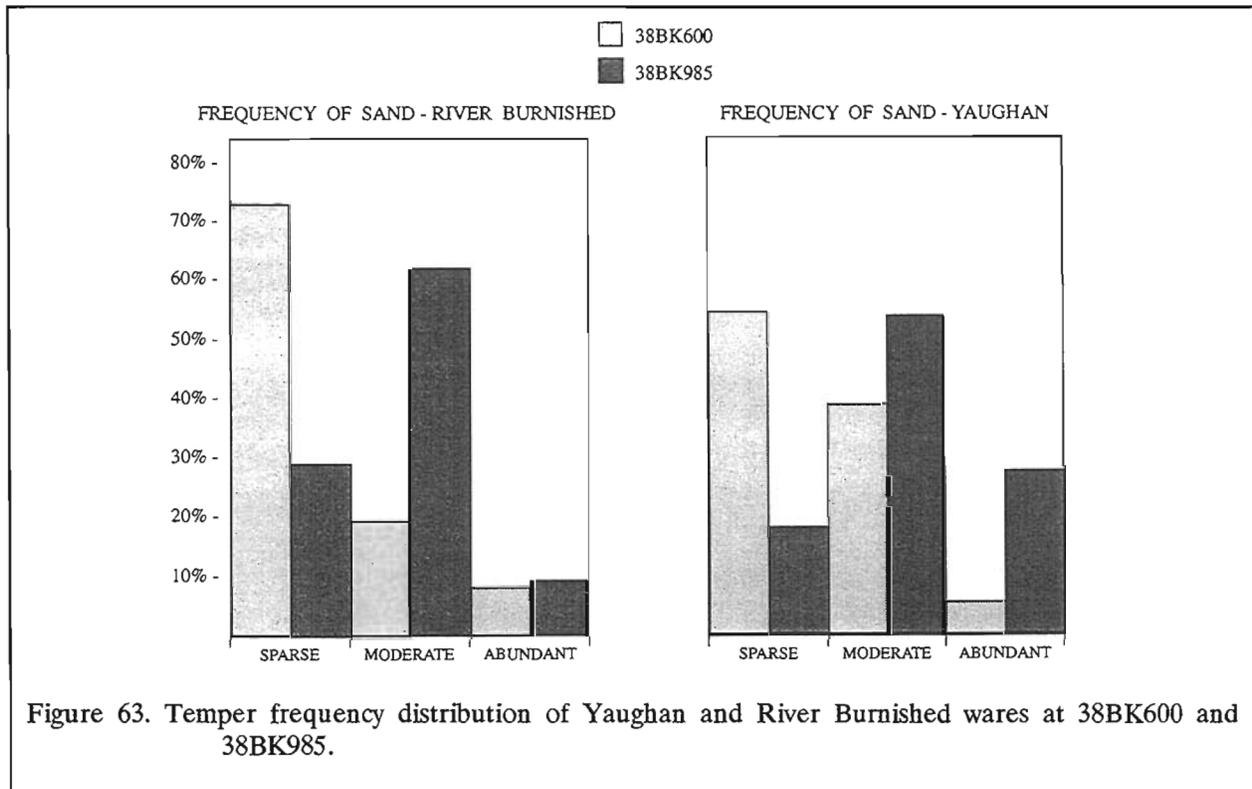


Figure 63. Temper frequency distribution of Yaughan and River Burnished wares at 38BK600 and 38BK985.

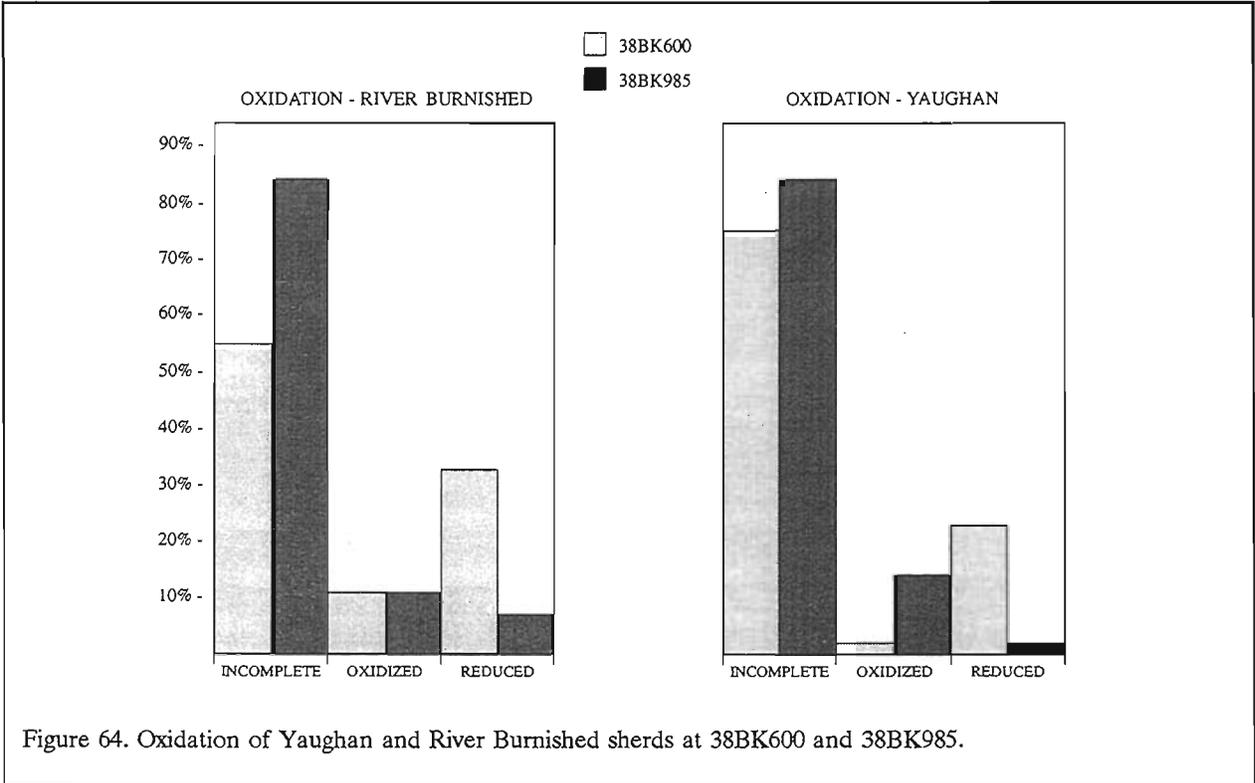


Figure 64. Oxidation of Yaughan and River Burnished sherds at 38BK600 and 38BK985.

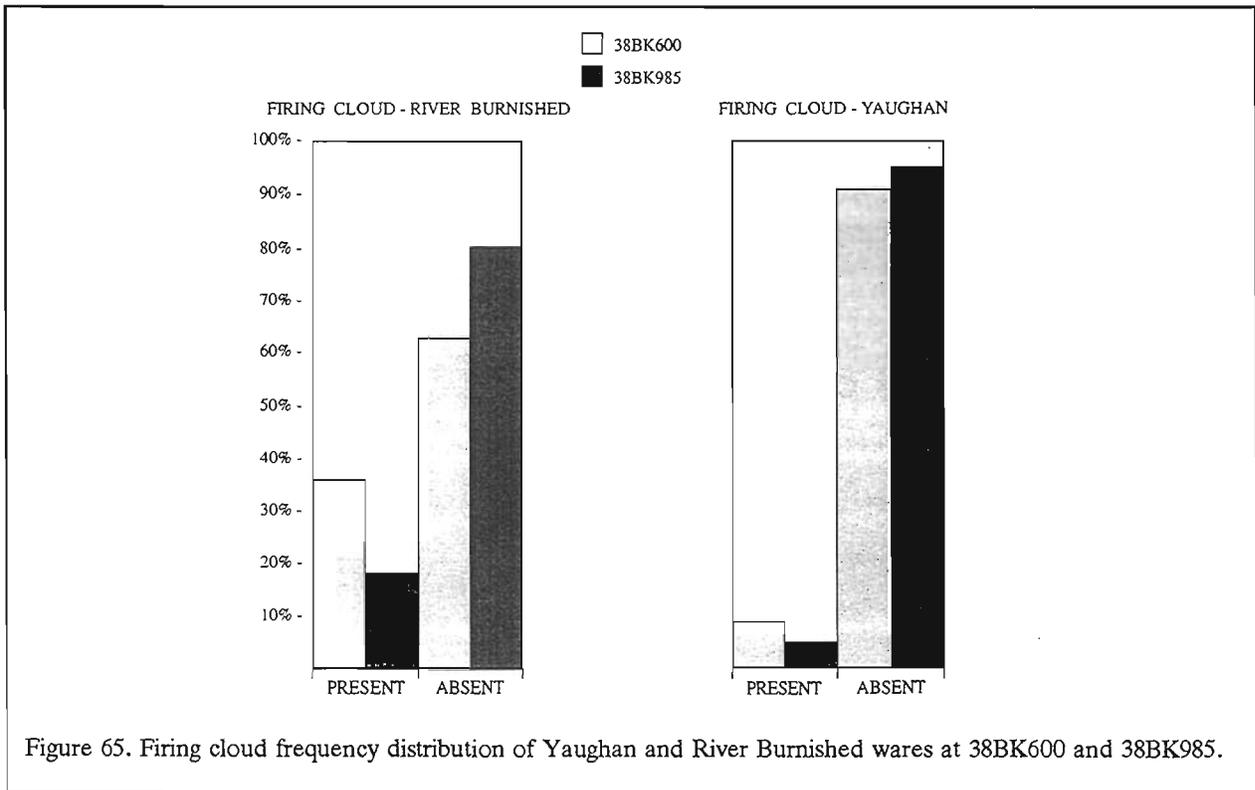


Figure 65. Firing cloud frequency distribution of Yaughan and River Burnished wares at 38BK600 and 38BK985.

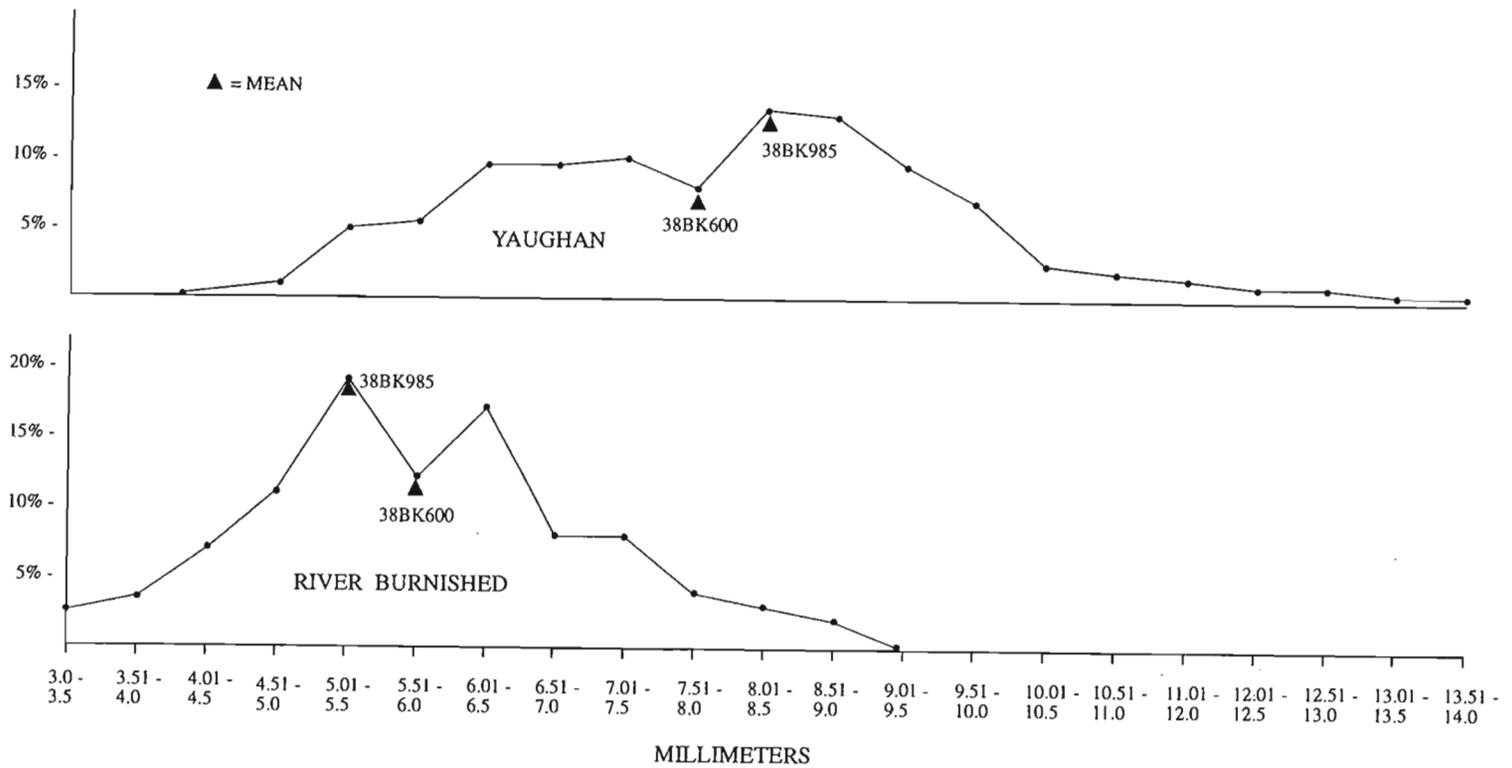


Figure 66. Frequency distribution of sherd thicknesses of Yaughan and River Burnished wares from 38BK600 and 38BK985.

evenly distributed, without one shape dominating the collection (Figure 62). The River Burnished wares, while still containing significant quantities of each shape, are concentrated toward rounded or water washed sands. It is possible, that while slaves were gathering clays and tempering materials in river and creek beds, they were also gathering materials from upland areas. As a matter of fact, Garrow and Wheaton (1989) found that the clays located underneath the actual slave settlements at Yaughan and Curriboo were suitable for pottery making.

The Indians may have been concentrating more on river resources, possibly because the clays there were more desirable or easier to get to. The Native Americans could probably be more selective about their clays, while African American slaves, being more physically restricted, gathered clays where they could. It seems logical that water washed sands would be located adjacent to these river deposits.

The frequency of sand inclusions in the two pottery types show relatively similar profiles (Figure 63). For River Burnished pottery, there is a sparse frequency in wares of the eighteenth century, becoming more moderate in the nineteenth century collection. The same holds true for the Yaughan wares, although moderate inclusions are also relatively high in the earlier collection.

In sum, the tempers suggest that Indians may have gathered clays from different sources along river beds while slaves gathered both river and upland clays. This was probably done to maximize clays within a circumscribed area -- due to the restrictions of slavery. While this study of temper suggests possible clay source locations, there does not appear to be any strong differences in temper between the two types. For both types sand inclusions are sparse to moderate with fine to moderate sizes of sand temper. River Burnished sand tempers were generally more rounded, suggesting that the temper was gathered in or near water courses.

Manufacture

Most sherds in both categories were incompletely fired and only a small quantity were

completely oxidized or reduced (Figure 64). However, it was noted that many of the River Burnished sherds, while not completely reduced or oxidized, did not have the large core of incomplete firing as was common on the Yaughan sherds.

Firing clouds were much more common on River Burnished vessels (Figure 65). They usually result from contact between the vessel and fuel or hot gases during firing. While they can occur in any type of kiln, they are more common in situations where an open or pit firing is used since the fuel is arranged around the vessels (Orton et al. 1993:223).

Sherd thickness was measured on all examples regardless of what portion of the vessel they represented. This was done primarily because the amount of measurable rim sherds for River Burnished wares at 38BK985 was small. However, some method of standardization was attempted on rim sherds, so there would be some data from the same area of each vessel which could be compared. Measurements on rims were normally taken at 3.0 cm below the rim. As has been observed at other sites (see Wheaton et al. 1983; Anthony 1986), River Burnished wares are generally thinner than Yaughan sherds, although there is a great deal of overlap. At 38BK600, River Burnished sherds were an average of 6.0 mm thick while Yaughan pottery was 7.7 mm. At 38BK985 River Burnished sherds were an average of 5.5 mm while Yaughan ware was 8.3 mm. The range of thickness in River Burnished sherds were 2.8 mm to 9.6 mm, while the range of thickness of Yaughan sherds was much greater being 3.5 mm to 14.0 mm (Figure 66).

In addition to these observations, no examples of coiled vessels (based on coil fractures) were identified. This absence of coil fractures, however, cannot be taken as indicative of pinching or molding (which at least Rye [1981:67-70] suggests can only be made through radiographic examination).

Use and Wear

Vessels used for cooking will sometimes retain evidence of this use through the presence of sooting or charring. Although it should be

recognized that sometimes sooting is removed during the washing process, the specimens from Broom Hall were carefully washed to avoid this problem. It is likely, therefore, that the collection very accurately represents their state at deposition. At the Broom Hall site a number of sherds exhibited evidence of this use. While most of the sherds provided no evidence for sooting or charring, those that did were more often charred on the exterior. Table 69 provides a list of vessels with associated sooting or charring. As is evident,

Table 69.
Location of Vessel Sooting

Location of Sooting	Jars	Sm. Bowls (<8")	Med. Bowls (8-10")	Lg. Bowls (>10")
Absent	19	5	22	19
Interior			2	3
Exterior	1	4	4	4
Interior/Exterior		1	1	4

but surprising, jars were rarely sooted. This may be due to the fact that they were not often used for cooking at Broom Hall, but for storage. The majority of bowl forms were sooted or charred on the exterior. However, large bowls showed a greater variety of sooting, suggesting that they may have been used most often in cooking. This is interesting, because bowls are often assumed to have functioned only as serving wares. Because of the large surface area and opening, liquids tend to cook out quickly. However, we found strong evidence that bowls were being used as cooking vessels. A prime example was a Yaughan unrestricted bowl (Figure 67) with smudging on the exterior and with "lid wear" just below the rim in the interior of the bowl. However, there was no wear at all along the top of the lip. Based on the pattern of wear, it appears that a slightly smaller inverted bowl was used as a lid which sat just inside of the bowl. This would create sort of a "Dutch oven" type vessel. Although somewhat different in form from the European style Dutch oven, lacking a flat tripod base, it would have functioned similarly. According to Nancy Crump (1986:23) colonial Virginia housewives believed that:

[a] Dutch oven is probably the single most important item for

hearthside cooking. Favored for generations, it can be used to bake breads and desserts, to stew meats and vegetables, and to brown many foods, including meringues. Standing on three short legs and available in several different sizes, the Dutch oven is placed on a bed of coals and its contents are covered with a tight-fitting lid. Additional coals are then shoveled on top, to be replenished as needed.

Although bowls are generally seen as serving vessels obviously they were sometimes, if not often, used for cooking or both serving and cooking. Beyond vessel form, making observations on sooting and charring are important to determine vessel function. However, one must be careful in interpreting function since, for instance, a bowl may have initially been used for serving, but was later used as a cooking vessel as the need arose.

Garrow and Wheaton have stated that the proportion of "cups/bowls versus cooking/storage" vessels changed through time, using morphological terms (or form) against functional terms although we are sure that this confusion was not intentional. They attribute this change to acculturation since they believe the prominence of cooking and storage vessels during the early period reflects a West African and/or Caribbean model, while the later preponderance of bowls and cups reflects a change to a more Euro-American model.

In addition to cooking, pottery may show evidence of food preparation (stirring or scraping marks) or use of cutlery (cutting marks). Evidence of the use of cutlery would most often be found on flatwares, although they could also be found on unrestricted bowls. It is most likely that jars and large bowls will show evidence of food preparation, i.e., stirring or scraping. Another type of use includes exterior wear from a vessel being placed on a hard surface such as a table or a stone or brick in a cooking fire.

Of the vessels at 38BK600 and 38BK985, jars normally exhibited wear on the exterior, again perhaps because they more often were used for

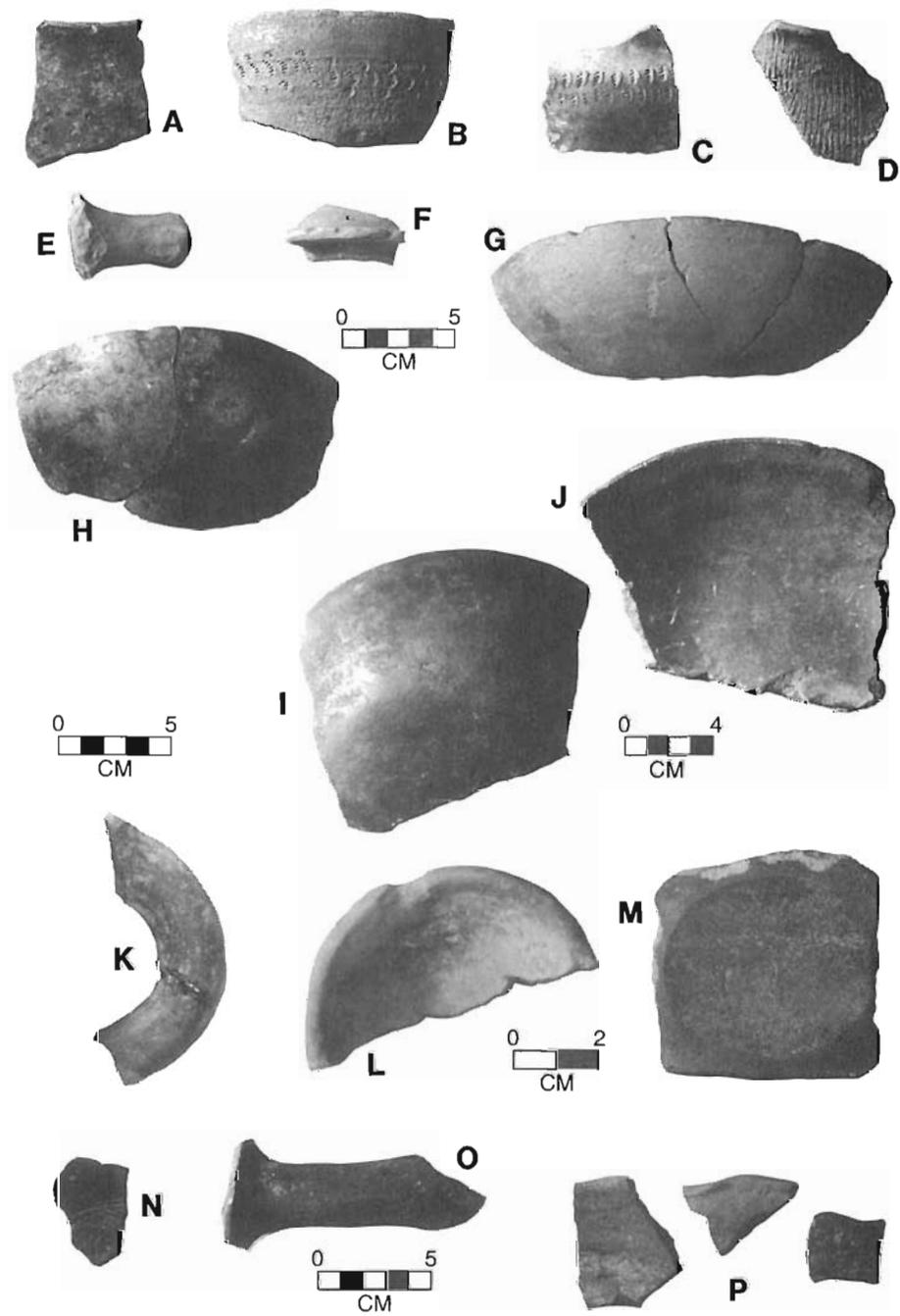
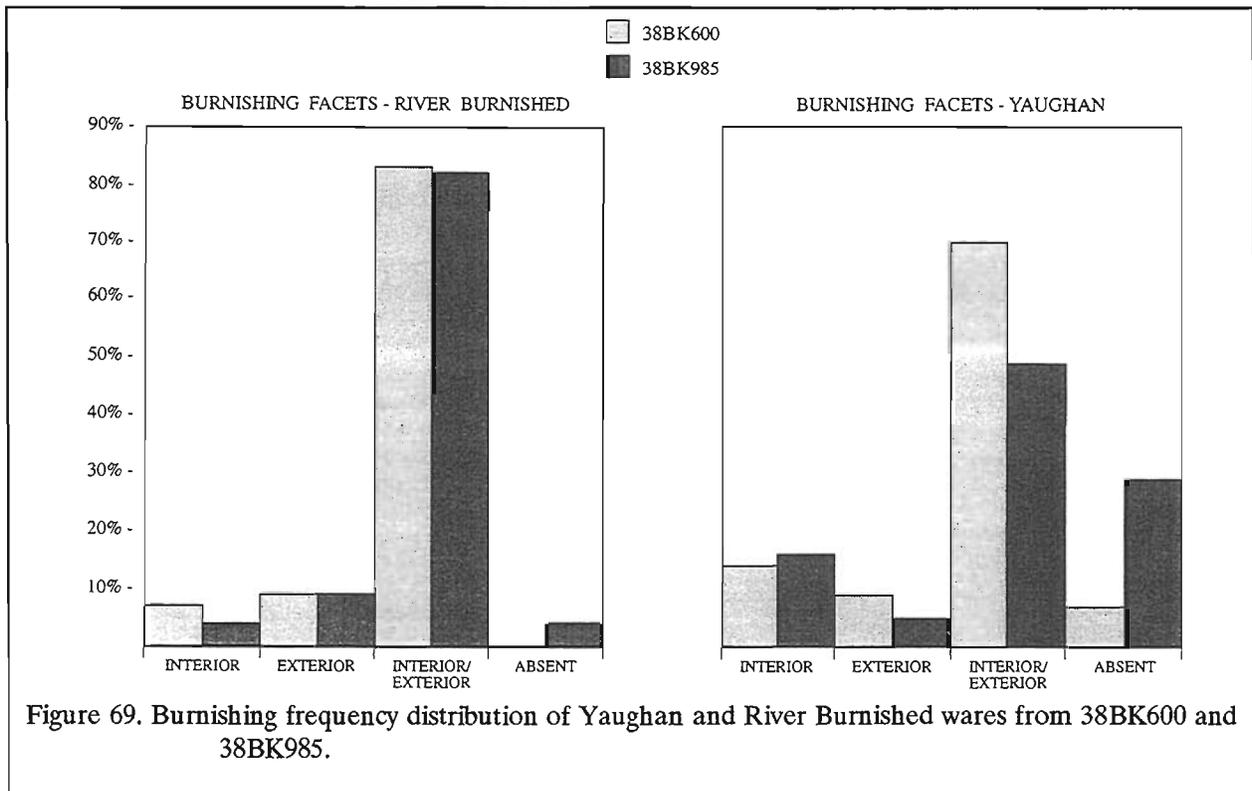
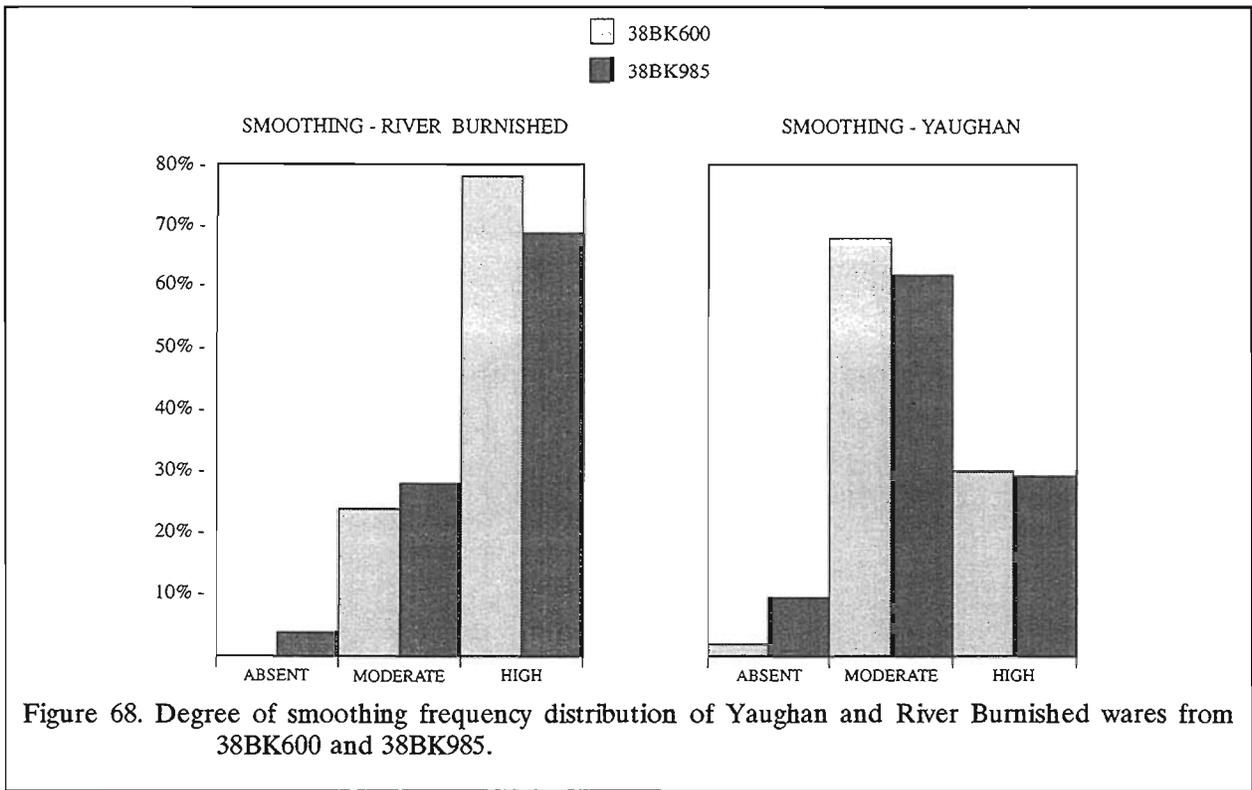


Figure 67. Colono wares from Broom Hall: A-M, Yaughan wares; N-P, River Burnished wares. A, reed punctate on jar form; B, carved reed punctate on bowl form; C, carved reed punctate on jar form; D, combed decoration on jar form; E, tripod leg; F, lid form; G, bowl form; H, interior of bowl showing lid wear; I, exterior of bowl shown in H illustrating exterior sooting; J, exterior of bowl illustrating sooting; K, porringer handle; L, ring base; M, abraded sherd possibly used for grinding herbs; N, unidentifiable etched design; O, pot or pan handle; P, "queensware" type rim sherds.



storage or for holding water at the Broom Hall site. Both Vaughan and River Burnished bowls, regardless of size, were primarily worn on the exterior. Plates however, were found to be worn either on the interior or both the interior and exterior. However, more than half of them showed no clear evidence of vessel wear (Table 70). Wear is to be expected, since plates are often subject to the aggressive cutting of forks and knives. On

(Figure 67). This sherd may have functioned as a mortar to crush herbs for use in medicines or food preparation.

Surface Treatment and Vessel Decoration

As was expected, the River Burnished vessels exhibited a high degree of smoothing on a large percentage of the wares (Figure 68), while the Vaughan wares were primarily only moderately smoothed. This smoothing was often present on both interior and exterior portions of the vessel.

Table 70.
Location of Vessel Wear

Location of Sooting	Jars	Sm. Bowls Med. Bowls Lg. Bowls			Plates
		(<8")	(8-10")	(>10")	
Absent	20	7	19	19	4
Interior	2		3	2	1
Exterior	9	2	7	5	
Interior/Exterior	3	1	1	2	1

Both interior and exterior

burnishing facets were found on the River Burnished and the Vaughan wares (Figure 69). While more common on the River Burnished wares, they were also present on a large percentage of the Vaughan wares. The later Vaughan wares contained

bowls and jars, stirring was not aggressive enough to cause visible signs of interior wear on many of the vessels.

a greater number of unburnished examples.

Another type of wear was that produced by the use of an interior fitting lid, perhaps a slightly smaller bowl, on bowl forms. As has been previously discussed, this type of vessel probably functioned as a sort of "Dutch oven". Two examples of this type of wear were found at 38BK600.

Vaughan sherds at both 38BK600 and 38BK985 did not have a wide range of body decorative motifs (Table 71). However, only one River Burnished example contained any type of surface decoration. Incising consisted primarily of diagonal lines on the shoulders of jars and there was also a small square incised on the side of a bowl. The incised or etched River Burnished sherd contained a complex design at the interior or exterior base of a flatware vessel (Figure 67). Part of the design was missing and could not be interpreted.

In addition, a Vaughan rim sherd had been abraded to create a shallow bowl-like surface

Table 71.
Body decorative motifs of Vaughan and River Burnished wares

Decoration	Pottery Type	Site	#
Incising	Y	38BK600 & 38BK985	5
Incising	RB	38BK600	1
Grass Punctate	Y	38BK600	7
Carved reed punctate	Y	38BK600	3
Paint, black slip	Y	38BK600	1
red slip	Y	38BK600	3
Combed	Y	38BK600	3
Stamped	Y	38BK600	1

Punctated examples included those with small grass-like circular punctates which, when the pattern was evident, were not random. For instance, one vessel had a horizontal line of punctates with impressions approximately every 6.5 cm. A second example, contained a line of punctates in a rectilinear design (Figure 67). Another implement used for punctating was what appears to be a carved reed. A split reed was carved to form dentate teeth and was used in a jab and drag fashion. The design was found one bowl and one jar (Figure 67).

Paint slips were found on four

Colono ware sherds and consisted of both red and black examples. Anthony (1986:7-36) found these two colors on both Yaughan and River Burnished wares at 38BK202 on Daniel's Island. Nineteenth century documents discuss the pigmentation of Indian trade vessels (Fewkes 1944:43; Gregorie 1925:21; Simms 1841) and these colors included green, red, blue and yellow (Simms 1841:122). However, no documents have been identified which discuss the use of paints or slips on the African-American vessels. This is probably because references to the slave made pottery are very rare, more so than references to the Catawba pottery.

Combed examples (Figure 67) of Yaughan pottery appeared to be restricted to jars in this assemblage. These markings were evenly spaced vertical incisions. They were clearly not stamped since there is no overlapping. One sherd of stamped pottery was identified. The design was rectilinear, similar to the design found on a jug recovered from the Combahee River at Bluff Plantation (see Ferguson 1992:11).

Rim/Lip Types and Appendages

Lips were usually round, flat, flat beveled to the interior, flat beveled to the exterior, bulbous, folded and sometimes pointed. However, there were also a number of more decorative rim/lip designs. These included undulating, "pie crust", punctated, notched, incised, and faceted. In addition, some River Burnished plate forms exhibited a "Queen's Ware" type lip design (Figure 67), while others had a gently undulating or a plain round lip. River Burnished plates had marleys measuring 13.0 mm, 22.0 mm, and 30.9 mm.

River Burnished bowls generally had rims that were round, flat, flat beveled to the exterior, flat beveled to the interior, pointed, faceted, or pie crust. The faceted and pie crust edges were exclusive the River Burnished wares. Leland Ferguson (1989) has found through experimental firing that these rim facets can be easily made with burnishing stones.

Yaughan bowls also had round, flat, flat beveled to the exterior, flat beveled to the interior, and pointed rims, but also had rims flat beveled to the interior with grass punctates, notched rims,

bulbous rims, gently undulating, and rims with angled indentions. Two lid fragments had a rope-like lip design. The only jar form with an unusual lip design had a rim that gently undulated.

Appendages included straight handles, loop handles, and legs. The straight handle (Figure 67) appears to have been associated with a possible River Burnished handled pan/pot, although no portion of the vessel body was attached. Other handles were exclusively associated with Yaughan vessels in this collection. Associated vessel forms were primarily cups or porringers (Figure 67), although a few may have been attached to larger vessels. There were a total of eight handle fragments in the collection. Only two tripod legs were recovered (Figure 67). They, like the handles, were associated with Yaughan vessels.

Other aspects of Colono ware vessels included vessel lids and ring bases. Lids were relatively small and therefore, most likely associated with jars or pitchers. The two examples from the Broom Hall site had decorative rims and appeared to be slightly domed, imitating tea or coffee pitchers (Figure 67). Both of these lid fragments were incompletely oxidized Yaughan wares.

There were four fragments of bowl ring bases at Broom Hall (Figure 67). Although generally believed to be associated with the Yaughan wares, one example appeared to be River Burnished. This example was part of a large 12-inch bowl recovered from Feature 1 at 38BK985. None of the ring base fragments and their associated vessels contained any evidence for the "X" marks believed to be either maker's marks or ritual symbols. If we consider Ferguson's (1992) suggestion that they are part of a West African religious ritual associated with water spirits, then it may not be surprising that none of these "X" marks are found on the Yaughan bowls at Broom Hall. The plantation is located adjacent to Huckhole Swamp which does not have accessible deep water from Broom Hall.

Vessel Forms and Minimum Number of Vessels

At 38BK600 there were 23 identifiable River Burnished vessels including 17 bowls, four plates, and two saucers. River Burnished

bowls/cups ranged from 4 to 13 inches in diameter, plates ranged from 5 to 12 inches in diameter, while the saucers were of indeterminate sizes. Yaughan vessels included 29 bowls, 18 jars, and one possible ointment jar. Yaughan bowls ranged from 6 to 17 inches in diameter, while jars had a rim diameter ranging from 6 to 14 inches. The possible ointment jar measures about 3 inches in diameter. Their attributes are summarized in Table 72.

At 38BK985 there were 11 identifiable River Burnished vessels including 10 cups/bowls and one plate. River Burnished bowls ranged from 5 to 12 inches in diameter and the plate (or platter) measured 16 inches in diameter. Yaughan vessels included 12 bowls and two jars. Bowls ranged from 7 to 15 inches in diameter, while jars had a rim diameter ranging from 6 to 7 inches. Their attributes are summarized in Table 73.

As stated previously, at Yaughan and Curriboo Plantations Garrow and Wheaton (1989) found that the percentage of cups/bowls versus cooking/storage vessels (we assume they mean jars) increases through time, with bowls becoming more predominant. They believed that this change reflected an "acculturation process" since it reflects a change from a more "West African and/or Caribbean model" to a more "Euro-American model". This pattern was also found at the Broom Hall site (Table 74).

Mean bowl diameter for both Yaughan and River Burnished wares at both sites was 10 inches, while the range was 4 to 13 inches for River Burnished vessels and 6 to 17 inches for Yaughan vessels. So while the mean diameter for both types was approximately 10 inches, the ranges were somewhat different. Table 75 provides data on the range, the mean, median, and standard

Table 72.
Low Fired Earthenwares from 38BK600

Type	Form	Rim Form	Diameter (inches)
River Burnished	Bowl/Cup	flat to interior	4
		flaring, flat lip	4
		round lip	8
		flat lip	8
		round lip	9
		flat to ext., undulating	9
		flat lip	9
		round lip	10
		flat lip	11
		flat to interior	11
		flat lip	12
		gently undulates, lid wearing	12
		flat to ext., undulating	13
		flat to interior	13
		round lip	13(2)
		bulbous lip	UID
		round	5
		"Queensware"	10
		round, undulating	12
		round	14
Yaughan	Bowl/Cup	round	UID(2)
		flat	6
		flat to interior	7
		round	7
		round, bulbous lip	7
		flat to interior	8
		round	8
		round (body-carved reed punct.)	8
		semi-flat	8
		flat	8
		round, notched rim	9
		flat to interior	9
	flat to exterior	9	
	flat, somewhat restricted	9	
	round	9	
	flat to interior, grass punctates	9	
	flat to interior, somewhat restricted	10	
	flat, somewhat restricted	10	
	slightly flaring, angled indentions	10	
	pointed	10	
	round	11	
	flat to interior	11	
	round	12	
	round	13(2)	
	flat to exterior	13	
	flat to interior	14	
	bulbous to exterior	14	
	flat to exterior	16	
	round	17	
	Jars	round, uneven walls, ointment jar?	3
		pie crust	6
		round	6(2)
		flat to exterior	6(2)
		round	7
		flat, uneven	8
		round	8(3)
		flat	9
		round	9
flat to exterior		10(2)	
round		10	
flat to interior		11	
round		11	
flat to exterior		14	

deviations for the different collections. Yaughan jars had a mean orifice diameter of 8 inches, a median diameter of 7.8 inches, and a standard deviation of 2.4 inches.

Table 73.
Low Fired Earthenwares from 38BK985

Type	Form	Rim Form	Diameter (inches)		
River Burnished	Bowl/Cup	flat	5		
		round	7		
		round, slightly flaring	7		
		round	8		
		round	9(2)		
		round, slightly restricted	9		
		round	10		
		round	11		
		round	12		
		Yaughan	Plate	round, rolled	16
			Bowl/Cup	flat	7
		round		7(2)	
		round, slightly restricted		8	
round	8				
round	9				
flat, slightly restricted	10				
round, slightly flaring	11				
round	11				
round	13				
round, slightly restricted	13				
round to exterior	15				
Jars	round, flaring	6			
	round, flaring	7			

The data on the bowls from Broom Hall suggest a strong preference for vessels about 10 inches in size. It is interesting that the range in vessel size in Yaughan and River Burnished bowls indicates that River Burnished wares exclusively made up the smallest vessels while Yaughan wares exclusively made up the larger vessels at Broom Hall. This suggests that while they shared some functions, they may have also had exclusive functions — the very large bowls perhaps being

Table 74.
Comparison of vessel form percentages
at 38BK600 and 38BK985

Form	38BK600		38BK985	
	#	%	#	%
Plates	5	7.4	1	4.0
Bowls/Cups	44	64.7	22	88.0
Jars	19	27.9	2	8.0

communal serving vessels and the smallest vessels being cups.

Conclusions

A number of research questions have been posed for the Colono wares at the Broom Hall site. One of the primary goals was to determine if the two wares could be consistently sorted into two groups based on macroscopic differences. Based on examinations of variables such as sherd thickness, temper, surface treatment, and decoration, the collections overlapped tremendously and it is clear that *they could not be consistently sorted into two groups*. As a result, the use of the type-variety system is the most appropriate way to deal with the Colono ware collections.

Macroscopic examination of the sand temper revealed that there were no strong differences in temper size, shape, and frequency between the two wares.

Difference included water washed sands being more commonly found in River Burnished wares, suggesting that those who made the wares concentrated on riverine clay sources. This would also account for the quantities of mica-like material found in River Burnished wares which may be the result of gathering clays on rivers with piedmont headwaters. Slaves, on the other hand, confined by slavery, *appear* to have gathered their clays from a number of sources — maximizing the clays they had access to which probably included both riverine clays and upland clays. We have suggested earlier in this chapter that clays for the River Burnished and Yaughan potteries were gathered intra-regionally, since it seems unlikely that Indians would have brought clays or pots with them from the upcountry. It is hoped that the petrographic, chemical and mineralogical analyses will provide more information on the sources of clays for these two wares. Also, some Yaughan sherds had more abundant sand temper, and temper size of the later River Burnished collection tended to be larger than either the earlier River Burnished collection or any of the Yaughan collections.

Table 75.
 Yaughan and River Burnished Bowl
 Diameters (in inches)

Type	Range	Mean	Median	SD
River Burnished	4-13	9.42	9.0	2.69
Yaughan	6-17	10.08	9.5	2.65

In the Broom Hall collections, there were two vessel forms that were distinctive of a ware -- plates and jars. The plates were classified as River Burnished and contained not only very simple marley forms, but some also had a "queensware" type marley. This indicates that the makers of these wares were feeding the African-American slaves newly developed taste (or possible need) for this European form and design. Jars were exclusively Yaughan. While jars are common in many prehistoric Indian cultures, again the lack of jars in River Burnished wares may be due to market demand. As Garrow and Wheaton (1989) have pointed out, jars were more uncommon in the late eighteenth century and this is the period when the sale of River Burnished ware appears to have increased dramatically. Another aspect which was characteristic of the two collections related to rim forms. Although there was a great deal of overlap, there were also styles distinctive of one type. In addition, Yaughan vessels were more often decorated than River Burnished wares.

Another goal in the analysis of Colono wares from Broom Hall was to determine if the collection fit into previous arguments about trends in use. As researchers have pointed out, Colono wares are more common in slave assemblages than in planter assemblages and they tend to decrease in quantity in the nineteenth century as European made ceramics became cheaper during and after the Industrial Revolution (Joseph 1989). At the eighteenth century Broom Hall main house complex Colono wares consisted of 24.5% of the ceramic collection, and at the slave row made up 79.5% of the collection. In this study we found that at the slave row there appears to be a spiral effect from high quantities of Colono ware in the early eighteenth century to very low quantities in the early nineteenth century. At the main house, a somewhat different pattern emerged. Colono wares were at their highest eighteenth century usage

during the 1740s. Quantities drop and remain low until after 1794. At that point, Colono ware quantities are at their highest in the history of the plantation around 1802 and drop considerably by the 1820s. This fluctuation may correspond to economic trends and/or patterns in African slave importation.

As previously discussed, Garrow and Wheaton (1989) believe that the relative frequency of Yaughan to River Burnished wares increase in the late eighteenth century. They believe that this change in relative frequency began sometime between 1775 and 1789 at Yaughan and Curriboo. Examination of sites in several areas in the Charleston and Berkeley county region support their belief that River Burnished wares increased in the late eighteenth century. The time that this increase began and its duration are still unclear. It is possible that areas closer to Charleston had greater access to the wares and for a wider range of time than areas on the Santee. As a result, not only would these areas have high proportions earlier and later than in the hinterlands, but might also have higher proportions during the peak of trade.

Garrow and Wheaton (1989) have also noted a change in the relative frequency of cups/bowls versus cooking and storage vessels. Jars, while relatively common during the early period decrease in importance later on. They see this as a shift from a more West African or Caribbean model to a more European model and suggest that this is evidence for "acculturation". This trend in vessel form frequency was noted at Broom Hall.

It is unclear whether planters preferred one ware over another and this may never be truly known. Since African-American slaves abounded in main house complexes and were probably exclusively responsible for cooking the planter's family meals it is very likely that slave preferences will be reflected rather than that of the planter class. However, the mid eighteenth century Colono ware assemblages from the main house and slave quarter suggest that the planter may have preferred the River Burnished wares.

No "X" marks were found in the Broom Hall collections. This is not surprising if Ferguson's (1992) belief that the marks are part of a West

African religious ritual related to water spirits. Broom Hall is located adjacent to Huckhole Swamp and there is no deep water access on the property. If such rituals ever existed, there is no evidence that they took place at Broom Hall.

Directions for Future Research

The traditional analytical techniques used on the Broom Hall collection, while providing primarily characteristic information on the potteries, have essentially added to an existing data base on Colono wares from Charleston area plantations. The petrographic, chemical, and mineralogical analyses discussed by Smith (this report) have also provided new and fruitful avenues of ceramic research. Since the results of our analyses are promising, it is recommended that low country archaeologists begin examining a sample of their collections which could be added to a data base on the petrographic, chemical, and mineralogical characterization of the two wares. It may then be possible to determine potting communities and perhaps begin doing clay sourcing studies. The acid extraction method using an ICP spectrometer and the petrographic thin sectioning (discussed by Smith) were particularly inexpensive and should be considered in future studies.

One interesting discovery in the analysis of the Colono wares was the use of bowls in cooking, some of which were adapted into a sort of Dutch oven. Future Colono ware research should concentrate on identifying the full range of vessel uses through examining sooting and wear. In some past studies (e.g., Wheaton et al. 1983) it appears that vessel function was assigned based on vessel form (Wheaton et al.'s "cups/bowls versus cooking/storage"). Clearly, in the Broom Hall collection some forms had a range of functions. It will be interesting to begin examining what the proportion of cooking bowls and cooking jars are and what it implies about African-American foodways and culture changes.

The River Burnished wares found on low country plantation sites are very poorly understood which causes problems in interpreting our results of Colono ware studies. The primary problem is that people have assumed that the wares were manufactured by Catawba Indians, based on relatively little information. Garrow and Wheaton

(1989) have argued for Catawba manufacture because they were reported to have travelled to the coast to sell pottery in the early nineteenth century based on one account by William Gillmore Simms (1841), the pottery from the excavations were similar to modern Catawba vessels, and it is similar to a specimen of Catawba pottery in the Charleston Museum that was reportedly purchased at Yaughan Plantation from a Catawba woman in 1805. This is all indirect evidence that the Catawbas made the pottery. While Garrow and Wheaton's (1989) claim may be accurate, we are assuming Catawba manufacture without researching all avenues.

Ideally, historic Catawba sites in the Catawba River valley should be examined to understand how the development of the Catawba Nation affected the manufacture of Catawba pottery. Jack Wilson (1983, 1985) has examined several late prehistoric and protohistoric sites in the region and found that burnished and smoothed vessels become more common through time. However, as late as the late seventeenth and early eighteenth centuries complicated stamped, simple stamped, and corncob impressed vessels were still being manufactured as is evidenced at the Bell Farm site (31MK85) in Mecklenburg County, North Carolina. Vessel forms included open mouthed jars, long necked jars, cazuela bowls, and semi-hemispherical bowls (Wilson 1985:27). As Wilson (1985:32) has stated, although much of the Catawba River valley is now flooded by man-made reservoirs, there are still many areas that are not flooded which should be investigated.

Investigations of historic Catawba pottery may determine why only burnished examples exist in the low country, and why jars and cazuela bowls disappeared. It is quite possible that the Catawbas styled their vessels to feed low country market demand and there may be little correlation with upcountry assemblages if the River Burnished wares were made specifically for the low country market. If archaeologists can document a change in Catawba pottery manufacture that shows some convergence with River Burnished examples, then claims regarding Catawba manufacture of River Burnished vessels are much more valid. An investigation of a number of sites in the region should shed some light on how Catawba vessels in the low country came about and perhaps when this

market demand began to take place.

REMNANT LANDSCAPE FEATURES AT BROOM HALL

The Eighteenth Century Plantation Landscape

As has been discussed in an earlier section, **Synthesis of Eighteenth Century Plantation Archaeology**, our research has been largely focused on the architectural remains of South Carolina plantations. Relatively little attention, in South Carolina, has been directed toward the larger view of the plantation landscape.¹ As Martha Zierden explains:

Archaeologists usually focus incrementally on the excavation unit, the house, or the community; landscape requires consideration of the spaces between these units, such as outbuildings, fences, gardens, pastures, streets, public places, stretches of woods, and water. While these features enjoy equal weight in landscape studies, they are often minimally reflected archaeologically (Zierden 1993:1-2).

Joe Joseph observes that, "plantation sites are marked by an intricate web laid out across the terrain, by the grid of rice ponds and dikes, the

broad oak avenues, the classical symmetry of homes and grounds, and by the quiet and 'orderly' presence of slave streets tucked slightly away from view" (Joseph 1993:132).

All too often, in our desire to synthesize, we mask the extraordinary complexity of the plantation landscape. The "typical" plantation is perhaps more a creation of our minds, then of eighteenth century agrarian society.² The most thorough exploration of plantation settlement for the general area is provided by Leland Ferguson and David Babson's (n.d.) study of the East Branch of the Cooper River. Using period plats they note that the planter's house:

was usually on the highest point surrounded by gardens, barns, slave quarters and overlooking the rice fields and waterway. There can be little doubt that the largest settlements were considered by the planters to be the central places of social and management activity on the East Branch of the Cooper River. They must have symbolize [sic] the planter's view of 18th century society and economics (with them at the top).³ With the exception of the

¹ We use the term landscape to include both the geophysical setting of the plantation and also its built environment. For additional discussions of "landscape" definitions, see Stine and Stine 1993:5-6 and Zierden 1993:1. Winberry (1993) provides a thorough discussion of the interplay between geographical definitions of landscape and those typically used in archaeology. He notes that although geographers have used different approaches to the study of landscapes, they generally have used Carl Sauer's classic definition: "those works of man that are inscribed into the earth's surface and give to it characteristic expression" (Sauer 1931:622).

² Added to this is Winberry's observation, "Are we fooling ourselves with an image of the past that is false; 'the landscape may tell us more about [what] the past people wanted to preserve than about the past as it was experienced' (Johnson 1991:182)" (Winberry 1993:216).

³ Jean Gordon and Jan McArthur note that, "The owner's house was invariably placed on top of a hill to exemplify his authority — a fact reflected in such plantation names as Red Hill, Castle Hill, Erin Hill, and

rice fields, there is more detail — buildings, small fences, gardens, offices, enclosures, avenues — about these places than any other areas on the maps (Ferguson and Babson n.d.:28).

They note, however, tremendous variation. Some plats showed isolated buildings, machine/blancher locations, fencing, and cemeteries, while others did not. Even the arrangement of the slave "streets" varied. Similar variation (incorporating eighteenth and nineteenth century cartographic sources) has been noted by Hacker and Trinkley (1992) and Hacker and Trinkley (1993).

The description of the "typical" plantation is obviously an amalgam from many different sources, but Jean Gordon and Jan McArthur note some consistencies in nineteenth century literature, perhaps providing us with an understanding of what wealthy Southern white plantation owners wanted us to think of plantations:

The approach to what Terhune called simply "the house" involved a series of stages which, although primarily utilitarian, emphasized its separateness from the surrounding countryside. There was a gate by the road, a drive that was often of considerable length, a second fence and gate dividing the lawn from the fields, and a walk to the front porch or portico. . . . Surrounding the house and its outbuildings were the cultivated fields which in turn were bordered by an encircling band of woodland. With the forest as boundary, each plantation was, in effect, a little kingdom unto itself (Gordon and McArthur 1985:184).

There is much in the historical record to support this idealized landscape. For example,

so on. One woman writer said that the practice came from England where hilltop sites were reserved for the nobility" (Gordon and McArthur 1985:184).

several of the more detailed late eighteenth and early nineteenth century Goose Creek plats preserved in the McCrady Collection are shown as Figures 70 - 76. In spite of considerable variation there are consistent factors which help us understand how Goose Creek planters organized their world.

One of the earliest, of Alexander Moultrie's Richmond Plantation about 1780, illustrates what is almost certainly the idea of a typical plantation (McCrady Plat 1474; Figure 70). The avenue to the settlement runs west-northwest off the state road to Moncks Corner. It passes through open fields until arriving at a fence, beyond which the road is lined with trees, forming a typical allée to the main house. While there is relatively little detail concerning the various structures, the complex contains at least six and to the rear there is a carefully identified yard area. Beyond the main settlement, and out of the way of visitors, are nine "negro houses," not including one which may be that of a driver or overseer. Also important to the plantation, and carefully identified, are a series of rice fields, including the reservoir. At some distance from the "modern" settlement there is a small notation, "Clear high land — Remains of Old Settlement."

About the same time (1786) Thomas Smith's plantation on Goose Creek was drawn by Purcell (McCrady Plat 4263; Figure 71). This plat fails to show the main road access, but does reveal two avenues, one to the east perhaps providing access to the river and another to the south. A dispersed settlement of at least 14 structures, in the center of which was apparently the main house (denoted by the largest black rectangle) is also shown. This plat also reveals a square, apparently brick walled, family cemetery north of the main house, but well before a swamp or marsh extending off Goose Creek.

A 1791 plat of Spring Field Plantation belonging to Alexander Mazyck, was copied in 1858 (McCrady Plats 1329 and 1646; Figures 72 and 73). It reveals an tree-lined avenue running east-southeast off an unspecified main road to the settlement. Two structures occur on either side of this allée. The main house, with a front portico, is flanked by two smaller structures and a third is set

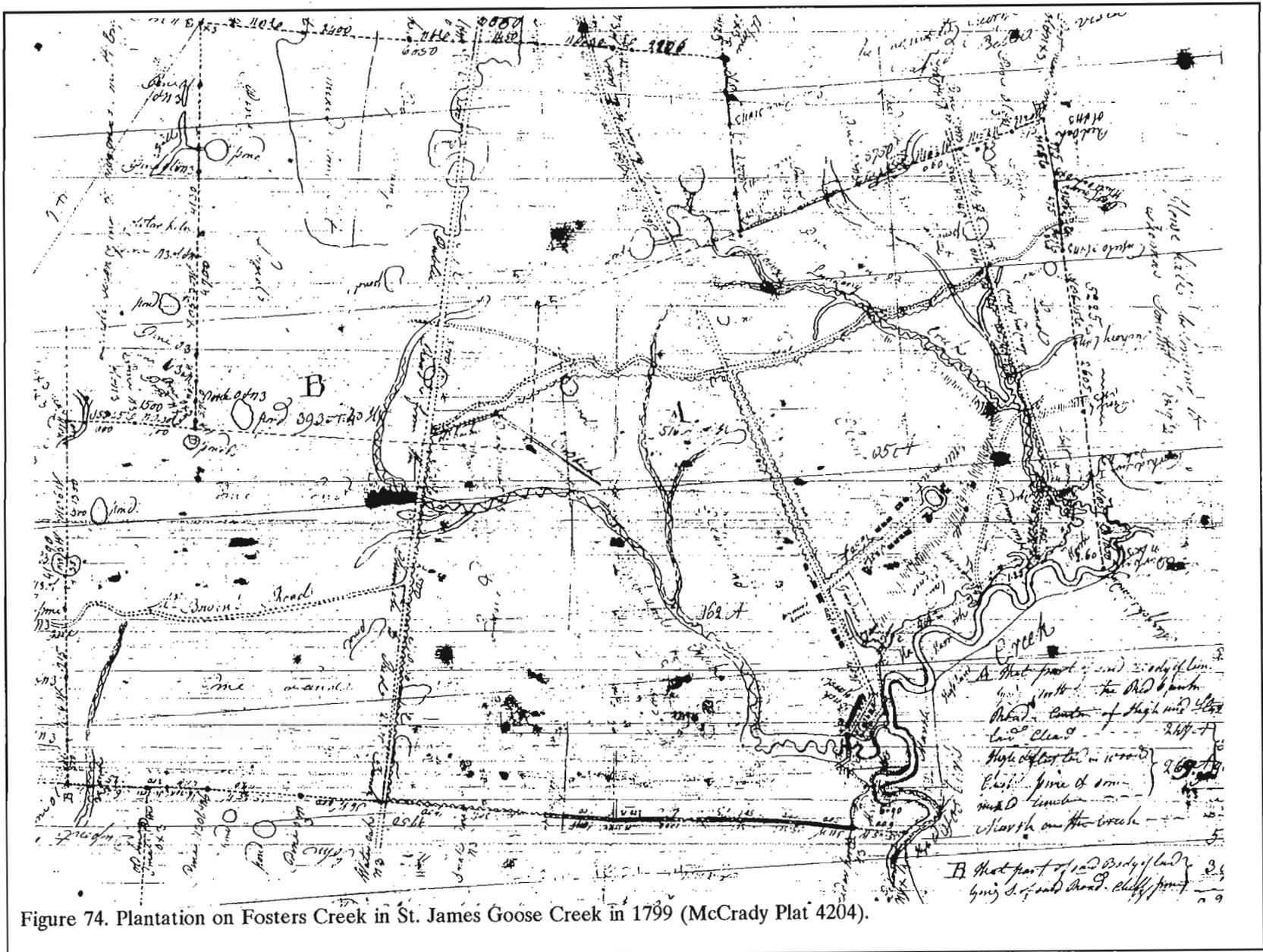


Figure 74. Plantation on Fosters Creek in St. James Goose Creek in 1799 (McCrary Plat 4204).

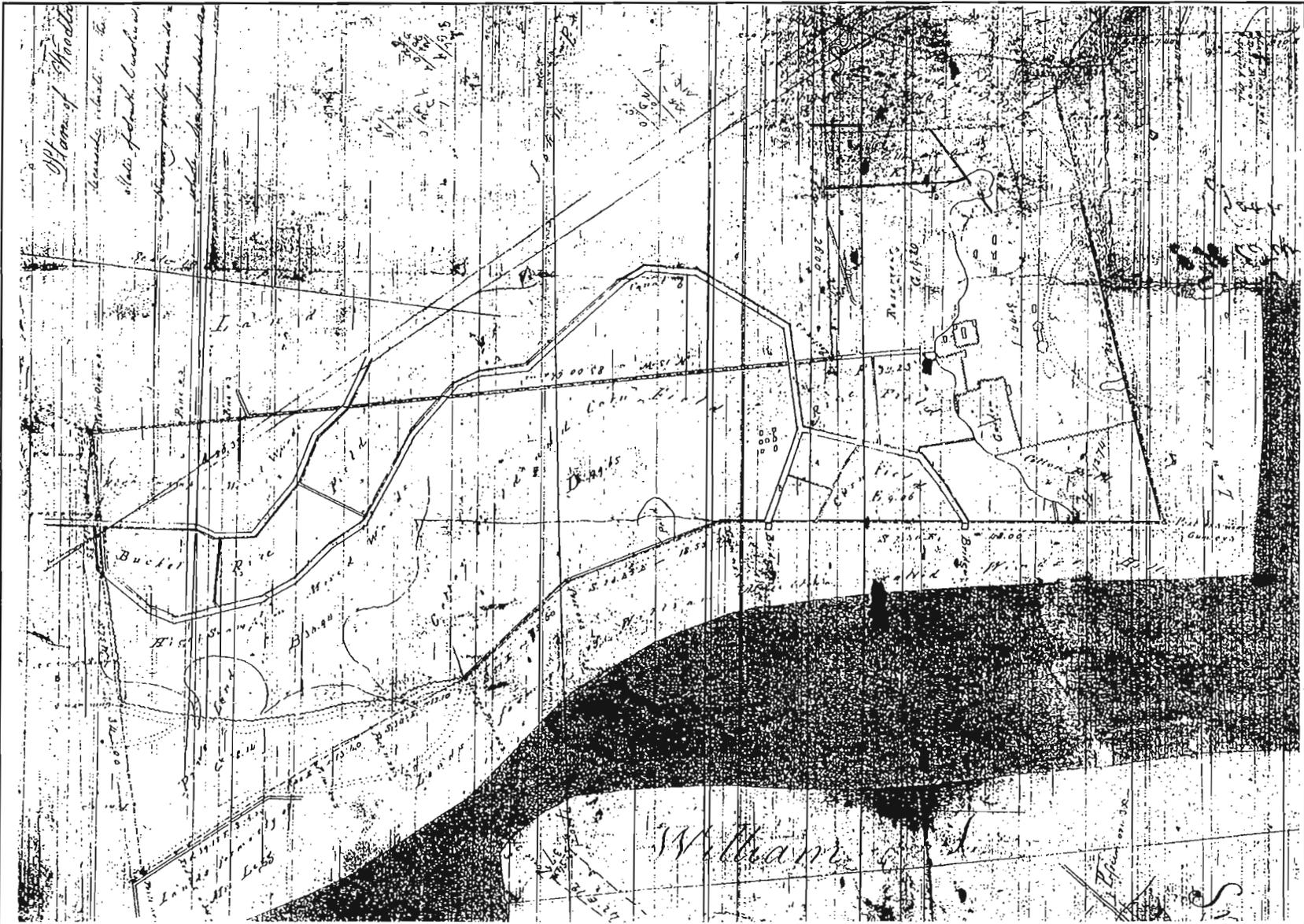


Figure 76. William L. Smith's St. James Goose Creek plantation in 1810 (McCrary Plat 4253).

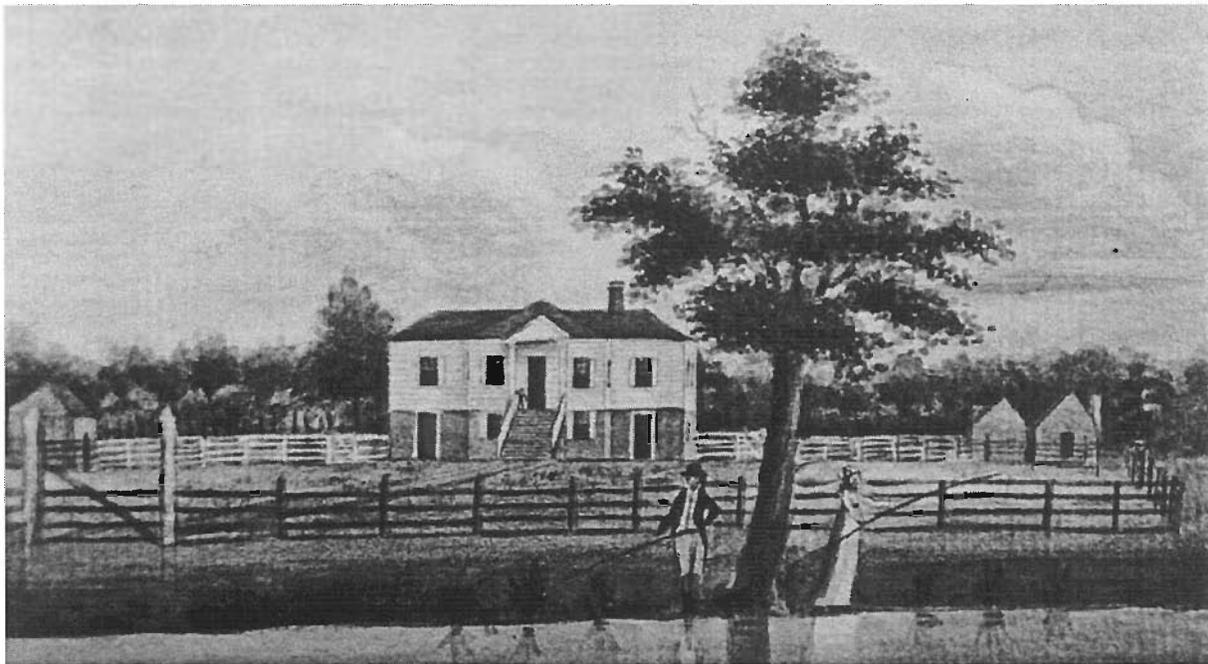


Figure 77. Charles Fraser's "The Seat of Joseph Winthrop, Esq. -- Goose Creek," watercolor on paper (courtesy of the Gibbes Museum of Art/Carolina Art Association).

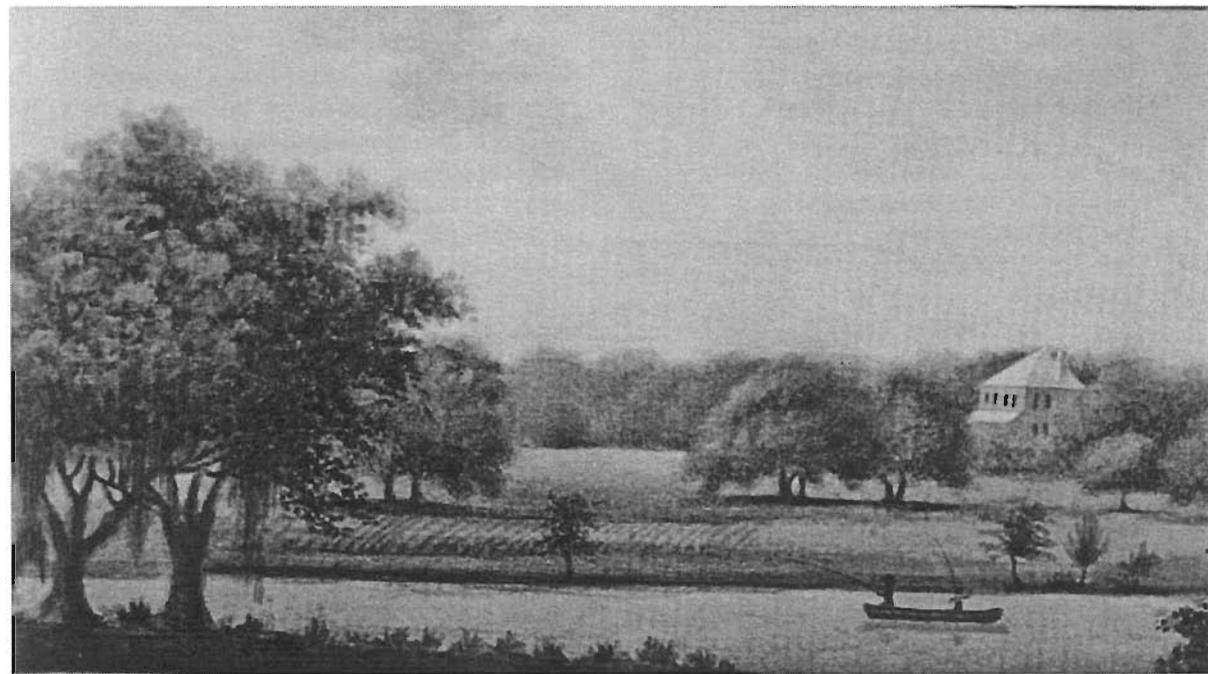


Figure 78. Charles Fraser's "Mr. Gabriel Manigault's Seat at Goose Creek, 1802," watercolor on paper (courtesy of the Gibbes Museum of Art/Carolina Art Association).

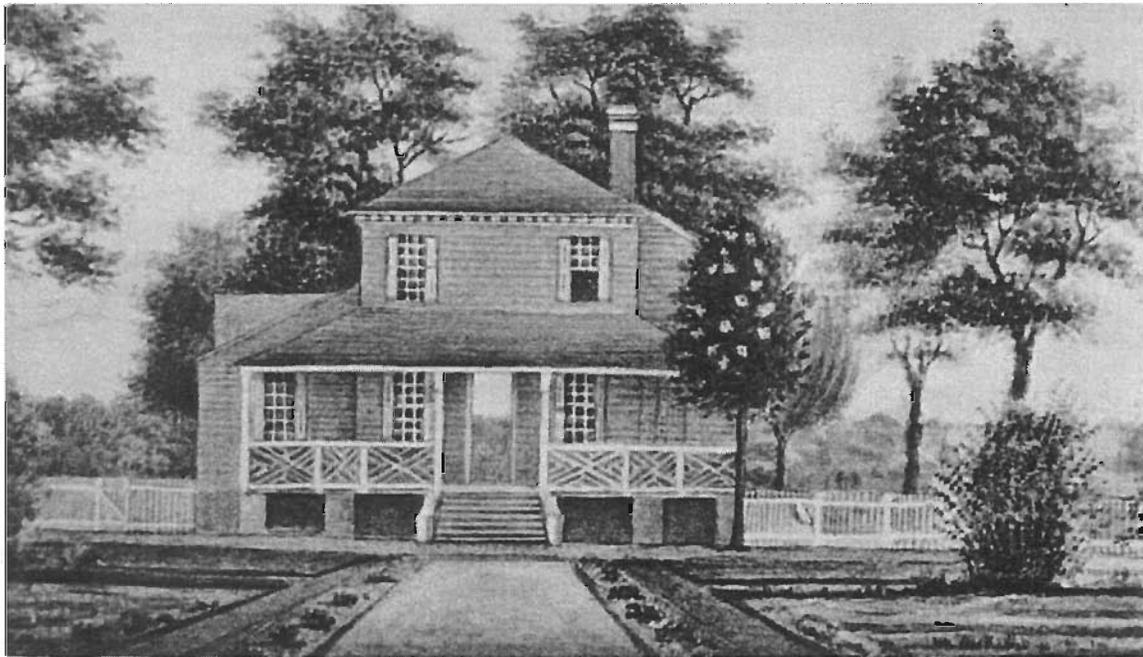


Figure 79. Charles Fraser's "Weston on St. James Goose Creek -- The Seat of James Fraser, Esq.," watercolor on paper (courtesy of the Gibbes Museum of Art/Carolina Art Association).

merge the Kitchen gardens with the pleasure grounds, the useful with the ornamental. As for the former, she wrote on January 1, 1795 that everything she served on the table came out of the produce of The Elms except for the fruit. This she was trying to correct by planting "hiccory" and chestnut trees, having taken some buds from Mrs. Horry's trees (Rogers 1984:154)

The Elms was also planting raspberries and even olive trees.

The late eighteenth century water colors of Charles Fraser⁴ provide another view of Goose

⁴ George Rogers notes that Fraser was a "painter with an eye for picturesque natural landscape, who sketched or painted a number of established country seats or landscape gardens near Charleston . . . with perhaps less virtuosity but more feeling than Benjamin Latrobe in Virginia" (Rogers 1986:148).

Creek plantations. While none are known to represent Broom Hall, "The Seat of Joseph Winthrop, Esq., Goose Creek" (Figure 77), "Mr. Gabriel Manigault's Seat at Goose Creek, 1802" (Figure 78), and "The Seat of James Fraser, Esq., Goose Creek" (Figure 79) all provide important clues to the eighteenth century use of landscape (all are taken from Carolina Art Association 1971). Winthrop's estate (apparently Brighton Plantation) shows the fence and gate separating the "lawn" from the "fields, as well as several outbuildings, outside the fence. Manigault's "seat," known as Steepbrook, was apparently used as a "contemporary equivalent of our week-end cottages." The more distant view provides less information on the organization of the landscape, although even in this view the house stands out from the surrounding trees — almost like a beacon on a hill. The last view, that of Fraser's elder brother's estate, provides the clearest view of the fenced lawn or yard immediately surrounding the house. It may be that this view is of the rear of the house (based on the simple entranceway), illustrating associated kitchen or medicinal gardens, with a relatively formal arrangement.

Turning to Broom Hall there is regrettably little historical information, and virtually all which is available has been previously discussed in the earlier section, **Lost in Time: An Historic Synopsis of Broom Hall Plantation**. Plats for the plantation reveal two roads to the settlement. One, running almost due east-west, lead from what was known as the "Old State Road," now known as U.S. 52 to the main house. The other, identified on some plats as an "Old Avenue" and stopping prior to the main settlement, ran almost due north-south from the "Ladson Road," the remnants of which are today known as S-10-76 in neighboring Charleston County. This second avenue most likely was intended to provide access to the slave settlement and associated utilitarian plantation operations, while the first avenue was the formal entrance to the plantation. In fact, on at least one plat the north-south avenue from the Ladson Road fails to access the main settlement, suggesting a design that allowed, or even required, the movement of slaves and everyday plantation activities not to interfere with the enjoyment of the main settlement. In spite of their proximity, it seems that there was very little intentional association of the main settlement and its white occupants with the adjoining slave settlement.

The plats (see particularly Figure 15) also suggest that Broom Hall contained around 856 acres, including 30 acres of cultivated swamp rice fields at the western edge of the tract. The plantation was apparently almost square in shape, bordered to the south by the Ladson Road, to the east by the State Road, and to the west by the swamp. The northern boundary was arbitrary. Some plats show extensive cultivated fields bordering the north-south access to the slave settlement. The soils in this area are no better than those anywhere else on the plantation⁵, suggesting that at least in the nineteenth century (if not earlier), the lands planted were in close proximity to those responsible for working them. It may also

⁵ Broom Hall consists primarily of the somewhat poorly drained Lenoir and Lynchburg soils, with occasional areas of moderately well drained Goldsboro loamy sands and large areas of poorly drained Meggett soils. The cultivated areas of Lenoir and Lynchburg series represent neither the best, nor the worst soils on the tract,

be that the cultivated lands were placed sufficiently far away from the main settlement not to either visually or physically intrude on the "estate manor." The processing of indigo, in particular, creates smells and wastes which would likely have been unacceptable to the sensibilities of the elite. Since the prevailing winds are from the northeast during most of the year (Long 1980:46), it is unlikely that the owner or his guests would ever have been subjected to the smell of the decaying indigo vegetation.

The historic research for Broom Hall also identified several photographs of the plantation taken during the first half of the twentieth century. While they reveal little about the original landscape, they do graphically reveal that by the twentieth century the plantation was either in cultivation (Figure 18 illustrates corn growing around a building "south of the main plantation house") or was completely abandoned (Figure 16 shows the ruins of the main house being overrun with trees). Another illustration, Figure 19, is not so interesting for what it shows — a large live oak, leaning shed, and a child playing nearby — but rather for its caption, which indicates that this tree was near the artificial pond, which was "tile lined." This photograph was almost certainly taken near what has been called "Looking Glass Pond," and the live oaks are still present. The caption suggests to us the immense amount of effort which must have gone into the creation of the Broom Hall landscape.

Remnants of the original plantation layout were still obvious during the archaeological investigations. A portion of the allée⁶ was still visible, and extended probably within 50 feet of the main house. It was about 35 feet in width, expanding to about 50 feet as it neared the house, perhaps evidencing a carriage turnaround. Strictly speaking, this allée runs slightly off due east-west,

⁶ Strictly speaking the allée (or alley, ally) is found in formal gardens or pleasure grounds and is a walkway bordered with single or double rows of trees or hedges. Sometime it might refer to the walkways in the garden between beds of plants bordered by low-growing shrubs (see Lounsbury 1994:3), although more recently it has been applied to the entranceways or plantation drives bordered by live oaks or similar trees.

although it may have turned due east some distance from the house, allowing greater privacy. The main house is also oriented virtually due north-south, as is the flanker to the north. While no intact walls could be identified for the southern flanker, it seems reasonable that it, too, was oriented north-south. Other structural remains, such as the wall segment found in Area K, the ornamental wall (or parterre wall) found in Area D, the stable remains of Area E, and the garden structure in Area H were all similarly oriented. Likewise, the terracing of the gardens, the runoff from the spring, and the "Looking Glass Pond" were all oriented nearly due magnetic north-south. Even the seemingly natural drainage separating the main plantation from the slave settlement runs almost due east-west, as does another seemingly natural drainage at the very north of the project area. In virtually all areas of the plantation it is possible to see a very strict hand at work.

The Plantation Gardens

The Evolution of Pleasure Grounds in England

The English have always been gardeners and the evolution of these gardens is well documented by a number of sources, including Richard Bisgrove (1990), Susan Lasdun (1991), Mosser and Teyssot (1990), and Patrick Taylor (1991). While the rigid formality of early eighteenth century gardens is often attributed to Le Nôtre's French influence, and occasionally to the Dutch, progenitors may be seen in the Elizabethan garden with its labyrinths and mazes, enclosed spaces, elegant trellis shelters, placement of statuary, mounts, and use of water (Bisgrove 1990:40-42). Thomas Hill, in *The Gardener's Labyrinth* (1577), illustrated what would become known as "knots," flower beds laid out in very intricate symmetrical designs (often resembling embroidery) meant to be viewed from above (Taylor 1991:20). The English Civil War, culminating in the execution of Charles I in 1649 and the creation of the commonwealth, temporarily halted garden development. As Bisgrove notes, "The Puritan Commonwealth was not a suitable environment for the creation of splendid new houses or gardens" (Bisgrove 1990:59). With the return of Charles II in 1660, England entered a

new political, as well as garden, era. Charles II, who spent much of his time at the great palace of Versailles, introduced England to Le Nôtre's style by appointing two of his students, André and Gabriel Mottet, royal gardeners. The Dutch contribution included many of the fruits, flowers, and especially the greens which filled the seventeenth century gardens of England (see Lasdun 1991:69-70 for additional information on this Dutch influence).

The French influence was made even stronger after 1688, in the reign of William and Mary, who brought with them a new wave of French Huguenot artists and craftsmen. The triumph of the formal style is perhaps nowhere better illustrated than in the engravings by Jan Kip which formed *Britannia Illustrata* (1707). Taylor remarks:

The [formal] garden typically has a walled forecourt to the main façade of the house with an axial path leading to the entrance. This axis may be continued on the other side of the house penetrating deep into the countryside with rides through woodland on either side. Avenues, sometimes in the shape of *pattes d'oie*, radiate out from the house linking it firmly to the landscape. Nearer the house are parterres,⁷ frequently extremely elaborate in the style of Daniel Marot, the French Huguenot designer introduced by King William. There is often some water feature — ornate fountains, canals, or formal *bassins* with an island and a pavilion. The "wilderness", a kind of giant maze of hedges . . . is often seen. Formal orchards, with trees in

⁷ The parterre (also known as a bed or square) was a level (and often raised) area in the garden, usually planted with an ornamental arrangement of flowers, grass, or gravel beds, edged with low growing shrubs. They were typically in geometric shapes and were separated by walks.

neat rows or espaliered against walls, are common. . . . This was the period of the first great firm of professional garden designers, that of George London and Henry Wise, who codified ideas of formal gardening (Taylor 1991:24).

However strong this "French connection" may have been, Bisgrove adamantly points out the strong English influence, largely resulting from both the English restraint and the English environment:

Omnipotence, and even the desire for omnipotence, so important in shaping the gardens of France, was lacking in England. The rolling topography of much of England made it difficult to plan on an impressive scale. Avenues simply disappeared over the next hill. . . . Parterres, avenues, canals and clipped greens, the components of late Stuart gardens, might justifiably be attributed to French and Dutch influence, but the gardens themselves were essentially English: accretions of garden compartments each grand and symmetrical in itself but stubbornly refusing to conform to an overall scheme (Bisgrove 1990:63).

The English were also eclectic people. Just as they were influenced by the French and Dutch, so too were they fascinated with Italy. It was likely this fascination which laid the ground work for the introduction of the next period of England garden history — focusing on the landscape.

The first blast of this new era came as early as 1681 when John Worlidge (or Woolridge) published *The Art of Gardening* and complained bitterly that the desire for rigid formality in parterres had caused gardeners to turn their backs on many beautiful flowers. Promoted by new authors, such as Alexander Pope and Joseph

Addison, the formal, often called pedantic, symmetry of London and Wise's gardens was rejected as stiff and autocratic.⁸ Pope's garden at Twickenham, for example, was a landscape "full of variety and crammed with classical allusions" including an obelisk, temples, and statues" (Bisgrove 1990:85). His advice, summed in two lines from the poem, "On Taste," was simple: "In all let nature never be forgot. Consult the genius of the place in all."

Bisgrove (1990:76) stresses that the prolonged wars with France fostered a distaste for anything French, including Le Nôtre's extensive parterres and endless vistas. Lord Shaftesbury characterized these gardens as "the formal mockery of princely gardens" and the new mode in England was liberty — liberty in politics, liberty in the arts, and "even freedom for a tree to grow unhindered by the gardener's shears" (Bisgrove 1990:76). Lasdun, however, presents a different view, noting that this revolution was also fueled by the extraordinary expense of maintaining grounds in the French style:

With their clipped hedges and numerous walls they were, again in Switzer's words, providing "a Burthen too great for the biggest Estate . . . and not at all answerable to the needless Expense that is laid out upon them". Even the Crown was finding the outlay a strain, and royal gardeners had their budgets cut from £60 to £20 an acre. Some landlords were ruined by the sums expended on their grounds. The Earl of Radnor had to sell Wimpole because of the financial difficulties he found himself in after having spent

⁸ Monique Mosser and Georges Teyssot note that this new style was "also the result of an attitude of mind, of a taste for the irregular and the asymmetric. It was closely related to seventeenth century English literature, which reflected a new sense of freedom and, in particular, an aversion for an aesthetic based on straight lines, whether classical or Baroque in origin" (Mosser and Teyssot 1991:14).

£20,000 on his parks and the great formal garden (Lasdun 1991:82).

One of the earliest of those practicing this new movement was William Kent, whose time spent studying painting in Italy affected his approach to the landscape movement. Outlines were softened, distant prospects were opened, buildings were integrated into the landscape. Throughout, the influence of Italian paintings and landscape is inescapable. But perhaps the most notable garden designer of the mid-eighteenth century was Lancelot Brown. François de la Rochefoucauld wrote that Brown conceived a design in an hour and that a half a day more was sufficient to mark it out, indicating not a skimmed approach, but a keen, experienced, and even inspired eye for the "capabilities" of the place, hence the name Capability Brown (see Hyams 1971). Working with the natural environment — the turf and trees, light and shade, water and topography — Brown created an idealized, "total" landscape. The old formality was banished, but it was replaced with intrinsically formal qualities. These idealized landscapes became classical renditions of the English countryside — the archetypal image of rural England portrayed on countless pieces of transfer printed ceramics. Lasdun notes that, "it goes without saying that Brown's parks were as contrived as the most formal of their predecessors. Planted, plotted and laid out to look natural" (Lasdun 1991:96).

Brown, in time, was bitterly criticized. Russel Page remarked that, "Lancelot Brown was encouraging his wealthy clients to tear out their splendid formal gardens and replace them with his facile compositions of grass, tree clumps and rather shapeless pools and lakes" (Taylor 1991:25). To others, Brown symbolized not simply "sham naturalism," but also the oppression of the poor, displacing the humble villagers for the sole purpose of creating "beautiful nature." The most vicious attacks, however, came from his rival, William Chambers, who in 1772 published *A Dissertation on Oriental Gardening*, which complained that in England gardening "is abandoned to kitchen gardeners, well skilled in the culture of sallads, but little acquainted with the principals of Ornamental Gardening" (see Bisgrove 1990:100).

One of the contributions of this new approach was the *ferme ornée*. The main element of this plan was a boundary walk, beginning near the house and winding through the pleasure grounds and park to display it and its surroundings as a succession of varied, and carefully presented, scenes. Perhaps in this approach, better than any other single element, can the landscape approach be seen. Purely pictorial, it balanced light and shade, banks of rivers or water areas were carefully shaped, boundaries were concealed by flowers, shrubs, and trees, the juxtaposition of various shades of green helped to focus or draw attention. But more than this, the *ferme ornée* combined the farm and garden into one. Cattle and sheep might graze on the lawn, the pond might be home to waterfowl, Lasdun notes that:

Statues, seats, urns, and tablets with classical inscriptions were placed for effect at certain points; the rousing of a whole range of emotions in the spectator, as he walked around these private landscapes, was to play an increasingly important role (Lasdun 1991:85).

Another major contribution of the landscape movement was the introduction of decorative garden buildings, including classical style temples found in the Italian landscape. They were often small, being built for a single need, and although the classical style was dominant, a whole range of styles could be found, evidencing exceptional architectural experimentation. One glimpse into the possible was William Wright's *Grotesque Architecture or Rural Amusements* of 1767, which was partially subtitled, "Plans, elevations and sections for huts, retreats, summer and winter hermitages, terminaries, Chinese, Gothic an natural grottos, cascades, baths, mosques, moresque pavilions, grotesque and rustic seats, greenhouses, etc."

One of the newest garden structures was the glasshouse, later known as the greenhouse. Bisgrove (1990:67) notes that it was the English love of oranges which led to the development of the glasshouse, so it is appropriate that it is also often called an "orangery" or "orangerie" (see

Lounsbury 1994:247). In the seventeenth century these were typically makeshift structures, little more than portable sheds erected around tender plants and heated by open fires of wood or charcoal. By the mid-seventeenth century more permanent structures had evolved, although glazed roofs were not common until the end of the century. The trees would be grown in large wooden tubs and would be manhandled into the glasshouse for the winter. Their gradual evolution in light and elegance was more for architectural effect than for horticultural necessity, since the importance of light to plant growth was little understood. Bisgrove explains that poor growth in these dark and smokey, but architecturally impressive, buildings was attributed to the harmful vapors coming from the open fires. By 1670 the freestanding iron stove was developed in Holland and was quickly introduced into the glasshouses. Gradually subterranean furnaces were developed, as well as steam pipe heating. In 1731 when Philip Miller first published his *Gardeners Dictionary*, he described in considerable detail the wide range of greenhouses available at the time. Through time they became more specialized: pineries (for pineapples), vineries, peach houses, melon pits, orangeries (as previously mentioned), conservatories, greenhouses, and aquaria all became essential adjuncts of the kitchen garden and pleasure grounds.

In the last third of the eighteenth century English garden design entered yet another phase. While sympathetic to Brown and his interest in large scale parks and pleasure gardens, attention gradually turned to what some have described as "more eventful" scenes. Called the Picturesque,⁹ it

⁹ For an exploration of the picturesque, see Ann Bermingham. She notes that "the aesthetic effect of the picturesque seems to be calculated precisely on poverty and misery. . . . On the one hand, the picturesque landscape celebrated a rural way of life as that which had been, or was being, lost. On the other hand, the manifest desolation of the landscape could work as a justification for transforming it to a more efficient, vital one" (Bermingham 1986:69). She notes that the wandering tribes of gypsies, beggars, and all the rest disposed by the agrarian revolution were incorporated into the mythology of the picturesque, the "charms" of which helped to compensate for the misery. Certainly Southerners had reason to quickly, and

was espoused by Humphry Repton (see also Hyams 1971). While often mentioned in the same breath as Capability Brown, Repton's approach to the Picturesque was different. Bisgrove (1990:131) notes that he saw the skill in his art as combining beauty and convenience. For example, he worked to incorporate "unsightly features" like the kitchen garden into more convenient locations near the house, largely by hiding them with dense shrubs. John Dixon Hunt (1991) provides a detailed analysis of the picturesque garden in English tradition.

American Garden Design

While this synopsis of the gradual evolution of gardening recounts the events of England, it fails to explore how those trends and traditions affected the colonies. Taylor (1991:127) notes that little is known about ornamental gardening in America before the end of the eighteenth century. While there is exceptional detail concerning Jefferson's gardens at Monticello (see, for example, Barron 1987), Taylor points out that "Monticello is probably best thought of as less an American garden than a Jeffersonian one" (Taylor 1991:127). Ann Leighton (1976) notes that there was little interest in the formal gardens:

nobody in America tried to create a landscape calculated to awe anyone else. . . . American gardens were for domestic enjoyment, with collections of shrubs and flowers. Views were upstream and downstream, with shipping moving on the water. Trees were kept for shade or fruit or bloom or beauty. The summerhouse was to catch the breezes, not to recall Apollo, and the vines and the hummingbirds were a reminder, not of ancient Rome, but of today and now The only aspect of the new wave in English gardening was the emergence of that pretty excuse for combining utility and pleasure,

aggressively, espouse this new movement since it helped them to "deal with" the realities of slavery.

the *ferme ornée*. It was from that the "roundabout" walk derived, very early one of Jefferson's adoptions for Monticello (Leighton 1976:362-363).

She notes that American gardens, from New England to the Carolinas, were fairly predictable (a feature which can be seen in the remnant landscapes illustrated by Lockwood 1934):

A two- or three-story house with a central hall and two or four chimneys would stand clear on its foundations with no embellishments other than, often, some terracing, which lent dignity and increased a sense of privacy On one side of on both, generous lawns would be broken by large ornamental trees, framed by square paths, bordered, perhaps, by roses in narrow beds, centered, possibly by a raised bed on which seasonal features were displayed — tulips in the spring, gay-leaved plants in the summer and fall. Behind the house, beyond a modestly proportioned lawn or on one side, with terracing to supplement the front "falls," would be a formally patterned flower garden in oblongs or squares, with a wide path, often bordered by flower beds, which led down through a small orchard to the vegetable and small fruits gardens.

Arbors, trellises, places to sit in vine-encased privacy could be encountered at well-spaced intervals. A stable with carriage houses and a paddock or cow yard would be behind the house and to one side with its own access. Various paths would lead to it from the garden and the house (Leighton 1976:364).

This, however, may be too simplistic a view. While

there is no question that American gardens were eclectic with democratic overtones, America was also fundamentally conservative. The gardens that George Washington made were entirely symmetrical with a regular bowling green edged by serpentine walks and flanked by two walled gardens which were divided into parterre-like divisions for ornamental plants and vegetables. There is ample evidence that relatively formal gardens, tempered only with the *ferme ornée* continued to be designed and built well into the nineteenth century (Taylor 1991:128).

It was easy to integrate the *ferme ornée* since the southern plantation was much more of a farm than the typical English manor or country house. The formal patterns of flowers and shrubs might seem to float on the lawn, but was clearly a "fancy" to be enjoyed as one worked his or her way to the fields and pastures. The ornamental ponds and water devices might help convey a pastoral image, but they also helped the planter drain low-lying areas. Unlike those in England, they also tended to be clearly cut and were not blurred by plantings at the edges. Nor were they encouraged to look "natural," almost as if the planter had quite enough "natural" environment around him already.

Curiously, it appears that the Philadelphians held tightest to the formal garden. Leighton observes that, "almost to a man, or, let us say, almost to a rich man" the formal style was preferred. The reason for this "rage" is not clear. One period writer attributed it to "sudden wealth," while another thought it was, in part, due to the popularity of the "prospective views of gentlemen's seats" which were being published in the early eighteenth century. Regardless, "the 'newest taste' in Philadelphia just before the Revolution comprised box-bordered walks, terraced levels, statues, temples, obelisks, and plaster-of-Paris figures" (Leighton 1976:377).

It is perhaps important that Benjamin Smith had numerous business and social connections with Philadelphia, so his ideas and plans may have roots in this conservative tradition. There were, however, plenty of opportunities in South Carolina. As early as 1732 the *South Carolina Gazette* advertised "garden seed," and in 1748 "several curious Plants in Pots" and a "variety

of young Fruit Trees, particularly white Mulberry and Orange Trees" were advertised for sale. Hennig Cohen, perhaps on no firmer ground than Leighton, argues that few South Carolinians implemented formal garden designs, preferring the more park-like approach of the landscape school. In spite of this, one of the many works being advertised by the *South Carolina Gazette* was John James' translation of A.J. Dézallier d'Argenville's work *La Théorie et la Pratique du Jardinage* (1709), called in English, *The Theory and Practice of Gardening*. Effectively this was a "how to" book on the making of formal gardens in the manner of Le Nôtre. Its sale suggests that someone was at least mildly interested in this particular fashion.

The *South Carolina Gazette* also advertised a variety of gardeners, including Peter Chassereau (perhaps a French Huguenot skilled in formal design), John Barnes (who advertised himself as a "Garden-Architect," George Newman ("late gardener to . . . Henry Middleton), John Watson ("Gardener from London"), John Edwards (Gardener, from New York"), Robert Hunter, Alexander Petrie, and James Callahan (Cohen 1953:69-70). In 1766, Warwell advertised that he was completing "a Grottesque Fountain of 400 weight, composed of English Topazes, Amethysts, and other Petrifications," and was familiar with the construction of garden "Triumphal-Arches, Ruins, Obelisks, Statues, &c" (Cohen 1953:70).

Leighton also observes that the pleasure grounds on the larger plantations, especially those where the owner resided much of the year, were very large in order to allow space for daily walks. Like in England:

teahouses; "necessaries" for convenience when the distance to the facilities provided in connection with the house would be too distant; little gardenhouses for tools, roots, or schooling the young; towers for doves or pigeons to provide squabs for the table or sport for the guns; neatly designed little houses for the well, some like Chinese temples, as were some of the birdhouses high on their poles — all of these

elaborations added grace and interest (Leighton 1976:366).

James Kornwolf explores the introduction of the various garden movements in the Southeast, comments on:

the assurance of Nicholas Cresswell, who in 1777, wrote that "some of their gardens [were] laid out with the greatest taste" of any he had seen in America." But his "assurance," like so many observation of the eighteenth-century gardener, does not make clear which "taste" is being referred to — the formal, informal, or something in between (Kornwolf 1984:102).

Descriptions of Broom Hall

Taken within this context of English and American gardening, the pleasure grounds at Broom Hall described Abiel Abbott make perfect sense. They are, in fact, almost the archetypical eighteenth century American garden, mixing the formal and the landscape, or put another way, exhibiting formal features set informally in the landscape.

Abbott describes the early nineteenth century Broom Hall gardens¹⁰ as occupying 30 acres, in the center of which was the main house, built of brick. The settlement area identified archaeologically, bounded to the north and south by east-west flowing drainages, to the west by the edge of the artificial pond, and to the east by the point at which the allée expands, incorporates about 25.3 acres. Expanding the gardens further to the east would not only add the "missing" acreage, but it would also place the main house more in the center of the garden. Consequently, it is possible that the house was a focal point, with a visual centerline orienting the allée, main house, and pond. Abbott noted that "from the entry you look

¹⁰ We have, in Abiel Abbott's journal, Broom Hall frozen in time and it would be a mistake to ignore the many changes which likely took place over the garden's history of perhaps 80 years.

up an extensive avenue of live oaks in their full glory as to size; & down a sloping avenue of 60 rods, shaded by various forest & flowering trees." Certainly there is every indication that the first part of this describes the live oak allée to the east of the house. From the main house the topography does drop off to the pond, perhaps accounting for Abbott's "sloping avenue." The distance from the main house to the pond at the west edge of the presumed garden is about 730 feet, somewhat short of the 60 rods or 990 feet. The east-west dimension for the garden, incorporating the main house area, however, is about 1000 feet — almost exactly Abbott's 60 rod measurement.

Abbott next describes the gardens closest to the house — relatively formal parterre-like arrangements with annuals and shrubs, surrounded by "well-shorn" box or boxwoods (*Buxus* spp.). Some of the more common were *Buxus sempervirens* or the common box, *Buxus sempervirens suffruticosa* or edging box, and *Buxus aureus* or variegated box. All were available at least by the early eighteenth century (Leighton 1976:400). The reference to the beds being "of various figures" may suggest that they were arranged as knots with intricate designs. Regrettably, Abbott fails to mention any of the annuals or shrubs which might have been present, but in late March a wide range might have been present, especially in the warmer climate of the Low Country. For example, the cornflower (*Centaurea cyanus*, also known as "Emperor William"), branching larkspur (*Consolida ambigua*), calliopsis (*Coreopsis tinctoria*), China pink (*Dianthus chinensis*), and scarlet cacalia (*Emilia javanica*). An even greater number of biennials and perennials would likely have been in or near bloom, including columbine (*Aquilegia vulgaris*), sweet William (*Dianthus barbatus*), and sundrops (*Oenothera fruticosa*). Perhaps the best known shrub for the period and location would have been the native rhododendrons (*Rhododendron* spp.), although currants (*Ribes* spp.) were available and hardy. The mountain-laurel (*Kalmia latifolia*) produces flowers in full sun and elsewhere its handsome glossy leaves stay green all season, providing a good background for flowers. The multiflora found "shrouding" the portico may have included yellow jessamine (*Gelsemium sempervirens*) (or any of several other varieties of

jessamine or jasmine), wisteria (*Wisteria frutescens*), Virginia creeper (*Parthenocissus quinquefolia*), or any number of clematis (*Clematis* spp.). Abbott specifically mentions that "seville oranges in full bearing" were planted along the south wall of the house. The bitter or sour orange (*Citrus aurantium*), known as the seville orange, is likely the ancestor of all oranges. It is the hardiest and usually grows true from the seed, which the others do not. It was typically used for cooking, perhaps being best represented by English marmalade. Oranges are not tropical fruits, resisting frosts better than lemons and much better than limes, although they do favor equitable temperatures. When exposed to hot temperatures in the summer they tend to drop young fruit, while exposure to temperatures below 28° F will injure the fruit (Root 1980:305-306). It is likely the planting on the south side of the main house protected them not only from cool weather, but also from the strong heat of the low country summer.¹¹

In spite of flower gardens and orchard around the main house, Abbott remarked that the "glory" of Broom Hall's garden were its "walks." While providing no detail, he notes that these walks were as smooth as those in the Boston mall. Typically walks might be paved in brick or stone, laid up in crushed oyster shell or gravel, or at times grassed (Lounsbury 1994:395). None of these seem to fit the description offered by Abbott, suggesting that the paths may have been simply tamped earth.

He notes what appear to be two categories of walkways — some narrow and framed by

¹¹ Thomas Jefferson noted in 1778 that he brought four sour orange trees, "being new shoots from old roots brought from Italy in 1775, which have been killed to the root, these are all remaining out of some hundreds, the rest being killed totally. They were planted there in the earth, and sheltered to the North by a plank wall, and on top & to the South by matts. Two of them indeed were planted at the ends of houses, one to the South, the other to the East, and protected by matts, they are now put into boxes of good Virgin mould. Their heights are 6¼ I. 6½ I. 16 I. and 18½ I. In S. Carolina the Orange trees were killed generally by frost in 1771 the shoots which put out from the old roots begin to bear this year (Baron 1987:74).

carefully pruned trees forming cordons¹² and arches and others which were broader with one side framed in trees and the other framed in low flowers. This border (perhaps perennials) was selected to provide successive flowering periods, increasing their show. He mentions the presence of "wild oranges," also known as the Carolina laurel cherry (*Prunus caroliniana*). Occurring in low woods, in maritime forests, and long streams, the tree is typically small (30 to 40 feet in height and a trunk diameter of up to a foot) with a relatively open crown (Grimm 1962:293; Radford et al. 1968:569). Abbott reveals that the walks, likely focusing on the area west of the main house, crossed over an "extensive promenade" composed of "squares" or parterres, some of which were cultivated, others of which were planted only in grass. Throughout there were "carelessly interspersed" ornamental trees, sounding rather like Capability Brown's "clumps" of trees found in landscape and later Picturesque gardens.

The specific trees mentioned were weeping willows, tulip trees, and sycamores. The weeping willow (*Salix babylonica*) was introduced from China at least by the early eighteenth century and Grimm (1962:436) notes that it is one of the most commonly planted of the willows, providing both shade and ornament. While it is typically quick growing, reaching heights of 40 to 50 feet, it is also relatively short lived. Jefferson, in 1794, planted 2400 weeping willows, noting that a man could plant 800 to 1000 per day. He also explains that, "if 8 willows will yeild [sic] 1 cord at a lopping, & bear lopping every 3^d year, then 800 of these may be lopped very years, & yield 100 cords of wood" (Baron 1987:86). This suggests that the weeping willow may also have been planted to supply the plantation with firewood. The tulip tree (*Liriodendron tulipifera*), also known as the tulip magnolia and yellow poplar, is commonly planted for shade and its white, magnolia-like blooms. It commonly attains a height of 80 to 100 feet and a trunk diameter of 2 to 5 feet (with a few exhibiting

¹² A "cordon" is a fruit tree made by pruning to grow from a single stem. While typically these were usually espalier or wall trees, it is clear from Abbott's comments that they could also be made to form an arch. Repton's drawing of a garden for the disabled includes such an archway (Bisgrove 1990:139).

trunk diameters of up to 12 feet). Planted in the open they typically have a very characteristic pyramidal form when young, gradually developing rather shallow, broad, and open crowns. They are commonly found in rich, low woods, such as might be natural around Broom Hall (Grimm 1962:245-247; Radford et al. 1968:473). Leighton (1976:448) notes that the tulip tree was among the most frequently requested by English gardeners in the early eighteenth century. The sycamore (*Platanaceae occidentalis*), also known as the plane tree or the buttonwood, is one of the largest of our native trees, with specimens typically 100 to 175 feet in height and trunks ranging from 3 to 8 feet in diameter. The trunk usually divides into several large secondary trunks and the massive, spreading branches typically form a deep but rather open, irregular crown. Like the tulip tree, the sycamore is commonly found on low, moist ground. The wood was commonly used for tobacco boxes, ox-yokes, and butcher blocks, being exceptionally hard (Grimm 1962:257-259).

Although Abbott fails to mention any of the buildings, or even any of the water devices, he does mention the "arbors here & there" which were covered in vines or shaded with trees and used to create meditation spots with seats. That "there is very little done by the carpenter" suggests that many of the arbors, rather than being trellis or lattice work, were simply shaded recesses formed by tree branches. More properly these might have been called bowers — typically made with boughs of trees bent and twined together to form a shady spot, under which a bench or other amusement might be located (see Lounsbury 1994:7, 41).

Archaeological and Other Remnant Features

We were fortunate to have Hugh Dargan, ASLA and Mary Palmer Dargan, ASLA agree to walk over the site and examine some of the collections to provide their impression of the resource. They noted that a sampling of the existing vegetation in the terrace areas included sweetbay magnolia (*Magnolia virginiana*), mayapple (*Podophyllum peltatum*), china-berry (*Melia azedarach*), cherry laurel (*Prunus caroliniana*), Florida anise (*Illicium floridanum*), live oak (*Quercus virginiana*), red maple (*Acer rubrum*),

Michaux oak (*Quercus michauxii*), Southern magnolia (*Magnolia grandiflora*), privet (*Ligustrum* spp.), yaupon holly (*Illex vomitoria*), trumpet vine (*Campsis radicans*), devil's walking stick (*Aralia spinosa*), eastern red cedar (*Juniperus virginiana*), beauty berry (*Callicarpa americana*), ferns, honey suckle (*Lonicera* sp.), jack-in-the-pulpet (*Arisaema triphyllum*), black locust (*Robinia pseudoacacia*), tung oil tree (*Aleurites cordata*), umbrella tree (*Magnolia macrophylla*), pine (*Pinus* spp.), and virginia creeper (*Parthenocissus quinquefolia*). Of these plant materials, the Florida anise, umbrella tree, and tung oil tree were identified as very unusual for a hillside in this geographic area. The Dargans went on to suggest that this diversity of woody and herbaceous plant materials was indicative of an abandoned ornamental garden area. We should not be surprised with how quickly the composition of the garden changes. Discussion Monticello, Taylor notes that:

when Thomas Jefferson died in 1826 the estate has already suffered from lack of his supervision and in 1831 it was sold to pay off his debts. The house and grounds decayed rapidly and when Frank Stockton, a family friend, visited in 1827 he noted that the "orchards and terraced garden, the serpentine flower borders on the west lawn and the beautiful roundabout walks and drives have all disappeared." In 1839, when J. Bayard H. Smith saw the grounds, she reported, "Around me I beheld nothing but ruin and change, rotting terraces" (Taylor 1991:136).

Within a decade or two the grounds of Monticello has largely reverted to their natural state. It is therefore amazing that over a hundred years since the gardens were abandoned at Broom Hall, it is still possible to pick out indications of its previous grandeur.

The Dargans also point, at the lower limit of the terraced slope, to the rectangular pond, measuring about 150 by 75 feet which is oriented

along the north-south axis in sympathy with the other built features at Broom Hall, as evidence of the garden design.

Located 25 feet from the pond edge and spaced equally on the east and west side of the pond are three aged live oaks in severe decline. The cavity of a decayed fourth tree is evident and consistent with the deliberate planting scheme they discovered. It is one of these trees which is shown in Figure 19 as being near what the caption described as a tile lined artificial pond. This suggests that the pond was far more complex in its construction than originally thought.

There is a remnant of a large eastern red cedar on the north side of the pond, and seeding cedars are found on the east side, indicating the presence of an original tree on this side as well. Unnoticed until the Dargans' visit was a line of equally spaced live oaks in serious decline striking due east, upslope, from the pond. This allée apparently matches that to the east of the main house and is consistent with Abbott's entry concerning an avenue of 60 rods length.

Exploring the arrangement of structures, the Dargans noted that Structure H was placed on the northern limit of the study area, independently of the other structures but within easy communication with garden. They note that traditionally "propagation chambers" were located close to the vegetable, fruit, or ornamental garden area which they were designed to supply. This appears to be the case at Broom Hall, since there are a series of terraces which lead westward toward Huckhole Swamp.

The large quantity of bell jar fragments from this structure (previously discussed with the other artifacts from Broom Hall), combined with the paint analysis performed by George Fore and Associates (Appendix 3) and the pollen analysis of the structure by Dr. Art Cohen clearly reveals that this was a formal garden structure likely intended to force plants.

Summary

While there is much about the gardens and settlement that Abbott does not tell us, there is much more that is explained by even this short

description. It may help to explain the ephemeral brick wall found in Area D, suggesting that it might be associated with either one of the walks or even a planting area. The description also suggests that the plantation buildings, such as domestic quarters, stables, and green house, were all incorporated into the garden — typical of the *ferme ornée* approach — although they were largely grouped in the southeast quadrant of the garden, perhaps suggesting more complex use of space than we have thus realized. Regardless of the shortcomings of both the archaeology (which failed to as completely investigate the grounds as might be hoped for) and the historical accounts (which provide relatively little detail), we have a much better appreciation for the landscape at Broom Hall than before. Like other eighteenth and early nineteenth century pleasure grounds, it represents a complex mix of both picturesque or landscape and formal elements. The mixture of parterres and "roundabout" walks, use of water features, and terracing are all expected, at least in the "better" gardens of the period.

Broom Hall helps us better understand the development of South Carolina's landscape in the eighteenth century. More than that, as Kornwolf warns us, the garden record at Broom Hall "suggests that the archaeologist ought to be on the lookout for more than just allées, parterres, and clairvoyées" (Kornwolf 1984:102).

ARCHITECTURAL OBSERVATIONS ON THE MAIN PLANTATION COMPLEX

Observations concerning the main plantation complex are very limited. Not only were no formal investigations conducted in this area, but it appeared that the buildings had suffered damage far in excess of what might be expected from simple abandonment and or salvage. It is likely that even prior to the construction of Westview Boulevard, which certainly damaged the southern flanker (Area I), there had been displacement of wall sections and removal of large quantities of brick. Photographs from the 1930s, previously illustrated as Figures 16-18, show that while the 1886 earthquake and time both took their tolls on the main house, substantial wall sections were still standing. Fifty years later there is little evidence of these buildings.

Remnant Architectural Remains

General observations concerning the structures were made by Mr. Colin Brooker, an architectural historian who visited the site during the project. The main house (Area A), which was oriented N10°W, was found to measure 35 feet 8¾-inches from outer wall to outer wall. The wall were found to be 2-feet in width, adequate to support at least a two story structure, and laid up in English bond (that is, alternating courses of stretchers and headers). The length was not ascertainable because of the extensive rubble piles.¹ Although a cursory examination of the rubble piles failed to reveal the presence of rubbed brick², the

¹ This suggests a minimum size of about 1007 square feet per floor, assuming the length was at least as great as the width. Since there were at least two floors, and possibly four (basement, first and second floors, and garret), the main house might have accounted for as much as 4028 square feet.

² Rubbed bricks are also known as gauged brickwork. Soft bricks were sawn roughly to shape and

extensive scatter of roofing slate, similar to that found elsewhere on site, suggests that the main house was roofed in slate. Samples of both white and black limestone "marble" was found, all of which appeared to be floor tiles. The black tiles are superficially similar to what has been called "Purbeck" marble, although the specimens recovered from Broom Hall were not fossiliferous. A checkerboard pattern of alternating white and black marble was often used as paving for entranceways and covered piazzas.

The northern flanker (Area B) exhibited external dimensions of 26 feet 1 inch (east-west) by 17 feet 2½-inches (north-south) and a wall thickness of 13 inches at the lower levels. Like the main house, this suggests a two story structure.³ Sufficient wall sections were present to determine that the wall was laid up in English bond. On the interior of the building brick flooring was identified. As in the case of the main house, roofing slate and Purbeck marble was recovered from surface contexts. Also present in this area is what is commonly known as Yorkstone pavers, light brown limestone typically used for paving. Imported from England as fairly large slabs, these are often found as sidewalks around the edge of buildings.

Somewhat more revealing than the existing remnant, and badly disturbed, architectural remains, are the photographs of several Broom Hall buildings from the first half of the twentieth century. Taken when wall sections were still

then rubbed to a smooth surface and precise (or gauged) dimensions by a stone or another brick. They are most often found in arches of doorways or window openings.

³ Each floor consists of about 403 square feet, so it is likely the flanker contained at least 806 square feet.

standing they provide a different feeling for the plantation.

Figures 17 and 18 illustrate the same building, identified only as being south of the main house (and possibly what has been referred to during these studies as Area I). The earlier figure (Figure 18), taken in the 1920s, shows what we believe is the eastern wall. To the west, in the background, are several farm buildings and a fence, while the building itself is in a corn field. The structure is obviously two stories (as previously suggested on the basis of the foundation width), with a central opening (possibly a door) at the ground floor and a central window opening above (space in the brick for placement of a timber lintel spanning the window is still visible on the left or west side of this window opening). The exterior walls appear to have been covered with a stucco, perhaps to imitate decorative stonework.

By the 1930s Figure 17 suggests that the building had continued to deteriorate. Some bricks are no longer present, and whole wall sections may be missing. The stucco coat has further eroded, revealing that the lower level is laid in English bond (seen in the extant foundation remains), while the upper levels were laid in Flemish bond. Lounsbury notes that while this is less common than English bond, it appears in the seventeenth century and "became the predominant bond throughout the South in the late Colonial period," lasting into the nineteenth century. He notes that often English bond was used for the lower foundation, switching to Flemish bond for the remainder of the wall (Lounsbury 1994:38).

This later photograph also reveals (by counting bricks and estimating the opening size) that the wall measured around 16 feet in length. This closely corresponds with the measured dimensions, further strengthening our belief that Figures 17 and 18 are of the Broom Hall flankers.

Figure 16 shows the main house, but most details are obscured by tree growth. What can be identified, however, is an arched opening at the left edge of the photograph, perhaps one of a number of arches carrying a porch. The bond, like elsewhere on the site, is clearly English at the lower levels.

One building, the presumed garden structure at Area H, produced plaster with remnant color. Since it is unusual to recover plaster with adhering pigments from archaeological contexts, several samples were submitted to George Fore (George Fore and Associates) for analysis. While his study appears as Appendix 3, examination of these samples reveals a sizing over the plaster (which itself was apparently applied directly to the brick) over which were multiple coats of a distemper wash. The coloring agent in these washes, was a dark, organic material (perhaps burned bone, which tends to yield a slight blue to the gray color). Fore suggests that the choice of color may have been intentional, perhaps to increase the warmth of the structure and assisting in forcing plants to bloom.

At a microscale, the landscape reveals a main house with two flankers, but no obvious evidence of connecting hyphen walls. The main house measures about 35 feet north-south. While solid evidence for an east-west dimension is lacking, the physical remains suggest a square structure. The northern flanker, situated about 60 feet from the main house, measured roughly 26 by 17 feet, with its long axis oriented east-west. The southern flanker, based on the best evidence in hand, was situated about 100, perhaps 125 feet, from the main house. Although unevenly spaced, its long axis was also oriented east-west and at least its short dimension was identical to that identified from the northern flanker.

While there is too little available information to make much of this, it suggests that the formal symmetry of the plantation was broken up by either unavoidable topographic features or some historic event, such as the use of preexisting buildings which necessitated the slight off-setting of the flanker. Since the early history of the plantation is poorly documented there is no way to resolve this conflict.

The main house appears to have been slightly "set back" toward the west, with the two flankers taking a more prominent position toward the main plantation drive. This also created a forecourt in the "front" of the main house.

Examination of Figure 9 reveals that the bulk of the various support structures were situated

to the south of a line running down the oak allée and bisecting the main house. At the western end of this line was "Looking Glass Pond," forming the terminal point in the plantation layout. The gardens to the west of the main house were slightly offset to the north, perhaps balancing the displacement of the southern flanker and the large number of support structures also to the south.

Architectural Antecedents

While the absence of architectural details provides fertile ground for speculation, it fails to provide the details necessary to allow many substantive conclusions. Sweeny remarks that, "after mid-century the Georgian-style houses of the wealthiest colonists began to resemble English models more closely in architectural detail, and occasionally in plan" (Sweeny 1994:39). This same view is echoed by Chappell, who observes that at least some of the landed gentry built "grand mansions much like those occupied by successful merchants in Britain" (Chappell 1994:193). Just as the wealthiest sought to emulate the British pattern in furnishings and habit, so too did they seek to establish themselves as thoroughly British in their building patterns. While Waterhouse (1989:98-102) concentrates on construction in the urban setting, he likewise emphasizes that "eighteenth century Carolinians took their example from England," even when more environmentally appropriate models were available elsewhere. He remarks that:

in the later colonial period the increased wealth of the colonists allowed them to imitate even more closely the architectural styles used by the English gentry in the construction both of their town and country houses, thus demonstrating the Carolina elite's identification with the English gentry and therefore their concern with status and hierarchy, even at the expense of their personal comfort (Waterhouse 1989:102).

If the Carolina colonists were looking to England for their architectural inspiration, they were almost certainly inspired by the turn away from the Baroque and development of a new wave

of Classicism usually called Palladian. The movement began in 1715 with the publication of a translation of Palladio's *I quattro libri dell'architettura*. Clive Aslet and Alan Powers remark that:

no English house had ever looked like this before, but in the course of the next fifty years, the central portico, the rusticated basement storey, and the square-shouldered silhouette were to become distinguishing marks of even the most provincial country house (Aslet and Powers 1985:92).

Beyond the artistic statement of this style, the rusticated basement enabled the main rooms of the first floor to command better views and, in particular, for the house itself to be more conspicuous from the surrounding countryside. Servants were often relegated to the ground level "rustic," while an elaborate stairway lead to the entrance on the first floor. The interconnecting rooms not only allowed better communication and provided convenience, they also allowed the arrangement to display the splendor of the central staircase. The formal symmetry of the Palladian style allowed a range of necessary buildings to be designed as an integrated whole, often "tied together" with curtain walls or covered walkways (for example, see Basildon Park in Berkshire, built in 1776).

While Palladio's name alone would sell this new style, one of the prime movers was James Gibbs who, according to Aslet and Powers, simplified the rules of Palladian architecture, making them understandable and more easily applied. Chief among those who developed Palladian style books following Gibbs' formulae were William Halfpenny and Batty Langley (Aslet and Powers 1985:97). In South Carolina, Cohen observes that the "men who both built and designed buildings, had learned their trades under the British system" (Cohen 1953:58). This view is echoed by Mills Lane:

South Carolina's early architecture reflected the richness, variety and contradictions of

English architecture during this period of imperial growth. . . . Carolina builders, though they did not always understand the correct proportions which were so important to Classical architecture, displayed their wealth and culture by copying the current English fashion . . . (Lane 1984:19-20).

Lane recounts a January 1735 newspaper advertisement for Charles Chassereau, "newly come from London," who "draws Plans and Elevations of all kinds of Buildings, . . . likewise perspective Views of prospects of Towns or Gentlemen's Houses or Plantations, he calculates Estimates for Buildings or Repairs" (Lane 1984:38).

Early examples of this English influence include Archdale Hall, a two-story brick structure over a partially excavated basement with a central hall plan, built between 1706 and 1710. The upper floors were laid up in Flemish bond, although the basement was laid in English bond.⁴ Lane comments that the house "must have been designed and executed by a builder who had just come from England" since the design incorporates features just being introduced to England and virtually unknown in America (Lane 1984:20; see also Stoney 1989:45). A 1791 plat of Archdale (Zierden et al. 1985:Figure 8) reveals a building arrangement somewhat similar to Broom Hall. Flanking the main house, but at different distances are buildings of different sizes. Most of the plantation work buildings appear to be situated east of the main house and are not laid out with symmetry in mind. In spite of the grandness of Archdale Hall, most of the low country architecture during this period more likely resembled Wigton, John Fraser's plantation built between 1744 and 1754. While handsome, it was fairly modest.

⁴Flemish bond consists of alternating stretchers and headers in each course so that a header is flanked on both its sides, above, and below by stretchers. Lounsbury, however, notes that often eighteenth century bricklayers "laid the foundation up to the water table in English bond, then switched to Flemish bond for the remainder of the wall" (Lounsbury 1994:38).

By the second quarter of the eighteenth century South Carolina plantations became grander and more elaborate. Lane suggests this can be accounted for by England's new international power under the Georgian kings. Regardless, the architecture saw wide, flaring eaves; water tables; "clean, flat geometry of walls;" brick or stucco quoins; window arches; interior fireplaces framed with molded architraves; panelling; and doors framed with pilasters, entablatures, and pediments (see Lane 1984:31). An excellent example of this new architecture is Crowfield, Broom Hall's western neighbor. Built about 1730 by Arthur Middleton, the plantation is not only known for its elaborate gardens (see Stoney 1989; Trinkley et al. 1992), but also for what is perhaps the single best known floor plan of eighteenth century plantation houses. Found at Hanover, Brick House, Fenwick Hall, Limerick, and Lewisfield, to name but a few, it consists of an unequal division of the front of the house, with a central stair hall. Crowfield is entirely laid up in English bond.

It has been suggested that Henry Middleton, when his elder brother, Arthur, retired to England in 1754, was left as head of the Middleton family in South Carolina, with a right to the "according ostentation" (Stoney 1989:64-65). It was this desire for conspicuous consumption which led to the design of Middleton Place, which incorporated a through hall, with two rooms on one side and a single room on the other. When the Duc de la Rochefoucauld-Liancourt visited the plantation with main house and two flankers in 1798, he remarked that "the ensemble of these buildings calls to recollection the ancient English country seats" (Lane 1984:35).

Equally impressive is Drayton Hall, built by John Drayton about 1738. Lane observes that, "Drayton Hall, a two-story brick structure on an elevated basement with a double hipped roof, has been often called the first truly Palladian house in America" (Lane 1984:42). Indeed, the portico facing a recessed central bay is an unusual feature — one which Lane remarks is "more Palladian [i.e., Italian] than English." Measuring around 70 by 52 feet, it is substantially larger than Crowfield (which measures only about 55 by 39 feet). Drayton Hall also had two dependencies or flankers, each connected to the main house by typically Palladian

curtain or hyphen walls. These were oriented, like at Broom Hall, to create a courtyard in the "front" of the main house. The south flanker measures about 17 by 33 feet, nearly the same as Crowfield's 21 by 37-foot flankers. The flankers at both Crowfield and Drayton Hall, unlike those of Broom Hall, were uniformly centered about the main house. Similar to Broom Hall, however, they had their short axis facing toward the entrance to the plantation.

It is admittedly difficult to compare these "architectural masterpieces" to the remnants of Broom Hall. Broom Hall lacks the carved brick cartouche of Archdale, the "hyphens" flanker walls of Crowfield, or the mass of Drayton Hall. When compared to these other structures, Broom Hall seems somewhat smaller than Crowfield (about 35 feet in depth, compared to 39 feet) and significantly smaller than Drayton Hall (35 feet compared to 52 feet). The flanker at Broom Hall, measuring about 26 by 17 feet, compares favorably with those at Drayton Hall (33 by 17 feet), but is smaller than those at Crowfield (which measure about 21 by 37 feet). Although Lane and Stoney both mention the extensive use of Flemish bond during this period, there are recorded examples of early, and elaborate, structures using either entirely English bond (such as Crowfield) or using English below the water table, switching to Flemish bond only at the first floor and above.

While different in proportions, it is likely that working together, Broom Hall presented an image nearly as impressive as either Crowfield or even Drayton Hall. The wall thicknesses at Broom Hall suggest both the main house and flanker were at least two story structures. All were built of brick laid, at least below the water table, in English bond. All had slate roofs. And all had patterned black and white marble (perhaps at their porticos). Although there is little left of Broom Hall, it would be a tragic mistake to ignore its architectural importance, either in the regional or, perhaps more importantly, in the community scheme. It may also be appropriate to look as carefully at plantations such as Archdale for architectural antecedents as at plantations such as Crowfield and Drayton Hall.

ETHNOBOTANICAL REMAINS

Introduction

Ethnobotanical remains were recovered from a large number of excavation proveniences associated with Broom Hall Plantation including handpicked samples from ¼-inch dry screening, as well as water floated samples from both excavation units and features. All of the hand picked materials (16 samples, 15 from 38BK600 and one from 38BK985) and six representative samples of the floated collections (four from 38BK600 and two from 38BK985) were incorporated into this analysis to ensure that a broad range of materials associated with both the slave and owner occupation at the site were examined.

Flotation samples, offering the best potential to recover very small seeds and other food remains, are expected to 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. 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 samples, between the materials recovered through flotation and those lost or broken, and even between those which are considered identifiable and those which are not. In the case of Broom Hall the soil samples were each 5 gallons in volume and were water floated (using a machine assisted system) during the excavations at a nearby site provide by Westvaco.

Handpicked samples 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 handpicked 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 charcoal was being collected in the same proportions by the site occupants as 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 — 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 which 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 other others). These factors are of particular concern at historic sites where there is evidence of wood selection being guided by heat production, quality of the fire, ease of igniting, and a whole range of other factors (for a brief review from an urban perspective, see Zierden and Trinkley 1984). As discussed in the section, **Remnant Landscape Features at Broom Hall**, there is even evidence that some owners planted trees (such as weeping willows, *Salix babylonica*) specifically for the wood they produced through normal pruning. Consequently, at a historic site hand picked charcoal may tell us more about cultural factors

than it does about the natural environment. Smart and Hoffman (1988) provide an excellent review of environment interpretation using charcoal which should be consulted by those particularly interested in this aspect of the study.

Procedures and Results

The six flotation samples were prepared in a manner similar to that described by Yarnell (1974:113-114) and were examined under low magnification (7 to 30x) to identify carbonized plant foods and food remains. Remains were identified on the basis of gross morphological features and seed identification relied on Schopmeyer (1974), United States Department of Agriculture (1971), Martin and Barkley (1961), and Montgomery (1977). All float samples consisted of the charcoal obtained from 5 gallons of soil (by volume). The entire sample from this floated amount was examined. The results of this analysis are provided in Table 76. In all but one case the floated material is well over the 20-30 gram "threshold" typically proposed as adequate.

In all of the samples wood charcoal comprises the majority (by weight in grams) of the remains. Uncarbonized remains, primarily rootlets and similar "trash," is the second most abundant material. Small to modest quantities of bone occur in three samples, with those from Area C consisting entirely of fish scales. The shell remains found in two samples are small land snails, frequently found in archaeological deposits. Hickory nutshell (*Carya* sp.) is found in only one sample, from Feature 1 in Area C, and even there it is found in barely more than trace amounts. From this same sample one fragmentary carbonized unidentifiable seed coat was also recovered.

There are four hickories common to the Charleston area -- bitternut (*Carya cordiformis*), water (*C. aquatica*), mockernut (*C. ovalis*), and pignut (*C. glabra*). These species occur on a variety of soil types, from dry woods to rich or low woods to swamp lands. In South Carolina they fruit in October, although seeds are dispersed from October through December (Radford et al. 1968:363-366). Good crops of all species are produced at intervals of up to three years when up to about 16,000 nuts may be produced per tree

(Bonner and Maisenhelder 1974:271). Complicating this simple seasonality is the ability of the nuts to be stored for up to six months.

While hickory nuts commonly supplemented the prehistoric diet, their use during the historic period appears limited. In the seventeenth century John Lawson (Lefler 1967:105) remarked on the tastiness of soup made from hickories. He also mentioned some hickories tasted "as well as any Almond." Yet a review of period cookbooks (see, for example, Crump 1986) fails to suggest that hickories were any more integrated into planned meals in the eighteenth century than they are today. It is likely that they provided incidental, gathered food, but were not significant to the typical diet. The very low incidence of the nutshell in this collection may even suggest that its presence is accidental.

The near absence of seeds in the flotation collections likely speaks more to the process of preservation than it does to either the presence or absence of seeds in the vicinity of the various proveniences. Opportunities for food remains, or weed seeds, to become carbonized are limited at most historic sites and it seems that Broom Hall was no exception to this.

The handpicked samples were also examined under low magnification with a sample of the wood charcoal identified, where possible, to the genus level, using comparative samples, Panshin and de Zeeuw (1970), and Koehler (1917). Wood charcoal samples were selected on the basis of sufficient size to allow the fragment to be broken in half, exposing a fresh transverse surface. A range of different sizes were examined in order to minimize bias resulting from differential preservation. The results of this analysis are shown in Table 77 as percentages.

Wood charcoal from the flotation samples was similarly examined, although only four samples — Area C, Feature 1, Unit 2; Area C, Feature 1, Unit 5; Area J, Feature 3; and Area AA, Feature 2 — yielded fragments large enough for analysis. Feature 1 from Area C produced only pine (*Pinus* spp.), as did Feature 2 from the slave settlement in Area AA. Area J of the main plantation complex

Table 76.
Analysis of Flotation Samples,
weight in grams

	Wood Charcoal		Hickory Nut		Bone		Shell		Uncarbonized		Total	Seeds	Wood Charcoal
	wt	%	wt	%	wt	%	wt	%	wt	%			
38BK600													
Area C, Unit 6, Zone 1	88.06	80.62	-	-	6.89	6.31	1.68	1.54	12.60	11.53	109.23		
Area C, Feature 1, Unit 2	19.87	68.99	-	-	-	-	-	-	8.93	31.01	28.80		<i>Pinus</i> sp.
Area C, Feature 1, Unit 5	98.20	94.89	0.03	0.03	0.65	0.63	0.25	0.25	4.35	4.20	103.48	1 UID seed coat fragment	<i>Pinus</i> sp.
Area J, Feature 3	1.62	90.00	-	-	-	-	-	-	0.18	10.00	1.80		<i>Quercus</i> sp., <i>Pinus</i> sp., <i>Carya</i> sp.
38BK985													
Area BB, Feature 1	71.15	92.87	-	-	0.30	0.40	-	-	5.16	6.73	76.61		
Area AA, Feature 2	22.40	73.01	-	-	-	-	-	-	8.28	26.99	30.68		<i>Pinus</i> sp.

Table 77.
Wood Charcoal Identified in Handpicked Collections,
by percent

	<i>Salix</i>	<i>Pinus</i>	<i>Liquidambar</i>	<i>Quercus</i>	<i>Carya</i>	<i>Ulmus</i>	Bark	Peach pit	<i>Juglans</i> nut	<i>Juniperus</i>	UID
38BK600											
Area D, Unit 1, Zone 1	50	-	-	-	-	-	-	-	-	-	50
Area D, Unit 1, PH 1		100									
Area K, Unit 2, Zone 1			44	14				14	14		14
Area C, Unit 5, Zone 2				100							
Area C, Fea. 1, Unit 3, Zone 1		71		29							
Area C, Fea. 1, Unit 3, Zone 2		12		29			59				
Area C, Fea. 1, Unit 4, Zone 1		36		43	7		7				7
Area C, Fea. 1, Unit 4, Zone 2	8	25		42		8	8				9
Area C, Fea. 1, Unit 5, Zone 1		8		42			9	33			8
Area C, Fea. 1, Unit 5, Zone 2		14		86							
Area C, Fea. 1, Unit 6, Zone 1		44		33			12				11
Area C, Fea. 1, Unit 6, Zone 2	8	75				9	8				
Area C, Fea. 1, Unit 8, Zone 1		20		60							20
Area C, Fea. 1, Unit 8, Zone 2		36		55			9				
Area C, combined Feat. 1	2	33		38	1	2	15	4			5
Area D, Fea. 2		80		10						10	
38BK985											
Area BB, Fea. 1		25	67								8

yielded oak (*Quercus* spp.), pine, and small amounts of hickory (*Carya* sp.) wood.

Wood charcoal, as previously mentioned, is abundant in most of the Broom Hall proveniences. While Table 77 lists all of the Area C, Feature 1 proveniences separately for comparative purposes, these discussions will combined the various units of Feature 1. Consequently, the study found that the collections were dominated by two species: pine (*Pinus* spp.) (found in 4 of the 7 samples) and oak (*Quercus* spp.) (also found in 4 of the 7 samples when all of the Area C, Feature 1 collections are combined). Willow (*Salix* sp.) is found in 3 of the 7 proveniences. A number of species are found in only one of the seven proveniences, including sweet gum (*Liquidambar* sp.), hickory (*Carya* sp.), probable elm (*Ulmus* sp.), bark of unidentified species, and cedar (*Juniperus* sp.). Unidentifiable wood charcoal is found in four of the seven proveniences. Two food remains were found in the examination of the hand picked samples. A total of five peach pit (*Prunus persica*) fragments were found in two proveniences and one walnut shell (*Juglans* sp.) was found in the collection.

Discussion

Both the flotation and handpicked samples are dominated by wood charcoal, primarily pine and oak. Plant food remains are limited to peach pits, walnut shell, and hickory nutshell. While this study can help us understand how the occupants of Broom Hall lived, it offers relatively little information concerning the preparation and consumption of plant foods. Likewise, it provides little direct information on the natural environment of Broom Hall, failing to include weed seeds which might indicate a disturbed habitat, cultivar seeds from plants of economic importance, or seeds of ornamentals which might have been present in or around the garden area.

The charcoal represents woods which could reasonably be associated with a rather broad area of upland forest near a swamp. The sweetgum may be found with oaks and hickories in mesic mixed hardwoods. Elms may be found on terrace ridges, as well as wet flats and bottoms, evidencing tremendous variability (Fowells 1965:726, 740). Willows, as a genus, tend to grow on just about

any soil, although their extensive, shallow roots require an abundant and continuous supply of water. Found naturally, they will occur on the lower, wetter soils (Fowells 1965:650-651). Pine, while suggestive of a disturbed habitat, is present naturally in the mesic fine sand ridges of many hardwood forests (Barry 1980:138). The abundance of pine, however, might also suggest a fire sub-climax pine forest.

While a number of different wood species have been identified in this collection, indicating that the occupants collected and/or used woods from relatively dry upland soils, more mesic soils, and even some wetland areas bordering on swamps, two species appear most significant — pine and oak. Both are species frequently found mentioned as either boundary trees or as components of broad acreage on the plats of Goose Creek plantations. Commenting on the prevalence of pines, found usually with "only a very few black-jack oaks," Edmund Ruffin observed that they were found on "the dryest [sic] land" whose surface is "sandy & dry" (Mathew 1992:74). Ruffin also noted that some tracts in the Goose Creek area, by the late antebellum, were held "merely as a resource for timber" for use on other plantations (Mathew 1992:62).

It may be significant that both pine and oak are frequently used fuel woods. On the average, a cord of air dried pine provides about 80% of the heat value of a short-ton of coal, while oak provides about 84% the value. In contrast, willows typically provide less than 60% the heat value, sweetgum about 68%, and elms provide about 68%. Only the hickories (which were relatively uncommon in the area) consistently provide high heat values, averaging about 97% that of coal.¹ The choice of wood for fuel did not, however, depend entirely on its calorific power. Other factors likely included freedom from smoke, completeness of combustion, and rapidity of

¹ The varying quality of fire wood 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, hazel, birch, and elm: to the soft, the fir, the pine of different sorts, larch, linden, willow, and poplar" (Reese 1847:116).

burning. Pine, for instance, gives a quicker, hotter fire, and is easier to ignite, but is consumed in less time than many other woods. Oaks provide a more steady fire and heat than pine, but are difficult to ignite and not as easy to split (Graves 1919; Reynolds and Pierson 1942). In combination they form an almost perfect union.²

The examination of the wood charcoal also reveals the use of heart pine for posts (Area D, Unit 1, post hole 1), probably because of the decay resistance of this species. Scheffer and Cowling (1966) note that the toxic extractable substances deposited during the formation of pine heartwood provide it with good decay resistance. Fitchen (1986:133) notes that the common practice of charring posts, which would increase their resistance to decay, would also help ensure that charcoal was present for analysis. Another provenience, Area C, Unit 5, Zone 2, yielded material identified in the field as a probable plank. All of this material was identified as oak. While pine was the most common building material in the South, oak was also often used because of its natural durability and remarkable strength. It was also the main shipbuilding timber and often used in furniture, especially for desks, tables, chairs, and frames for upholstered items. Around the plantation it might have been used for fencing, wheel spokes, ladder rungs, or barrels — anywhere where an exceptionally strong timber was needed (Edlin 1969:136-137).

Just as the hickory nutshell likely represents an accidental inclusion, the walnut shell (most likely the black walnut, *Juglans nigra*) is probably not a significant food resource. Historically it is more recognized as a remedy for ringworm and as vermifuge (Morton 1974:86).

² Elisabeth Donaghy Garrett goes to great lengths, however, to illustrate that even the perfect combination of fire woods, blazing in the perfectly constructed fireplace, often did little to warm, or light, plantation rooms. Even with fires, water, foods, ink, and even wines, froze overnight in deep winter. Thomas Chaplin, writing from his St. Helena, Beaufort County plantation in January 1857 that his thermometer was down to 20 degrees in the house at eight in the morning and that everything was frozen hard, including eggs, milk, and ink (Garrett 1990:189).

Walnut trees tend to be found in moist, mixed woods and on fertile lowlands. Like the hickories, they tend to seed from about September through October, although the nuts may be stored for some time.

The prevalence of peach, however, is likely an indicator of the plantation's orchard.³ The peach fruits, in the lower coastal plain, from April through June. Sam Hilliard observes that:

The peach was the favorite fruit in most of the South and was prized as food either fresh, dried, or preserved.⁴ If sufficient quantities were produced, the surplus was fermented to wine and distilled into brandy. Many farmers fed them to hogs, as they were considered very nutritious, and often were encouraged to plant orchards to serve specifically for animal feed (Hilliard 1972:180-181).

Ann Leighton (1976:237) also notes the popularity of peaches. In 1629 there were 21 named peaches. By 1768 there were at least 31. And by 1850 over 250 named peach varieties were published. Regardless, all belonged to one of two groups, generally described as the freestones or melting-peaches in which the pulp or flesh separates easily from the stone and the clingstones in which the flesh clings or adheres to the stone.

Perhaps the most interesting provenience, and certainly the best sampled, is Feature 1 within Area C of the main plantation settlement. There the handpicked charcoal consist of about equal

³ It is likely that peaches, a fruit of the temperate zone, were on the edge of their natural range in the Charleston area. Though they prefer relatively warmer areas, they also require a resting period of winter cold for at least two months, during which time they gather strength for producing leaves and flowers in the spring.

⁴ One source also documents that peach pits themselves were roasted, salted, and eaten in rural black areas, such as on John's Island and in Berkeley County (Morton 1974:118).

proportions of oak (38%) and pine (33%). The next most common charred material in the feature is bark, accounting for 15% of the sample. In fact, bark is so common that it was found in all but three of the sampled feature proveniences. More significantly, it is not found in any of the other proveniences examined for either the main plantation or the slave settlement. While oak bark was commonly harvested for sale to tanneries (Edlin 1969:135), the material found in Feature 1 appears to be pine bark, probably useful only for kindling. The flotation samples for Feature 1 offer little additional information. Wood charcoal accounts for between two-thirds and nearly 99% of the two samples, with pine and oak again being the most common species encountered.

The Broom Hall collection, when compared to other plantation assemblages, is rather barren. Paul Gardner (1983) found the eighteenth century slave assemblages at Yaughan and Curriboo dominated by wood charcoal (almost exclusively pine), although a variety of food materials were also represented, such as corn, rice, hickory and walnut, peach, hawthorn, bramble, and beans. A number of weed seeds, such as *Polygonum*, goosegrass, and possibly *Setaria*, *Paspalum*, *Panicum*, and *Digitaria* were also recovered, although they were found in small quantities and were often very eroded. At the early antebellum Lesesne and Fairbank plantations, Gardner remarked finding, "an impressive variety of plant remains" (1986:F-9). These included corn, rice, peach, watermelon, peanuts, cotton, chinaberry, spurge, *Iva*, hickory, acorn, pecan, blackberry, grape, blueberry, hackberry, plum or cherry, persimmon, and maypop. While few were present as more than a few examples, the variety is, indeed, impressive. Contributing to this variety, however, was the excavation of a well, which produced a number of species not found elsewhere on the plantation, such as watermelon, peanuts, cotton, pecan, plum or cherry, and maypops. Regardless, Broom Hall appears almost sterile in comparison with these other plantations.

One difference is that the four plantations (Yaughan, Curriboo, Lesesne, and Fairbanks) were all very active working plantations, often with large contingents of slaves. In contrast, Broom Hall was a country seat. Another difference involves the areas investigated. At Yaughan and Curriboo the

excavation of features in what were likely yard areas of the slave settlements certainly contributed to the better representation of food remains. At Lesesne and Fairbanks a very broad sampling design ensured that features from a number of locations were available for analysis. In contrast, the work at Broom Hall focused on the main plantation settlement — an area contained almost exclusively within the garden confines. This may have reduced the potential to encounter features suitable for the recovery of floral remains. It may be in the absence of remains that this ethnobotanical study provides the greatest information helping us to understand the Broom Hall Plantation. It appears that activities which might contribute to the charring and subsequent preservation of plant foods were not taking place in the areas investigated at Broom Hall.

While Gardner identified relatively few wood taxa from Lesesne and Fairbanks — primarily oak and pine — they are the same species which dominate the Broom Hall collection, suggesting that plantations in the Carolina low country saw little variety in fuel wood. Minor species at plantations, such as bald cypress at Lesesne and sweetgum at Broom Hall, suggest the relatively limited influence of local environmental factors.

EXAMINATION OF POLLEN SAMPLES FROM THE BROOMHALL PLANTATION AND SLAVE SETTLEMENT

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Introduction

A series of six soil samples were submitted for pollen analysis. Four were from Area H at the main plantation settlement. It was this area which produced what appeared to be a garden structure about 12 feet square and suggested to perhaps represent a potting or green house. The samples were collected from Zones 2 and 3 of the two completely excavated units, exposing the structure. Two additional samples were provided from features encountered in the slave settlement associated with Broom Hall. One, Feature 1, was characterized as a "trash pit" found in Area BB and the other, Feature 2, was reported to be an agricultural ditch found in Area AA. Although collected in 1988 they had been stored in air-tight, sealed bags under controlled conditions.

Each sample preparation included potassium hydroxide (KOH) treatment, hydrochloric acid (HCL) treatment, zinc chloride (ZnCl₂) flotation, hydrofluoric acid (HF) treatment, bleaching with sodium hypochlorite, and staining with Safranin O. All of the samples bubbled (i.e., reacted significantly) during the acid treatment, indicating the presence of carbonates. This might suggest any of the following: 1) carbonates were added to the soils as soil conditioners or liming agents, 2) the soil substrate sediments contain natural carbonates or shell fragments, or 3) the carbonates may have leached from construction material, such as mortar.

Ten slides from each provenience were prepared and scanned for evidence of pollen grains. Regrettably, few pollen were found in any of the samples. One possible explanation is that

the Broom Hall soils are not only exposed, but their unconsolidated grainy texture promotes oxidation and degrading of the pollen record.

Results

Area H (Garden Structure), Unit 1, Zone 2

Few pollen were found and those present were highly corroded, exhibiting poor stain uptake (especially in the ectexine layer). These characteristics indicate a high degree of oxidation. The residual organic debris resulting from this preparation consisted of numerous wood fragments, occasional leaf cuticles, abundant fungal spores, some charcoal, and some insect parts.

The palynomorphs encountered include: 17 *Pinus* spp. (pine), 5 *Carya* spp. (hickory), 3 *Quercus* spp. (oak), 2 *Ulmus* spp. (elm), 2 *Sphagnum*-like spores (likely peat moss), 4 *Asparagus* (?), and 2 *Allium* (?; possibly onion, although the spores are somewhat similar to lily or wild onion).

Area H (Garden Structure), Unit 1, Zone 3

During the bleaching process this sample began foaming (i.e., produced gas). This is something our lab has not previously seen in pollen preparations and we have no good ideas regarding the cause of this phenomenon. Regardless, only two pollen were found (*Pinus* spp.) and these were highly corroded and exhibited poor stain uptake (again, especially in the ectexine layer), indicative of a high degree of oxidation. The residual organic debris resulting from this preparation consisted of abundant, fine grained amorphous debris; granular, flocculated or fecal-derived, humic debris;

abundant as well as a wide variety of fungal spores and hyphae; some charcoal; and some insect parts.

Area H (Garden Structure), Unit 3, Zone 2

Few pollen were found and those present were highly corroded and exhibited poor stain uptake (especially in the ektexine layer). Like elsewhere, this suggests a high degree of oxidation. The residual organic debris resulting from this preparation consisted of plant tissue and wood fragments; abundant spores, hyphae, and sclerotia; and some charcoal.

Palynomorphs encountered include 2 *Pinus* spp. (pine), 2 *Carya* spp. (hickory), 2 *Quercus* spp. (oak), and one Gramineae (grass family).

Area H (Garden Structure), Unit 3, Zone 3

Like that from Unit 1, Zone 3, this sample foamed during the bleaching treatment. We can offer no explanation for the occurrence. Also like elsewhere within this structure pollen was uncommon and, when present, was highly oxidized. The residual organic debris resulting from this preparation consisted of plant tissue and wood fragments; abundant fungal spores, hyphae, and sclerotia; some charcoal; and some insect parts.

Palynomorphs encountered include one *Pinus* spp. (pine), one *Carya* spp. (hickory), one Compositae (representing any of a variety of flowering plants), and one possible moss or fern.

Area BB, Feature 1 Trash Pit

Like those samples from Area H, few pollen were present and those found were highly corroded and exhibited poor stain uptake (especially in the ektexine layer). These characteristics indicate a high degree of oxidation. The residual organic debris resulting from this preparation, however, was especially interesting. It consisted primarily of highly oxidized woody fragments (especially xylem tissues). These fragments were darkened and many were burned. Most of these woody fragments appeared to be of the same genera (a gymnospermous wood, probably *Pinus* spp.).

The only palynomorphs encountered were one *Pinus* spp. (pine) and one Compositae (representing any of a variety of flowering plants).

Area AA, Feature 2, Agricultural Ditch

Few pollen were found and those present were highly corroded and exhibited poor stain uptake. These characteristics indicate, like elsewhere on site, a high degree of oxidation. The residual organic debris resulting from this preparation consisted of miscellaneous, angular, plant tissues and wood fragments; and abundant fungal spores, hyphae, and sclerotia.

Palynomorphs encountered include seven *Pinus* spp. (pine), two *Carya* spp. (hickory), one Gramineae (grasses), and five *Sphagnum*-like spore (peat moss).

Conclusions

The pollen record from Broom Hall, while very sparse, closely parallels the ethnobotanical examinations which reveal abundant pine and oak wood charcoal, as well as the presence of both hickory and elm. It seems likely that, as suspected and previously suggested, these trees were present in the immediate area. It is also likely that both flowering plants and grasses were also present in the immediate plantation area. While neither is unexpected, this is certainly consistent with the presence of a garden. The presence of peat moss in the garden structure may be related to the use of this material in potting, although its presence may also be natural.

The discovery of what appears to be asparagus pollen at Area H lends credence to the interpretation that the building was used as a garden structure, perhaps a green house or some other building to care for tender plants. Likewise, although the species identification of onion is less well established, even the other most likely plant, the lily (*Lilium* spp.) is a domesticated plant requiring considerable attention.

VERTEBRATE FAUNAL REMAINS

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

Introduction

The vertebrate faunal collections from two historic archaeological sites adjacent to Huckhole Swamp in the Goose Creek area of Berkeley County, South Carolina, were analyzed for this study. The two sites are part of Broom Hall Plantation. Site number 38BK600 is the main plantation complex dating from the early to mid-eighteenth century into the early nineteenth century. 38BK985 is a posited plantation slave community that also dates from the mid-eighteenth century into the early nineteenth century.

The faunal assemblages were obtained from both plowzone and feature contexts, with the latter contributing the bulk of the material. Animal bone was retrieved from the plowzone by screening soil through ¼-inch mesh screen. The bone samples from the features were recovered by screening soil through ⅛-inch mesh screen. This report provides a description of the animal species found in the bone samples from the two sites, and the results of the zooarchaeological analysis of the remains.

Environmental Background

These two sites are located adjacent to a palustrine ecozone in the interior upland environmental zone of the outer coastal plain of South Carolina. The closest significant water resource is Huckhole Swamp (although a freshwater spring is known to have existed on-site and there are several fresh water sloughs feeding Huckhole Swamp from the site area). The marine environment of the nearby coast is defined as the Carolina Province, the transitional zone between the tropical fauna of the southern Atlantic and the temperate fauna of the northern Atlantic, located between Cape Hatteras, North Carolina and Cape

Canaveral, Florida (Briggs 1974; Ekman 1953).

The upland ecosystem in this area is characterized by a mixed hardwood community of oak, hickory and pine forest (Kuchler 1964). The mixed hardwood forests and areas disturbed by human activity provide excellent combinations of browse and cover for deer, and even higher densities of this mammal may be found in the edge zone between the upland environment and the palustrine zone (Moore and Bevill 1978:9). Other wild mammals frequently found in this zone are squirrels, opossums, and raccoons (Sandifer et al. 1980:473-478). The only terrestrial turtle found in any frequency in this environment is the Eastern box turtle, although freshwater turtles such as cooters and mud turtles may occasionally be observed (Sandifer et al. 1980:457). The turkey is especially common to mixed hardwood forests where mature oaks are found (Moore and Bevill 1978:41-43).

Given the location of Broom Hall plantation adjacent to Huckhole Swamp, the palustrine ecozone is an important resource area for the site's inhabitants. The palustrine ecosystem in the vicinity of the plantation include areas of forested wetlands and swamp. Diking this wetland/swamp created the rice fields that were the economic basis of Broom Hall plantation during the middle of the eighteenth century (prior to this portions of the plantation were apparently used for free-ranging cattle, a common economic enterprise, see Otto 1987). The swamp is dominated by brackish and freshwater plants such as oak, sweetgum, cypress, water tupelo, swamp privet, myrtle, giant cutgrass, wild rice, cat-tails and saw grass. This ecosystem attracts a variety of mammals that are also found in the upland zone, including deer, opossum, and raccoon (Sandifer et al. 1980:313, 381-383). This environmental zone

is the most ideally suited habitat for birds such as ducks and geese in the Coastal Region (Sandifer et al. 1980:375). In addition to river cooters, slider, snapping turtles, and Florida cooters, the Carolina diamondback terrapin might also be found in the brackish waters of the wetland area (Obst 1986:113).

Within ten miles of Broom Hall plantation, two other distinct ecozones can be delineated: the riverine eco-system; and the estuarine system of the coast, which includes intertidal flats characterized by the ubiquitous intertidal oyster beds and the emergent wetland characterized by marsh grasses such as *Spartina* spp. and *Juncus* spp. Access by Broom Hall's inhabitants to these two ecosystems would have been indirect via special trips, and family and social networks.

The riverine ecosystem is a rich resource area to which Broom Hall's inhabitants would have had only indirect access. The mud riverbed is not conducive to the survival of shellfish, although some freshwater mussels such as *Elliptio* spp. may be found in the sandier areas. Approximately 24 fish species are common to the riverine system and six anadromous fish species can be found in these waters. The more important common species include catfish, largemouth bass, black crappie, white bass, and yellow perch. Also present are spotted sucker, carp, bowfin, shiner, and longnose gar. The anadromous species include shad, herring, striped bass, and sturgeon (Sandifer et al. 1980:411). Reptile species, including river cooters, slider, snapping turtles, and Florida cooters, are fairly common, although most are found along the edges of the swamps that comprise the palustrine ecosystem. Alligators are not uncommon today and may have been more common prior to extensive human pressure (Sandifer et al. 1980:419). Avifauna are relatively uncommon in many riverine ecosystems because of the tidal range and weak flow. The highest numbers of birds in the area coincide with the spring and fall migrations (Sandifer et al. 1980:420). The presence of the nearby palustrine ecosystem, however probably attracts birds to the vicinity of the archaeological sites.

The estuarine area is highly productive and

provides an environment for a number of fish in the tidal creeks. Fish such as flounder, drum, catfish, gar, and the occasional shark represent large predators which can be found at the mouths of intertidal creeks. These fish feed on other fish, including mummichog, spot, Atlantic menhaden, and silver perch, which commonly travel in schools and migrate in and out of the intertidal creeks with the tide (Cain 1973:76-77). There are also a number of fish present that can be classified as marine species, that is, those fish that either spawn in the estuary or use the area as a nursery (see Boschung et al. 1983). Members of the drum family, including black drum, silver perch, seatrout, spots, red drum, star drum, and Atlantic croaker.

Of the turtles, usually only the diamondback terrapin is present in the estuarine environment (Obst 1986:113). Bird species that can be found here include the ibis, clapper rail, and, more rarely, duck. And although deer may graze in the high marsh, the only mammals frequently found associated with the estuary are the marsh rabbit and the raccoon (Sandifer et al. 1980:259-260).

In summary, the people resident at Broom Hall plantation enjoyed access to a natural environment that abounded with a number of wild fauna species that were potential food sources. These wild resources would have been in addition to the domestic animals--cows, pigs, Caprines (sheep and goats), and chicken -- one could assume would have been the mainstays of that portion of the inhabitant's diet provided by animals. This is especially so since the plantation's economic base during the early period was liking ranching. The mixed hardwood forests, brackish waters of Huckhole Swamp, rice fields, and the more distant estuarine and riverine ecosystems define a number of diverse habitats that could be directly or indirectly exploited by the inhabitants of Broom Hall plantation.

Analytical Techniques

The faunal collections from the two sites were studied by the authors using standard zooarchaeological procedures. The comparative faunal collection at Mississippi State University

Table 78.
List of Allometric Values Utilized in this Study
to Determine Biomass in Kilograms (kg)
Based on Bone Weight Expressed in Kilograms

Faunal Category	log a	b	r ²
Mammal	1.12	0.90	0.94
Bird	1.04	0.91	0.97
Turtle	0.51	0.67	0.55
Snake	1.17	1.01	0.97
Chondrichthyes (shark)	1.68	0.86	0.85
Osteichthyes (bony fish)	0.90	0.81	0.80
Non-Perciformes	0.85	0.79	0.88
Siluriformes (catfish)	1.15	0.95	0.87
Perciformes (sea bass, bluefish)	0.93	0.83	0.76
Sparidae (porgy)	0.96	0.92	0.98
Sciaenidae (drum)	0.81	0.74	0.73
Pleuronectiformes (flounder)	1.09	0.89	0.95

Derived from Table 4 in Reitz (1985:44) and Table 2.3 in Quitmyer (1985:440). These variables are used to solve the formula $Y = aX^b$, or $\log Y + \log a + b(\log X)$; where Y is the biomass in kilograms, X is the weight of the bone in kilograms, a is the Y-intercept, b is the slope, and r² is the proportion of total variance explained by the regression model (see Reitz 1985:44; Reitz and Scarry 1985:67).

and Chicora Foundation were used to analyze the bone. The bone material was sorted to class, suborder or species, and individual bone elements were identified. The bones of all taxa and other analytical categories were also weighed and counted. The Minimum Number of Individuals (MNI) for each animal category was computed using paired bone elements and age (mature/immature) as criteria. A minimum distinction method (Grayson 1973:438) was used to determine the MNI for each collection. This method provides a conservative MNI estimate based on the total faunal assemblage from the two sites.

As a measure of zooarchaeological quantification, MNI has a number of problems (Grayson 1973:438; 1984:28-92; Klein and Cruz-Urbe 1984:26-32). How one aggregates the MNI will affect the number of individuals calculated. If MNI is calculated based on the entire site, the number will be smaller than if it is calculated for each excavation unit and totaled for the site. Use of MNI emphasizes small species over large ones. For example, a collection may have only a few large mammals, such as deer, and scores of fish. Yet, the amount of meat contributed by one deer may be many times greater than that contributed

by a score or two of fish.

Given the problems associated with MNI as a zooarchaeological measure, an estimate of biomass contributed by each taxon to the total available for use by the inhabitants of the site is also calculated. The method used here to determine biomass is based on allometry, or the biological relationship between soft tissue and bone mass. Biomass is determined using the least squares analysis of logarithmic data in which bone weight is used to predict the amount of soft tissue that might have been supported by the bone (Casteel 1978; Reitz 1982, 1985; Reitz and Cordier 1983; Reitz and Scarry 1985; Reitz et al. 1987; Wing and Brown 1979). The relationship between body weight and skeletal weight is expressed by the allometric equation $Y = aX^b$, which can also be written as $\log Y = \log a + b(\log X)$ (Simpson et al. 1960:397). In this equation, Y is the biomass in kilograms, X is the bone weight in kilograms, a is the Y-intercept for a log-log plot using the method of least squares regression and the best fit line, and b is the constant of allometry, or the slope of the line defined by the least squares regression and the best fit line. Table 78 details the constants for a and b used to solve the allometric formula for a given bone weight X for each taxon identified in the archaeological record. The results of the analysis of the faunal collections from the two archaeological sites will be presented by individual site after a short description is presented of the identified animal species.

Identified Fauna

Before considering the results of the zooarchaeological study of the faunal remains recovered from Broom Hall plantation, the general use and habitat preference for each identified species will be considered. Tables 79-81 list the various animal species identified in the archaeological collections recovered from the excavations within 38BK600 and 38BK985.

Domestic Mammals

Three animal species, cow (*Bos taurus*), pig (*Sus scrofa*), and domestic Caprine, are the only

Table 79.
Minimum Number of Individuals (MNI), Number of Bones, Weight, and Estimated Meat Yield by Species for Broom Hall's main plantation complex

Species	MNI		Number of Bones	Weight gm	Biomass	
	#	%			kg	%
Cow, <i>Bos taurus</i>	9	7.3	1152	23073.2	222.184	72.30
Pig, <i>Sus scrofa</i>	18	14.5	419	2114.6	25.860	8.40
Sheep, <i>Ovis aries</i>	9	7.3	300	1389.3	17.718	5.80
Deer, <i>Odocoileus virginianus</i>	8	6.5	187	1506.4	19.061	6.20
Raccoon, <i>Procyon lotor</i>	2	1.6	12	16.0	0.320	1.00
Opossum, <i>Didelphis virginiana</i>	5	4.1	90	109.4	1.798	0.58
Rabbit, <i>Sylvilagus</i> spp.	2	1.6	5	3.7	0.086	0.03
Domestic Dog, <i>Canis familiaris</i>	2	1.6	69	241.0	3.662	1.20
Rice Rat, <i>Oryzomys palustris</i>	1	0.8	5	0.9	0.024	0.01
Chicken, <i>Gallus gallus</i>	4	3.2	245	189.5	2.413	7.80
Turkey, <i>Meleagris gallapavo</i>	2	1.6	22	33.4	0.497	1.60
Canada Goose, <i>Branta canadensis</i>	1	0.8	3	1.7	0.033	0.01
Quail, <i>Colinus virginianus</i>	2	1.6	5	1.5	0.030	0.01
Passenger Pigeon, <i>Ectopistes migratorius</i>	3	2.4	9	2.3	0.044	0.01
Unidentified Bird	-	-	230	4.9	-	-
Cooter, <i>Pseudemys floridina</i>	21	17.0	1744	6058.7	10.819	3.51
Carolina Diamondback Terrapin, <i>Malaclemys terrapin centrata</i>	4	3.2	97	255.2	1.296	0.40
Snapping Turtle, <i>Chelydra serpentina</i>	2	1.6	2	6.1	0.107	0.03
Box Turtle, <i>Terrapene carolina</i>	3	2.4	221	56.0	0.469	0.15
Mud Turtle, <i>Kinosternon subrubrum</i>	2	1.6	14	28.8	0.300	0.10
Unidentified Turtle	-	-	63	62.7	-	-
Snake, <i>Crotalid</i> ssp.	1	0.8	1	0.6	0.008	0.003
Redhorse, <i>Maxostoma</i> sp.	2	1.6	16	5.4	0.116	0.04
Bowfin, <i>Amia calva</i>	4	3.2	20	5.3	0.116	0.04
Gar, <i>Lepisosteus</i> sp.	1	0.8	5	0.8	0.025	0.01
Sunfish, <i>Lepomis</i> sp.	2	1.6	11	0.9	0.027	0.01
Catfish, <i>Ictalurus</i> sp.	4	3.2	15	2.5	0.048	0.02
Bass, <i>Micropterus salmoides</i>	1	0.8	4	0.6	0.020	0.01
Striped Bass, <i>Morone</i> sp.	5	4.1	21	3.4	0.080	0.03
Herring, <i>Clupeidae</i> sp.	2	1.6	6	0.7	0.022	0.01
Drum, <i>Sciaenidae</i>	2	1.6	14	15.1	0.290	0.10
Unidentified Fish	-	-	44	4.7	-	-
Unidentified	-	-	10867	12599.3	-	-
Total	124	100	15918	50102.1	307.473	100

domestic mammals identified in the collection that could have been used as food resources. The domestic Caprine present is most likely the sheep (*Ovis aries*). No domestic cat (*Felis domesticus*) remains are present, but a few bone elements

identified as dog (*Canis familiaris*) are.

Pigs are one of the most important domestic mammals used for food in the Southeastern United States (see Hilliard 1972:92-111). Pigs require little care, as they can be allowed to roam free, or they can be penned. Their diet can consist of a variety of food resources, including seeds, roots, fruits, nuts, mushrooms, snakes, larvae, worms eggs, carrion, mice, small mammals, kitchen refuse, feces, and grain. Pigs store about 35% of the calories they consume, and can gain about two pounds for every 15 to 25 pounds of feed (Towne and Wentworth 1950:7-8). Within 18 months, a pig can gain up to 200 pounds, of which about 120 pounds can be consumed. Dressed, a pig carcass can yield between 65% and 80% meat. It is difficult to estimate the size of the pigs that were available to the inhabitants of Spring Island during the late eighteenth century. Prior to 1800 there were no standard breeds of pig (Gray 1933:206). An idea of the possible

size of the pigs that were available to the inhabitants of Spring Island in the late eighteenth and nineteenth centuries can be gained from the average weight of 140 pounds for 4,000 southern pigs slaughtered in 1860 (Fogel 1965:206). Pork

preserves very well, is satisfying due in part to its high fat content, and is a very good source of thiamine (Towne and Wentworth 1950:249).

This view is largely espoused by the early eighteenth century Virginia historian, Robert Beverly, who remarked that swine were 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]).

Although cattle has been an important meat source during the history of the Southeastern United States, it is in many ways a more burdensome resource to raise than pigs (see Hilliard 1972:112-140; Rouse 1973; Towne and Wentworth 1950, 1955). Cows provide less of a return for the energy input provided to raise them (Towne and Wentworth 1950:7-8). Cows feed on grain and grasses, and will not produce good weight gains without quality and quantity sources for both. Also, cattle store only about 11% of the calories they consume and yield only 50 to 60% dressed meat. Beverly 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 they were still lean and tough. In spite of this, recipes for beef are 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]). Balanced against the greater labor required to raise cattle above that required for swine and the fact that beef does not preserve as well as pork (Tomhave 1925:275), there is a demand for fresh beef, cattle hides, and a number of other foods made from milk products, such as milk, cheese, butter, and buttermilk, that can be obtained from cattle (see Hilliard 1972:119-135; Rouse 1973; Towne and Wentworth 1955).

The third domestic mammal that may have served as a food resource is the sheep. Sheep

were a minor food resource for Southern populations during the eighteenth century, declining in popularity after that period in the nineteenth century (Hilliard 1972:141-144). Carson (1985:2) suggests that sheep were never very popular because Americans quickly acquired a taste for venison instead. In fact, Harriott Pinckney Horry fails to provide any recipe for mutton. Of course, sheep were a source of wool that could be used to make clothing, primarily for home use (Hilliard 1972:141-142).

Wild Mammals

A number of wild mammals are present in the faunal assemblages from the two sites. These include deer, rabbit, raccoon and opossum.

The largest of the wild mammals in the assemblage is the white-tailed deer (*Odocoileus virginianus*). Apparently deer remained widely available in most areas of the Southeast well into the nineteenth century (Hilliard 1972:74-78). The preferred method of hunting deer was with firearms, which restricted the availability of this food resource for slaves. Permission from the slave owner or overseer would probably be required for slaves to hunt with firearms, and firearms would also have to be available for use by the slaves to hunt. The latter situation would not have been common among slave populations (Hilliard 1972:75-76). Presumably, the only uses that deer would have had were as a food resource, and perhaps for hides. In general, the deer's preferred habitat is the edge of deciduous forests and open fields, although they will move to mud flats around marshes and swamps to feed on the grasses found there.

While venison was certainly an important dietary supplement, to many plantation owners it was the result of sport — with the choice cuts appearing on their table, and the remainder sent to the slave quarters. William Elliott elaborates on his many deer hunts, often with dogs, but says relatively little about the resulting meat (Elliott 1994 [1846]). Curiously, neither Randolph's *The Virginia House-Wife* (Randolph 1984 [1824]) or Horry's colonial cook book (Horry 1984 [1770]) provide recipes for venison. In contrast, *The Kentucky Housewife*, originally published in 1839,

not only offers 13 different recipes, but it also illustrates the different cuts (Figure 80). Preparations included baking, frying, stewing, boiling, roasting, making hash, pudding, pastry, and hams.

Two rabbit species are common to the study area, the Eastern cottontail (*Sylvilagus floridanus*) and the marsh rabbit (*S. palustris*). Both white and black inhabitants of the plantations could have used rabbits as a food resource with relative ease. Because rabbits can be taken through the use of traps, slaves without access to firearms could harvest them for food (Hilliard 1972:78-79). Rabbits occupy a number of different habitats, but are usually found in marshes, swamps, thickets, overgrown fields, and along the edge of forest clearings and forest edges. Important to rabbits in their choice of habitats is access to escape cover offered by thickets, weed patches, and dense high grass. The marsh rabbit generally prefers damper ground than does the Eastern cottontail, and is somewhat more likely to be found in locations near marshes and swamps along the outer coastal plain.

Raccoon (*Procyon lotor*) bones are present in small number in the historic faunal assemblages. This mammal served as a food resource for both whites and blacks, although its meat was apparently less prized than that of the opossum (Hilliard 1972:80). Gathering raccoons could be done using firearms and hunting dogs, to which blacks would presumably have had less access than whites prior to the later portion of the nineteenth century, or they could be obtained by trapping (Hilliard 1972:80). This nocturnal mammal is able to adapt to a variety of habitats, although they prefer wooded areas near water. Huckhole Swamp would have been an ideal habitat for raccoons.

Remains of the opossum (*Didelphis virginiana*) are present in a very small quantity in the analyzed faunal samples. The opossum was generally preferred over the raccoon as a food resource because the former could be kept, fattened, and "cleaned out" by "penning and feeding them for several days on milk and bread or roasted sweet potatoes" (Hilliard 1972:80). The preferred habitat of the opossum, a nocturnal animal, is wooded areas near water (such as

Huckhole Swamp), but they are often found in and around human settlements. Silver (1990:111) remarks that the opossum was one of the animals which benefited from the changing environment, being attracted to the edge of cleared fields. This likely also includes the garden and lawn areas of Broom Hall's main plantation complex.

Rabbits, raccoons, and opossums were certainly not sport animals, being ignored by William Elliott (1994 [1846]), yet they certainly provide 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.

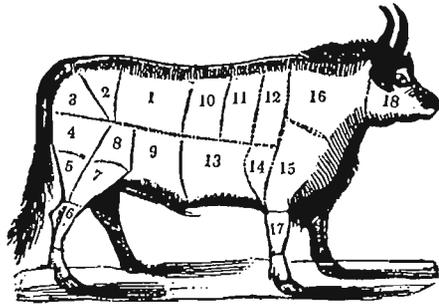
Domestic Birds

Chicken (*Gallus gallus*) is the only domestic bird species identified in the faunal samples from Broom Hall Plantation. Chicken, like pigs, can be raised either by letting them run loose or by penning them. The meat of the chicken enjoyed a high status as a food item for both whites and blacks during the eighteenth and nineteenth centuries. Also, besides serving as a meat resource, chickens supplied eggs that could be consumed and used to prepare other food dishes (Hilliard 1972:46-47).

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

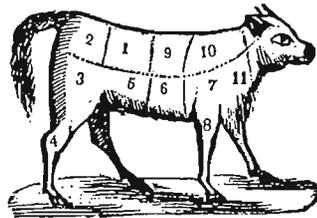
the fowl was trussed as for boiling. . . , placed in a large saucepan on top of thin layers of sliced veal, beef, and bacon, and then was covered with similar layers. Other seasonings were added — carrots, an onion stuck with cloves, mace, pepper, salt, sweet herbs — and the whole was stewed gently for an hour or so. When the fowl was tender it was

BEEF.



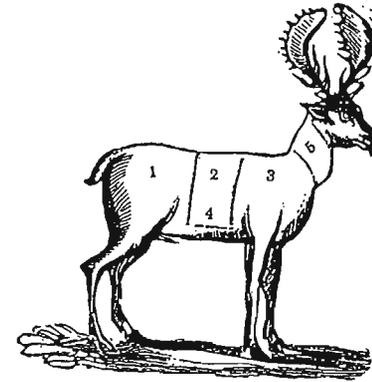
- | | | |
|-----------------|------------------------|--------------------|
| 1. Sirloin. | 7. Thin mouse-piece. | 13. Brisket. |
| 2. Rump. | 8. Veiny Piece. | 14. Thick Brisket. |
| 3. Edge-bone. | 9. Flank or Thin Loin. | 15. Shoulder. |
| 4. Round. | 10. Seventh Ribs. | 16. Neck. |
| 5. Mouse-piece. | 11. Middle Ribs. | 17. Shin. |
| 6. Leg. | 12. Fore Ribs. | 18. Cheek. |

VEAL.



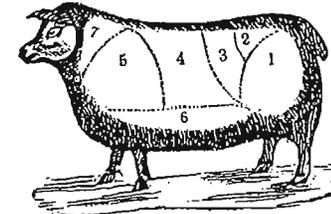
- | | | |
|---------------------|-----------------------------|----------------------------|
| 1. Loin, best end. | 5. Flank. | 9. Neck, best end or rack. |
| 2. Loin, chump end. | 6. Breast, best end. | 10. Neck, scrag end. |
| 3. Fillet. | 7. Shoulder, or blade bone. | 11. Breast, brisket end. |
| 4. Knuckle. | 8. Fore Knuckle. | |

VENISON.



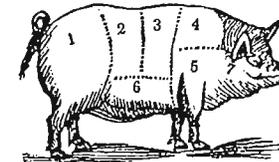
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|---------------------|--------------|--------------------|
| 1. Haunch, or Hams. | 3. Shoulder. | 5. Scrag, or neck. |
| 2. Ribs. | 4. Breast. | |

MUTTON.



- | | | |
|-----------|----------------------------|--------------------|
| 1. Leg. | 4. Rack or neck, best end. | 6. Breast. |
| 2. Chump. | 5. Shoulder. | 7. Neck scrag end. |
| 3. Loin. | | |

PORK.



- | | | |
|----------------------------------|----------------------|-------------------------|
| 1. Leg of Pork, or Ham of Bacon. | 3. Thin Rib. | 6. Middling. |
| 2. Loin. | 4. Spare Rib. | 7. Chop, cheek or jowl. |
| | 5. Hand or Shoulder. | |

Figure 80. Cuts of meat, adapted from *The Kentucky Housewife*, published in 1839.

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).

Wild Birds

Four wild bird species — turkey, Canada goose, passenger pigeon and bobwhite quail — are present in the collection.

Turkey (*Meleagris gallapavo*) was a valued food resource for antebellum whites and blacks (Hilliard 1972:80-81). Although hunting with firearms is one method used to acquire wild turkeys, there is little likelihood that slaves, who had limited access to firearms, would have been able to use this technique to hunt the animal. Another common technique to take wild turkeys is by trapping (Hilliard 1972:80). However, because wild turkeys tend to avoid inhabited areas, there would have been less chance for slaves, and probably for other segments of the plantations populations, to encounter them.

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] 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).

Canada goose (*Branta canadensis*) is a migratory waterfowl that, as a wild species, winters along the Carolina coast where fresh water sources are present (Potter et al. 1980:79). The Canada goose was also domesticated during the late 1800s, and by the end of the century standards of excellence for wild Canada geese as a poultry breed had been established (Johnson and Brown 1903). It is probable that the specimen present in the main plantation complex was a wild species. William Elliott mentions only that the "smaller variety is much esteemed, while the larger is in little request; its flesh being hard, and often fishy" (Elliott 1994:244 [1846]). Perhaps supporting this contention, period cookbooks seem to ignore goose, perhaps lumping it in with other birds and poultry.

Surprising, no remains of another common migratory waterfowl, duck (*Anas* spp.) are present in the faunal assemblages. A number of duck species, including the mallard (*Anas platyrhynchos*), black duck (*A. rubripes*), common teal (*A. crecca*), and American wigeon (*A. americana*), commonly winter along the Carolina coast, and a small number may live year-round on the coast (Potter et al. 1980:89-90).

Bobwhite quail (*Colinus virginianus*) is an

important small game bird present in the faunal sample from 38BK600. Quail are found in open areas, especially old fields. This game bird could be captured in large numbers through the use of a trap, or by hunting with firearms (Hilliard 1972:83). Elliott comments that it is taken in October and November, "when just full fledged, and fresh from the gleanings of the peafield," noting that they are a "great dainty" (Elliott 1994:242 [1846]). Typically called "partridges" in cookbooks, Mary Randolph of Virginia suggested roasting them wrapped in bacon to keep their flesh white (Randolph 1984:187 [1824] and often an *a-la-daube* approach was used — sometimes braising the bird and at other times preparing it with a sparkling jelly (suggested by some to be a French Creole inspiration).

The fourth wild bird species, passenger pigeon (*Ectopistes migratorus*) is seldom reported for historic period faunal assemblages of the Carolina Coastal Plain. These birds were fall and winter seasonal occupants of the Carolinas, with spring and summer usually being spent in the northeastern United States. Flocks of passenger pigeons were unpredictable in roosting habits from year to year, although the species preferred forested areas (Lawson 1967:50, 217). Passenger pigeons became extinct during the mid-nineteenth century and William Elliott remarked that in his early nineteenth century experiences that the bird, "marks us but occasional visits" (Elliott 1994:242 [1846]). Some birds were simply taken at night by torchlight, being beaten from their low roosts with sticks (Horry 1984:54 [1770]; see also Silver 1990:101). Such small birds might be stewed, with one recipe instructing that they be stuffed with their livers, a little thyme, parsley, chives, breadcrumbs, mace, salt, and butter and stewed with only a spoonful of water (Hess and Hess 1989:89). Harriott Pinckney Horry offers a recipe for stew'd pigeons in 1770 (Horry 1984:55-54[1770]).

Reptiles: Turtles

A total of five different species of turtle are present in the faunal collections--cooter, Carolina diamondback terrapin, snapping turtle, mud turtles, and Eastern box turtles.

A turtle species that probably would have been found in large quantities in Huckhole Swamp is the cooter (probably *Chrysemys floridana*). This turtle is found primarily in and around bodies of freshwater such as ponds, swamps, rivers, and canals (Obst 1986:109-111), and on occasion in brackish waters. These turtles use the land to lay their eggs at some distance from water, to sun themselves, and occasionally to feed. During the eighteenth and nineteenth centuries in the south, the cooter was used as a food resource (Hilliard 1972:89).

The Carolina diamondback terrapin (*Malaclemys terrapin centrata*) is a turtle that feeds on marine molluscs and is usually found in an estuarine setting or in brackish lakes and marshes along the coastal strip (Obst 1986:113). The Carolina diamondback terrapin inhabits the Atlantic Coast from North Carolina to Florida (Obst 1986:214). The diamondback terrapin was an important food resource in the southeast (Hilliard 1972:89) that became an accepted delicacy throughout the United States during the nineteenth and early twentieth centuries (Obst 1986:113, 183). The taste of the diamondback terrapin flesh is considered to lie between that of chicken and fish. It was only the enactment of protective legislation about 70 years ago that prevented the extinction of the diamondback terrapin (Obst 1986:113). This resident of the coastal marshes, tidal flats, coves, estuaries and the lagoons behind barrier beaches can also be found in brackish water environs on occasion with other turtles including mud turtles and cooters (Ernst and Barbour 1972:105).

Remains of snapping turtles (*Chelydra serpentina*) are common in the faunal assemblages. Snapping turtles are found in diverse forms of water such as swamps, rivers, and canals. This turtle is a true aquatic inhabitant of the bank regions of water sources, only rarely leaving the water (Obst 1986:109-111). It would have been used as a food resource.

Another turtle present in small quantities in the faunal collections is the mud turtle (*Kinosternon* spp.). This turtle also dwells in the water, and it is usually found near freshwater sources such as swamps (Obst 1986:109) and on

occasion in brackish water. Mud turtles could possibly have been used as a food resource.

The last turtle species identified in the collections is the Eastern box turtle (*Terrapene carolina carolina*). This turtle is widespread throughout the southeast, and is adaptable to both aquatic and terrestrial habitats. Box turtles can be found near permanent bodies of water, or in open, mixed forests where the climate is hot and dry in the summer and the winters are mild (Obst 1986:106). Hilliard (1972:89) notes that "box terrapin" was used as a food resource during the nineteenth century in the south.

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 aspect of all recipes seems to be the use of cayenne seasoning. While turtles seem to have been accessible to the Broom Hall residents, they were enough of a luxury to other cooks that several cookbooks provided recipes for mock turtle soup, using a calves head.

Pisces

The fish identified in the faunal samples from the five sites include freshwater, anadromous and marine species. Their numbers and biomass indicate the importance of this class as a food resource. The freshwater species identified include gar, bowfin, redhorse, catfish, bass, and sunfish. The anadromous species identified are herring and striped bass. Drum is the sole marine species present.

The bowfin (*Amis calva*) is commonly found in sluggish, clear, often vegetated, lowland waters of the Carolina Coastal Plain, and average between 45 and 87 centimeters in total length (Lee et al. 1980:53-54). The redhorse (*Moxostoma* sp.)

is a member of the Catostomidae, or sucker, family of fish. Redhorse is found in large streams, rivers, swamps, natural lakes, and impoundments of the Carolina Coastal Plain. This fish ranges from 21 to 60 centimeters in length (Lee et al. 1980:427-428).

A number of catfish (*Ictalurus* spp.) are present in the faunal collections. The bullhead catfish (*Ictalurus natulus*) is found in pools and backwaters of sluggish streams, usually in areas of heavy vegetation (Lee et al. 1980:442). The most common freshwater catfish found in the sluggish and low salinity waters of South Carolina is the white catfish (*Ictalurus catus*) (Wenner et al. 1981). Hilliard (1972:85-86) notes that catfish were a very important food fish throughout the South that could be taken with a variety of techniques including traps, trot lines, and set hooks that could be left untended.

Gar (probably longnose gar, *Lepisosteus ossues*) is one of the identified fish that could have been taken from a freshwater habitat as well as an estuarine setting. Longnose gar are commonly found up to 150 centimeters in length and inhabit both fresh and brackish waters of swamps, larger streams and coastal inlets throughout the Coastal Plain of the Carolinas (Lee et al. 1980:49-50). These fish were probably taken as individuals with a hook and line, or possibly in traps.

The sunfish (*Lepomis* spp.) class comprise a number of species that inhabit the a wide variety of habitats including rivers, creeks, ponds, lakes, slow moving/sluggish bodies of water, swamps, and areas of brackish water of the Coastal Plain. These fish are also found in areas with varying amounts of aquatic vegetation. Typical species include redbreast sunfish (*Lepomis auritus*), warmouth (*Lepomis gulosus*), bluegill (*Lepomis macrochirus*), redear sunfish (*Lepomis microlophus*), and spotted sunfish (*Lepomis punctatus*). Sunfish vary between 4 and 26 centimeters in size (Lee et al. 1980:588-603).

The largemouth bass (*Micropterus salmoides*) is a freshwater species that prefers clear, quiet waters with aquatic vegetation. The adults range in size from 12 to 79 centimeters in length (Lee et al. 1980:608).

Herring (Clupeidae) comprise a number of anadromous species that ascend most coastal rivers during spring spawning migrations. These fish generally range between 20 and 30 centimeters in length. Typical species that may have been present in the South Carolina Coastal Plain include blueback herring (*Alosa aestivalis*), American shad (*A. sapidissima*), and hickory shad (*A. mediocris*) (Lee et al. 1980:61-68).

The other anadromous species present is the striped bass (*Morone* spp.). This fish is a marine and estuarine coastal species that moves far upstream in rivers during spawning migrations. Adults are predatory on fish and larger crustaceans. Striped bass range from 45 to 200 centimeters in length (Lee et al. 1980:576).

The only marine fish species is drum. Marine species are those fish that either spawn in the estuary, use the area as a nursery, or use the area to feed (see Boschung et al. 1983). Members of the drum family (Scianidae) include black drum (*Pongias cromis*), silver perch (*Bairdiella chrysoura*), seatrout (*Cynoscion* spp.), spots (*Leiostomus xanthurus*), red drum (*Sciaenops ocellatus*), star drum (*Stellifer lanceolatus*), and Atlantic croaker (*Micropogonias undulatus*). All of these drums are commonly found in bays and estuaries. The star drum and the Atlantic croaker are good seasonal indicators, being present in the estuarine system from early spring with a maximum availability in the late fall.

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 Broom Hall plantation is not near any estuarine 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).

Fish were prepared in a variety of ways, including boiling, frying, stewing, baking, and roasting in the embers of the fire. Its clear, however, that even by the first quarter of the nineteenth century, there were strong feelings concerning different fish. Mary Randolph, for example, describes a catfish soup noting that it was "an excellent Dish for those who have not imbibed a needless prejudice against those delicious Fish" (Randolph 1984:37 [1824]).

Commensal Species

Commensal species include animals commonly found near human occupations that are not generally considered to be food resources. Such animals include pets, pests, vermin, and animals that prey on pests and vermin, such as

dogs, snakes, amphibians, rats and mice. The three commensals present in these faunal assemblages include dog, rice rat and snake. The domestic dog (*Canis familiaris*) remains appear to be from a pet that would have been useful in controlling the other pests and vermin inhabiting a plantation setting, in hunting, and perhaps in control of the plantation's human slave population. The rice rat (*Oryzomys palustris*) is a major crop pest that prefers wet or marshy areas, but is found wherever food resources are abundant. The snake present is a poisonous variety (*Crotalid* spp.), which includes copperhead, water moccasin, and rattlesnake.

The Results of the Faunal Analysis for 38BK600

Before discussing the results of the results of the analysis of the faunal assemblages from the two sites, a few comments concerning the bone samples themselves need to be offered. In general, faunal samples need to contain at least 200 individuals or 1400 identifiable bones in order to provide reliable interpretations of the analysis (Grayson 1979, 1984; Wing and Brown 1979). Examination of Table 79 indicates that while 200 individuals (n=124) are not present at the main plantation complex, 38BK600, 4714 identifiable bone elements are present. However, the faunal collection results for the slave community at Broom Hall, 38BK985, listed in Tables 80 and 81 are not large enough samples by either MNI or bone element count on which to base inferences or interpretations. The comments that follow concerning the fauna and faunal usage in the following pages will focus on the main house complex at Broom Hall.

As would be expected, domestic vertebrates — pig, cow, chicken, and sheep — account for a large majority of the biomass total calculated for 38BK600. Although cow represents over 72% (222.184 kg) of the total biomass at the main plantation complex, only 7.3% (n=9) of the total MNI identified are cow. Pig accounts for less biomass, 8.4% (25.860 kg) than does cow. However, pig has more individuals present (15%, n=18). The sheep remains account for 5.8% (17.718 kg) of the biomass and 7.3% (n=9) of the number of individual fauna present.

Chicken has a different pattern, providing 7.8% (2.41 kg) of the total biomass at 38BK600, while representing 3.2% (n=4) of the individuals in the main complex assemblage.

The wild fauna taxa are well represented in the Broom Hall main complex collection. The five most important wild species according to biomass are deer (19.06 kg, 6.2%); cooter (10.819 kg, 3.5%), opossum (1.798 kg, 0.6%), Diamondback terrapin (1.296 kg, 0.2%) and turkey (0.497 kg, 1.6%). Following these species according to biomass are raccoon, box turtle, snapping turtle, mud turtle, drum, bowfin, redhorse, rabbit, striped bass, and catfish.

By MNI, the order is cooter (n=21, 16.9%), deer (n=8, 6.5%), opossum (n=5, 4.0%), striped bass (n=5, 4.0%), and Diamondback terrapin, bowfin, and catfish, all with four individuals (n=4, 3.2%) each.

The Results of the Faunal Analysis for 38BK985

Table 80 summarizes the identified faunal material recovered from area AA of 38BK985. This is a posited domicile area of the slave community at Broom Hall. Table 81 summarizes the identified faunal material recovered from area BB, a posited slave driver or overseer locale within the Broom Hall slave community. The animal remains present — cow, pig, sheep, cooter and chicken — are what would be expected to be found at both locales. The small sample sizes from these two loci at 38BK985 inhibits further interpretation.

Conclusions

The faunal collection from the Broom Hall plantation's main complex is dominated by domestic species — cow, pig and sheep — when the biomass total is examined. Given that this site is a developed historic plantation, this is not unexpected. These domestic fauna were supplemented by wild animal species that were extracted from the plantation and its surrounding environs. Animals from each of the ecosystems adjacent to Broom Hall — upland forest and palustrine — were exploited. It also appears that the human altered ecosystem that is the plantation complex itself served as another resource area for

Table 80.
Minimum Number of Individuals (MNI), Number of Bones, and Weight by Species for Area AA of the Slave Settlement, 38BK985

Species	MNI #	Number of bones	Weight gm
Cow, <i>Bos taurus</i>	1	13	302.0
Pig, <i>Sus scrofa</i>	1	7	14.2
Cooter, <i>Pseudemys floridina</i>	1	8	17.1
Unidentified	-	134	178.2
Total	3	162	511.5

wild game such as deer, quail, raccoon, opossum, turtles, and a variety of fish. The presence of a few riverine species (striped bass, herring and the other freshwater fish) and one estuarine species (drum) also suggests that the inhabitants of the inland sites interacted with the riverine and estuarine/coastal environments, or with the inhabitants of the riverine and estuarine/coastal environments.

It is also possible to compare the assemblage to other collections. Reitz (1984:14-15; 1987) proposed a number of hypotheses about the vertebrate faunal composition of the diet of Carolina urban and rural sites from the late eighteenth into the middle of the nineteenth centuries. In general she suggests that urban residents used more domestic species, especially domesticated birds. As a consequence, wild animals are found to a lesser extent at urban sites and fewer wild species are recovered. Table 82 shows the MNI percentages determined for each of the seven general faunal categories (domestic mammals, domestic birds, wild mammals, wild birds, reptiles, fish, and commensals) for the Broom Hall main settlement (38BK600) and the slave settlement (38BK985) with composite percentages computed by Reitz (1984:24; 1988) for Urban, Rural, and Slave contexts in the southern Atlanta Coastal Plain. No other appropriate eighteenth century comparative assemblages have been identified.

The Broom Hall slave assemblage does not conform to Reitz's Slave Pattern, and it also fails

to resemble any other pattern. Domestic mammals comprise half of the collection, with domestic birds contributing an additional 20%, for a domestic total of 70%. Wild animals account for only 10% and no wild birds were recovered. Although 20% of the MNI were reptiles, fish were also absent.

Although it is easy to ignore or discount this collection because of its small size, since the collection methods were identical between the two sites, and features (with resulting finer recovery techniques) were also present, it seems likely that the slave materials are minimally representative of different foodway patterns. First, they suggest (not unexpectedly) that less variety was present in the slave house than was found on the planter's table. A number of wild animal and fish resources, likely procured by slaves, went directly to the owner, by-

Table 81.
Minimum Number of Individuals (MNI), Number of Bones, and Weight by Species for Area BB of the Slave Settlement, 38BK985

Species	MNI #	Number of bones	Weight gm
Cow, <i>Bos taurus</i>	1	13	302.0
Pig, <i>Sus scrofa</i>	1	7	14.2
Sheep, <i>Ovis aries</i>	1	5	12.7
Opossum, <i>Didelphis virginiana</i>	1	3	2.9
Chicken, <i>Gallus gallus</i>	2	4	3.1
Cooter, <i>Pseudemys floridina</i>	1	4	14.9
Total	7	36	349.8

passing the slaves. In addition, the collections may suggest that the slaves had relatively little free time to supplement their diet, hence the reduced or absent levels of fish, wild birds, and wild mammals.

The main plantation assemblage at Broom Hall might be expected to closely resemble the Rural Pattern proposed by Reitz. Curiously, in many respects it compares more favorably with Reitz's Urban Pattern. Domestic animals account for 29.3% of the assemblage at Broom Hall and an average of 28.9% at urban sites. Wild birds at Broom Hall are 6.5% of the MNI, while at Urban sites they account for about 7.6%. The percentage

Table 82.
Comparison of the Broom Hall Faunal Categories by MNI Percentages with Various other Faunal Category Patterns

Faunal Category	38BK600	38BK985	Urban	Rural	Slave
Domestic animals	29.3	50.0	28.9	17.2	20.5
Domestic birds	3.3	20.0	19.7	4.1	3.0
Wild animals	13.8	10.0	8.1	19.2	24.7
Wild birds	6.5	-	7.6	3.0	2.1
Reptiles	26.0	20.0	19.7	38.4	36.6
Fish	18.6	-	19.7	38.4	36.6
Commensals	2.5	-	10.6	4.3	2.8

Data for the Slave Pattern are derived from Reitz (1984:Table 7). Data for the Urban and Rural patterns are from Reitz (1988) and are for materials from the late eighteenth and early nineteenth century coastal contexts.

of fish is also very similar — 18.6% at Broom Hall and 19.7% at urban sites. In other respects, however, Broom Hall assumes a clearly rural pattern. For example, domestic birds account for 3.3% of the Broom Hall assemblage, much closer to the 4.1% expected at a rural sites than the 19.7% found at urban sites. Likewise, wild animals are much more common, accounting for 13.8% of the Broom Hall collection compared to 19.2% at rural sites but only 8.1% at urban sites. The contribution of reptiles and commensals is also what would be expected at a rural, rather than urban, site.

The main Broom Hall settlement, therefore, seems to fall into the middle of the rural-urban continuum. One obvious explanation (ignoring the possibilities of sample bias and inadequate sample size for either this collection or Reitz's patterns) is that Broom Hall represents a very high status occupation. The wealth, prestige, and power of the Taylors and Smiths may have tempered the "rustic" rural foodways, bringing them in closer agreement with the "genteel society" of Charleston.

BROOM HALL: A RETROSPECTIVE

This final section will serve not only to offer conclusions concerning the excavations at Broom Hall, but also to provide a retrospective of the investigations — nearly six years after the field work was conducted. This long period between shovel and computer was both beneficial and detrimental. Regardless, it was unavoidable and, more than anything else, should remind us all how tenuous the laws and regulations are which offer protection to the public's significant historic resources. Rather reflect on what "should have been done," or even what "could have been done," we have tried consistently in this study to recount what *was done*.

Methodological Issues

Fieldwork to Report Production: The Importance of Documentation

One of the most obvious issue is that six years is a long time *not* to review field notes or examine methodological issues. While most of our questions were eventually answered, even what we thought of as complete, detailed notes, tended to fail us after six years. Fortunately the notes were technically complete (i.e., drawings were present, scales were indicated, north was indicated). What more often was lacking were the thoughts and reasonings behind different field choices. Why were units laid in where they were? Why were zone designations made?

This has served as a lesson to us that field records, rather than being supplemental, are the essential link between the methodology of archaeology and the final result — a publication of relevance to both the professional and the lay communities. It seems that there cannot be *too* much redundancy, *too* many observations, or *too* many reviews of the field notes.

We found, also, that a secondary line of methodological clarification, the photographic

record (including both black and white negatives and color slides), was not nearly as complete as it might be, especially if we wished to truly understand what went on six years earlier. While every unit was photographed, we noticed that the record would have been improved by having twice to three times as many photographs. It would have helped to have had access to a series of images showing excavations in process.

Considering that at most color slide processing accounts for less than 35¢ per image, with black and white costs being only a fraction of this, there is no economic reason for more photographs not being routinely taken in the field. The only problem, as archaeologists realize, is taking the time to do so. Certainly the Broom Hall excavations pointed out, time after time, that more time should have been devoted to this task.

Translating Testing Into Data Recovery and the Totality of the Landscape

Moving on to perhaps more sophisticated methodological issues, we were impressed with the very high degree of accuracy achieved by Garrow and Associates' relatively close interval shovel testing of the plantation. While it certainly did not identify *every* structure or artifact concentration, it provided a very firm foundation for the research. Curiously, even today, six years later, not all archaeologists go into regulatory mandated data recovery with as good a data base as we were fortunate to have at Broom Hall.

With the increasing interest in the exploration of landscapes (see, for example, the edited volume on landscape archaeology in South Carolina by Stine et al. [1993] and the National Register Bulletin on historic landscapes by McClelland et al. [n.d.]) it seems strange that more projects are not incorporating the same large scale geographic orientation which marked Garrow and Associates initial study. Only by exploring the

entirety of the plantation complex is it possible to understand how the landscape was affected by the plantation owner. Although the investigations at Broom Hall did not (by prior agreement) incorporate the main house and two flankers (which were to be green spaced), they did cover a very large area, providing a remarkable overview of the different types of architectural, landscape, and archaeological features present.

The research at Broom Hall also points out, perhaps more clearly than any previous plantation research in South Carolina (see, however, our similar observations concerning the exploration of the Shoolbred Plantation landscape on Kiawah Island in Trinkley [1993a]), the importance of looking beyond the main house, or even a few plantation buildings in the main complex. It is Donald Meining (1979) who has found at least *ten different ways* of defining the same landscape — as nature, habitat, artifact, system, problem, wealth, ideology, history, place, and aesthetic. While this list may not be exhaustive, it certainly points out the breadth and depth of landscape issues, why archaeologists should be more concerned with landscape issues, and how important it is to do more than excavate a few units at the "main house." What we are missing, but is within our grasp, far exceeds what we are typically recovering from plantation studies.

While we certainly do not wish to set Broom Hall up as the ideal, we are confident that with Garrow and Associates' thorough survey and our willingness to take even small samples from a broad area of the plantation, we have a better understanding than we would have otherwise. Broom Hall, for example, provides us with information on yard areas, a garden structure, a stable, and possible servant's quarters.

In spite of this, our concern for landscape was not adequate to ensure that (1) the garden was accurately or adequately mapped, (2) that plants were thoroughly explored for evidence of cultivars, (3) that pollen samples were recovered from a broad area of the garden, or (4) that the formal symmetry of the plantation was fully recognized. The best we were able to accomplish in each area was a brief exploration — hardly more than enough to demonstrate that, in the future, such

work on similar sites should be considered as essential as excavations themselves.

Exploration of Slavery

One of the more obvious failures of this project was to thoroughly document eighteenth century slave lifeways. Although (as discussed below) we are proud of advances made in Colono ware research, we realize that the site failed to reveal documented architectural remains from the slave settlement. In fact, the 300 square feet excavated is, in retrospect, a pitifully small sample for so important a group of people. We, however, stand by the decision to abandon our efforts at this portion of the site to focus on the main complex. We were unprepared for either the extent, or depth, of the plowzone deposits at 38BK985. The difference in our understanding of the two sites — 38BK600 and 38BK985 — is at least in part the result of the different survey approaches used by Garrow and Associates. Where close interval shovel tests were conducted, we knew a great deal about the site and what to expect. Where typical survey intervals were used, an admittedly common practice, we knew much less. In fact, when Figures x and x are compared (showing artifact density based on shovel tests and close interval auger tests) this concern becomes all too clear.

Stripping 38BK985 would have been a viable alternative, as would have been large scale block excavations. Resources — time, personnel, and equipment — did not allow the latter approach and these same concerns, added to that of very dense vegetation, precluded the former methodology.

Interdisciplinary Research

We were considerably more successful in some areas of interdisciplinary research than others. While the pollen samples available for study were limited, they were expertly studied. Likewise, the faunal and ethnobotanical remains each add their own story to our overall understanding of the plantation. Perhaps, however, the greatest success in new methodological research comes from the ground-breaking chemical, mineralogical, and petrological study of the Colono ware pottery (described by Dr. Michael

Smith in Appendix 2). Certainly we have not "solved" the major question of who made what pottery, but we have come closer by identifying the methodology by which historical archaeologists can move past counting sherds and begin to actually study their collections. In this regard we owe much to the early study by Anthony (1986).

We are equally satisfied with our examination of the porcelains from Broom Hall. Traditionally, it seems, relatively few porcelains are recovered and relatively little effort has been devoted toward attempting to understand what they can tell us about either the wealth and status of the plantation owner, or how the plantation interacted on the world market. At Broom Hall our work with a museum curator specializing in oriental export porcelains, Ms. Amanda Lange, provided the opportunity to better understand the collection and to explore how this collection fit into the broader context of the porcelains being introduced to America from China, via England.

Although less impressive than either Smith's study of Colono wares or the exploration of porcelains, but no less an important addition to the body of information concerning late eighteenth century plantations, is the analysis by George Fore of the paint on plaster samples recovered from the garden structure. When data are often collected under the most trying of field conditions, and collections are then processed hurriedly, that the paint survived for study is a tribute to the excavation techniques of the field crew at this structure, Natalie Adams, Karrie Joseph, and Liz Pinckney, and care given to the collections by Chicora's lab director, Debi Hacker. Although the results are not extraordinary, nor even unexpected, this is one of the few paint studies from an archaeological provenience of this time period and on a non-domestic structure.

Research Questions

A broad range of research questions were outlined in the initial section of this study. Much of this research was oriented toward the exploration of the "Georgian World View" and how planters chose to display their wealth. The historic research clearly reveals that Goose Creek was unusual. In the late Colonial period when wealth was largely composed of slave property, the Goose

Creek planters stood out. Not only were there few non-slave owners, but there were many who owned a very large number of slaves. Waterhouse (1989:70) for example notes that 27% of the Goose Creek taxpayers in 1745 owned more than 50 slaves, compared to St. George's Parish were only 6% owned that many slaves or Edisto, where only 2% of the planters owned so much chattel property. Goose Creek, during the Colonial period, attracted and produced some of the very wealthiest planters in South Carolina. Goose Creek was equally unique politically, producing a long line of South Carolina's elite leaders. And finally, Goose Creek was the premier resort of Carolina — the eventual home of the wealthiest merchants who chose to leave the cares of the business world behind them. Rogers (1969:15) notes that Goose Creek was where aspiring landed gentlemen chose to settle in the eighteenth century. The result of this particular mixture of wealth, power, and those creating country seats was equally unique in South Carolina. Rogers observes that in this region were:

Laurens' Mepkin and Middleton's Crowfield, on Goose Creek Garden's Otranto, Izard's The Elms, and Manigault's The Oaks, the last with its temples and bridges in the Chinese fashion. . . . The foreign travelers, from the Duke de la Rochefoucauld to the Rev. Abiel Abbot, never missed this tour of country places (Rogers 1969:86).

Goose Creek, however, followed a fairly common pattern of historic settlement. It began first as a location where speculators, primarily from the West Indies, purchased vast tracts, occasionally subdividing them for profit. Next came settlement, in this case beginning at the turn at the eighteenth century. About the same time rice was found to be a profitable swamp crop and this made the Goose Creek area even more attractive, as well as profitable. The height of settlement and prosperity occurred around the 1730s and 1740s. By the 1750s the area was in economic decline. In spite of this, it maintained its exclusivity and was transformed into an area of grand country seats, with economic profitability being provided by other plantations in other locations.

The lifestyle developed in eighteenth century Goose Creek came to epitomize the planter class, genteel life, and polite society. How this lifestyle affected both planter and slave guided the formation of our research.

At the Broom Hall main settlement there is a massive accumulation of high status items — the artifacts of affluence — with Feature 1, underlying Area C, being a particularly good repository. It is suggested to represent a building intentionally demolished and filled in with plantation trash, likely from a change in ownership in the first quarter of the nineteenth century. The feature appears to contain large quantities of materials from the main house curated over the plantation's history, incorporating materials from the ownership of Peter Taylor, Thomas Smith, and Peter Smith.

Pattern Analysis

When all of the different artifact classes are examined, they are found to very closely resemble the Revised Carolina Artifact Pattern — based on white, middling status, eighteenth century sites. In fact, most every excavation area produced very similar results, regardless of posited building function or even excavation size. Within certain parameters, almost all areas of the plantation produced an assemblage of artifacts that fit this pattern. The stable area produced a pattern not dissimilar to that from the posited servant's quarters. Area C and Feature 1 both yielded a ratio of kitchen artifacts to architectural remains that is superficially similar to a slave pattern. Even a brief inspection of the assemblage, however, reveals the exceptionally high status of the remains and that these are certainly not the deposits of slavery. It could be argued that the low architectural percentage is the result of the assemblage largely being trash and that architectural remains, such as hinges and door locks were too valuable, or too durable, to be considered trash. We doubt this is the case. The architectural items were no more valuable on a per piece basis than the Chinese export porcelain or the engraved Madeira decanters. Although hardware is more durable, we see in the collection fragments of pewter, consistently saved during the eighteenth century to be remelted and reformed.

So durability was not really an issue. Likewise, it could be argued that few architectural items were present since the structure appears to have been intentionally demolished, with even its foundation robbed out. This remains a possibility. But if that were the case, it seems that a number of potentially valuable architectural items were missed. Why rob a foundation and leave behind locks, hinges, and pintles? At other sites where salvage has taken place, one notable being the Stoney/Baynard Plantation on Hilton Head Island (St. Lukes Parish), virtually no architectural remains were left.

We must at least consider the possibility that the kitchen group artifact percentage is high in relationship to the architectural items because wealth was more clearly displayed by the artifacts archaeologists tend to include in the kitchen group and was less clearly displayed by items surviving in the architectural category. Plaster, some with adhering pigment, large quantities of expensive imported slate, examples of imported white and black marble, are all architectural items indicating extraordinary wealth and refinement, but they do not find their way into the artifact pattern analysis. There is no way, for example, of weighting the architectural class to indicate the presence of these items. Likewise, delft skirting or chimney tiles are lumped in with nails, hiding or overwhelming the status implied by one with the sheer numbers of the other. On the other hand, the large quantities of expensive porcelain, the crystal wine glasses, and the finger bowls, are found and are tabulated in the kitchen group.

Kennedy and Roberts (1993:146), following the earlier research by Zierden et al. (1986:7-102), note that at a plantation in Prince Williams Parish (Beaufort County) post-dating the Yemassee War, the percentage of arms items is lower than earlier assemblages, indicating the relative peace and stability of the colony. With an Arms Artifact Group contribution of less than 0.1%, it seems likely that Broom Hall was assured of relative peacefulness. This is even more certain when the arms items are examined. Several are related to the military activities in the Charleston area during the American Revolution, others consist of gunflints, but most are lead shot of sizes typically used in hunting. In other words, not only are arms artifacts not abundant, but those present

are largely associated with sporting or hunting, not protection.

Although Broom Hall fits the pattern identified for middling status eighteenth century sites occupied by whites, we should be careful how far we push, or pull, the artifact pattern data. It doesn't seem likely, for example, that based on the evidence we have now, that the established patterns can help us much resolving issues of status and wealth.

Porcelains as Indicators of Wealth

In many respects the lifestyle revealed by Broom Hall was comparable to that of the most opulent urban Charlestonian. Artifacts include expensive porcelains, ceramics representative of the elaborate tea ritual, beautifully crafted cut glass wine decanters, finger bowls, evidence of punch drinking, pewter ware, elaborately decorated furniture items, a wide range of personal goods, plated shoe buckles, silver and gold plated buttons, clock parts, riding and stable items suggestive of carriages and coaches, and fine jewelry items.

At many eighteenth century plantations in the Charleston area, such as Elfe, Magnolia, and Green Grove, porcelains ranged from about 6% to 9%. At even the wealthiest plantations examined, such as Archdale, Crowfield, and Drayton Hall, porcelains typically comprise between 10% and 17% of the collection. Similar ranges are reported by Gardner and Poplin at the eighteenth century Wappoo Plantation on the Stono in Charleston County (1992:99-100). We found that only in the stable area of Broom Hall did the percentage of porcelains fall just below 7% (still within the range based on other, less affluent, plantation sites). The mean contribution of porcelains is over 20%. In area C the porcelains account for 41% of the ceramics and in Area K, they account for over 35%. Broom Hall, in other words, exhibits an unusually high proportion of porcelains.

The porcelains themselves, more thoroughly studied at Broom Hall (see below) than typically elsewhere in South Carolina, are certainly not the very top 5% of the Chinese export wares. They are not, for example, comparable to the porcelains which have been handed down and are now auctioned at Sothby's. On the other hand,

they exhibit a wide variety of forms and styles. Some, such as the sauce boat form, are uncommon. Other forms clearly demonstrate the importance of the tea ceremony at Broom Hall. While some forms, such as the plates which exhibit relatively little wear, suggest considerable use of the porcelain only in display. Much of the pottery is overglazed enamelled — representing a relatively high cost.

Why Broom Hall exhibits such a large porcelain collection is not clear. All sorts of explanations could be offered, but it is likely the most reasonable, given our understanding of Taylor and the Smiths, is that this is part of the Goose Creek lifestyle of conspicuous consumption, or at least conspicuous display. Porcelains were omnipresent because they were visible indicators of wealth, power, prestige, and the genteel lifestyle which came to typify the county seat.

Tablewares, Teawares, and Status

Exploring the proportion of table wares (i.e., forms and types used on the table) to utilitarian wares (i.e., those used in storage or perhaps food preparation) we have found that Broom Hall again seems to stand out. While the ceramics at plantations such as Archdale, Drayton, and Crowfield incorporate around 20 to 30% utilitarian wares, at Broom Hall, on average, only about 3% of the collection was utilitarian. It seems hardly likely that Broom Hall's occupants prepared and stored less food than their neighbors. Nor can it be that Colono wares were substituted for European storage and preparation vessels, since Broom Hall's proportion of Colono to European wares (discussed below) is about what would be expected. The answer may lie in the research being conducted at urban sites, where it seems that, with wealth, the proportion of utilitarian wares declines. The reason isn't clear, but may be associated with wealth allowing the introduction of a whole range of different wares serving a variety of functions.¹

¹ Even this view, however, must be carefully reviewed since Kennedy and Roberts (1993:143) found a very low proportion of utilitarian wares (a little over 1%) at a middling status, small plantation owner's residence in Prince Williams Parish in Beaufort County).

Since most reports tend to lump tablewares and teawares, it is impossible to compare Broom Hall's seemingly large proportion of teaware to other plantations. The presence of an average of 18% teawares, with highs in the low to mid-20% range, suggests that the tea ritual was important at Broom Hall. This, however, is tempered with Otto's ranges of 20% to 30% at a nineteenth century plantation (Otto 1984:68) and it is not possible to speculate on how this pattern may have changed from the mid-eighteenth century. Although some manipulating of the data was necessary, it appears that the middling status antebellum plantation at 38BU1289 (Kennedy and Roberts 1989:143-144) also exhibits teawares in the range of about 33%. We may, therefore, be in the position of explaining why such a wealthy plantation as Broom Hall seemingly participated only marginally in such an important ceremony.

Breen recounts an exchange between a seemingly lowly yeoman and a Maryland tavern keeper in 1744. Offended by the treatment he received, he loudly proclaimed his wealth, mentioning "that his little woman at home drank tea twice a day" (Breen 1994:454). Clearly tea was important to all classes of people as they attempted to imitate English practices. A number of Goose Creek plantations play significant roles in historic accounts of dinner parties and other forms of private entertaining. Broom Hall seems to be typical of this lifestyle. The goods present were not simply the by-products of wealth which followed Taylor and Smith — they were the carefully selected elements designed to convey this elite status to their peers. As a country retreat, it seems clear that Taylor and Smith expected that every convenience, every pleasure, every refinement of polite Charleston society would also be available at Broom Hall. Alexander Garden in the eighteenth century found that, "the gentlemen planters area above every occupation but eating, drinking, lolling, smoking, and sleeping, which five modes of action constitute the essence of their life and existence" (quoted in Waterhouse 1989:90).

On spite of this, it may be that the tea ceremony, 18 miles from Charleston, was not an important means for displaying wealth and privilege. While tea was incorporated at breakfast and in the late afternoon, dinner parties may have

been more common, and more essential, to establish one's place in the society of country seats. If so, teawares may have been a less favored means of demonstrating wealth than either other kitchenware items, personal items, or wine collections.

Decoration of CC Wares

A final means of exploring wealth and status has been to examine the decorative styles of the wares present. At Broom Hall there are relatively few CC wares (creamwares, pearlwares, and whitewares) and most of those present are plain or molded. Of those with surface decoration, there seems to be no real preference for "expensive" wares, such as transfer printed (which, on average, account for just under 30% of the collection). What are usually considered inexpensive decorative motifs, such as cable/annular edged wares, together account for around 52% of the decorated pieces. Again, this hardly seems expected for a high status site. One explanation is the gradual decline in status of the plantation through the first quarter of the nineteenth century.

The explanation, however, may be somewhat more complex. Plain wares account for 80% of the CC wares at Broom Hall. They account for 95.6% of the creamware collection alone, dropping to nearly 50% of the pearlwares, and to about 47% of the whitewares. The dominance of the undecorated (although sometimes molded) creamwares is excepted in high status collections, where the plain wares during their initial introduction, were the most expensive. The percentage of decorated wares increases only with the pearlwares and whitewares and it may here that there is a sign of the sagging fortunes at Broom Hall. This, however, assumes that these wares were associated with the planter's table. In the case of the whitewares, the bulk (86%) of the edged and cables/annular wares came from Areas E (the stable/gig house) and Area L (a yard area in the vicinity of the servant's quarters). It seems, therefore, that not only are the decorated collections perhaps too small to have any real validity, but that they are dominated by high status plain wares earlier, with less expensive annular and edged wares dominating the collection in only specific portions of the planation. This suggests

that as the plantation's fortunes declined, the first to "suffer" were the house servants, who began to be given less expensive wares.

Other Artifacts of Wealth and Status

Just as the ceramics demonstrate the wealth of the Broom Hall plantation and its connections to the urban ideal of gracious living, so too do other aspects of the archaeological collection. For example, table glass, on average is 1.3% of the Kitchen Group Artifacts at the main plantation complex — well within the range identified by Zierden and her colleagues for wealthy urban Charleston sites. In some areas, such as Feature 1, table glass comprises 3.7% of the Kitchen Group assemblage — exceeding what has been found at even the wealthiest Charleston townhouses.

Comparing other items of wealth, such as Clothing, Personal, and Furniture items, from Broom Hall to urban townhouses, Broom Hall tends to exhibit a lower proportion than would be expected (0.6% compared to about 1.1%). While the main settlement contains more items of wealth than the slave settlement (0.6% of the assemblage compared to about 0.3%), there is still a real difference in this area between the plantation and the urban setting. We have previously suggested that this may be the result of discard and loss behavior, with plantations offering much greater ground over which to lose or discard items when compared to town lots. This, however, hardly seems to be the entire answer, especially when the artifact density at many areas investigated at Broom Hall rivaled that at urban sites. It seems more likely that we may, again, be seeing a difference in how town residents and country seat owners chose to display their wealth.

Wealth may have been displayed first and foremost by massing of property — the plantation, its landscape, and the slaves which tended it. There is no evidence that Peter Taylor, the first owner to expand Broom Hall (and devise the plantation as a country seat), had a Charleston townhouse. Later owners, however, spent at least some of their time in Charleston and we presume they had elaborate townhouses. It seems that the ability to entertain, properly, may have been the second most obvious

indicator of wealth and status at the plantation. Rather further down on the list (but certainly still important as discussed below) may have been items such as gold buttons, silver shoe buckles, and watch chains — all items which might be impressive in town society, but which may have been unimportant in the rural estate.

Refinement and Gentility

Richard L. Bushman, in his 1992 study, *The Refinement of America: Persons, Houses, Cities*, suggests that museums, replete with collections of "many . . . beautiful things in ceramic, silver, and wood," suggest that "America's aesthetic sensibilities were suddenly awakened" in the early eighteenth century (Bushman 1992) -- at the time Broom Hall was occupied by Peter Taylor. One of the most visible signs of the change are the grand mansion — virtually all of which post-date about 1720. He suggests that these houses are merely the most obvious outward sign of an interplay between the personal ideal of a cultivated and refined inward life, and the outward world of material possessions. He suggests that refinement originated as an aspiration revitalized by, if not created during, the Renaissance, where individuals sought to be described using words such as "genteel," "civil," and "urbane." Along with the new plan of houses came, almost inseparably, gardens. Associated with these landscape features were new modes of "speech, dress, body carriage, and manners," as well as a host of new artifacts — all designed to separate polite society from the middle and lower classes. It wasn't until the nineteenth century that "vernacular gentility" became the possession of the middle class in America.

Much changed with this "mind-set," but perhaps this is best expressed by Bushman, who notes that "genteel society created beautiful stage sets on which people performed in public view" (Bushman 1992:xiv). This helps us, we believe, explain Broom Hall and its outward appearance of wealth, sophistication, gentility, and urbanness. We are looking at the classic Renaissance stage, whereon Peter Taylor and later Thomas Smith exhibited this status. The move to respectability is most clearly seen in the material culture. Bushman notes that:

the genteel life depended on the creation of proper environments, made up from mansions, pictures, silver spoons, teacups, and mahogany tables. . . . Wine sipped from a crystal wineglass had a different meaning than rum gulped down from a redware mug. Talk before a fireplace with a decorated chimney breast in a plastered and painted room with high ceilings differed from conversation before the gaping maw of a kitchen fireplace in a dark, low room with exposed beams overhead. *A polished environment was as much the essence of gentility as polished manners* [emphasis added] (Bushman 1992:xviii).

The house was perhaps the first, and most awe inspiring of the outward signs of gentility. Brick instead of frame, two-story instead of one or one and a half, it stood out against the land, making an obvious statement. Outbuildings neatly arranged (at least compared to previous farms where outbuildings sprang up where needed), facing the road (not hidden in the woods), large glazed windows (not shuttered), the outward appearance was far different from the earlier seventeenth century houses. But the changes were also clearly seen on the interior, where the hall with grand staircase leading to the upper, private rooms, and side parlor dramatically changed the manner of entertainment. Although we have little information concerning Broom Hall's architecture, that of surrounding plantations (and even the artifacts of Broom Hall — which are suggestive of tea, wine, and punch being served in the parlor), suggest this was the case.

Gardens "came attached" to the new housing style and served to continue the presentation of the grand mansion by arranging the landscape to enhance the show. They were affordable by only the most wealthy (see Bushman 1992:129-130; see also the following discussions).

Just as the house and gardens were the outward manifestation, one's dress enhanced and

signaled rank and character. Bushman notes that:

Brocade trim, lace, and gold and silver buttons and buckles were a part of aristocratic dress and unsuitable for lower ranks. . . . [They added] small brilliant touches of adornment. Good buckles were necessary, and buttons were apparently an obsession (Bushman 1992:71).

So the finds of gold gilt buttons, lace bobbins, and a number of shoe buckles at Broom Hall are all to be expected as Peter Taylor and Thomas Smith sought to demonstrate their gentility, if not their wealth.

And just as one's dress was part of the stage set, so too was eating, although here it was more the presentation than the menu which set the genteel apart from the more common. While the food was often very similar, constrained by season and location, "the tables themselves in gentry and plebeian houses — the dishes, platters, drinking vessels, and flatware — would never be confused. And so it was at Broom Hall. The vast quantities of expensive porcelain platters, the utensils, the delicate finger bowl or wine coolers, the punch cups and bowls — all bespoke the elegance of Broom Hall.

Bushman and other, however, ask an obvious question. While there is clear evidence that Peter Taylor and Thomas Smith were emulating European, and especially English, aristocracy, we rightly still want to know *why* they fastened their gaze on London, its fashions, its aristocracy, and why they expended vast sums to copy English models. Bushman observes, "we want to know how the spread of gentility met the unfulfilled needs of American society" (Bushman 1992:404). Going on to answer this question he notes that the great mansions, the fine dress, the polite tea, all became instruments of power, "a superior culture to parade before the eyes of a deferential population whose compliance was necessary to the continuation of authority" (Bushman 1992:404).

Curiously, Bushman observes that gentility

allowed southern planters to distinguish themselves from the "dollar-mad Yankees," putting as he calls it, "a glossy surface on lives that in reality were equally committed to gain" (Bushman 1992:404). Perhaps more importantly, not only in the eighteenth century, but continuing on into the nineteenth century, gentility helped the Southern planting aristocracy to defend slavery. The *greatest* class difference was not between the elite planter and the middle-class artisan, but between the slave owner and the slave.

It is well known that power exercises influence — not only physical coercion, but also influence over the heart and mind. So long as an institution is powerful it stands not only at the center of authority and force, but also at the center of attention. Gentility was a mechanism for the wealthiest of Southerners to distance themselves from the slave presence. It was one mechanism of solving the dilemma of slavery. Gentility was, by definition it would seem, an existence free of work, devoted to conversation, fine dining, art, and the pursuit of pleasure. It contrasted dramatically with the lives of the slaves who produced the wealth which enabled the Southern planter to emulate aristocratic English society.

The Plantation Landscape — Owner and Slave

It wasn't however, only the portable items which were adopted by Taylor and Smith to demonstrate their wealth. The plantation itself, and most especially its landscape, were the first clues, even before the home was entered. Careful construction techniques, massive architecture, clear symmetry, the large number of brick outbuildings, the use of distemper washes, the presence of imported marbles, and the carefully laid out garden were all designed to impress, perhaps even overwhelm, the visitor. Although the archaeological evidence is limited, the presence of known buildings and the parterre in Area D, combined with our understanding of geographic arrangement, reveals that Broom Hall was carefully developed to maximize the impact of a relatively uninspiring landscape. What the area lacked in impressive visual features, it more than made for in careful manipulation of the existing conditions. The excavation and construction of a tile lined pond, the situation of the main house between two

natural sloughs, the use of the natural drop-off into the swamp to create a terraced garden, and the careful framing of this landscape in either vegetation (such as the allée from the main road to the house or from the house to the pond) of structures (with the garden structure outlining the northern boundary and the stable controlling the southern limits), all indicate the careful planning which went into the development of the plantation.

Not surprisingly, there is evidence that Taylor and later the Smiths, may have had trouble dealing with the omnipresent slaves. While clearly necessary, and certainly representing extraordinary wealth, they still presented the owner with a dilemma of how to incorporate them into his world view (this was an issue still being confronted by American slave owners during the rise of picturesque movement in the early nineteenth century). In the case of Broom Hall the settlement for the field slaves was "tucked away" beyond the main complex, separated, if only symbolically, from the main plantation by a natural slough. A road to this settlement did not, at least during the early period of the plantation, continue to the main house. The presence of two drives — one for the main house and another for slave settlement — may seem to be little more than an effort to maximize the efficiency of the agricultural complex and minimize disturbance to the owner's complex, but it is likely that these two roads represented an important distinction for Taylor and later Smith, segregating the two worlds in much the same way as the slough did.

The worlds were equally separated by architectural design. While the main complex was represented by the solid, massive construction of multistory brick buildings, at least some of which had stucco applied to represent stone, the slave settlement was ephemeral. Constructed at the edge of an agricultural field, there is so little brick that it seems unlikely that even the chimneys were well constructed. It's more likely that the brick may have been associated with outdoor hearths or even were used to support pots in the fire. In fact, it seems likely that structures were earthfast, perhaps wall and trench or thatch and wattle houses similar to those encountered in other early eighteenth century contexts. Although the main complex survived through time, at least partially because of the

trouble to cultivate around or over the decaying buildings, the slave settlement quickly succumbed to cultivation.

Colono Wares: Typology, Dating, and Alienation

As might be imagined, the artifacts of the slaves set them apart from the owner. Colono wares dominate the slave settlement, with European wares representing a relatively small proportion of the total assemblage. What is perhaps more curious is that those European wares present suggest a cross section of the owner's possessions. There is no good evidence that the slaves were provided with special pottery (other than the Colono wares). Instead they had small quantities of Chinese export porcelain, white salt glazed stoneware, and creamware — presumably items discarded by the plantation and adopted for use by the slaves. Although there is a slight increased tendency for hollowware at the slave settlement when compared to the main settlement, it is hardly noticeable and the large quantity of flatware is almost certainly the result of its dominance at the owner's table.

Colono wares represent one of the most interesting of the artifact assemblages present at Broom Hall. At the Broom Hall main house complex Colono wares consisted of 24.5% of the ceramic collection, while at the slave row it comprised nearly 80% of the collection. In relation to other eighteenth century main house complexes examined in the **Synthesis of Eighteenth Century Plantation Archaeology** section, 24.5% is only slightly below the average with the mean being 30.4%. However, there is a great deal of range and, presently, the reasons for the wide range are unclear.

It is possible that the percentages of Colono ware at individual sites are related to how strong the African American presence was in the main house complex. Certainly there is a suggestion that while black field slaves were relegated to the edge of Broom Hall's settlement, there were blacks on the main complex. Areas K and M have been tentatively interpreted to represent the remains of servant's quarters based on what appears to be their relatively lower status

assemblages (although neither area has a particularly high concentration of Colono wares). Likewise, Area J may represent a slave dwelling, although again Colono wares are not any more abundant here than elsewhere on the main complex. These findings suggest that at Broom Hall the African Americans in the main complex may have been rather thoroughly integrated into the owner's world, with limited potential for cultural expression.

This study also found that the proportion of Colono wares versus European ceramics at the slave row spiraled from its highest point in the early to mid-eighteenth century to a low in the early nineteenth century — a finding which repeats research at any number of slave sites in the Carolina low country. At the main complex, however, a completely different pattern emerged. Colono wares were at their highest use during the eighteenth century in the 1740s. The proportion then drops and remains low until after 1794. After this Colono wares quickly reach the highest level in the history of the plantation around 1802 and then drop to almost nothing by the 1820s.

This pattern of Colono ware usage appears to correspond roughly to economic trends as well as patterns in African slave importation into South Carolina. However, the pattern does not appear to correspond with changes in the slave population at Broom Hall. In other words, there seems to be no correlation (as far as we can tell) between the *number* of slaves at Broom Hall and the *prevalence* of Colono wares. The correlation between Colono wares and slave importation may suggest that the large number of African born slaves brought into Carolina kept the practice of Colono ware pottery manufacture alive. Alternatively, the ware may have been most often used when economics resulted in little else being available.

These patterns in Colono ware use at the slave row and main complex suggest that main house complexes are much more sensitive to changes than slave settlements. There were significant changes in the slave population at Broom Hall and it seems that since the slave population underwent significant changes the artifacts would reflect these changes. However, they don't. It is likely that the circumstances of

slavery, where slaves were being provided only the basic necessities of life, prevented any noticeable changes in ceramic makeup through time.

The suggestion that main house complexes are more sensitive to change is strengthened through the examination of European ceramics. Bartovics' method of determining the probability of ceramic contributions through time suggests that European ceramics are sensitive to changes in ownership and plantation rebuilding and reorganization. The ceramic assemblage at the slave row, however, does not reflect these changes. This suggests that the slaves' world was not nearly as strongly affected by change in the planter's world. Although the slave population at Broom Hall changed significantly through time which probably caused a great deal of upheaval, changes in economy and ownership did not greatly affect their material culture.

This finding is rather curious. At Haig Point during the nineteenth century there seems to be a good indication that when William Pope took over absentee ownership in the late antebellum the lifestyle of the slaves declined dramatically. Perhaps this is related to the time period, to the absentee management style, or to the idiosyncratic behavior of Pope. While we are inclined to believe that all of these may be important, it is equally important to distinguish between a working plantation and a country seat. On a working plantation it seems that the owner's success or failure will have greater, and more immediate impacts on the slave population. At a country seat, where the owner is both more stable and less likely to suffer the setbacks common to agricultural activities and marketing of a cash crop, more stability would be expected.

Exploring alienation, it is also interesting to note that the slave's assemblage of European wares, closely resembles that found at the main settlement. For example, even the slave settlement contains a relatively high proportion of porcelain — about 5%, comparable to that found at the residences of many smaller planters. Likewise, the assemblage of European wares being used by the slaves was about evenly divided between flatware and hollow ware. It seems that the plantation owner provided slaves not with what they needed,

or perhaps even wanted, but rather what was readily available from the main complex, either as discards or as extras.

Using a broad range of traditional analytical techniques common to prehistoric pottery analysis but less commonly used by historic archaeologists, we found that the two categories of Colono ware (Yaughan and River Burnished) could *not* be consistently sorted. Macroscopic examination suggests that there were no strong differences in temper size, shape, and frequency between the two wares. However, water washed sands (i.e., more rounded inclusions) were more commonly found in River Burnished sherds which may be the result of Indians (assuming they were the manufacturers of River Burnished wares) gathering more of their clays from river banks. Slaves appeared to have gathered their clays from a number of sources, perhaps maximizing the clays they had access to under the confines of slavery. These clays would have included both riverine clays and upland clays. It is quite likely that the Catawba Indians providing pottery to the plantations gathered their clays locally. As a result, it may be difficult, if not impossible, to differentiate some Yaughan and River Burnished wares based on traditional typological studies. In such a case, it seems that a type variety approach is the most prudent approach.

The Colono ware collection from Broom Hall provided evidence for the use of bowls in cooking. Not only were some bowls charred, but two charred bowls had interior lid ware, suggesting that a slightly smaller bowl was inverted and used as a lid, creating a simple Dutch oven. In the past, some archaeologists have assigned bowls functions other than cooking (see Wheaton et al. 1983). However, it is clear that assuming function based solely on form is a mistake.

Colono Wares: Petrology, Mineralogy, and Chemistry

A small sample of Colono wares from Broom Hall (previously identified as either Yaughan or River Burnished) were examined by petrographic, mineralogical, and chemical techniques. While the funds for such an ambitious study were limited, we sought to maximize our

data return by ensuring that a broad range of techniques were employed and that identical sherds were examined using multiple techniques. The goals were to compare the results with those of traditional macroscopic typological study and, especially, to see if there were any microscopic or chemical characteristics of the wares which might support, or invalidate, the proposed approach which separates Colono wares into Vaughan and River Burnished varieties. We were fortunate to have the expertise of Dr. Michael Smith (Department of Earth Sciences, University of North Carolina, Wilmington) for the analysis of the results (see **Appendix 2. Petrographic, Chemical, and Mineral Characterization of Colono Wares from the Broom Hall Site**).

The techniques employed included the preparation of standard thin sections with the sherds impregnated in epoxy; the use of an acid extraction technique followed by inductively coupled plasma emission spectroscopy (ICP); and x-ray diffraction (XRD) of several sample sherds.

Sherds previously identified as Vaughan using macroscopic typological characterizations were found, upon petrographic study, to be tempered with quartz having a grain size ranging from 0.4 to 0.8 mm and exhibiting only minimal rounding. In comparison, the macroscopic examination found temper to be finer and more rounded — illustrating one of the many benefits of petrographic studies. The studies found that the Vaughan wares are more coarse grained than the River Burnished (a conclusion drawn, albeit with less conclusiveness, from the macroscopic examination).

The work suggests that the quartz is of igneous origin and that at least one sherd evidenced the mineral epidote, characteristic of a clay source with its origin in the eastern Piedmont region of South Carolina.

Sherds previously identified as River Burnished exhibited quartz grains ranging in size from 0.2 to 0.6 mm and are more rounded than the Vaughan wares.

Both the Vaughan and River Burnished clays also evidenced "clots" of clay minerals. These

are not grog, but are more suggestive of partially dried clays or poorly mixed clays, providing a clue that the pottery received only minimal preparation.

Although 37 elements were examined by the ICP methods, only 21 were above the detectable limits. One, magnesium (Mg), suggests a distinct separation between the Vaughan and River Burnished wares. Concentrations of magnesium are about twice as great in the River Burnished sherds than in the Vaughan sherds. Iron (Fe) may also be a separator, but, like titanium (Ti), Smith suggests they are more likely artifacts of the analytical procedure and is not significant.

In sum, Smith suggests that petrographically, the two wares have broadly similar temper mineralogy, but are texturally different — an observation that parallels current archaeologically thinking. The different styles of "clots" and the grain size difference in the temper appear to offer consistent distinctions between the wares. Significantly, he also notes that aspects of temper and paste overlap, "and do not provide a discrete separation index" (Smith, this volume). Neither Vaughan nor River Burnished pottery evidenced mica in a concentration greater than 1% to 2%. While there "appears," macroscopically, to be more mica in the River Burnished wares, this is not borne out by the petrographic study. All of these findings combined, support our previous observations that a type-variety system may be the best approach to sorting out the differences between Vaughan and River Burnished.

Smith also suggests that the clays for the Vaughan wares, while having a Piedmont origin, were deposited elsewhere. And although his study cannot offer this conclusion, we suggest that the pottery, made by slaves, used Piedmont clays found in coastal plain deposits near the plantation.

The best technique for the separation of these two wares, based on this limited study, is the quantity of magnesium in the paste. Yet, this is the only elemental difference — no other element or element pair could produce any convincing separation between the two wares.

More than anything else, this study reveals the need for additional studies using similar

methodology on much larger samples of known proveniences. It seems unlikely that continued typological study, absent these chemical, petrographic, and mineralogical studies, will offer any significant hope to unravel the complexities of Colono ware pottery.

Slave Use of Other Ceramics

The examination of the porcelains provided an interesting contrast to the Colono wares. There is relatively good evidence that the Broom Hall porcelain dates from the third quarter of the eighteenth century. There is no stylistic evidence of porcelains continuing to be brought to Broom Hall in any appreciable quantity after the American Revolution. This suggests that the Revolution was the economic watershed for Thomas Smith, as it was for many of South Carolina's other merchant-planter elite. While the lifestyle may not have immediately declined, the absence (for example) of porcelains with eagle motifs indicates that few new pieces or sets were being added. In addition, although a large quantity of porcelain, representing a number of tea sets, some unusual forms, and considerable expenditure, existed at Broom Hall, they were all relatively common, representing items which might be obtained through consignment from a British chinaman with no special prior arrangements. Neither Thomas or Smith, for example, sought special wares, such as armorial patterns (which we have found at Edward's Spring Island plantation in Beaufort County). Considering the exceptionally large quantity of porcelains at Broom Hall, it seems unlikely that this can be explained purely by sampling design.

In addition, examination of the porcelains reveal that they received less use than the other wares present at Broom Hall. For example, they exhibit appreciably fewer knife cuts or foot ring ware than other ceramics present in the collections. Perhaps this should not be surprising, given the expense of the porcelain and its probable use only for formal entertaining. For exhibiting so little ware, there is an exceptional amount broken and discarded in Feature 1. Whatever the reason, it seems that a large quantity of this ware, in relatively good condition, was discarded in the first quarter of the nineteenth century. It may be that

the porcelain was largely for show — being part of what the planter was expected to have available for dinner parties, but was not routinely used.

Foodways

The ethnobotanical remains from Broom Hall have offered relatively little information on the foodways of either owner or slave. The ubiquitous peach pits are present, as are small quantities of hickory and walnut. Although the study provides information on the use of woods on the plantation (presumably for heating and cooking) and may even help us better understand the surrounding environment, the samples are otherwise devoid of subsistence information.

In a similar fashion, the pollen analysis is useful in confirming the environmental reconstructed by the ethnobotanical study. It also provides some very interesting pollen data on the garden structure, suggesting the presence of pollen from asparagus and possibly onion or lily. While the identification of what appears to be asparagus helps us understand the considerable diversity which must have been present at Broom Hall, it still does not document that range.

Combined, these two analyses confirm what we already know of plant foods at historic sites — that they are ephemeral and difficult to recover, regardless of the methodology or the dedication of the analyst. Certain features, such as wells, will often (but not always) provide a greater range than either sheet middens or other features. The preservation of fragile charred remains or polymorphs is limited in most plantation contexts.

The faunal analysis offers somewhat greater insight, although its results are largely limited to the main plantation complex where the bulk of the remains were recovered. From these contexts a pattern of faunal remains was identified which appears to be lie midway between that expected for the rural and the urban site. Like sites in the urban setting, Broom Hall evidences a fairly large quantity of domestic animals, particularly beef and pork, and fish. It is particularly worthy of note that Broom Hall, 18 miles from the markets of Charleston, evidence a number of fish species, at least some of which

would not be found in the immediate vicinity. Like other rural plantations, however, Broom Hall also evidences relatively few domestic birds, and a relatively large number of wild mammals and birds. Reptiles, which should have been rather plentiful in the Broom Hall vicinity, are nearly intermediate between what has been found at other rural settings and what has been found in the city.

This unusual faunal assemblage may be at least partially the result of the site's early time period. It may also be affected by the plantation's location. But more than either of these, we believe that the vertebrate remains are reflective of the wealth and status of the Broom Hall occupants, with the plantation tending toward the dietary preferences of the urban setting. The rural setting affected the ability of its occupants to procure wild animals, just as it likely affected their inability to guard against the predators which destroyed domestic bird populations. The plantation owner, however, focused on ensuring the availability of domestic animals for his table, especially beef, and made sure that fish was plentiful.

There is surprisingly little information on how English foodways may have affected the preference of the upper classes. Carole Shammas (1984), for example, observes that the diet of American just prior to the Revolution was likely better than that of most people in England, where meat consumption was sparse and relatively few yeoman farmers had livestock of any sort. Sarah F. McMahon (1985), while recognizing that diet can be an indicator of broader economic, cultural, and social developments, focuses on a far different sphere than low country South Carolina — rural New England. In spite of this major difference, she does note that early on colonists "were intent on maintaining their traditional English fare," producing a rather simple subsistence fare. This suggests that the interest in beef was cultural (McMahon notes that a "relish for meat" was inherited from England) and that the more meat the higher the status of the individual. Fish, on the other hand, was found primarily fresh in the coastal towns, with the rest of England (and New England) subsisting on salted fish. Consequently, it is likely that the presence of fish in the Broom Hall diet is another indicator of status.

Summary

Broom Hall is clearly not a typical South Carolina plantation. Nor is it even a typical eighteenth century low country plantation. In fact, as we see the diversity among the plantations being researched, we become less certain whether "a typical" plantation even exists. Broom Hall represents, and helps us understand, how the very wealthiest of eighteenth century Charleston planters chose to live in the Goose Creek area. In this sense, the site perhaps represents at least the fringe of what has been called South Carolina's oligarchy. Historians have remarked that at the center of South Carolina pre-revolutionary politics and society were six families — Blakes, Bulls, Draytons, Fenwicks, Izards, and Middletons — heavily interrelated and intermarried clans. On the fringe, it seems, were the merchants and others who, while not as powerful, were essential to making these families successful. The Taylor and the Smiths built fortunes during Carolina's golden age when wealth was accumulating faster than in any other mainland British colony. The families which formed the central focus of Carolina society, politics, and economics settled along the Ashley and became one large, extended family. Broom Hall provides a glimpse of how those on the edge of the inner circle lived. It provides a glimpse of how comfortable a gentleman's country seat could be, as long as you were not a slave. And it provides a glimpse, of the topics which future plantation research in South Carolina may find useful.

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APPENDIX 1. ABIEL ABBOT'S DESCRIPTION OF BROOM HALL

March 26 (1818)

Mr. M. Smith's garden & pleasure grounds

Mr. M arrived from the city to dine, a young gentleman of modesty & accomplishments. After dinner the family & strangers went to pass the afternoon at Mr. S's. Most of the time was past in their delightful garden. I have seen nothing to be compared with it in this country. The garden or pleasure grounds occupy 30 acres. In the center stands a handsome brick house. From the entry you look up an extensive avenue of live oaks in their full glory as to size; & down a sloping avenue of 60 rods, shaded by various forest & flowering trees. Near the house is a regular flower garden, divided into compartments by well grown & shorn box. The beds of various figures are occupied with a variety of the handsomest annuals & shrubs. The multiflora shrouds the portico. Seville orange trees in full bearing take the protection of the south wall of the house.

The glory of this extensive garden are its walks. They are perfectly embowered with wild oranges & other ornamental trees, so pruned, while yet they seem a stranger to the knife, as to form a regular arch, thro wh the breeze freshens & the sun can but rarely transmit his beams. The broader walks are more open on one side to the sun, & that side is set out with different flowers, to afford their ornament in succession. The squares, into which// (page 264) this extensive promenade is divided are some of them cultivated with the hoe, but most of them are in grass, carelessly interspersed with ornamental trees. There are many elegant weeping willows, tulip trees, & sycamores. Arbors here & there are formed & covered with vines & shaded with trees, & settees placed in the long avenues to relieve the weary or indolent. But there is very little done by the carpenter; the charms of the garden consist chiefly in walks as smooth & clean as the Boston mall & in nature's perfect & variegated arching. Returning near the house

some of the party started a hare, wh the dogs pursued across the lawns in full view of us, whether successfully I did not learn.

The history of Mrs. S. is interesting & extraordinary. She was born in England, & came with her father & family to this country. Her father & family to this country. Her father was connected with the theater, & trained his children to the boards. Mrs. S. continued on that employment till she was 15, but with a secret disrelish & determination to quit it as soon as she should have a prospect of subsistence in some other way. She declined all intercourse & conversation with all persons connected with the theater, whose sentiments or manners partook of levity. In this resolution, she was encouraged by her brother. The discretion of her deportment & the charms of her person attracted attention; & Mr. M.S. of a very respectable family// (page 265) & expectations just from college &: not 18 years old proffered her marriage. The match was not approved by his friends, but they were privately married. His friends soon became reconciled, & now esteem her as rich treasure. Risking residence on their enchanting plantation thro a summer in autumn she was most violently seized with fever. She was delirious for a number of days & her life despaired of. On recovering her senses she was deeply alarmed with her situation & apparent nearness to death. . . .

Essex Institute Library, Salem, Massachusetts
Abiel Abbot Journal, 1818-1819

APPENDIX 2.

PETROGRAPHIC, CHEMICAL, AND MINERAL CHARACTERIZATION OF COLONO WARES FROM BROOM HALL

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Introduction

Archaeological ceramics are an important guide to the culture, technology, and development of civilization. By examining the forms and the methods of decoration, clues to cultural evolution or trade among cultures is suggested. However, many ceramics are of a type that do not allow easy or definitive separation by these methods.

When this situation arises, a common response is to subject the samples to analytical investigation via a variety of techniques. These investigations are either petrographic or chemical in nature. The petrographic investigation addresses the identification of the paste and the temper components of the pottery. This technique requires some sample destruction for the production of a thin-section and a skilled investigator to evaluate the components using optical mineralogy techniques.

On the other hand, the chemical investigation attempts to define the pottery bases on the chemical composition that makes up the majority of the pottery, which, in most cases, is the paste — composed mainly of clay minerals and quartz. This method requires the dissolution of the sample and commonly results in a great deal of element concentration data which is then incorporated into statistical or factor analysis programs to attempt to group the samples according to similarities defined by the analyses. However, the type and abundance of the temper may radically alter the chemical composition reported for the ceramic. Nevertheless, from these

groupings, interpretations of the provenance and technology interchange of a civilization are often made.

This study addresses an archaeological investigation of two forms of Colono ware recovered from the Broom Hall Plantation, Berkeley County, South Carolina. In an earlier portion of this report (**Colono Wares from Broom Hall**), the form and type of this pottery is discussed and information is provided concerning the macroscopic investigation of similar sherds. In this portion, a small set of the historic sherds are examined by petrographic, mineralogical, and chemical techniques in order to compare the results of the earlier macroscopic or visual examination and see if there are any microscopic or chemical characteristics that would support or invalidate the form and type separation of this pottery.

Petrographic and Chemical Techniques

Petrographic Techniques

Petrographic analysis is the principal method of identifying minerals (and other substances) in archaeological pottery (Rice 1987). Standard (27 by 46 mm) petrographic thin-sections were prepared. Because of the friable nature of the sherds, epoxy impregnation was used to bind the sample. The thin-sections were point counted using the techniques discussed by Stoltman (1989, 1991). In this study, the point step was 0.2 mm so as to allow statistically significant counts (more than 300 points were thin-section) and also to overlap with the previous macroscopic evaluation of temper size

distribution. It is important to recognize that any point counting techniques assumes that the component has a nearly spherical grain shape. With phyllosilicate minerals (e.g., muscovite or the clay minerals) the influence of grain orientation can be very large and may account for some of the percentage differences (and ranges) that were observed. The point count categories used in this study were paste, quartz (separated into monocrystalline vs. polycrystalline, grain size and degree of angularity and rounding of corners for qualitative purposes), plagioclase feldspar, potassium feldspar (microcline), opaques, other (includes epidote, amphibole and zircon), and ACF (argillaceous clots or fragments, see Whitbread 1986).

Although the percentage of void spaces is sometimes used as characteristic, it is very difficult to use with these sherds (Whitbread 1989). Examination of the finished thin-section found that plucking of mineral grains had occurred and it was concluded that an evaluation of total void space that is often used in petrographic ceramic investigation would be invalid in this case. Another problem associated with any thin-section (or macroscale) investigation is the different thickness of the sherds being analyzed, which may also result in differences in percentage of void space. Nevertheless, a strictly qualitative evaluation of void spaces was completed (during point counting) to allow the investigator to compare paste versus temper distribution.

Acid Extraction Technique

Twenty sherds (10 previously identified as Yaughan and 10 previously identified as River Burnished, based on the macroscopic investigations) were prepared for analysis using the acid extraction technique of Burton and Simon (1993). The rationale behind this technique is that the extracted ions will be dominated by those derived from the clay minerals (or calcareous materials) while the more resistant (or larger) grains will contribute little to the solution.

In this technique, samples are prepared by abrasively removing soil and any surface treatments from a small portion (1-2 cm²) of each sherd and then grinding this cleaned portion in an agate

mortar. Weighed samples are placed in polyethylene vials in which 20 ml of 1 molar HCL are added. For this study this represents a dilution factor of 100. The vials are then shaken and allowed to remain, with intermittent agitation, at room temperature (about 25° C) for two weeks. After two weeks, the solution was decanted and analyzed by inductively coupled plasma emission spectroscopy (ICP) at XRAL Laboratories (Toronto). In this study 21 elements were examined: aluminum (Al), barium (Ba), calcium (Ca), cobalt (Co), chromium (Cr), copper (Cu), iron (Fe), lanthanum (La), magnesium (Mg), manganese (Mn), nickel (Ni), phosphorus (P), potassium (K), scandium (Sc), sodium (Na), strontium (Sr), titanium (Ti), vanadium (V), yttrium (Y), zinc (Zn). The measured solution concentrations in ppm ($\mu\text{g/ml}$) were multiplied by a dilution fraction (ml solution/g of sherd) to provide sherd concentrations as micrograms of extractable ion per gram of sherd (ppm) and are reported in Table 1. Precision of the analysis is $\pm 5\%$ of the absolute value for most elements with a detection limit of 10 ppm or less.

Results

Sherd Petrography

Yaughan Sherds. These sherds are tempered with both monocrystalline and polycrystalline quartz which have a grain size ranging from 0.4 to 0.8 mm. These medium- to coarse-grained quartz grains are anhedral to subhedral in form with only minimal rounding of the corners of the grains. A few monocrystalline quartz grains in each sherd have inclusions of wispy, rutile needles, suggesting that they are of igneous origin.

The overall color the thin-sections are a dark gray to black, consistent with the reducing conditions (e.g., incomplete firing or firing in an oxygen starved atmosphere) suggested by the macroscopic study for the Yaughan vessels. The paste is dominated by clay minerals (which in this paper is meant to represent the wide variety of phyllosilicate minerals such as the micas, kaolinite, and montmorillonite/smectite) and subhedral quartz grains (monocrystalline) whose corner rounding varies from highly rounded to very angular. Paste grain sizes are much less than 0.1

Table 1.

Chemical data from the acid extraction technique of Burton and Simon (1993) for River Burnished and Yaughan Colono ware sherds. (Concentrations reported as micrograms (ppm) of extractable ion per gram of sherd. Calculated as ppm of analyzed ion in solution multiplied by dilution factor (in this study - 100) used in extraction technique).

Sample	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Al	53100	37700	37700	48800	42600	50700	45800	51900	38400	48900	42500	41200	41300	55500	35200	48900	38300	38400	41900	3540
Fe	29300	19600	30100	19200	16900	17800	27900	26100	17900	28200	22800	18200	19700	24800	15400	38900	11100	14000	19200	4280
Mg	2500	1400	2600	1600	1400	1500	1400	2500	1600	2500	1800	1400	1800	1900	1700	2800	1600	1300	1200	790
Mn	73.0	35.0	41.6	27.2	30.9	169.0	29.8	136.0	39.3	63.0	66.3	212.0	38.1	103.0	51.2	61.3	29.8	23.0	91.2	48.7
K	2200	1600	2700	1900	1500	1900	1500	1800	2000	2700	2200	1500	2200	1500	1900	1800	3300	1800	1400	320
Na	910	730	830	780	680	880	800	940	800	980	1300	900	2500	790	630	800	2000	1000	790	350
P	2850	922	2080	2180	2250	2960	4380	5650	2110	2460	2300	2290	1460	3980	3210	2340	1010	1570	2710	491
Ca	71000	43000	45000	45000	51000	48000	50000	61000	48000	53000	45000	50000	44000	53000	70000	55000	41000	49000	44000	59000
Sr	121.0	71.7	93.2	87.4	81.3	91.5	91.0	172.0	95.3	125.0	96.2	133.0	113.0	140.0	80.8	175.0	80.1	86.2	108.0	50.5
Ba	340	210	300	310	410	410	400	370	250	380	160	290	250	310	320	160	260	220	260	60
Sc	6.4	4.8	4.9	4.7	5.8	6.3	5.9	8.1	4.8	6.9	5.2	5.1	4.9	7.4	3.5	7.3	4.8	4.4	5.6	0.6
Ti	64	36	130	46	38	37	72	79	36	77	96	45	59	100	79	210	38	41	42	38
V	33	22	28	25	23	27	30	35	18	30	29	24	27	30	17	45	14	15	22	5
Cr	27	18	30	24	27	28	27	36	19	26	18	20	85	38	17	19	18	16	19	5
Co	6.0	3.0	5.0	4.0	4.0	3.0	5.0	6.0	4.0	5.0	5.0	6.0	3.0	6.0	4.0	7.0	2.0	2.0	5.0	1.0
Ni	11	8	8	9	12	14	9	15	7	10	9	7	7	12	6	17	6	5	8	2
Cu	7.9	3.9	5.2	8.9	5.6	8.5	13.2	7.2	4.4	11.1	8.0	4.9	11.0	7.8	4.4	6.9	6.7	5.6	7.2	3.9
Zn	4200	3600	4000	3600	3400	3300	4200	3800	3700	3700	4100	4000	3500	3600	5300	3400	3400	4100	3600	4100
Pb	49	24	28	31	35	53	37	39	52	98	12	43	45	27	45	24	30	21	31	18
Y	4.8	3.8	13.0	3.9	4.4	4.8	6.2	39.0	5.1	5.7	5.5	22.0	5.5	7.3	8.8	18.0	3.5	4.4	7.9	3.7
La	11	13	22	15	15	16	29	42	17	23	20	36	19	23	15	34	16	15	22	7

Sample Identification (Y = Yaughan ; RB = River Burnished)

1. 39342-4 (RB)	2. 39338-13 (RB)	3. 39320-1 (RB)	4. 39340-14 (RB)	5. 39338-24 (RB)	6. 39338-X (RB)	7. 39312-69 (RB)	8. 39321-32 (RB)	9. 39342-13 (RB)	10. 39342-19 (RB)
11. 39352-24 (Y)	12. 39340-4 (Y)	13. 39331-1 (Y)	14. 39336-1 (Y)	15. 39306-5 (Y)	16. 39341-16 (Y)	17. 39321-35 (Y)	18. 39340-1 (Y)	19. 39350-38 (Y)	20. 39341-24 (Y)

Table 2.
Petrographic Data from Yaughan and River Burnished Colono Ware Sherds (using point-counting techniques of Stoltman [1989]. ACF denotes argillaceous clay clots found in both Yaughan and River Burnished sherds. Range values for components reflect point counting traverses on multiple thin-sections made from the same sherd. Note that all void percentages are for comparison purposes only [see text for discussion]).

Sample	% quartz	% paste	% ACF	% plagioclase	% feldspar	% other	% void
<u>Yaughan</u>							
39331-1	33.5-36.5	56.3-58.4	0.0-1.0	0.5-1.3	0.0-1.3	0.5-1.1	6.1-6.9
39352-24	23.9-28.3	54.8-64.6	0.0-1.0	0.5-1.3	0.0-1.3	1.3-3.8	11.6-13.8
<u>River Burnished</u>							
39338-13	30.2-32.1	56.9-58.5	0.5-1.2	1.2	0.6-1.2	2.9	3.5-6.9
39340-4	35.2-48.7	47.9-57.1	0.0-2.8	0.8-0.9	0.0-0.9	0.0-1.9	0.9-2.5
39340-14	27.7-32.1	57.4-67.8	3.3-6.0	0.0-0.9	0.0-0.9	0.8-1.7	4.2-5.2
39342-4	38.7-43.6	46.5-50.8	5.7-6.0	0.0	0.0-0.9	0.5-1.7	2.8-4.0

mm (either long dimension or diameter). Visual examination of the thin-sections and the point counting percentages reported in Table 2 suggest that these sherds are more coarse grained than the River Burnished sherds (discussed below).

Preliminary X-ray diffraction patterns of the Yaughan paste materials was completed by XRAL Laboratories (Toronto) in an attempt to differentiate the very fine grained (< 0.1 mm) components. This type of analysis only provides very qualitative information — mainly the presence of particular minerals based on the x-ray diffraction peaks as a result of the crystal structure of the mineral. The X-ray data identified quartz and traces of feldspar in the paste of the Yaughan samples, but was unable to identify any of the clay minerals that make up the bulk of the paste. This is a common problem as during firing (even at low temperatures of 300 to 400° C) the clay minerals commonly are converted to amorphous substances that do not have the regular crystal structures necessary for X-ray diffraction identification.

In thin-section there was no observable biotite mica found in the paste and only a few grains of muscovite mica (0.1 to 0.2 mm long dimension) could be identified. In addition, several other minerals were observed in the paste, but represent only a small portion (1 to 4%) of the sherd composition. In the Yaughan sherds several grains of zircon (<0.1 mm), twines (albite) plagioclase feldspar (0.1 mm), tartan-twinned potassium feldspar (0.1 mm), and a single grain of

(probably) orthoclase feldspar (0.2 mm) were observed. The plagioclase feldspar and potassium feldspar grains display alteration in the form of sericite (white mica).

In one sherd (ARL 39352-24) several fine- to medium-sized grains (0.2 to 0.4 mm) of a green, slightly pleochroic mineral were found. Based on the optical properties, this mineral is probably epidote. If this was a chance grain caught up in the paste (and not a deliberate temper material), its presence suggests a drainage (and a clay source) that probably has an eastern Piedmont igneous source region for the sediments.

Clots of clay minerals and clay minerals with included tiny grains of quartz and rare feldspar (microcline) are a distinctive feature of these sherds in thin-section. These argillaceous (ACF) clots (0.2 to greater than 1.0 mm in long dimension) were probably formed during the coil and vessel formation and are not considered to be tempering material introduced by the potter. This can be evaluated by the stretching (and the ellipsoidal to lathe-like form) of the clots and the orientation of the surrounding paste particles with the aligned internal microstructure observed in the argillaceous clots. In addition, the argillaceous clots do not contain inclusions that differ from those found in the paste nor do they have the distinctive appearance of previously fired pottery fragments ("grog," see discussion by Whitbread 1986 and Cuomo di Caprio and Vaughan 1993).

River Burnished Sherds. These sherds are tempered with monocrystalline quartz which have a grain size ranging from 0.2 to 0.6 mm. These fine- to medium-grained quartz grains are subhedral in form with a larger degree of rounding of the corners of the grains than is found in the Yaughan sherds.

The overall color of the thin-sections is a red to red-brown color, consistent with the more oxidizing conditions suggested by the macroscopic examination of the River Burnished vessels. The

paste is very fine grained (less than 0.1 mm) clay minerals, with subhedral to anhedral monocrystalline quartz grains, a few (much less than 0.5%) opaque minerals, and a diverse set of minerals that suggest an igneous source region for the paste components. Subhedral grains (0.1 to 0.2 mm) of tartan-twinned feldspar (microcline) and albite twinned plagioclase feldspar are found in varying abundance (generally less than 2%). Muscovite mica (in some cases altered to chlorite; 0.1 to 0.3 mm long dimension) is the most common (identifiable) phyllosilicate (1 - 2%) while the minerals zircon (0.1 - 0.2 mm), epidote (generally as rounded ellipsoids in the 0.1 to 0.2 mm size), and a few grains of amphibole (0.1 - 0.2 mm) are also present. X-ray diffraction data indicated quartz and a trace of feldspar and calcite in the paste but did not identify the mineral phases found in these samples. In addition, like the Vaughan samples, the X-ray data were not able to identify the very fine-grained clay minerals.

These thin sections also have argillaceous inclusions (ACF). They are fine-grained, compact in size (0.1 - 0.5 mm), and are more uniformly distributed throughout the thin-section than those of the Vaughan samples. They have a red (brick red to red black) color and are ellipsoidal to spherical in shape. These argillaceous clots are either composed totally of clay minerals or dotted with inclusions of quartz and feldspar. Because of their color and shape they are distinctive at both the macroscale and the microscale.

Chemical Data

The chemical results of this study are displayed in Table 1. Although 37 elements were reported by ICP methods at XRAL Laboratories (Toronto), only 21 elements were above analytical detection limits. The data were tabulated and then evaluated by the use of divariant Pearce plots. In a Pearce plot two elements are compared by graphical (and statistical) methods to examine their compatibility or differences. This simple method allows the investigator to quickly examine the chemical data and observe any obvious clustering or segregation without resorting to complex methods of factor or cluster analysis.

In the case of magnesium (Mg) and iron (Fe) (Figure 1), a distinct separation between the

Vaughan and River Burnished samples were observed. Concentrations of Mg reported by the acid extraction technique are greater (by about two orders of magnitude) in the River Burnished sherds as compared to the Vaughan sherds. In addition, there appears to be a separation of the River Burnished sherds based on the Fe content. Further examination of comparison plots revealed that the only other element that appears to separate between the two sherd types is Ti (Figure 2). However, an important question to ask is whether the separation is real or an artifact of a small sample set or the analytical procedure.

To address this concern let us examine the distribution of the elements. For example, Figure 1 displays the linear array formed by the Vaughan samples with respect to Fe concentration. In Figure 2, the Ti concentration of the Vaughan samples also defines a linear array (except for sample 39341-24). What this suggests is that the distribution of extractable Fe (and Ti) in the Vaughan sherds varies and that, if more Vaughan samples were analyzed, the results for Fe (and Ti) would plot along this array. When other elements such as calcium (Ca) and strontium (Sr) are plotted, a linear array is formed suggesting similar behavior. This suggests that the acid extraction technique will provide a continuum of information for a distinct group of samples. Thus, any interpretation of the chemical data must account for the variability of the samples and how the paste constituents react.

With respect to Mg there is a distinct difference in the Mg concentrations between the Vaughan and River Burnished sherds. This suggests that the materials that yield the extractable Mg in the River Burnished sherds are present in different amounts (or ratios) from those of the Vaughan sherds. In both sherd types the paste is dominated by clay minerals and quartz. This suggests that the controlling difference in the Mg concentration is some difference in the ratio of montmorillonite (or illite) to kaolinite clay minerals. Both montmorillonite and illite incorporate Mg into their crystal structure while kaolinite is a more aluminum-rich clay mineral. This type of variation suggests a provenance difference in the paste materials. However, since the paste has been fired and rendered into a mainly amorphous material there is very little

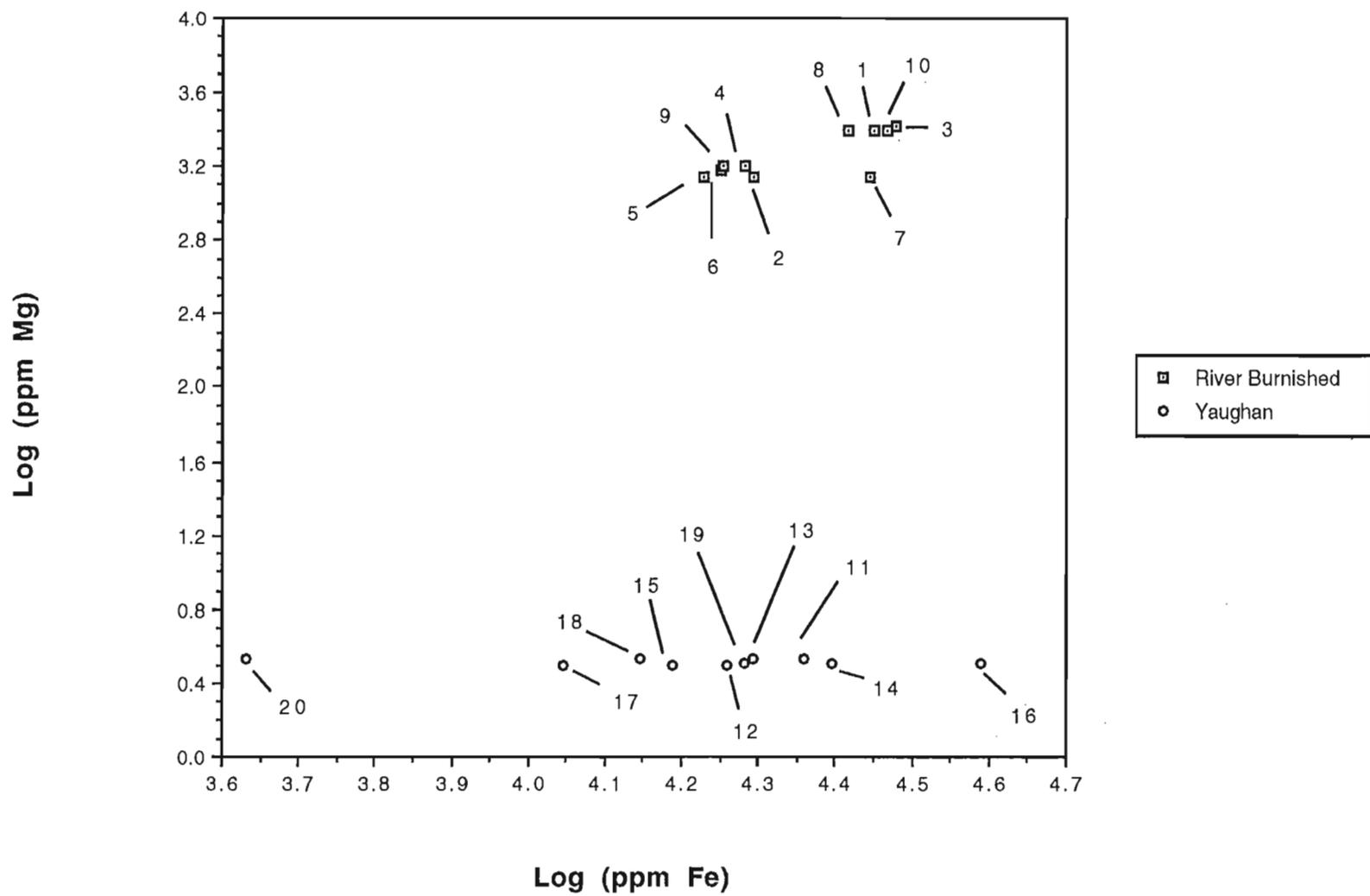


Figure 1. Plot of iron (Fe) and magnesium (mg) (\log_{10} ppm concentrations) showing separation between River Burnished and Yaughan wares. Sample numbers based on legend of Table 1.

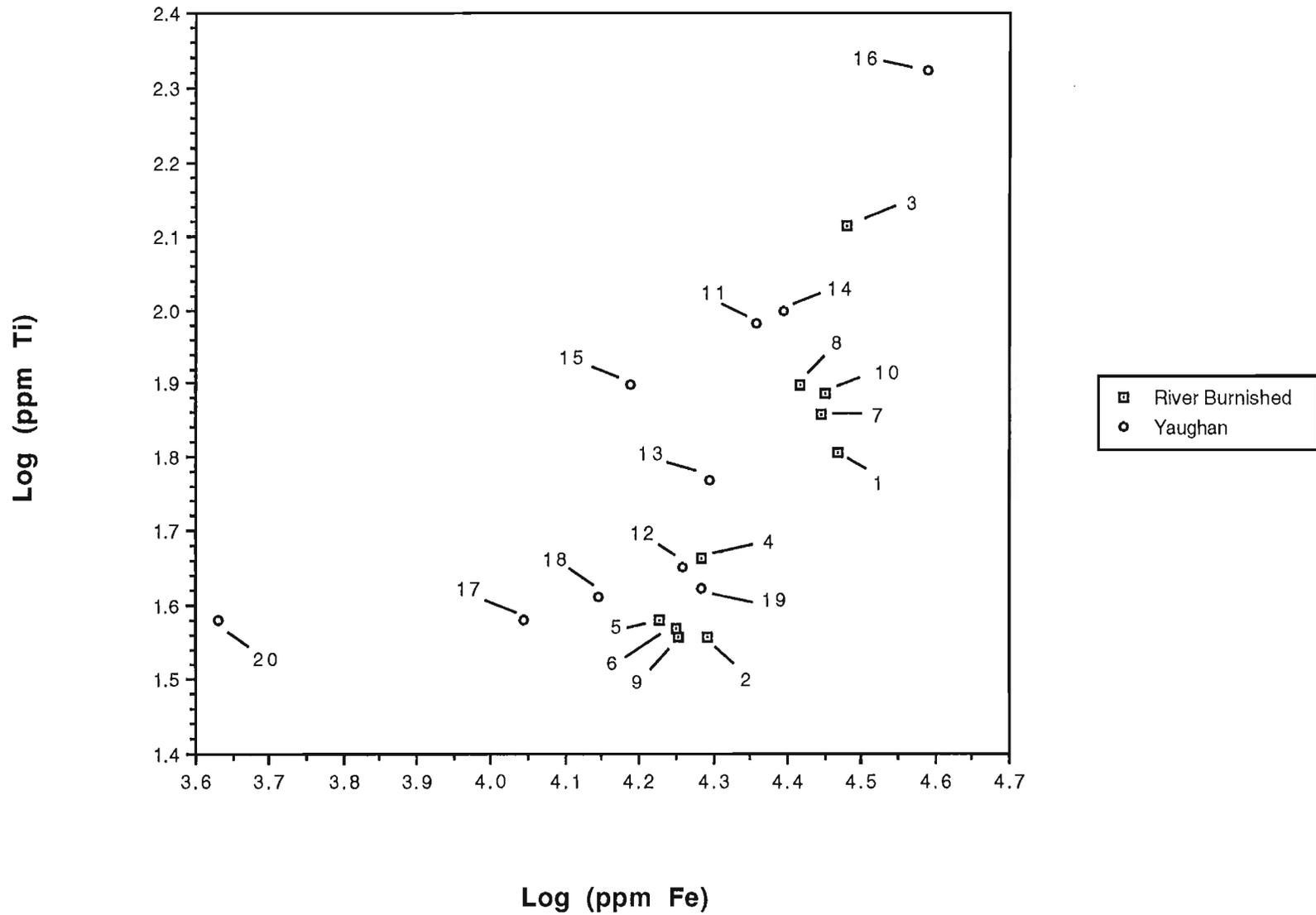


Figure 2. Plot of iron (Fe) and titanium (Ti) (\log_{10} ppm concentrations) showing separation between River Burnished and Yaughan wares. Sample numbers based on legend of Table 1.

evidence to support this hypothesis.

The apparent separation between the members of the River Burnished sherds (based on the concentrations Fe) may only be due to the small sample size of this study. Mineralogical differences between the River Burnished sherds are minor (Table 2), suggesting little variation in the potential extractable Fe. The low abundance and variability of the diverse set of fine-grained minerals associated with the paste (e.g., epidote and amphibole) in the River Burnished sherds probably could not supply the difference in iron concentrations (especially as they are not very reactive to the 1 molar HCL used in the extraction technique). As shown by examining Figure 2, it could be argued that what appears to be a clustering of samples is actually incomplete sampling of the total representative sample population. However, it is not possible to evaluate this hypothesis without further analysis of additional samples of the River Burnished type.

Lastly, it is important to recognize that although the acid extraction technique is rapid and affordable, the results from this method must be used with some caution. For example, zinc (Zn) concentrations in this study are all greater than the magnesium concentrations (see Table 1). Magnesium is a common cation in the structure of clay minerals such as montmorillonite and illite. Zinc, due to its larger cation size, is more often found as an absorbed (or colloidal) species on the surface of the clay mineral than as a structural component. The high concentration of Zn suggests one of two explanations. First, the clays for both sherd types were enriched in Zn as an absorbed species. However, if the two pastes are different as suggested by the Mg contents, the absorbed species (as a function of surface energy) should be different. The other alternative explanation is sample contamination. Sample contamination will (generally) result in a uniform abundance of the element in question. Examination of Table 2 suggests that this may be the case for this element.

Conclusions

The major direction of this study was to investigate whether petrographic or chemical methods could help distinguish between the River Burnished and Yaughan sherds. Sadly, the answer

to this question is equivocal.

Petrologically, the two sherd types have broadly similar temper mineralogy but are texturally different. The different styles of argillaceous (ACF) clots and the grain size difference of the temper materials (e.g., quartz) could be used to separate the two types. But, the proportions of temper and paste overlap and do not provide a discrete separation index (Table 2).

The presence of rutile needles in the monocrystalline quartz temper and the epidote grains found in the Yaughan sherds suggests that the clay materials used in the pottery had an input from an igneous source region. However, polycrystalline quartz temper also found in the Yaughan sherds suggests an input from a metamorphic terrain. This is not impossible but implies that the source regions were removed from the site of clay deposition (or formation). This inference can be supported by the sericite alteration found on the feldspar grains, the rounded nature of the quartz grains in the paste, and the lack of opaque mineral grains in the Yaughan sherds.

The presence of visible muscovite mica on the River Burnished sherds was suggested by the macroscopic (typological) examination in a previous section (**Colono Wares from Broom Hall**) and by others to be a useful sorting criteria. In this study the sherds of the River Burnished group had more visible mica (muscovite) on the surfaces than the Yaughan samples. Petrographically, fine grains of muscovite (0.1. to 0.2 mm) are found in both types and at about the same concentration range (1 to 2%). An important point to recognize is that with point counting it is possible to understate the amounts of fine-grained material, especially if it is smaller than your step interval. Furthermore, it is possible that the variation in muscovite observed as a macroscopic feature could be in response to the provenance of the paste or could be due to manufacture of the pottery, as an addition of temper to increase plasticity or as a result of processes occurring during the manufacturing process itself. Nevertheless, based on the petrographic evidence it would be difficult to discern between the two groups on the basis of muscovite abundance.

Chemical data acquired by the acid extraction technique suggest that Mg concentrations can be used to distinctly separate the two types. However, except for this element, no other element (or element pair) could produce any realistic separation between the two types. This may be a result of the small sample size, the type of sample themselves, or a result of the extraction technique. Furthermore, it is apparent that any application of the chemical data requires a knowledge of the mineralogy of the sample, especially the paste components. Identification of the clay mineral components in the paste is difficult as a result of the firing and their very fine grain size. Petrographically it is nearly impossible to identify these very fine-grained materials in these samples with optical properties at the scale of observation (i.e., much less than 0.1 mm size). Lastly, any identification of the components of the paste will probably be underdetermined as the firing process and subsequent low-temperature alteration in the site may result in ambiguous optical properties and mis-identification of the mineral.

In conclusion, this study finds some utility in the petrographic and chemical techniques for the separation of River Burnished and Yaughan sherds. In particular, the presence of particular minerals of igneous or metamorphic origin point to the need to examine potential clay sources for these vessels. Investigation of the mineralogy and chemical characteristics of potential clay sources would aid in answering some of the questions raised by this study.

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APPENDIX 3.
PAINT ANALYSIS FROM THE GARDEN STRUCTURE
AT AREA H OF BROOM HALL

George T. Fore
George T. Fore & Associates
Raleigh, North Carolina

I have analyzed the two plaster samples Chicora Foundation submitted from Broom Hall. I understand that the samples are from an archaeological feature in the garden area. Below are the laboratory chromochronology for each sample. As you can see from the chronology of paint layers the fix six layers are common to both samples. Sample #1 contains three additional paint layers.

All of the paint layers for both samples were found to be distemper paints. Distemper paints are waterborne coatings that often contain animal glue as a binder and whiting or lime as a filler. The most interesting feature of the paints is that this outbuilding was used as a working space or as housing. This contrasts with the whitewash color that I have observed within storage spaces from this period. These creams, whites, and grey colors were in common use in the late eighteenth and early nineteenth centuries, but it would be a rare case to find them repeatedly applied to areas that were not occupied. Although the analysis of these finishes cannot reveal the purpose or use of this outbuilding, it suggests that the structure played an active role in the work of the garden or the service of the residence.

Chromochronology of Sample #1

Substrate: plaster

1. sizing
2. lime wash - distemper paint - 10YR9.5/1 matte
3. light grey wash - distemper paint - N 7.5 matte
4. pale grey wash - distemper paint - N 8.75 matte
5. lime wash - distemper paint - N 9.5 matte
6. dark grey wash - distemper paint - N 3 matte

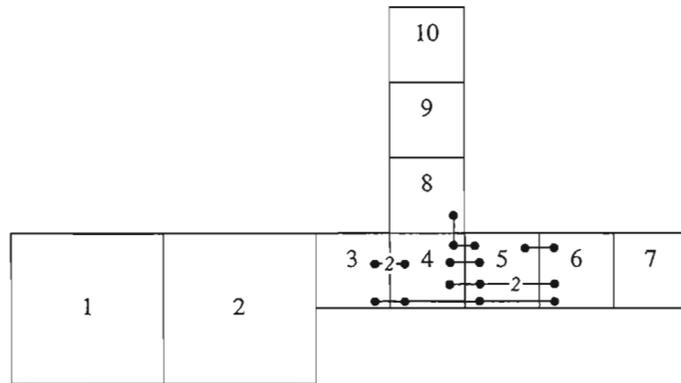
7. dark grey wash - distemper paint - N 4.75 matte
8. white wash - distemper paint - N 9.5 matte
9. light cream wash - distemper paint - 10YR9/1 matte

Chromochronology of Sample #1

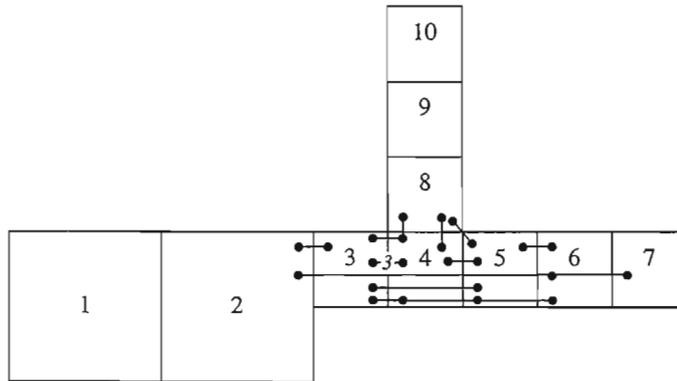
Substrate: plaster

1. sizing
2. lime wash - distemper paint - 10YR9.5/1 matte
3. light grey wash - distemper paint - N 7.5 matte
4. pale grey wash - distemper paint - N 8.75 matte
5. lime wash - distemper paint - N 9.5 matte
6. dark grey wash (trace) - distemper paint - N 3 matte

APPENDIX 4.
GRAPHIC PRESENTATION OF MEND ANALYSES
FOR FEATURE 1 IN AREA C, BROOM HALL PLANTATION

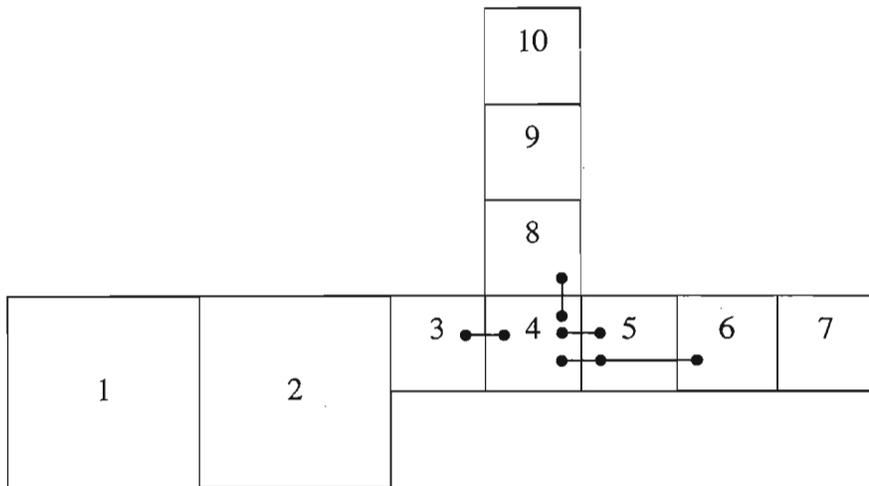


PORCELAIN, HAND PAINT OVER GLAZE

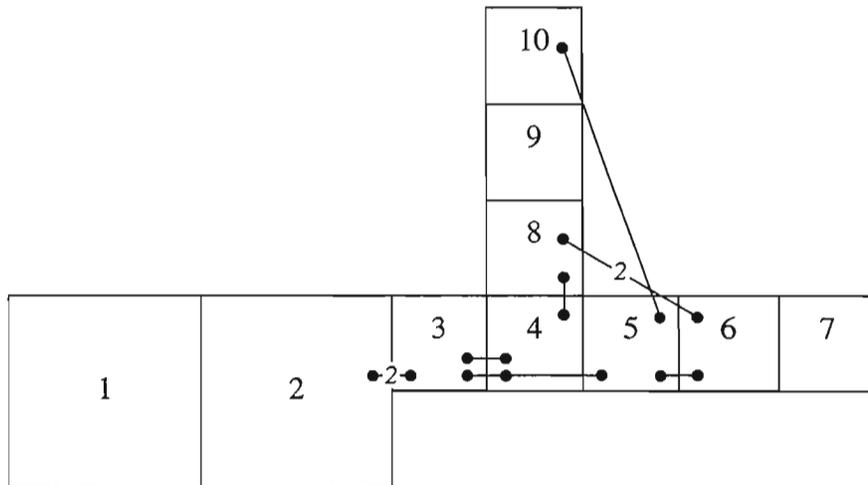


PORCELAIN, BLUE HAND PAINTED

- REPRESENTS SINGLE MEND BETWEEN UNITS
- 2—• REPRESENTS MULTIPLE MENDES BETWEEN UNITS

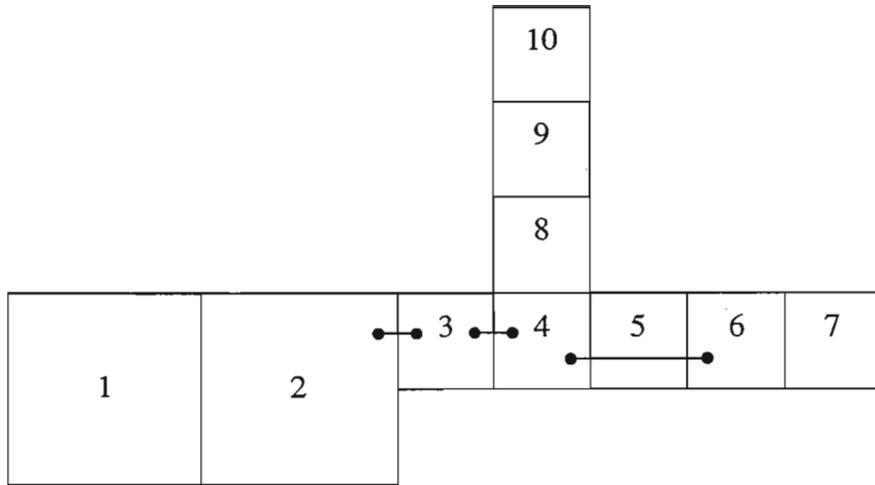


WESTERWALD AND GRAY SALT GLAZE STONEWARES

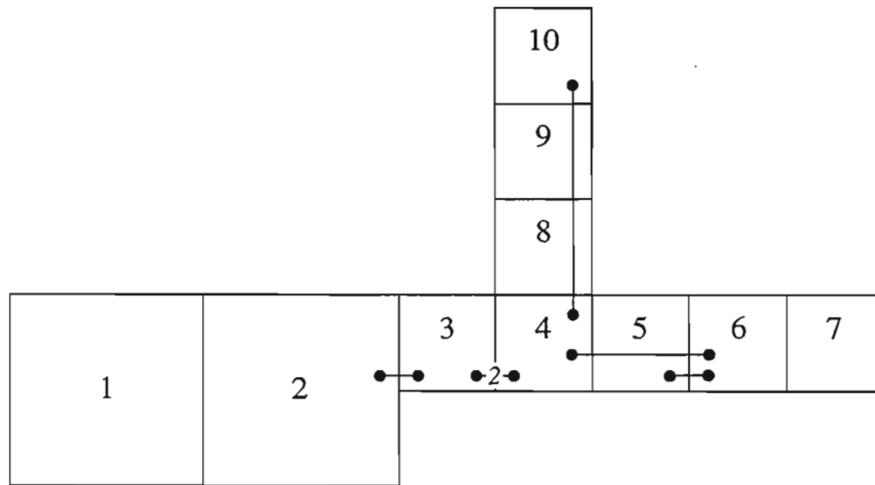


WHITE SALT GLAZE STONEWARE

- REPRESENTS SINGLE MEND BETWEEN UNITS
- 2-● REPRESENTS MULTIPLE MENDES BETWEEN UNITS



LEAD GLAZED SLIPWARES



DELFT

- REPRESENTS SINGLE MEND BETWEEN UNITS
- 2—● REPRESENTS MULTIPLE MENDES BETWEEN UNITS

**Archaeological
Investigations**

Historical Research

Preservation

Education

Interpretation

Heritage Marketing

**Museum Support
Programs**



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