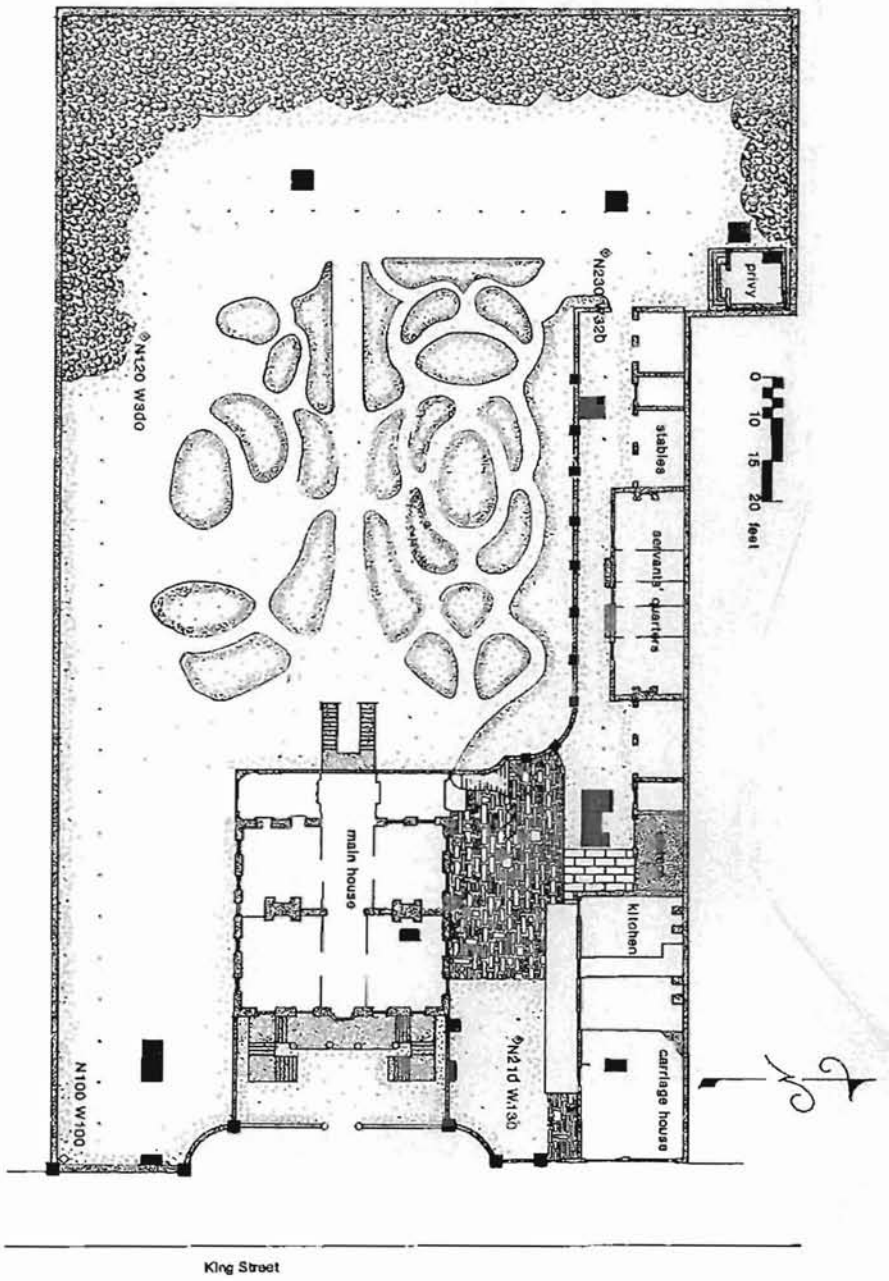
Archaeology at the Miles Brewton House, 27 King Street



Archaeological Contributions 29
The Charleston Museum
2001

Archaeology at the Miles Brewton House
27 King Street, Charleston, SC

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The Charleston Museum

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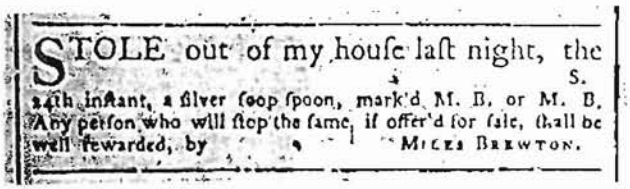
The Charleston Museum
Archaeological Contributions 29
November 2001

A summary and interpretation of
excavations conducted 1988-1989

A late discovery, as this report was in press, was this advertisement, placed in the
SOUTH CAROLINA GAZETTE,
JUNE 1-8, 1765

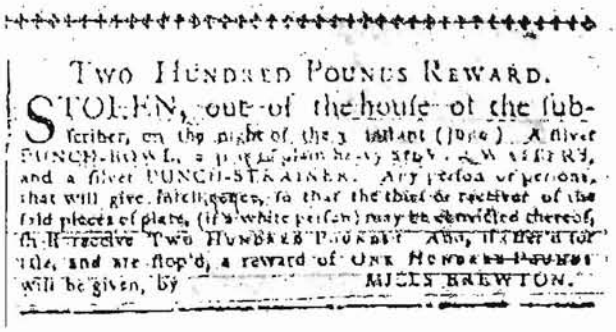


STOLE out of my houſe laſt night, the 24th inſtant, a ſilver ſoop ſpoon, mark'd M. B. or M. S. B. Any perſon who will ſtop the ſame, if offer'd for ſale, ſhall be well rewarded, by MILES BREWTON.

"Stole, out of my house last night, the 24th instant, a silver soop spoon, mark'd M.B. or M.S.B. Any person who will stop the same, if offer'd for sale, shall be well rewarded, by

Miles Brewton"

as well as the following ad,



TWO HUNDRED POUNDS REWARD.

STOLEN, out of the houſe of the ſubſcriber, on the night of the 30th inſtant (June) A ſilver PUNCH-BOWL, a pair plain heavy SILVER WAITERS, and a ſilver PUNCH-STRAINER. Any perſon or perſons, that will give intelligence, ſo that the thief or receiver of the ſold pieces of plate, (if a white perſon) may be convicted thereof, ſhall receive TWO HUNDRED POUNDS. And, if offer'd for ſale, and are ſtop'd, a reward of ONE HUNDRED POUNDS will be given, by MILES BREWTON.

"Two Hundred Pounds Reward. Stolen, out of the house of the subscriber, on the night of the 30th instant. A silver punch bowl, a pair of plain heavy Silver Waiters, and a silver Punch Strainer. Any person or persons, that will give intelligence, so that the thief or receiver of the sold pieces of plate, (if a white person) may be convicted thereof, shall received Two Hundred Pounds. And, if offer'd for sale, and are stop'd, a reward of One Hundred Pounds will be given, by

Miles Brewton"

(**Note** that a 1765 date precedes construction of the Miles Brewton house at 27 King Street, and Mr. Brewton likely resided elsewhere at the time of this ad. Nonetheless, the description of the engraving on the spoon matches that of the one recovered at 14 Legare)

Table of Contents

List of Figures

List of Tables

Acknowledgments

Study of the Miles Brewton property through archaeological excavation resulted from an invitation from Peter and Patti Manigault. Their vision and stewardship resulted in both an archaeological study and a restoration project pathbreaking in their scope. I am grateful to the Manigaults for this opportunity. Restoration specialist and project manager Tommy Graham is also responsible for this vision; from the beginning he realized that archaeological resources would be impacted by the work, and that archaeological research could contribute to the greater understanding of the evolution of the property. Architects Joe Opperman and Charles Phillips refined this vision with specific questions and research topics. Linda Walraven has continued these efforts through the past decade. It was a pleasure to work for and with these scholars.

The Director and Board of Trustees of The Charleston Museum also recognized the opportunity afforded by this project, and endorsed Museum involvement in the project. I am particularly grateful to Dr. John Brumgardt for his support and guidance throughout the project.

Several colleagues helped identify particular artifacts recovered from the project. Thanks to Tom Savage and Robert Leath for examining the Chinese export porcelain, to Julia King for the tobacco pipes, to Charles Poe for the Spanish coins, to Martha Fales for the paste jewels, and to Leland Ferguson for the coins.

Several museum volunteers helped process, identify, and restore the recovered artifacts. I am particularly grateful to Myrna Rowland for restoration of the ceramics. The late Robert (Bob) Jacobs spent many hours analyzing the materials, and drew the artifact illustrations contained in this document. Conservator Rosa Lowinger provided advice and assistance with the conservation of metal artifacts.

A special thank you to former Assistant Curator Kimberly Grimes and Assistant Curator Ron Anthony for their assistance in the field. A number of students and volunteers helped with all phases of field and lab work. Thanks to Cherie Black, Heather Bailey, Bob and Maggie Jacobs, Barb Brundage, Rob Smith, Barbara Hiott, Rhoda Mc Lean, Kirk and Denise Johnston, Coleen Pilal, Margot Soballe, Gina Tuten, John Rowe, and Kerrie Joseph.

The interpretations presented herein derive from the scholarship and comraderie of others. In particular, the archaeological study builds upon conversations, unpublished research, commentary, and publications from the following: Allan Brown, Lu Ann De Cunzo, Bernard Herman, William Kelso, Julia King, Ann Smart Martin, Maurie McInnis, Jonathan Poston, Thomas Savage, Ann Yentsch I am particularly grateful to Bernie Herman for his many hours of consultation and coauthorship, and his invitation to the Winterthur Conference in 1991. I also appreciate the many conversations with Bill Kelso regarding garden excavation and interpretation. In recent months, Maurie McInnis has revisited much of the Brewton house data with me and helped forge new interpretations. While their work greatly aided the present effort, any errors remain my own.

Chapter I
Introduction

Though a private dwelling, there is perhaps a no more celebrated structure in Charleston than the Miles Brewton house, 27 King Street. Printed on postcards, touted in tours, and studied by scholars throughout the twentieth century, it is considered one of the finest examples of Georgian architecture in the country. Passed through family hands for eight generations, the history of the house and its occupants embodies many of the events and trends in Charleston's three hundred year history. The most affluent generation occupied the house from 1791 until 1830; the next family saw increasing financial difficulties and ultimately ruin during the Civil War. The house was occupied by invading troops during both the Revolution and the Civil War and by extra-familial boarders in the late 19th and early 20th centuries. Three unmarried sisters maintained the house until 1960, supporting themselves through a variety of means, including tours of the house. The present owner has fully restored the property. Each generation made changes to the property and left their imprint on the archaeological record (figure 1).

Site History

Though adjacent lands were occupied by the early 18th century, the large lot, bought and sold for speculative purposes, remained unimproved until Miles Brewton, grown wealthy from trade in the merchandise and African slaves demanded by the burgeoning colony, built a grand townhouse to proclaim his wealth and social status. When he and his family were lost at sea in 1775, the property was inherited by his sister, Mary Brewton Motte. She saw the house through the Revolution and Charleston's two year occupation by the British, "hosting" Colonel Balfour, head of the British forces, while at the same time conducting subversive activities as a patriot. Her daughter's family, the William Alstons, were the wealthiest owners. William Alston owned numerous plantation in the Georgetown District, and embodied the "golden age" of Charleston in the post-Revolutionary era. He and his wife, Mary Brewton Motte Alston, made many improvements to the King Street property during their 1791-1839 tenure. His youngest daughter Mary Motte Alston and her husband William Bull Pringle were not so fortunate. Though the son of a wealthy Charleston attorney, William Bull Pringle was unable to manage his finances effectively, and in 1857 sold the back half of the Brewton lot. The Civil War, which brought financial ruin to most Charlestonians, exacerbated Pringle's situation as the family fled to Society Hill during the siege of the city. The empty house was used as headquarters for the Union Army in 1865. After the War, the Pringle family returned to their grand house but did not live in grandeur; they took in boarders to make ends meet. After William Bull Pringle's death in 1881, the house passed to his wife Mary M. Pringle and then their daughter Susan Pringle.

The house then passed to multiple heirs (nieces and nephews); their shares were purchased by Miss Pringle's nieces, the Misses Frost, who occupied the house until 1960. The sisters managed to maintain the historic structures through gardening, loans and mortgages, "gifts", boarders, and tours of the house. Miss Sue Frost is recognized as an early leader in the burgeoning historic preservation movement, and it was she who touted the historical merits and architectural grandeur of the house, using her meager earnings and the donations of others to maintain the property and repair damage from periodic storms (Bland 1999). In 1971, the house was inherited by Mary Pringle Hamilton Manigault and her husband. In 1987, they devised the property to their son and present owner, Mr. Peter Manigault. Mr. Manigault commissioned a complete, state-of-the-art restoration of the house.

The Archaeological Project

Included under this restoration umbrella are research by scholars in a variety of fields, designed to embellish the architectural details of the history of the property and its occupants. To this end, The Charleston Museum was invited to conduct archaeological excavations on the property. Realizing the importance of the site and the generous nature of the invitation, The Charleston Museum conducted the extensive archaeological research reported here.

Archaeological investigations at 27 King were conducted in two phases. The first phase initiated in February 1988, simultaneous with selection of Mr. Charles Phillips and Mr. Joe Opperman as restoration architects and initiation of complete restoration under the direction of Mr. Tommy Graham. The first phase was designed to investigate areas of interest to the architects and answer questions concerning the architectural evolution of the main house and outbuildings. Units were also strategically placed to investigate a series of archaeological research issues (figure 2). Phase I initiated on February 5 and continued intermittently through May 20. The archaeological team remained "on call" and continued to monitor restoration activities and impacts to the archaeological record.

Whereas Phase I focused on research, the impetus for Phase II was mitigation. Installation of a new electrical and heating/cooling system involved extensive trenching across the yard, impacting significant portions of the archaeological record (figure 3). Phase II initiated in November 1989 and continued intermittently through March 23. During this phase portions of the planned trenches were excavated in a controlled manner; this was followed by monitoring of the remainder of the trench excavation by the restoration crew. Because of the completion of a research design for Charleston archaeology (Zierden and Calhoun 1984) and a specific plan for Miles Brewton research (Zierden 1988), excavations during phase II contributed to the developing ideas concerning evolution of the property, and greatly expanded the available data base.

Figure 2. Fieldwork, phase I; excavation of feature 11 in N225W185

Figure 3. Fieldwork, phase II; screen soils from Trench 5section 2

Site Setting

The Miles Brewton house is located at 27 King Street, in the southern portion of the Charleston peninsula. This portion of the historic town is outside the original city walls, in an area of the city which was settled in the second quarter of the 18th century (figure 4). The property is located on the west side of King Street, and measures 100 feet along the street frontage and 185 feet deep. The main house sits in the center of the lot fronting the street. The main house is brick, two stories plus and above- ground basement, and is a Georgian double house; four main rooms per floor with a large central hall (figure 5). The front entrance features a columned portico, which is approached through a large wrought iron gate. The gate along the fence is original to the house; the chevaux de frise was added after the Denmark Vesey insurrection in 1822. Eight foot high brick walls run from the front corners of the house to the sidewalk, separating and barricading the front entrance from the two side yards. The remainder of the lot is surrounded by brick walls, ten foot high along the front and eight foot along the sides and back.

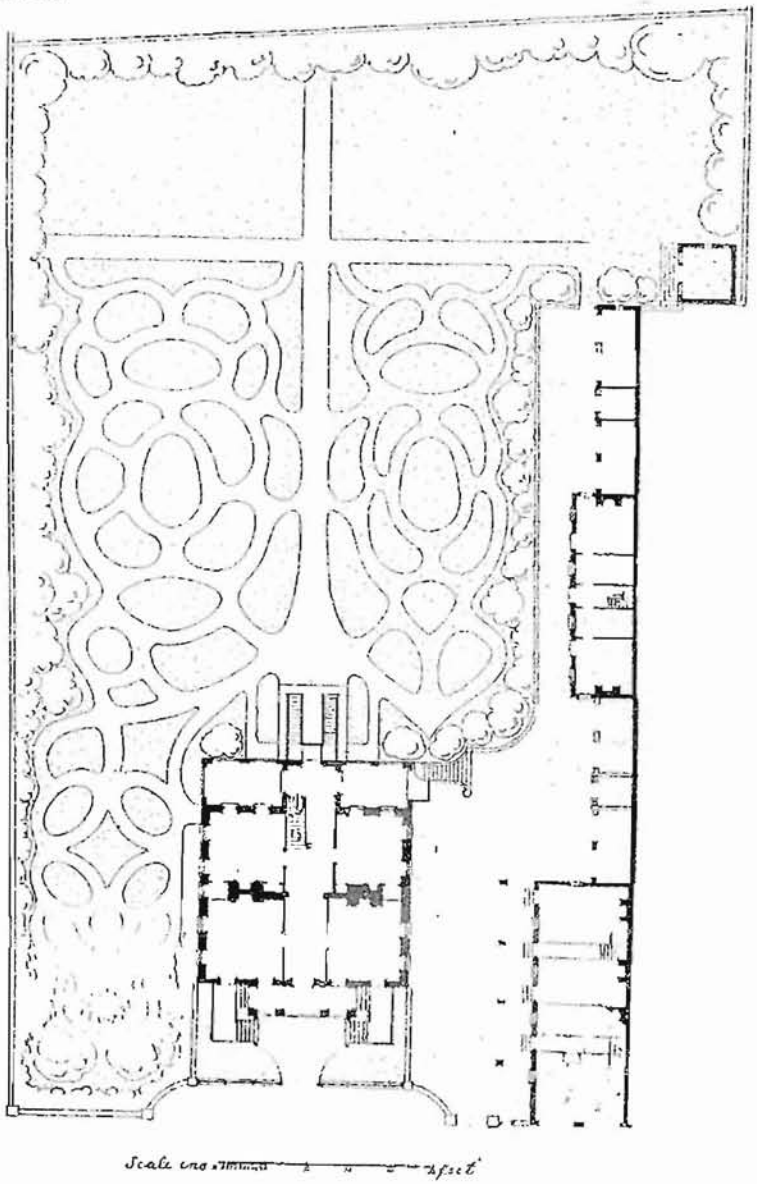


Figure 5. Drawing of the Miles Brewton property by Albert Simmons

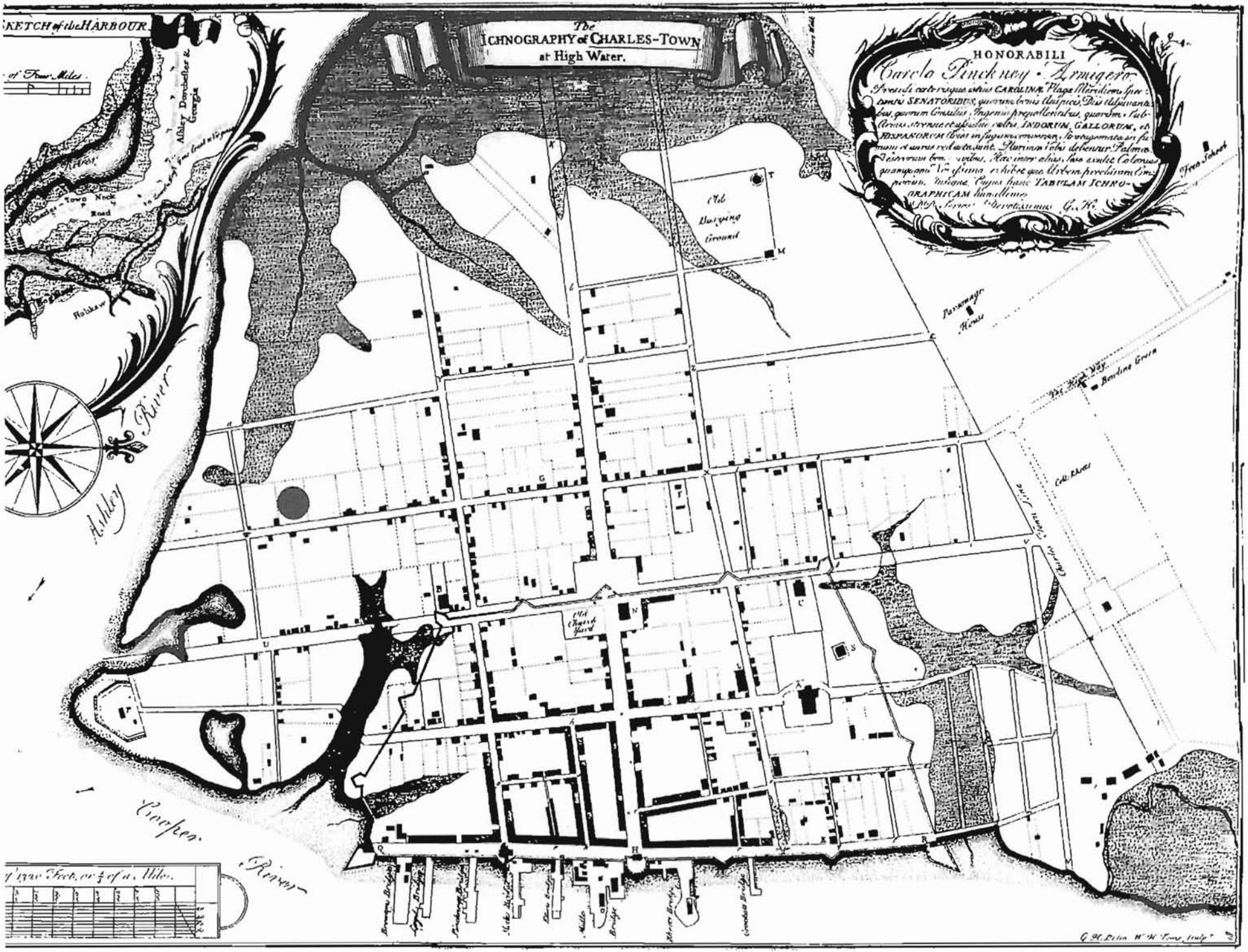


Figure 4. 1739 Map of Charleston, showing location of the Brewton House

Outbuildings and service yard are aligned along the northern property line, running from street to rear corner. The carriage house which fronts on King Street is original to the house, but altered in the second quarter of the 19th century. Two large doors to accommodate carriages open onto the street; the rear portion of this structure served as the kitchen with slave quarters above. The service yard is entered through a large utility and smaller pedestrian gate in the brick wall, between the main house and carriage house; these are the only entrances to the walled compound.

Behind the carriage house are a series of 19th century additions to the work yard. Immediately behind the carriage house are two horse stalls and a tack room. The easternmost stable was later converted to a large above-ground cistern. Behind this is a large structure built during the Alston's ownership. The structure was gutted and the interior remodeled in 1987; the exact function and layout of this structure is thus unclear. It is believed to be additional servant's quarters. Behind this building are additional stables and a tack room, balancing those to the east. This portion of the work yard is separated from the formal garden by a brick coping and wood picket fence initiating at the northwest corner of the house. Just beyond this fenced area, and in a corner behind the last stable, is a yellow brick building, also original to the house. The function of this structure is also uncertain, but it is believed to be a privy. The remainder of the back yard as well as the south side yard contained formal gardens in a paisley pattern. At the time of phase I excavations, areas adjacent to the rear wall and back side walls were overgrown. The remainder of the yard was in grass and planting beds. Large portions of the northern work yard were paved with brick or sandstone.

Archaeology in Charleston

The Miles Brewton house has long been considered architecturally significant. The property also contains extensive archaeological resources capable of providing information specific to the history of the site and its occupants, and in general on the growth and development of Charleston as an urban center. The site is an important data base for many reasons. One is its undisturbed condition; unlike many areas of the city, the Miles Brewton property has been carefully protected and preserved, and has not been disturbed by construction or vandalism. The occupational history of the property, its undisturbed condition, and its location in a previously unexamined portion of the city make the Miles Brewton property an important addition to ongoing urban archaeological research in Charleston.

The development of archaeology in Charleston parallels the development of urban archaeology in much of the country. Investigations began with a few small-scale, isolated projects, essentially descriptive in nature. A number of research efforts initiated in Charleston in 1981 served to bring the city into the mainstream of urban archaeology. This included initiation of large-scale, federally funded excavation at the Charleston Place site (Honerkamp et al. 1982), expansion of artifact studies (Herold 1981; Singleton 1982, 1984), and the initiation of long term archival research sponsored by the City (Zierden and Calhoun 1982, 1984a, 1984b; Calhoun and Zierden 1984; Calhoun et al. 1982).

The archival research served as an archaeological survey of the city, in that we were able to predict site location, type of activity, and length of occupation throughout the city. This two year project was funded by Community Development Grants from the City and matching Historic

Preservation grants, administered by the South Carolina Department of Archives and History. Based on the length and density of human occupation of the urban center, the entire peninsular city below the cross-town is considered a vast, contiguous archaeological site with many components. In order to expand research efforts, a similar documentary study focusing on the 19th century suburbs of Charleston Neck was completed. The project concentrated on the development of 19th century suburban areas and on Charleston's industrial growth, with particular attention to the city's African American population. Many of the original research questions were refined and new ones proposed (Rosengarten et al. 1987).

From an anthropological perspective, historical documents with the greatest relevance to understanding past lifeways are those that give insights into the formation of human behavior and adaptive patterns, and the ways in which the patterns are manifested in the community and reflected in the ground (Deagan 1983:13-14). These include:

1) Information relevant to an understanding of social variability in the city, such as population demography, occupations, income ranges, social and ethnic classes.

2) Information relevant to the material world and economy of Charleston. This includes studies of Charleston's economic system, its position in the world economy, the range of activities in the commercial sector of Charleston's population, descriptions of the range of imports available to the city's citizens, the local production of goods, and the mechanisms and manifestations of distribution and exchange in the city.

3) Information relevant to the physical formation of the archaeological record. This includes information on the physical landscape of Charleston, such as patterns of growth and development, location of different activity areas, and the nature of the physical environment prior to intensive utilization. Physical contributions to the record as architecture and building construction methods, cultural and natural disasters, disposal and sanitation practices, and public works are also important.

A product of this research was the formulation of long-term, broad-ranging research topics for the urban archaeology program at The Charleston Museum (Zierden and Calhoun 1984; Rosengarten et al. 1987). In the ensuing years, this approach has proved successful. Most of the archaeological projects in the city are small in scale. By addressing broad anthropological questions on an ongoing basis, the individual projects are united in a comparative framework, making each one inclusive and cumulative. The result has been pioneering research in the field of urban archaeology (Zierden and Calhoun 1986; Reitz 1986; Singleton 1984; Zierden and Herman 1996; Zierden 1997; Zierden 1999).

Following completion of the city-wide research design, excavations focused on sites located in the colonial commercial core. Occupied since the early 18th century, all of the sites served a dual function as businesses and residences, and were built on several times. Many had served as rental property, and the function and configuration of the properties changed constantly. The limited time available for historical research on these projects provided a general site history, but also illustrated several problems. Gaps in knowledge concerning site owners were numerous; gaps in knowledge of site occupants and activities were more numerous. Therefore, equation of specific excavated proveniences with specific site occupants, the traditional approach in historical archaeology, became virtually impossible.

With this avenue closed, consideration of new methods commenced. The incomplete site histories were combined with general data on the growth and development of the city to formulate a neighborhood level of research (Honerkamp 1987; Zierden and Calhoun 1986). Based on our then-current state of knowledge, similarities as well as differences among the assemblages became apparent. Taken together, the sites revealed a general pattern for dual function sites in the city. The various assemblages were also examined for clues to socioeconomic status. While some differences between the suspected high, middle, and low status sites were noted in the faunal, botanical, and cultural materials, these differences were not always consistent.

A major breakthrough occurred with the excavation of the Aiken-Rhett and Gibbes townhouses in 1985 (Zierden, Calhoun, and Hacker 1986; Zierden, Buckley, Calhoun and Hacker 1987). These historically residential sites were less complex, better documented; thus archaeological patterns were less ambiguous. Located in federal and antebellum period suburbs, both sites contain the original standing structures and exhibit the original site boundaries. The extensive documentary information revealed that the sites were owner-occupied by wealthy, socially prominent families and their slaves. The data from these two sites were similar in almost every respect, and both the faunal and cultural remains reflected in the high status of the occupants (Zierden and Calhoun 1990). These trends were supported by data from the John Rutledge house, excavated in 1988 (Zierden and Grimes 1989) and more limited work at the Joseph Manigault house (Zierden 1992).

Since 1985, research by The Charleston Museum has focused almost exclusively on urban domestic sites, most of them considered homes of the city's elite. The twelve residential sites are, with three exceptions, located in what were suburban areas, or areas of new development, at the time the houses were built. Their continuous use as residential property to the present facilitates the the study of daily life in the city by occupants of varied social and ethnic affiliations. Urban gentry whose 18th century homes have been studied include William Gibbes (1772 - South Bay Street), Miles Brewton (1769 - King Street), John Rutledge (1763 - Broad Street), and Thomas Heyward (1772 - Church Street). Early 19th century home builders include Joseph Manigault (1803 - John Street), Nathaniel Russell (1808 - Meeting Street), William Aiken (built by John Robinson in 1817 - Judith Street), and Francis Simmons (1800 - Legare Street). The four middle class sites include 66 and 40 Society Streets and 72 Anson Street, rebuilt on Ansonborough lots after the 1838 fire, and 70 Nassau Street, built in the Charleston Neck in the 1840s (figure 6).

Project Goals

The correlations found at Aiken-Rhett, Gibbes, and Rutledge suggested exciting possibilities for the advancement of archaeological studies on many fronts. The Miles Brewton sites shares the same features that made these projects so informative, but on a larger scale. A major drawback to the previous studies has been the limited nature of the excavations. The extensive work at Miles Brewton has greatly advanced these areas of study , and the data now stand as a cornerstone of Charleston research. The data have also been used by a number of historical archaeologists in the eastern United States (see Zierden and Herman 1996; Zierden 1996).

TOWNHOUSE SITES
EXCAVATED IN CHARLESTON

Gentry sites:

1. Aiken-Rhett house
2. William Gibbes house
3. John Rutledge house
4. Miles Brewton house
5. Joseph Manigault house
6. Heyward-Washington house
7. Nathaniel Russell house
8. Simmons-Edwards house

Middle Class Sites

9. 66 Society St.
10. 40 Society St.
11. 70 Nassau St.
12. 72 Anson St.

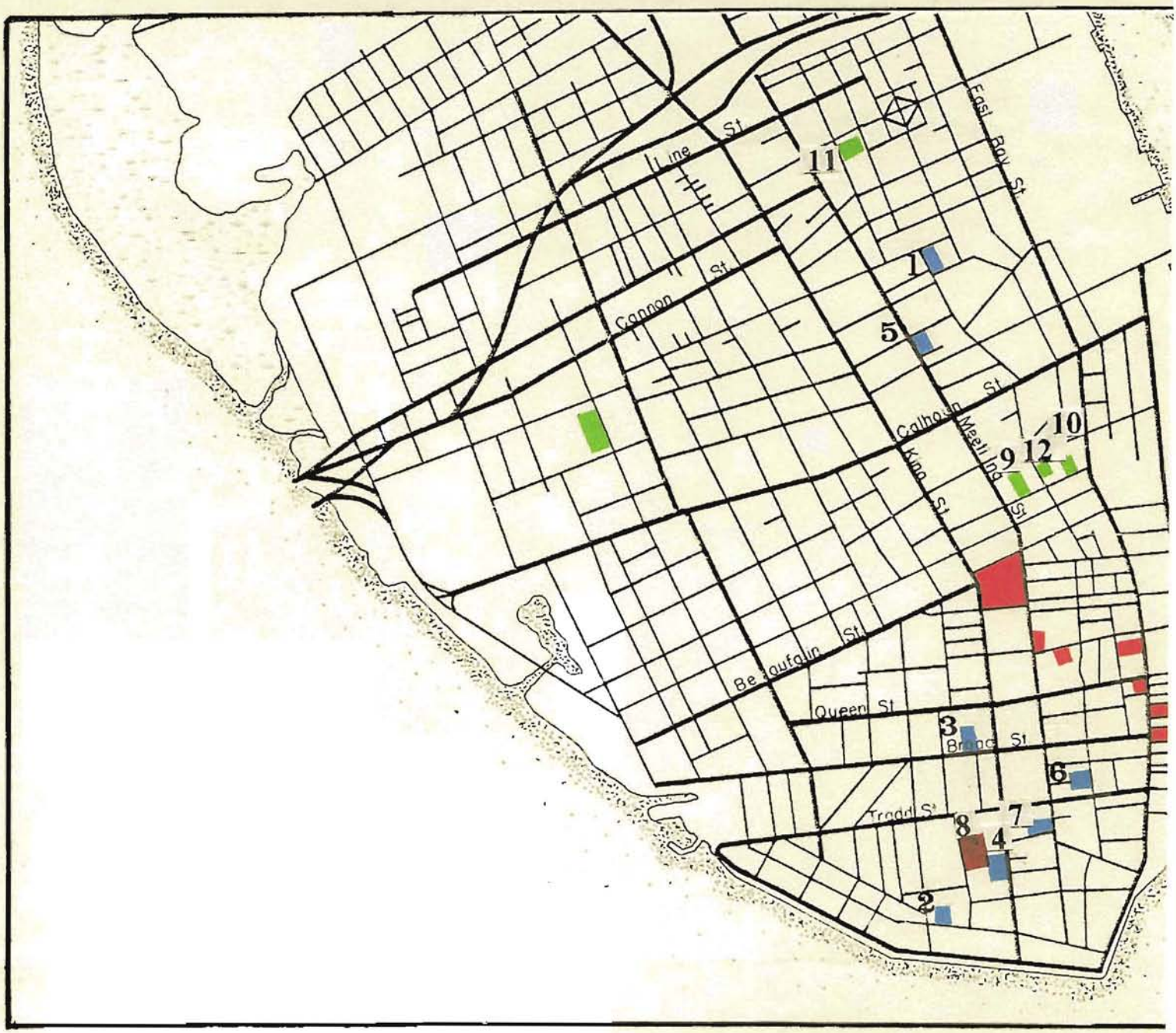


Figure 6. Location of Sites excavated in Charleston

On a general level, project goals at Miles Brewton may be summarized as follows:

1) investigate a variety of research issues pertinent to ongoing archaeological investigations in Charleston.
2) collaborated with a variety of scholars to aid in restoration.
3) collect data and materials to interpret Charleston's development to the public.

The project also expanded our interdisciplinary goals. In addition to customary cooperation with the zooarchaeologist, ethnobotanist, and historian, the project facilitated interaction with new specialists. Analysis of soil samples for pollen and parasite analysis, initiated at the John Rutledge house, was greatly expanded during the present study. Further, collaboration with folklorists, architectural historians, the restoration architect, and a host of restoration technicians, conservators, and material cultural specialists provided data for both the archaeological project and the restoration. Finally, this extensive project was designed to collect artifacts and data suitable for exhibition of a variety of aspects of Charleston's history. Many of these are on permanent display at The Charleston Museum.

Research issues relevant to the Miles Brewton study and proposed at the time of fieldwork include investigation of site formation processes, subsistence strategies, socioeconomic status, rural-urban contrasts, spatial patterning, gender and ethnic identification, and the urban landscape. In ensuing years, many of these topics have been revised and combined, and new issues from the fields of historical archaeology, art history, history, folklore, and other fields have been incorporated into Charleston research. Presently, research is presented under the umbrella of urban landscape research (including studies of spatial patterning, lot layout, architectural elements, gardens, and public areas), refinement and consumption (including socioeconomic status, artifact patterning, and archaeological evidence from enslaved residents). Site formation processes and subsistence strategies remain significant and well-defined research topics.

Site Formation Processes: Investigation of site formation processes is a basic component of ongoing Charleston archaeology. In order to most fully interpret an archaeological site, it is first necessary to understand the processes responsible for the formation of that data base (Schiffer 1977). An archaeological site consists of a natural setting altered by the humans who occupied that site. Specifically of interest are those activities which introduce materials into the ground and reorganize them after deposit. Urban sites, densely occupied, are often a complex combination of such events. Site formation processes on residential sites and suburban sites are expected to be different from those in the commercial core.

Refinement and the measure of socioeconomic status: A focus of historical archaeology in general and urban studies in particular has been the delineation of socioeconomic status. Socioeconomic status refers to the relation of unequal distribution of goods in a market economy relative to economic and social differentiation (Spencer-Wood 1987:6). In Charleston, this term specifically refers to income level; in lowcountry society, income level is generally, if imperfectly, correlated with prestige level. The grand double houses described in this study were expensive; they were designed to demonstrate the wealth and prestige of their occupants within the community. An assumption of the present study is that the material culture served a sociotechnic function, and was used to define both

the income level and the prestige level of its users (Binford 1962; Deetz 1967, 1977).

A problem with status studies in Charleston has been the lack of specific documentary information on site inhabitants, and the inability to associate individual site contexts with specific occupants. The townhouses - Aiken-Rhett, Gibbes, and Rutledge - are exceptions, and they have provided a model for the archaeological correlates of high status (Zierden and Calhoun 1990). This model will be evaluated at Miles Brewton through the examination of site size, location, and layout; diet; material culture; and public health.

Subsistence Strategies: Increasing attention is being focused on the study of subsistence strategies in historic populations, using faunal and botanical remains recovered from historic sites (Reitz and Scarry 1985; Styles, Purdue and Klippel 1991). The data from 22 Charleston sites have been consistently examined for the past twenty years and have provided some of the most innovative interpretations of the urban situation (Reitz 1986, 1987; Reitz and Zierden 1991, Reitz and Ruff 1994; Ruff 1987; Reitz 2000; Webber 2000). The faunal and botanical remains have been used to address a variety of issues including cultural conservatism, adaptation to local environments, ethnicity, and social variability. Analysis of the large sample from Miles Brewton has greatly expanded these studies.

Spatial Patterning and the Urban Landscape: The demands of the urban environment are reflected in the spatial patterning of the urban compound. During the 18th and 19th centuries, the types of structures found dispersed across the rural plantation site had to be crammed onto the constricted urban lot. Urban compounds were organized to make efficient, but socially meaningful, use of available land. Lots, deep and narrow, maximized the available street frontage. Houses fronted directly on the street, with the narrow end facing the road. Behind or beside the main house, auxiliary structures were arranged within a fenced compound. The work yard was the focus of many activities, including commercial as well as domestic enterprises. Because all of the structures are extant, the Miles Brewton house greatly expanded study of spatial patterning on a site specific level.

The Miles Brewton house also served as a data base for the continued examination of the evolution of the urban landscape. Charleston's physical growth was a patterned response to certain conditions exacerbated by the urban environment. Creation of the urban landscape encompasses deliberate as well as accidental actions, where the deliberate actions were guided by aesthetics and the accidental by the circumstances of ordinary urban life (Handsman 1977). Archaeological research on urban life focuses on buildings and the spaces between them, such as gardens, streets, and public domain (Harrington 1989; Leone 1984; Payntner 1982; Deetz 1990), and such studies are driven by the principal that landscapes encode complex expressions of historical trends from the reified to the explicitly ideological. Elements to be considered in investigating the urban landscape include architectural trends, lot element patterning, environmental changes, and health and sanitation concerns. The study utilizes archaeological stratigraphy, features, and patterning of material culture, as well as results from faunal, ethnobotanical, and palynological studies.

Description, analysis, and interpretation of the Miles Brewton sites is divided into several sections. Chapter II discusses documentary evidence for the Miles Brewton house and its residents and places

these events in a larger perspective. Chapter III describes the fieldwork procedures, placement of units, and deposits identified. Chapter IV discusses analytic procedures and describes in detail the recovered materials. Analysis of the vertebrate faunal remains is discussed in Chapter V; analysis of botanic remains in Chapter VI. Detailed analysis and interpretation of all data classes is contained within discussion of the research issues in Chapter VII.

The Present Publication

A few comments are in order concerning this site report. Nearly ten years have passed since fieldwork and all laboratory analysis was completed on the Miles Brewton site. Since that time, data from this project have remained central to continued research on urban life in Charleston. Further, the data have served as a cornerstone for research at other sites in Charleston. Archaeological research on Charleston is a cumulative effort, and each individual project includes data and results from all previous projects, either implicitly or explicitly. Large research projects at two other Charleston townhouses, the Nathaniel Russell House (c. 1808, excavated in 1994-1995) and the Simmons-Edwards House (c. 1800, excavated 1998-2000) have used the Miles Brewton data as a comparative foundation. Further, the research at these two sites has greatly expanded our understanding of the urban landscape and the archaeological record, and this, in turn, has led to reinterpretation of some of the Miles Brewton data.

Results of the Miles Brewton project have been the subject of several papers and publications. What was missing, however, was a basic site report describing the archaeological project in detail. The present document serves to fill that gap. Contained in this report are the descriptive details of the field and laboratory work. Broad interpretations of the data, and interpretive implications may be found in several publications. The archaeology is addressed specifically in three book chapters, by the author: ***Charleston Townhouses: Archaeology, Architecture, and the Urban Landscape, 1750-1850,*** by Martha Zierden and Bernard Herman, in **Landscape Archaeology: Reading and Interpreting the American Historical Landscape**, (University of Tennessee Press, 1996), and ***The Urban Landscape, the Work Yard, and Archaeological Site Formation Processes in Charleston, South Carolina***, by Martha Zierden, in **Historical Archaeology and the Study of American Culture** (Wintherthur Books, University of Tennessee Press, 1996), and ***The Urban Landscape in South Carolina***, by Martha Zierden, in **Carolina's Historical Landscapes**, (University of Tennessee Press, 1997).

The architecture and material culture of the house is discussed in a fine article by John Bivins and Thomas Savage in the February 1993 issue of ***Antiques*** magazine. Mr. Savage provides additional details in his impressive volume ***The Charleston Interior*** (Legacy Publications, 1995) More recently, the history of the house and particularly its occupants are eloquently addressed in Richard Cote's exhaustive new volume, ***Mary's World: Love, War and Family Ties in Nineteenth-century Charleston*** (Corinthian Books, Mt. Pleasant, 2001). The reader is referred to all of the above works for more information on the Miles Brewton site.

Site-specific data from the Brewton site was revisited at the present time as the result of extensive excavations at a neighboring site, the Simmons-Edwards house at 14 Legare Street. This property fronts Legare Street and shares a brick property wall with the Brewton house. Prior to the 1857 sale of the rear half of the Brewton lot, this shared property line was even more extensive. Recovery of large amounts of late 18th century refuse at 14 Legare, containing artifacts clearly owned by Miles Brewton, invited a reconsideration of the processes responsible for the formation of the archaeological record on a scale broader than the individual site. For this reason, the Brewton data was studied and compared in detail, and this final technical report produced. Any revision to specific interpretation of site data are found in this document; broad analysis and interpretation may be found in the 14 Legare volume and is not repeated here. The two reports are published simultaneously and are meant to be read together.

Chapter II
The Miles Brewton House and its Occupants

The Carolina Colony

Colonies in the New World were the prize of the 16th century European battle for naval supremacy. Spain dominated this contest during the century, growing rich by her exploitation of colonies in central and South America, and establishing a claim on the North American continent. La Florida included South Carolina and was anchored by the settlements of St. Augustine in northeast Florida and Santa Elena on Parris Island, South Carolina, and chains of missions along the south Atlantic coast and the Florida Gulf coast. By the 17th century, Spain was increasingly threatened by English sea power; in 1588 the Spanish armada was defeated off the coast of England.

In the 17th century, possession of Carolina was disputed by Spain, France, and England. Spain considered the vast tract of wilderness an appendage of Spanish Florida and, basing her claim on discovery and exploration, self-righteously destroyed a French settlement in the region. The English, who viewed Carolina as a southern extension of Virginia, proceeded to establish a colonial settlement at Charleston and subsequently claimed the area by right of occupation.

All three countries were motivated not so much by the desire for land as by the need for raw materials which were unavailable or insufficiently produced in their native land. England was eager to free herself from dependence on southern Europe for silk and wine. She needed hemp and naval stores to support her sea power, and foodstuffs to allow her West Indian colonists to concentrate on the production of sugar. Although the English government did not encourage the development of rice as a staple crop, the Carolina colonists persevered and were rewarded by unimagined riches. Indigo, the other major agricultural export, directly contributed to England's commercial development, as well as to her domination of the European market, by releasing her from reliance on the French and Spanish West Indies for the dyes needed in her textile industry.

A group of patriotic English noblemen were granted the Carolina colony as a political reward; these profit-seeking men established their colony in 1670. The earliest settlement was up the Ashley River at Albemarle Point, established by a small group of settlers from the West Indies. Agriculture and commercial prosperity demanded security, however, and this proved to be the first concern of the colonists. Although the English had laid a firm grip on the province, the colonists were still in an exposed position, vulnerable to attacks. The Spanish missions extended from St. Augustine to St. Helena, or Port Royal. Until these were abandoned in 1702, the area south of Charleston was the scene of intermittent warfare (Andrews 1937). The French, spread along the Mississippi, were a constant source of suspicion. Pirates, the scourge of the Caribbean and Atlantic seas, were another serious irritant. Neighboring Indian tribes of the Kiawah, Etiwan, Wando, Sampa, and Seewee further added to the colonists' anxiety while the constant increase in a potentially rebellious African

slave population created fears which died only with the demise of slavery. By 1672, the Charles Town settlement was protected by a palisade and four pieces of artillery aimed upon the Ashley River. Indians reported to their Spanish allies that the colonists had built 30 small houses on the west bank of the Ashley and four on the east bank of Oyster Point (Andrews 1937:203n).

Intimately linked to rivalry with the Spanish was control of the Native American population, principally through trade relations. Control of the Indians was pursued relentlessly by the English, French, and Spanish as a result of the Europeans' desire for animal skins and Indian slaves. South Carolina was the most heavily involved of any colony in the Indian slave trade (Snell 1973). Although this trade was condemned by the Lords Proprietors, it was profitable for the colonists, and a large number of enslaved people were shipped to the Caribbean and to northern colonies.

The principal item of trade, though, was not slaves but animal skins. The main animal pursued by Native people, and desired by European merchants, was the white-tailed deer. The Indians depended on these animals for a significant portion of their food, and they artificially increased deer herds in the wild by firing the woods (Cronon 1983; Lefler 1967; Silver 1990). This use of fire decreased the amount of underbrush and promoted the growth of grass; in the early colonial period deer roamed these man-made savannahs in large herds.

Deerskins soon became the colonists' most profitable export. The earliest trade was a secondary, small-scale pursuit of individual planters. Some of these entrepreneurs hired an Indian hunter to supply them with skins; others traded in more haphazard fashion (Crane 1981:118). By the mid-18th century, dressed deer skins accounted for 16% of the colony's exports, and tanning was the city's most important industry (Bridenbaugh 1955:76). The defeat of the Indian alliance in the Yemassee war changed the mechanics of this trade as the defeated tribes moved inland. Those involved in the fur trade now required a storage facility to support their long-distance enterprise.

Although the defeat of the Indians in the Yemasee War resulted in increased safety for all colonists, it also radically altered the fur trading network of some, as remnants of the defeated tribes retreated inland. Charleston's access to inland waterways facilitated trade with the large inland tribes - the Creek, Cherokee, Chickasaw - as did the forts and posts established in the backcountry after 1730 (Crane 1981). These outposts promoted trade with the Indians, protected the frontier inhabitants, and guarded against French and Spanish encroachments (Calhoun 1986; Sellers 1970; Sirmans 1966).

Soon the trade was transformed from one operated on a small scale by individuals to a capital-intensive industry controlled and dominated by Charleston's mercantile community. These merchants established credit relations with British businessmen, enabling them to procure and finance the trading goods necessary for the (primarily) barter exchanged conducted with Indian suppliers. The wealth and standing acquired by these merchants led to diversification, into commodities such as naval stores, provisions, rice, and African slaves (Calhoun 1986; Calhoun et al. 1982; Earl and Hoffman 1977:37).

The growing colony never lacked settlers. Dissenters, Englishmen, Scots, New Englanders,

Jews, and African and West Indian slaves formed the core of this diverse group. The West Indies remained a source for early settlers, and these planters, merchants, artisans, servants, and slaves influenced development of Carolina's social and political environments. The Carolina policy of religious toleration also attracted a variety of settlers. French Huguenots, suffering persecution in their native land, were assimilated into the prevailing English society rather rapidly.

A large number of Carolina's settlers came unwillingly. The escalating cultivation of rice throughout South Carolina in the 18th century created a voracious demand for slave labor. Although the English settlers were unfamiliar with this crop, many Africans brought to the lowcountry came from rice-producing areas of Africa. Rice itself was introduced to South Carolina from Madagascar, and many African slaves possessed skills in rice cultivation and other tasks essential to the plantation economy (Littlefield 1981; Wood 1975). Significant continuities between African and Carolinian methods of planting, hoeing, winnowing, and pounding rice persisted until these techniques were no longer economically feasible (Joyner 1984:13-13). By 1708 the majority of lowcountry residents were black. African bondsmen worked the crops in the country and provided labor for building and maintaining the city.

The Settling of Charles Town

Oyster Point proved attractive to the colonists and, after some exploration, increasing numbers of them left Albemarle for the peninsula formed by the confluence of the Ashley and Cooper rivers. The leaders of the settlement not only recognized by sanctioned this trend. In December of 1679 the Lords Proprietors sent word that:

We are informed that Oyster Point is not only a more convenient place to build a towne on then that formerly pitched on by the first settlers but that also the peoples Inclinations tend thither. Wherefore wee think fitt to let you know that the oyster point is the place wee doe appoint for the port towne to which you are to take notice and call it Charles towne, and order the meetings of the Council to be there held and the Secretarys Registers & Surveyors offices to be kept within that town...

They further instructed the Governor and council of the settlement,

to take care to lay out the Streets broad and in straight lines and that in your Grant of the Towne lotts you doe bound every ones Land towards the Streets in an even line and to suffer no one to incroach with his buildings upon the streets whereby to make them narrower then they were first designed (Sally 1928:95-96).

The area of relatively high bluffs and narrow marsh along the Cooper was best suited for shipping, and in 1680 the settlers founded a walled city bounded by present-day Water, East Bay, Cumberland, and Meeting streets. The early threats from the French and Spanish necessitated a fortified city, and the city walls were constructed by 1704. This planned city, known as the Grand Model, encompassed

the high land from Oyster Point to Beaufain Street (Earle and Hoffman 1977). The town was laid out around a central square and divided by wide streets into deep, narrow lots, a plan characteristic of 17th century Irish towns colonized by the British (Reps 1965). While the new Charles Towne was a renaissance city in many ways, the surrounding town wall and steep roofs gave it a decidedly medieval atmosphere (Coclanis 1984). As the threat of invasion faded and prosperity rose, the city walls were dismantled; removal began in the 1720s and was completed by the 1740s (Poston 1997:49). The major fire of 1740 destroyed most of the early city, and the medieval-style architecture was replaced by more modern, Georgian structures.

The decade of the 1730s witnessed Charles Town's transformation from a small frontier community to an important mercantile center. When royal rule replaced an inefficient Proprietary government in 1729, following a revolt by the settlers, Charleston entered the mainstream of the colonial economy. The development of outlying communities, following the Township Plan of 1730, brought an influx of products from the backcountry. Meanwhile, as rice became more profitable, lowcountry plantations rapidly expanded. During this period, the merchants emerged as a distinct group; further, they began to invest their earnings in the local economy, instead of returning to England after making their fortunes (Rogers 1980; Stumpf 1982).

As the colony prospered, the merchants and planters emerged as the leaders of society; indeed, the two groups often overlapped, for planters engaged in mercantile endeavors, and merchants invested their earnings in land, becoming planters themselves. This strong tie to the country is an important theme in the city's history (Goldfield 1982).

Charleston's economic expansion in the 1730s was matched by physical expansion. By 1739 the city had grown well beyond the city walls and development was primarily to the west (Robert and Toms 1739). The city spread west to the banks of the Ashley River and south to the tip of the peninsula, though much of the peripheral area was only sparsely occupied.

As the 18th century advanced, Charles Town expanded in economic importance and in the relative affluence of its citizens. White per capital income was among the highest in the colonies (Weir 1983). As the planters and merchants gained in prosperity, they began to demand goods more appropriate to their elevated station in life. The clink of silver reverberated throughout Britain and the colonies, attracting factors, merchants, and craftsmen. By the mid-18th century, Charleston emerged as one of the largest and wealthiest cities in the colonies (Weir 1983). Personal wealth poured into the colony from Europe in the form of furniture, silver, tableware, clothing and paintings; imports were matched by a rise in local craftspeople and their slaves producing this finery, particularly cabinetmakers and silversmiths. This ascendancy of personal and collective wealth continued after the Revolution, peaking in the early 19th century (Rogers 1980:74; Green 1965).

Personal wealth was matched by a rise in imposing public and domestic architecture (figure 7). Ironically, the devastating fire of 1740 cleared the way for construction of large structures in new styles. Public architecture on a grand scale is embodied in St. Michael's church, built in 1751, the State House on the opposite corner, and the Exchange building, built in 1769. On the domestic front, a number of large double houses were constructed during this period, in some cases replacing earlier,

Figure 7. 1802 Map of the City of Charleston

more modest structures on the same lot. These changes are part of a general shift in architectural style which began in the third quarter of th 18th century (Herman 1989; Zierden and Herman 1990). Some archaeologically investigated examples include the John Rutledge House (1763), the William Gibbes house (1772), and the Heyward Washington house (1772). The Miles Brewton house, built in 1769, embodies many of these trends.

Development of the Miles Brewton Property

The land on which the Miles Brewton house stands is located on the lower end of King Street, outside of the original walled city. The area is contained within the limits of the Grand Model, which was laid out by Sir John Yeamans. The town was divided into streets and lots, and each lot was assigned a number. The first lots were granted in 1678, and the bulk of them were conveyed to original owners by 1700; many of these were later re-granted when owners could not retain them. The boundaries of these original lots have changed little, except for subdivision and later filling of low-lying areas. The original lots on King Street were 200 feet deep. The Miles Brewton property encompasses Grand Model lots 149 which fronted on King Street and lot 244 originally bounding on a marshy area, later Legare Street (figure 8).

Town lot 149, along with 148 and 150, were granted to John Jones, a gunsmith, in 1694. Town lot 149 was in fact a double lot, facing Ladson Street. John Jones and his wife, Martha Saltus Jones, died intestate some time before 1731, and the lots passed to Martha's brother, Bartholemew Saltus. He also died before 1731 and the lots were inherited by his daughters Mary and Ann Saltus, who lived in Bermuda. On October 15, 1731 Mary and Ann Saltus sold the three lots to Thomas Binford, a Charleston merchant, for L230, South Carolina currency. The funds were paid to Miles Brewton, a goldsmith, as attorney for Mary and Ann Saltus.

On February 1, 1732, Thomas Binford sold town lot 150 and part of lot 149 to Miles Brewton, goldsmith, reserving the southern portion of 149 for himself (CCRMCO F3:182). Binford was godfather to Miles Brewton, the merchant. Miles Brewton died in 1745, leaving his daughter Rebecca Brewton Roch, a gold mourning ring, two males slaves, one female slave with offspring, and "one lott and a half of land in Charles Town situate and lying to the southward of the land... of John Tippet, fronting the street now called King Street" (Will Book 1740-1747:239). This portion of the property eventually became 33 King Street.

On November 7, 1765, merchant Thomas Binford, who had returned to England, conveyed to Othneil Beale in trust for Binford's godson, Miles Brewton, the southern half of town lot 149 and lot 148, subject to annuity to be paid by Brewton to Binford (CCRMCO F3:182). It was on this portion of the lot that Brewton built his grand townhouse.

Lot 244, along with 242 and 243, were granted to Richard Phillips in 1694 (Lot 244 includes present-day #8 and 10 Legare). Phillips died later that year, leaving his wife, Mrs. Mary Phillips, to administer his estate. The lots were devised to his son Richard Phillips Jr., who in 1704 sold them for L7:10 to Lewis Pasquereau, a Charles Town merchant.

The Grand Model of Charleston, 1722

The land later evidently passed to his business partner, John Guerard (Stockton 1989: Cote 1990), although no such deed could be found. Upon Guerard's death, lot 244 passed to his son Benjamin Guerard in 1714. By "diverse mesne conveyances, descents and bequests", Benjamin Garden, Esquire, a wealthy planter, came to own lot 244, listed as "all my part of the town lotts without The Entrenchments" (Wills and Misc. Records 55: 64; Stockton 1989:8). In September 1767 Garden sold town lot 244 to Miles Brewton for L2000 South Carolina currency. The land was described as bounding N. on lot #243, E. on Miles Brewton (formerly Col. Miles Brewton decd. and Thomas Binford), S on marsh land, W. on a street running from Ashley River....formerly called Legare Street (CCRMCO H-3:283).

At the time of this sale, the rate for undeveloped standard (100' x 250-300') town lots was L1000 currency. The price of L2000 included a double lot plus additional marsh to the south. By inference, the selling price seems to suggest that the 1767 purchase was of undeveloped property. Likewise, the nature of the transactions (land held in trust for descendants) and the price paid for lot 149 in 1765 indicate no improvements to the property prior to Miles Brewton's purchase. Examination of the 1739 Roberts and Toms map of Charleston shows these lots undeveloped; further, it suggests that lots 242, 243, and 244 were undivided. By 1730, some houses had been built on this section of King Street. Miles Brewton's grand townhouse was therefore built on large, combined lots on the then edge of a developing town.

Jonathan Poston (1997:197) has noted that from 1750 onward, with escalating profits from rice and indigo, Charleston prospered. And its merchants and planters built new commercial buildings in the center of the city and new residences, many of them spilling beyond the old walled area. The wealthy merchants and planters looked to lower Meeting Street, King Street, East and South Bay streets, as well as newly developed thoroughfares such as Legare Street. Georgian double houses, such as Brewton's, filled the larger lots.

Miles Brewton's House

Miles Brewton, son of Robert Brewton and his second wife, Mary Griffith, and grandson of Miles Brewton, goldsmith, was born in Charleston in 1731. In 1754 he married Mary Izard, daughter of Joseph Izard and Anne Bull, and they had three children, Miles Brewton, Joseph Izard Brewton, and an unnamed infant) Brewton was a merchant and, along with Henry Laurens, quickly became South Carolina's largest slave dealer. He is considered one of the five wealthiest men in the province (Cote 1989; 2000). Richard Cote notes that at this time slave trading was considered a respectable undertaking; it was not until after the Revolution that the social status of those who traded human beings began to fall (Cote 2000:16)

As was common among wealthy colonial men, Miles Brewton was also active in politics. he was a member of the Commons House from 1763-1772, and was elected a deputy to the first and second Provincial Congress of Carolina in 1775 (Frost 1939). He was also a member of the South Carolina Society and held offices in that establishment. His descendant, Mary Pringle Frost, suggests that:

"to the habits of strictest order and regularity, he added a character for honesty and integrity unsullied by the slightest taint of wrong....setting out in life without wealth and with but few, if any, rich or influential friends...by his untiring energy and his clear business talents, he shortly amassed a fortune...yet during the whole time that he was acquiring this vast wealth, his heart was always open and his hand never closed against the virtuous poor" (Frost 1939: 33).

Brewton invested his wealth in "ships, land, and conspicuous consumption". Cote notes that he owned interests in eight transatlantic vessels, purchased a number of plantations, and acquired by marriage Mt. Joseph, the Izard plantation on the Congaree River. (Cote 2000:16).

Miles Brewton began construction of his grand townhouse shortly after he acquired the property in 1765; it was completed by 1769, "meticulously and self-consciously designed in the latest architectural mode, sumptuously decorated and specifically Palladian in inspiration" (Simmons and Lapham 1927. The house was built by Richard Moncrieff and carved by Ezra Waite, who described himself as "Civil Architect, House-builder in general, and Carver, from London" Evidently a fellow Charlestonian later called his credentials into question, for in 1769 he advertised:

"Ezra Waite: Civil Architect, House builder in general, and carver, from london, has finished the Architecture, conducted the execution thereof, Viz: the joiner way all tabernacle frames (but that in the dining room excepted) and carved all the said work in the four principal rooms; and also calculated, adjusted, and draw'd at large for to work by, the 1 brick entablature, and carved the same in front and round the eaves, of Miles Brewton, Esquire's House on White Point, for Mr. Moncrieff. If on inspection of the above mentioned work, and twenty-seven years experience, both in theory and practice, in noblemen and gentlemen's seats, be sufficient to recommend, he flatters himself to give satisfaction to any gentleman, either by plans, sections, elevations, or executions, at his house in King Street, next door to Mr. Wainwright's where architecture is taught by a peculiar method never published in any book extant.

N.B. As Miles Brewton, Esquire's dining room is of a new construction with respect to the finishing of windows and door-ways, it has been industriously propagated by some....that the said Waite did not do the Architecture, and conduct the execution thereof. Therefore, the said Waite, begs leave to do himself justice in this public manner, and assure all gentlemen, that he the said Waite, did construct every individual part, and draw'd the same at large for the joiners to work by, and conducted the execution thereof. Any man that can prove to the contrary, the said Waite promises to pay him One Hundred Guineas, as witness my hand, this 22nd day of August, 1769"

Ezra Waite

(South Carolina Gazette & Country Journal)

When Waite died 1769, he left behind "two Negro Fellows and three Boys, one of the fellows a Bricklayer; several pieces of curious carved work, his Tools, Books, etc." Although Waite did much of the interior carving, recent research has indicated that at least two other artists, John Lord and Thomas Woodin, also worked in the house (Savage and Bivins 1993; Poston 1997:228).

All scholars of architecture agree that Brewton's house is the finest double house in Charleston, and one of the most significant in America. With its outbuildings, it constitutes the most complete Georgian town house complex in America (Poston 1997:228). The house measures 54' by 65', built on a substantial brick foundation. The primary wood is native cypress, which is impervious to termites and rot. Floors are heart pine. The two-story structure was built over an elevated basement, with a hipped roof, a two-tiered portico, and intricately carved fretwork frieze. The basement is laid in English bond and the two main floors in Flemish bond.

The rich interior is decorated with fully paneled rooms, mahogany doors, marble mantles, elaborate overmantles, intricately carved pilasters, pediments, and cornices (figure 9). The hall is paved with Purbeck stone. The mahogany stair is lighted by a large Venetian window set in a projecting tower. The first floor featured four rooms of comparable dimension, the front two rooms larger and more formal than the rear two. The asymetrical plan of the second floor is dominated by the drawing room, one of the finest rooms in America (Savage and Bivins 1993). This room features a 17' coved ceiling and its original chandelier This room opens onto the upper porch of the entrance facade and onto the northeast withdrawing room. Two plain, but well-detailed bedrooms complete the second floor.

Brewton was thirty-four years old and married for six years when construction began on the house. In addition to the grand house itself, Brewton invested in furnishings and acoutrements appropriate to its scale. In 1771, wealthy rice planter Peter Manigault wrote his London agent, "I stand in need of some plate and furniture of which I enclose you a list...I suppose you will think either my wife or myself very extravagant. I should almost think so myself if I had not seen Brewton's" (Cote 2000:17). Miles Brewton's home became the center for entertainment and opulent display it was designed to be. Josiah Quincy, visiting Charleston in 1773, described it thusly:

"Dined with considerable company at Miles Brewton, Esqr's, a gentleman of very large fortune, a most superb house. The grandest hall I ever beheld, azure blue stain window curtains, a rich blue paper with gilt, mashee borders, most elegant pictures, excessive grand and costly looking glasses, &c. At Mr. Brewton's side board was very magnificent plate...A very fine bird kept familiarly playing over the room, under our chairs and the table, picking up the crumbs &c and percing on the window, side board, and chairs. Vastly pretty! (Simmons and Lapham 1927: 44; Cote 2001:19).

Unfortunately, Miles Brewton did not live to see the fulfillment of his political and mercantile career, nor to enjoy his fine home. He and his family were lost at sea on a voyage to Philadelphia in 1775.

The Revolutionary Era

In the first half of the 18th century, South Carolina had prospered under English rule; the demand for colonial commodities provided a favorable balance of trade. After the Seven Years War in 1763, relations worsened. Financial woes caused Britain to demand a greater share from the

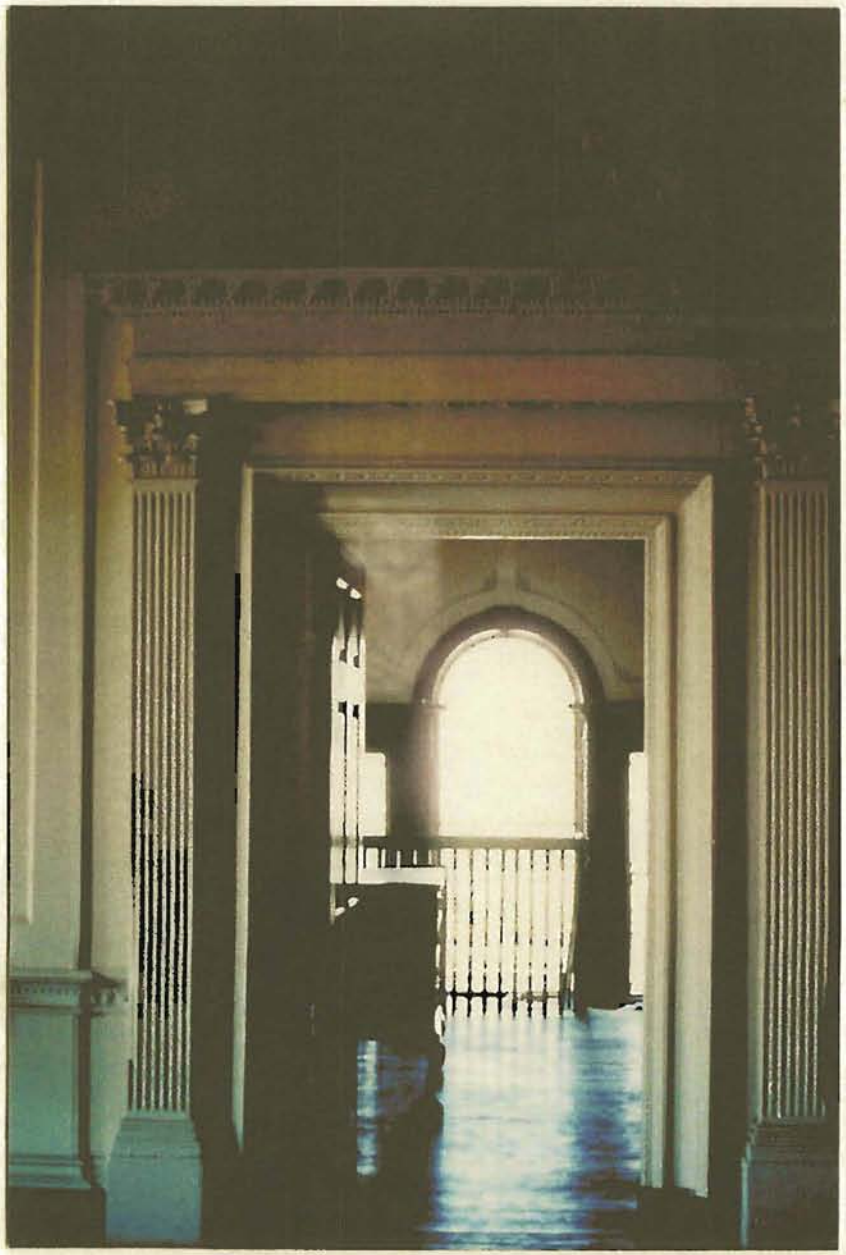


Figure 9. Views of the Interior of the Brewton House;

second floor drawing room, first floor entry hall

colonies. To secure collection of these monies, Parliament sought to tighten the administration of the Navigation Acts. Royal placemen arrived in Carolina to take over the lucrative and important positions which had previously been filled by some of the most respected men in the colonial community (Rogers 1980:41; Calhoun 1986). The government also sought to impose several direct and indirect taxes upon the American colonists. Soon, however, the people of the colonies found a rallying cry in the idea of "no taxation without representation". It was agreed that Parliament had the power to legislate for the American colonies; it was not agreed that the body also had the power to tax them. The struggle which had begun in an effort to alleviate Britain's national debt evolved into a political quarrel predicated upon principals implied in the Magna Carta (Calhoun 1986). On July 4, 1776 the American colonists proclaimed their independence from the British empire.

The first attempt to conquer South Carolina came in 1776 when the Royal Navy attacked Fort Sullivan, later Fort Moultrie. After a second unsuccessful attack in 1779, military operations ceased. British troops languished on nearby sea islands, as the onset of warm weather made the lowcountry unhealthy and oppressive.

The British forces returned to the attack in 1780. General Clinton moved part of his forces overland from Savannah to Charleston; the majority came by sea to the southern end of Johns Island and then over to James Island. By February 14, the British main force had occupied James Island and began to deploy towards the city. General Clinton launched his attack from the landward side, down from the neck of the peninsula, as well as by sea. American General Lincoln, badly outnumbered and outmaneuvered, was forced to surrender the city on May 12, 1780. The British occupation of Charleston was to last until December 14, 1782.

The loss of Charleston was considered by many Americans to be their greatest defeat of the Revolution. Not only was a major seaport in possession of the enemy, but nearly 6,000 troops, seven generals, and the Lieutenant Governor of the state (Christopher Gadsden) had been taken prisoner. The British saw this as a psychological, as well as military, victory; it was expected that the dashed hopes of the patriots would lead to political reconciliation. The loss of Charleston, however, produced a "directly contrary effect" (Anonymous 1800; Calhoun 1986).

Under the articles agreed upon by Lt. Governor Gadsden and British Commander-in-Chief Cornwallis, it was stated:

1. all public property would go to the victor,
2. Continentals would remain prisoners until exchanged,
3. members of the militia could return to their homes as paroled prisoners and would not be disturbed in the possession of their property unless they broke their parole,
4. all townspeople, whether they had bourne arms or not, would be treated as militia prisoners on parole.

These stipulations were conveniently ignored by the British. During their occupation, many Carolinians suffered sequestration of their property, the quartering of troops in their homes, imprisonment in the 'dungeon' of the Exchange, internment on warships in the harbor, and exile. They were also plundered of 'enormous wealth'. Systematic and official looting is estimated to have

resulted in a loss of goods and slaves totaling 300,000 pounds sterling. Commissioners of captures were in charge of the booty and assigned it by rule; the share of a major general was about 4,000 guineas. Many soldiers looted solely for their own benefit, virtually guaranteed of immunity from prosecution. Slaves were a highly lucrative commodity and thousands of them were taken by the British and sold in the West Indies. Thousands more who had hastened to join the British sickened and died (Wallace 1961:294).

During the Revolution, the 27 King St. house was owned by Miles Brewton's sisters, Frances Brewton Pinckney, wife of Charles Pinckney and Rebecca Brewton Motte, wife of Jacob Motte. Both men, along with friend Daniel Blake, were executors of Brewton's estate. Rebecca Motte, her invalid husband Jacob Motte, and their three daughters lived in the house during the British occupation of Charleston. Sir Henry Clinton, and afterwards Lord Rawdon, occupied the house.

A great deal of romantic legend surrounds Mrs. Motte's role during the occupation, but all documents suggest that she was a woman of exceptional character and patriotism. At the time of the Revolution Mrs. Motte brought her entire plantation force to work on the fortifications defending Charleston (Frost 1939). During the occupation of her home Mrs. Motte was to remain in the house and serve as hostess, sitting at the head of the dining room table. Local tradition suggests that she kept her three daughters in the garret during this occupation for their protection; in his recent careful reevaluation of this story, Richard Cote suggests that the three daughters instead secluded themselves in this room in the "first hours of confusion", and thereafter secluded themselves there during the dinners over which Mrs. Motte presided (Cote 2000:23). Graffiti-style carvings by the British soldiers are still visible in the stone mantel of the front parlor.

In January 1781, Mr. Motte died. Mrs. Motte obtained permission to leave Charleston for her plantation home on the Congaree River. Fort Motte was also the scene of a Revolutionary skirmish. Mrs. Motte later sold the plantation and, with her son-in-law Thomas Pinckney, built the plantation Eldorado on the Santee River. Mrs. Motte was successful in paying off the debts of her husband's estate and improving it for her children; both daughters married well. Rebecca Brewton Motte died in 1815.

The Alston Era

In 1791 the Miles Brewton house was purchased by Col. William Alston, a wealthy Georgetown district rice planter and son-in-law of Rebecca Brewton Motte. William Alston was born in 1756, the son of Joseph Allston and Charlotte Rothmahler. He married Mary Ashe, who bore him five children before her death in 1789. In 1791 he married his second wife, Mary Brewton Motte, and she gave him six children. He in turn bestowed on her every luxury, including the house at 27 King Street, when he purchased the interests of her mother and aunt (Cote 2001:33). The price Alston paid for the Miles Brewton house was L7,000 sterling and the property was described as:

All that lot or piece of land with the buildings and appurtenances as thereon late the property of Miles Brewton Esq. deceased, fronting on the west side of King Street in the City of Charleston

in the State aforesaid 149 ft. or thereabouts and running from East to West to Legare Street 473 ft. 5 in. or thereabouts and fronting on the East side of Legare Street aforesaid 174ft. 3 in. or thereabouts, and butting and bounding to the north on lands belonging to or in the possession of Thomas Tew and John McPherson, and to the South on land belonging to or in the possession of Mary Lamboll Thomas, Edward Jenkins, Charles Johnson, Robert Lindsay and Col. William Skirving.

William Alston was born at The Oaks in Georgetown District in 1756, son of Joseph and Charlotte Rothmahler Allston. He was the first of the family to change the spelling of his surname in order to avoid confusion with his kin, William Allston of Brookgreen plantation. His rank of Colonel came from services with General Francis Marion's brigade during the Revolution. He was known later in life as "King Billy", one of the leaders of the Allston dynasty that controlled the lucrative rice lands on the Waccamaw river drainage. In 1790, the Alstons owned Fairfield, Clifton, Prospect Hill, Rose Hill, Bellfield, True Blue, The Oaks, and Brookgreen plantations, made profitable by their 877 slaves. At Fairfield, William Alston commissioned Jonathan Lucas to build the first water mill in the Waccamaw area; at Clifton he built a "large, new and elegantly furnished" home. After Clifton burned in 1815, he resided at Fairfield during the winter months. His second marriage in 1791 also gave him the Miles Brewton house in Charleston, where the family spent their summers.

Though Brewton's house remained basically unchanged from its construction until the present, each generation of owners adapted the house to their own needs and the style of the times. The Alstons, in particular, made many changes and additions that have remained part of the property. He added a considerable amount of neoclassical ornamentation, and greatly expanded the retinue of outbuildings. To the original carriage house-kitchen-laundry that fronted King Street on the north side of the house, he added an arcade with stables and storerooms leading to as substantial brick, two-story structure containing quarters for the nearly three dozen household slaves (figure 10). Another arcade of stables and storerooms stretches west, terminating at the 'ell' in the property line, where a second original outbuilding resides, its function still under debate; privy, dairy, or garden structure. According to the archaeological record, Alston also constructed the brick coping and wooden fence that surrounds the outbuildings and work yard (see figure 10).

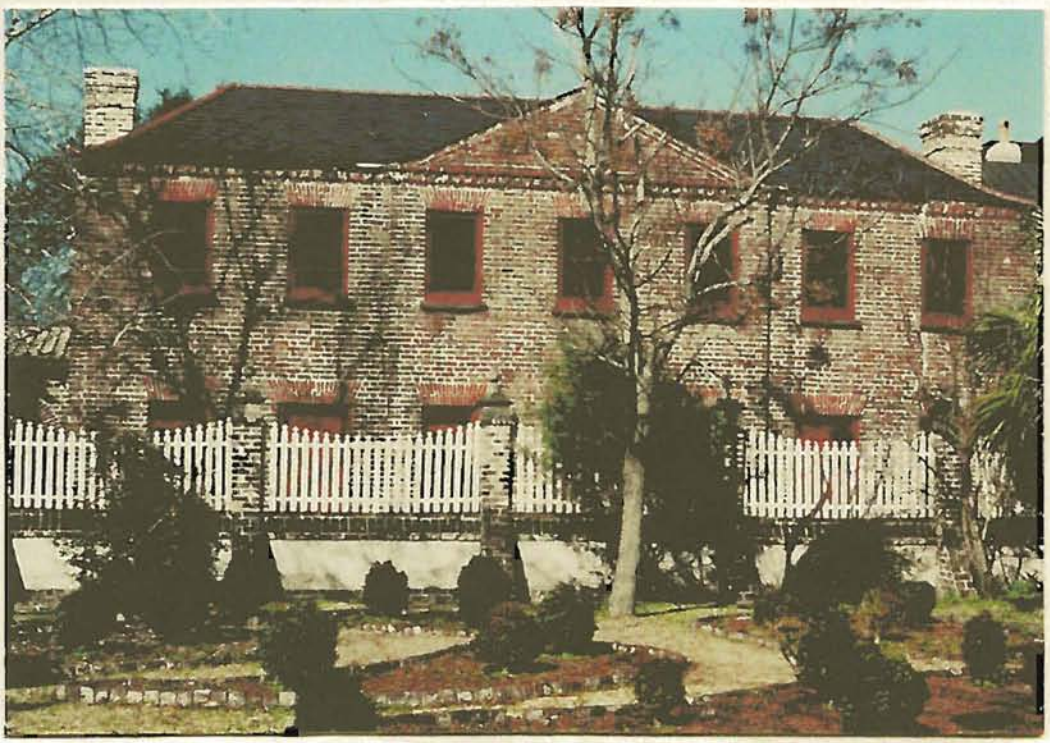


Figure 10. View of the antebellum quarters building

According to Savage and Bivins, William Alston's ornamental changes include the oculus to the pediment at the entrance facade, a considerable amount of neoclassical ornament on the porch roofs, new window sashes on the second floor, and red sandstone sills to replace those of cypress. (Bivins 1993:298). Finally, the barbed cheval-de-frise, topping the elegant 18th century wrought iron fence, was an addition by Alston, following the aborted slave insurrection, led by Denmark Vesey.

Owing particularly to the late 19th century journal of J. Motte Alston, grandson of Mr. Alston who was raised in the Alston household, we have the first eyewitness descriptions of the Brewton property (Alston 1953; see also Cote 2000 for extensive reference to the original, unedited manuscript). J. Motte Alston allows that his uncle had 'accumulated a very large fortune and took his own advice in all things" (Cote 2000:34). His family was attired in the most fashionable clothes that London and Charleston could supply, and Alston himself was described as "stylish, dressed impeccably." Alston's friendships and connections included entertaining President Washington and correspondence with Thomas Jefferson. With the latter, Alston shared an interest in fine wines. He stored and aged his Madeira in a specially-built louvered wine room in the garret of the Miles Brewton house; his chalked-off inventory still survives on the walls of the garret. Cote has discovered that the heat of the attic helped to improve the Madeira. Other, heat-sensitive, wines were stored in the Plantation Room, the northeast ground-floor room, which featured a dirt floor where meat, fruit, and vegetables were stored. J. Motte Alston also recalled Saturday night formal family dinners in the yellow, or South, parlor, where "the table extended across the room, and the beautiful damask, china, glass, and silver were conspicuous" (Cote 2000:39)

The arcades of stables and storerooms were built to support his passion for horse racing. He was a meticulous breeder and a charter member of several jockey clubs. Though he retired from active racing in 1805, he retained a lifelong interest in his horses. In the 1830s, J. Motte Alston recalled, "my grandfather at this period never left the house, save now and then to walk as far as the large stable on the premises, and look at the horses and talk to me about them" (Childs 1953; Cote 2000:36) His horses and carriages were known throughout the lowcountry for their grandeur and his African slave coachmen and jockeys for their uniforms. Alston's servants wore "dark green broadcloth coats and vests trimmed in silver braid and red facings with trousers of green plush. A surviving hand-stitched jockey suit, made by a slave tailor and worn by a slave jockey, features a silk jacket made from stripes of red and green silk, and white buckskin breeches (figure 11; Collections of The Charleston Museum).

William and Mary Brewton Alston and their six children divided their time between Fairfield plantation and the Miles Brewton house, with portions of the summer spent at the family house in Debordieu beach. Their sons were educated by private tutor and then at Yale. The girls were educated at home and received specialized instruction in languages and dancing. The Alston's youngest daughter, Mary Motte Alston, was the next to occupy the Brewton house. Because of the survival of her extensive correspondence, scholars and readers have come to know Mary Motte Alston well, most recently through the careful writings of Richard Cote.

Figure 11. Jockey suit worn by William Alston's slave

Antebellum Charleston

By 1819, Charleston's commercial bonanza years fell victim to a national depression (Greb 1978:18). The depression brought a halt to the commercial expansion of the city. Although the economy of Charleston stabilized thereafter, the city had begun a then-imperceptible decline. These forces were not yet visible to antebellum residents, however; during this period the city launched many improvement efforts, embodied in public architecture (Severens 1988:267).

Though Charleston's economy was irrevocably linked to cash crops and the plantation system, progressive leaders encouraged diversification and industrialization. Many of these enterprises were located in Charleston's burgeoning suburbs on the Neck. The two antebellum railroads, the South Carolina Railroad and the Northeast Railroad, were built between King and Meeting streets, and along East Bay Street, respectively. Open spaces, lower real estate values, relaxed building codes, as well as the railways, attracted large-scale manufacturing enterprises. In less than half a century, the Neck (that portion of the city between Calhoun Street and Line Street) was transformed form the "country", location of many planter's townhouses, to the center of Charleston's industrial future. These efforts were ultimately unsuccessful, however, as Charleston failed to live up to its proclaimed dedication to modernization. An increasing fear of the black population and perceived threats from northern states drove Charlestonians to embrace the past and ultimately be bypassed by the region's expanding rail network (Pease and Pease 1985:223-224). Personal, rather than institutional, ties remained the fabric of Charleston's commerce (figure 12).

In Charleston, slavery was synonymous with labor. Most enslaved black people were field hands, laborers, servants, or porters, but on plantations and in the city, some served as coopers, blacksmiths, brick makers, millwrights, carpenters, seamstresses, barbers, fisherman, pastry cooks, and in many other skilled occupations. Owners routinely "hired out" their slave artisans. A few won their freedom by buying it; masters manumitted others, especially house servants, in recognition of special services, or in response to sometimes familial affection. The emerging class referred to as "free persons of color" congregated in Charleston. All social and ethnic classes lived side-by-side in the 18th and 19th century city. Most pronounced was the side-by-side existence of the white planter families and their black bondsmen, in relatively crowded conditions and sometimes under the same roof. With such close contact among people of various social strata, upper class people instead distinguished themselves through a complex system of symbolic dress and posture (Rosengarten 1986:27).

Vague fears of retaliation by the enslaved majority reached a fevered pitch in 1822 with the discovery of the Denmark Vesey affair. Reportedly, Denmark Vesey masterminded a slave revolt to overthrow white authority and establish black control over the city. Born either in Africa or the West Indies, Vesey was brought to Charleston in the service of a sea captain. Purchasing his freedom with winnings from a lottery, he worked for more than twenty years as a carpenter in the city.

Several witnesses testified that between six and nine thousand slaves had been recruited to the cause, some from as far away as Santee River plantations. Most of those accused, however, were from Charleston and its environs. Recruits included "negroes hired or working out", such as draymen

Figure 12. Map of the proposed railroad, 1848

and mechanics, and those employed in the lumber yards and rice mills along the edge of the peninsula" (Killens 1970:3). In contrast to the recruits, leaders of the conspiracy tended to be skilled artisans and preachers: Vesey was a carpenter, Peter Poyas, a ship carpenter, Mingo Harth a mechanic, Tom Russell a blacksmith, and Monday Gell, identified as an Ebo harness maker who hired out his own labor and kept a workshop on Meeting Street. Gullah Jack had been a 'conjurer and physician' in his native Angola, a witness testified, and "had practiced these arts in this country for fifteen years, without it being generally known among the whites" (Rosengarten et al. 1987:63).

The owners of the defendants, and the magistrates, expressed surprise and disbelief that "Negroes of such character and condition" would rebel. Except for Gullah Jack, all the leaders had been known for exemplary behavior. The insurgents reportedly hoped to take Charleston by setting the city on fire and killing all the white people and any blacks who did not join the rebellion. After that the plan was less clear. One immediate consequence of the aborted uprising was the sentencing of 35 of the 131 accused to death. More long range consequences was a persecution of free persons of color, an expanded police department, and increasing restrictions on the manumission of slaves and various other "privileges" such as education and religion.

The Pringle Era

Mary Motte Alston, born in 1803 and married to William Bull Pringle in 1822, was a strong, intelligent and complex woman. Cote suggests that her achievements were limited only by the restrictions placed in her era upon women. As a nineteenth-century woman, Mary was a wealthy rice planter's wife, the mother of thirteen children, and the mistress of three dozen household slaves. The Pringles shared the family house at 27 King Street with her parents until the death of Col. Alston in 1839. She was sole heir to the house and its furnishings (except the plate).

Cote suggests that the Pringle family lived in great luxury at the Miles Brewton house. "In 1860 their stunning mansion was filled with costly china, crystal, and silverware; beautiful furniture; handsome oil portraits; and was staffed by thirty-two household slaves. The Pringles wore the latest fashions and rode in an elegant coach . They traveled for pleasure to the spas of the Eastern seaboard and sent their children on grand tours of Europe. Their wealth flowed from four prosperous plantations where almost three hundred enslaved field hands produced more than a million pounds of rice for them each year, as well as other crops. In terms of slave ownership, agricultural production, and affluence, the William Bull Pringle family ranked in the top one-half of one percent of South Carolina plantation society (Cote 2000:2). But Cote points out that Mary's family substantially outranked William's in terms of ancestry, wealth, and political connections. William Bull Pringle, the youngest of six sons, stood to acquire a great deal of personal assets through his wife's dowry, since by law control of Mary's property would devolve upon him upon their marriage.

The large size of the Pringle family necessitated changes to the Brewton house. Pringle conceived the two-story, two-bay additions to the rear of the house in the late 1830s, which provided dressing rooms on the second floor (and, in the words of John Bivins, diminishing the formal effect of the projecting stair tower) Pringle also remodeled the facade of the carriage house in the Gothic

Revival style (figure 13), moving the front of the building 3' closer to the street (based on recently exposed foundations for the original front). The demographics of occupancy also required reassignment of room function. The withdrawing room on the second floor became the Pringle's matrimonial chamber, and the room in which all of the 13 children were born.

William Bull Pringle continued the family legacy of plantation agriculture. He purchased his own North Santee plantation, Richfield, in 1848. The family also summered on the Pringles' Ashley River plantation, Runimede. Unlike the Georgetown plantations, Runimede grew only a little rice, but instead produced a variety of foods for the Pringle family and their slaves. In 1850 it was stocked with four horses, three mules, forty milk cows and seventy other cattle, seventy sheep, and forty swine. Slaves at Runimede raised 900 bushels of corn, 80,000 pounds of rice, 300 pounds o wool, 150 bushels of peas and beans, 800 bushels of sweet potatoes, and 200 pounds of butter (Cote 2000:66)

A Pringle family descendant provided a detailed description of the house and yard on King Street during the mid-19th century, and the uses of the various buildings and rooms:

"The site plan included outbuildings containing a twin-bay coach house, stalls, a kitchen, a privy and living quarters for the servants. There were six double-tie stalls, adequate for the cows, the matched teams of coach horses, several riding horses for family use, and those of overnight visitors (figure 14). Two tack rooms and a harness room were required for housing and maintaining the harnesses, and the harness room may have also served as residence for the coachman and his family.

The kitchen complex included a large cistern for storing water and a spacious baking oven. The entire back yard, extending all the way to Legare Street, was at one time a formal garden in the English style. Jacob Motte Alston noted that an English gardener "kept all in perfect order, and supplied all the vegetables of the season" The broad walks were lined with sea shells, and mockingbirds and cardinals nested throughout. The snowdrops in the garden in the 1930s were believed to be the same brought by Miles Brewton from England (figure 15).... In spring and early summer the garden was a riot of colors and fragrances from Bermuda lilies, jonquils, sweet olives, lilacs, Cape Jessamine, oleander, English violets, pinks, carnations, and a variety of roses. The garden also produced fruits and vegetables for the family, including oranges, pears, figs, peaches, grapes, pomegranates, bananas, French artichokes, and corn. To the rear of the garden is one of the two original outhouses. Other buildings in the yard included coops and pens for the children's guinea pigs, rabbits, cranes, and other birds and animals (Childs 1953).

The "yard" was also the domain of the servant staff. Mary Pringle recorded the various duties assigned the family house slaves; the seemingly small amount of work assigned to four people in the 1840s prompted Cote to suggest that tradition and not necessity prompted the Pringles to keep three dozen people in the yard at their disposal. The servant staff cleaned and dusted the house, made and tended fires, emptied chamber pots, and polished silver. Seamstresses made and mended clothes and linens, and other servants washed the clothes, made baskets, minded the children, and cooked and served the food. In 1840 Mary listed the duties of four servants:

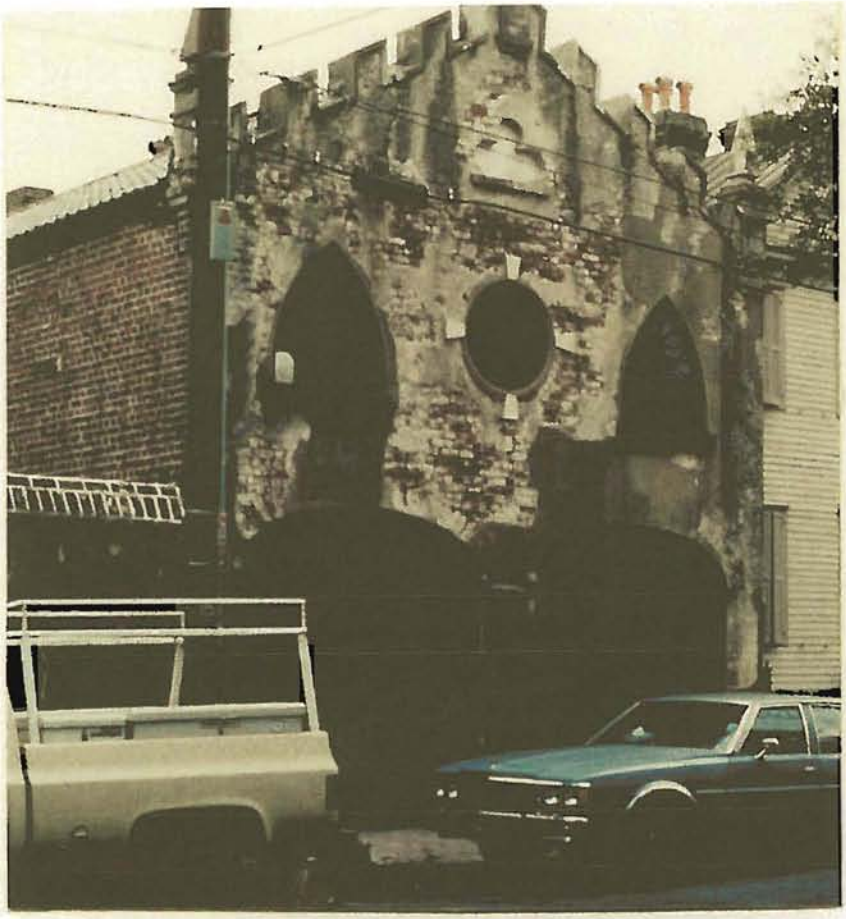


Figure 13. Gothic facade of the carriage house

Figure 14. View of the stable building

Figure 15. Early 20th century view of the Brewton garden

Yellow: to keep the drawing room, lamps, and silver
Cornelius; the street steps, cellar steps, and private stair case
Ishmael: the South parlour, the North parlour, dish covers and plates
Thomas: back parlour, knives, glasses, and coal scoops

Other named servants of the mid-19th century were Hercules, the family coachman, and Cretia, Mary's personal servant. Most interesting was Col. Alston's prized jockey, Thomas Turner. Another family servant, Mary Chisolm, recalled that Turner "must have been part Indian, for he wore his hair in two long plaits." In a most unusual move, Col. Alston manumitted Turner and left an annuity of $600 per year. Until his death, the Pringle family sent him dinner and breakfast daily.

Mary Pringle often recorded the rations allotted to the house servants. Clothing was issued twice a year, and in May 1850, the men received two shirts, two vests, one coat, one livery coat and vest and two cravats. In winter they received two shirts, one or two pair pants, one vest, one coat, two cravats, two pocket handkerchiefs, and two pair undergarments. Shoes were issued on an as-needed basis. Some high-ranking servants, such as Hercules the coachman and Thomas Turner, the former jockey, received additional supplies.

Mary also gives clues to the foods allotted to the house servants. When the family moved to the Santee River plantation for the winter, four people were left in Charleston to keep the house. Mary issued them three bushels small rice, three bushels grist (corn meal), one bushel small rice extra, one bushel whole rice, one Westphalia ham, thirteen logs lightwood, three barrels chipped lightwood. Firewood is not mentioned (Cote 2000:190)

The work yard, or "yard" was the acknowledged domain of the enslaved residents. During the War years, the Pringle's son-in-law Frank Frost would write his mother work of his personal servant, Robinson, "Robinson sends his love to his mother and other people in the yard" (Cote 2000:294) Though the yard was the locus of much sanctioned, and some unsanctioned, activity, much of the maintenance of the compound took place in the basement of the main house. The ground floor of the main house contained the plantation office, where the various patriarchs of the house kept their extensive records. Behind the office, on the south side was the sewing room. The front room on the north was the plantation room or storeroom, which featured wrought iron meat hooks for game, hams, and sides of beef. Fruits, vegetables, and unfortified wines were stored here, as well.

Upstairs, on the first floor, the south parlor was known as the "yellow parlor" and was used to receive visitors and for other formal occasions. The north parlor was used chiefly as the family dining room. The library was across from this room. The second floor rooms retained the same uses as in the 18th century, with the exception the withdrawing room, which became the Pringle's bedchamber and Mary's birthing room.

The furnishings of the house were extensive and expensive. Through inheritance and purchase, the Alston and Pringle families in the 1830s owned extensive silver, including 8 candlesticks, four silver waiters, coffee, tea and chocolate pots; salt sellers four knife cases with two

dozen knives; assorted tableware, two rice spoons, a sugar dish with tongs, a silver strainer, two decanter stands, a silver ink stand, ladles, sauce pans, and dishes; a cake basket and butter boats. All of Mary's inherited silver survived the Civil War, but was sold by William in 1870.

The family had a set of ordinary white china for everyday, but for special occasions they had twelve place settings of white French china acquired in 1838 and twenty-four place settings of blue India china purchased in 1836 and 1840. Along with these were dozens of accessory pieces, including tureens, serving dishes, rice dishes, dessert, fruit, and nut plates, fruit baskets, custard cups and sauce boats. Their inventory of glassware included every possible type of glass dishes, bottles, decanters, goblets, wine glasses, and tumblers.

A portion of the old white china was taken to Runimede in 1843 and a large collection of "red India china" was kept at the Pringle's Beneventum plantation. These items were sold at auction in 1863, but the family managed to buy back the red and white set, and a green and white set. Mary's journals also list damask table cloths, doilies, and tea towels; some linens were marked 1797, but others dated from 1832-1835.

Despite his inherited good start, William Bull Pringle seems to have managed his assets poorly, and the Civil War exacerbated his existing troubles but did not begin them. Cote suggests that the Pringles, like many other antebellum planters, were deeply in debt from living beyond their means. The large size of the family put pressure on each maturing member to support the family holdings, but only one son was ever in a financial position to do so. Two sons had to be bailed out of financial disaster in the 1850s, while investments by a third son who had emigrated to California failed to produce a return. These setbacks, in addition to overinvestment in mortgaged land and slaves, put William Bull Pringle in financial jeopardy. Cote suggests that the family was staggering under the weight of its debts in the 1850s, with a resulting emotional toll on William Bull and Mary Pringle.

William Bull Pringle chose to purchase Pleasant Meadows plantation in 1854, and his wife consented to the sale of the back half of the Miles Brewton lot to do so (figure 16) The income from the sale of the lot did not begin to cover the price of making the new plantation productive. Mary Pringle found this sale a bitter blow, and wrote to her daughter Mary Mitchell,

"I have made a noble sacrifice today, for the advantage of my children. To enable your Papa to purchase "Pleasant Meadows" (Hunt's plantation, adjoining Richfield) which is for sale at $18,000. I have consented, nay, magnanimously offered, to let him sell the lower portion of my lot - my *dear hereditary land.* Would it be wrong to drop a tear, when I am all by myself, to this act of duty."

Taxes on the Miles Brewton house itself had become a pressure by 1859. In this year, the house had an assessed value of $18, 000, resulting in an annual tax of $270. There were additional taxes on interest income, thirty-four house servants, two carriages, and three horses. To sidestep these problems, in 1858 Mary transferred title to the house to her husband, who conveyed the property to his father.

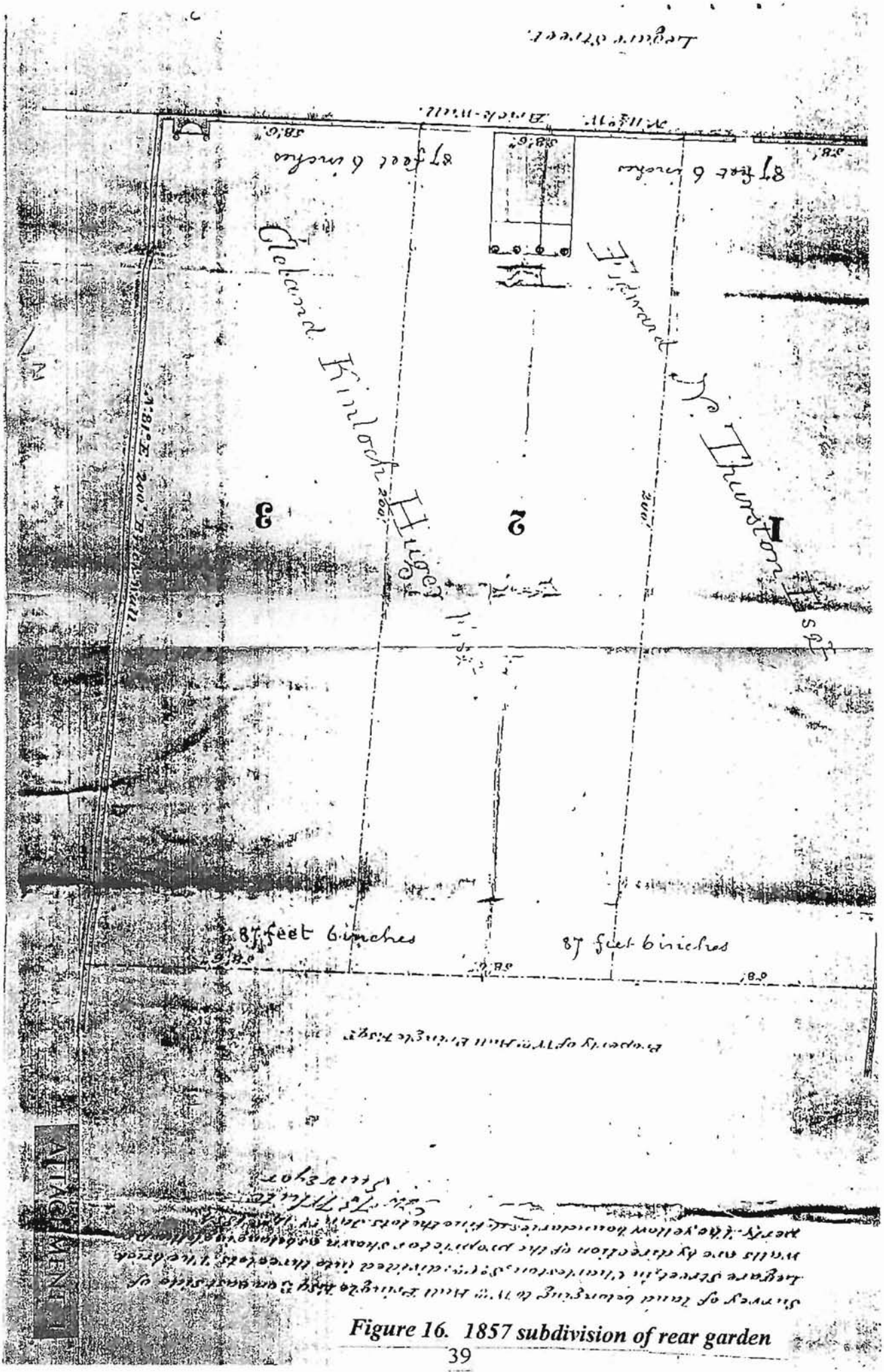


Figure 16. 1857 subdivision of rear garden

The Civil War

For several months following the firing on Fort Sumter, soldiers freshly mustered into Confederate camps around the city found it "hard to realize we are engaged in warfare." The light-hearted mood did not last. After the fall of Port Royal and Beaufort in November 1861, refugees from coastal islands crowded into Charleston. The city was blockaded and placed under siege, and repeated bombardments threatened the southern end of the peninsula. Charlestonians moved to the upper wards, or to the piedmont or mountains. Although the damage caused by these shells was limited, the impact of the War on the city was nonetheless profound. Charleston's economy, debilitated by the War, remained stagnant through the remainder of the 19th century. The lower city, particularly the district burnt in the 1861 fire, stayed in ruins for decades.

The financial worries of the 1850s were only prelude to the financial and emotional devastation of the 1860s and the Civil War. Seven of the eight Pringle sons volunteered to serve in battle As the Union fleet entered Port Royal sound, the family packed the silver and sent it to Columbia for safekeeping, as they moved to Richfield plantation. They were only recently departed when the huge fire of 1861 devastated much of downtown Charleston. William Pringle tried to maintain production of the Santee rice plantations, but fears of a Federal invasion prompted him to evacuate his plantation laborers inland. One Union soldier wrote, "The Rebels were leaving their plantations, driving their negros before them in all directions" (Cote 2000:196). In April 1862 Pringle leased a farm near Society Hill and Mary and her daughters returned to Charleston to pack up the family treasures: furniture, linens, china, portraits, and servants.

The Civil War years rearranged the daily lives of the Pringles but did not erase their debts. In 1863 Pringle sold Runimede on the Ashley to Charleston banker (and blockade runner) George Alfred Trenholm. Trenholm paid $20,000 for the plantation and $39,000 for the people living and working there. Later that year Pringle sold Beneventum (from his father's estate) in a similar manner. The sales did not cover Pringle's debts.

The war also cost the Pringles two sons, plus a third to mental incapacity. The most moving was the death of Robert Pringle at Battery Wagner. An exploding shell inflicted mortal wounds. Robert was brought back to Charleston by rowboat. His brothers, James and Alston met the boat at the wharf. Alston wrote, "We took him from the boat, put him in an ambulance, and carried him into the silent King Street house. There we exposed the ghastly, cruel wounds, and Brewton, James, and myself, assisted by the weeping servants, took off his bloody clothes and laid him in the South Parlor." The brothers had him buried at St. Michaels, but warned their mother and sisters not to return to Charleston for the services.

Despite the incessant shelling, Charleston withstood Union invasion until February 1865. With the War lost and General Sherman's troops believed to be heading to Charleston, General Beauregard ordered the evacuation of the city. Troops began to leave on February 17. That night was one of "horror and chaos", with the city full of refugees, especially women, fleeing before Sherman's army. Destruction of stocks of ammunition and stockpiled cotton bales combined in tragedy at the Northeastern Railroad yard, where a combination of food shortages and chaos sent

mobs of people rushing to the depot to retrieve abandoned food commodities. Small boys, playing with scattered gunpowder, inadvertently started an explosion that killed about 150 people and injured an equal number. The Pringle's son, Motte, who was assistant quartermaster for the Department of South Carolina and Georgia, was accused of negligence in this event by a northern newspaper, but subsequent research (Burton 1970) has exonerated him.

Union commanders poised on islands southeast of the city deduced from the clouds of smoke and series of explosions that Charleston was being abandoned. On the heels of the Confederate retreat, the Twenty-first United States Colored Troops debarked on the "deserted, grass-grown wharves and the lower end of the peninsula: and were joined, minutes later, but several companies of the Fifty-fourth Massachusetts. While the tenor of the evacuation had been panic and despair, the greeting Union soldiers received from freedmen who had managed to stay in the city was one of profound joy. Less predictably, perhaps, immigrant workers also warmly welcomed the Union Army.

The Pringle Family in the Postwar Years

The War had created a new order of things. Former male slaves became citizens and voters; they joined freedwomen as taxpayers, and could make their own decisions about where to live and work. "Free persons of color" were no longer a privileged minority. As a class, they had loss their legal status, as well as considerable property, when the slaves were emancipated. White Charlestonians, too, had new choices to make. The Reverent A. Toomer Porter urged them to "turn their backs on the past and look to the future; not to waste energies on vain regrets" (Porter 1989). Some, like Porter, chose to "accept as a fact the freedom of the slaves" and make the best of new realities. Some white families deserted the city and tried to rebuild their lives elsewhere; Edward Pringle constantly urged his family to join him in California. Others bided their time, preparing for the moment when they would "redeem" the state from Radical Reconstruction and return to a semblance of the old hierarchical order.

One impact of emancipation was to give Charleston a black majority once again, through in-migration of rural freedmen. Contrary to the hysteria of many white planters, the motives of the black migration were deliberate and purposeful. Especially on very large plantations, workers tended to stay where they were until after harvest, so the massive movement of people didn't begin until the fall of 1865. Many people who came to Charleston were looking for work or lost family members, or returning to the city from wherever their masters had taken them for safe-keeping.

While Reconstruction was revolutionary in extending political rights, it did not radically alter economic stratification. The occupations of freedmen and women followed the precedents set in slavery. In the country, most blacks earned their living as agricultural laborers; in the cities, the majority were domestic workers - butlers, valets, coachmen, gardeners, handy men, housemaids, cooks, laundresses, nurses, and serving girls. The gift of land and farm equipment expected from the Union government did not materialize, as most white planters were able to eventually reclaim their lands by swearing allegiance to the Union.

By 1865, still upstate refugees, the Pringles had only Richfield plantation and the King Street house, and continued debt. After the Union army entered Charleston in February, the empty King Street house was seized as headquarters. The Pringles did not regain possession of the house until October 1865. Pringle regained Richfield plantation that same year and entered into labor contracts with his former slaves. Though he and son-in-law Frank Frost struggled to plant, their efforts on the Santee did not bring profit. Pringle had no working capital and was forced to borrow each year to prepare the next year's crop. In 1871 the Pringle family was forced to sell Richfield.

The emancipation of the enslaved laborers spelled the end of profitable rice production in South Carolina. The freedmen were forced by economic circumstance to work for low wages, but they refused to do the most dangerous and miserable tasks - the maintenance and digging of ditches and banks, which involved winter work in cold water. The lowcountry was still producing a significant portion of the nation's rice crop in the 1880s, but not so by the next decade. A mechanized system of rice production was successful in Arkansas and Louisiana, but the system did not work in the lowcountry. A series of severe hurricanes were the last blow. These destroyed the already fragile rice dikes up and down the coast. Hurricanes struck between Savannah and North Carolina in 1893, 1894, 1989, 1906, 1910 and 1911. The 1893 storm alone killed over 1,000 people. The last Santee river plantation to produce rice was David Doar's Harietta, in 1908.

The family retained the King Street house, but in a far different fashion than in the pre-War years. Records show the family purchased little more than basic necessities. Instead of 34 enslaved workers, Mary Pringle hired only 3 house servants. She was shocked to learn in 1871 that her beloved personal servant, Cretia, demanded an improved work arrangement and moved out of the servant yard to live with her son. Every available space capable of generating income was utilized. The Pringle's homeless relatives moved into the first floor of the house, while the Pringle family confined themselves to the second floor. The ground floor was rented to a variety of tenants, as was the coach house, refitted as a store. Mary and her daughters made and sold marmalade and floral arrangements, and Mary even considered making a business of selling terrapins. Only son Julius, who had married a Louisiana cotton planter's daughter, carried his pre-war fortune into the late 19th century. His periodic gifts of money kept the family's debtors at bay. He also purchased a round of clothing for the family in the 1860s, and Parisian plants to restock the King Street garden; these included "garden seed, some artichoke, migonette, hearts-ease, and a great variety of pinks, carnations, anemones, ranunculus." (Cote 2000:327)

All over the city, white Charlestonians patched their houses, moved back in, and made do.Refurbishing, rebuilding, and new appointments would wait decades. Many, like the Pringles, took in boarders and other strangers. Others, like the widow of Governor R.F.W. Allston, turned their homes into businesses; Mrs. Allston returned to the Nathaniel Russell house on Meeting Street and opened a girl's school (Zierden 1996). Charleston had entered the 19th century at the forefront of civic competition, but ended the century far behind its rivals. This lack of progress rose from a fixation on cotton and rice agriculture in the antebellum period, followed by economic collapse and social reorganization. The phosphate boom of the 1870s provided only temporary relief to the city's economic stagnation (Shick and Doyle 1985). Natural disasters in the postbellum period, notably the earthquake of 1886 and a series of hurricanes in the 1890s, struck devastating blows. By the early

20th century the newly-formed Board of Health was demanding civic improvements, but lack of funds stalled these efforts for years.

William and Mary Pringle both lived to see the 1880s, but their last decade of life was marked by depression and anxiety. Worth half a million dollars in the 1850s, William's estate was worth $89 when probated in 1895 (Cote 2000:350). In their last years the Pringles were nursed by their unwed daughter Susan. She inherited 1/3 interest in the house from her mother and remained in the house after their deaths until her own in 1917. Her sister Rebecca and husband Frank Frost also lived in the house after Frank Frost abandoned rice planting in 1876. The remaining shares of interest in the house were divided equally between three other Pringle children and their children.

In 1918, the three unmarried daughters of Frank and Rebecca Pringle Frost offered to buy the Miles Brewton house from the other heirs. This was completed a year later, with loans from the duPont family. The Frosts continued the post-bellum Pringle practice of renting out rooms, and this, plus tours and gardening, was used to maintain the homestead. Susan Pringle Frost became Charleston's first female real estate agent, a pioneer in women's suffrage, and in 1920 founder of the Society for the Preservation of Old Dwellings, now the Preservation Society. She was responsible for the beginnings of the preservation movement in Charleston and, by replication, nationwide (Cote 2000; Bland 1999).

Many of the grand houses of the 18th and 19th centuries suffered from neglect, if not abuse, during this period. Ironically, many old buildings avoided razing because of Charleston's lack of economic progress. Nonetheless, it was misuse and neglect of such structures as the Joseph Manigault house, saved by Sue Frost, that resulted in the birth of historic preservation in Charleston in the 1930s.

After Rebecca Pringle Frost's death in 1971, the house passed to Mary Pringle Hamilton Manigault, granddaugher of (Jacob) Motte Pringle. Her son, Peter Manigault inherited the house in 1987. He then began a museum-quality restoration of the house and grounds, which set a new level for preservation efforts in Charleston.

Chapter III

Excavations

Excavation Methodology

Because of the relatively extensive nature of the project, several special logistical arrangements were possible. Field and laboratory equipment were stored on site in the horse stalls, and preliminary laboratory tasks, including washing, sorting, and stabilization, were conducted in the field.

Excavations were designed to investigate several ongoing research issues, to study the evolution of the Brewton landscape, and to answer questions concerning the architectural history of the main house and outbuildings. Test units were dispersed across the available yard area, and were deliberately located relative to these various considerations.

Horizontal control was maintained with transit and tapes, and a Chicago grid was established over the site. A datum point was established at the southeast corner of the yard (inside the brick walls) and was given the designation N100W100. All points were measured north and west of this point, and all units were designated by the coordinates of the southeast corner. A baseline was established along the N110 line to the W320 line, with pins at 10-foot intervals. A meridian was established along the W330 line to the N250 point, with pins placed at 10-foot intervals. Tapes and transit were used to locate all units relative to these points.

Vertical control was maintained with the use of a transit. A permanent datum point was established on the southeast corner of the lowest step of the southern rear door staircase. Elevations taken on a daily basis were tied into mean sea level through this point. The absolute elevation of this point at 11.03' was established relative to the USCGS datum point at the Post Office, corner of Broad and Meeting streets (16.55'). All elevations in this document are listed in absolute terms as feet above mean sea level (msl) or as feet below ground surface (bs).

Excavation was conducted by hand, using shovels and trowels. All materials were water screened through 1/4-inch mesh. A permanent screening station was established in the south side yard, and all materials were transported to the screening station by wheelbarrow. All materials were bagged and tagged separately according to provenience. Cultural, faunal, and ferrous materials were separated, and the latter immediately placed in tap water to begin the conservation process. Charcoal and cuprous materials were also bagged separately, and architectural samples were retained. Soil samples and flotation samples for ethnobotanical analysis were collected from each organically-rich provenience.

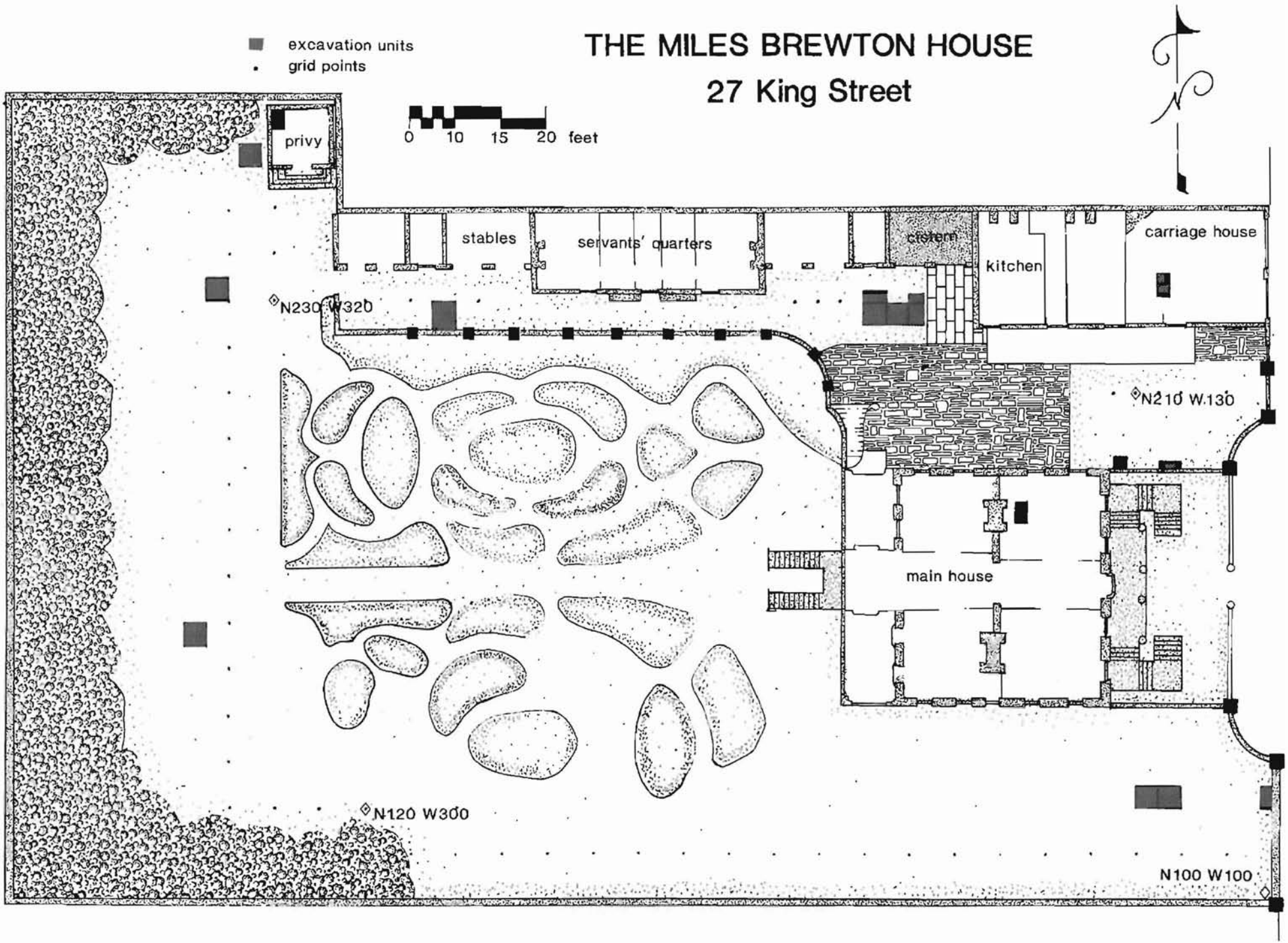
All profiles and features were mapped and photographed prior to excavation. All units were photographed in black and white and color. In addition to maps and photographs, considerable field notes were maintained. Narrative notes were recorded on a daily basis and were augmented by feature forms, excavation unit forms, photographic logs, and field specimen logs. A conservation log and laboratory inventory were maintained by the Laboratory Supervisor.

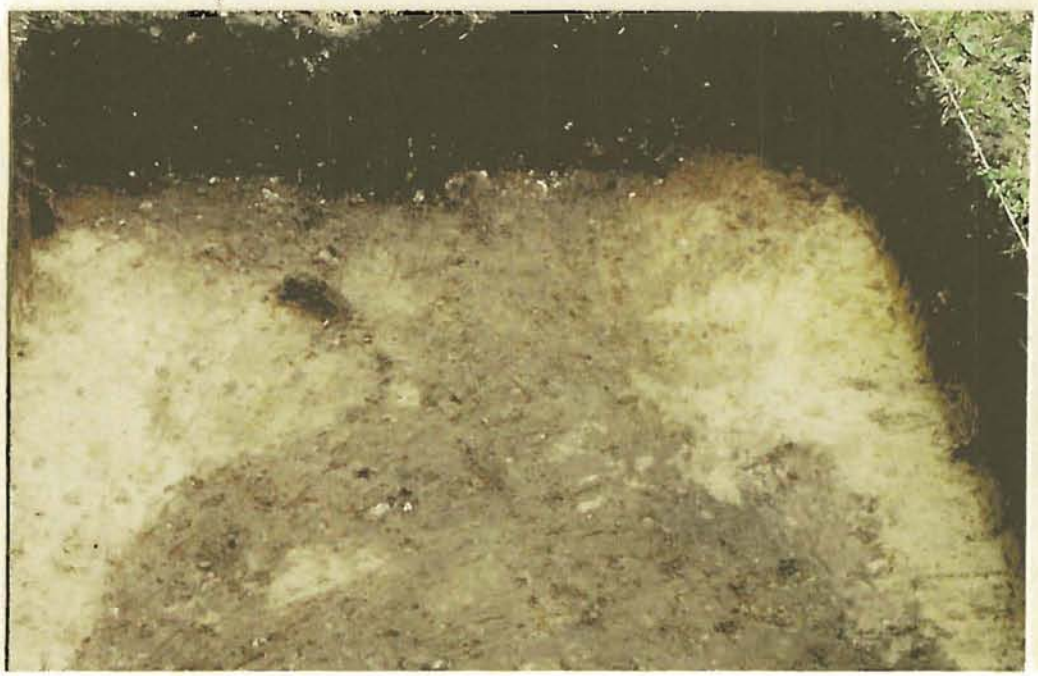
Description of Excavated Proveniences, 1988

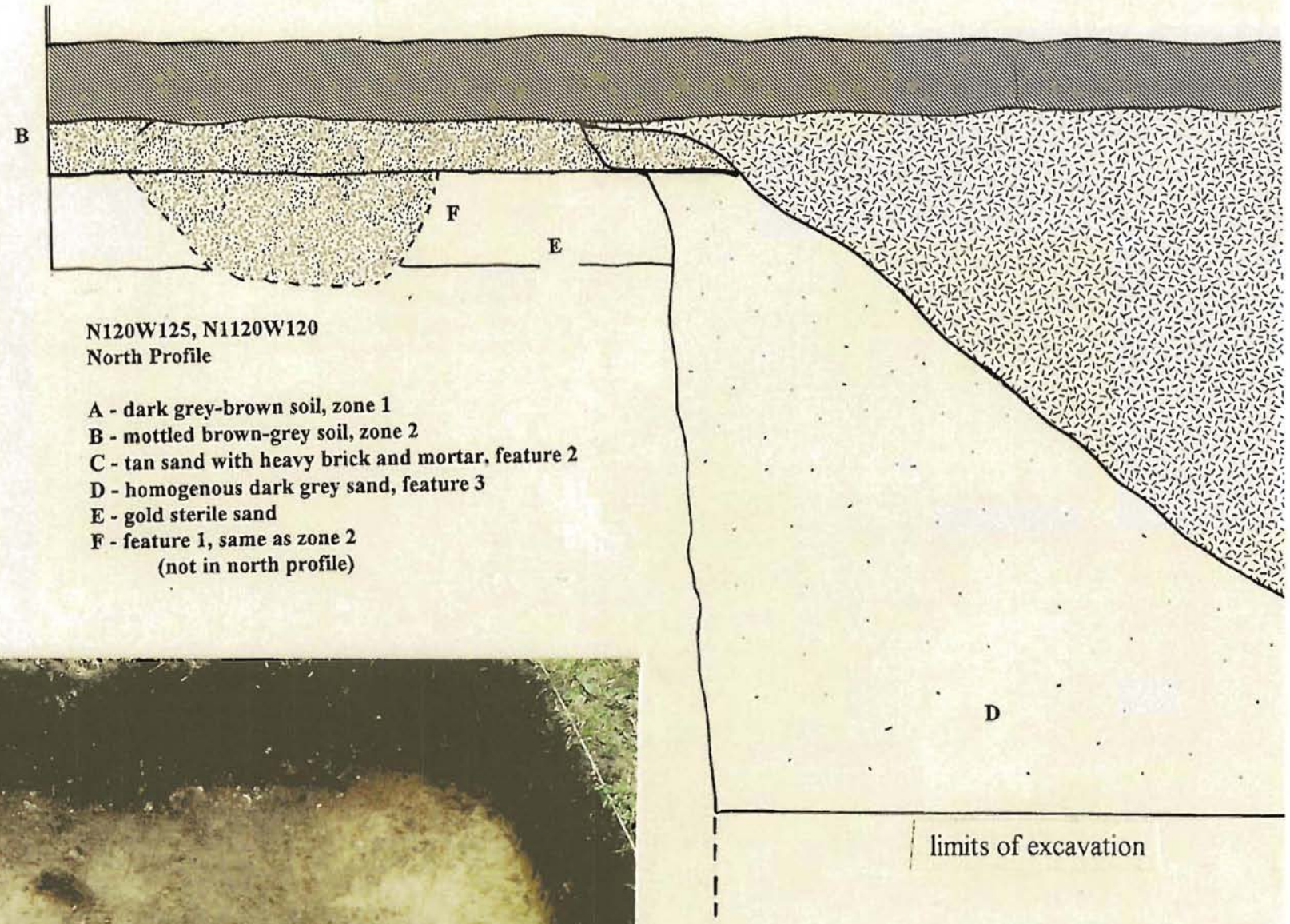
During the field period, over 930 cubic feet of soil was excavated from 18 separate units. Over 150 discrete proveniences were designated and 28 features defined. As is the case with most urban sites, the stratigraphy at the site was quite complex, making correlations of zones and proveniences between spatially discrete units difficult, but not impossible. Proveniences from each unit will be discussed separately (figure 17).

Testing began in the south side yard. The majority of Charleston lots are smaller than the Brewton tract, and are long and narrow, precluding the existence of a 'side yard'. Excavations in this area were designed to learn the function of this area. Unit N120W125 was a 5-foot square. Zone 1 consisted of black topsoil with very few artifacts. The zone was .4' deep. Beneath this was zone 2, a brown sand mottled with orange clay inclusions, black soil, and mortar flecks. Zone 2 and the underlying sterile yellow sand were quite soft, to a depth of 1.0' bs. Two features were visible intruding into sterile subsoil. Feature 1 was an oval pit of medium brown sand, with brick rubble, oyster, flint cobbles, bone, and a moderate number of artifacts. The entire feature was contained within the unit, and was excavated as a single provenience. The feature was 4.2' long and 1.3' deep. Feature 2 intruded into the eastern wall of the unit; only a small portion of the roughly circular feature was contained in the square. The matrix was a medium brown-grey soil with a concentration of brick and mortar fragments. A 'pocket' of dark grey soil was noted in the lower portion of the feature (figure 18).

Because of the presumed large size of feature 2, the unit was expanded to the east; N120W120 was a 5-foot square adjoining N120E125. Because of its sterile nature in the previous unit, zone 1 was discarded. Zone 2 was identical to that n the more westerly square. Upon completion of zone 2 level 2, a small triangular area of yellow sterile sand was visible in the southeast corner of the unit; feature 2 occupied the remainder of the unit and intruded into the north wall. As excavation began, it became apparent that feature 2 was a construction refuse pit. The brown-grey sand matrix contained quantities of brick and mortar rubble. Further excavation revealed that feature 2 actually intruded into a larger, earlier feature, which consisted of grey sand with charcoal flecks. This was designated feature 3, and was excavated separately. Feature 2 contained mostly building rubble, with some domestic refuse, and dated to the early 19th century. Feature 3 was a circular pit with straight sides, and it contained domestic refuse in moderate quantity, and dated to the 1760s. Feature 3 was over 5' deep; the base was not encountered due to encroachment of the water table. Feature 2 was 3.8' deep, and feature 3 was excavated to a depth of 5.7' below ground surface (figure 19).


excavation units
grid points
THE MILES BREWTON HOUSE
27 King Street
0 10 15 20 feet
privy
stables
servants' quarters
cistern
kitchen
carriage house
N230 W320
N210 W130
main house
N120 W300
N100 W100





N120W125, N1120W120
North Profile

A - dark grey-brown soil, zone 1
B - mottled brown-grey soil, zone 2
C - tan sand with heavy brick and mortar, feature 2
D - homogenous dark grey sand, feature 3
E - gold sterile sand
F - feature 1, same as zone 2
(not in north profile)

Figure 19. Profile of features 2 and 3

Unit N155W335 was located near the southwest corner of the back yard and was located to determine the depth and nature of these rear yard deposits. Like the units in the side yard, zone 1 was a dark grey-brown topsoil with virtually no artifacts. This was excavated and discarded. The underlying zone 2 was a medium grey sandy soil. Along the north wall there was a concentration of burned brick, slate, coal, and charcoal. A concentration of bone was noted in the northeast corner, and this proved to be a disarticulated dog burial. Neither concentration was defined enough to be designated a feature and so were excavated as part of zone 2. The concentration of charcoal was clearly defined in the north profile, however; it is likely that the mass in N155W335 was the edge of a large feature to the north. The underlying zone 3 was a medium tan sand; below this was sterile subsoil. The entire unit was quite shallow, measuring only 1.5'.

Unit N230W330 was located in the rear yard, again to test the nature and depth of rear yard stratigraphy; both units were immediately outside the current formal garden area. It was expected that the cultural deposits would be deeper and more complex in this portion of the yard, due to the relative proximity of the outbuildings and the projected location of the former creek. Like the previous unit, zone 1 was excavated and discarded. Zone 2 was a dark grey-brown sand. A concentration of building material and charcoal was noted in the northeast corner, but no feature outline was detected. Zone 2 was rather deep, and was excavated in two levels. Zone 3 was a homogenous medium brown sand, while the mottled orange clay and brown sand underlying it was designated zone 4. At the base of this deposit, it appeared that sterile orange clay was present. A small circular feature was noted along the eastern wall of the unit. It was filled with mottled brown sand, similar to zone 4. The feature appeared to have straight sides, and contained sparse artifacts. At the base of this deposit, a concentration of charcoal and mid-19th century artifacts were noted, intruding into the walls of the feature. Further expansion of the feature 6 area horizontally revealed that the mottled soil of zone 4 continued, and feature 6 was simply a shallow, circular pit. What was clear in profile was nonetheless difficult to detect during excavation, and these lower soils were all excavated as feature 6. Due to the encroaching water table and time limitations, only the eastern half of the unit was excavated to the water table. The mottled soil continued beneath this, but excavations were halted at the water table.

Unit N259W320 was a 5-foot square located adjacent to the west wall of the yellow brick building. The northern edge of the unit bisected the arched opening in the building's foundation, while the eastern wall was roughly one foot west of the edge of the building. The unit was located to explore the environs of the building and help interpret its function. A privy of similar dimensions is located at Drayton Hall. This elaborate facility was flushed through a brick drain to the side. If such a feature existed at 27 King, we hoped to encounter it in this unit.

Zone 1 was a very dark grey-brown loamy soil, full of bottle glass, window glass, flower pot fragments, bricks and roofing slate. There was a concentration of slate in the southeast corner of the unit. Zone 1 was divided into two arbitrary levels. Soils in level 2 were slightly lighter and some small, earlier artifacts were present; however, the level also contained quantities of slate and late 19th century artifacts, like the above level. This appears to be evidence of the partial dest

destruction of the building. Maps and photographs in the possession of Mr. Manigault show the structure in disrepair in the 1880s and early 20th century. It is likely that the structure was damaged in the 1886 earthquake and the building materials became part of the archaeological record.

At the base of zone 1 level 2, a large rectangular feature was present, intruding into the north and east walls. The soil matrix and artifact content were similar to zone 1. Feature 4 proved to be quite deep, and at a depth of 1.4' the artifact content changed; the building rubble decreased and a concentration of ceramics and domestic refuse appeared. The soil matrix remained the same, with an increased density of charcoal. At this point the water table was encountered and excavations ceased. By early summer, however, the increasing drought caused the water table to drop considerably and excavation of the remainder of the feature was possible. The remainder of the feature contained dark grey-brown soil mottled with yellow sand and pockets of coal dust, cinders, and large artifacts. The entire feature was 2.9' deep.

Elsewhere in the unit was a light grey-brown, nearly sterile soil. This was designated and excavated as zone 2. At the base of this shallow zone, an amorphous area of the same soil was noted in the southwest corner. This was designated feature 5; it proved to be virtually sterile. With the exception of feature 4, the unit was 1.5' deep.

Investigation of refuse and activity concentrations began with the excavation of N225W185 in the work yard. Previous studies have indicated that domestic activities, including refuse disposal, were concentrated in the vicinity of outbuildings, particularly the kitchen. This portion of the site is clearly separated from the formal garden by a brick wall (figure 20). Most of this long, narrow area is currently paved, and areas available for excavation were limited. N225W185 was located in a small grassed area behind the kitchen/carriage house, between the stables and the rear door of the main house. Excavation of this unit did indeed reveal a concentration of features and artifacts; this unit was later expanded to the east and north in a series of four contiguous units. Because of the interrelated nature of the deposits, these four units will be described together.

Excavation of N225W185 began with zone 1. In this unit, the dark grey-brown topsoil contained quantities of brick and other building rubble, along with pockets of pinkish-grey coal residue. The quantities of building rubble may be from deterioration of the stable buildings which occurred in the early 20th century, or damage from the 1886 earthquake. Beneath this .4' deep zone was a brick and sandstone paving. This rather patched paved area was very soft and worn. The paving was photographed and removed, and beneath this was a zone of mottled tan-grey-brown sand, with heavy flecks of mortar and charcoal, and some brick. The upper levels of zone 2 were heavily compacted, and revealed evidence of mortar flooring. The mortar was an uneven thickness and color, ranging from grey to yellow. The second level was less compact and the mottled soil contained a greater proportion of yellow sand and orange clay. Large brick fragments and pockets of mortar continued through levels 2 and 3. A concentration of dark soil in the southwest corner proved to be two small trash pits.

At the base of zone 2 was an almost sterile orange-tan sand. A large linear feature was visible in the northern half of the unit. Feature 7 contained highly mottled soil; yellow-tan sand, grey sand, and and orange clay, similar to the zone 2 above. This soil matrix also contained coal, brick, and mortar. The walls of the feature were quite straight, and excavation revealed that this was a construction trench for a vaulted brick drain. The drain was well constructed, with an arched top and stepped, straight sides. The brick drain was designated feature 12 (figures 21-22).

Elsewhere in the unit, the almost sterile tan-yellow sand was designated zone 3. The soil proved to be quite mottled, with yellow sand and pockets of light grey-brown sand. After the first level, the soil contained a much higher proportion of dark soil. Several half-bricks and large brick fragments were recovered from this level. Because the soil was so much darker, it was designated zone 4. Upon excavation, however, it proved to be part of the same zone and gradually exhibited a predominance of yellow sand. In subsequent units this was all designated zone 3. Zone 4 bottomed onto an area of coarse grey sand. An oval area of charcoal was present intruding into the east wall. Elsewhere, the unit exhibited a hard-packed clay zone with rust stains and chunks of mortar.

At this point, excavation was halted and the unit was expanded to the north and east. Unit N230W185 measured 2.5' by 5' with the long axis oriented east/west. This unit was placed to expose the northern half of features 7/12, but was truncated to avoid the disturbance of the conduit line laid earlier in the fall. The unit contained stratigraphy identical to N225W185; zones 1, 2, and 3 and feature 7 were excavated as before. Intruding into the top of feature 7 was a small circular pit of granular grey sand. This was designated feature 8 and was excavated separately.

Unit N225W180 was a 5' square to the east of N225W185. Zone 1 was removed and discarded. Evidence of a number of paving, or at least patching, episodes was noted. The upper levels contained brick in a herringbone pattern along the south wall, with scrap and half-bricks elsewhere. Beneath this disturbed layer of paving were small sections of sandstone with areas of tabby/mortar. Beneath these pavings were the tops of zone 2 and feature 7. After excavation of feature 7, zone 2 was excavated in two levels to the top of the yellow sand, zone 3.

Several features intruded into zone 3. Feature 7 has already been discussed. Feature 9 was a small circular area along the east wall. The feature consisted of a medium grey sand with quantities of charcoal and mottled yellow sand. Feature 9 intruded into features 7 and 10, postdating them. Feature 10 was a large circular pit intruding into the south wall. Fill consisted of brown-grey sand mottled with yellow sand, clay, and moderate amounts of mortar and coal. During excavation, it appeared that feature 10 was in fact two features; the area in the southeast corner was a deposit of darker, homogenous grey soil with charcoal. This was excavated separately as feature 10a. Examination of the profile subsequent to excavation suggested that feature 10 was in fact a complex of three small pits.

Zone 3 was next excavated in two levels. Level 1 corresponded to zone 3 in N225W185; level 2 corresponded to zone 4 in the westerly unit. The soil ranged from a mostly yellow mottled

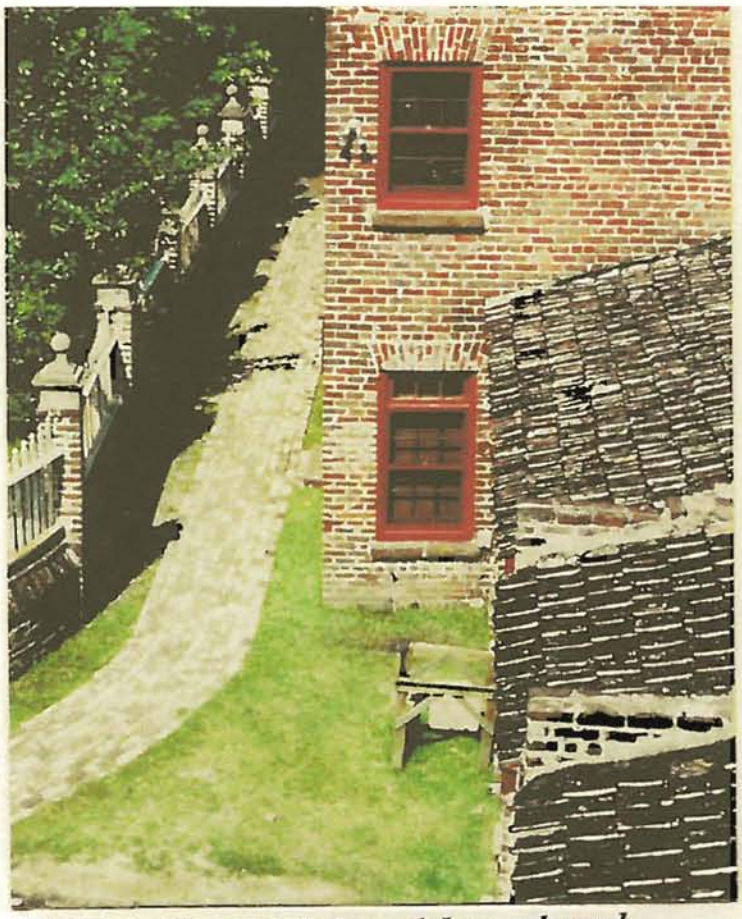


Figure 20. Aerial view of the work yard, segregated by the garden wall

Figure 22. Closeup, feature 12

Figure 21. North profile of N225W180, showing features 7 and 12

sand to a highly mottled and swirled dark brown and yellow sand. Zone 3 was excavated to the top of feature 11, the area of charcoal.

Feature 11 was almost entirely exposed in the two units, intruding slightly into the south wall. The northern edge was truncated by the construction of feature 7/12. The oval area measured 5' by 3' and was .5' deep. The feature was a shallow pit of dark grey sand full of charcoal and oyster shell. The feature was bisected along the line of the two units and the western half excavated first. The feature contained a number of long pipe stems, as well as bone and some bricks. A portion of the western edge of the feature was lined with half-bricks set up on edge. A large lump of ash was visible in the middle. After completing and profiling the western portion of the unit, the eastern half was removed. All of the charcoal from the feature was retained after screening was completed (figure 23).

Feature 11 bottomed onto a homogenous sterile dark grey loamy sand. This was just above the water table. The remaining zone 5, underlying feature 11 in N225W185 was subsequently excavated. The top of the zone contained a concentration of clay with rust inclusions, some shell, and pockets of grey sand. The matrix contained a quantity of artifacts dating to the early 18th century. Beneath this was the same sterile dark grey loam encountered at the base of feature 11. Excavations were halted at this point. Zone 5 was not excavated in N225W180.

Excavation then focused on the brick drain, designated feature 12. A portion of the vaulted brick top was removed to reveal a fill of silty grey loam. The loam initiated .4' below the top of the drain. The interior of the drain measured 1.0' wide. A sample of the silt was excavated. The western edge of this sample was 1.3' east of the west wall of unit N225W185 and was 2.5' long. The sample revealed a .8' accumulation of silt. The top .4' was relatively sterile, while the lower .4'; contained quantities of small artifacts, particularly fish scales. The base of the drain was wood, partially preserved in places. The boards were oriented perpendicular to the flow of the drain.

Inspection of the interior of the drain revealed that it continues for a good distance to the west (toward the back yard), but either was blocked or curved upward near the eastern edge of N225W180. In order to further inspect this possible entrance to the drain, an additional unit was located between N225W180 and the edge of the paved courtyard. N225W177 measured 3.0' east-west and 7.0' north-south.

The new unit was excavated in a manner consistent with the others. Excavation of zone 1 revealed the brick floor, quite patched in the southern portion of the unit, was remarkably intact in the northern portion. Laid in a running bond, the brick paving sloped dramatically in the northeast corner of the unit. Beneath the brick floor, zone 2 was clearly separated by an area of mortar paving. The portion of zone 2 above the floor was designated level 1 while the portion below, level 2. Beneath this, feature 7 was clearly visible intruding into zone 3, as was a linear dark area along the western wall of the unit. This was designated feature 13. This soil was a medium tan-

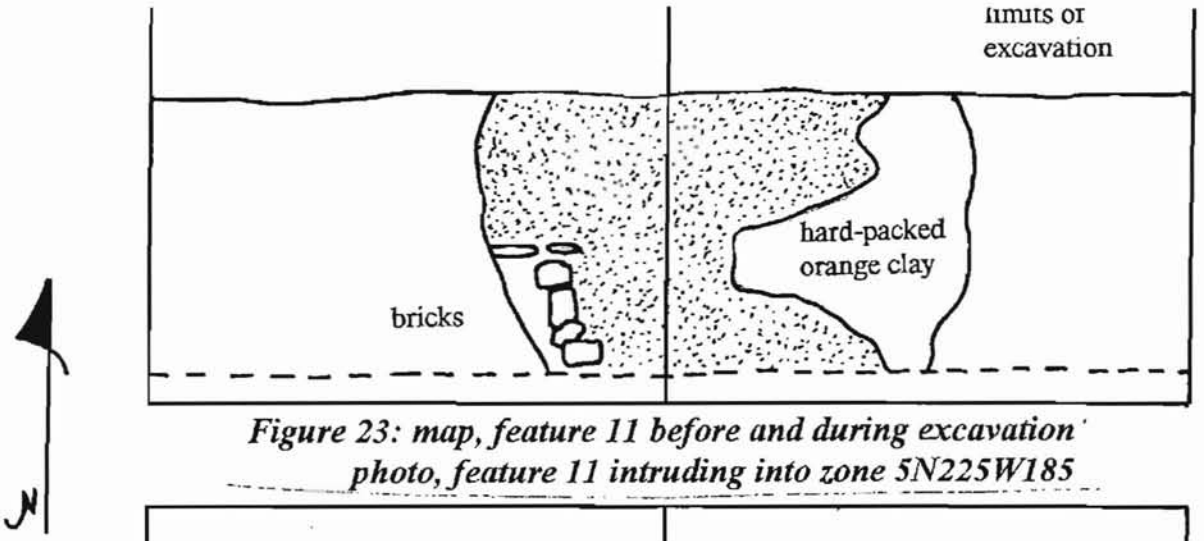


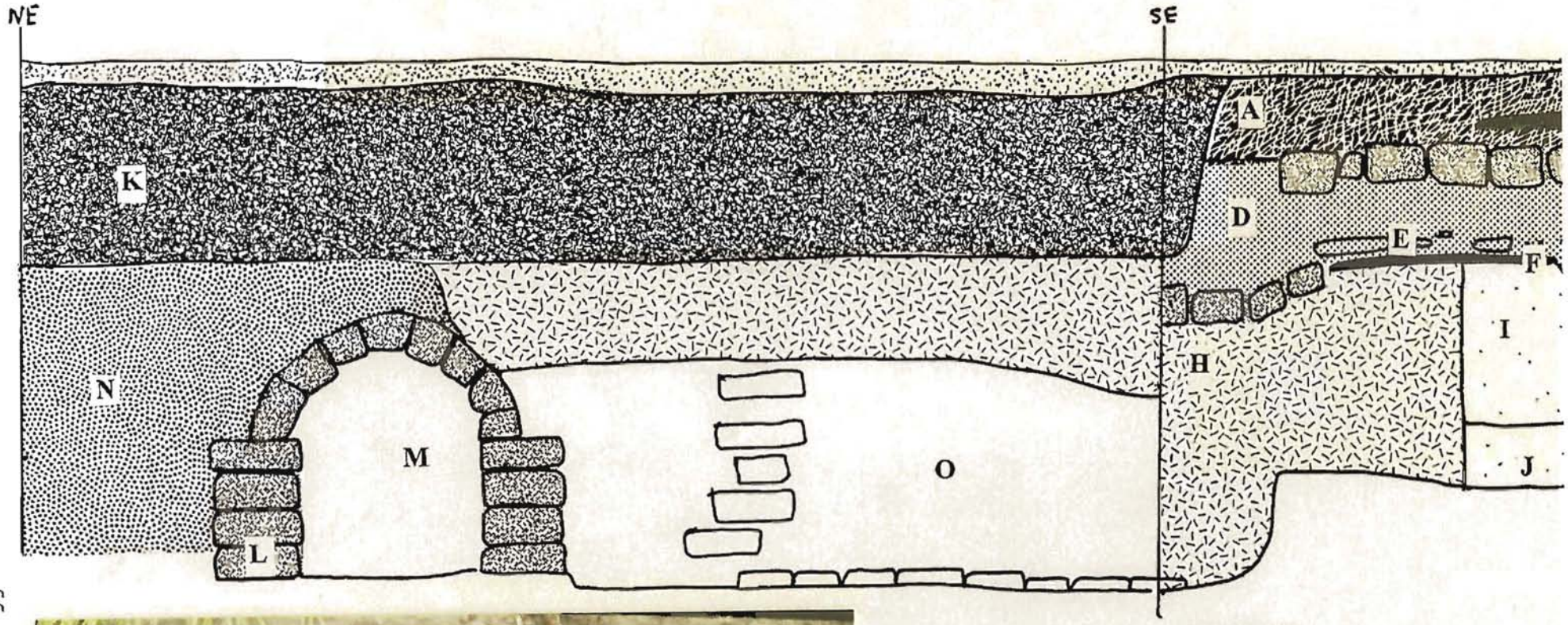
Figure 23: map, feature 11 before and during excavation
photo, feature 11 intruding into zone 5N225W185

grey soil with mortar, coal, and brick. The feature had straight sides and was quite deep. It bottomed onto a row of bricks. Cleanup of the profile wall revealed a brick feature sloping toward the top. Further investigation and removal of an inset revealed that this was a second, more poorly made, brick drain, running perpendicular to and intruding upon feature 7/12. The drain was designated feature 16, with the feature 13 designation referring to the builders trench. Elsewhere in the unit, excavation of zone 3 revealed a small feature, two quarter-circles of pinkish-grey sand, intruded upon by feature 7 and feature 14. These were located at the same elevation as feature 11, and were designated feature 14. Excavation of the unit was halted at the base of zone 3.

Excavation of features 7/12 and 13/16 proved to be a challenge. To facilitate this process, a second sample was excavated from feature 12. This sample initiated .7' east of the west edge of the unit and was 2.0' long. Here the silt was the same consistency, but contained a much greater density of materials. It was also detectable that feature 12 ended on the eastern edge of this sample, and the brick drain had a smooth, even edge, suggesting that this was an 'end' to the drain. Beyond this the edge of the drain was filled with up-ended bricks, suggesting vault collapse or the filling of the drain entrance.

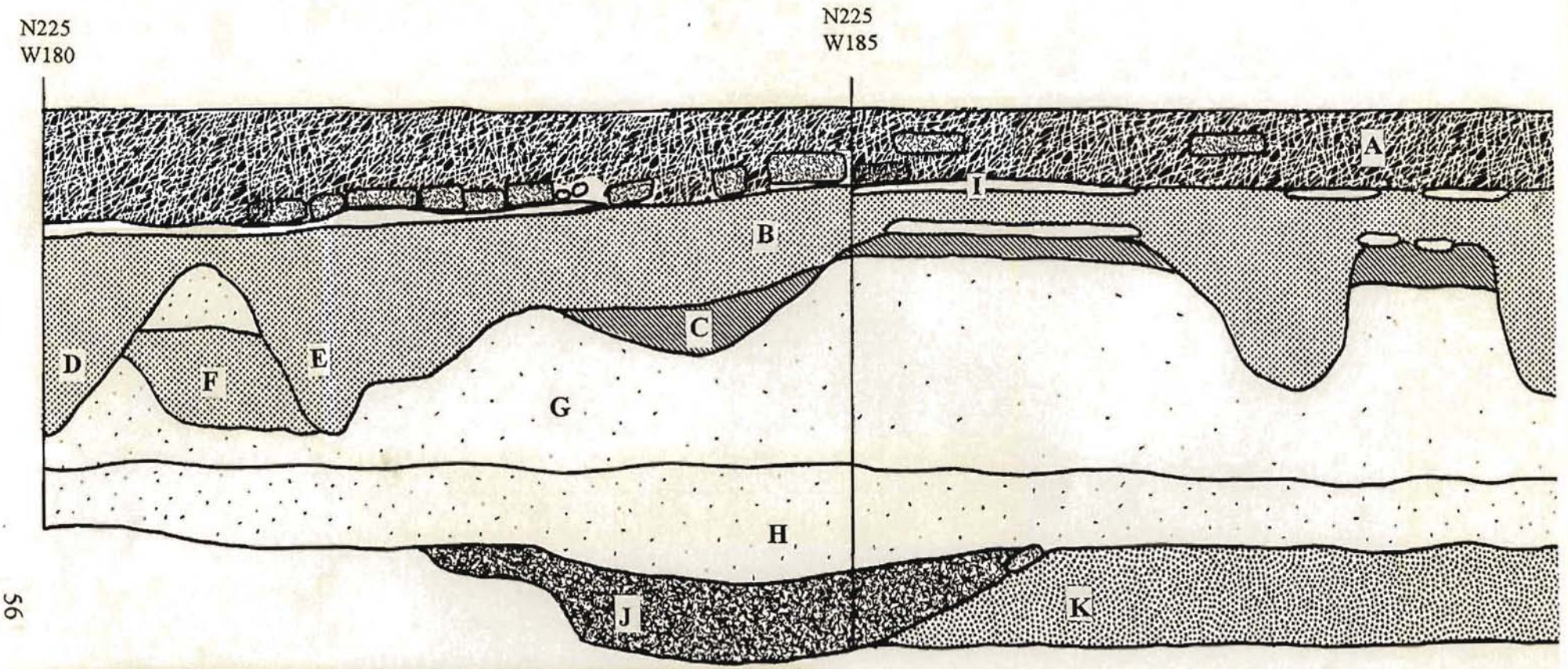
It was at this point that excavation of the inset commenced. This revealed feature 16, a brick drain of poorer construction that postdated and intersected feature 12. The top bricks were poorly mortared. The portion over the intersection with feature 12 had collapsed and had been patched with some additional bricks placed over, and mortared to, features 12 and 16, connecting them. The rubble fill inside feature 16 was the collapsed top of the feature. The patch that joined them, plus the open nature of the sides, indicate that features 12 and 16 were designed to flow together, either initially with the construction of feature 16, or perhaps later for greater efficiency. Like feature 12, feature 16 was partially filled with silt; in the area of the intersection this silt contained quantities of artifact, including a large pile of nails that had rusted together. The silt was over 1.2' deep, and four layers were visible. The first was brown friable loam with moderate amounts of cultural material. This was followed by a thin lense of black mud. Below this sterile layer was brown friable loam with quantities of artifacts. The lowest level contained soil in the same matrix with rusted iron and oyster shell. Both drains contained small, likely lost, artifacts and quantities of fish bones. Unlike feature 12, the bottom of feature 16 was brick. The excavated sample from feature 16 was 2.5' long and the south edge of this sample is 3.3' south of the north edge of N225W177. The drain was almost completely silted in; the drain was 1.3' high and the silt 1.15' deep (figure 24).

Excavation of these four contiguous units in the courtyard illustrates the intense, and varied, use of this portion of the site. From bottom to top, zone 5 and feature 11 could predate the house, but more likely represent use of the property at the time of purchase. The mottled, almost sterile soil of zones 3-4 date to the 1760s and the nature and content of the soil (swirled sterile yellow and brown sand with whole brick) suggest site churning and leveling during construction of the King Street complex in the 1770s. Zone 2 and the associated small features (features 8, 9, 10, 7/12, 13/16) suggest intense use of this area for a range of domestic activities in



N225W177
East and South Profiles

A - very dark soil, zone 1
B - crushed portland cement; excavated w
C - brick paving; excavated as zone 1d
D - dark grey-brown mottled soil; zone 2
E - uneven patches of mortar paving
F - lense of charcoal
G - Feature 10a
H - Feature 13, builders trench for feature
I - Yellow and grey mottled sand; zone 3
J - Zone 3 level 2
K - loose grey soil, pipe trench; not desig
L - Brick drain, feature 12
M - Feature 12 fill
N - Feature 7, builders trench to feature 1
O - Feature 16, later brick drain



N225W180, N225W185
South Profiles

A - zone 1, paving of bricks
B - zone 2; medium brown soil mottled with charcoal, brick, mortar, shell
C - zone 2 lev 2; same as b, but slightly dark
D - Feature 10a
E - Feature 10b
F - Feature 10c
G - zone 3 lev 1; yellow sand mottled with gr
H - zone 3 lev 2; same as G, but more grey sa
I - remnants of mortar floor
J - feature 11; dark grey soil with heavy char
K - zone 5; medium grey soil with sparse arti

the late 18th/early 19th centuries. As at other sites, the area behind the house was evidently used to clean and prepare fish and meats, discard refuse, drain and clean the work areas, etc. By the middle of the antebellum period, these noisy and odoriferous activities had become intolerable, and the area was paved and kept relatively clean (figure 25).

It was on the basis of this interpretation that a unit was located at N223.5W280. This unit measured 6.5' by 5.0' and was located within the fenced outbuilding complex, across from the rear set of stable buildings. It was suspected that this area would contain a quantity of refuse, and that refuse accumulation would generally be later than in the more forward sections of the courtyard. The south wall of the unit was flush with the brick garden wall, in order to intersect a builders trench and date construction of the wall.

Zone 1 consisted of dark grey-brown topsoil, and contained a number of larger sherds. Beneath this, zone 2 was a medium grey sand with yellow mortar flecks. Zone 2 dated to the early 19th century. A number of mid-19th century artifacts were recovered adjacent to the wall and were associated with a builders trench which became visible at the base of zone 2.

Zone 2 readily separated from a subsequent lense of mostly tan, but highly mottled, sand. A distinct circular area of mortar and large brick fragments was present along the eastern edge of the unit. This was designated feature 21 and was excavated as a single provenience. The feature exhibited straight sides and a matrix of whole and partial bricks with very little sand. A concentration of slate and red clay roofing tiles were found 1.5' below the surface of the feature. The brick were used, as many had mortar on the surfaces. There were no whole brick. The feature was excavated to a depth of 2.4', where excavations were halted due to the water table (figure 26).

The builders trench to the wall visible at the base of zone 2, was designated feature 22. The trench was filled with dark grey-brown topsoil, similar to zone 1. Elsewhere, zone 3 was a loose, somewhat uncompacted mottled medium brown sand. Zone 3 contained quantities of artifacts. The lower level of this zone was a lense of charcoal with orange clay, mottled with the same soil as zone 3. The zones of this unit reflect a series of dumped deposits.

At the base of zone 3, a second, lighter, less distinct builders trench was visible along the brick wall. This was given a separate designation as feature 23. The trench had a sloping side and bottom, narrowing toward the wall. These excavations revealed a 'patched' area in the wrick wall, with a semicircular area of tan sand surrounding it. Excavation of this proved to be a very distinct postmold-in-posthole. The soil in the post and the soil above, within the patched area of the wall, were identical. This configuration suggests three building episodes for the wall. The earliest was a wooden, probably post-and-rail, fence. Around 1830 this was replaced with the more substantial brick wall; however, this wall evidently incorporated the upright posts of the previous fence, likely filling in the vacant areas between. Sometime later, the wooden posts rotted, making repair of the wall necessary. Modifications were made to the wall at this time. This series of small features provides dramatic evidence of the evolving landscape (figure 27).

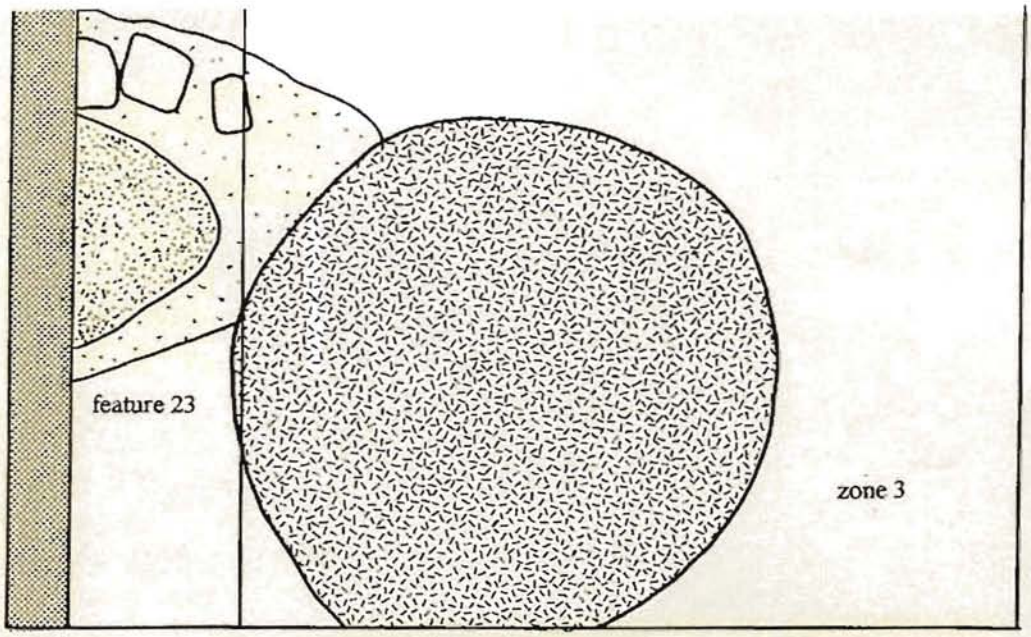
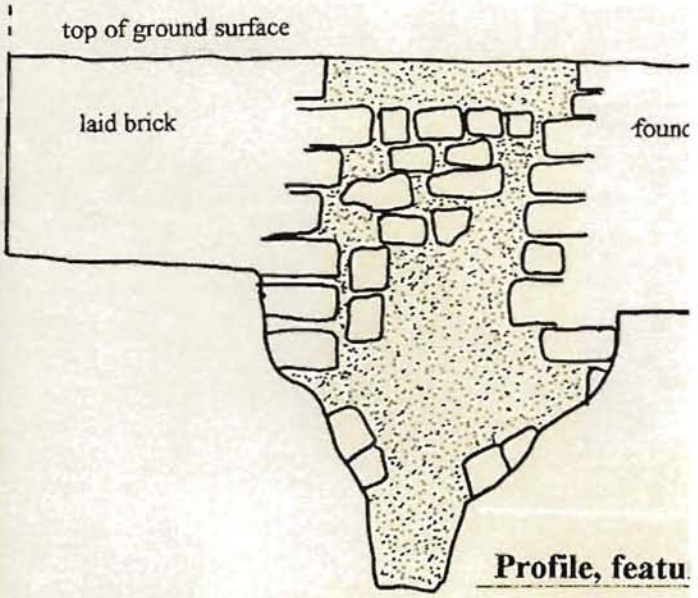


Figure 26. Planview, N223.5W280



Profile, featu

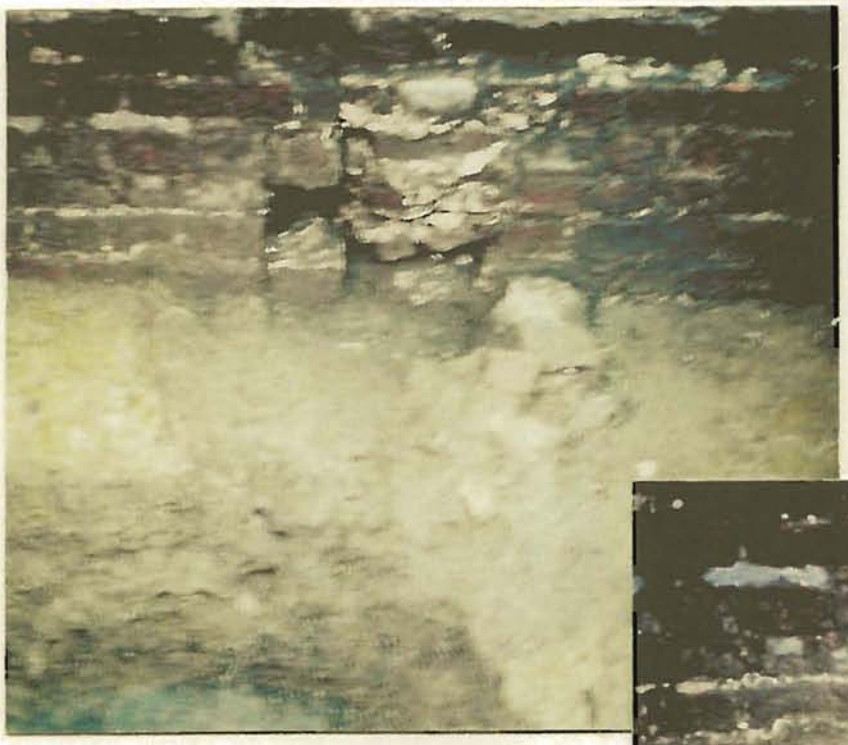


Figure 27. Feature 23, before and after excavation

Elsewhere in the unit, zone 3 level 3 (beneath the charcoal lense) consisted of mottled areas of clay, charcoal, and medium brown-grey sand. Artifacts were sparser than the above layers, and were confined to the pockets of brown sand. A circular area of charcoal concentrated in this soil adjacent to the west wall of the unit was designated feature 24, but proved to be remnants of the above zones, all of which, in profile, sloped toward this point. Sterile subsoil, consisting of buff-white sand and orange clay, was located at the base of these deposits.

Two small units were located in the front courtyard, between the house entrance and the carriage house. These were located to test the general stratigraphy of the front courtyard, comparing it to the area behind the kitchen, and to date construction sequence.

Unit N193.7W120 was a 2.5' by 5' unit located with the long axis adjacent to the brick wall which separates the main house entrance from the courtyard. This wall adjoins the main house, but is constructed separately, suggesting a later addition. We hoped to encounter a builders trench, containing datable artifacts, for the wall. Zone 1, a dark grey-brown topsoil, was excavated and discarded. Beneath this was a paving of herringbone bricks in good condition. This paving is quite similar to that noted int he N225E185 complex, and suggests the entire courtyard was paved at one time. Directly beneath this was a narrow band of topsoil plus a bed of mortar. This was designated zone 2 but was probably part of the above paving activity. Beneath this was a zone f mottled tan-brown sand, orange clay, and yellow sand with some mortar, brick, and coal. This was designated zone 3, but corresponds with zone 2 in the N225W185 complex. It was somewhat lighter in this area, suggesting a lower density of activities in this portion of the site. The builders trench, visible at the top of zone 3, was designated feature 19 (figure 28).

Beneath zone 3 was an area of hard-packed yellow sand with rust and some small brick fragments. This apparently sterile soil proved to be a thin lense of hard-packed fill, followed by a thinner lense of dark soil, with then more of the same mottled soil. Because of the similarity, this was designated zone 3 level 2. Beneath this, a primarily tan and yellow sand, designated zone 4, was excavated to sterile subsoil. Feature 19, .9' deep, was also excavated to sterile.

The second unit in this vicinity, N193.7W132, was a 3' by 3' unit designed to test the intersection of the main house and courtyard wall. Zone 1, the typical dark grey-brown topsoil, contained large quantities of animal bone and some glass. Beneath this was a light brown soil mottled with orange clay, containing quantities of mortar, shell, and some brick fragments. This was designated zone 2. An area of dark brown sandy loam and charcoal was associated with the mortar spread and, though amorphous, was designated feature 17. At the base of these deposits, a small rectangular feature was noted in the northwest corner of the unit. Feature 18 appears to be a shallow rectangular posthole, and may be for early scaffolding along the site of the house (Joe Opperman, personal communication). In the southeast corner of the unit, the builders trench for the brick dividing wall was visible. Like the other unit, this was designated feature 19. The configuration of this feature supported the suggestion that the wall was constructed separately from the main house. Elsewhere, the unit contained a mottled orange clay and brown sand,

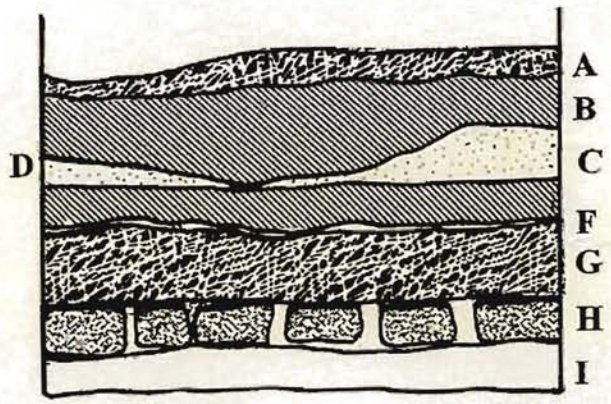
Figure 29. N120W100, front wall

designated zone 3. An amorphous, darker area in the southwest corner of the unit was designated feature 20. The unit was excavated to an even orange clay/yellow sand soil. This appeared to be sterile, and there was no visible edge for a builders trench for the house wall; however, the entire surface of the unit may cover the builders trench. Excavations were halted at this point.

A final unit was located to test the evolution of the landscape. Unit N120W100 was located in the south side yard, adjacent to the interior of the brick wall fronting the street. Once again, the intention was to locate a builders trench, hopefully containing datable artifacts. This unit measured 2.5' by 5', with the long axis parallel to the tested wall. Zone 1 was the usual dark grey-brown topsoil. This zone, and all subsequent soils, were quite soft and friable, like the sands in N120E125. Zone 1 contained very few artifacts. Those recovered, however, were concentrated along the brick wall. The subsequent zone 2 was a mottled grey and yellow soft sand. Beneath this was orange sterile sand. The builders trench, feature 28, was filled with medium grey sand. Near the south end of the unit, the bricks were missing from the wall subsurface, similar to the configuration in N223.5W280. Excavation of the builders trench continued and, somewhat surprisingly, the area of the missing brick was undercut by a distinct postmold-in-hole. The configuration was identical, though somewhat shallower, than that located in the other unit. This series of features suggests a similar evolution of the wall. The front was likely first marked by a post-based fence, followed by a wall featuring a 30" high brick foundation. Differences in the brick construction at this point suggest that the current 8' high solid brick wall is at least a third fence style (figure 29a-c).

The final excavation units were all located beneath, or within, standing structures. Two contiguous 2.5' by 2.5' units were located beneath the front room of the carriage house. The carriage house featured a soil floor c. 2' lower than the ground surface, with 3' of crawl space between the dirt floor and the joists to the wooden floor. Excavation of N231W122.5 and N233.5W122.5 was designed to explore the architectural evolution of this complex structure and the range of activities conducted in this vicinity.

Excavation began with N231W122.5. Zone 1 was a loamy black soil with charcoal and soft white mortar inclusions. This zone contained a good number of mid- to late-19th century artifacts. There appeared to be some pockets of charcoal, etc. Zone 2 was almost as dark as zone 1, but the soil was a finer, damper clay. Zone 2 also contained a quantity of artifacts and was excavated in two levels. At the base of zone 2 level 2 was a brick floor. At this point, the unit was expanded, and excavation of N233.5W122.5 commenced. Zone 1 was identical to the more southerly square. Within this zone of dark soil was a lense of pinkish-grey coal refuse. Beneath this was a thin lense of dark grey-brown soil with a concentration of coal. All of these were excavated as zone 1, but separated into two levels. Like the southerly unit, zone 2 was excavated in two levels. Level 1 was a medium grey loam, while level 2 contained a greater concentration of hard white mortar crumbs. An 1863 coin recovered from zone 2 level 2 dates the fill to the second half of the 19th century (figure 30a and 30b).



N233.5W122.5
North Profile

A - lime and black soil
B - dark grey loam
C - coal fire residue
D - concentration of iron
F - lense of light grey sand
G - dark soil with coal
H - brick floor
I - light grey sand, hard-packed

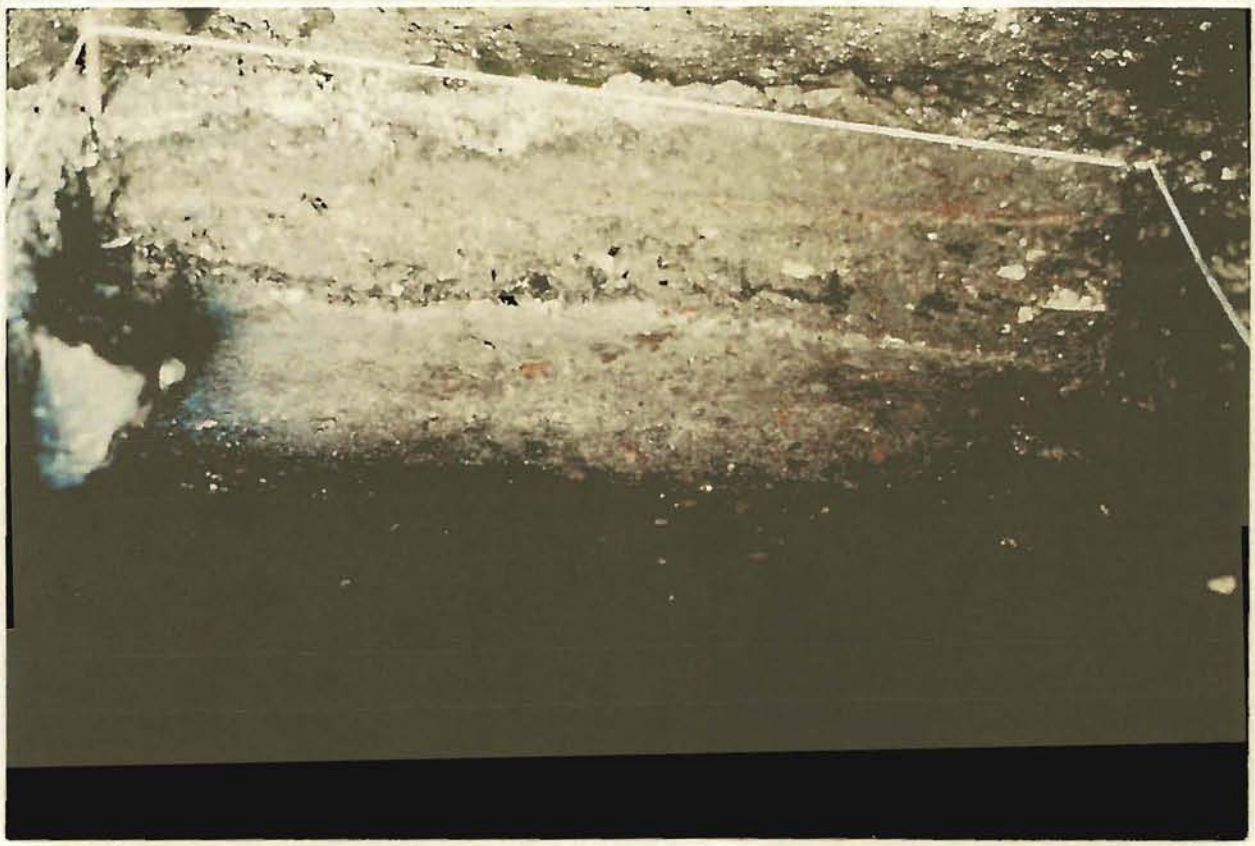


Figure 30. Photo and map, N231W122.5

Beneath this was the brick floor, consisting of half bricks laid in running bond in this area of the room. The floor, designated feature 26, was removed to continue excavation. The soil below this consisted of hard-packed sterile grey loam, similar in appearance and elevation to the sterile grey subsoil in the courtyard complex. These soils suggest that the brick floor is original to the building. It was probably kept clean, and the area used for storage until the post-Civil War era, or until remodeling of the building and construction of the newer service building. At this point, the basement evidently fell into disuse, and dirt from the floor above, or from elsewhere, accumulated.

Unit N185W147.3 was located in the 'plantation room,' the northeast room of the basement of the main house. A 2' by 5' unit was laid out adjacent to the chimney foundation in the west end of the room, when the 20th century cemented brick floor was removed. Zone 1 was black coal dust. Beneath this was ephemeral evidence of a mortar/tabby flooring, followed by a dark brown-grey soil with some orange mottling and charcoal. This was excavated as zone 2, and the underlying mottled soil, with a greater percentage of orange clay, was excavated as zone 3. A depression in the southwest corner of the unit was designated feature 27, but proved to be remnants of zone 3. The bottom of the unit was sterile orange clay with an undulating floor. It has been suggested that zone 2/3 represents a large building trench, or prepared area, for construction of the massive walls of the house. The accumulation of coal dust suggests the room, as part of the basement, was used at one time for coal storage.

The final excavation effort of phase 1 was two contiguous 2.5' by 2.5' units beneath the yellow brick structure in the rear yard. The function of this building has been debated for years, and continues to be a source of discussion among architectural historians, landscape historians, and restoration specialists. The building has been described variously as a privy, bath house, and garden house; the most puzzling feature are the interior walls of delft tile. Scholars are in agreement that the yellow brick suggests the building is an original structure, but some have also questioned the location of the structure, and the possibility that it has been moved at least once.

The soil under the building was accessed by a large arched opening in the west side of the structure, the location of unit N259W320 (figure 31a). The surface of the ground under the building was littered with bottle bases, storage jars, and window glass, among other debris. Two depressions from treasure hunters were visible along the north wall. It was hoped that the soils beneath the building would contain the quantity and quality of cultural and botanical materials usually associated with urban privy fill.

This proved to be the case. Though not as organic as some privies filled in the 19th century, these units revealed four zone deposits and quantities of artifacts (figure 31b). Unit N267.4W313.5 was located in the inside northwest corner of the structure. Zone 1 was dark grey-brown loamy soil. The soil contained quantities of artifacts, most notably a concentration of thick window glass. This may have been generated from the present structure, before its current remodeling, but may also represent glass fro the green house shown along the rear property wall in 20th century photographs, possibly stored beneath this by-now abandoned structure. Present in

Figure 31. Entry vault on west side of privy building and profile of unit N264.9W313.5

this unit was a large potting hole along the back wall, which covered most of the unit. This was excavated separately.

Zone 2 was a lighter grey-tan soil that contained quantities of artifacts. Most notable were green bottle glass, fragments of earthenware storage jars, and broken delft tiles identical to the undecorated ones that still line the walls of the building. Zone 3 was excavated in two levels. Sterile soil was encountered at 2.7' below surface. There was some evidence of a fourth zone, with earlier materials, but this was not clearly defined until the subsequent unit.

N264.9W313.5 was excavated in a similar manner, and was free of the intrusive disturbances. Zone 1 was almost solid window glass and also contained some red brick rubble. Zone 2 was a medium grey-tan sand with some orange clay. This zone contained few artifacts, and was .3' to .45' deep. Zone 3 was looser, and contained quantities of material. Included in these were delft tiles, red clay roofing tiles, and transfer printed pearlware. These materials suggest the building fell into disrepair and the area was used for refuse disposal in the first half of the 19th century. Zone 4 was distinguished by a lighter, tan soil, mortar crumbs, earlier and fewer artifacts, and no delft tile. These soils and artifacts evidently accumulated when the building was in use.

The seemingly disparate units and archaeological deposits provided a wealth of information on the evolution of landscape and activities at the Miles Brewton house. The data also made significant contributions to city-wide research. These are discussed in subsequent chapters.

1989 Excavations

Unlike the 1988 research project, the excavations of 1989 were designed to mitigate the adverse impact of installation of a new heating-cooling/electrical system to the house. Specifically, installation of this system would involve extensive trenching of the yard to accommodate underground pipes and electrical conduits. These trenches, measuring 2.5' in width and 4.0' in depth, would generally encircle the main house and extend diagonally across the garden to the stable behind the servants' quarter, which would house the machinery for these operations.

The various trench locations were assessed on the basis of previous archaeological work and the logistical requirements of the restoration team. Archaeological considerations included relative depth, complexity, and density of the stratigraphic record, as well as ability to contribute to specific research questions, and a consideration of spatial distribution of test units. Based on these factors, some sections of the trenches were hand-excavated according to standard archaeological methods, while others were hand-dug by labors with archaeologists monitoring, collecting controlled samples of specific proveniences, and mapping proveniences and profiles. Controlled excavations were conducted on an intermittent basis from November 21 to January 18

for 26 field days through a memorably cold and wet December. Rainfall and rising groundwater were particularly problematic.

Due to the requirements of the restoration project, all materials were dry-screened through 1/4" mesh, adjacent to the units. The previously-established grid was not used; instead units were placed according to engineering specifications and were located on maps relative to site landmarks. They were given trench numbers as well as sectional subdivisions. Vertical control was maintained with the use of a transit relative to the permanent datum point established in 1988. All other field methods were the same. A total of 285 cubic feet of soil were excavated in a controlled manner. An additional 25 features were identified and 198 proveniences designated (figure 32).

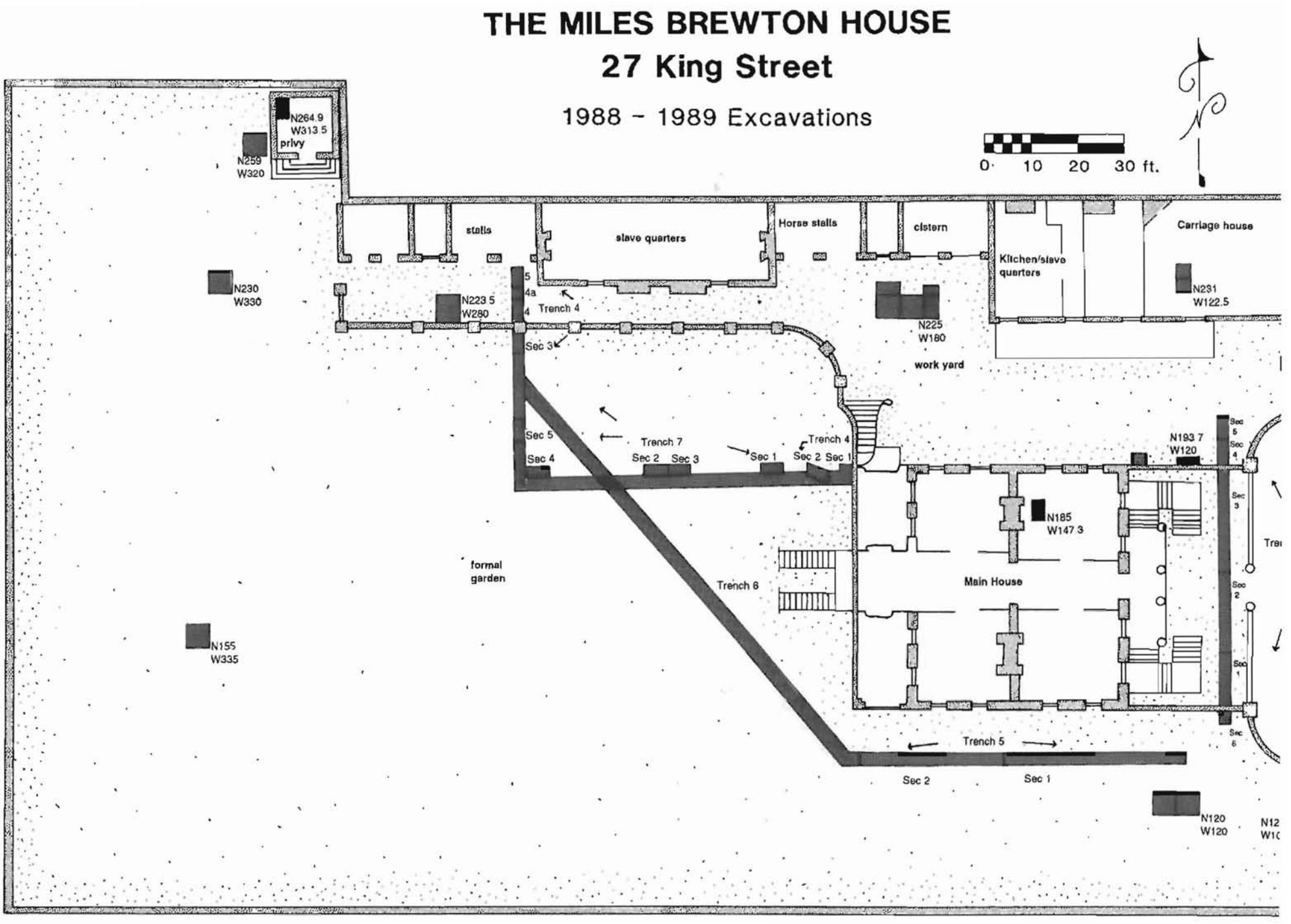
Description of Excavated Proveniences

Trench 3 was located across the front yard of the house, between the gate and the front steps. The trench was excavated up to the retaining walls on either side of the entrance, and beyond these into two side yards. Sections 1-3, located within the walled entrance, were excavated by construction crews and archaeologist Lipovsky, with specific areas and proveniences removed under controlled conditions by the archaeological crew. The profile of Trench 3 revealed that little artifact (refuse) accumulation had occurred in this portion of the yard, but that significant terrain alteration had occurred prior to, and immediately after, construction of the Brewton house (figure 33).

The current terrain of this portion of the yard consisted of a paved entranceway in the center, comprised of sandstone tiles approximately 2' square set in loose sand, flanked by a row of boxwood and grassed areas to either side. Of particular interest was the placement of the first floor (basement) door, close to one foot below this level, which led us to propose an accretion rate of at least one foot between the time of house construction and the installation of the sandstone walkway. Small tests adjacent to the front wall and gate (Trenches 1 and 2) suggested relatively little soil buildup, however.

The excavation of trench 3 revealed that the ground had originally been higher on the south side of the property, sloping to the north. A tremendous amount of filling had occurred to level the site prior to construction in 1765. Zone 1, found consistently across the area, consisted of dark grey-brown topsoil, portions of which may have been introduced as fill for lawn enhancement. Zone 1 ranged from .8' to 1.0' in depth across the grassed areas. Small features from the boxwood plants were also present; the stratigraphy beneath the sandstone pavers was different.

Zone 2 was also present in the grassy areas, and consisted of a medium brown sand containing a large number of small flint cobbles. Below these layers, stratigraphy in the three sections varied, and consisted of a series of interposed layers. Zone 3 was present in the southern



ure 32. Site map, phase II

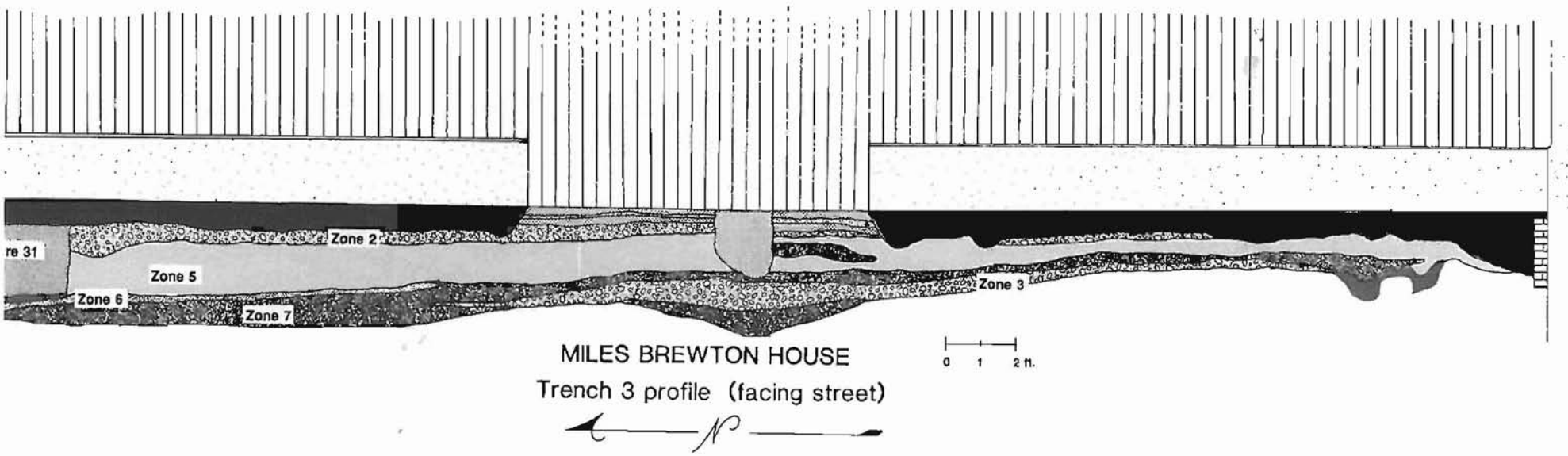


Figure 33. Profile of trench 3, front of house

third of the yard, and was an uneven lense of homogenous medium grey-brown sand. Below this was zone 4, a lense of dense oyster shell within the same sand matrix. This extended from the grassed area in the southern part of the entrance through the paved area in the center, suggesting that it predates the house. Controlled samples were recovered from zones 3 and 4. Within the southern portion of the yard, sterile subsoil was encountered beneath zone 4 at a dept of 1.5' to 2.2' below surface. A large amount of rubble was also present along the south brick wall, suggesting an extensive builders trench and/or repair of the wall.

The central portion of the yard (that area contained below the sandstone pavers) exhibited a different stratigraphy. Directly beneath the sandstone pavers was a paving bed of mottled yellow and black sand. This was followed by a previous paving, consisting of a lense (.2' deep) of finely crushed shell. This lense corresponded to the dimension of the present walkway. Beneath this was zone 2, the medium brown sand and flint cobble deposit. Beneath this was a very deep zone of hard-packed, redeposited orange clay with swirls and mottles of yellow and brown-grey sand. This was designated zone 5, and it continued throughout the northern portion of the yard, sloping downward. In the central portion of the yard, zone 3 was absent and zone 4, the oyster shell lense, actually continued below zone 5, terminating 32' north of the south wall. Within this central portion, sterile subsoil was encountered at 3.2' below surface.

The northern section revealed an even deeper stratigraphy. Present here was zone 1, followed by the previously designated zone 2. These zones continued to a depth of 1.3' below surface. Below this was zone 5, a very deep deposit of redeposited clay with mottles and lenses of dark grey-brown and yellow sand. Beneath this was a lense of crushed red brick, .2' thick, which initiated 32.6' north of the south wall and continued beyond the northern brick wall. At its southern end it initiated at 2.3' below surface and sloped toward the north; at the northern wall this deposit initiated at 3.2' below ground surface. This brick lense was designated zone 6. Beneath this was a lense of dark grey-brown, homogenous soil with sparse artifacts. White sterile sand was located beneath this original topsoil, and it initiated 3.7' below surface.

A large feature was located adjacent to the northern wall. It measured 4.2' in diameter and initiated at the base of zone 1. This was designated feature 31. A thin lense of dark midden material was present beneath feature 31, and continued beneath the brick wall into the northerly courtyard. This was designated feature 50.

Trench 3, sections 4 and 5 were excavated in the northern portion of the courtyard to examine the possible continuation of the stratigraphy seen in sections 1-3, and to discern evidence of the activities in this portion of the site. Controlled excavations behind the kitchen/carriage house in 1988 had revealed extensive use of that area for refuse disposal. Test excavations in the vicinity of the northern wall had, however, revealed a much sparser artifact assemblage, and evidence of architectural changes. Section 4 measured 2.5' by 5.0' with the short side adjacent to the side brick wall. Section 5 was located immediately north of section 4.

These units revealed a stratigraphy similar to that in the entrance courtyard, with multiple

later intrusions. Zone 1 consisted of a dark grey-brown sandy humus, .2' deep. Directly beneath this was an area of brick paving, consisting of large dark red bricks in a herringbone pattern. This was designated feature 47. The bricks covered the southern 4/5 of section 4, but they had been removed from the northern portion and from section 5. Present instead were two pipe trenches containing cast iron pipe and a large pit of loose, highly mottled grey sand which initiated at the base of zone 1. This was feature 48, and it continued to the base of excavations at 2.5' below surface. The underlying zone 2 was also disturbed and redeposited in these pipe trenches. Elsewhere in the units, a shallow zone deposit, designated zone 2, was present immediately beneath the brick paving. This was a medium grey sand with mortar and charcoal inclusions. Present at the base of zone 2 was a small rectangular area, originally designated as a postmold. It proved to be a shallow pocket of mortar.

Beneath these deposit and throughout the entire unit was a deep zone of yellow sand and orange clay mottled and swirled with lenses of dark grey-brown sand. This soil varied from 1.2' to 1.8', and was excavated in two deposits as zones 3-4. It actually appears to correspond with soils designated zone 5 in trench 3 section 3. Intruding into these deposits from the base of zone 2 was an irregular, linear feature of dark grey-brown soil. This was designated feature 49 and excavated in two levels. The zone below zones 3 and 4 consisted of a coarse tan sand containing dense flint cobbles, characteristic of ballast fill. Located beneath this in section 4 was an area of dark grey-brown midden soil containing oyster shell, charcoal, and bone. This corresponded to the lense of material beneath feature 31 in section 3, and was designated feature 50. Feature 50 and zone 5 bottomed onto the crushed brick deposit, designated here and elsewhere as zone 6. Excavations were halted at this point due to the water table.

Trench 3 section 6 was located on the south side of the south side wall, and measured 2.5' by 5.0'. The unit was excavated to examine the builders trench and help date construction of this wall. The northeast corner of this unit is 3.4' west of the western edge of the corner brick column. Zone 1, a dark grey-brown topsoil, was .6' deep. There was a concentration of brick and sandstone rubble adjacent to the wall. Beneath this was zone 2, a medium tan-brown sand. This was excavated in three levels to a depth of 1.3' below surface. This revealed two features intruding into sterile subsoil. Feature 51 was the builders trench to the wall. This consisted of medium tan-brown sand similar to zone 2, with small shell flecks and some flint cobbles. The feature sloped toward the brick wall, revealing a stepped footing that had pieces of slate inserted on top as a moisture barrier. This feature and the wall, in turn, intruded into feature 52, which was a large pit of dark organic soil. The pit had sloping sides, initiating in the southern third of the unit and sloping to the north beneath the wall to a maximum depth of 3.8' below surface. The sides of the pit were lined with a dense dark midden of whole oyster shell, while the center of the feature contained backfilled dark sand. This large feature contained no cultural material.

Trench 5 was located in the south side yard parallel to the south side of the house (see figure 3). The trench was excavated by workers, with certain areas excavated and screened by the archaeological crew. Trench 5 was 2.5' wide and 4.0' deep. The northeast corner of the trench

was 10.4' south of the south side wall and 22.1' west of the front wall. Section 1 was 39.4' in length, while section 2 was 40.6' long.

The trench revealed stratigraphy consistent with that noted in units N120W120 and N120W125. Zone 1 was a dark grey-brown topsoil, possibly introduced, while zone 2 was a medium brown sand. The two zones varied in depth, but averaged a total depth of 1.2'. A number of large features initiated at the base of zone 1, others at the base of zone 2. Feature 33 was a small circular area of dark grey-brown soil, which contained 20th century materials. This, in turn, intruded into a very large pit of medium brown sand mottled with clay. Feature 34 was almost 14' in diameter and 4' deep. It contained a number of 20th century flower pots and sheets of window glass.

Feature 35 was the most sharply defined deposit encountered in trench 5. The feature straddled the interface of sections 1 and 2 and was thus excavated in two proveniences. The feature was also deposited in two distinct layers. Level 1 was an area of homogenous brown sand containing a quantity of artifacts. The second level consisted of a mottled tan, yellow, and orange sand with large quantities of brick and mortar and fewer artifacts.

A large, shallow area of brown sand, identical to zone 2, measured 9' in length and .8' in depth. This initiated at the base of zone 2 and was excavated as zone 3, although it was a feature. The deposit was virtually sterile, except for three olive green glass bottles and the base of a large delft bowl. A portion of zone 2 in section 2 was also excavated and screened. Also located in the western section of zone 2 was another deeper area of medium brown sand containing an intact green glass bottle.

Trench 4 was located for the heating/cooling system, and ran from the northwest corner of the main house to the brick wall separating the work yard, and into the second set of stalls. Section 1 was located adjacent to the northwest corner of the house. This L-shaped unit was designed to meet the requirements of the pipe trench (2.5') plus expose an area along the foundation of the house for inspection by the architectural team. The southeast corner of section 1 was 13.0' north of inside corner of the back stairs.

Excavation of section 1 began with zone 1, a dark grey-brown topsoil. Zone 1 was fairly deep in this portion of the site, and was excavated in two arbitrary levels to a depth of .7'. The interface with the lighter, browner sand of zone 2 was marked by a thin layer of flint cobbles. These immediately gave way to a concentration of brick and mortar rubble, and a concentration of specific artifact types: delft, oriental porcelain, table glass, and bone (figure 34). The quantity and relatively intact nature of the artifacts were typical of a feature, but no edges were apparent. Instead, the deposit continued 1.8' below surface and was excavated in five arbitrary levels. Below this was a light grey sand, designated zone 3, which gave way to sterile soil.

Two additional units were excavated in this vicinity in order to better understand the deposit. Section 1a was the designation given to the remaining northwest quadrant of section 1,

Figure 34. Photo, excavation of Trench 1 section 2; closeup of ceramics

producing a 4' by 5' unit. The unit contained identical stratigraphy to the earlier section 1.

Section 2 measured 2.5' by 5' and was adjacent to the southern half of section 1. This unit revealed similar stratigraphy, with a less dense concentration of artifacts. Zone 1 was excavated in two levels. The first level of zone 2 was an interface of the two deposits, including a concentration of flint cobbles. Zone 2 in section 2 contained a similar amount of brick and mortar rubble, with a much sparser amount of artifacts. Like section 1, zone 2 was excavated in five levels (figure 34).

Section 3 of trench 4 was located adjacent to the garden side of the brick wall, with the northwest corner located 5' from the outside corner of the wall. The unit was 2.5' by 5' with the narrow end adjacent to and abutting the wall. The dark grey-brown topsoil was .6' deep, with a lighter, browner zone 2 beneath it. Zone 2 was .4' deep, bottoming onto a lighter grey soil which was designated zone 3. Zone 3 was present in the courtyard area as well, and was a medium-to-light grey sterile sand, with moderate amounts of crushed shell. At 1.2' below surface, several features were present in zone 3. A circular area of medium tan-brown sand was visible in the center. The soil in this feature, feature 36, was looser with more root disturbance. The feature had curved sides and bottom, and has been interpreted as a planting stain. The feature was 3.1' in diameter and reached a full depth of 1.9' below surface. Excavation of feature 36 more fully exposed feature 37, located adjacent to the wall (see figure 37).

Feature 36 intruded into feature 37, and the visible configuration suggested a builders trench associated with the brick wall. The feature was dark grey-brown sand mottled with yellow sand, with heavy coal and mortar inclusions. Full excavation suggested a different configuration. Instead of being linear, the feature had incurving sides, suggesting a circular feature beneath, and predating, the wall. Excavation of section 4 on the other side of the wall eventually clarified the function of this feature. Elsewhere in the unit, the remaining zone 3 was excavated. Except for bits of shell, zone 3 was sterile.

Trench 4 sections 4 and 5 were excavated on the work yard side of the wall, between the wall and the stable housing the electrical equipment. These proved to be the most stratigraphically complicated units of the site.

Section 4 was 2.5' by 5', and was located with the short end adjacent to the wall. The southwest corner of this unit was 30.0' east of the inside corner of the enclosing wall. Excavation of these units first entailed removal of the brick walkway which ran from the main house to the back garden gate. Zone 1 was the dark grey-brown sand, and here it was relatively shallow, only .3' deep. Excavation of this zone revealed the builders trench adjacent to the wall. The feature was relatively shallow, initiating at .3' and continuing to .7' below surface. Undetected during excavation, but visible in profile at the base of zone 2, was a second builders trench of medium grey-brown sand similar to zone 3. This feature continued to the top of feature 42. Beneath this was a narrow zone of medium brown-grey dirt. This was not detected upon excavation, but was mixed with the next level, which was marked by dark grey-brown sand and quantities of coal.

Both zones were excavated as zone 2. The coal layer was subsequently labeled zone 2b. The zone also contained a fair amount of mortar and large brick fragments. Zone 2 was uneven in depth, overlying an area of mortar of uneven thickness and dimensions. The mortar was white on the interior and yellowed along the outside edges. This was laid on a bed of sterile tan sand, whose dimensions corresponded to the above mortar. The mortar bed plus sand bed was designated feature 38. Beneath this was a thin layer of medium grey sand, which was designated zone 3.

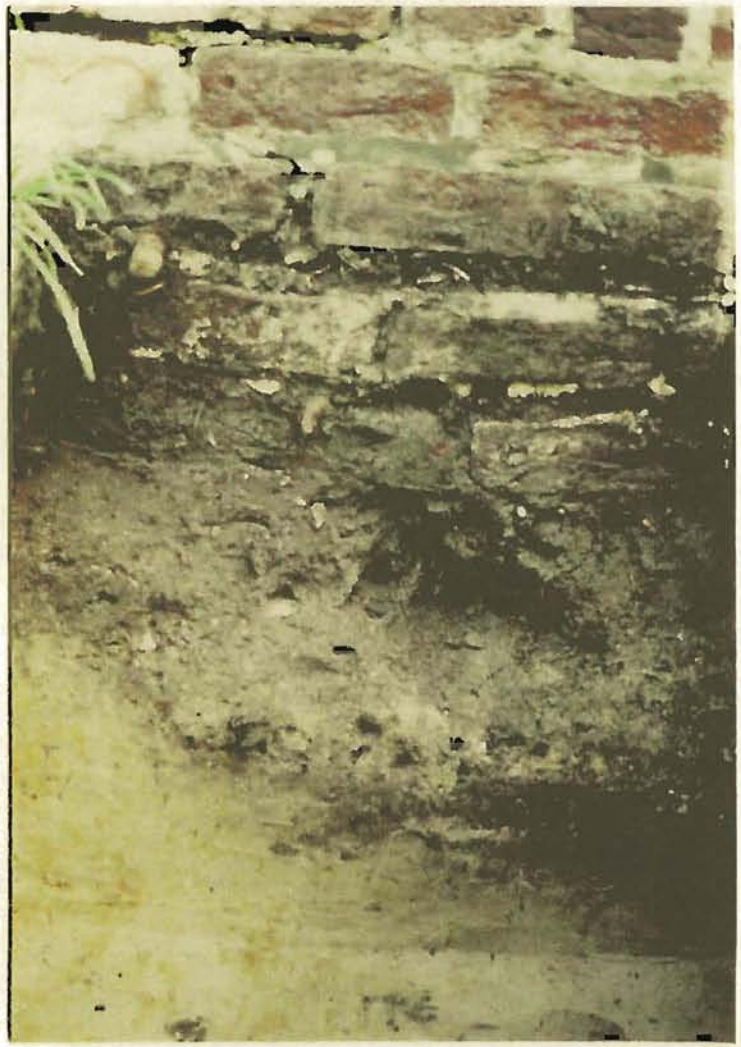
Zone 3, in turn, separated the above feature 38 from a similar, but larger, area of mortar, designated feature 39. This mortar area was thinner, had a more even surface, and covered a larger area. The mortar was soft and light grey, and was laid on a bed of sterile yellow sand. Beneath the mortar and sand bed was a dark grey sterile sand with small fragments of oyster, just above sterile. This was designated zone 4, but was the same provenience as zone 3 in section 3 on the other side of the wall (figure 35).

Several other features were present in the unit. Feature 42 was located adjacent to the brick wall and was, in fact, a continuation of feature 37 from section 3. This semicircular feature initiated at the top of zone 4 and was marked by dark grey-brown sand mottled in some areas with yellow sand and full of coal and some whole oyster. This feature was marked, as in N223.5W280, by a 'patch' in the brick wall above. Not visible during excavation, but visible in profile, was the outline of a post, distinct from the surrounding posthole in feature 42. Though the fill matrix is different, it is expected that feature 42 represents a postmold and hole which predates the existing wall, as does feature 28.

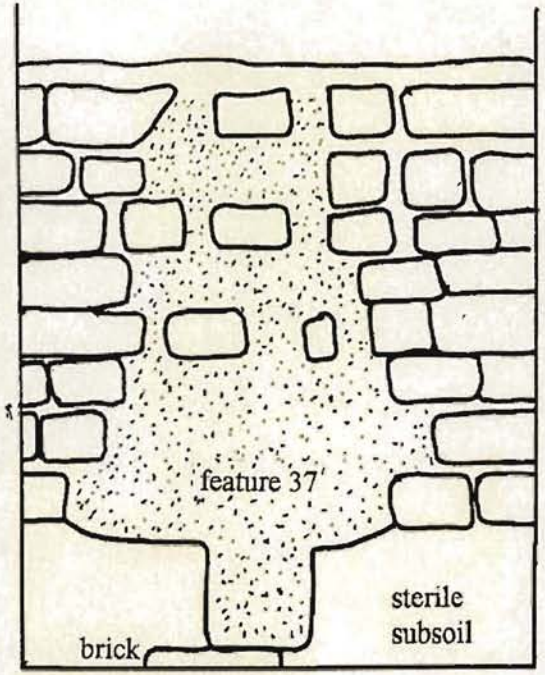
The multiple layers of section 4 were also truncated along the northern boundary and into a 2.5' extension of the unit by the vaulted drain first located in the front courtyard. Becaues this association was unclear at the time of initial excavation, the brick feature was designated feature 40 and its builders trench feature 41. These are, however, the same as features 12 and 7, respectively, in N225W180. Feature 7/12 was encountered directly beneath zone 1 in the section 4 extension. Artifacts dating to a later period than those recovered from feature 7 elsewhere in the site were noted here; however, examination of the profile suggests that the drain had been breached at a later date, probably for subsequent repair (figure 36). Excavations revealed that this portion of the drain had collapsed and that it had been repaired only by laying whole bricks across the top of the drain. On the north side, it was evident that feature 41 (7) initially was located beneath a paved brick area, as well as zones 1 and 2.

The drain vault was opened, and a .6' sample of feature 12/40 fill was excavated. In this section the drain fill was .6' deep and contained very little material, in contrast to the sections excavated in N225W180.

Trench 4 section 5 was equally complex. Beneath the modern brick walkway was a thin layer of zone 1. Zone 1 was very dark grey-brown soil with quantities of coal and a few brick fragments. Beneath this was an area of paved brick, designated feature 43. The paved area was a



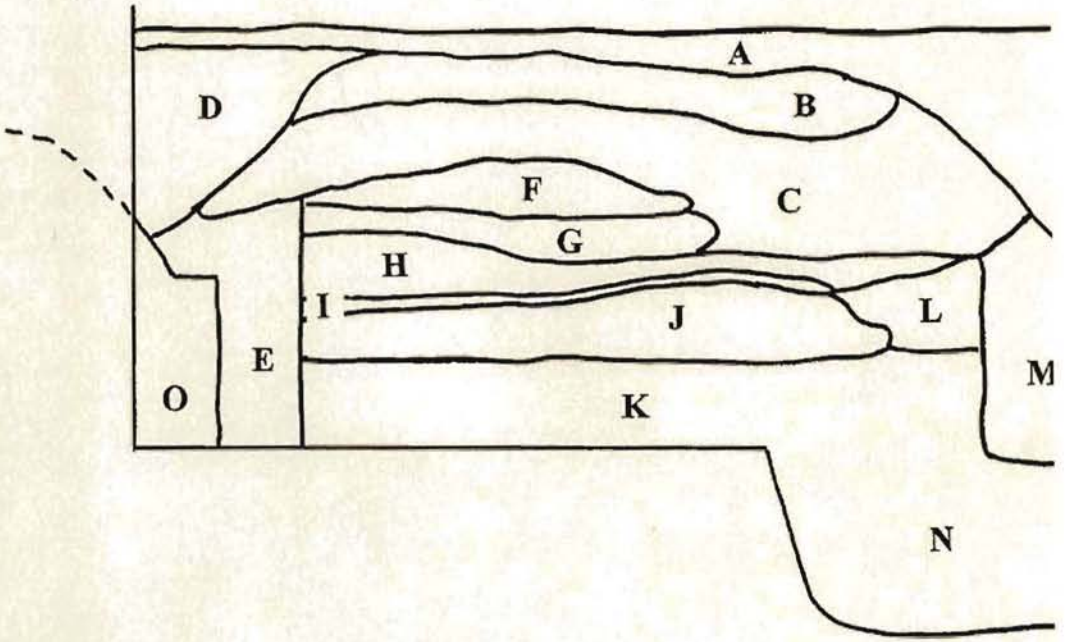
Photo, feature 37 in Trench 4 section 3



Profile of Feature 37 in Trench 4 section 4

Figure 37

Figure 36. Excavation of Trench 4 section 5



Trench 4 Section 4, east profile

A - dark grey-brown topsoil, zone 1
B - dark grey-brown soil mottled with yellow, zone 2
C - dark grey soil with heavy coal inclusions, exc. as zone 2
D - dark soil swirled with grey soil, clay, coal; repair to feature 7/12
E - medium grey soil mottled with clay; feature 7
F - hard yellow mortar; feature 38
G - orange clay; feature 38
H - medium grey-brown sand, zone 3
I - sterile medium grey sand; feature 39
K - dark grey sand with shell; zone 4
L - mottled yellow and grey sand; exc. with zone 3
M - medium grey sand with coal; builders trench?
N - mottled dark grey and yellow sand with brick and mortar; feature
0 - brick drain; feature 12

running bond, very worn, with an extensive use of brick fragments. The stratigraphy suggests tht the paving post-dates the drain. The bricks were set in sand on a bed of thin yellow mortar. Probing suggests that they continue toward the stable and in front of the slave quarter.

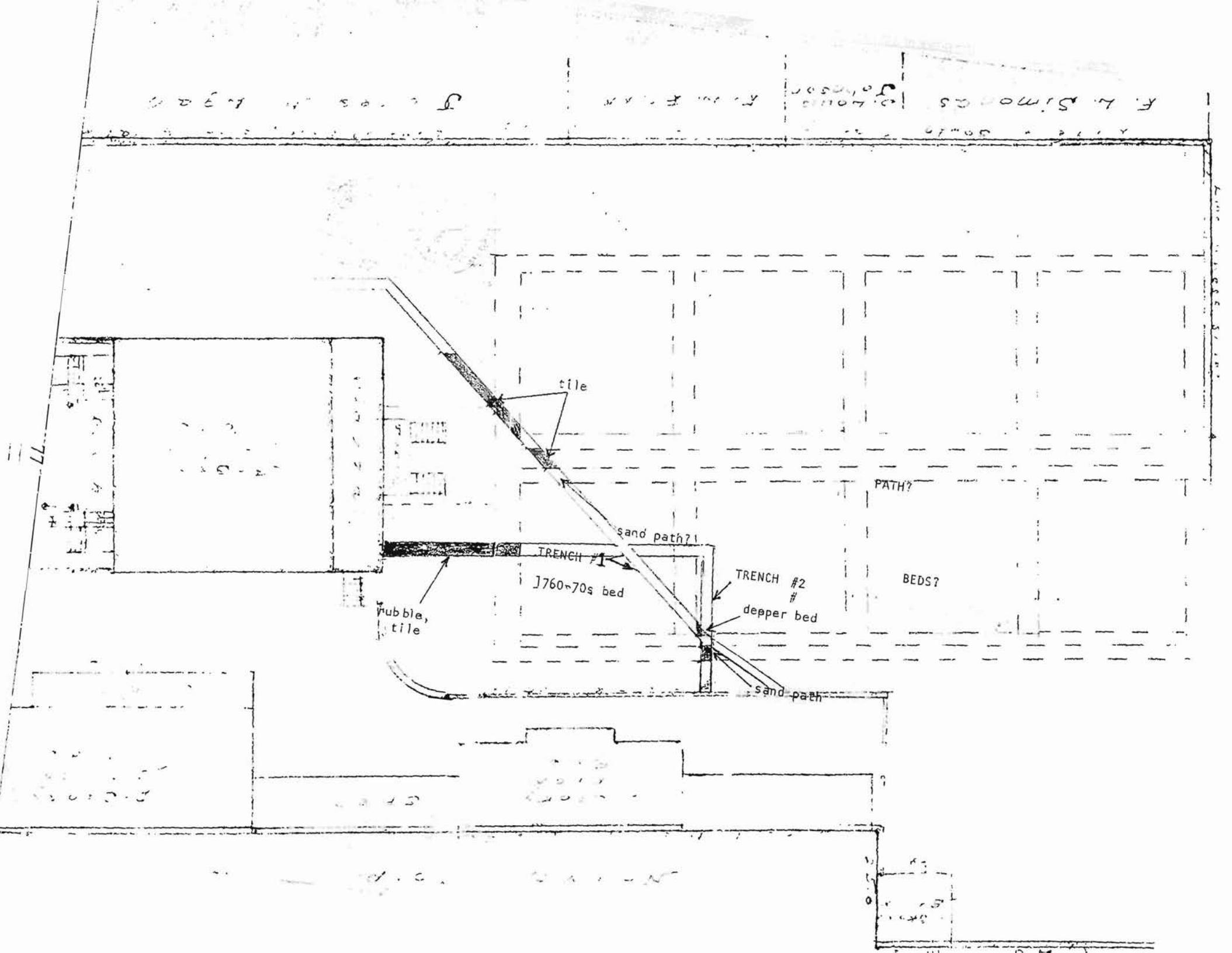
Beneath the brick paving was a layer of medium brown-grey sand with mortar. This was excavated as zone 2 and corresponds with the 'missed' zone 2 in section 4. This zone continued over the builders trench to the drain (feature 7/41), and was excavated in two levels to a depth of .9' below surface. Beneath this were two large areas, originally misidentified but later corrected. In the southern portion of the unit was the remnant of zone 2b, the area of dark grey, coal-laden soil. This was truncated in the northern part of the unit by a deep pit consisting of redeposited clay with lenses of grey sand, coal and mortar. At the base of the first level, these two deposits were separated by a wedge of white sand, making interpretation difficult. Further excavation revealed that the clay pit, designated feature 45, and the drain, feature 7/41, had truncated zone 2b as well as features 38 and 39, so that only their southern borders were genuine. Feature 39 sloped down dramatically to the north in this unit, before it was truncated by feature 46. This feature was also truncated by a narrow trench, which initiated at the base of zone 2b, and continued into sterile soil. Beneath features 38-39 was a portion of zone 4, the dark sterile soil with shell. The large clay pit continued into sterile and the water table, so excavation was not completed.

Trench 6 stretched diagonally across the garden between the northwest corner of trench 5 section 2 and the southeast corner of trench 4 section 3. The distance between these two points is 104.5'. The trench was excavated in two-foot sections by archaeologist Lipovsky and the construction crew. The excavations revealed a dark brown zone 1, associated with the paisley garden, followed by a loamy dark grey-brown soil containing quantities of bone and cultural material. The cultural material, concentrated at the base of zone 2, dated to the 1770s and exhibited characteristics of primary refuse, specifically broken *in situ* ceramics. This was followed by a light grey 'leach zone' and sterile subsoil.

Because this trench revealed rich deposits and possible garden-related features, garden archaeologist Dr. William Kelso was consulted. He spent a few days meticulously recording the stratigraphic profile of trench 6, and from this work recognized features and deposits associated with a late 18th garden, and from this he proposed a garden design unlike the existing paisley garden (figure 38).

Based on these discoveries, it was deemed important to conduct some controlled excavations on trench 7. Excavations and designations of proveniences were guided by Dr. William Kelso. This 2.5' wide trench continued from trench 4 section 2 due west, turning at a right angle to connect with trench 4 sections 3-5. Five 5' sections of this tench were excavated by the archaeological crew.

The northeast corner of trench 7 section 1 is 5.0' west of the northwest corner of trench 4 section 2. Zone 1 consisted of a medium grey-brown sand with sparse artifacts, corresponding in


tile
PATH?
sand path?
TRENCH #1
1760-70s bed
rubble, tile
TRENCH #2
#
depper bed
BEDS?
sand path

part to the planting beds of the paisley garden. This was followed by finely crushed shell in a matrix of brown sand. This has been interpreted as a formal garden path, associates with an earlier use of the present paisley garden (no earlier than the late 19th century). This was followed by a darker grey-brown soil, still containing varying concentrations of crushed shell. Beneath this was a layer of medium brown sand full of flint cobbles, similar to that seen in other parts of the site. This was designated zone 2. The base of this zone was quite uneven, with remnants of the planting bed (zone 1) continuing at the western edge. At a depth of .9' below surface, the entire unit was leveled and cleaned, and the following deposit was labeled zone 3. This deposit was a highly mottled deposit of orange sand and clay and medium brown sand. The mottled soil of zone 3, excavated in two levels, gave way to a more homogenous level of brown-grey sand. This was designated zone 4. Below this was a solid level of brick rubble in a coarse orange-tan sand matrix. Excavations were suspended at this level, 1.5' below surface.

The remaining four sections of trench 7 revealed similar stratigraphy, somewhat different than that of section 1. The northeast corner of section 2 was located 20.0' west of the northwest corner of section 1. Zone 1 was similar to that in section 1, a dark loamy sand. This zone 1 was excavated in two levels; the second level included a transition zone between the dark grey-brown soil of zone 1 and the slightly lighter and browner loamy soil of zone 2. Zone 1 level 1 contained sparse artifacts with a number of modern intrusions; level 2 contained a slightly broader and earlier artifact assemblage. This was used to date the existing paisley garden. The following zone 2 was a brown loamy sand with a greater density of cultural material, bone, and brick rubble. The second level of zone 2 contained a greater concentration and larger fragments of the same assemblage. Beneath this was a light grey leach zone, still containing rubble and cultural material. This was designated zone 3. Sterile subsoil was encountered beneath this, 1.36' below surface.

Section 3 was located adjacent to and immediately east of section 2. It exhibited identicla stratigraphy to section 2, with a very dense concentration of material in zone 2 level 2. The brick rubble concentration was uneven in density, and was thickest in a 7' strip in the northern wall of the unit (figure 39a).

Section 4 was located in the western end of the east/west section of the trench. The northeast corner of section 4 was 20.0' west of the northwest corner of section 2. Zone 1 level 1 contained a dense concentration of roots and was discarded. Zone 1 level 2 was retained and screened. Section 4 exhibited similar stratigraphy; the brick rubble concentration initiated in the upper level of zone 2 (figure 39b).

Section 5 was located in the north/south section of trench 7. This unit measured 2.5' by 3.0'. The northeast corner of the unit was 19.0' south of the northeast corner of trench 4 section 3. The unit exhibited identical stratigraphy; this unit contained a thick concentration of material and rubble in zone 2 level 2 (figure 39c).

Following excavations by the archaeological crew, the construction crew laid out and excavated the remainder of trench 7. In order to provide greater horizontal control, the trench

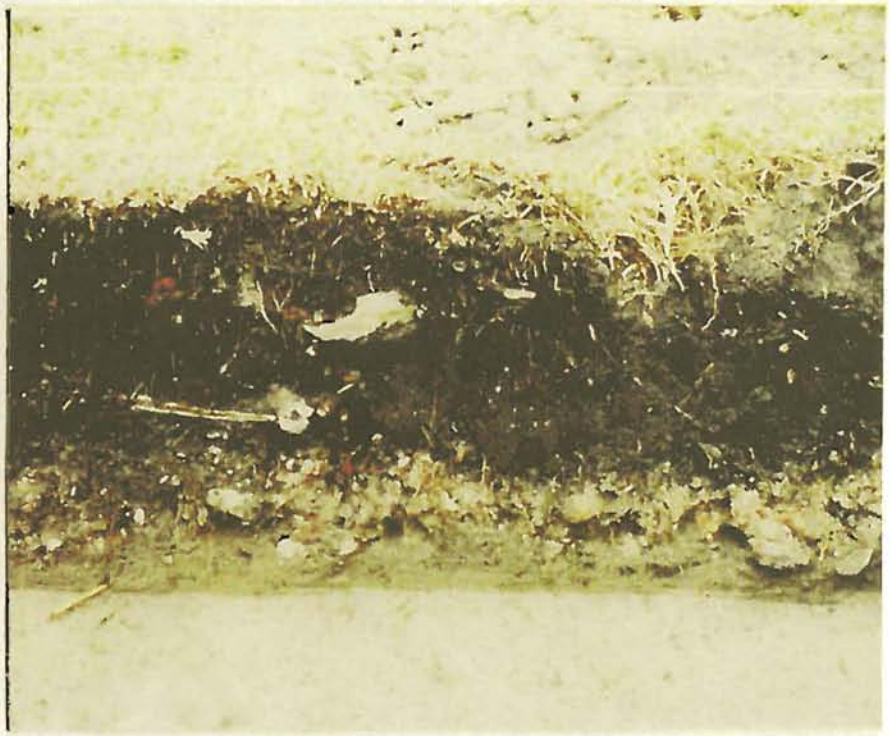


Figure 30 Profiles, various sections of Trench 7

was divided into 10' sections. It was determined that the actual location of the east/west length of this trench needed to be 2.5' further south of the controlled sections. These units and divisions are shown on the overall site map. The completed trench 7 revealed a quantity of material and comparable stratigraphy to the excavated samples (figure 39d). Like trench 6, this profile was examined in detail by Dr. Kelso.

Other excavations by the construction crew for the heating/cooling system were conducted in the vicinity of the second set of stable, which was to be the location of the machinery for the system. To this end, the modern bathroom and louvered walls were removed, as was the concrete pad floor. As part of this, the construction crew continued excavation into this area from the edge of trench 4 section 5. A rubble-laden layer of fill immediately below the concrete pad gave way to a mottled medium brown soil with early 19th century artifacts. Upon excavation this proved to be contiguous with the previously designated feature 45 in trench 4 section 5. This large pit of mottled medium brown sand and orange clay was in fact a builders trench to a large brick cistern. Feature 45 measured 3.6' from its southern edge in trench 4 section 5 to the southern edge of the cistern.

The cistern was well crafted. The rectangular structure had a vaulted top and straight sides, and measured 4.1' north/south by 6.2' east/west. The cistern was breached along the southern side, and was found to be full of water, 20" or more above the water table. The relatively clear water was 2.2' deep, ending in a mud layer along the bottom which was more than 1' deep. Two small samples of this mud were retained; they proved to be full of a variety of waterlogged seeds. It was impossible to tell from probing whether or not the cistern had a wooden bottom that had decayed, or if we had not yet encountered the base of the feature.

The breach hole in the cistern was deliberately small, to cause minimal damage to the structure. This small size reduced visibility and made recording difficult. Visual inspection revealed an entrance vault along the east wall. Further, measurements demonstrate that the east wall of the cistern extends at least 1' beyond the east wall of the stable/servants quarter structure. This suggests that the cistern was built, and possibly abandoned, well before construction of these stables and outbuildings. This is supported by documentary data, which suggests the buildings were a second quarter of the 19th century addition, and the artifacts contained in feature 45, which suggest a 1780s date of construction for the cistern. After the discovery of the cistern, it was decided to do no further damage to the cistern and to move pipes to another location.

Another location proved to be the inside of the tack room, immediately to the west. The southern foundation wall was breached, and the eastern portion of the soil beneath the modern concrete floor was excavated to a depth of 4' below ground surface. The foundation wall of the 'tack room' continued below this depth, suggesting either an extremely substantial structure or another use for this room (perhaps as a privy?). The feature contained dense cultural material - bottles, principally, followed by ceramics and tin cans), dating to the late 19th/early 20th century. This may have been the result of one of Miss Frost's 'cleanups' alluded to in her letters.

Installation of the climate control system also required trenching in the basement of the house, specifically along the central hallway. These trenches, measuring 3.0' wide, were excavated by the restoration crew, who hand-collected any large artifacts visible in the backdirt. Later, the backdirt from these excavations was screened by the restoration crew and all materials collected. The collected and screened samples were kept separate. Visual inspection of the basement excavations revealed a layer of disturbed soil and mortar immediately beneath the sandstone pavers, followed by layers of mottled yellow sand and clay, similar to zones 2 and 3 in N185W147.3 in the plantation room. These soils probably represent building trench/disturbance for house construction, while the disturbed soils beneath the sandstone pavers reflect the initial paving of the basement in red clay tiles and their replacement with sandstone in the early 19th century. The artifact assemblage in essence mirrors that of the garden area, consistent with the date of house construction, with the addition of some early hand-painted and shell edged pearlwares, probably associated with the re-paving of the basement.

The final trench was excavated from the northwest, or rear, corner of the main house to the rear of the carriage house. This trench revealed similar 'fill' stratigraphy, as seen in trench 3 sections 4 and 5, with the exception that it contained larger, somewhat earlier, artifacts, as suggested by the materials hand-collected by the restoration crew. The most interesting feature was the section of yard drain which runs along the southern edge of the carriage house portico and the foundation of the portico columns. The yard drain, still in use, proved to be of vaulted brick construction, identical to feature 7 in N225W180. In fact, it is probably the same system, although the portions encountered in the controlled excavations appeared to be abandoned. Moreover, the brick foundation for the portico column sits on top of, and is tied into, this drain. Architectural details indicate that the portico is original to the carriage house, which is in turn original to the main house. This is consistent with the recovery of creamware as the latest dating item in the builders trench for feature 7. An alternate explanation is that the columns, and their foundations, were repaired or replaced later in time. When inspected by the archaeologist, the brick column still had some dirt clinging to it, possibly reflecting a builders trench. This soil was a medium grey-brown sandy loam with large inclusions of charcoal.

Defined Proveniences and Site Dating

For the past two decades, the material culture of Charleston sites have been subdivided temporally for sites occupied throughout the city's 300 year history. These temporal subdivisions are based on specific site events and general trends in Charleston's development. Charleston proveniences and their materials have generally been separated into three temporal subdivisions: 1670 to 1750, 1750 to 1830, and 1830 to 1900. The early period corresponds to Charleston's role as a frontier outpost and emerging port city. The second marks Charleston's "golden years" as a leading seaport and center of wealth, and the third corresponds with Charleston's economic decline and stagnation. These periods also correspond to changes in ceramic and glass technology. The early period is that of relatively scarce and expensive material culture; the second corresponds to the rise of the British pottery industry and the development of refined

earthenwares, and the third to a decline in new ceramic types and the ascendancy of mass-produced glassware.

The excavations revealed archaeological deposits spanning two centuries and reflecting a range of site activities. The 345 defined proveniences were divided into three temporal subdivisions, corresponding with changes in ownership of the property, historical events in the lowcountry, and developments in the production of material culture. The three subdivisions are labeled accordingly. The "Brewton" assemblage includes proveniences that range from the mid-18th century through the occupancy by Miles Brewton and his family, c. 1750-1775. Fieldwork revealed a number of deposits, containing a moderate amount of artifacts, that could date before Brewton's 1765 acquisition of the property, based on the principal of Terminus Post Quem. At the time of analysis this assemblage was labeled "Pre-Brewton" and was assumed to represent on-site activity that predated Mr. Brewton. Upon further analysis and comparative study, it was determined that these proveniences are more likely the result of Brewton's ownership, if not occupancy. This subassemblage is presently labeled "Brewton". The second assemblage ranges from the late 18th century through the first quarter of the 19th century, and corresponds with the occupancy of the property by the Motte and Alston families. This group may also contain some of the refuse of the Brewton family, and was first labeled "Brewton-Motte-Alston". For the present analysis this subassemblage, dating from c. 1775 to 1830, is labeled "Motte-Alston". The third assemblage is associated with the Pringle and Frost families and dates from c. 1840 to 1890. This retains the label "Pringle-Frost". The reader will note that the chapters by Reitz and Reinhard retain the older designations for these subdivisions. The recovered proveniences and their estimated dates of deposition are listed below.

Table 1
Provenience Guide

FS#	Unit	Provenience	TPQ	Date of Deposition
2	N120W125	zone 1	molded glass	20th century
3	N120W125	zone 2 level 1	shell edged p.w.	early 19th cent.
4	N120W125	zone 2 level 2	transfer print p.w.	early 19th cent.
5	N120W125	feature 1	hand paint p.w.	early 19th cent
6	N120W125	feature 2	hand paint p.w.	late 18th cent.
7	N120W120	zone 2 level 1	brown glass	late 19th cent.
8	N120W120	zone 2 lev 2	hand painted p.w.	early 19th cent.
9	N120W120	feature 2	transfer print w.w.	1840s
10	N120W120	feature 3	creamware	1770s
11	surface	--		
12	N155W335	zone 2	gilt porcelain	late 19th cent
13	N155W335	zone 3	creamware/w.w.	early 19th cent.

18	N259W320	zone 1 lev 1	transfer print w.w.	mid 19th cent.
19	N259W320	zone 1 lev 2	yellow ware	late 19th cent.
20	N259W320	zone 2 lev 1	white porcelain	late 19th cent.
21	N259W320	feature 4	white porcelain	late 19th cent.
22	N259W320	zone 2 lev 2	creamware	early 19th cent.
23	N230W330	zone 1 lev 1	glass stopper	late 19th cent.
24	N230W330	zone 2 lev 1	whiteware	mid 19th cent.
25	N230W330	zone 2 lev 2	white porcelain	mid 19th cent.
26	N230W330	zone 3 lev 1	transfer print w.w.	1840s
27	N230W330	zone 4	white porcelain	1840s
28	N230W330	feature 6	white porcelain	mid 19th cent.
29	N230W330	base zone 3	clear glass	mid 19th cent.
30	N259W320	troweling	molded glass	mid 19th cent.
31	N225W185	zone 1	porcelain insulator	20th cent.
33	N225W185	zone 2 lev 1	creamware	early 19th cent.
34	N225W185	zone 2 lev 2	creamware	early 19th cent.
35	N225W185	zone 2 lev 3	creamware	early 19th cent.
36	N225W185	feature 7	creamware	1780s
37	N225W185	zone 3	delft	1760s
38	N225W185	zone 4 lev 1	white sg stoneware	1760s
39	N225W185	zone 4 lev 2	white sg stoneware	1760s
40	N230W185	zone 1 lev 2	brown glass	late 19th cent.
41	N230W!85	zone 1 lev 3	whiteware	late 19th cent.
42	N230W185	feature 7 lev 1	agate ware/w.w.	1780s/early 19th cent.
43	N230W185	feature 7 lev 2	creamware	1780s
45	N225W180	zone 2 lev 1	shell edged p.w.	early 19th cent.
47	N225W180	zone 2 lev 2	creamware	early 19th cent.
48	N230W185	feature 7 lev 3	creamware	early 19th cent.
50	N225W180	feature 10 lev 1	transfer print p.w.	early 19th cent.
51	N225W180	feature 10 lev 1	transfer print p.w.	early 19th cent.
52	N225W180	feature 10 lev 2	yellow ware	early 19th cent
53	N225W180	feature 7 cleaning	glass	--
54	N230W185	zone 3 lev 1	grey sg stoneware	1770s
55	N230W185	zone 3 lev 2	white sg stoneware	1770s
56	N225W180	feature 7	creamware	1780s
57	N225W180	zone 3 lev 1	white sg stoneware	1770s
58	N225W180	zone 3 lev 2	creamware	1770s
59	N225W185	east wall		--
60	N225W185	feature 11	astbury ware	1760s
63	N225W185	feature 12	annular w.w.	mid 19th cent.
64	N225W177	zone 1	sewer tile	20th cent.
65	N225W177	feature 7 lev 1	white porcelain	mid 19th cent.
66	N225W177	zone 2 lev 1	undec p.w.	early 19th cent.

68	N225W177	zone 2 lev 2	creamware	early 19th cent.
70	N225W177	feature 7 lev 2	yellow ware	early 19th cent
72	N225W177	feature 13 lev 1	blue handpaint p.w.	early 19th cent.
73	N225W177	zone 3 lev 1	white sg stoneware	1770s
74	N225W177	zone 3 lev 2	white sg stoneware	1770s
75	N225W177	feature 14	white sg stoneware	1770s
76	N225W177	feature 13 lev 2	white sg stoneware	1780s
77	N225W177	feature 12 west	green transfer print w.w.	1840s
78	N225W177	feature 12 east	annular w.w.	1840s
79	N225W177	feature 13 profile	blue hand paint p.w.	early 19th cent.
81	N225W180	feature 11	white sg stoneware	1760s
82	N225W180	feature 11, s.e.	white sg stoneware	1760s
83	N225W180	feature 11 bottom	white sg stoneware	1760s
87	N230W177	feature 15	creamware	1840s
88	N225W185	zone 5	white sg stoneware	1750s
89	N225W177	feature 16, north	creamware	1840s
90	N225W177	feature 16 above	porcelain doll leg	mid 19th cent.
91	N225W177	feature 16 below	white porcelain	mid 19th cent.
93	N193.7W132	zone 1 lev 1	pressed glass	late 19th cent
94	N193.7W132	zone 2 lev 1	blue glass, screw top	late 19th cent.
95	N193.7W132	feature 17	white porcelain button	mid 19th cent.
96	N193.7W132	feature 18	white porcelain	mid 19th cent.
97	N193.7W132	feature 19	jackfield	1790s
98	N193.7W132	zone 3	creamware	1790s
99	N193.7W132	feature 20	creamware	1790s
100	N193.7W132	zone 3 lev 2	creamware	1770s
101	N193.7W120	zone 1	molded glass	20th cent.
102	N193.7W120	zone 2	white porcelain	mid 19th cent
103	N193.7W120	feature 19	transfer print p.w.	early 19th cent
104	N193.7W120	zone 3 lev 1	white sg stoneware	1770s
105	N193.7W120	zone 3 lev 2	white sg stoneware	1770s
106	N193.7W120	troweling	modern glass	20th cent.
107	N193.7W120	zone 4	delft	1760s
108	N223.5W280	zone 1	milk glass	20th cent.
109	N223.5W280	zone 2	shell edge p.w.	late 19th cent
110	N223.5W280	feature 21	blue hand painted p.w.	early 19th cent
111	N223.5W280	feature 22	undecorated p.w.	early 19th cent
112	N193.7W120	troweling	white sg stoneware	--
113	N223.5W280	zone 2 lev 1	blue hand painted p.w.	mid 19th cent.
114	N223.5W280	zone 3 lev 2	annular p.w.	1770s
115	N223.5W280	feature 23	creamware	early 19th cent
116	N223.5W280	zone 3 lev 3	creamware	1770s
119	N223.5W280	feature 24	creamware	early 19th cent

121	N223.5W280	wall clean	creamware	--
122	N231W122.5	zone 1	molded bottle	late 19th cent
123	N231W122.5	zone 2 lev 1	rubber comb	late 19th cent.
124	N231Q122.5	zone 2 lev 2	white porcelain	mid 19th cent.
125	N233.5W122.5	zone 1 lev 1	molded glass	20th cent.
126	N233.5W122.5	zone 1 lev 2	white porcelain	late 19th cent.
127	N233.5W122.5	zone 2 lev 1	whiteware	mid 19th cent.
128	N233.5W122.5	zone 2 lev 2	1863 coin	mid 19th cent.
129	N233.5W122.5	feature 26	green glass	1830s
130	N233.5W122.5	zone 3 lev 1	white sg stoneware	1780s
132	N185W147.3	zone 1	b/w porcelain	20th cent.
133	N185W147.3	zone 2	creamware	early 19th cent.
134	N185W147.3	zone 3	creamware	1780s
135	N185W147.3	feature 27	creamware	1770s
136	N120W100	zone 1	whiteware	20th cent.
137	N120W100	zone 2	creamware	mid 19th cent.
138	N185W147.3	troweling	creamware	--
139	N120W100	feature 28	delft	1760s
140	N120W100	feature 29	earthenware	1760s
141	N120W100	zone 3	green glass	1770s
142	N259W330	feature 4 lev 2	black transfer print w.w.	late 19th cent.
143	N267.4W313	zone 1 lev 1	gilt edged w.w.	late 19th cent.
144	N267.4W313	zone 1 lev 2	annular w.w.	late 19th cent.
145	N267.4W313	zone 2	annular creamware	early 19th cent.
146	N267.4W313	zone 3 lev 1	transfer print p.w.	early 19th cent.
147	N267.4W313	zone 3 lev 2 dist.	tin foil	20th cent.
148	N267.4W313	zone 3 lev 2	creamware	early 19th cent.
149	N264.9W313	zone 1	gilt edged w.w.	late 19th cent.
150	N264.9W313	zone 2	hand painted p.w.	mid 19th cent.
151	N264.9W313	zone 3 lev 1	transfer print p.w.	1770s
152	N264.9W313	zone 3 lev 2	tranfer print p.w.	1770s
153	N264.9W313	zone 4	white sg stoneware	1760s
154	N264.9W313	troweling	creamware	--
155	N155W335	fea 2/3 interface	scratch blue sg stoneware	1770s
156	N155W335	feature 3 bottom	creamware	1770s
157	N230W330	feature 6 troweling	annular w.w.	1840s

173	Trench 3	zone 1	plastic	20th cent
174	Tr 3 sec2	zone 4	slip dip wsgs	1730s
180	Tr 3 sec3	feature 31	creamware	1800s
181	Tr 3 sec 3	base fea 31	scratch blue sg	1770s
182	Tr 3 sec3	zone 6	whieldon ware	1770s

183	Tr 3 sec3	zone 7	grey sg stoneware	1770s
184	TR 3 sec3	feature 32	slipware	1770s
185	TR 3 sec3	zones 6-7	creamware	1770s
188	Tr 4 sec1	zone 1	whiteware	late 19th c.
189	Tr 4 sec1	zone 1 lev 2	whiteware	1830s
190	Tr 4 sec1	zone 2 lev 1	transfer print p.w.	1800-1820
191	Tr 4 sec1	zone 2 lev 2	transfer print p.w.	1800-1820
192	Tr 4 sec1	zone 2 lev 2	white sg stoneware	1770s
193	Tr 4 sec1	zone 2 lev 3	whieldon ware	1770s
194	Tr 4 sec1	zone 2 lev 4	creamware	1770s
195	Tr 4 sec1	zone 2 lev 5	scratch blue st.	1770s
196	Tr 4 sec1	zone 3	delft	1750s
197	Tr 4 sec2	zone 1	light bulb glass	20th cent
198	Tr 4 sec2	zone 2 lev 1	bisque porcelain	1850s
203	Tr 4 sec 2	zone 2 lev 2	astbury ware	1770s
204	Tr 4 sec 2	mortar are	white sg stoneware	1770s
205	Tr 4 sec 2	zone 2 lev 3	agate ware	1770s
208	Tr 4 sec 2	zone 2 lev 4	black basalte ware	1770s
209	Tr 4 sec 1a	zone 2 lev 1	transfer print p.w.	1820s
210	Tr 4 sec 1a	zone 2 lev 2	white sg stoneware	1770s
211	Tr 4 sec 1a	zone 2 lev 3	whieldon ware	1770s
212	Tr 4 sec 1a	zone 2 lev 4	creamware	1770s
213	Tr 4 sec 1a,	north wall	jackfield	1770s
340	Tr 4 sec 1	zone 2, east profile	whieldon ware	1770s
341	Tr 4 sec 1	feture 54	slipware	1770s
199	Tr 5 sec 1	feature 33	astbury ware	1880s?
200	Tr 5 sec 1	feature 34	flower pot	1880s
202	Tr 5 sec 1	zone 3	shell edge p.w.	1800s
206	Tr 5 sec 1	area A lev 1	creamware	1800s
207	Tr 5 sec 1	area A lev 2	shell edged p.w.	1800s
216	Tr 5 sec 2	zone 2	white porcelain	1850s
217	Tr 5 sec 2	area A, W half	annular p.w.	1800s
218	Tr 5 sec 2	area A, lev 2	transfer print p.w.	1800s
219	Tr 4 sec 3	zone 1	whiteware	20th cent.
220	Tr 4 sec 3	zone 2	transfer print p.w.	1800s
221	Tr 4 sec 3	zone 3	whiteware	1800s
222	Tr 4 sec 3	feature 36	creamware	1770s
224	Tr 4 sec 3	feature 37	creamware	1780s
226	Tr 4 sec 4	zone 1	sewer tile	20th cent.
227	Tr 4 sec 4	base zone 1	whieldon ware	20th cent.

228	Tr 4 sec 4	builders trench	creamware	
229	Tr 4 sec 4	zone 2	whiteware	1830s
230	Tr 4 sec 4	zone 2	creamware	1830s
231	Tr 4 sec 4	base zone 2	creamware	1820s
233	Tr 4 sec 4	zone 3/fea 38	creamware	1800s
235	Tr 4 sec 4	below feature 39	creamware	1780s
236	Tr 4 sec 4	feature 41 lev 1	brown sg stoneware	1780s
237	Tr 4 sec 4	feature 41	porcelain	1780s
238	Tr 4 sec 4	feature 42	creamware	1770s
239	Tr 4 sec 4x	zone 1	gilded porcelain	late 19th cent.
240	Tr 4 sec 4x	feature 7/41	milk glass	mid 19th cent.
241	Tr 4 sec 5	zone 1	white porcelain	late 19th cent.
242	Tr 4 sec 5	feature 43	porcelain button	mid 19th cent.
243	Tr 4 sec 5	zone 2	blue tr. pr. w.w.	early 19th cent.
244	Tr 4 sec 5	zone 2 lev 2	annular p.w.	1800s
245	Tr 4 sec 5	zone 2 lev 3, south	creamware	1790s
246	Tr 4 sec 5	zone 2 lev 3, north	creamware	1790s
247	Tr 4 sec 4a	feature 7/41	creamware	1780s
248	Tr 4 sec 5	zone 3, north	window glass	1770s
249	Tr 4 sec 5	clay area	creamware	1770s
250	Tr 4 sec 5	zone 4	clear flat glass	1750s?
252	Tr 4 sec 4	zone 4	olive green glass	1750s?
253	Tr 4 sec 4	feature 42 lev 2	creamware	1770s
254	Tr 4 sec 4	postmold 1	slate	
255	Tr 4 sec 4	feature 42 drain fill	white porcelain	late 19th cent?
257	Tr 4 sec 4	feature 7, lower level	table glass	
258	Tr 4 sec 5	feature 45 lev 2	creamware	1770s
260	Tr 4 sec 5	zone 4, north	pipe	
261	Tr 4 sec 5	feature 46	creamware	1770s
263	Tr 3 sec 4	zone 1	molded bottle	20th cent.
265	Tr 3 sec 4	zone 2	transfer printed p.w.	early 19th cent.
266	Tr 3 sec 4	feature 48	gilded porcelain	late 19th cent.
268	Tr 3 sec 4	postmold 1	clear bottle glass	early 19th cent.
269	Tr 3 sec 4	zone 3 lev 1	white sg stoneware	1770s
270	Tr 3 sec 4	zone 3 lev 3	brown sg stoneware	1770s
271	Tr 3 sec 4	zone 4	astbury	1770s
272	Tr 3 sec 4	zone 5	scratch blue st.	1770s?
273	Tr 3 sec 5	zone 1	glass milk glass	20th cent.
274	Tr 3 sec 5	zone 2 lev 1	agate ware knob	20th cent.
275	Tr 3 sec 5	zone 2 lev 2/pipe	milk glass	20th cent.
276	Tr 3 sec 5	zone 2 lev 3/pipe	whiteware	20th cent.

277	Tr 3 sec 5	zone 3 lev 1	brown sg stoneware	1770s
278	Tr 3 sec 5	feature 48	white porcelain	late 19th cent.
279	Tr 3 sec 5	feature 49	white porcelain	late 19th cent.
282	Tr 3 sec 5	feature 49 lev 2	bisque porcelain	late 19th cent.
283	Tr 3 sec 5	feature 48 lev 2	whiteware	late 19th cent.
284	Tr 3 sec 5	zones 4-5	slipware	1770s
285	Tr 3 sec 5	zone 5	white sg stoneware	1770s
287	Tr 3 sec 4	feature 50	whieldon ware	1770s
288	Tr 3 sec 6	zone 1	whiteware	late 19th cent.
289	Tr 3 sec 6	zone 2	elers ware	early 19th cent?
290	Tr 3 sec 6	zone 2	flower pot	early 19th cent?
291	Tr 3 sec 6	zone 2 lev 2	black lead gl. ew	late 18th cent
292	Tr 3 sec 6	zone 2 lev 3	undecorated p.w.	late 18th cent.
293	Tr 3 sec 6	feature 51	glass	1830s?
294	Tr 3 sec 6	feature 52	oyster	?
315	Tr 7 sec 1	zone 1	milk glass	late 19th cent.
316	Tr 7 sec 1	zone 1b	5-hole button	early 19th cent.
317	Tr 7 sec 1	zone 2	blue hand paint p.w.	1800s
318	Tr 7 sec 1	zone 2/3 int	creamware	1780s
319	Tr 7 sec 1	zone 3	white sg stoneware	1780s
320	Tr 7 sec 1	area A	mottled ware	1780s
321	Tr 7 sec 1	zone 3 lev 2	white sg stoneware	1780s
322	Tr 7 sec 1	zone 4	agate ware	1780s
323	Tr 7 sec 2	zone 1	whiteware	late 19th cent.
324	Tr 7 sec 2	zone 1 lev 2	transfer print p.w.	1800s
325	Tr 7 sec 2	zone 2 lev 1	white sg stoneware	1780s
326	Tr 7 sec 2	zone 2 lev 2	white sg stoneware	1780s
327	Tr 7 sec 2	zone 3	slipware	1740s
328	Tr 7 sec 3	zone 1	transfer print p.w.	late 19th cent.
329	Tr 7 sec 3	zone ½	annular p.w.	1800s
330	Tr 7 sec 3	zone 2 lev 1	transfer print p.w.	1800s
331	Tr 7 sec 3	zone 2 lev 3	creamware	1770s
332	Tr 7 sec 3	zone 3	white sg stoneware	1770s
333	Tr 7 sec 2+3	north profile	littler's blue stoneware	
335	Tr 7 sec 4	zone 1 lev 2	milk glass	mid 19th cent.
336	Tr 7 sec 4	zone 2 lev 1	white sg stoneware	1770s
337	Tr 7 sec 4	zone 2 lev 2	scratch blue stoneware	
338	Tr 7 sec 4	zone 3	slipware	1770s
342	Tr 7 sec 5	zone 1 lev 2	whiteware	1820s
343	Tr 7 sec 5	zone ½	whiteware	1820s
344	Tr 7 sec 5	zone 2 lev 1	undec p.w.	1780s
345	Tr 7 sec 5	zone 2 lev 2	white sg stoneware	1770s

Chapter IV
Analysis of Artifacts

Laboratory Methods

Following excavation, all materials were removed to The Charleston Museum where they were washed, sorted, and analyzed. All bagged materials were sorted by the field provenience number (FS#) and inventoried. Each artifact in each provenience was then washed in warm water with a soft brush and rebagged when dry. Analysis by provenience included identification and counting of each artifact by type. Washing and sorting commenced immediately after each field project, and was conducted by trained laboratory technicians, students from the College of Charleston, and experienced volunteers.

Conservation procedures included reconstruction of ceramic and glass vessels, where possible, and stabilization of metal artifacts. Ceramic and glass vessels were restored with conservator's glue, B-72 and a number of commercial super-glue products, all reversible in acetone. Ferrous materials were separated during analysis and stabilized by placing them in successive baths of distilled water to remove chlorides. They were then oven-dried, bagged and stored separately. Stabilization of iron from downtown Charleston sites usually requires at least one year of soaking. Several ferrous and all non-ferrous metal artifacts were selected for further treatment through electrolytic reduction. The ferrous items were placed in electrolysis in a weak sodium carbonate solution with a current of six ampheres. Upon completion of electrolysis, ranging from a few weeks to a few months, they were placed in successive baths of distilled water to remove chlorides and dried in ethanol. Finally the artifacts were coated with a solution of tannic acid and phosphoric acid, and dipped in microcrystalline wax to protect the surfaces. Non-ferrous artifacts were also placed in electrolytic reduction, in a more concentrated solution with a current of 12 ampheres. Electrolytic reduction of these artifacts was usually accomplished in one to two days. They were then placed in distilled water baths to remove surface chlorides, dried in ethanol, and gently polished before being coated with Incralac to protect the surfaces.

Faunal materials were washed, separated from other materials, and weighed by provenience. They were then shipped to the Zooarchaeology Laboratory, University of Georgia for analysis. The report by Dr. Elizabeth Reitz appears in this volume. Soil samples, ranging from one to two quarts in size, were inventoried, and portions of selected samples were dried and rebagged for various analyses; samples were sent to Dr. Karl Reinhard for pollen analysis. The remainder of the soil samples were double-bagged and boxed for permanent curation.

The Manigaults decided that permanent curation of the collection at The Charleston Museum was appropriate, and donated the collection to the Museum. The Brewton materials received the accession number 1988.55. All excavated materials are curated in The Charleston Museum's storage facility according to museum collection policy. Artifacts are packed by

provenience in standard low-acid boxes, labeled, and stored in a climate-controlled environment. Those artifacts worthy of individual study or exhibition (including all illustrated in this report) are stored in easily-accessible drawers in fireproof metal storage cabinets in the same storage facility. Field records and photographs are curated in the Museum's archive in acid-free containers in the security section. Archivally stable copies are available in the general research section of the library.

Analysis

The first step in the analysis of materials was the identification of the artifacts. The Museum's type collection, Noel Hume (1969), Stone (1974), Ferguson (1992), and Deagan (1987) were the primary sources used. Ceramics references included Towner (1978), Gaimster (1997); Austin (1994), Sussman (1997), and Cushion (1976). Other references were consulted for specific artifacts. Lorrain (1968), Huggins (1971), Kechum (1975), and Switzer (1974) were used to identify bottle glass. Epstein (1968) and Luscomb (1967), as well as South (1964) were used for button identification, and Fontana and Greenleaf (1962) and Sutton and Arkush (1996) were consulted for nails. Other specific reference books included Noel Hume (1974, 1978), Ray (1973), Fisher (1965), and a series of the Shire Albums from Great Britain.

For basic descriptive purposes, the artifacts from each of the temporal and locational assemblages were sorted into functional categories, based on South's (1977) model for the Carolina Artifact Pattern. South's methodology has been widely adopted by historical archaeologists, allowing for direct intersite comparison; all of the Charleston data have been organized in this manner. For nearly twenty years, archaeologists have attempted to classify the artifacts they recover by function, or how they were used in the everyday life of their owners. Artifacts are quantified in relative proportion to each other within eight broad categories. Broad regularities, or patterns, in these proportions prescribe the average retinue of activities on British colonial sites. While some have criticized this methodology as being too broad, it has been widely adopted by historical archaeologists working in the southeastern United States. In Charleston, it has been used as an initial organizing tool.

Some artifact types were subject to more detailed identification. Ceramics were separated into types, and identified by vessel form. Given the extensive nature of the excavations at this site, it was possible to recognize distinctive vessels and vessel types across the site, by either form or decoration. In some cases, distinct vessels were indicated by one or two sherds. Cross-mends and matches were noted on a site map, but a complete cross-sorting by minimum number of vessels (MNIV) was not undertaken at this time. Nails were identified by manufacture type, head type, and size, where possible. Architectural rubble - brick, mortar, and plaster - was weighed by provenience in the field and discarded.

Following this exercise, the relative proportions of a variety of artifact types were examined, based on the work of King (1990, 1992), and many others in the mid-Atlantic region.

This recent exercise (Zierden 1993, 1994) has provided more details on proportions of consumer goods and how they were used by Charlestonians. Each of the temporal assemblages is summarized separately.

The Brewton Assemblage, c. 1760-1775

The earliest assemblage was also the smallest, both in terms of number of artifacts and number of proveniences. As with many 18th century assemblages, the kitchen assemblage was reduced relative to tobacco pipes. Ceramics in this assemblage include oriental porcelains, saltglazed stonewares, and a variety of earthenwares. Locally made colono wares are a significant portion of the ceramics assemblage.

The earliest table ware is delft. Delft is a tableware common in the early 18th century that persists in use through the late 18th century. Such wares are common on 17th century sites, but they were fragile. Tea cups and small vessels faded in popularity after 1750, but larger vessels such as plates, bowls, platters and punch bowls continue throughout the century (Austin 1994). British delft features a soft yellow-to-buff-colored earthenware paste and an opaque, sometimes chalky-textured glaze consisting of tin oxide in a lead glaze. The glaze can be white, but often exhibits a light 'robin's egg' blue background color. Individual vessels may be undecorated, or feature hand-painted decoration in blue or in a range of colors, the latter classified as polychrome. The Brewton assemblage included a number of blue-on-white vessels. A single sherd of polychrome decorated delft was recovered. In addition, three fragments of Spanish tin enameled ware, majolica, were recovered as well.

The tin enamelled tablewares of the 18th century were briefly, but quickly, replaced by dinner and teaware of white saltglazed stoneware. First developed in the 1740s, these became the typical English tableware of the mid-18th century. Plates and soup bowls, as well as a host of serving vessels and tea wares, are the most common forms recovered in Charleston, reflecting the rising importance of individual place settings and matched sets. While much of the saltglazed stoneware was undecorated, elaborately molded and sprigged examples are recovered as well. Typical rim forms included the 'dot, diaper and basket', bead and reel, and barley patterns, though plain rims are also recovered. The Brewton assemblage included a signficant number of these wares, including table and tea wares.

Two fragments of Nottingham stoneware were recovered. This ware is characterized by a hard grey stoneware body and a smooth or lustrous brown glaze over a white slip. The white slip distinguishes the Nottingham wares, and can be seen by viewing a ceramic fragment from the side. Noel Hume (1969:114) notes that several potters may have produced a variation of this ware. Also recovered in small numbers was the unglazed red stoneware known as Elers were; this was most often teapots.

Three finely made redwares were produced by the Staffordshire potters and are recovered in small amounts (.25% average) in Charleston - Jackfield ware, Agate ware, and Astbury ware. The earliest, Astbury, are hard, red-bodied earthenwares, lead glazed to give them a ginger brown surface. They were decorated with sprig-molded designs, often in white pipe clay. A common variation in Charleston features white clay around the rim. The Brewton deposits contained Agate ware, which consists of red and yellow clays swirled together and covered with a clear lead glaze. This was manufactured in Staffordshire from 1740 to 1775.

More popular in Charleston in general, but relatively sparse at the Brewton site, was Jackfield, produced from about 1740 to 1790. The ware was made by various potters and featured a fine clay body that ranged from grey to purple to red, the red being the hallmark of the Staffordshire potters. The common feature was a deep black, oily or shiny black lead glaze. Jackfield vessels include teawares and pitchers. Bowls and teapots are the most common Charleston forms.

The most elaborate and most popular tea and table ware of the 18th century were porcelains from China. Relatively rare and expensive in the late 17th to early 18th centuries, they were increasingly popular and available as the 18th century progressed. Robert Leath suggests that porcelain had become fairly commonplace in South Carolina by the 1730s, and a decade later was advertised regularly among merchandise in the *South Carolina Gazette*; merchant David Crawford, for example, advertised, "a large assortment of China ware as breakfast cups and saucers, dishes, plates and bowls of all sorts, tea and coffee cups and saucers, also 3 compleat sets of color'd china for a tea table". (Leath 1999:50). Porcelains often comprise over 20% of the ceramics at elite townhouse sites, and comprised 5% of the Brewton assemblage; the majority of these are blue-on-white underglaze decorated.

Chinese porcelain was made from a combination of kaolin clay and a finely ground feldspathic rock, and can be distinguished from other ceramic wares by a high-gloss glaze fused to the body. The body is extremely tight-grained, and the glaze clings to it in a think translucent line on both sides. Those wares with an underglazed blue design are most common. Tea wares - handleless cups and saucers - are the most common forms recovered, but plates are also found in large numbers.

The 18th century proveniences also yielded numerous fragments from utilitarian ceramics. The two earliest ceramic types were represented by a single sherd each. North Devon gravel tempered ware consists of a smooth red and grey clay with quarts inclusions, hence its name. The interior of the vessel is coated with a thick apple-green lead glaze. The Charleston examples are usually cream pans or one-gallon pots. The North Devon wares were manufactured from 1650 until the third quarter of the 18th century and Buckley ware was manufactured from 1720 until the Revolution. Buckley ware features the agate-like body of red and yellow clays, but the heavy vessels are ribbed on the interior and/or exterior and covered with a thick black lead glaze (figure 42). Charleston forms include cream pans and bowls, glazed only on the interior, and large storage jars glazed on both sides (Noel Hume 1969:135).

The most common utilitarian ceramic on 18th century sites in Charleston are the body of wares known collectively as combed-and-trailed slipwares. Noel Hume attributes most of these wares to factories in Staffordshire and Bristol but British archaeologist David Barker suggested Buckley or Liverpool as a source for much of the slipware imported to Charleston. The majority of these wares feature a buff- to yellow body and are decorated with combed lines in iron oxide or manganese under a clear to pale yellow glaze. The simplest were trails of brown glaze over the buff body, sometimes combed into elaborate designs. Other variations occur with light trailed stripes over a black slip, or with "skillfully marbleized blend of white, dark, and light-brown slips." Noel Hume declines to date these variants with accuracy, but suggests that importation of these wares ended with the Revolution.

Slipwares are recovered in large numbers on Charleston sites. They average 10% of the ceramics for this period in Charleston and account for 25% of the Brewton assemblage. The large flatware pieces - shallow bowls, plates, and platters of all sizes - feature an unglazed exterior and molded rim reminiscent of pie crust. The interior features slips and spriggles of white, dark, and brown clay, often combed in elaborate designs. The hollow wares - most often mugs or cups of various sizes, but also pitchers and candlesticks - are thinner, glazed on both sides, and most often feature a series of brown clay dots with combed trailings on the exterior (figure 60).

In 18th century contexts, we also recover red-bodied slipwares trimmed with trailings of white clay. Sometimes these vessels feature splotches of green or brown glaze. All of these are attributed to potteries in the North American colonies, possibly Philadelphia or Salem, North Carolina. Carl Steen has recently suggested that the many Philadelphia potters were the source of these wares, and the *South Carolina Gazette* regularly advertises ships arriving from that port. The most common Charleston examples are called Trailed Philadelphia Earthenwares by Steen (1999), and match the description above. Cream pans and heavy, smaller bowls are the most common vessel forms recovered in Charleston. These are most common in the third quarter of the 18th century, and provide irrefutable archaeological proof of inter-colonial trade, a venture rarely discussed in the documentary record (Steen 1999:68); nine fragments were recovered from Brewton proveniences.

A second product of the Philadelphia potters common to Charleston consists of medium-sized bowls, with or without handles. The exterior of these vessels features a solid lead glaze in either brown, rust, or black, and an interior that features sloshed or swirled slips, or powdered glazes that run to the bottom of the vessel; Steen terms these Clouded wares; in Charleston they have been catalogued for a decade as "Mid-Atlantic earthenwares". Fifteen fragments of these wares were recovered from Brewton proveniences.

The 18th century earthenware assemblage also featured a number of lead-glazed earthenwares, in a variety of forms and glazes. The most distinct is a late 17th-18th century ceramics known here, and in Williamsburg, as Mottled ware. The coarse earthenware paste is thin, but otherwise similar to English slipwares. The vessels here are all mugs or tankards of various sizes. They feature a brown streaky glaze with manganese inclusions and bands of narrow

ribbing around the center of the vessel. The runniness of the glaze results in a relatively thin glaze near the rim and a thick puddling on the interior of the vessel. Michael Stoner has recently identified this ware in 1670s contexts at Charles Town Landing (South, Stoner and Eubanks 2001). Fifteen fragments were recovered from Brewton features.

The final class of 18th century ceramics recovered at 14 Legare street are the stonewares manufactured in the Rhineland. Noel Hume suggests that these wares were imported into England and later onto the colonies in large numbers throughout the 17th and first half of the 18th centuries. After 1760, the Rhineland's virtual monopoly was broken by the saltglaze potters of Staffordshire (Noel Hume 1969:276). The type known to archaeologists as Westerwald is grey-bodied and decorated in blue, and sometimes purple. Vessel forms for the period include chamber pots, small crocks, and mugs of various sizes; earlier 18th century sites contain jugs with bulbuous bodies and reed necks, and porringers. Sixteen fragments were recovered from the 18th century features.

The Rhineland potters also produced saltglazed stoneware in brown. Most famous are the "bellarmine" jugs with a bearded face. These 17th century vessels are rare in Charleston; more common are undecorated bottles. These were imported through the first half of the 18th century. British brown stoneware of the second half of the century are more commonly pots or mugs, but stoneware bottles from the late 18th century are also recovered. Brown stoneware vessels were recovered at Brewton.

The final group of utilitarian wares at Brewton was most numerous. These were lead-glazed redwares and coarse earthenwares of 18th century manufacture that have no formal names or types. A large number and variety of these were recovered. Reconstructable fragments include cream pans (figure 61) and crocks (figure 62).

The final class of ceramics, presumably used in the kitchen, were colono wares. Colono ware is a locally made, unglazed earthenware. It is recovered on all lowcountry historic sites from the early 18th century to the early 19th century. In Charleston it comprises about 6.5% of the ceramic assemblage; on rural plantation sites it may be as much as 50%. The Brewton assemblage contained 10% colono wares. Archaeologists have determined that much of this ware, rather than being Indian trade pottery, was made by African slaves. The most common forms are the globular jar and the shallow bowl; both types were recovered at Brewton. Some vessels copy European forms. The ware varies greatly in quality, ranging from thick, coarse sand tempered wares (classified at The Charleston Museum as Yaughan) to intermediately-thick burnished wares (Lesesne lustered) to fine, hard, micaceous wares (River Burnished). The latter type often has designs made from sealing wax in red or black. These are believed to be trade wares from Catawba Indian potters traveling the lowcountry (Crane 1993; Ferguson 1992).

Olive green bottle glass comprised the majority of the other kitchen wares. Other condiment and medicine bottles included those in clear and aqua glass. Particularly distinctive were the small aqua vials for holding medicines. The most elaborate glass item was recovered

from feature 3. This was fragments of a white glass perfume bottle, decorated in red dots and swirls. Such elaborate bottles were manufactured in Venice in the 17th and 18th century, and are very rare in Charleston (figure 54).

Architectural items comprised 36% of the Brewton assemblage and consisted principally of fragments of window glass, particularly the hand-blown aqua glass of the 18th century, and nails, all too corroded for positive identification. A variety of hardware pieces were also recovered. Arms items included a lead musket ball and a gunflint. Clothing items included brass and bone buttons, a clothing buckle, a brass hook, and four straight pins. The beads included four of glass, plus one of bone and two of shell. Personal items included two coins and umbrella parts. The most common furniture item were small brass upholstery tacks. A drawer pull was recovered as well. All of the tobacco artifacts were fragments of white clay pipes. Particularly distinctive was a single example of a c. 1710 style pipe (Julia King, personal communication). Activities items included straps from storage barrels, tool fragments, and children's marbles.

Motte-Alston Assemblage, c. 1770-1830

This larger assemblage includes features and zone deposits from across the site. The garden assemblage, which dates to c. 1770, is considered separately in the following section. A large number of reconstructible ceramics were recovered from these excavations. Elsewhere in the yard, the late 18th-early 19th century assemblage included many of the ceramics described above, with the addition of the refined earthenwares of this period.

Chinese porcelains are a major component of the Motte-Alston assemblage, comprising 15% of the ceramics. Colono wares, in contrast, decline in popularity, comprising only 8% of the ceramics. White saltglazed stoneware dinner and tea wares remain popular for a time, but are soon replaced by the relatively well made and inexpensive creamwares.

The most important ceramic development of the 18th century was the gradual perfection of a thin, hard-fired cream-colored earthenware that could be dipped in a clear glaze. The ware fired at a lower temperature than stoneware, and was thus a refined earthenware. The resulting wares were durable, attractive, and inexpensive, and they rapidly spread throughout the world. Pioneering efforts in this direction were made by Thomas Astbury and Thomas Whieldon, but it was Josiah Wedgwood who would ultimately perfect these wares and market them successfully. The original cream bodied ware featured clouded or swirled underglaze design in purple, brown, yellow, green and grey, introduced in the 1740s. In 1759, Wedgwood produced a wholly-green ware. All of these are loosely categorized as Whieldon Ware by American archaeologists. The Whieldon wares were manufactured until 1770, and are consistently present in 18th century contexts in small numbers. The Motte-Alston proveniences yielded 42 fragments, including a teapot lid, handles to teapot and pitcher, and plate fragments.

Far more numerous, in fact dominating the 18th century ceramic assemblage, were

creamwares. Creamware fragments, in fact, comprised 16% of the ceramics. This is in keeping with the almost universal popularity of cream-colored earthenware in the late 18th century. After Josiah Wedgwood went into business on his own in 1759, he found the green glazed ware was not so popular, and he turned his attention to refinement of the cream colored ware, later called Queensware. Wedgwood appears to have perfected the ware by 1762, although diverse archaeological sites have produced nearly irrefutable evidence of earlier use (cf. Deagan 1975). Regardless of the manufacture date, by 1770 these wares could be found in the four corners of the colonial world, and are ubiquitous on archaeological sites of the period. In her study of 18th century consumerism, Ann Smart Martin has comment that Wedgwood himself marveled how quickly creamware "spread over the whole Globe and how universally it is liked". What is remarkable in Martin's view is that Wedgwood managed to compress the cycle of luxury-to-common consumption into a very short period. By continually bringing out new styles, Wedgwood satisfied both the middle class consumer eager to display their knowledge of manners and the fashionably wealthy who sought to distance themselves from the nouveau (Martin 1994, 1996). Creamware came in highly decorated and expensive styles, and in relatively plain and affordable patterns. Like other members of the colonial gentry, Charlestonians evidently swarmed to the new ware. In addition to the common pattern, the Motte-Alston assemblage included several fragments of a distinctive overglaze hand painted set. These plates featured chains of circular designs in brown and yellow around the rim.

The creamwares were augmented after 1780 with pearlwares. Throughout the 1770s, Wedgwood continued to experiment with production of a whiter ware, which in 1779 he termed "pearl white." Thus 1780 marks the beginning of the era where British refined earthenwares feature a bluish tint to the glazing and blue pooling in the cracks and crevices. It was not Wedgwood's intention to replace the earlier creamware, but this did occur to a certain extent, as other potteries produced the new wares in quantity. In general, pearlwares are 17% of Charleston ceramic assemblages, compared to 25% creamware.

Pearlwares come in a wide range of decorations, compared to creamware. Earliest (1780-1810) was hand painting in underglaze blue, most often in chinoiserie designs. The Motte-Alston assemblage contains several significant examples of this ware. These include fragments of a cylindrical teapot, and several tea bowls, saucers, and cups. There are also examples of more elaborate, and likely more expensive painted pearlware vessels. Several fragments were recovered to a tea cup or cups featuring a delicately fluted sides and scalloped edges. The site also yielded fragments to two 'leaf' dishes, in an elaborate form of shell edged pearlware.

Shell-edged pearlware is perhaps the most readily recognizable historic ceramics. The ware comes most often in flatware - plates, soup bowls, platters - and features rims molded in a feathery design, which was hand painted in blue or green. The earlier pieces, c. 1780-1795, feature careful, individual brush strokes, accenting the individual feathers. By the early 19th century, the hand painting had deteriorated to a single swiped band around the rim. The early 19th century also witnessed rims molded in designs other than feathers.

Pearlware was also hand painted in a polychrome earth-tone pallet. These wares are most frequently tea wares - handleless cups and saucers. The colors of the 1780-1810 era are brown, sage green, cobalt blue, orange-rust, and yellow. The vessels feature small, delicate designs. While there is a wide range of patterns, the number is finite, and patterns are repeated across Charleston. The vessels represented include tea cups with no handles, open saucers, and small cylindrical coffee cups.

Two other decorative styles were applied to pearlware in 1795, and they dominate the early 19th century ceramics. Transfer or bat printing involved the creation of detailed designs in a myriad of patterns. The North Staffordshire potters, led by Josiah Spode, successfully produced this blue on white ware in 1784. This development, coupled with a significant reduction in the importation of porcelains from Canton after 1793, resulted in a large market for the new ware (Copeland 1994:7; Miller 1991). Transfer printed wares were the most expensive of the decorated refined earthenwares, are usually recovered in a wide variety of forms; plates of all sizes, bowls of all sizes, teacup and coffee cups, with or without handles, mugs and saucers. The list of service pieces is equally lengthy, including platters, tureens and teawares.

The British potters, including Wedgwood, continued to refine their glaze formulas so that by c. 1820 the blue tinge had been removed from the wares, leaving a white china. Much to the confusion of archaeologists, the same decorative motifs continue from pearlware to whiteware. Blue transfer printing gets lighter and sparser, and after 1830 appears in colors other than blue; black, brown, red and green. Annular wares likewise continue through the 19th century, with some discernable stylistic differences. Shell edged and hand-painted wares also remain popular after 1820. Throughout the antebellum period, undecorated white ware increase in popularity; the mid-century is characterized by heavy, undecorated wares, often in paneled or octagonal forms. Fragments of these wares dominate the Pringle-Frost ceramics.

Utilitarian stonewares and earthenware remain in use during the antebellum period, as do some colono wares. The most distinctive colono ware ceramics recovered from the antebellum proveniences are six fragments of what appear to be historic Native American, rather than African-American, ceramics. These feature a gritty paste, incised exterior, and red-filmed interior (figure 53).

Olive green glass bottles dominate the kitchen assemblage, followed by clear glass containers. The antebellum assemblage also included moderate amounts of brown bottle glass. Pharmaceutical glass included distinctive dark aqua medicine vials, hand blown with a distinctive pontil scar on the base. The most remarkable glass item was a personalized bottle seal, recovered from the basement of the house. The seal read "C. Pinkney" (figure 55). An identical seal was recovered by archaeologists at Charles' Pinckney's Snee Farm plantation in Mt. Pleasant. Ironically, there were no seals ascribed to Miles Brewton, like that recovered at 14 Legare Street (Zierden 2001). The Pinckney seal has been interpreted as a gift from Mr. Pinckney to Mr. Brewton, perhaps delivered to him or brought to a dinner. The kitchen group included bone-handled iron cutlery and fragments of brass pots and iron kettles.

The architecture group (38% of the assemblage) was dominated by window glass and iron nails. The majority of the window glass was pale green or aqua in color, and thus the hand-blown glass common through the first quarter of the 19th century. Crown glass began as a bubble of hand-blown glass, gradually worked into a disc. These then featured a thick edge, which was trimmed away and wasted, and a central pontil scar, or bulls-eye, which could be up to one inch thick. The circles of glass were known as 'crowns' and were shipped to America in crates, to be cut to size by the purchaser (Noel Hume 1969:234). A significant number of delft fireplace tiles were also recovered. The majority were hand painted in blue or purple (figure 48). Though the fragmentary, it appears that the purple set exhibits the more detailed interior scenes. Both the blue and purple-decorated tiles feature scenes framed in double circles, with additional decorations in the corners outside the circles. The motifs recovered all date to the first half of the 18th century, according to Ivor Noel Hume (1969:291). Corner patterns in both colors include foliate and oxhead designs. Also recovered were a few fragments of the famous overglazed transfer-printed tiles produced in Liverpool by Sadler and Green in the third quarter of the 18th century. While one of the examples features a trace of weathered red enamel, the remainder of the samples have the enamel completely removed, with just a shadow of the pattern remaining on the white ground. When held at an appropriate angle in good light, though, the decorations are clearly detailed scenes. Another distinctive item, recovered from the lower levels of fill beneath the privy, were several lead window cames (figure 50), H-shaped strips of lead designed to hold patterned panes of glass. Such windows characterize 17th century, but disappear by the early 18th century

The arms group included some of the 18th century ammunition, such as musket balls and a gunflint, but it also included the later percussion caps. The clothing group was relatively large (.99% of the assemblage) and varied, and included buttons of bone and brass. Several buckles of various sizes were recovered, of both brass and iron. A number of sewing items indicated that needlework was a common event on site; the assemblage included 37 straight pins, two wire hooks and eyes, a thread bobbin, and three thimbles. Five glass beads were recovered, the most common being the 18th century cornaline d'alleppo variety of green glass covered with opaque red glass. The most distinctive item was a gentleman's cuff link with a glass setting (figure 63).

The personal artifact group was also large (.53% of the assemblage) and varied, and included two paste jewels. These glass stones were popular in the second half of the 18th century (Fales 1995). The first was a small round 'diamond', while the larger was a rectangular 'amethyst'. Other items included three coins, two of them Spanish (figure 52). Newer items included a bone brush and two bone tooth brushes, and a slate pencil. Though tooth brushes were used in Europe as early as the 15th century, the bone handled brush was not invented until 1780 (Mattick 1993:162). They became common as the 19th century, with new ideas about hygiene and individual privacy, progressed. Short pencils of slate, for writing on slates, become more common on archaeological sites as the 19th century progresses. The final personal items were the lid to a small cosmetic container of brass and a brass book clasp.

Furniture items comprised .26% of the assemblage, and included the common brass upholstery tack as the most common artifact. Though the frequency of these usually increases as

the 19th century progresses (McInnis 1996), the number remains consistent through time at the Brewton site. Other furniture items include three drawer pulls, all of 18th century style, and three items of miscellaneous hardware. The most distinctive item was a candlestick of bisque porcelain, in the style of a column (figure 49).

Tobacco artifacts comprised 4.2% of the assemblage, and activities comprised 1.7%. The latter group was quite varied, and included artifacts for storage, gardening, fishing, equestrian maintenance, and leisure items. Metal straps for storage barrels were the most common, followed by fragments of clay flower pots. There was a single example each of a horse shoe, rake, fish weight and unidentified tool. The most unusual finds were two whetstones for sharpening knives or other tools (figure 51). The leisure group included four clay marbles.

The Brewton Garden Assemblage

Excavation of the trench sections in the formal garden during phase II produced both unique stratigraphy and a distinctive artifact assemblage (table 2; see also table 5). Unlike the rest of the yard, particularly the work yard, the artifacts in the garden appeared to be a single depositional event, described by archaeologists as a 'horizon'. Here, the dense deposit of bone, architectural rubble, and kitchen artifacts, appear to have been deliberately deposited for drainage and fertilizer. The majority of the artifacts are kitchen wares, and all appear to be primary refuse, much of it broken *in situ*. This assemblage is tabulated in table 4 at the Motte-Alston assemblage. The ceramics recovered included a large number of reconstructible Chinese export porcelain plates and tea wares, most of which were recovered from Trench 4 sections 1 and 2. Over a dozen plates, each of a different design were re-assembled (figures 44-46). Decorative arts experts Tom Savage (personal communication) has suggested that these seemingly unmatched plates would have been used together on the table during this time. The same excavation units revealed a set of nested delft platters, octagonal in shape and decorated in blue (figure 43), and a variety of table glass (figure 47). The table glass included two enamel-twist goblet stems, various candlestick and decanter fragments, and a number of large tumblers in a molded 'waffle' pattern. Excavations of additional trenches by restoration specialists recovered a lead glazed redware cream pan broken in place (figure 39d, 40) and a two-gallon jug of brown saltglazed stoneware (figure 41).

Architectural artifacts in the garden assemblage included a relatively small number of nails and a large quantity of window glass, as well as 18 delft tile fragments. Arms included a single gunflint and a single musket ball. The only clothing items were seven brass buttons and two brass buckles, along with six glass beads. Personal items included five slate pencils and a coin. The furniture was represented by four fragmentary candlesticks, some of glass, and a box latch. Activity items included three marbles and eleven flower pot fragments.

Table 2
Quantification of the Brewton Garden Assemblage

Kitchen	3298	63.85%
Architecture	1481	28.60%
Arms	2	.03%
Clothing	19	.36%
Personal	6	.11%
Furniture	4	.07%
Tobacco	341	6.60%
Activities	14	.27%

Pringle-Frost Assemblage, c. 1840-1890

The Pringle-Frost assemblage was the largest of the three groups of artifacts. The proveniences contained many re-deposited, earlier artifacts, but also a number of items associated with the mid to late 19th century. Only those manufactured during this period will be described here in detail. For a complete listing of artifacts, see table 3 and 4. The ceramics associated with the mid to late 19th century recovered from Charleston sites include whitewares, white porcelains, yellow ware and Rockingham wares. A variety of American stonewares replace those from Germany for utilitarian purposes. Archaeological ceramics decline in quantity and quality after 1840. By that time, much of the city's refuse was being hauled to central dumping areas, and city residents were working to keep their yard refuse-free. Generally, ceramic styles of the 1830s continue through the century with few datable changes, and ceramics thus become less useful for dating archaeological proveniences.

Kitchen artifacts diminish in numerical significance in the late 19th century, comprising 33% of the assemblage. The kitchen assemblage is also more varied, but still includes a significant number of ceramics. Many of these are British refined earthenwares. The British potters, including Wedgwood, continued to refine their glaze formulas so that by c. 1820 the blue tinge had been removed from the wares, leaving a white china. Much to the confusion of archaeologists, the same decorative motifs continue from pearlware to whiteware. Blue transfer printing gets lighter and sparser, and after 1830 appears in colors other than blue; black, brown, red and green. Annular wares likewise continue through the 19th century, with some discernable stylistic differences. Shell edged and hand-painted wares also remain popular after 1820. Moderate amounts of hand painted, annular, and transfer printed whitewares were recovered from the 19th century proveniences. Throughout the antebellum period, undecorated white ware increase in popularity; the mid-century is characterized by heavy, undecorated wares, often in paneled or octagonal forms. Fragments of these wares comprise 8% of the Pringle-Frost ceramics.

Two types of porcelain are important dating tools for 19th century sites. "Canton" refers

to the poorer-quality Chinese export porcelain that reached the United States and Europe in the first four decades of the 19th century. This ware is distinguished from the blue-on-white wares of the previous century by a greyer paste and glaze, thicker vessels, and an overall darker and sloppier painted execution (Noel Hume 1969:262). With the opening of the China trade in 1784, these wares were shipped to America in great quantity. The Brewton site, however, contained only a few fragments.

Far more common (5% of the ceramics) are the plain white porcelain manufactured and distributed in the United States after 1850. These wares increase in importance in the second half of the 19th century, and are an important dating tool. These all-white dishes were used for every day ware; after 1880 they were often gold-trimmed. White porcelain comes in a variety of tableware forms, including plates and miscellaneous holloware forms.

Utilitarian wares common to the 19th century include a variety of stonewares produced at regional potteries throughout the eastern United States. Most of these continue the Rhenish tradition of the earlier centuries with brown and gray saltglaze finishes on large crocks and jugs, though many of the 19th century vessels are thicker and heavier. Most of the 19th century stonewares, however, are finished on the interior with a lustrous brown glaze known as albany slip. A group of potteries in Edgefield, South Carolina produced a distinctive ash-glazed crockery from 1800 to 1880, known collectively as Edgefield stonewares. Many are distinguished by a dark olive to light greenish-grey shiny alkaline glaze on a coarse dark grey body. Some of the earlier vessels are decorated in white and brown slipped designs (Baldwin 1993). Many of these potteries used African-American slaves, as revealed in the pots signed by Dave (Drake), owned by Harvey Drake in 1833, by potter Lewis Miles before 1840, and by the Landrum family after 1846 (Koverman 1998). While much of the Edgefield pottery survives in lowcountry households, surprisingly little finds its way into the archaeological record; this may be due to its durability. More common at Brewton and elsewhere are a variety of saltglazed stoneware crocks and containers, most featuring the Albany-slipped interior.

The kitchen group from the Pringle-Frost era is instead dominated by glass containers. While the olive green bottles of the 18th century continue into the 19th century, clear glass becomes far more common, and is augmented by container bottles of brown (often for beer) and blue (often for bottled water in the postbellum period). A variety of patent medicine bottles are also present. Glass fragments comprised the remainder of the kitchen groups, about 40%. Fragments of green bottle glass were the most common, followed by clear container glass. Green glass bottles continue to be an essential part of 19th century foodways; they were hand-blown until 1820, and then were blown into a mold. For the remainder of the century, the bodies of glass bottles were molded, and the necks and lips were finished by hand. Mold seams on these bottles are visible on the bottom and sides of the containers, and disappear at the hand-blown neck. Clear container glass increases in quantity in the 19th century, and particularly so at the Brewton site. Container glass in aqua was less common than clear glass. These bottles were often for condiments and sauces, as well as for medicines (though, whenever possible, the fragments of medicine bottles were separated from the larger, thicker fragments of condiment bottles).

Another important component of postbellum kitchen assemblage are tin cans for preserved foods, which appear in the mid-19th century. They are often poorly preserved in the archaeological record, and are simply flat fragments of rusty iron when recovered. These were fairly common in the Pringle-Frost assemblage.

Architectural materials dominate the Pringle-Frost assemblage, and reflect repair and changes to the property, rather than significant construction. Large amounts of flat window glass are present; a great deal of this was recovered from the rear garden and may reflect storm damage and repair to both the privy and a glass greenhouse visible in late 19th century photographs. A large number of nails are also present, as well as a range of hardware items.

Arms reflect a change in ammunition type, and include percussion caps, pistol shot and a variety of small lead shot. These comprised .7% of the assemblage, an unusually large number. The clothing group was also quite large, nearly 5% of the assemblage. Included in this group were a very large number of straight pins and utilitarian buttons, particularly those of bone and porcelain, each featuring the four holes associated with the 19th century. Both bone and porcelain buttons were present in a variety of sizes (figure 59). Shell and iron buttons were present, as well, as were hooks, snaps, and buckles. Many of these were recovered from proveniences that captured 'lost' items, such as the drains and the fill beneath the kitchen floor (figure 56). This inflated number may indicate that sewing was an important part of daily events in the postbellum household, or it could reflect unusual discard activity.

The personal group was also quite large and varied, comprising nearly 2% of the assemblage. Dominating the group were tooth brushes and slate pencils, as well as 19th century pocket change. Women's activities were represented through the new hair combs of synthetic materials, parasol parts, and fan fragments (figure 57). Men's items include a pocket watch key, and an eyeglass lense. Tobacco pipes, in constrast, were reduced in significance, and comprised 1.5% of the assemblage.

The activities group was also quite large and varied. Flower pot fragments dominated this assemblage. The utilitarian red clay containers increased in importance as the 19th century progressed, and gardening as a source of income is documented for the Brewton residents during this period. The late 19th century is also marked by an increased use of toys, particularly porcelain dolls for girls (figure 58). A large number of marbles were also recovered. Finally, an cowrie shell, of African or Caribbean origin, was recovered. This is likely the property of an African American resident of the Brewton property.

Table 3
Quantification of the Assemblage (Phase I)

	Brewton	*Motte-Alston*	*Pringle-Frost*
Kitchen			
Porcelain, b/w oriental	37	327	116
overglazed	4	30	6
undecorated	1	25	
Canton			4
American white		8	110
ginger jar		1	
White saltglazed stoneware	72	174	34
grey saltglazed stoneware	5	15	19
brown saltglazed stoneware	22	73	18
Westerwald	16	63	19
Nottingham	1	5	2
Scratch Blue stonware		4	3
slip dipped stoneware		1	
Elers ware	1	5	
Alkaline glazed		4	1
misc. 19th century		2	10
ginger beer bottle		1	
Whieldon ware	1	8	1
Creamware, undecorated	7	415	173
hand painted		10	5
transfer printed		2	2
finger painted		4	1
aqua slip		1	
Canary ware			1
Pearlware, undecorated		67	
hand painted		96	
transfer printed		30	
shell edged		25	
annular		17	
mocha		3	
scratch blue		1	
Whiteware, undecorated		25	290
hand painted		1	16
transfer printed		5	76

annular		2	19
cable			6
sponged			2
shell edged			7
Yellow ware, undecorated		3	8
annular			4
Rockingham			3
Slipware, combed and trailed	192	290	83
slipware, American	9	21	15
slipware, sgraffitto	2	8	
Mid-Atlantic ware	15	17	2
North Devon ware	1	7	5
Delft, undecorated	17	67	10
blue on white	88	179	41
sponged	2	2	1
polychrome	2	2	3
Faience		1	
Majolica	3		
Misc tin enamelled			2
Portobello ware			1
Astbury	8	13	5
Agate ware	1	15	
Jackfield	3	10	2
Buckley	1	15	
Mottled ware	15	21	
Earthenware, black lead glaze	8	57	8
brown lead glaze	7	48	18
yellow/tan glaze	11	10	
nottingham-like	10	15	4
black redware	10	23	9
brown redware	46	38	3
unglazed	3	18	63
Colono ware	140	209	32
Historic Indian		6	
olive green bottle glass	355	1365	665
clear bottle glass	53	299	999
amber glass		22	202
light olive glass	3	18	68
blue bottle glass	1	6	33

milk glass		2	20
blue table glass	1	9	1
purple table glass			2
red table glass			1
red/white perfume bottle		10	
grey bottle glass			3
soda water bottle			2
"7up" green bottle			6
sandwich glass			1
bottle lid/stopper			3
pharmaceutical glass	11	33	154
tin can	57	79	673
crown cap		2	10
cutlery	1	1	8
kettle, copper		25	
kettle, ferrous	5	11	15
brass jar lid			1
Architecture			
flat glass	373	1364	3063
shutter pin			1
padlock			1
porcelain insulator			4
nails, ud	514	557	3158
tack	4	5	68
screw	2	1	18
spike		1	7
hinge	2		5
bolt	2	8	11
latch	2	4	2
hearth pot hook/chain	1	2	2
lead window casing	1	16	26
delft tile		182	163
roof tile	2	35	18
sewer pipe		4	28
Arms			
musket ball	1	1	
gunflint	1	1	
percussion cap		3	3
shotgun cartridge			1
pistol shot			10

lead shot			10
gun trigger			1
Clothing			
button, brass	4	7	24
button, bone	1	8	73
button, porcelain			84
button, glass			4
button, shell			56
button, ferrous			10
collar stud			8
buckle, ferrous	2	13	6
buckle, brass		3	4
thimble		3	4
thread bobbin, etc.		1	5
scissors			1
snap			2
hook/eye	1	2	14
rivet			1
cuff link		1	1
lacing tip		1	
straight pin	4	37	250
bead, glass	2	5	17
bead, other	3		
shoe grommet			6
Personal			
jewelry fragment			7
paste jewel		2	1
watch key			1
book clasp		1	3
toothbrush		2	19
hair brush		1	
comb, tortoise			3
comb, hard rubber			6
hair pin			1
fan fragment			12
eyeglass lense			1
umbrella part	6		3
cosmetic container		1	5
syringe			1
pencil, slate		1	15
coin	2	3	9

Furniture			
upholstery tack	15	14	17
drawer pull	1	4	2
misc hardware		3	1
candlestick, brass			1
candlestick, porcelain		1	
clock part			1
curtain ring			10
Tobacco			
clay pipe/stem	238	347	193
snuff can			1
glass snuff jar	5	2	
Activities			
flower pot		9	217
barrel strap	9	12	12
rake		1	
whet stone		2	
bale seal		1	2
fish hook/weight		1	1
horse shoe		1	1
tool part	2	1	
marble	2	4	34
doll part			11
toy animal			1
domino			2
delft gaming piece			1
cowrie shell			1

Table 4
Quantification of the Assemblage (Phase II)

	Brewton	*Motte-Alston*	*Pringle-Frost*
Kitchen			
Porcelain, b/w oriental	1	817	73
overglazed		14	6

undecorated	1	12	3
White		4	20
White saltglazed stoneware		158	22
grey saltglazed stoneware	3	30	1
brown saltglazed stoneware		32	3
Westerwald		36	1
Nottingham	1	13	2
Scratch blue stoneware		10	
slip dipped stoneware	1	13	
Elers ware		10	1
Alkaline glazed			1
Whieldon ware		34	4
Creamware, undecorated		116	51
hand painted		8	1
transfer printed			1
Pearlware, undecorated		8	4
hand painted		4	3
transfer printed		20	6
shell edged		4	
annular		5	5
Whiteware, undecorated		6	53
hand painted			1
transfer printed			3
annular			2
shell edged			1
Yellow ware			2
Rockingham			2
Slipware, combed and trailed	16	348	60
Slipware, American		9	1
Mid-Atlantic earthenware		10	1
North Devon ware		4	
Delft, undecorated	4	83	9
blue on white	7	139	23
polychrome	1	17	1
Portobello ware			1
Astbury ware		5	1
Agate ware		4	
Jackfield		11	2
Buckley		2	
Mottled ware		6	4
Earthenware, black lead glaze		36	4

brown lead glaze	1	12	1
brown redware		18	3
unglazed		11	5
El Morro ware		2	
Southern European ware		19	
Colono ware		79	9
olive green glass	15	375	85
clear bottle glass		117	221
amber glass			5
light olive glass		21	
blue bottle glass			3
milk glass			14
pharmaceutical glass	2	57	3
table glass		604	22
goblet		31	
tumbler		58	
decanter		11	
painted		3	
blue		4	
tin can			12
kettle, ferrous	1		3
Architecture			
flat glass	15	1070	604
nail, ud	26	2	477
screw			3
spike			2
delft tile	1	18	19
wire nail			31
brass nail			15
Arms			
musket ball			8
gunflint		1	
percussion cap		1	
Clothing			
button, brass		7	1
button, porcelain			6
button, shell			3
buckle, brass		2	

thread bobbin, etc		1	
straight pin		3	2
bead, glass		6	1
shoe grommet			1
Personal			
comb			3
slate pencil		5	2
coin		1	2
Furniture			
upholstery tack			4
candlestick, brass		4	
box latch		1	
Tobacco			
pipe stem	9	257	26
bowl frag		84	
Activities			
flower pot	1	11	52
barrel strap			6
tool	1		
marble		3	3
doll part			4

Temporal Changes in Artifact Patterning

In 1977, Stanley South published the seminal work *Method and Theory in Historical Archaeology*. In this work, South proposed an analytical method which classified artifacts by function. The seven functional groups - kitchen, architecture, arms, clothing, personal, furniture, pipes, and activities - covered the range of domestic activities at British colonial sites. South went on to note that there were broad regularities in the relative proportions of these artifact groups across colonial, and possibly Federal, America, reflecting the "typical" range of activities on domestic sites. He termed this regularity the Carolina Artifact Pattern. Any deviation from the pattern should reflect different activities at the site.

Since 1977, South's pattern recognition approach has been widely used, and in some cases abused, by historical archaeologists. South himself (1988) has argued that pattern recognition should be simply a first step in studying cultural processes responsible for behavior reflected in artifact patterning. Subsequent researchers have suggested changes in the placement of certain artifact types (Garrow 1982). Others have named a variety of patterns, designed to elucidate variation in the material culture on rice plantations, cotton plantations, yeoman farm sites, urban, public, and industrial sites (see Jackson in Zierden, Drucker and Calhoun 1986).

South's methodology has always been used as an organizing tool for the Charleston artifact assemblages, allowing for direct intersite comparison. In the past decade, it has become apparent that a variety of factors influence artifact patterning, ranging from human behavior to the physical site formation processes to technological developments and marketing trends in the material culture itself. Julia King (1990) has proposed a different classification scheme for the analysis of intersite spatial patterning at colonial sites in the Chesapeake region; she has recently applied this technique to a lowcountry plantation site (King 1992). This technique considers domestic artifacts and architectural materials separately. Following her example, various classes and types within the kitchen and architecture group are considered separately.

Throughout the past decade, the material culture of Charleston sites have been subdivided temporally for sites occupied throughout the city's 300 year history. These temporal subdivisions are based on specific site events and general trends in Charleston's development. Charleston proveniences and their materials have generally been separated into three temporal subdivisions: 1670 to 1750, 1750 to 1830, and 1830 to 1900. The early period corresponds to Charleston's role as a frontier outpost and emerging port city. The second marks Charleston's "golden years" as a leading seaport and center of wealth, and the third corresponds with Charleston's economic decline and stagnation. These periods also correspond to changes in ceramic and glass technology. The early period is that of relatively scarce and expensive material culture; the second corresponds to the rise of the British pottery industry and the development of refined earthenwares, and the third to a decline in new ceramic types and the ascendancy of mass-produced glassware.

These temporal subdivisions are more or less comparable for a number of Charleston sites.

Development of baseline data for this analysis began with excavations at the Heyward-Washington house in 1991 (Zierden 1993). At that point, five to six assemblages were available for each of the three temporal periods. In each case, the majority of the samples were from elite townhouse sites, but at least two were from other types of sites: middle class residential, mixed residential/commercial, or public. That analysis will be recapped here, and comparisons made with the Brewton house data.

Though the dates do not correspond exactly, the Brewton and Motte-Alston assemblages will be compared to the 1750-1830 data, and the Pringle-Frost assemblage will be compared to the 1830-1900 data. The latter group is particularly important, for the Brewton site produced rather substantial assemblages for this period, a situation that has not been true for other Charleston sites. This will provide an opportunity to more closely examine the material culture of this period.

Organization of the data begins with the broad categories proposed by South. The relative proportions of these categories remain more or less consistent through time, and remarkably similar to the Carolina Pattern, supporting South's original contention that this pattern reflects typical behavior on a domestic site. The Carolina Pattern does not appear to be particularly sensitive to variables such as status and ethnicity; the relative proportions are instead affected by site formation processes and technological changes.

Kitchen artifacts dominate the assemblages and remain rather consistent through time, although relative proportions of various artifact types change. Kitchen materials average 50% of the assemblage, and tend to drop in relative proportions in the post-1830 period. This is true for the Brewton assemblages, as the kitchen group remains at 50% through the 1830s, then drops to 33%. Architectural materials, the other major category, demonstrates a consistent increase through time on most Charleston sites, no doubt reflecting the accumulation of architectural debris as lots were rebuilt upon and standing structures renovated, repaired, enlarged, or demolished. Architectural materials average 25% of Charleston assemblages in the early 18th century, and increase to 33% in the late 18th century and 41% in the 19th century. This assemblage, of course, does not include the volumes of brick, mortar, and slate rubble recovered on Charleston sites. This significant increase through time suggests that factors other than the activities of daily life affect the relative presence of architectural material. The Brewton house materials generally follow this trend. They average 36% of the Brewton, mirroring the average Charleston proportion for this period. Architectural materials rise slightly to 38% in the Motte-Alston period, and increase further during the Pringle-Frost tenure to 53%. This suggests some damage and degradation, and perhaps repair, during this period.

Arms and furniture materials comprise relatively minor components of the artifact assemblages, and remain consistent through time. The arms items average .3% through time; this suggests that the use of arms remained relatively consistent through the study period. Likewise, furniture artifacts comprise about .2% over the two hundred year period, suggesting little variation in the accumulation and loss of furniture (bearing in mind that very little furniture would

be cycled into the archaeological record.) The Brewton house assemblages are remarkable for their relative lack of arms materials in the Brewton and Motte-Alston assemblages. Arms materials are much higher in the Pringle-Frost assemblage, and consists of the newer type of ammunition. The Brewton site contains an average amount of furniture items, compared to other Charleston sites. The early Brewton assemblage contains a slightly higher amount than average, at .6%

Clothing and personal items also form minor components of the assemblage, but these increase in number through time. This suggests that such items are increasingly available, and perhaps that the Charleston populace was increasingly able to afford them through time. Clothing items increase from .6% in the early 18th century to 1.2% in the late 18th and 1.8% in the 19th century. Personal items also increase from .2% to .5% These two groups also increase in variety during the study period. These trends are mirrored at the Brewton house. Clothing items are above the average for the Brewton and Motte-Alston assemblage, and slightly higher for the Pringle-Frost assemblage. The nearly 5% clothing items in the Pringle-Frost assemblage suggests a good deal of clothing manufacture, repair, or discard occurred during this period; straight pins are particularly numerous in this assemblage. The same is true for personal items during the Pringle-Frost period. This again suggests that more trash remained on the Brewton property in the second half of the 19th century than at other townhouse sites.

The greatest variation occurs in the pipe group, suggesting dramatic changes in tobacco smoking habits and popularity, or at least in the acoutrements. The ubiquitous white clay pipes comprise 15% of the early 18th century component for the city, but decline precipitously by the late 18th century, dropping to 5%. Though white clay pipes were manufactured throughout the 19th century, the further decline in popularity to 1.6% in the mid-19th century. Though fewer in number for all periods, the Brewton house pipes present a similar trend. They comprise 10% of the Brewton assemblage, drop to 4% in the Motte-Alston, and decline further to 1.6% as the 19th century continues.

Finally, there is a slight decline in popularity of artifacts related to activities. Such artifacts comprise 4% in the early 18th century and about 1.5% in the late 18th and 19th century assemblages. This general trend would suggest a greater segregation of home and work place as the study period progresses, or at least a narrowing of the range of activities conducted on domestic sites. It must be noted, however, that the average of 4% for the early 18th century masks a tremendous range among the sites of this period, from .4% to 16%. It may be that the percentage of activities is generally consistent through time, but highly variable from site to site. The activities group remains relatively consistent through the early 19th century at Brewton, averaging 1.6%. Like the other categories, the figure rises for the late 19th century to 4.5%. Many of these items reflect leisure as well as work activities, and again suggest a greater occurrence of on-site disposal and loss.

Specific artifact types and groups provide a more detailed picture of the archaeological signature for different temporal periods. A variety of artifact types and classes in the kitchen

group were compared and contrasted. The relative percentage of ceramics to glass remains consistent through the 18th century (ceramics are 62% and 57% of the kitchen group), but declines rapidly after 1820 to 38%; during the 19th century, technological innovations led to mass production, and thus discard, of glass containers. This is mirrored in the glass category itself, where olive green bottle glass gradually declines in popularity (29% to 26% to 16%) and clear bottle glass, the hallmark of machine made glass, increases from 6% to 7% in the 18th century, and then to 20% of the kitchen group in the 19th century. These trends were mirrored in the Brewton assemblages. Ceramics are 64% of the Brewton assemblage, and 59% of the Motte-Alston assemblage, but only 43% of the Pringle-Frost group; glass artifacts rise proportionately, from 36% of the kitchen items to 57%. Olive green glass is 22% of the Brewton and Motte-Alston kitchen groups, but only 11% of the Pringle-Frost kitchen materials

Specific aspects of the ceramics group are temporally sensitive, as well. Tablewares gradually increase through time, relative to most utilitarian wares. This is no doubt due to mass production of refined earthenwares, most of which were tablewares, and the mass production of glass containers, which partially replaced utilitarian ceramics. One problem with this particular analysis is that some of the refined earthenwares of the 19th century were utilitarian - large bowls, chamber wares - that are difficult to discern in fragmentary form and so are counted with the tablewares. Nonetheless, the types counted as tablewares comprise 61% of the ceramics in the early 18th century, 80% in the late 18th century, and 91% in the 19th century.

The relative percentage of specific ceramic types were also examined for temporal variation. Some of these are temporal markers anyway; the percentages were calculated as a baseline for additional work, in hopes that such a profile may aid in dating proveniences for the future. The first type was colono ware. Previous researchers have associated this ware primarily with the 18th century (Ferguson 1992; Anthony 1986) and the Charleston data support this. Further, scholars have noted variation in the amount of colono ware relative to the distance from Charleston (Anthony 1989). Colono ware sometimes comprises over 50% of the ceramics on outlying plantation sites; closer to the city, the ware can be as little as 10%. In early 18th century Charleston, colono wares average 17% of the ceramics. By the late 18th century they are only 5%, and by the 19th century only .7%. In fact, the bulk of the 19th century examples are believed to be the result of redeposition. The Brewton data mirror this trend, but in generally colono wares are more common here. They are 18.3% of the Brewton ceramics, 8.2% of the Motte-Alston, and still 2.5% of the late 19th century ceramics.

Chinese porcelain has been considered a marker of elite socioeconomic status, particularly for the 17th and 18th centuries, and the Charleston data appear to support this suggestion. Porcelain jumps from 10% in the early 18th century to 18% in the late 18th, a period encompassing Charleston's economic apex. This proportion declines only slightly, to 14% in the 19th century, suggesting some continuation of this ceramic as a popular item in elite households. Chinese export porcelain dominated the Brewton house assemblages, particularly the Motte-Alston. Porcelain is 5.4% of the early assemblage, 15% of the Motte-Alston ceramics, and 10% of the Pringle-Frost ceramics.

Creamware was also popular with the Brewton households, though somewhat less so than at other townhouses. Creamware was developed in the 1750s and by the 1770s had become the most popular type of tableware. By the 1820s the ware had declined somewhat in popularity, the delicate tablewares replaced with heavier pieces of a more utilitarian nature. Creamwares comprise nearly 20% of Charleston's late 18th century ceramics and 15% of the 19th century ceramics. At Brewton, creamware is only .9% of the late 18th century assemblage (deposited principally before the invention of creamware), but jumps to 16% for the Motte and Alston family era. It remains at 14% throughout the 19th century.

The final area of comparison was a measure of the relative density of artifacts per provenience for the three periods. This should measure the level of discard activity in the work yard, as ideas about sanitation and the landscape changed through the 19th century. Other archaeologists have noticed that the urban archaeological site "disappears", or at least changes form, as the 19th century progresses; wholesale discard of the refuse of daily life is replaced with off-site municipal trash disposal, and the kitchen sheet midden is replaced by a few toys and pet burials. Relative artifact density , and relative bone density, then, should measure the level of use of the site for the affairs of daily life. A variety of proveniences were available for each of the three periods, including zone deposits of various depths and features of a variety of sizes and functions. A more accurate measure, artifact density per cubic foot of excavated soil, is only available on a general site level.

Though somewhat arbitrary, the present measure by number of proveniences did reveal some interesting trends. On average, early 18th century deposits contained 122 artifacts per provenience (67 proveniences) and the late 18th century assemblage contained 159 artifacts per provenience (205 proveniences). Nineteenth century proveniences, in contrast, contain only 22 artifacts per provenience (84 proveniences). This reflects a tremendous shift in refuse disposal practices. The sparse 19th century assemblage suggests that much less refuse was cycled into the individual archaeological site during this era, and was probably deposited more selectively. By the end of the antebellum period, off site refuse disposal appears to be the norm. In contrast, the Charleston yards were intensely utilized for refuse disposal in the late 18th century; moreover, the yard was utilized for a number of purposes, reflected in both the artifact density and the large number of proveniences. The early 18th century yards, in contrast, exhibited less alteration, though refuse disposal might be equally intense. As mentioned above, the Brewton site did not fit this trend. For the Brewton era, there were 85 artifacts per provenience. The Motte-Alston assemblage (excluding the garden) contained 135 artifacts per provenience. The late 19th century households discarded 269 artifacts per provenience.

It is only with the completion of over twenty archaeological projects that the above analysis is possible. This discussion has been descriptive in nature, but it has demonstrated that the archaeological record is temporally sensitive to a variety of technomic, social, and physical phenomena. These statistics are more broadly interpreted in Chapter VII.

Table 5
Temporal Changes in Charleston Artifact Assemblages

	C. 1720-1760 *	C.1760-1830#	C.1830 1880@
Kitchen, % total	55.81	58.47	43.63
Architecture, % total	26.0	33.64	48.32
Arms, % total	.19	.30	.24
Clothing, % total	.64	1.13	3.52
Personal, % total	.29	.45	.61
Furniture, % total	.25	.20	.18
Pipes, % total	11.25	4.45	1.39
Activities, % total	5.47	1.31	2.05
Ceramics, % kitchen	59.2	58.59	35.68
Glass, % kitchen	41.0	41.46	50.44
Tableware, % ceramics	58.42	81.98	88.09
Utilitarian, % ceramics	41.57	18.01	11.90
Colono ware, % ceramics	22.36	4.97	1.27
Oriental porcelain, % ceramics	6.07	20.38	15.34
Creamware, % ceramics		20.61	11.24
Pearlware, % ceramics		12.99	7.43
Olive green glass, % kitchen	32.52	27.29	18.59
Clear bottle glass, % kitchen	5.46	6.65	22.04
Window glass, % architecture	22.90	39.21	43.92
Total # artifacts/provenience	**122**	**159**	**22**
total # proveniences	67	205	84
total # artifacts	8229	32,746	18,670

* assemblage composed of **six** sites: Heyward-Washington, John Rutledge, Miles Brewton, Beef Market, First Trident, McCrady's Longroom.

assemblage composed of **six** sites: John Rutledge, Miles Brewton, William Gibbes, Beef Market, First Trident, 66 Society St.

@ assemblage composed of **five** sites: Miles Brewton, Aiken-Rhett, John Rutledge, Heyward-Washington, 66 Society.

Table 6
Comparison of Brewton Assemblages to General Patterns

	Brewton	*Motte-Alston*	*Pringle-Frost*	*Carolina Pattern*
Kitchen	49.59	54.3	33.49	60.3
Architecture	36.53	38.11	53.21	23.9
Arms	.16	.07	.70	.5
Clothing	.72	.99	4.78	3.0
Personal	.96	.53	1.94	.2
Furniture	.64	.26	.20	.2
Pipes	9.76	4.17	1.56	5.8
Activities	1.60	1.71	4.57	1.7
porcelain, % C.	5.44	15.35	9.95	
creamware, % C	.9	16.6	14.3	
Colono ware, % C	18.3	8.2	2.5	
table glass, %K	3.4	3.31	4.37	
C-P-F, % tot	2.32	1.78	6.92	
colono, % C	18.13	8.2	2.52	

Figure 42. Buckley ware cream pan and crock, from N264.9W313.5

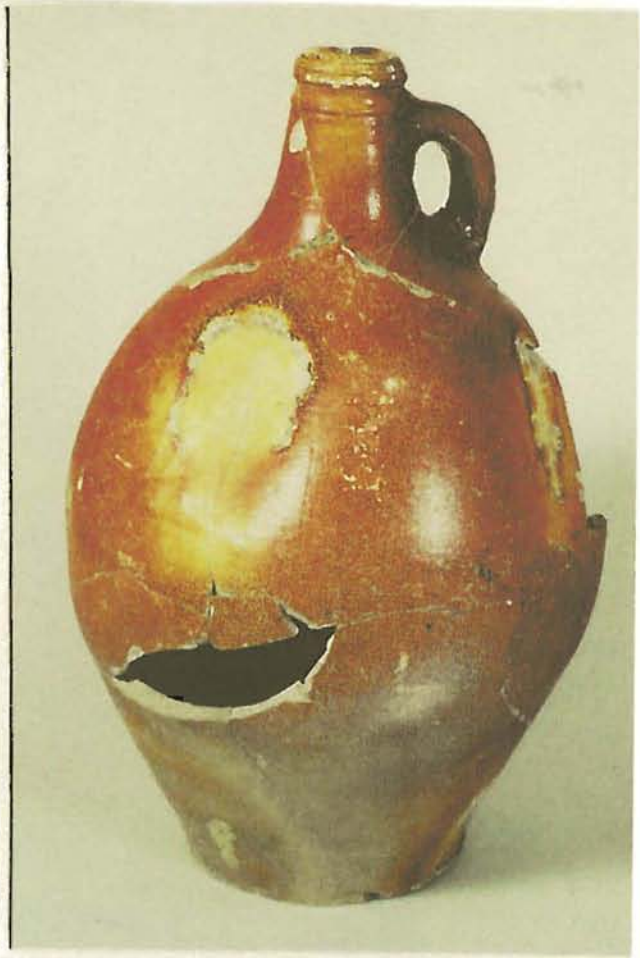


Figure 41. Brown saltglazed stoneware jug from T

Figure 44. Chinese export porcelain plates from Trench 4 section 1

Figure 46. Examples of Chinese export porcelain from t

Figure 48. Examples of delft tiles

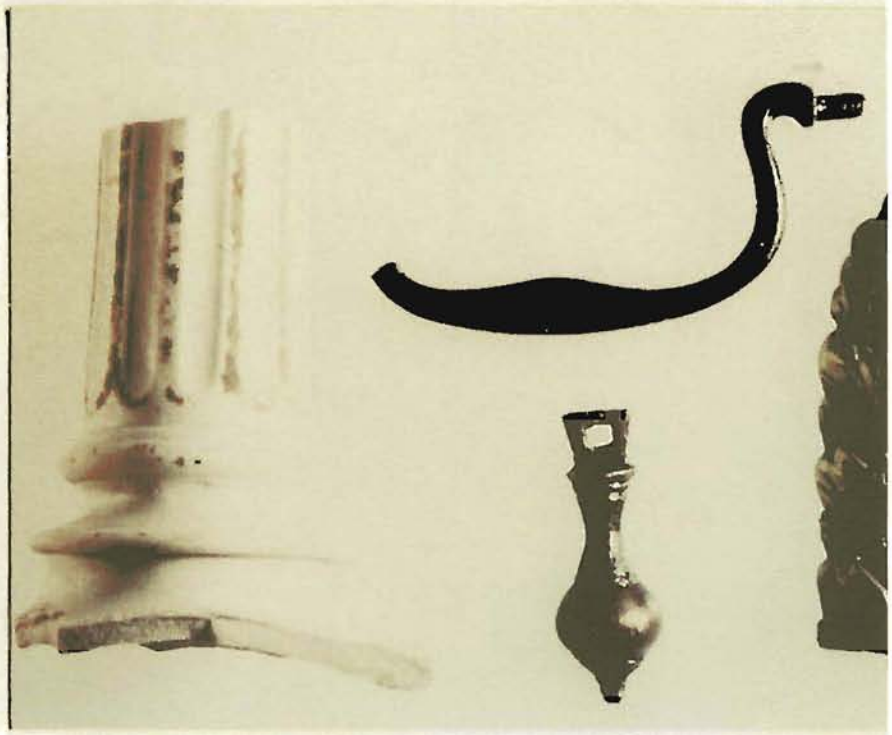


Figure 49. Examples of furniture hardware

Figure 52. Spanish coins; the smaller is pierced

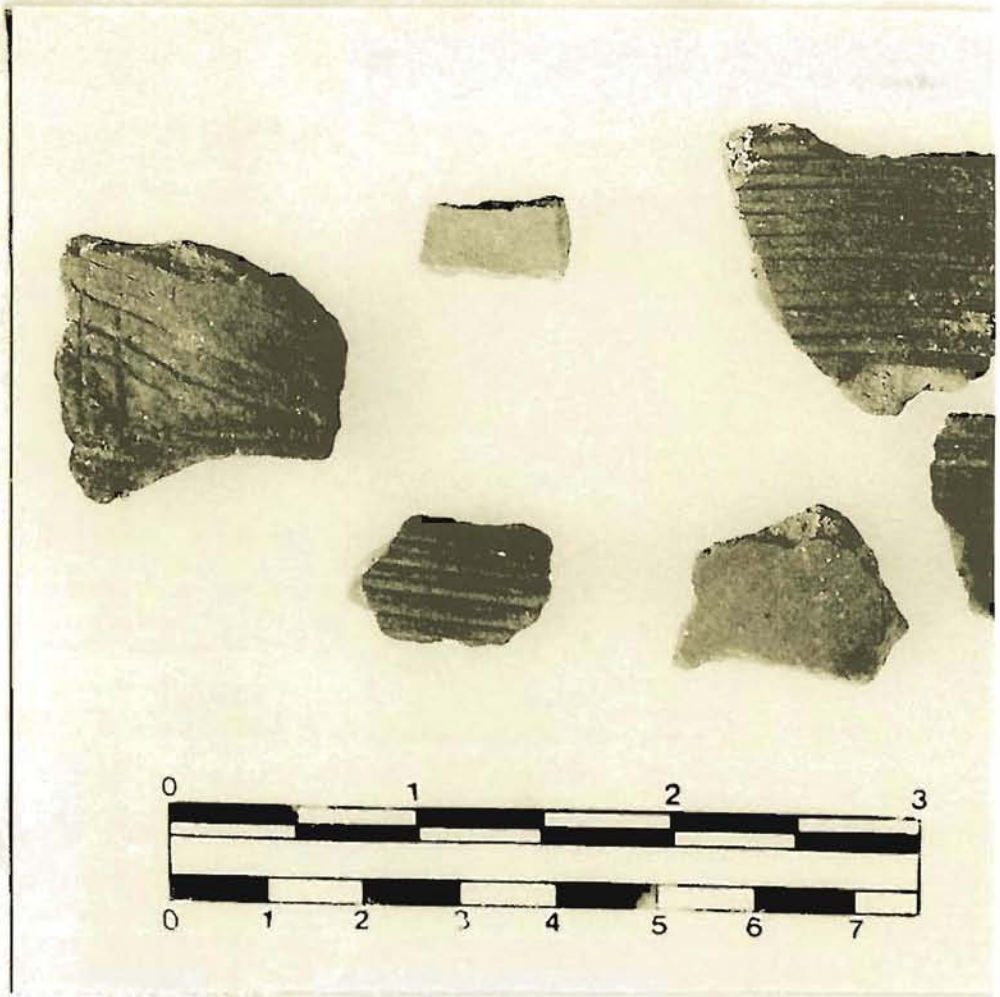


Figure 53. Historic period Native American pottery

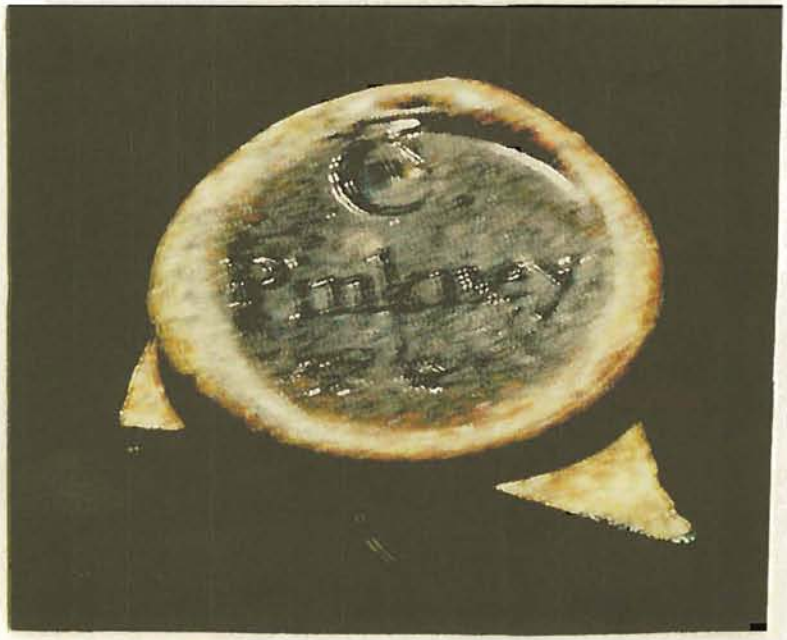
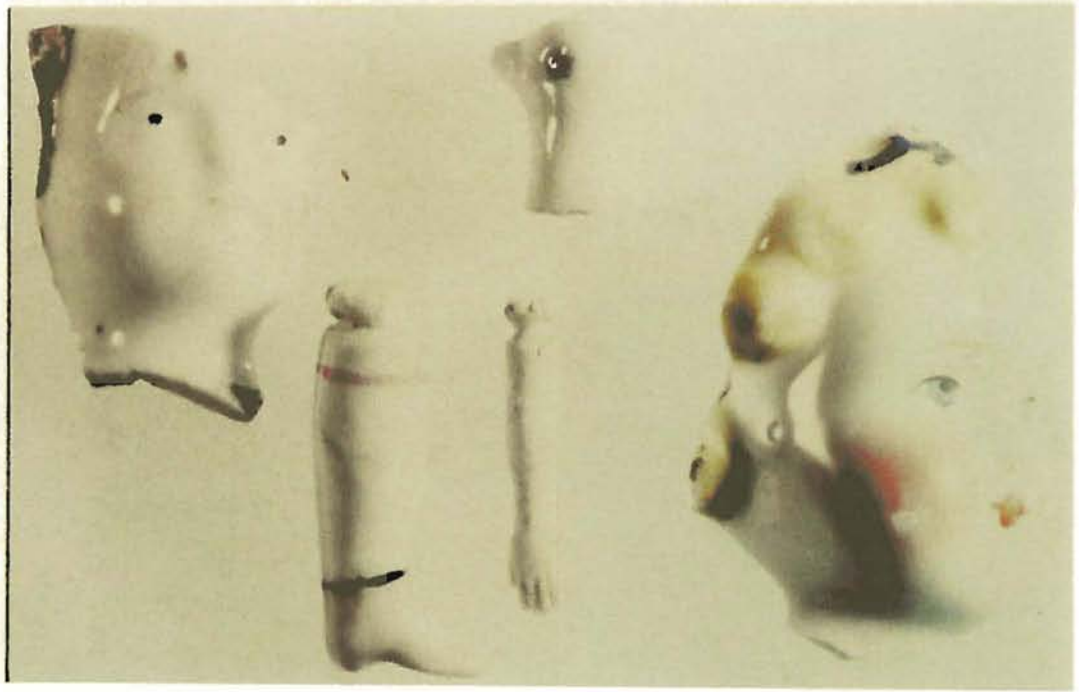


Figure 55. Bottle seal, "C. Pinkney"

Figure 56. Small artifacts from interior of feature 12

Figure 57. Fragment of woman's fa



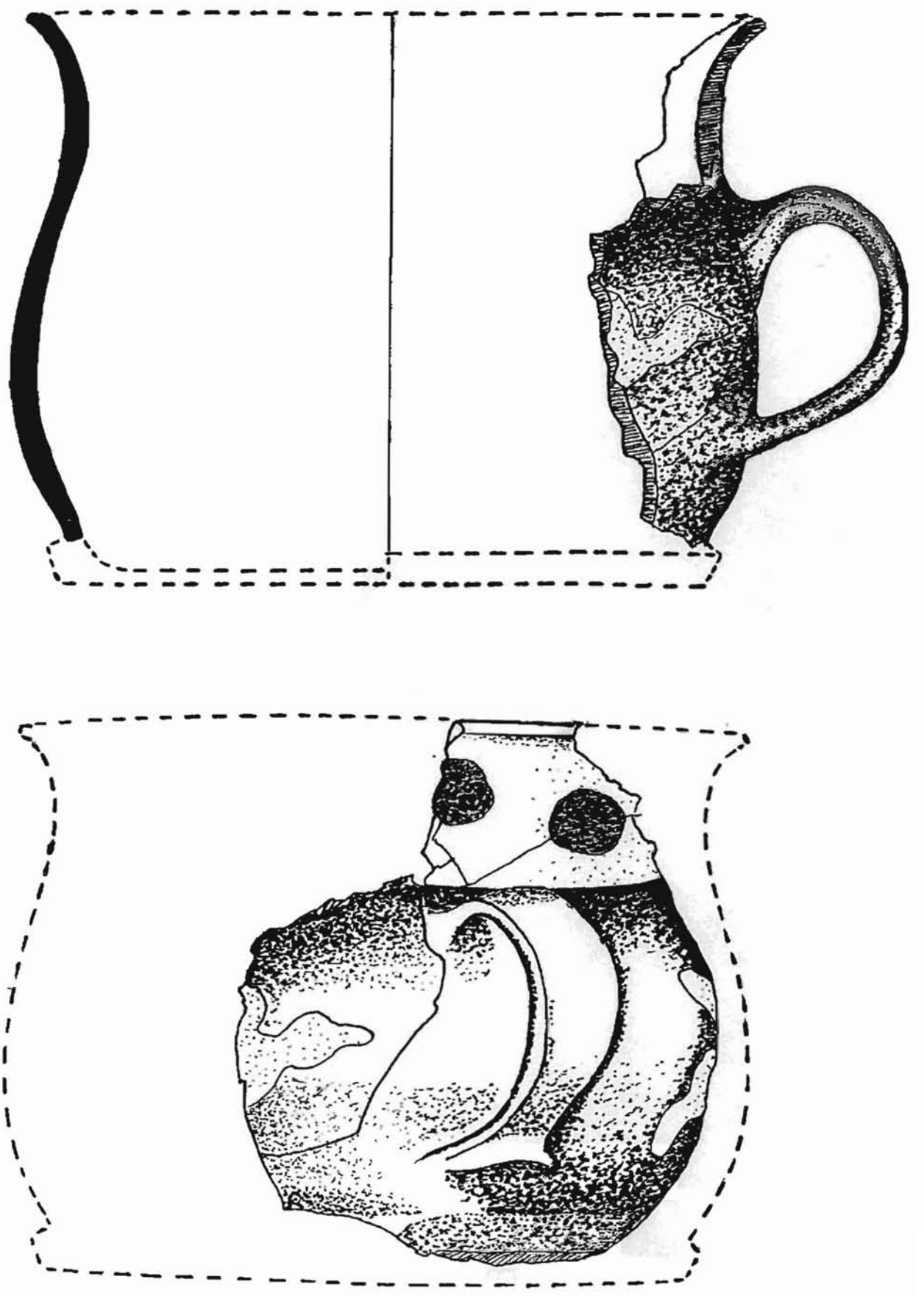


Figure 60. Reconstruction, combed and trailed slipware cup

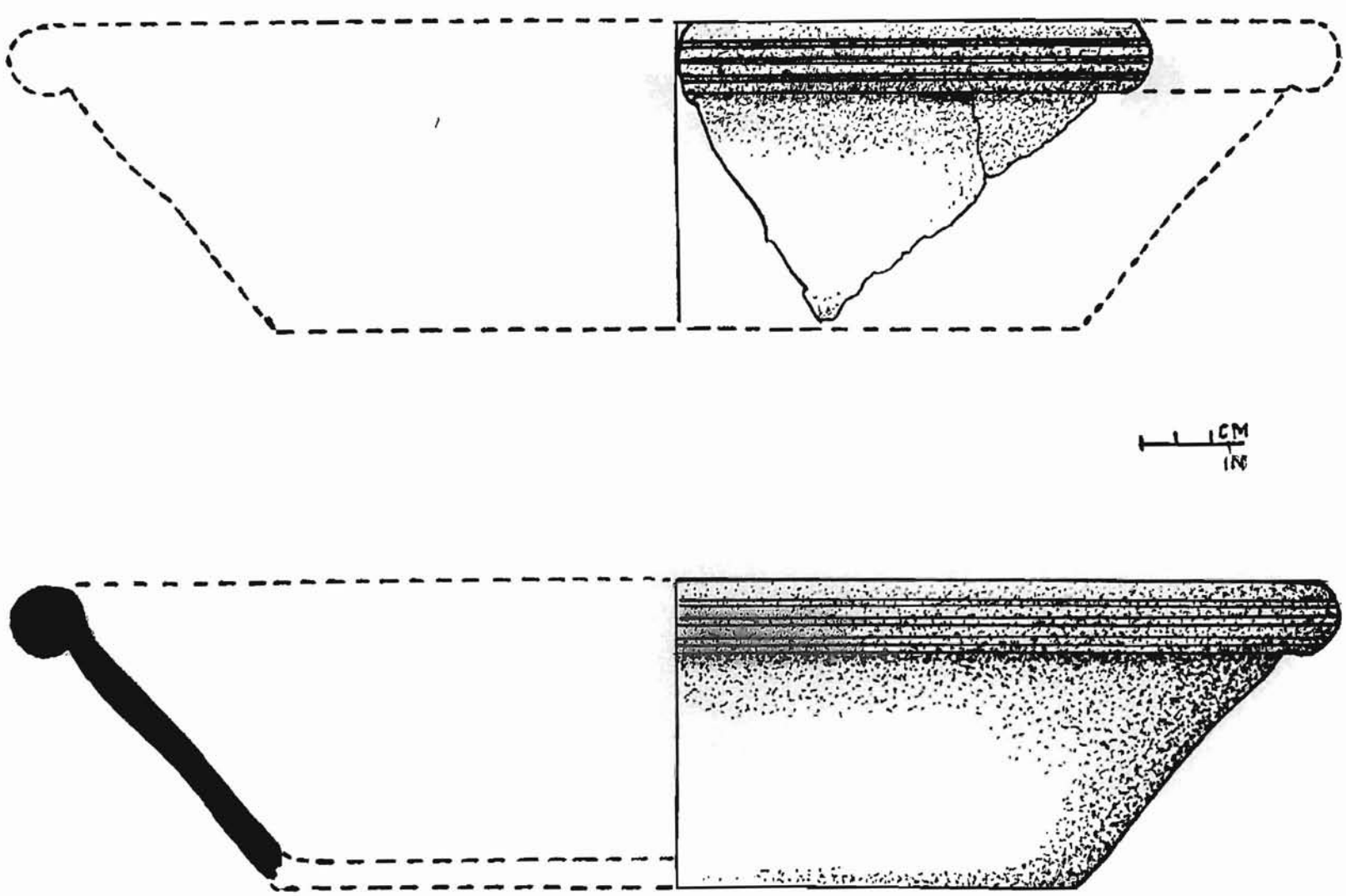


Figure 61. Reconstruction of earthenware cream pan

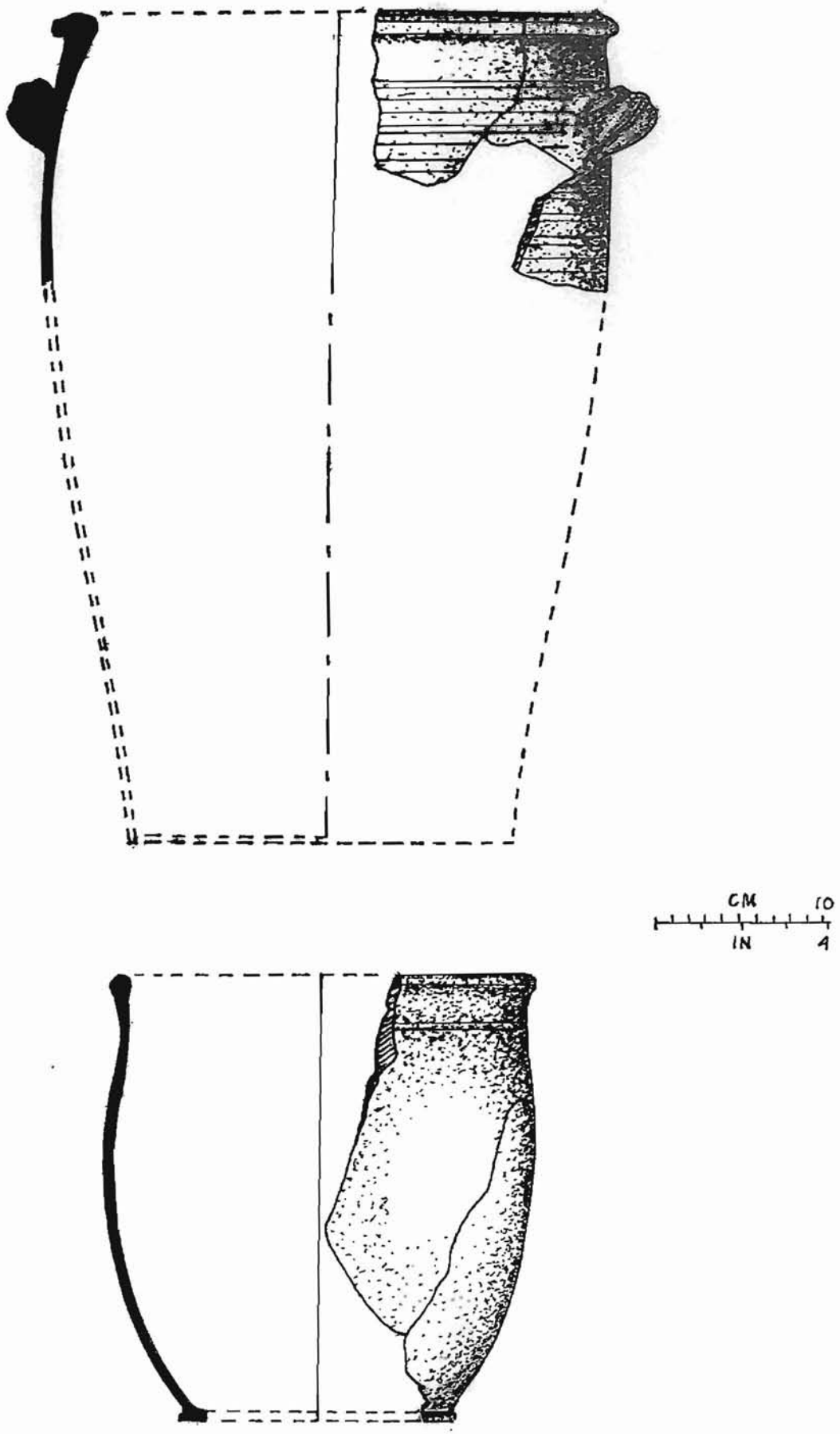


Figure 62. Reconstruction of earthenware crocks

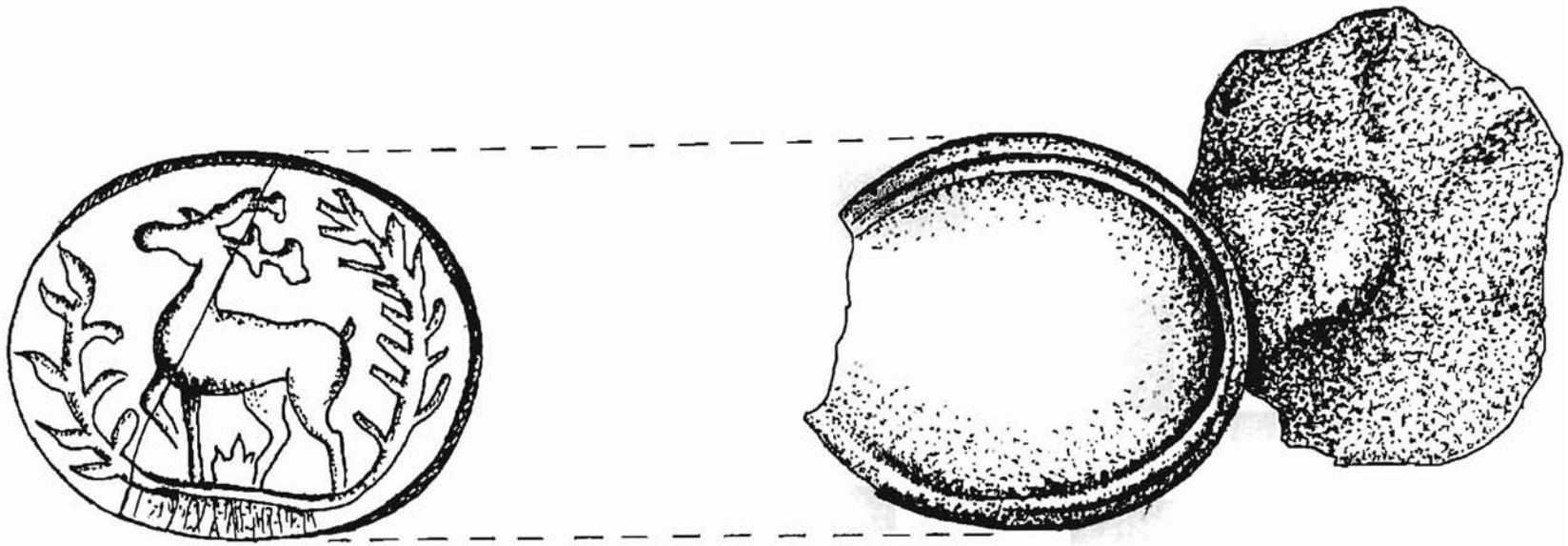


Figure 63. Drawing of cuff link

Chapter V
Vertebrate Fauna from the Miles Brewton House Charleston, South Carolina

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Abstract

Vertebrate fauna recovered during excavations at the Miles Brewton house were examined. These materials were subdivded into three components: those that may date to the initial occupation of the site (known as pre-Brewton, c. 1750-1770), occupation periods of the Brewton, Motte, and Alston families (1770-1830), and the occupation by the Pringles and the Frost sisters (c.1840-1880). The pre-Brewton component consists of 2,784 bones weighing 5,090.25 gm and containing the remains of at least 39 individuals. The Brewton-Motte-Alston component consists of 6,158 bones weighing 16,488.16 gm and contains the remains of at least 62 individuals. The Pringle-Frost component consists of 7,404 bones weighing 7,512.12 gm and contains the remains of at least 80 individuals. The percentages of domestic individuals in these components is substantially below that found at other Charleston sites, including those of upper status. This is chiefly due to the abundance of fishes in all three components. In spite of this, the distribution of cattle elements recovered from all three Brewton components is very similar to that found at other Charleston residential sites.

Introduction

Two related themes have guided zooarchaeological studies of materials from Charleston. One of these has been an examination of faunal remains for information about rural and urban subsistence strategies. The other has been a study of subsistence behavior in the urban setting as it relates to socio-economic status. While significant differences have been found between Charleston faunal assemblages and rural ones, less distinct differences have been found among Charleston collections. Those differences which have been found among Charleston collections have not been clearly related to socio-economic status variables.

The contrast between urban and rural subsistence strategies has been a striking one. It has been found that a general urban subsistence pattern describes most faunal materials recovered from Charleston (table 1; Reitz 1986). Domestic mammals generally are the most abundant group of individuals. For Charleston as a whole, domestic mammals have constituted 31% of the

estimated individuals. Domestic mammals have been primarily cattle, but have also included pigs and a few sheep or goats, generally referred to as caprines. Domestic birds are also commonly identified from Charleston sites. The principal birds have been chickens, but muscovy ducks and rock doves have been found as well. Wild mammals have been almost exclusively deer, although opossums, rabbits, squirrels, beavers, muskrats, or minks have been identified as minor components in several collections. Wild birds have been almost exclusively Canada geese or turkeys. Canada geese and turkeys have been interpreted as wild birds since morphological changes characteristic of domestication have not been observed in the bones, although the high percentage of these "wild" birds has suggested that perhaps they may have been at least captive if not domestic animals.

Resources of the nearby harbor and marshes have also been identified from urban sites. These have included turtles, alligators, and a variety of inshore fishes. One of the surprising aspects of these urban Charleston collections has been that fishes have constituted 18% or less of the estimated individuals in most Charleston collections, including those from both lower and upper status sites (Bastian 1987; Calhoun et al. 1984; Grimes and Zierden 1988; Honerkamp et al. 1982; Reitz 1984, 1988; Zierden et al. 1987; Zierden et al. 1986; Zierden et al. 1983a, 1983b; Zierden and Grimes 1989; Zierden et al. 1988; Zierden and Hacker 1987; Zierden and Raynor 1988; Zierden et al. 1982).

This general Charleston or urban pattern has contrasted sharply with what has been described as a rural subsistence pattern (table 1; Reitz 1986). While the domestic mammals identified from rural sites have been the same species as those identified in urban collections, domestic mammals have been less common in rural collections than in urban ones. This is particularly true for sheep and goats. A more limited range of domestic mammals, as well as fewer chickens, have been identified in rural collections compared to urban ones. Wild individuals of all sorts have been far more common than domestic individuals. This generalization applies to all types of wild animals, but particularly to fishes. Fishes constitute more than 38% of the individuals in rural collections. In addition to the higher numbers of fish individuals estimated for rural collections, the range of fish species is generally much wider in rural collections than in urban ones.

Efforts to define differences in subsistence behavior in the urban setting based on socio-economic status distinctions have proved unsuccessful. In terms of taxa identified, there have been few characteristics which correspond with socioeconomic status in the urban setting. Only two slight differences have been observed. Collections from upper status sites may contain a slightly more diverse range of species, both wild and domestic. Upper status collections may have a slightly higher percentage of estimated fish individuals than middle or lower status ones (table 1; Reitz 1986, 1987). Both of these distinctions have been minor and have not been observed in all upper status collections.

Elsewhere, status differences often have been inferred from the archaeological record through the identification of bones associated with meatier portions of a skeleton. Theoretically,

upper status household items might contain more bones from such meaty portions of the carcass as the upper hindquarter rather than bones from less meaty portions such as the lower leg or head. Unfortunately, there has not been a strong correlation between status and cattle elements recovered from Charleston sites. Fragments from both meaty and not-meaty parts of the carcass have been recovered from all Charleston sites and there have been no consistent distinctions among upper status, middle status, and public sites in the percentage of bones from meaty and non-meaty cuts. For example, bones from non-meaty portions of the skeleton constitute 47% of the bones from upper status sites (Reitz and Zierden 1990). It appears possible that cuts containing non-meaty bones may not have been as undervalued as they are today or that the practice of butchering entire carcasses on upper status properties might make distinctions between upper status and lower status residents less pronounced.

When the data for cattle elements recovered from Charleston archaeological sites are plotted against at Standard cowl using a technique based on ratio diagrams (described further under methods), three distinct patterns have been observed for Charleston (Reitz and Zierden 1990). Although they reflect site function rather than status, these patterns may be helpful in understanding why there appears to be little correlation between socio-economic status and the kinds of cattle bones recovered archaeologically.

One of the patterns is clearly a residential one and is found at both upper and middle status sites (Reitz and Zierden 1990). While fragments from both the head and foot are recovered from residential sites, fragments from the hindquarter and especially the forequarter are more abundant than fragments from the head or foot. Forequarter bones were more common than hindquarter bones regardless of status. All of the residential sites, regardless of whether they were associated with middle or upper status occupants, conformed to this pattern. The only substantial deviation from this pattern was found in the upper status Rutledge collection, where a large deposit of bones from the foot was excavated and resulted in a slightly higher ratio for the foot category than was found for other residential sites.

The non-residential patterns can be divided into two categories based on function: public facilities associated with marketing and disposal of meat (Beef Market and Atlantic Wharf) and entertainment facilities (McCrady's Tavern and Lodge Alley). In the market/dump pattern, fragments from the head are more common than in the residential pattern. Bones from the forequarter were under-represented compared to residential sites. Hindquarter and foot fragments are found in similar proportions in the market/dump and residential patterns.

The pattern for entertainment-related collections is a mirror image to the market/dump pattern, yet distinct from the residential pattern. At sites whose primary function was public entertainment, fragments from the head were more common than at residential sites. In fact, the market/dump and entertainment patterns have identical ratios of head fragments compared to the Standard cow. Bones from the forequarter were over-represented in a mirror image to the pattern described by market/dump sites although somewhat below that described for residential sites. Fragments from upper hindquarter were rare or absent, also in a mirror image to the market/dump

pattern. Fragments from the foot were slightly more common in the entertainment pattern than in the residential one. The percentage of entertainment-related fragments from the forequarter and the lower hindquarter, however, fall within the residential range.

Faunal remains recovered from residential site in Charleston probably became part of the archaeological record through a combination of on-site butchery, meat purchased form vendors, and salted meats. The ratio diagram may provide a way to distinguish between bones originating from on-site butchery and meats purchased from vendors or the market. The observation that the market ant the entertainment patterns are mirror images of one another suggests that entertainment facilities obtained meat exclusively through purchase at the market, thereby removing bones from the market. Unlike the pattern found for entertainment sites, the bones recovered from residential sites do not compliment those missing from the market. This suggests that the market was not the only source of bones for most residential sites. Another source of meat, one which might contribute elements from the entire skeleton, would be on-site butchery. Since the residential pattern is also unlike the unmodified distribution of elements in a cow skeleton, on-site butchery, however, does not appear to be the only source of meat/bones at residential sites. Instead, a combination of on-site butchery and market purchases seems indicated. The ratio diagrams suggest that residential customers rarely purchased cuts which contained teeth or other skull fragments. Instead they were likely to purchase cuts from the forequarter which contained bone. At home, consumers may have discarded these market bones with one from the head, hindquarter, and foot which originated from their own slaughter activities.

Excavation at Brewton House provide an opportunity to continue seeking information about differences in rural and urban subsistence strategies as these relate to socio-economic status. The Brewton collection is particularly valuable in that it contains three temporally distinct components so that changes through time may be observed.

Methods

Field work at the Brewton House ws conducted by The Charleston Museum in 1988, under the direction of Martha A. Zierden. The site is located in Charleston, South Carolina. During excavation, faunal materials were recovered using 1/4-inch screen. Some contexts were also floated. When only a portion of a collection is floated it is customary to report the contents of the floated samples separately from the materials recovered with 1/4-inch screen. This reflects the fact that flotation normally increases the recovery of small taxa such as rodents, frogs/toads and fishes, which are ordinarily lost by 1/4-inch recovery. Although small, such animals provide useful information about site formation processes, environmental conditions, and subsistence strategies. When the results of partial flotation are combined with the materials recovered using 1/4 inch mesh, these small animals are proportionately under-represented. The number of specimens identified (NISP) in the floated fraction from each occupation are reported in Table 2, with class level identifications such as UID mammal omitted. Only one new taxon

(Herring/Clupeidae) was identified in the floated samples and the quantity of material was not large. Since flotation produced little novelty, the flotation results are combined with the rest of the collection. However, the list of fishes recovered in the flotation samples from the Pringle-Frost occupation suggests that further flotation from this occupation might produce significant results.

Materials were recovered from the Brewton property for three different time periods the first is labelled "pre-Brewton" and includes materials possibly deposited on site before Brewton built his house, or during the construction years. These materials were deposited during the mid-1700s, to as late as the 1770s. There is no information on any occupation of this property prior to Brewton's. This is a poorly represented time period in Charleston and the only comparative data available are from the Beef Market and an early component from the First Trident site when a tannery was operated there (Table 1). The second occupation corresponds with the ownership of the Motte and Alston families. Materials from this time period were deposited during the late 18th to early 19th centuries, between 1770 and 1830. The owners during this period were leading members of Charleston society. Although the Revolutionary War occupation of Charleston by British soldiers corresponds with this period, it was a British general who was billeted here rather than less senior soldiers. The Motte-Alston occupation was roughly contemporaneous with those combined under the "upper status" summary in Table 1. The Pringle-Frost materials were deposited during the mid-to late 19th century, between the 1840s and 1880. Although important members of Charleston society, the Pringles and later the Frosts had limited financial resources. The Civil War made things very difficult for the family and they lived in genteel poverty after the war. No comparative data are available from Charleston for this period. A list of the Field Specimen numbers studied for each of these occupations is included in Appendix A. The samples which were floated are indicated by an asterisk.

The vertebrate materials recovered were examined using standard zooarchaeological methods. Identifications were made by Gwyneth Duncan, Jennifer Freer, and Barbara Ruff, using the comparative skeletal collection of the Zooarchaeological Laboratory, Museum of Natural History, University of Georgia. They were assisted by Kevin Roe. Bones of all taxa were counted (NISP) and weighed (Wt., gm) to determine the relative abundance of the species identified. A record was made of identified elements. Age, sex, and bone modifications were noted when observed. Where preservation allowed, measurements were taken following the guidelines established by Angela von den Dreisch (1976). The anterior width of the fish atlas and the greatest length of fish otoliths were measured where possible. These are presented in Appendix B as a contribution to the growing data base on the size of colonial livestock and fishing strategies. Minimum Number of Individuals (MNI) were determined based on paired elements and age. In calculating MNI, faunal materials recovered from each time period were considered discrete analytical units, but samples within each time period were combined.

While MNI is a standard zooarchaeological quantification medium, the measure has several problems. MNI is a measure which emphasizes small species over large ones. This is easily demonstrated by a hypothetical sample which consists of four rats and only one cow. While

four rats represents a larger number of individuals, one cow will supply substantially more meat. A further problem with MNI is the assumption that the entire individual was utilized at the site. From ethonographic evidence we know that this is not necessarily the case, particularly in regard to larger individuals and for animals utilized for special purposes (Thomas 1971; White 1953). This is an especially relevant issue when dealing with historic samples, where marketing of processed meat products was substantial, but the exact extent unknown. Additionally, MNI is influenced by the manner in which the data from the archaeological proveniences are aggregated during analysis. The aggregation of separate samples into one analytical whole (Grayson 1973), allows for a conservative estimate of MNI while the "maximum distinction" method applied when analysis discerns discrete sample units results in a much larger MNI. Furthermore, some elements are simply more readily identified than others, and the taxa represented by these elements may appear more significant in the species list than they were in the diet.

Biomass determinations attempt to compensate for problems encountered with MNI. Biomass provides information on the quantity of meat supplied by the animal. The predictions are based on the allometric principal that the proportions of body mass, skeletal mass, and skeletal dimensions change with increasing body size. This scale effect results from a need to compensate for weakeness in the basic structural materials, in this case, bone. The relationship between body weight and skeletal weight is described in the allometric equation:

$$Y=aX^b$$

(Simpson et al. 1960:397). Many biological phenomena show allometry described by this formula (Gould 1966, 1971). In this equation, X is the skeletal weight or a linear dimension of the bone, Y is the quantity of meat or the total live weight, b is the constant of allometry (the slope of the line), and a is the Y-intercept for a log-log plot using the method of least squares regression and the best fit line (Casteel 1978; Reitz and Corder 1983; Reitz et al. 1987; Wing and Brown 1979). A given quantity of bone or a specific skeletal dimension represents a predictable amout of tissue due to the effects of allometric growth. Values for a and b are obtained from calculations based on data at the Florida Museum of Natural History, University of Florida. The allometric formulae used here are presented in Table 3. Biomass was determined using the same analytical units defined when estimating MNI.

Biomass and MNI are subject to sample size bias. Casteel (1978), Grayson (1979), and Wing and Brown (1979) suggest a sample size of at least 200 individuals or 1400 bones for a reliable interpretation. Small samples frequently will generate a short species list with undue emphasis on one species in relation to others. It is not possible to determine the nature or the extent of the bias, or correct for it, until the sample is made larger through additional work.

The presence or absence of elements in an archaeological sample provides data on butchering and animal husbandry practices. The elements recorded from Brewton House were summarized into categories by body parts. The term "head" refers to skull and mandible fragments as well as teeth. The axial category includes ribs and vertebrae, including the atlas and

axis. The forequarter category includes the scapula, humerus, ulna, and radius. Carpals and metacarpals are recorded under forefoot. The hindfoot includes the tarsals and metatarsals. The foot contains bones identified only as metapodials and phalanges which could not be assigned to one of the other categories. The hindquarter category includes the innominate, sacrum, femur, and tibia. The term "foreleg" refers to forequarter and forefoot while the term "hindleg" refers to the hindquarter and hindfoot.

In order to provide a better image of the elements identified and their location in a carcass, the elements identified for pigs, cows, and caprines have been presented visually (Figures 1-9). In these figures, loose teeth and some skull fragments are not illustrated. Bones identified only as feet are illustrated on the right hind foot. The location of ribs and vertebrae other than the axis and atlas is approximate. The last lumbar location is used to record bones identified only as vertebrae. It should be noted that there is a considerable bias against the identification of artiodactyl ribs and vertebrae to species, especially for small species such as pigs, deer, and caprines. Hence the numbers of these elements identified probably do not reflect accurately the percentage of these bones actually discarded at the site.

The archaeological element data are also compared to a Standard cow on a log difference scale (Simpson 1941). The Standard cow was developed from the number of elements present in an unmodified cow skeleton with certain alterations. The number of bones for the Standard cow was reduced to reflect values which are probably more realistic from the standpoint of identification. The number of cranial elements was reduced to 52 from 64. It was considered likely that only fragments from the following bones would be identified under most circumstances: parietal, frontal, temporal, maxilla, occipital, premaxilla, and zygomatic, as well as 32 teeth, 2 horns, 2 bulla, and the mandibles. The number of axial elements were reduced to 28 from 71. It was considered unlikely that all caudal vertebrae and ribs would be identified to species so this number (44-46) was reduced to 2. The sacrum includes five segments, which in young animals may be separate but which in adults are fused. Hence the number of sacral elements was reduced to 1 from 5. The number of sesamoids, metapodials, and phalanges was reduced from 60 to 24. The exact number of bones in this group is variable since it includes small metapodials such as the metacarpal V, phalanges, and sesamoid bones, the number of which is individually variable. It seems unrealistic that all of these would be identified as cow under normal circumstances, so the number was reduced by 40%. The consequence of this step was to reduce the percentage of some element categories while increasing the percentage of others. The actual percentages for each category are as follows: Head, 25.8%; Forequarter, 3.2%; Hindquarter, 6.9%; Forefoot, 5.7%; Hindfoot, 5.7%; and Foot, 24.2%.

In order to compare the archaeological data with the Standard cow, the archaeological percentages of each element category are converted into logarithms, subtracted from the log value of this same element category for the Standard cow, and plotted against the Standard cow represented by the vertical line in Figure 10. Although the archaeological values are fragment counts and the values for the Standard cow are whole elements, the relationships in the ratio diagram are similar to those found in unmodified histograms.

Relative ages of the species identified were noted based on observations of the degree of epiphyseal fusion for diagnostic elements. When animals are young their bones are not fully formed. Along the area of growth the shaft and the end of the bone, the epiphyses, are not fused. When growth is complete the shaft and epiphysis fuse. While environmental factors influence the actual age at which fusion is complete (Watson 1978), elements fuse in a regular temporal sequence (Gilbert 1980; Schmid 1972; Silver 1963). During analysis, bones identified were recorded as either fused or unfused; the bones were then placed into one of three general categories based on the age in which fusion generally occurs. This is more informative for unfused bones which fuse in the first year or so of life and for fused bones which complete growth at three or four years of age than for other bones. An element which fuses before or at eighteen months of age and is found fused archaeologically could be from an animal which died immediately after fusion was complete or many years later. The ambiguity inherent in age grouping is somewhat reduced by recording each element under the oldest category possible. Attempts to age animals are particularly relevant to an historic site. Indications of an animal's age may provide data concerning animal husbandry practices such as the utilization of younger animals for food and older animals for non-food by-products or slaughter of older animals after their usefulness as draft, wool, or dairy production is over.

Evidence of sex was noted if present. Spurs on the tarsometatarsus of Galliformes such as turkeys, chickens, and quails indicate male birds. Hens in laying condition are indicated by medullary deposits on bone (Rick 1975). Medullary bone is a source of calcium for females while laying eggs.

Modifications to bones can indicate butchering methods as well as the degree of exposure the bones endured before being buried. Modifications have been classified as cut, burned, rodent and carnivore gnawed, worked, sliced, hacked, and sawed. Cuts are small incisions made across the surface of bones. These marks were probably made by a knife as meat was removed from the bone before or after the meat was cooked. Cuts may also be left behind if attempts are made to disarticulate the carcass at joints. Some marks that appear to be made by human tools may actually be abrasions inflicted after the bones were discarded, but distinguishing this source of small cuts requires access to higher powered magnification than was available during this study (Shipman and Rose 1983).

Burned bone may result form exposure to fire when a cut of meat is roasted. Burns may also be inflicted if bones are burned intentionally or unintentionally after discard. Rodent and carnivore gnawing indicates that bones were not immediately buried after disposal. While burial would not insure an absence of gnawing, exposure of bones for any length of time might result in gnawing. Gnawing by rodents, and particularly by carnivores, would result in loss of an unknown quantity of discarded bone. Carnivores could include a variety of animals, such as opossums, dogs, foxes, raccoons, and cats. It is presumed that domestic dogs and cats were the primary carnivores involved in modifying the Brewton collection, although other agents might also have been involved. Bones recorded as sliced were ones which had smooth, clean surfaces such as would be found on bones which had been sawed, but lacked the striations typical of sawed bones.

Slicing was typically found on bones which have only a think layer of compact bone on the outer edge where saw striations are usually seen. Hacks closely resemble cut marks in their shape and irregularity but are deeper and wider. They may indicate the use of a cleaver rather than a knife to dismember the carcass. Use of a cleaver would result in bone splinters and probably larger cuts of meat than a saw. The presence of striations on the outer layer of compact bone indicates that the bone has been sawed, presumably before the meat was cooked.

In order to summarize the data, the species list was reduced to several categories based on vertebrate class and husbandry practices. Domestic mammals include pigs (Sus scrofa), cows (Bos taurus), and sheep or goats (Caprine). Sheep and goats are generally combined into the subfamily category of Caprinae due to the difficulty in distinguishing between them osteologically. Some of the bones from Brewton could be identified to species, and in those cases the species was sheep (Ovis aries). Domestic birds were chickens (Gallus gallus) and rock doves (Columba livia). Wild mammals included opossum (Didelphis virginiana), squirrel (Sciurus spp.), and deer (Odocoileus virginianus). Wild birds include ducks (Anas spp., Anas platyrhynchos), Canada goose (Branta canadensis), quail (Colinus virginianus), turkey (Meleagris gallopavo), vulture (Cathartes spp.), and screech owl (Otis asio). Canada geese and turkeys may actually belong in the category of domestic birds. According to the American Poultry Association (1874), standards of excellence for these two species had been established by the mid-eighteenth century. Aquatic reptiles included chicken turtle (Deirochelys reticularia), pond turtle (Pseudemys spp.), and diamondback terrapin (Malaclemys terrapin). Commensal taxa included rats and mice (Sigmodon hispidus, Mus musculus, Rattus spp.), dog (Canis familiaris), cat (Felis domesticus), horse (Equus caballus), a cardinal (Cardinalis cardinalis), and frog/toad (Anura). While these animals might have been consumed, they are also common around human residences, either intentionally as pets and work animals, or unintentionally. Some of the other animals not included in the commensal category might also have been commensal, especially the vulture and owl. It should be noted that only biomass for those taxa for which MNI had been determined is included in the summary tables.

Results: Pre-Brewton (c. 1750-1770)

The relatively small pre-Brewton component consists of 2,784 bones weighing 5,090.25 gm and contains the remains of at least 39 individuals (Table 4). Domestic animals contributed 96% of the biomass of taxa for which MNI was estimated and fishes 46% of the individuals (Table 5). The principal domestic mammal was cow (Bos taurus), which contributed 8% of the individuals and 62% of the biomass. Pigs (Sus scrofa) also contributed 8% of the individuals, but 12% of the biomass. Caprines (Caprine, Ovis aries) contributed another 8% of the individuals and 21% of the biomass. Chickens (Gallus gallus) and rock doves (Columba livia) were the only domestic birds identified. Chickens contributed another 8% of the individuals.

Wild, non-commensal taxa contributed 62% of the individuals, although only 3% of the biomass in the pre-Brewton component (Table 5). No wild mammals were identified. Wild birds

included a mallard (Anas platyrhynchos), a Canada goose (Branta canadensis), a quail (Colinus virginianus), and a turkey (Meleagris gallopavo). Two turtles were identified. One, a chicken turtle (Deirochelys reticularia), is a freshwater turtle and the other, a diamondback terrapin (Malaclemys terrapin), is a salt marsh turtle. The wide range of fishes identified represent animals found in Charleston inshore waters, although scup (Stenotomus chrysops) is not common in this area today.

Relatively few commensal taxa were identified in the pre-Brewton samples. These included an Old World rat (Rattus spp.) and a frog or toad (Anura). Rat remains were found in several contexts, but the anuran remains were from only two: a builder's trench (NISP+2) and the privy, feature 27 (NISP+10). Five of the anuran bones were collected from the privy by flotation.

The elements identified in the pre-Brewton component are presented in Table 6 and Figures 1-3. While the pig is represented primarily by teeth and the cow is represented about equally by elements from the head, foreleg, and hindleg. The caprine is represented primarily by elements from the head and hindleg. A lamb was represented by an almost complete cranium recovered from feature 11 (FS#81).

There was some evidence for age at death for the animals in the pre-Brewton assemblage (Tables 7-9) and some evidence for sex. At least one of the pigs was a juvenile when it died, one was a subadult and one was an adult. One of the cows was less than 18 months of age at death, one was a subadult, and the third individual was older than 30 months of age when it died. Oneof the caprines was a juvenile at death and two were subadults. Three of the UID Bird bones were from juvenile birds. Three chicken and four UID Bird bones contained medullary bone, indicating that female birds were slaughtered (Rick 1975).

Modifications to the bones included cuts, burns, rodent gnawing, slices, hacks and saw marks (Table 10). Only 4% of the pre-Brewton component had been modified. The most common modification was burning, which made up 45% of the modifications. Although FS# 81 was associated with a hearth (Feature 11), only ll bones from this feature had been burned. Sawing was observed on 1% of the modified bones. One UID Large Mammal bone in FS# 81 had been sawed, and another four bones were sliced, although not necessarily sawed. Rodent gnawing was observed on 5% of the modified bone.

Appendix B contains the measurements taken from the pre-Brewton component. These will be added to the growing data base from Charleston which will be used to analyze the size of animals used in Charleston during the eighteenth and nineteenth centuries. Although only one fish atlas could be measured, a fingerling mullet was recovered in the FS# 81 flotation sample.

Results: Brewton-Motte-Alston (1770-1830)

The Brewton-Motte-Alston component consists of 6,158 bones weighing 16,488.16 gm

and contains the remains of at least 62 individuals (Table 11). Domestic animals contributed 97% of the biomass of taxa for which MNI was estimated, although fishes and commensal taxa contributed 50% of the individuals (Table 12). The principal domestic mammal was cow (Bos taurus), which contributed 10% of the individuals and 81% of the biomass. Pigs (Sus scrofa) contributed 5% of the individuals, and 8% of the biomass. Caprines (Caprine) contributed another 7% of the individuals and another 8% of the biomass. Chickens (Gallus gallus) and rock doves (Columba livia) were the only domestic birds identified. Chickens contributed another 5% of the individuals.

Wild, non-commensal taxa contributed 48% of the individuals although only 2% of the biomass in the Brewton-Motte-Alston component (Table 12). A squirrel (Sciurus spp.) And a deer (Odocoileus virginianus) were the only wild mammals identified. Ducks (Anas spp), a Canada goose (Branta canadensis), a quail (Colinus virginianus), turkeys (Meleagris gallopavo), and a vulture (Cathartes spp.) were the wild birds in the component. Three turtles were identified. The pond turtle (Pseudemys spp.) is a freshwater turtle and the diamondback terrapin (Malaclemys terrapin) is a salt marsh turtle. The sea turtle (Cheloniidae) may either have been taken from the Charleston harbor or from one of the nearby beaches during the summer. The wide range of fishes identified represent animals found in Charleston inshore waters, with the exception of scup (Stenotomus chrysops) already mentioned. One fish is definitely not found near Charleston. This is the queen triggerfish (Balistes vetula). This fish was identified from a premaxilla found in FS# 119. The triggerfish is primarily a coral reef dweller and is associated with reefs along the continental shelf edge of North American or over reefs in the Caribbean. It seems likely that this was either a souvenir or the remains of a salted fish imported from an offshore fishery.

Quite a few commensal taxa were identified in the Brewton-Motte-Alston component. These included a house mouse (Mus musculus), five Old World rats (Rattus spp.), a dog, (Canis familiaris), a kitten (Felis domesticus), a cardinal (Cardinalis cardinalis), and four frogs or toads (Anura). The rats were found in FS# 5 (1), 10 (1), 35 (1), 110 (1), 133 (10), 134 (11), and the privy (NISP=19). The dog was also found in the privy (FS# 152), and the kitten in the construction ditch for the vaulted drain (FS# 56). The cardinal was found in the privy (FS# 146 and 148). Although frog/toad remains were found in FS# 111(1) and 134 (1), the majority were found in the privy (NISP=36). The three squirrel remains (left and right maxillae and a mandible) were also from the privy (FS# 148), which suggests that this animal may have been commensal rather than consumed.

The elements identified in the Brewton-Motte-Alston component are presented in Table 13 and Figures 4-6. The pig is represented primarily by teeth. The cow is represented about equally by elements from the foreleg and hindleg while the caprine is represented primarily by elements from the hindleg. The deer was identified from two vestigial phalanges (FS# 6) and might be a trophy foot rather than food refuse.

There was some evidence for age at death for the animals in the Brewton-Motte-Alston

assemblage (Tables 14-16) and some evidence for sex. At least one of the pigs was a juvenile when it died, one was a subadult and one was an adult. One of the cows was less than 18 months of age at death, one was a subadult, one was an adult, and the age of three individuals could not be determined although they were older than 30 months of age when they died. One of the caprines was a juvenile at death, one was a subadult, and two were adults. Ten of the UID Bird bones were from juvenile birds, one of the chickens was a juvenile, as was one of the turkeys. Two chicken and two UID Bird bones contained medullary bone, indicating that female birds were slaughtered (Rick 1975). The dog was an adult and the kitten was probably only a few months old when it died.

Modification to the bones included cuts, burns, rodent and carnivore gnawing, working, slices, hacks, and saw marks (Table 17). Only 4% of the Brewton-Motte-Alston component had been modified. The most common modification was burning, found on 46% of the modified bones. Two bones had been worked. These were UID Mammal bones in FS# 110. One of these had been polished and the other had been sawed and drilled. Including the bone that was both drilled and sawed, 4% of the modified bones had been sawed. Nine other bones had also been sawed. These bones were found in FS# 5 (1), 42 (1), 66 (1), 70 (5), and 132 (1). Rodent gnawing was observed on 4% of the modified bones.

In addition to the measurements from the Brewton-Motte-Alston occupation provided in Appendix B, there is other information about the size of animals used from the flotation samples. Although no fish atlas or otolith measurements could be recorded, the flotation samples contributed a small seatrout (Cynoscion spp.) and a small flounder (Paralichthys spp.). Although not from a flotation sample, the sea turtle (FS# 6) was a small individual.

Results: Pringle-Frost (c. 1840-1880)

The relatively large Pringle-Frost component consists of 7,404 bones weighing 7,512.12 gm and contains the remains of at least 80 individuals (Table 18). Although domestic animals contributed 77% of the biomass, fishes and commensal taxa contributed 63% of the individuals. The principal domestic mammal was cow (Bos taurus), which contributed 5% of the individuals and 61% of the biomass of taxa for which MNI was estimated (Table 19). Pigs (Sus scrofa) contributed 4% of the individuals, but 7% of the biomass. Caprines (Caprine, Ovis aries) contributed another 4% of the individuals and 8% of the biomass. Chickens (Gallus gallus) and rock doves (Columba livia) were the only domestic bird identified. Chickens contributed another 5% of the individuals.

Wild, non-commensal taxa contributed 58% of the individuals, although only 9% of the biomass in the Pringle-Frost component (Table 19). Wild mammals included two opossums (Didelphis virginiana), a squirrel (Sciurus spp.), and a deer (Odocoileus virginianus). A heron (Ardeidae), mallards (Anas platyrhynchos), a Canada goose (Branta canadensis), a quail (Colinus virginianus), turkeys (Meleagris gallopavo), and a screech owl (Otis asio) were the wild birds in

the component. Two turtles were identified. The pond turtle (Pseudemys spp.) is a freshwater turtle and the diamondback terrapin (Malaclemys terrapin) is a salt marsh turtle. The wide range of fishes identified represent animals found in Charleston inshore waters and also includes two freshwater animals: a redear sunfish (Lepomis microlohus) and a largemouth bass (Micropterus salmoides). One of the fishes, the herring (Clupeidae), was identified only from the flotation samples.

One tooth of a white shark (Carcharodon carcharias) was identified in the Pringle-Frost component (FS# 125). This shark is a continental shelf member of the mackerel shark family. Today, although the white shark does occasionally come into shallow water, even into the surf, it is a rare animal (Castro 1983:89). However, this tooth was a large fossil, measuring 83 mm at the base and was probably collected from the beach, or possibly Frank Frost's phosphate pits, or was a souvenir from elsewhere. Interestingly, a non-fossilized white shark tooth was identified from a sample from the post-1820 component at the Rutledge house (Reitz 1989). The cartilaginous fish vertebra identified from the Pringle-Frost occupation (FS# 24) is a recent requiem shark vertebra and probably does not represent a food item.

Quite a few commensal taxa were identified in the Pringle-Frost component. These included a Hispid cotton rat (Sigmodon hispidus), two house mice (Mus musculus), ten Old World Rats (Rattus spp.), a puppy (Canis familiaris), three cats (Felis domesticus), a horse (Equus caballus), and a frog or toad (Anura). The cotton rat was identified in FS# 18 and the house mouse from the vaulted drain (NISP=5). The rats were identified in FS# 12 (4), 19(25), 21 (6), 30 (1), 93 (2), 122 (6), 126 (14), 127 (1), 128 (2), 136 (1), 142 (73), 143 (2), 144 (1), 149 (3), and the vaulted drain (NISP=15). The dog was identified in FS# 18 (1), 20 (6), 21 (173), and 30 (2). The cats were identified in FS# 12 (61), 19 (1), 28 (2), 29 (1). The horse was identified in FS# 18. The frog/toad remains were found in FS# 122 and FS# 142. None of the frog/toads were recovered in the flotation samples.

The elements identified in the Pringle-Frost component are presented in Table 20 and Figures 7-9. The pig is represented primarily by teeth. The cow is represented about equally by elements from the foreleg and hindleg. The caprine is represented almost exclusively by elements from the hindleg. The bone identified as sheep was entire, unmodified innominate. The horse was identified from a premolar and the deer from a distal tibia and a right innominate fragment.

There was some evidence for age at death for the animals in the Pringle-Frost assemblages (Tables 21-23) and some evidence for sex. At least one of the pigs was a juvenile when it died and two were subadults. The deer was an adult. One of the cows was less than 18 months of age at death, two were subadults, and one was an adult. One of the caprines was a juvenile at death and the age of the other two individuals could not be determined although they were older than 18 months of age when they died. Five juvenile UID Bird bones were observed. Thirteen UID Bird bones and two chicken bones contained medullary bone, indicating that female birds were slaughtered (Rick 1975). One of the individuals was a male. The puppy was only a few months old when it died. One of the cats was a subadult and the other two could not be determined.

Modifications to the bones in the Pringle-Frost component included cuts, burns, rodent gnawing, slices, hacks, and saw marks (Table 24). Only 4% of the component had been modified and the most common modification was burning, 41% of the modified bones. One hundred bones, 33% of the modified bones, had been sawed. Gnawing by rodents was observed on 7% of the modified bones.

Two measurements are of particular interest (Appendix B). A modified upper and lower pharyngeal is typical of black drum (Pogonias cromis). An unusually large pair of left and right upper pharyngeals were recovered from the Pringle-Frost occupation (FS# 124, 128), although only one could be measured. Although not shown in Appendix B, a fingerling mullet was identified in a flotation sample.

Discussion

In one respect the materials excavated from the Brewton property provide an interesting contrast to those which have been excavated from elsewhere in Charleston. In defining differences between rural and urban subsistence, the contrast between the two groups in terms of fish use has been a puzzle. Although located adjacent to what appears to be a rich estuary, fish have comprised less than 18% of the individuals in most of the Charleston collections studied to date (Bastian 1987; Calhoun et al. 1984; Grimes and Zierden 1988; Honerkamp et al. 1982; Reitz 1984, 1988; Zierden et al. 1982, 1983a, 1983b, 1986, 1987, 1988; Zierden and Hacker 1987; Zierden and Raynor 1988). This has formed a sharp contrast with materials from neighboring plantations (Reitz 1986). The only urban exceptions to this pattern prior to this Brewton study were three components from the First Trident site, two components from the Rutledge House, and one component from the McCrady site (Table 25). These exceptions to the urban pattern have been attributed to preservation (First Trident), strained financial means (Rutledge), and function (McCrady's Tavern). Elsewhere in Charleston the use of fishes seems lower than environmental potential, documentary accounts, and rural pattern indicate should be the case.

It is surprising, therefore, to find that fishes comprised between 30% and 46% of the individuals in all three components from Brewton House. In fact, the summaries for all three components are very similar to that for rural deposits (Tables 1, 5, 12, and 19; Reitz 1986). The Brewton collection provides an opportunity to continue exploring the relationship between subsistence strategy, recovery technique, and preservational biases as explanations for the minor role of fishes suggested by the zooarchaeological data from urban Charleston sites.

There are few comparative data from the mid-1700s in Charleston and so the additional information provided by the pre-Brewton component is welcome. There are only two other components from this time period (Table 1). In the materials from the Beef Market, fishes contributed only 19% of the individuals. This is actually slightly higher than the general Charleston pattern, but the commercial and public nature of the market has precluded using these data as evidence that more fishes were consumed during the mid-1700s than in the late 18th to

early 19th centuries. The other mid-1700s component is the First Trident tannery. There was residential activity at the tannery in addition to its commercial function, since slaves presumably lived on the site. Except for the absence of wild terrestrial mammals in the pre-Brewton component (Table 5), the pre-Brewton and tannery components are very similar. Whether the similarities between the pre-Brewton and the tannery samples indicates that a lower status residential occupation and/or a commercial function is also indicated for the pre-Brewton component is not known. These data may also indicate that fishes were a significant part of the diet in the mid-1700s regardless of status.

Other explanations might be found in preservational biases and recovery techniques. The First Trident tannery was in a low-lying damp area. This may have created an anaerobic environment which enhanced preservation of fish bones. Likewise, the pre-Brewton materials might have come from a deposit, such as a privy, in which animal bones, especially fishes, were protected from trampling and scavengers. This latter explanation seems unlikely in this case. Although 10% of the vertebrate bones (NISP=252) from the pre-Brewton occupation are from a privy, only nine of the 562 pre-Brewton fish bones were recovered from this location. Although preservation might account for the higher levels of fish recovered at the tannery, the privy probably is not a factor in the pre-Brewton samples. Flotation might also have encouraged recovery of fishes here, but no fish bones were collected in the pre-Brewton flotation samples.

Many of the general Charleston data are from late 18th-early 19th century, upper status residential occupations. When the Brewton-Motte-Alston summary (Table 12) is compared to the Charleston upper status summary (Table 1), it can be seen that there is a reduction in most categories. This may be attributed to a higher percentage of commensal taxa as well as a slightly higher percentage of fish individuals in the Brewton-Motte-Alston component. When the upper status summary is compared to that for Charleston as a whole (Table 1), it can be seen that the upper status sites usually have fewer commensal taxa compared to the general Charleston pattern. The primary difference between Charleston and upper status Charleston sites is that more fish constitute a higher percentage in upper status pattern than in the general pattern.

The higher percentage of commensal taxa in the Brewton-Motte-Alston component can be attributed to context. Eight of the thirteen commensal individuals were found in the privy, which may have served as a natural trap for commensal animals. The privy may have also served as a general waste disposal feature since 12% of the vertebrate remains (NISP=731) from the Brewton-Motte-Alston occupation were recovered from the privy. This type of context might also enhance preservation by protecting bones from scavenging and trampling.

The higher percentages of fishes, however, cannot be attributed to context or to recovery technique. Although commensal taxa were common in the Brewton-Motte-Alston portion of the privy, only 89 of 695 fish bones were recovered from the deposit. Only four of the Brewton-Motte-Alston fish bones were recovered by flotation and none of them were from the privy. The higher percentage of fishes in this component probably reflects human subsistence strategies.

Comparative faunal data from Charleston in the mid to late 19th century are lacking. Just as the pre-Brewton component provides a contrast to the general Charleston pattern, so too does the Pringle-Frost component. The Pringle-Frost summary suggests that use of fish and the presence of commensal animals may have been quite high during this time (Tables 1 and 19). This might have been due to limited resources available to the family before the Civil War and particularly after the war. Perhaps the use of fish increased for Charleston as a whole as well as for upper status households during the mid to late 19th century.

Preservation and recovery technique are two other factors which need to be considered, however. Among the contexts associated with the Pringle-Frost occupation was a vaulted drain (Features 12 and 16). Like the privy from the earlier components at the Brewton site, the vaulted drain (Features 12 and 16) may have been a natural trap for commensal animals as well as a trash disposal area. The drain would have protected bones from trampling and scavenging while providing a moist environment in which bone might preserve well. Thirty-five percent of the Pringle-Frost vertebrate bones (NISP=2587) were recovered from the vaulted drain. The high numbers of commensal taxa cannot be attributed to the vaulted drain since of 19 commensal individuals estimated for the Pringle-Frost component only two mice and one rat were recovered from the drain. However, the high percentage of fish can be attributed to the drain. Seventy-two percent of the Pringle-Frost fish bones (NISP=2207) were recovered from features 12 and 16. This higher percentage of fishes in the drain is probably not due to recovery technique since only 67 of the 2207 fish bones in the drain were recovered by flotation. This evidence strongly suggests that the absence of fish in Charleston sites may be a function of preservation rather than recovery technique or subsistence strategies. In the absence of data from other mid to late 19th century Charleston sites, this conclusion must be tentative.

The Brewton data suggest that one explanation for the lack of fish in the Charleston collection may be behavioral. Although sharks, rays, and bony fishes comprise 59% of the vertebrate remains in early to mid-18th century archaeological deposits from St. Augustine, Florida (Reitz and Cumbaa 1983), and 38% of the individuals in rural collection near Charleston, this does not mean that Charlestonians should also be expected to include large numbers of fish in their diet. The pre-Brewton, First Trident tannery, and First Trident colonial components suggest that more fish might have been used during the mid-1700s than during the late 18th-early 19th centuries. The Rutledge, First Trident federal, and Brewton-Motte-Alston components suggest that during the late 18th to early 19th centuries, upper status households consumed more fish than did other households. This might have been one way wealthy households demonstrated their wealth; through a display of diversity not enjoyed by other people in the city. The Pringle-Frost component suggest that during the mid to late 19th century, upper status households may have incorporated more fish into their diet than had been used previously, especially if faced with financial reversals. All of these possibilities require further testing.

There is also evidence in the Brewton collection that Charlestonians might have used more fish than indicated by archaeological deposits, but that preservational biases have prevented this from being evident in the faunal assemblages studied. It has been assumed that the large quantity

of oyster shell found at St. Augustine as well as at rural sites along the South Carolina and Georgia coasts have enhanced preservation of fish remains. However, the Charleston soils exhibit similar inclusions, both discarded shell and shell converted to lime mortar. The First Trident site stand out as one of the few urban sites where conditions were good for the survival of fish remains. The Pringle-Frost vaulted drain is another type of deposit where preservation might be better than average. Both the First Trident components and the Pringle-Frost component clearly have more fish than do most other Charleston collections. Site formation processes, therefore, remain one of the primary explanations for the low percentage of fish found in Charleston.

Another explanation for the scarcity of fish in Charleston collections has been that flotation has not been extensively used. This has not seemed a primary explanation since fish are always abundant in deposits from St. Augustine and rural sites where a 1/4-inch mesh screen was also used. The Brewton collection appears to indicate that recovery technique is not the primary explanation since a high percentage of fishes does not appear to be confined to flotation samples.

In one other respect the Brewton collection gives us important information on subsistence behavior in Charleston. This collection provides additional data on recovery patterns of cattle bones and the relationship of these patterns to socio-economic status, site function, and market purchases within the city. All three of the Brewton components conform to the general Charleston residential pattern for the types of cattle elements recovered. When the three components from Brewton are plotted against the residential pattern (Figure 10), it is clear both that the three are very similar to one another and that they are similar to other residential collections. There is no clear change in time other than in a reduction of fragments from the head. At the same time there is an increase in the ratio of bones from the feet rather than an increase in the percentage of bones form the forequarter or hindquarter.

The distribution of elements for cows is similar to that found at other Charleston residential sites, regardless of status. Usually the presence in archaeological assemblages of both meaty cuts, represented by forequarters and hindquarters, and of non-meaty cuts, represented by teeth and bones from the foot, suggests that on-site slaughter and butchering of animals had taken place. The presence of cuts of meat represented by non-meaty bones is also associated with lower socio-economic status; although this association has not been found to be a strong one in Charleston (Reitz and Zierden 1990). The identification of large numbers of non-meaty cuts in the Brewton collection is a case in point.

Element distributions from Charleston residential sites may indicate that debris from on-site, home butchery may be the primary, perhaps the only source, of bones at many Charleston residential sites. Considering that the number of bones from the head for the Standard cow were substantially reduced, the under-representation of bones from the head in the Brewton archaeological assemblages suggests that fragments from the head were relatively rare compared to bones from other parts of the skeleton. It is possible that the head was removed from the carcass where the animal was slaughtered elsewhere on the property, or perhaps elsewhere in town. However, the close match between the Standard cow and the archaeological assemblages

for the foot category suggests that feet were not discarded elsewhere, but were tossed away in much the same manner as bones from the rest of the body. The number of bones from the foot may be reduced because some of these bones were occasionally removed at slaughter and discarded with the head. However, the over-representation of bones from the forequarters and hindquarters suggests that more of these bones are present than would be expected if only home-slaughter were the source of these bones. This may indicate the presence of some store-bought meat. Whether these cuts were from home-butchering or were purchased at a market, however, it is clear that forequarter cuts were consistently more common than hindquarter cuts.

That the percentage of store-bought meats might have increased through time is suggested by two observations. First, in the ratio diagram, head fragments become increasingly less common through time while bones from the forequarter and hindquarter increase. There is also an increase in the percentages of modified bone which had been sawed. In the pre-Brewton component 1% of modified bones had been sawed; in the Brewton-Motte-Alston component 4% of modified bones had been sawed; and in the Pringle-Frost component 33% of modified bones had been sawed. Assuming that sawing may have been a common butcher shop technique and an uncommon household treatment, this may also be indicative of commercial butchering and sale of meat cuts. Bones from the foot also increase slightly through time, perhaps indicating that there were culinary uses for the foot.

Conclusion

The Brewton collection is important for several reasons. The samples suggest that the low percentage of fish in the urban subsistence pattern may be due to preservational biases rather than subsistence activities. With that in mind, it is interesting that during the late 18th-early 19th centuries the level of fish consumption might have been lower in Charleston than before or after that time period. These materials raise the possibility that higher levels of fish consumption might correlate with higher status during the late 18th-early 19th centuries when fish consumption was otherwise low in the town. Alternatively, these data may also indicate that high levels of fish use may correlate with economic privation in the mid-1700s and during the mid to late 19th century.

The distribution of cattle elements recovered from all three Brewton components was found to be similar to that at other Charleston residential sites, regardless of status. These data suggest that the residential pattern of butchering residue for cattle bones accurately describes butchering behavior in the town. The residential pattern suggests that home butchering was common in the city during both the 18th and 19th centuries, although purchases of meat may have become more common in the mid to late 19th centuries.

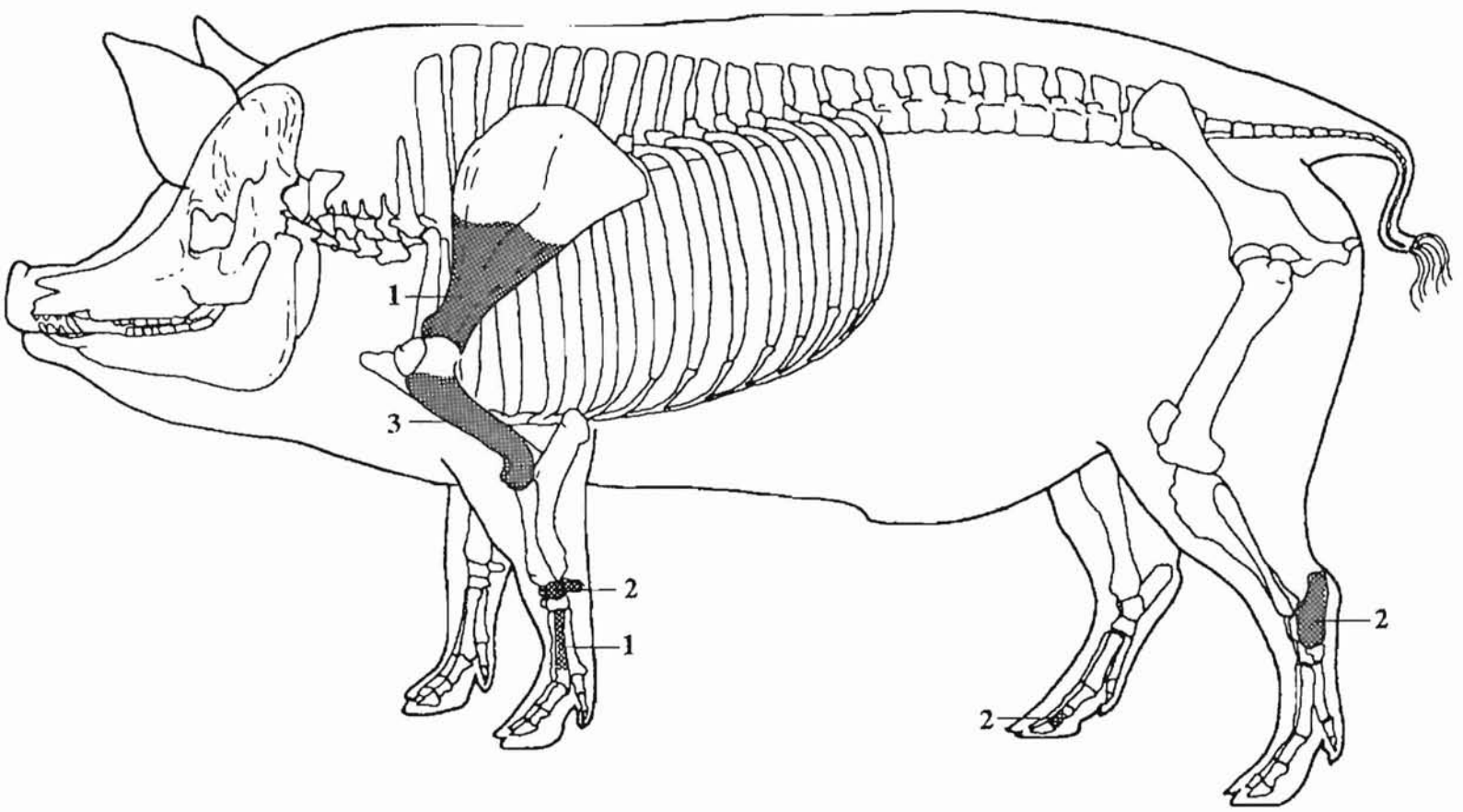

Figure 1. Pre-Brewton Component, Pig Elements identified. Not illustrated are 1 skull and mandible fragment and 22 teeth. N=34.

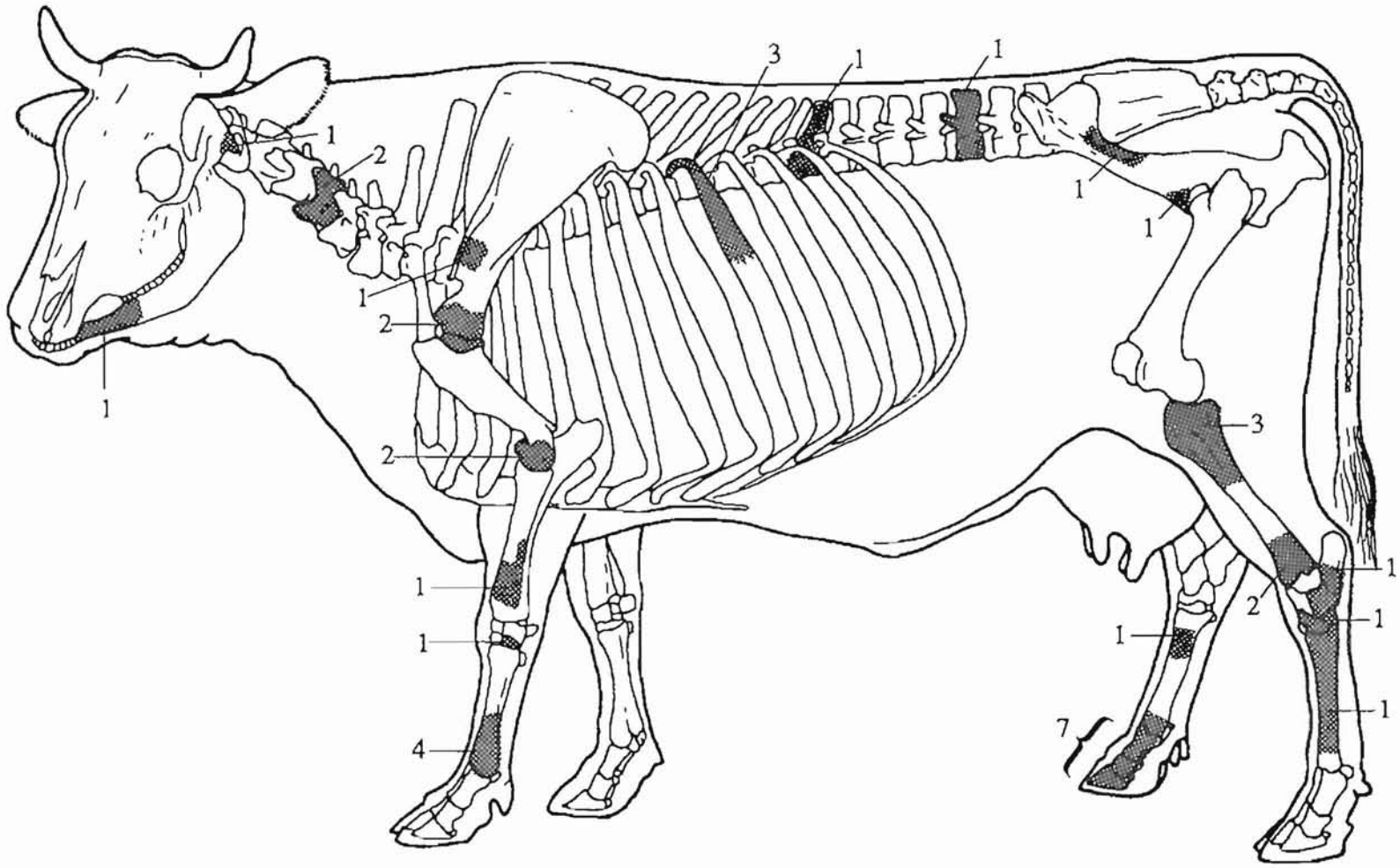

Figure 2. Pre-Brewton Component, Cow Elements identified. Not illustrated are 2 skull and mandible fragments and 8 teeth. N=48.

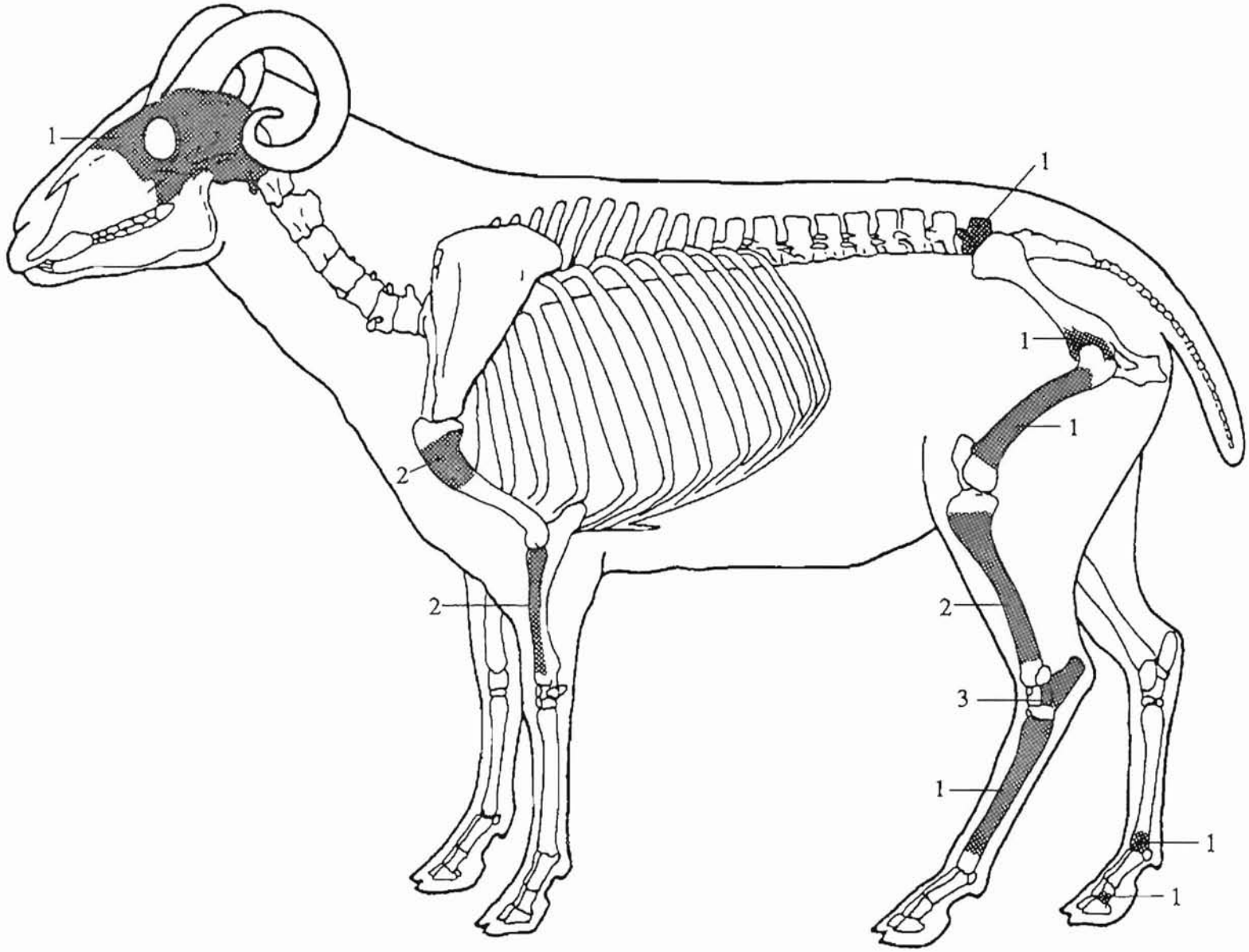

Figure 3. Pre-Brewton Component, Caprine/Ovis aries Elements identified. Not illustrated are 1 skull and mandible fragment and 4 teeth. N=21.

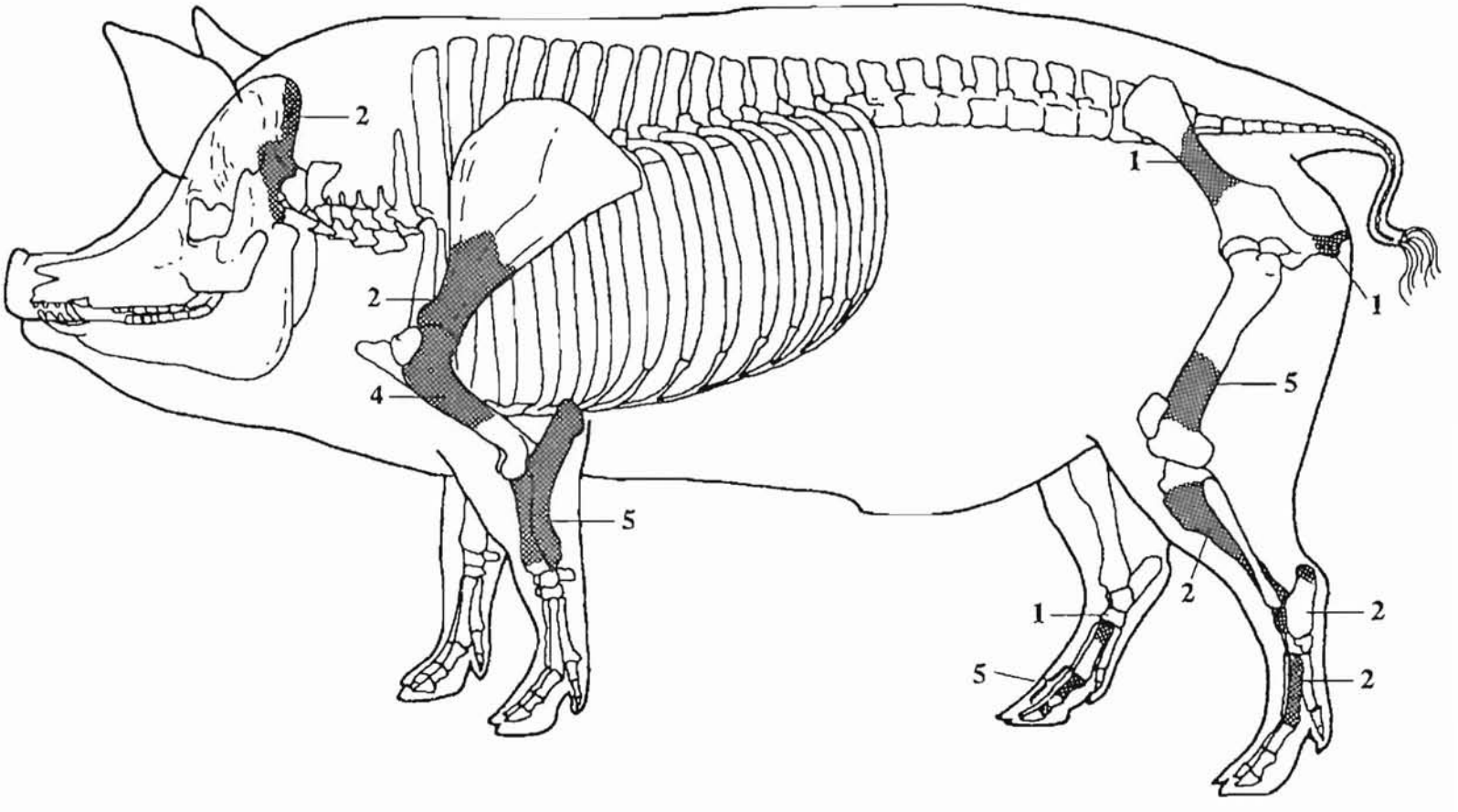

Figure 4. Brewton-Motte-Alston Component, Pig Elements identified. Not illustrated are 3 skull and mandible fragments and 31 teeth. N=66.

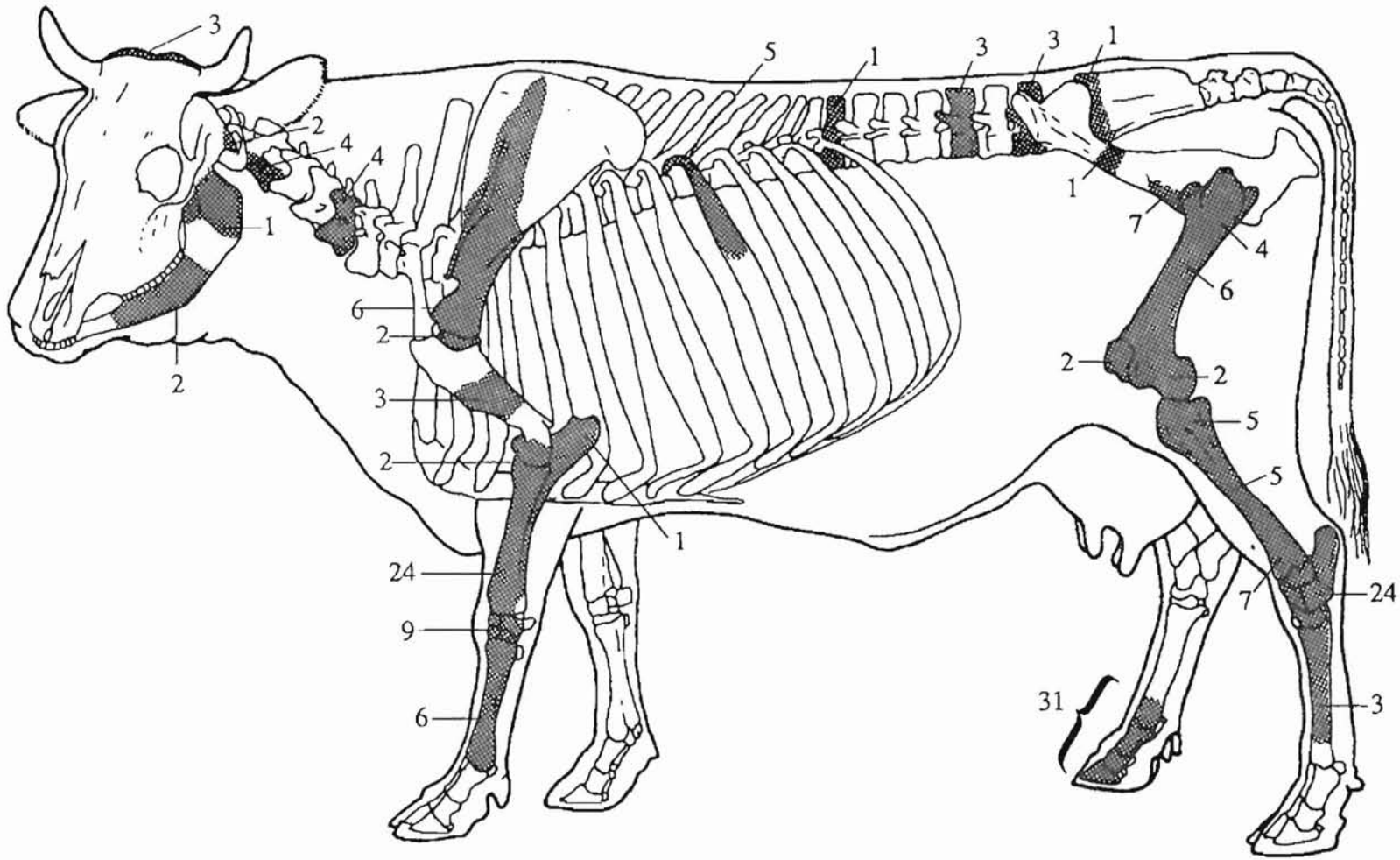

Figure 5. Brewton-Motte-Alston Component, Cow Elements identified. Not illustrated are 1 skull and mandible fragment and 28 teeth. N=208.

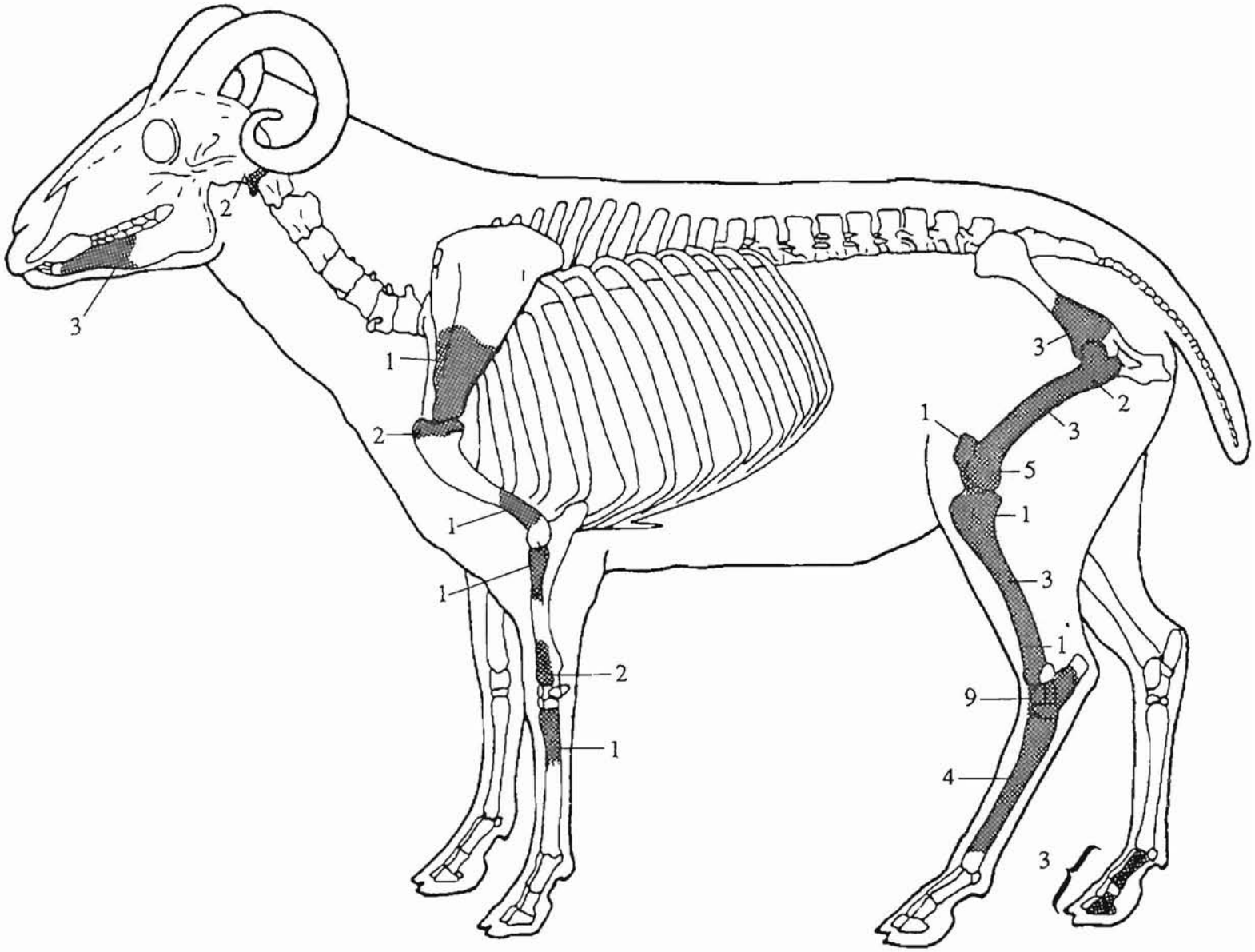

Figure 6. Brewton-Motte-Alston Component, Caprine Elements identified. Not illustrated are 7 teeth. N=55.

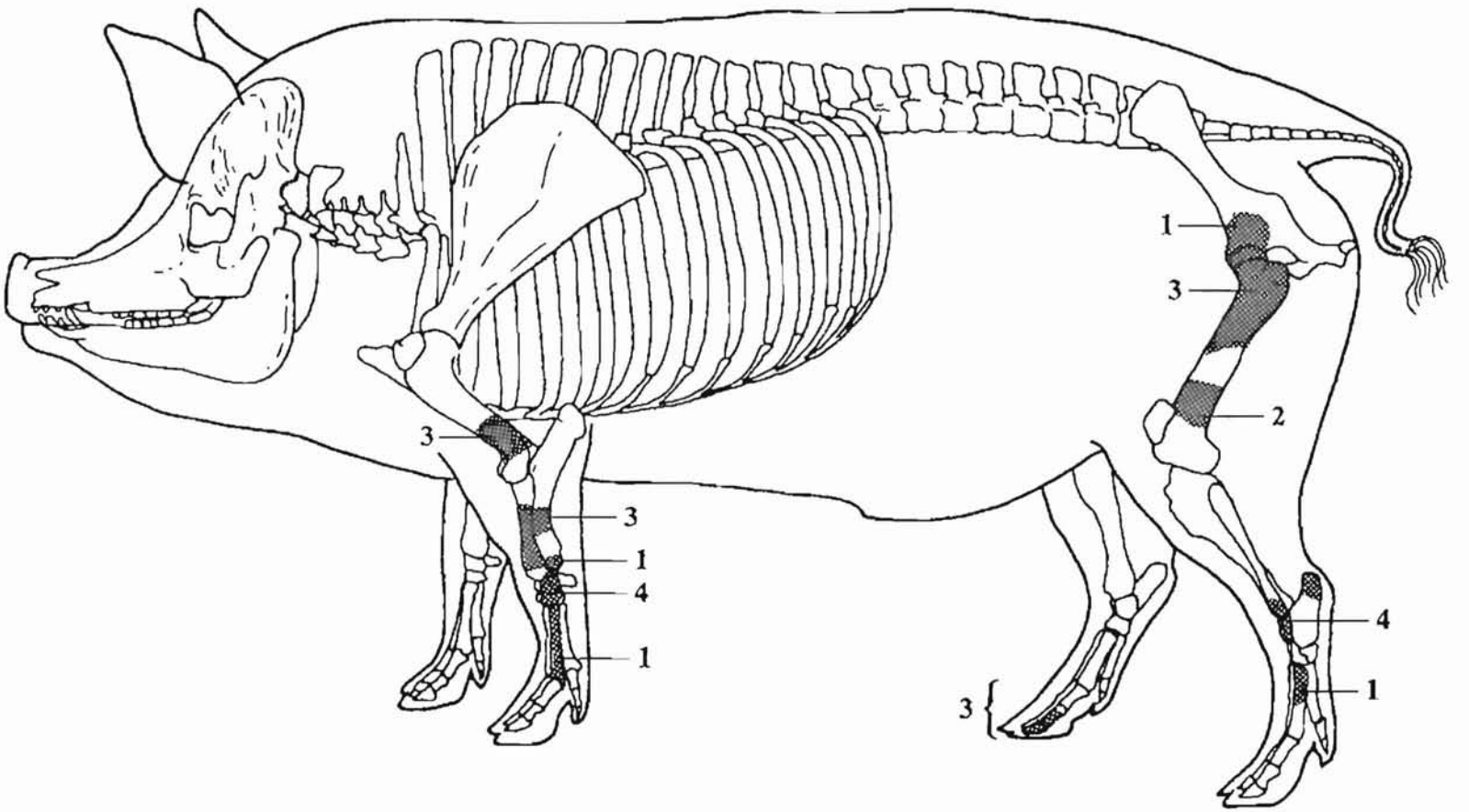

Figure 7. Pringle-Frost Component, Pig Elements identified.
Not illustrated are 1 skull and mandible fragment and 29 teeth.
N=56.

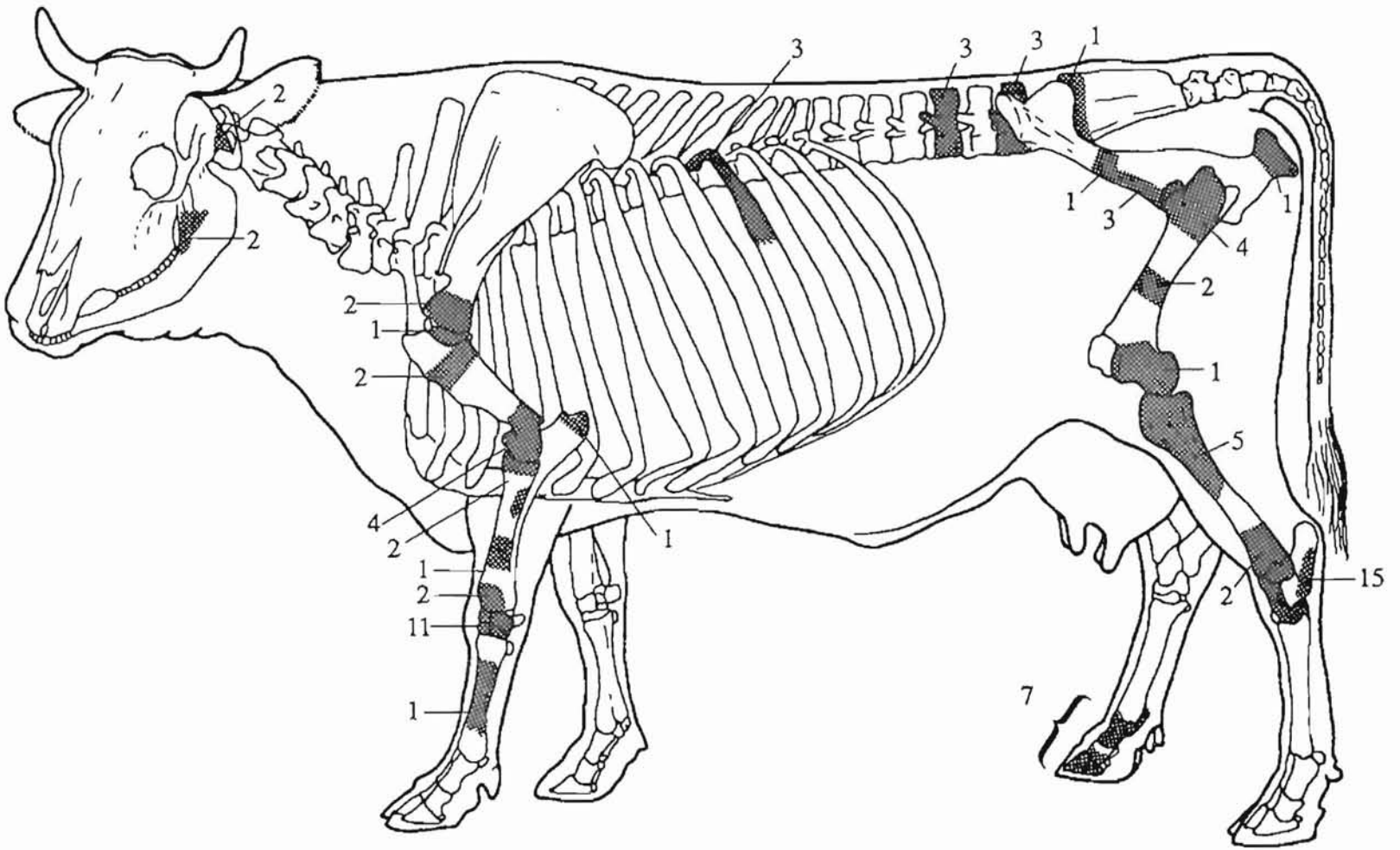

Figure 8. Pringle-Frost Component, Cow Elements identified. Not illustrated are 1 skull and mandible fragment and 7 teeth. N=90.

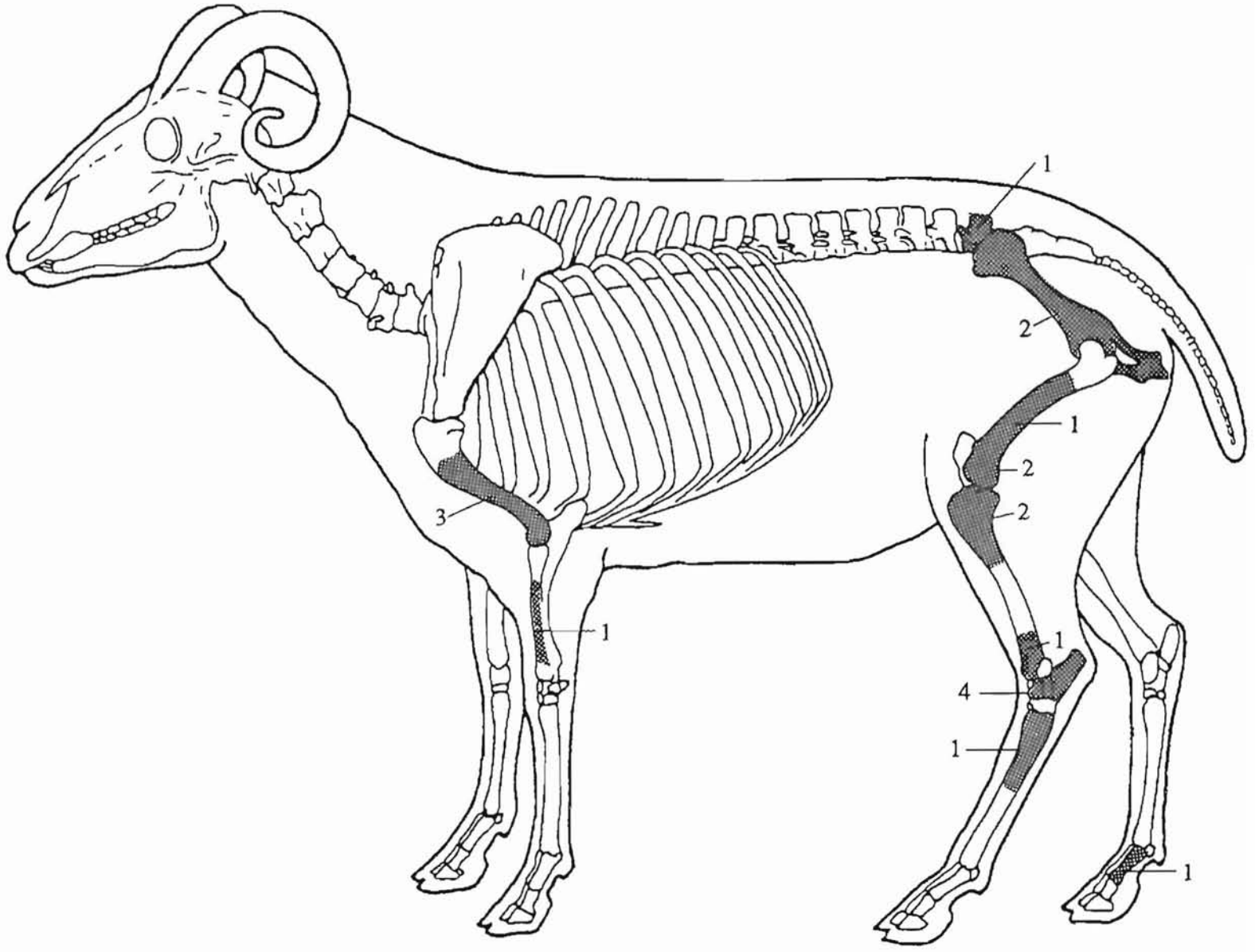

Figure 9. Pringle-Frost Component, Caprine/Ovis aries Elements identified. Not illustrated are 8 teeth. N=27.

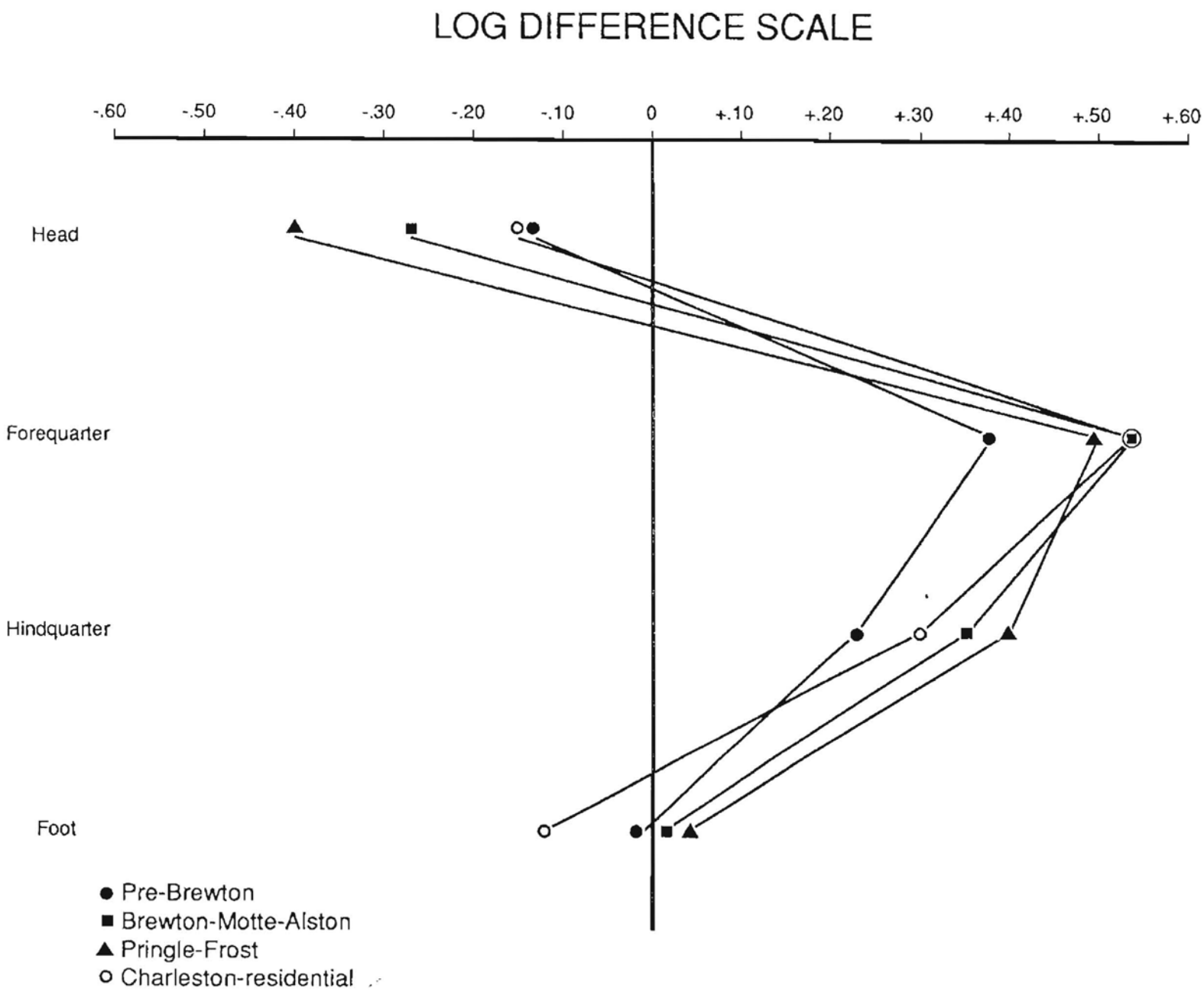

Figure 10. Ratio diagram of body parts to the Standard cow fo

Pre-Brewton, Brewton-Motte-Alston, and Pringle-Frost component

Table 1. Charleston Summaries[1].

	General		Rural		Upper Status		Beef Market		1st Trident Tan.		St. Augustine	
	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%
Domestic Mammals	250	31.4	172	17.2	71	30.7	33	42.3	4	26.7	78	10.8
Domestic Birds	118	14.8	41	4.1	27	11.7	7	9.0	1	6.7	34	4.7
Wild Mammals	67	8.4	192	19.2	20	8.7	12	15.4	1	6.7	79	10.9
Wild Birds	80	10.1	30	3.0	26	11.3	7	9.0	2	13.3	45	6.2
Aquatic Reptiles	39	4.9	137	13.7	13	5.6	2	2.6	1	6.7	21	2.9
Fishes	145	18.2	383	38.4	56	24.2	15	19.2	5	33.3	429	59.4
Commensal Taxa	97	12.2	43	4.3	18	7.8	2	2.6	1	6.7	36	5.0
TOTALS	796		998		231		78		15		722	

[1]Note: The general category includes data from the following sites: Aiken-Rhett, Atlantic Wharf, Charleston Place, all of First Trident, Gibbes, Lodge Alley, and McCrady's, Charleston Post Office, Rutledge, and 66 Society. Upper Status sites are Aiken-Rhett, the Federal Period sample from First Trident, Gibbes, and Rutledge (Bastian 1987; Calhoun, Reitz, Trinkley, and Zierden 1984; Honerkamp, Council, and Will 1982; Reitz 1984, 1986; Reitz and Cumbaa 1983; Zierden, Buckley, Calhoun, and Hacker 1987; Zierden, Calhoun, and Hacker 1986; Zierden, Calhoun, and Paysinger 1983; Zierden, Calhoun, and Pickney 1983; Zierden and Grimes 1989; Zierden, Grimes, Hudgens, and Black 1988; Zierden and Hacker 1987; Zierden, Reitz, Trinkley, and Paysinger 1982).

Table 2. NISP for Taxa Recovered by Flotation, Class Level Identifications Omitted.

	Pre-Brewton	Brewton-Motte-Alston	Pringle-Frost
Muridae		1	
Old World rat		1	
Pig			4
Cow		1	1
Caprine	1		
Duck			1
Chicken			3
Frog/toad	5		
Herring			3
Ariidae			8
Hardhead catfish			2
Gafftopsail catfish			2
Sea bass			1
Scup			1
Seatrout		1	8
Croaker			2
Black drum			1
Mullet	1		1
Flounder	-	1	—
TOTAL	7	5	38

Table 3. Allometric Values Used in Study*.

Faunal Category	N	Y-Intercept (a)	Slope (b)	r^2
	Bone Weight (kg) to Body Weight (kg)			
Mammal	97	1.12	0.90	0.94
Bird	307	1.04	0.91	0.97
Turtle	26	0.51	0.67	0.55
Chondrichthyes	17	1.68	0.86	0.85
Osteichthyes	393	0.90	0.81	0.80
Non-Perciformes	119	0.85	0.79	0.88
Siluriformes	36	1.15	0.95	0.87
Perciformes	274	0.93	0.83	0.76
Serranidae	18	1.51	1.08	0.85
Centrarchidae	38	0.76	0.84	0.80
Carangidae	17	1.23	0.88	0.86
Haemulidae	25	0.84	0.82	0.42
Sparidae	22	0.96	0.92	0.98
Sciaenidae	99	0.81	0.74	0.73
Pleuronectiformes	21	1.09	0.89	0.95

*Key to abbreviations: Formula is $Y=aX^b$; where Y is biomass or meat weight; X is bone or shell weight; a is the Y-intercept; and b is the slope; N is the number of observations (Reitz and Cordier 1983; Reitz et al. 1987; Wing and Brown 1979).

Table 4. Pre-Brewton: Species List.

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
UID Mammal	1447			709.26	9.677	14.5
UID Sm Mammal	1			0.2	0.006	tr
UID Lg Mammal	281			1620.15	20.352	30.6
UID Rodent	1			0.1	0.003	tr
Rattus spp.	5	1	2.6	1.32	0.034	0.1
Old World rat						
Artiodactyl	14			221.02	3.388	5.1
Sus scrofa	34	3	7.7	253.49	3.833	5.8
Pig						
Bos taurus	48	3	7.7	1543.98	19.488	29.3
Cow						
Caprine	20	2	5.1	288.78	4.310	6.5
Sheep/Goat						
Ovis aries	1	1	2.6	140.5	2.254	3.4
Sheep						
UID Bird	257			60.58	0.855	1.3
Anatidae	1			0.01	0.0003	tr
Duck family						
Anas platyrhynchos	2	1	2.6	0.11	0.003	tr
Mallard						

Table 4. Pre-Brewton: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Branta canadensis	2	1	2.6	3.83	0.069	0.1
Canada goose						
Colinus virginianus	1	1	2.6	0.1	0.003	tr
Quail						
Meleagris gallopavo	13	1	2.6	20.08	0.313	0.5
Turkey						
Gallus gallus	34	3	7.7	25.71	0.392	0.6
Chicken						
Columba livia	1	1	2.6	1.2	0.024	tr
Rock dove						
UID Turtle	11			2.84	0.064	0.1
Emydidae	7			3.53	0.074	0.1
Pond turtle family						
Deirochelys reticularia	25	1	2.6	17.95	0.219	0.3
Chicken turtle						
Malaclemys terrapin	2	1	2.6	3.11	0.068	0.1
Diamondback terrapin						
Anura	12	1	2.6	0.89		
Frog/Toad						
UID Fish	510			64.80	0.866	1.3

Table 4. Pre-Brewton: Species List (cont.).

	MISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Siluriformes	1			0.09	0.002	tr
Catfish order						
Arius felis	3	1	2.6	1.1	0.022	tr
Hardhead catfish						
Bagre marinus	2	1	2.6	0.95	0.019	tr
Gafftopsail catfish						
Morone spp.	1	1	2.6	0.13	0.005	tr
Temperate bass						
Centropristis spp.	10	3	7.7	1.94	0.038	0.1
Sea bass						
Pomatomus saltatrix	1	1	2.6	0.1	0.004	tr
Bluefish						
Carangidae	1	1	2.6	0.4	0.017	tr
Jack family						
Orthopristis chrysoptera	1	1	2.6	0.08	0.003	tr
Pigfish						
Sparidae	1			0.3	0.005	tr
Porgies						
Stenotomus chrysops	8	2	5.1	0.91	0.015	tr
Scup						

Table 4. Pre-Brewton: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Sciaenidae	3			0.26	0.014	tr
Drum family						
Cynoscion spp.	4	2	5.1	0.65	0.028	tr
Seatrout						
Menticirrhus spp.	4	2	5.1	0.33	0.017	tr
Kingfish						
Mugil spp.	7	2	5.1	0.42	0.013	tr
Mullet						
Paralichthys spp.	5	1	2.6	0.64	0.018	tr
Flounder						
UID Vertebrate				95.48		
UID Decapoda	2			2.93		
TOTAL	2784	39		5090.25	66.515	

Table 5. Pre-Brewton: Summary.

	MNI		BIOMASS, KG	
	#	%	KG	%
DOMESTIC MAMMAL	9	23.1	29.885	95.8
DOMESTIC BIRD	4	10.3	0.416	1.3
WILD MAMMAL				
WILD BIRD	4	10.3	0.388	1.2
TURTLE/ALLIGATOR	2	5.1	0.287	0.9
SHARKS AND FISH	18	46.2	0.199	0.6
COMMENSAL TAXA	2	5.1	0.034	0.1
TOTAL	39		31.209	

Table 6. Pre-Brewton: Elements.

	PIG	COW	CAPRINE
SKULL	1	4	2
TEETH	22	8	4
AXIAL		7	1
FOREQUARTER	4	6	4
FOREFEET	3	5	
FEET	2	8	2
HINDFEET	2	3	4
HINDQUARTER	—	7	4
TOTAL	34	48	21

Table 7. Pre-Brewton: Epiphyseal Fusion, Pig.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL	1	1	2
SCAPULA, DISTAL			
RADIUS, PROXIMAL			
ACETABULUM			
METAPODIALS, PROXIMAL			
PHALANX, PROXIMAL	1		1
MIDDLE FUSING:			
TIBIA, DISTAL			
CALCANEUS, PROXIMAL	2		2
METAPODIALS, DISTAL	1		1
LATE FUSING:			
HUMERUS, PROXIMAL	1		1
RADIUS, DISTAL			
ULNA, PROXIMAL			
ULNA, DISTAL			
FEMUR, PROXIMAL			
FEMUR, DISTAL			
TIBIA, PROXIMAL	-	-	-
TOTAL	6	1	7

Table 8. Pre-Brewton: Epiphyseal Fusion, Cow.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL			
SCAPULA, DISTAL			
RADIUS, PROXIMAL			
ACETABULUM			
METAPODIALS, PROXIMAL			
PHALANX, PROXIMAL			
MIDDLE FUSING:			
TIBIA, DISTAL	1	1	2
CALCANEUS, PROXIMAL			
METAPODIALS, DISTAL	5	2	7
LATE FUSING:			
HUMERUS, PROXIMAL	1		1
RADIUS, DISTAL			
ULNA, PROXIMAL			
ULNA, DISTAL			
FEMUR, PROXIMAL			
FEMUR, DISTAL			
TIBIA, PROXIMAL	2	_	2
TOTAL	9	3	12

Table 9. Pre-Brewton: Epiphyseal Fusion, Caprine.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL			
SCAPULA, DISTAL			
RADIUS, PROXIMAL		1	1
ACETABULUM		1	1
METAPODIALS, PROXIMAL			
PHALANX, PROXIMAL	1		1
MIDDLE FUSING:			
TIBIA, DISTAL	1		1
CALCANEUS, PROXIMAL		1	1
METAPODIALS, DISTAL	2		2
LATE FUSING:			
HUMERUS, PROXIMAL	2		2
RADIUS, DISTAL	1		1
ULNA, PROXIMAL			
ULNA, DISTAL			
FEMUR, PROXIMAL	1		1
FEMUR, DISTAL	1		1
TIBIA, PROXIMAL	2	-	2
TOTAL	11	3	14

Table 10. Pre-Brewton: Modifications.

	CUT	BURNED	GNAWED		WORKED	SLICED	HACKED	SAWED
			RODENT	CARNIVORE				
UID Mammal	3	23	4					
UID Lg Mammal	15	2				2	5	1
Pig	3						1	
Cow	10					2	3	
Caprine	1							
UID Bird	2	4	1					
Canada goose	1							
Turkey	1							
UID Fish	1							
UID Vertebrate	_	16	_			_	_	_
TOTAL	37	45	5			4	9	1

Table 11. Brewton-Motte-Alston: Species List.

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
UID Mammal	3255			1911.61	23.619	12.8
UID Sm Mammal	16			2.06	0.05	tr
UID Lg Mammal	827			3970.42	45.599	24.6
UID Rodent	1			0.07	0.002	tr
Sciurus spp. Squirrel	3	1	1.6	2.0	0.049	tr
Muridae Mice/rat family	3			0.12	0.004	tr
Mus musculus House mouse	2	1	1.6	0.05	0.002	tr
Rattus spp. Old World rat	44	5	8.1	13.7	0.277	0.1
Canis familiaris Dog	1	1	1.6	7.3	0.157	0.1
Felis domesticus Cat	2	1	1.6	1.67	0.042	tr
Artiodactyl	74			802.62	10.816	5.8
Sus scrofa Pig	66	3	4.8	610.9	8.46	4.6
Odocoileus virginianus Deer	2	1	1.6	0.84	0.022	tr
Bos taurus Cow	208	6	9.7	7552.24	81.333	43.9

Table 11. Brewton-Motte-Alston: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Caprine	55	4	6.5	549.93	7.696	4.2
Sheep/Goat						
UID Bird	594			203.06	2.570	1.4
Anatidae	18			12.39	0.202	0.1
Duck family						
Anas spp.	5	2	3.2	5.89	0.103	0.1
Duck						
Branta canadensis	1	1	1.6	0.4	0.009	tr
Canada goose						
Colinus virginianus	1	1	1.6	0.06	0.002	tr
Quail						
Meleagris gallopavo	36	3	4.8	101.57	1.368	0.7
Turkey						
Gallus gallus	51	3	4.8	48.11	0.693	0.4
Chicken						
Cathartes spp.	1	1	1.6	3.06	0.056	tr
Vulture						
Columba livia	5	2	3.2	2.35	0.044	tr
Rock dove						
Cardinalis cardinalis	5	1	1.6	0.34	0.008	tr
Cardinal						

Table 11. Brewton-Hotte-Alston: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
UID Turtle	43			36.65	0.353	0.2
Emydidae	17			16.13	0.204	0.1
Pond turtle family						
Pseudemys spp.	1	1	1.6	4.7	0.089	tr
Pond turtle						
Malaclemys terrapin	4	1	1.6	7.54	0.122	0.1
Diamondback terrapin						
Cheloniidae	2	1	1.6	4.18	0.082	tr
Sea turtle family						
Anura	38	4	6.5	3.09		
Frog/Toad						
UID Fish	610			59.20	0.805	0.4
Ariidae	6			1.09	0.022	tr
Sea catfish family						
Arius felis	15	3	4.8	4.3	0.080	tr
Hardhead catfish						
Bagre marinus	5	1	1.6	1.22	0.024	tr
Gafftopsail catfish						
Serranidae	5			0.57	0.01	tr
Sea bass family						

Table 11. Brewton-Notte-Alston: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Centropristis spp.	9	2	3.2	2.14	0.042	tr
Sea bass						
Caranx hippos	2	1	1.6	0.35	0.015	tr
Crevalle jack						
Sparidae	1			0.5	0.008	tr
Porgies						
Archosargus probatocephalus	1	1	1.6	0.21	0.004	tr
Sheepshead						
Stenotomus chrysops	14	3	4.8	4.63	0.065	tr
Scup						
Sciaenidae	1			0.06	0.005	tr
Drum family						
Cynoscion spp.	7	1	1.6	0.6	0.027	tr
Seatrout						
Menticirrhus spp.	5	1	1.6	0.37	0.019	tr
Kingfish						
Micropogonias undulatus	2	1	1.6	0.11	0.008	tr
Croaker						
Pogonias cromis	1	1	1.6	0.05	0.004	tr
Black drum						

Table 11. Brewton-Hotte-Alston: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Mugil spp.	6	1	1.6	0.59	0.018	tr
Mullet						
Paralichthys spp.	4	1	1.6	0.69	0.019	tr
Flounder						
Balistes vetula	1	1	1.6	0.4	0.014	tr
Queen triggerfish						
UID Vertebrate				337.69		
UID Mollusca	81			198.14		
UID Decapoda	1			0.2		
TOTAL	6158	62		16488.16	185.222	

Table 12. Brewton-Motte-Alston: Summary.

	MNI		BIOMASS, KG	
	#	%	KG	%
DOMESTIC MAMMAL	14	22.6	97.489	96.6
DOMESTIC BIRD	5	8.1	0.737	0.7
WILD MAMMAL	2	3.2	0.071	0.1
WILD BIRD	7	11.3	1.538	1.5
TURTLE/ALLIGATOR	3	4.8	0.293	0.3
SHARKS AND FISH	18	29.0	0.339	0.3
COMMENSAL TAXA	13	21.0	0.486	0.5
TOTAL	62		100.953	

Table 13. Brewton-Motte-Alston: Elements.

	PIG	DEER	COW	CAPRINE
SKULL	5		9	5
TEETH	31		28	7
AXIAL			20	
FOREQUARTER	11		38	7
FOREFEET			15	1
FEET	6	2	31	3
HINDFEET	4		27	13
HINDQUARTER	9		40	19
TOTAL	66	2	208	55

Table 14. Brewton-Kotte-Alston: Epiphyseal Fusion, Pig.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL			
SCAPULA, DISTAL			
RADIUS, PROXIMAL			
ACETABULUM			
METAPODIALS, PROXIMAL	1		1
PHALANX, PROXIMAL	3	1	4
MIDDLE FUSING:			
TIBIA, DISTAL		1	1
CALCANEUS, PROXIMAL	1		1
METAPODIALS, DISTAL		2	2
LATE FUSING:			
HUMERUS, PROXIMAL	2		2
RADIUS, DISTAL	1		1
ULNA, PROXIMAL	1		1
ULNA, DISTAL	1	1	2
FEMUR, PROXIMAL			
FEMUR, DISTAL	1		1
TIBIA, PROXIMAL	1	_	1
TOTAL	12	5	17

Table 15. Brewton-Notte-Alston: Epiphyseal Fusion, Cow.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL	1		1
SCAPULA, DISTAL			
RADIUS, PROXIMAL	1	4	5
ACETABULUM	1		1
METAPODIALS, PROXIMAL	1		1
PHALANX, PROXIMAL	2	17	19
MIDDLE FUSING:			
TIBIA, DISTAL		6	6
CALCANEUS, PROXIMAL	2	2	4
METAPODIALS, DISTAL	6	2	8
LATE FUSING:			
HUMERUS, PROXIMAL	1		1
RADIUS, DISTAL	4	1	5
ULNA, PROXIMAL	2	1	3
ULNA, DISTAL	1		1
FEMUR, PROXIMAL	3	1	4
FEMUR, DISTAL	6		6
TIBIA, PROXIMAL	7		7
TOTAL	38	34	72

Table 16. Brewton-Motte-Alston: Epiphyseal Fusion, Caprine.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL	1		1
SCAPULA, DISTAL			
RADIUS, PROXIMAL		1	1
ACETABULUM	1	1	2
METAPODIALS, PROXIMAL			
PHALANX, PROXIMAL	1	2	3
MIDDLE FUSING:			
TIBIA, DISTAL	1	1	2
CALCANEUS, PROXIMAL	1		1
METAPODIALS, DISTAL	1		1
LATE FUSING:			
HUMERUS, PROXIMAL	1		1
RADIUS, DISTAL	2		2
ULNA, PROXIMAL			
ULNA, DISTAL			
FEMUR, PROXIMAL	2	1	3
FEMUR, DISTAL	4	2	6
TIBIA, PROXIMAL	1	-	1
TOTAL	16	8	24

Table 17. Brewton-Motte-Alston: Modifications.

	CUT	BURNED	GNAWED		WORKED	SLICED	HACKED	SAWED
			RODENT	CARNIVORE				
UID Mammal	9	64			2			2
UID Lg Mammal	23	38	4			2	8	5
Artiodactyl	3							
Pig	6						2	1
Cow	21	1	1			7	18	2
Caprine	2					1	3	
UID Bird	4		4					
Anatidae	1							
Anas spp.	1		1	1				
Turkey	3		2					
Chicken	5							
UID Turtle		1		2				
Diamondback terrapin		1						
UID Fish		1						
UID Vertebrate	1	17	—	—	—	—	—	—
TOTAL	79	123	12	3	2	10	31	10

Table 18. Pringle-Frost: Species List.

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
UID Mammal	1820			825.42	11.092	11.7
UID Sm Mammal	30			2.8	0.066	0.1
UID Lg Mammal	649			2225.20	27.079	28.6
Didelphis virginiana	36	2	2.5	31.24	0.582	0.6
Opossum						
UID Rodent	4			0.16	0.005	tr
Sciurus spp.	2	1	1.3	1.01	0.027	tr
Squirrel						
Muridae	6			0.3	0.009	tr
Mice/rat family						
Sigmodon hispidus	1	1	1.3	0.39	0.011	tr
Hispid cotton rat						
Mus musculus	5	2	2.5	0.07	0.002	tr
House mouse						
Rattus spp.	157	10	12.5	34.25	0.633	0.7
Old World rat						
Canis familiaris	182	1	1.3	214.30	3.295	3.5
Dog						
Felis domesticus	65	3	3.8	50.04	0.896	0.9
Cat						

Table 18. Pringle-Frost: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Equus caballus	1	1	1.3	40.58	0.737	0.8
Horse						
Artiodactyl	74			407.88	5.881	6.2
Sus scrofa	56	3	3.8	211.22	3.253	3.4
Pig						
Odocoileus virginianus	2	1	1.3	36.26	0.666	0.7
Deer						
Bos taurus	90	4	5.0	2252.99	27.383	28.9
Cow						
Caprine	26	3	3.8	247.49	3.751	4.0
Sheep/Goat						
Ovis aries	1			39.1	0.713	0.8
Sheep						
UID Bird	902			238.42	2.974	3.1
Ardeidae	1	1	1.3	0.2	0.005	tr
Heron family						
Anatidae	19			16.4	0.260	0.3
Duck family						
Anas spp.	2			3.49	0.064	0.1
Duck						

Table 18. Pringle-Frost: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Anas platyrhynchos	10	2	2.5	8.86	0.149	0.2
Mallard						
Branta canadensis	3	1	1.3	5.82	0.101	0.1
Canada goose						
Colinus virginianus	3	1	1.3	0.3	0.007	tr
Quail						
Meleagris gallopavo	23	2	2.5	41.75	0.609	0.6
Turkey						
Gallus gallus	69	4	5.0	71.70	0.997	1.1
Chicken						
Otis asio	3	1	1.3	0.66	0.014	tr
Screech owl						
Columba livia	2	1	1.3	1.1	0.022	tr
Rock dove						
UID Turtle	45			24.59	0.27	0.3
Emydidae	3			4.45	0.086	0.1
Pond turtle family						
Pseudemys spp.	4	1	1.3	22.62	0.256	0.3
Pond turtle						
Malaclemys terrapin	8	2	2.5	4.1	0.081	0.1
Diamondback terrapin						

Table 18. Pringle-Frost: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Anura	4	1	1.3	0.3		
Frog/Toad						
Carcharodon carcharias	1			(FOSSIL)		
White shark						
Carcharhinidae	1	1	1.3	0.1	0.017	tr
Requiem shark family						
UID Fish	2845			95.36	1.184	1.3
Clupeidae	3	1	1.3	0.1	0.005	tr
Herring family						
Siluriformes	6			0.74	0.015	tr
Catfishes						
Ictaluridae	1	1	1.3	0.05	0.001	tr
Bullhead catfish family						
Ariidae	24			3.2	0.06	0.1
Sea catfish family						
Arius felis	16	2	2.5	2.32	0.044	tr
Hardhead catfish						
Bagre marinus	34	2	2.5	8.07	0.145	0.2
Gafftopsail catfish						
Morone spp.	8	1	1.3	1.43	0.037	tr
Temperate bass						

Table 18. Pringle-Frost: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Serranidae	2			0.24	0.004	tr
Sea bass family						
Centropristis spp.	5	2	2.5	0.76	0.014	tr
Sea bass						
Lepomis microlophus	1	1	1.3	0.62	0.012	tr
Redear sunfish						
Micropterus salmoides	1	1	1.3	0.3	0.006	tr
Largemouth bass						
Carangidae	1	1	1.3	0.01	0.001	tr
Jack family						
Orthopristis chrysoptera	7	1	1.3	0.97	0.023	tr
Pigfish						
Sparidae	10			1.14	0.018	tr
Porgies						
Archosargus probatocephalus	14	2	2.5	10.51	0.138	0.1
Sheepshead						
Stenotomus chrysops	30	3	3.8	5.27	0.073	0.1
Scup						
Sciaenidae	3			0.17	0.010	tr
Drum family						

Table 18. Pringle-Frost: Species List (cont.).

	NISP	MNI		WT,GMS	BIOMASS	
		#	%		KG	%
Cynoscion spp.	30	2	2.5	3.12	0.09	0.1
Seatrout						
Menticirrhus spp.	1	1	1.3	0.07	0.005	tr
Kingfish						
Micropogonias undulatus	5	2	2.5	1.2	0.045	tr
Croaker						
Pogonias cromis	12	3	3.8	40.11	0.598	0.6
Black drum						
Sciaenops ocellatus	2	1	1.3	1.42	0.05	0.1
Red drum						
Mugil spp.	10	2	2.5	0.87	0.025	tr
Mullet						
Paralichthys spp.	2	1	1.3	3.0	0.07	0.1
Flounder						
UID Vertebrate				255.61		
UID Mollusca	1			0.4		
UID Decapoda	20			9.5		
TOTAL	7404	80		7512.12	94.666	

Table 19. Pringle-Frost: Summary.

	MNI		BIOMASS, KG	
	#	%	KG	%
DOMESTIC MAMMAL	10	12.5	34.387	76.6
DOMESTIC BIRD	5	6.3	1.019	2.3
WILD MAMMAL	4	5.0	1.275	2.8
WILD BIRD	8	10.0	0.885	2.0
TURTLE/ALLIGATOR	3	3.8	0.337	0.8
SHARKS AND FISH	31	38.8	1.399	3.1
COMMENSAL TAXA	19	23.8	5.574	12.4
TOTAL	80		44.876	

Table 20. Pringle-Frost: Elements.

	DOG	CAT	HORSE	PIG	DEER	COW	CAPRINE
SKULL	25	11		1		5	
TEETH	9	3	1	29		7	8
AXIAL	87	43				9	1
FOREQUARTER	8	5		7		15	4
FOREFEET	1			5		12	
FEET	33			3		7	1
HINDFEET	5			5		15	5
HINDQUARTER	14	3		6	2	20	8
TOTAL	182	65	1	56	2	90	27

Table 21. Pringle-Frost: Epiphyseal Fusion, Pig.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL		2	2
SCAPULA, DISTAL			
RADIUS, PROXIMAL	1		1
ACETABULUM		1	1
METAPODIALS, PROXIMAL			
PHALANX, PROXIMAL	3		3
MIDDLE FUSING:			
TIBIA, DISTAL			
CALCANEUS, PROXIMAL	1	1	2
METAPODIALS, DISTAL		1	1
LATE FUSING:			
HUMERUS, PROXIMAL			
RADIUS, DISTAL			
ULNA, PROXIMAL			
ULNA, DISTAL	1		1
FEMUR, PROXIMAL	3		3
FEMUR, DISTAL			
TIBIA, PROXIMAL	_	_	_
TOTAL	9	5	14

Table 22. Pringle-Frost: Epiphyseal Fusion, Cow.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL		2	2
SCAPULA, DISTAL		2	2
RADIUS, PROXIMAL	1		1
ACETABULUM		1	1
METAPODIALS, PROXIMAL	1		1
PHALANX, PROXIMAL	1	4	5
MIDDLE FUSING:			
TIBIA, DISTAL	1	1	2
CALCANEUS, PROXIMAL			
METAPODIALS, DISTAL			
LATE FUSING:			
HUMERUS, PROXIMAL	2		2
RADIUS, DISTAL	1	1	2
ULNA, PROXIMAL	1		1
ULNA, DISTAL			
FEMUR, PROXIMAL	4		4
FEMUR, DISTAL		1	1
TIBIA, PROXIMAL	4	—	4
TOTAL	16	12	28

Table 23. Pringle-Frost: Epiphyseal Fusion, Caprine.

	UNFUSED	FUSED	TOTAL
EARLY FUSING:			
HUMERUS, DISTAL	1	1	2
SCAPULA, DISTAL			
RADIUS, PROXIMAL			
ACETABULUM		2	2
METAPODIALS, PROXIMAL		1	1
PHALANX, PROXIMAL		1	1
MIDDLE FUSING:			
TIBIA, DISTAL		1	1
CALCANEUS, PROXIMAL		1	1
METAPODIALS, DISTAL			
LATE FUSING:			
HUMERUS, PROXIMAL			
RADIUS, DISTAL	1		1
ULNA, PROXIMAL			
ULNA, DISTAL			
FEMUR, PROXIMAL			
FEMUR, DISTAL	2		2
TIBIA, PROXIMAL	2	_	2
TOTAL	6	7	13

Table 24. Pringle-Frost: Modifications.

	CUT	BURNED	GNAWED		WORKED	SLICED	HACKED	SAWED
			RODENT	CARNIVORE				
UID Mammal	5	82	5			1	1	6
UID Lg Mammal	19	35	9			9	7	70
Rattus spp.		1						
Artiodactyl	7	4	2				1	2
Pig		2	1					7
Cow	3		4			3	1	14
Caprine	2	—	1			—	—	1
TOTAL	36	124	22			13	10	100

Table 25. Charleston Components in Which Fishes Constitute More Than 18% of the Individuals.*.

FUNCTION	SITE	OCCUPATION	% FISH MNI
UNKNOWN	FIRST TRIDENT COLONIAL	1740s-1840s	37%
COMMERCIAL	FIRST TRIDENT TANNERY	1740s	33%
PUBLIC GATHERINGS	McCRADY'S TAVERN	1778-1788	21%
RESIDENTIAL	PRE-BRENTON	1730s-1768	46%
RESIDENTIAL	BRENTON-MOTTE-ALSTON	1769-1830	30%
RESIDENTIAL	RUTLEDGE HOUSE	1770s-1820s	21%
RESIDENTIAL	FIRST TRIDENT FEDERAL	1790s-1840s	33%
RESIDENTIAL	RUTLEDGE HOUSE	1820s-1850s	33%
RESIDENTIAL	PRINGLE-FROST	1840s-1880	39%

*Data from the following sources: Zierden, Calhoun, and Pickney 1983; Zierden and Grimes 1989; Zierden, Reitz, Trinkley, and Paysinger 1982; and this report.

APPENDIX A: SAMPLES STUDIED, FS#*

Pre-Brewton	Brewton-Notte-Alston		Pringle-Frost
37	3	119	2
38	4	120	12
39	5	132	18
54	6	133	19
55	7	134	20
57	8	137	21*
58	9	138	23
60	10*	145	24
61	13	146	25
73	15	147	26*
74	22	148*	27
75	33	150	28*
81*	34	151	29
82	35*	152*	30
83	36	155	31
88*	42	156*	40
100	43		41
104	45		63
105	46		64
106	47		65
107	48		77*
112	50		78
130	51		87
135	52		89
139	53		90
153*	56		91
154	66		93
	68		94
	70		95
	72*		96
	76		101
	79		102
	97		122
	98		123
	99		124
	103		125*
	109		126
	110		127*
	111		128
	113		136
	114*		142
	115		143
	116		144
	118		149

*Note: The asterisk indicates that part of this sample was floated.

APPENDIX B: PRE-BREWTON MEASUREMENTS

SPECIES	ELEMENT	DIMENSION	MEASUREMENT, MM
Sus scrofa	Humerus	Bd	39.70
Bos taurus	Metacarpus	Bd	61.00
	Scapula	BG	49.90
		GLP	68.50
		LG	60.50
Caprine	Astragalus	Bd	24.20
		GLl	39.20
		GLm	35.00
	Calcaneus	GB	20.03
		GL	57.65
	Radius	Bp	31.30
Gallus gallus	Femur	BD	14.40
		SC	6.75
	Humerus	Bd	16.40
		SC	6.80
	Scapula	Dic	13.40
	Tarsometatarsus	Bd	12.50
		Bp	13.30
		GL	76.55
		SC	6.15
	Tibiotarsus	Bd	12.50
	Ulna	Bp	13.20
Meleagris gallopavo	Tarsometatarsus	Bp	27.90
	Tibiotarsus	Bd	18.00
Stenotomus chrysops	Atlas	Width	0.61

APPENDIX B: BRENTON-MOTTE-ALSTON MEASUREMENTS

SPECIES	ELEMENT	DIMENSION	MEASUREMENT, MM
Sus scrofa	Metatarsus	Bd	17.80
		Bp	15.60
		GL	79.50
	Tibia	Bd	29.30
		SD	22.10
Bos taurus	Astragalus	Bd	45.00, 45.90, 46.05, 47.70, 48.50
		Dl	38.66
		Dm	41.00
		GLl	67.94, 69.50, 70.02
		GLm	62.05, 62.20, 62.58, 63.20, 68.00
	Calcaneus	GB	40.52
		GL	132.40, 135.80
	Cubonavicular	GB	56.50, 59.80
	Metacarpus	Bd	62.60
	Metatarsus	Bp	51.10
	Os malleolare	GD	31.10, 34.00, 35.00
	Radius	BFp	66.55, 77.44, 78.45
	Radius	Bp	71.50, 85.96, 86.95
	Radius	GL	236.00
	Tibia	Bd	57.80, 59.40, 60.84, 67.00
	Tibia	Dd	44.22, 45.50
Caprine	Astragalus	Bd	18.80, 22.20
		Dl	20.86
		GLl	28.95, 30.25, 34.60, 39.06
		GLm	32.50, 35.80
	Femur	Bd	42.70
	Metatarsus	Bd	23.90
	Metatarsus	Bp	22.00, 24.95
Gallus gallus	Carpometacarpus	Bp	12.10
		Did	9.05
		GL	39.80
	Femur	Bp	15.55, 18.72
		Dp	16.60
	Humerus	Bd	14.24, 15.00
		Bp	12.12
	Scapula	Bd	10.65
		Dic	9.70
		GB	11.00
	Tarsometatarsus	Bd	12.45
	Tibiotarsus	Bd	12.10
		SC	6.70

APPENDIX B: BRENTON-HOTTE-ALSTON MEASUREMENTS (cont.).

SPECIES	ELEMENT	DIMENSION	MEASUREMENT, MM
Meleagris gallopavo	Carpometacarpus	Bp	15.38
		Did	10.86
		GL	55.32
	Scapula	Bp	20.03
	Tibiotarsus	Bd	20.00
		Dd	18.40

APPENDIX B: PRINGLE-FROST MEASUREMENTS

SPECIES	ELEMENT	DIMENSION	MEASUREMENT, MM
Sus scrofa	Metacarpus	Bd	9.40
		GL	64.20
Bos taurus	Astragalus	Bd	42.10
	Os malleolare	GD	32.80
	Tibia	Bd	65.90
		Dd	44.50
Caprine	Astragalus	Bd	19.96
		Dl	15.40
		GLl	30.05
		GLm	29.96
	Calcaneus	GB	21.65
		GL	61.25
Anas platyrhynchos	Carpometacarpus	Bp	14.75
	Coracoid	Bb	19.65
		GL	55.00
	Humerus	Bp	16.85
Gallus gallus	Carpometacarpus	Bp	12.65
	Coracoid	Bb	12.26
		BF	9.54
		GL	51.06
		La	48.54
	Femur	Bd	15.90, 16.60
		Bp	16.80, 17.10, 17.10
			17.80
		Dd	12.40
		Dp	11.40, 12.30, 15.90
		GL	77.35
	Humerus	Bd	14.56, 17.70, 17.90
		Bp	22.15
		GL	81.35
		SC	7.55
	Tarsometatarsus	Bp	10.90
	Tibiotarsus	Bd	11.85
		SC	6.05, 6.45
	Ulna	Bd	9.45, 9.50
		Bp	9.90, 11.60
		Did	11.03
		GL	73.60
Meleagris gallopavo	Radius	Bd	11.25
Serranidae	Atlas	Width	5.10
Orthopristis spp.	Atlas	Width	2.80
Cynoscion spp.	Atlas	Width	3.20
	Otolith	Length	20.20
Micropogonias undulatus	Otolith	Length	9.70, 10.10
			11.20
Pogonias cromis	Atlas	Width	3.50, 9.30
	Pharyngeal	Length	70.80

Chapter VI
Pollen Analysis of the Miles Brewton House

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Previous palynological study of the John Rutledge house, sponsored by The Charleston Museum, indicated dramatic deforestation of the Charleston area early in its settlement history. Soil samples from dated contexts from the Miles Brewton house were submitted for further environmental study. The goals of this study were: 1) to attempt to find further support of deforestation during the middle to late 1700s and 2) to evaluate continued environmental change through the late 1700s and 1800s. 3) to suggest possible ornamental and functional plants in the Miles Brewton yard during the period of study. Nine archaeological samples and one modern pollen comparative sample were included for analysis (Table 1). The dates of the samples are as follows: two samples date to circa 1750, one sample dates to the 1770s, one sample dates to the late 1700s to early 1800s, two samples date to 1800-1825, one sample dates to 1830, and one sample dates to the 1860s. Thus, the samples cover a period of over 100 years from 1770 to 1860 and provide the potential of examining the environmental impact of settlement.

Materials and Methods

Thirty milliliters of soil were measured for each subsample. A Lycopodium spore tablet was added to each subsample. Each spore tablet contains 11,300 plus or minus 200 spores. The addition of a known number of spores to the subsamples enables accurate measurement of the number of grains per milliliter of soil by calculating a ratio of eggs or pollen to Lycopodium spores.

The subsamples were treated first in 30% hydrochloric acid in 300 milliliter beakers. The acid dissolves calcuim carbonate that holds microscipic particles in the soil matrix. Acid was added to the soil samples until reaction between the acid and carbonates ceased. Then distilled water was added to the beakers holding the soil-acid mixture.

Once the soil was disaggregated by hydrochloric acid, they were sedimented and screened to remove large, heavy components. The soil mixture was rigorously swirled until the soil was in suspension. The beaker was then set aside for 30 seconds to allow the heavy fraction to settle out. The supernatant was then poured through a 0.25 milliliter mesh screen into a 500 milliliter beaker. This process was repeated twice at which point the supernatant was nearly clear. The material resting on top of the screen was dried on blotter paper and then examined for macroscopic remains. The heavy sand sediment was discarded. The microscopic remains in the 500 milliliter beakers were concentrated by centrifugation. The concentrated remains were then

washed three times in distilled water to remove traces of hydrochloric acid that would otherwise react with chemicals in subsequent stages of processing.

After the microscopic remains were washed and again concentrated by centrifugation, they were treated with heated 42% hydrofluoric acid. This process dissolves fine silicates. The sediments were then washed with distilled water to remove residual hydrofluoric acid that would otherwise pose a health hazard to the professor.

The microscopic remains were transferred to 12 milliliter glass centrifuge tubes. After the microscopic remains were concentrated by centrifugation and the supernatant poured off, a zonc bromide heavy density mixture (specific gravity 2.0) was added to the tubes. The sediment was then mixed into the zinc bromide and the tubes were spun in a clinical centrifuge at 1,500 r.p.m. for 15 minutes. This process results in the separation of light organic remains, including pollen grains and parasite eggs, from heavier organic detritus. The light remains float to the surface of the heavy density mixture and are easily removed. The heavy detritus sinks to the bottom of the tubes.

After the zinc bromide heavy density treatment, the other samples were processed further to extract pollen by acetolysis. The pollen subsamples were washed twice in glacial acetic acid. Then an acetolysis mixture (9 parts acetic anhydride to one part sulphuric acid) was added to the tubes and heated for twenty minutes. The acetolysis treatment dissolves several organic compounds, the most important of which are cellulose and chitin. After the acetolysis treatment, the soils were washed once with the glacial acetic acid and then with distilled water until the supernatant was clear.

The microscopic remains were then treated for 30 seconds in 5% potassium hydroxide to dissolve humics. After several water washes the supernatant was clear and the microscopic remains were transferred into vials with glycerol.

Microscopic examination of pollen samples was accomplished by placing a drop of glycerol with suspended microscopic remains onto a microscope slide. A coverslip was placed over the drop and sealed with commercial nail polish. After the polish dried, the slides were examined with a binocular compound microscope. The pollen preparation was examined at 400 power.

The pollen grains were counted as were Lycopodium spores. A minimum of two hundred grains were counted from samples that contained sufficient pollen. The number of pollen grains per milliliter of soil was calculated on the basis of a ratio of pollen grains to the known number of spores.

Results

The nine samples studied, by number, are listed by provenience in table 1. All samples contained enough pollen grains to obtain 200 grain counts or more except for Sample 1. The high carbon content of Sample 1 hampered counting. Consequently this sample is not included in the analysis although the pollen count from this sample is listed in Table 2. For statistical validity, pollen counts must include a minimum of 200 pollen grains.

In the previous pollen study of the John Rutledge House (Reinhard in Zierden and Grimes 1989), several observations were found to be useful in evaluating environmental change. First, the percentage of herbaceous disturbance plants (Cheno Am types) were very useful in tracing disturbance of local environment; higher Cheno Am percentages indicate greater environmental disturbance. Secondly, the number of hardwood taxa present per sample was significant; environmental disturbance was reflected by a decrease in hardwood taxa. Thirdly, the percentage of hardwood pollen in the sample was important; a decrease in hardwood pollen signals a decline in hardwoods in the environment. These factors were calculated and are presented in Table 2.

Forty-two identifiable pollen and spore types were encountered. Of these, 18 are from woody species of which 16 are hardwood taxa (table 1). All woody taxa were identifiable as to genus. Two softwood conifers, Juniperus and Pinus were also recovered. Pollen from 23 herbaceous taxa were recovered, of which three are fern taxa (Pteridium, Polypodium, and Osmunda) and one is a moss taxon (Sphagnum), Of the 19 remaining herbaceous taxa, 13 are identified to genus and six to family. The identification of species to genus level allows for a more fine tuned reconstruction of environment.

Mesic taxa (plants adapted to wet environments) are common to both the woody taxa and herbaceous taxa. Ten of the herbaceous taxa identified to genus are mesic adapted. Four of the woody genera are mesic. Most of the mesic taxa are associated with very wet environments such as swamps, bogs, ponds or riparian environments associated with slow moving rivers. No evidence of dietary plants are present in the pollen counts.

The earliest samples are numbered 9 and 4. Both of these were deposited prior to, or at the time of, construction of the Miles Brewton House. However, sample 4 is from a cultural deposit (hearth fill) in contrast to sample 9 which appears to be non-cultural. The pollen concentration of the samples reflect different origins. Sample 9 contains over 17,000 pollen grains per milliliter and sample 4 contains just over 600 pollen grains per milliliter. This suggests a slow accumulation of the deposit represented by sample 9 as opposed to a more rapid accumulation from sample 4. Sample 9 most likely represents a pre-settlement environment. It is dominated by arboreal pollen (76%), most of which comes from hardwood taxa (73%). It is interesting to note that Corylus (hazel) is common in sample 9 (8%) but decreases substantially with cultural settlement in the 1700s and does not approach this pre-settlement percentage until the 1860s (sample 7). The low counts of Cheno Am pollen in sample 9 (1.7%) reflects a stable, relatively undisturbed habitat. Very little grass pollen is present in sample 9 which may also

reflect an undisturbed woodland environment. In contrast, the pollen in sample 4 exhibits a pronounced Cheno Am component (12%), a declining arboreal component (45%) of which only 37% comes from hardwood taxa, and an increases in grasses which indicates that the environment represented by sample 4 was more open with a decreased arboreal component. Both samples contained high amounts of mesic taxa pollen. However, it is interesting to note that the majority of the mesic pollen in sample 9 (14% of 19%) is derived from arboreal taxa (Salix and Alnus) where as the majority of mesic pollen in sample 4 is derived from herbaceous plants (16% of 25%). In general, sample 4 is very similar to the modern pollen count (sample 10)

Sample 6 represents a depositional event that occurred in the 1770s. The pollen data indicate that oak was still a major environmental component. The presence of relatively high percentage of Cheno Am pollen (10%) indicates continued environmental disturbance. Arboreal pollen makes up 69% of the pollen spectrum with hardwoods constituting 64%. Mesic pollen is dominated by arboreal pollen (21%) over herbaceous pollen (7.5%). The pollen spectrum of this sample suggest a disturbed environment that experience a partial resurgence of arboreal hardwoods, especially Salix (willow).

Sample 8, dating to the late 18th to early 19th centuries, is anomalous. It is characterized by appearance of large amounts of Cornus (dogwood), Acer (maple), Nyssa (black gum) and Ilex (holly) pollen. These pollen types are rare or absent in the other samples. Acer makes up 7% of the pollen spectrum, with Cornus, Ilex, and Nyssa making up 10%, 5%, and 4% of the pollen spectrum respectively. The cause of the appearance of these pollen types is speculative, but I suggest that these taxa were grown as ornamentals or shade trees. Overall, 55% of the pollen is arboreal with 53% of the pollen coming from hardwoods. Mesic pollen makes up 16.3% of the total pollen county with 14% coming from mesic arboreal taxa.

Samples 2 and 5 date to the first quarter of the 19th century. Woody species make up 42% of the pollen from sample 2 with hardwoods making 37%. For sample 5, 69% of the pollen is derived from woody taxa with hardwoods comprising 55% of the count. More Cheno Am pollen is present in sample 2 (20.5%) than sample 5 (9.5%). Mesic pollen composes 21% of the sample 2 count with a predominance of mesic herbaceous species (11%). For sample 5, mesic pollen composes 21% of the count with the predominance coming from arboreal taxa (19%).

Sample 3 dates to the 1830s and consists of loamy soil that collected in a brick drain. This sort of sample is excellent for the recovery of environmental pollen data. The sample is characterized by a remarkably high Cheno Am count (32%), a high Pinus count (25%), and a low Quercus count. The overall arboreal pollen count is 52% with 28% coming from hardwoods. Only 7% of the pollen comes from mesic species with arboreal taxa predominating (6%). The high Cheno Am count, low arboreal count, and low mesic count suggest that the environment during this period of time was relatively dry, disturbed, and open.

Sample 7 was deposited in the 160s. Arboreal taxa make up 65% of the count and hardwood taxa compose 41% of the count. Cheno Am pollen makes up 15%. Mesic arboreal

taxa compose 8% of the spectrum while mesic herbaceous pollen composes 3%. Like sample 3, the low mesic pollen count indicate that a dry period continued from the 1830s to the 1860s. However, higher arboreal pollen counts suggest that the environment contained a greater number of trees.

The modern counts are somewhat comparable to those of the late 1700s and early 1800s. Of the arboreal taxa, 30% of the pollen comes from hardwoods and 20% from softwoods. Of the 23% of mesic pollen, 10% is arboreal and 13% herbaceous. Cheno Am pollen is present at 13%

Summary and Discussion

The two samples that predate the house exhibit very different pollen spectra. Sample 9 probably represents the earliest deposit, and possibly the precolonial arboreal environment. Sample 4 exhibits a high amount of disturbance with reduction in arboreal plants, increase in herbaceous plants, and increase in disturbance plants. The samples show that disturbance of the local environment began before the house was constructed. The pollen spectrum from sample 6 dating to the 1770s is primarily arboreal. High Cheno Am counts relative to sample 9 indicate that the environment is not stable, although Quercus and Salix dominate the pollen spectrum.

Samples 8, 2, and 5, dating to the late 18th and early 19th centuries, illustrate the variation in pollen counts that can be derived from the same house area. Sample 8 is most peculiar and seems to reflect pollen derived from ornamental trees. Samples 2 and 5 appear to reflect disturbed habitats as indicated by relatively high Cheno Am counts. However, the relative percentages of arboreal pollen are remarkably different and the proportion of herbaceous mesic pollen to arboreal mesic pollen in the samples are reversed. This points out the need to carry out pollen studies of modern yards to gauge the variation in house yard pollen spectra that would help in the interpretation of historic soil samples.

The pollen spectrum from the 1830s (sample 3) stands in contrast with that of the first quarter of the 19th century (samples 2 and 5). The area appears to have been more disturbed, drier, with less hardwood trees than before. This drier period extended to the 1860s, as indicated by sample 7.

Unlike the John Rutledge house, the pollen samples contain a substantial mesic component. This suggests that the local environments of the two houses were quite different. This is important for the interpretation of environmental change, for mesic environments can support a greater variety of taxa that may have died out in other areas. Thus, tracing environmental change in historic mesic environments is more difficult because the very nature of the diversified mesic environment blunts ecological changes that may affect surrounding, drier areas.

Nonetheless, certain changes have been documented. It is clear that development of Charleston around 1750, and later, altered the environment, reduced the number of hardwood trees, and led to increase in herbaceous plant growth. General changes post-dating 1750 can be estimated by graphing changes in percentages of taxa using the best dated samples (numbers 9 for 1750, 6 for 1770, 3 for 1830, and 7 for 1860) and pooling samples 2 and 5 to represent the early 1800s. The data from samples 2 and 5 are labeled at 1810 on the graphs (figures 1-4).

Figure 1a graphs the change in percentage frequency of Quercus (oak) from 1750 to 1860. Since oak was an important structural wood, it seems that construction of houses would greatly impact this taxon. As can be seen, there is a pronounced decline in oak through the 1700s to the early 1800s.

The study of the John Rutledge house indicated that a decline in hardwood pollen in general accompanied the establishment of Charleston. Figure 1b graphs the changes in all hardwood taxa. As can be seen, the pollen samples from the Miles Brewton house show a similar pattern of hardwood decline that carries through the first half of the 19th century.

The pollen data from the late 1800s indicated a decrease in the mesic pollen surrounding the Miles Brewton house. The change in mesic pollen frequency is presented in figure 2a. The relatively low value for 1750 is due, at least in part, to the high yield of arboreal pollen from that time period. It appears that mesic pollen decreases in quantity through time and may reflect an environmental change towards the middle of the 19th century. It is possible that a drought or artificial drainage is responsible for the decline.

A short-distance pollinating, hardwood taxa decrease in productivity, more long-distance pollinating softwoods such as pine should appear in the pollen spectra. As grafted in figure 2b, a general increase in pine pollen is evident throughout the 1700s and 1800s.

Although the environmental changes near the Miles Brewton house are obscured by mesic pollen types, environmental disruption is evident, as previously noted in the John Rutledge house pollen study. The Miles Brewton study illustrates, however, two new observations. First, there can be marked differences in environmental pollen spectra between house yards in the same town.

Secondly, it is apparent that local variation in the vegetation within a yard results in variable pollen spectra. These observations should be explored to a greater degree in future studies of historic homesteads.

Table 1a: List of sample proveniences.

Sample #2: N267.4W313.5, zone 3 level 2, FS#148 (fill under privy building); 1800-1825

Sample #3: N225W177, feature 16, FS#89 (silt from interior of drain) 1830s

Sample #4: N225W185, feature 11, FS#60 (charcoal-filled hearth) c. 1750-60s

Sample #5: N225W185, zone 2 level 2, FS#34 (midden level) 1800-1825

Sample #6: N120W120, feature 3, FS#10 (large pit) 1770s

Sample #7: N295W320, feature 4 level 2, FS#142 (rubble-filled pit) 1860s

Sample #8: N155W332, zone 2, FS#12 (yard/garden midden) late 1700s-early 1800s

Sample #9: N225W185, zone 5, FS#88 (original topsoil/swampy area) c. 1750

Sample #10: modern

Table 1, continued

Sample #8 late 1700's-early 1800's non-cultural	
# total pollen grains per milliliter	1,530
% hardwood pollen	53
# hardwood taxa	13
% Cheno Am	5
% mesic pollen	16.3
Sample #2 1800-1825 privy fill	
# total pollen grains per milliliter	620
% hardwood pollen	37
# hardwood taxa	8
% Cheno Am	20
% mesic pollen	21
Sample #5 1800-1825 midden	
# total pollen grains per milliliter	957
% hardwood pollen	55
# hardwood taxa	10
% Cheno Am	10
% mesic pollen	21
Sample #3 1830 silt fill	
# total pollen grains per milliliter	1,570
% hardwood pollen	28
# hardwood taxa	8
% Cheno Am	32
% mesic pollen	7

TABLE 1: Summary data for the pollen samples regarding percentage of hardwood pollen, number of hardwood taxa, percentage of Cheno Am pollen, percentage of mesic taxa, and number of pollen grains per milliliter of soil.

Sample #9 ca. 1750 non-cultural	
# total pollen grains per milliliter	17,330
% hardwood pollen	73
# hardwood taxa	7
% Cheno Am	2
% mesic pollen	19
Sample #4 ca. 1750 midden	
# total pollen grains per milliliter	660
% hardwood pollen	40
# hardwood taxa	10
% Cheno Am	13
% mesic pollen	16
Sample #6 1770 some midden	
# total pollen grains per milliliter	1,300
% hardwood pollen	64
# hardwood taxa	8
% Cheno Am	11
% mesic pollen	28.5

Table 1, continued

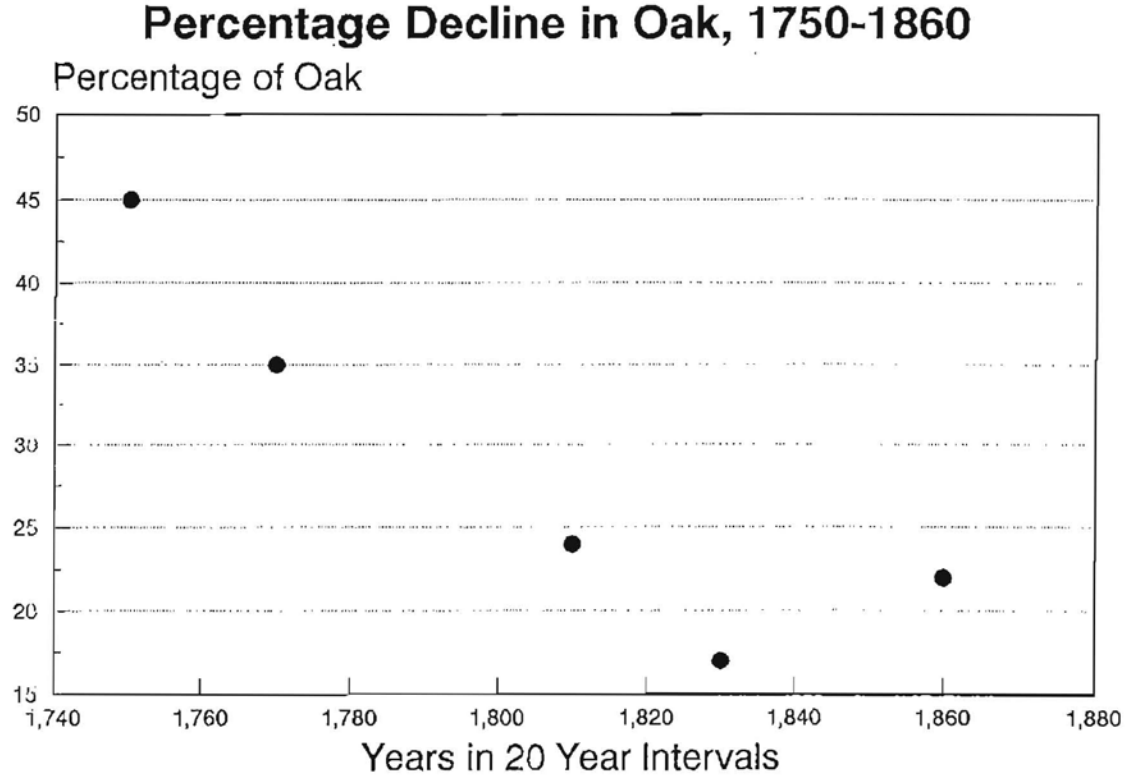
Sample #7 1860 midden	
# total pollen grains per milliliter	2,440
% hardwood pollen	41
# hardwood taxa	9
% Cheno Am	15
% mesic pollen	11
Sample #10 modern	
% Hardwood taxa	30
# hardwood taxa	10
% Cheno Am	13
% mesic pollen	23

TABLE 2: Pollen counts from the Miles Brewton House. # = fern or moss, @ = mesic taxon, * = hardwood.

	Sample Numbers									
Pollen Taxa	9	4	6	8	2	5	3	7	1	10
Acer *			2	21		1				
Agoseris				2		1	1	2	1	5
Alnus *,@	2	1	2	1	1	1		4	3	3
Arceuthobium										1
Artemisia	4	2	9	7	8	2	1	2	1	6
Betula *	7	7	6	4	8	13	1	12	3	3
Carya *,@		2			1	2		3		
Castenea *	2	1	1		1				2	
Celtis *							1		1	7
Cheno Am	4	27	21	9	41	21	69	39	9	28
Asteraceae	13	11	4	17	8	8	17	12	3	24
Cornus *,@				29				3		
Corylus *	19		2	1		8	1	10	1	1
Cyperaceae @	3	9	5	2	12	2	1	5	3	4
Elaeagnus				2						
Ephedra									1	
Poaceae	3	33	18	28	32	17	11	30	17	12
Ilex *				14						2
Juglans *	1									
Juniperus					2				2	
Fabaceae		1			4				3	
Liliaceae	1	3	4	1						
Liquidambar *		1		4			5	1		
Nuphar @				1						
Nyssa *,@		4		10			1	2		1
Osmunda #,@	1				3				2	1
Pinus *	6	18	8	6	8	31	53	64	2	45
Plantago									1	
Polygonum @					1					
Polypodium #,@	1	8	1	2		3	1			6
Potamogeton @	3	7	2	3	4	7		2		2
Pteridium #,@										2
Quercus *	103	42	73	76	34	68	37	59	11	28
Ribes										
Rhus *				3	1	1				
Salix *,@	33	19	42	28	18	27	12	11		17
Sium @				4				1		
Sphagnum #,@		2	2				1			14
Tilia *		1			2					
Typha @		3	1		2	1				
Ulmus *	1	4	5	2	8	1	3	4		4
Vitis			1							
Unidentifiable		4		3	4	1				4
Total count	230	221	204	281	204	221	216	266	85	220
Lycopodium	5	87	59	69	124	87	52	41	35	

TABLE 3: Common names for taxa identified in pollen samples.

Acer	maple
Agoseris	agoseris
Alnus	alder
Arceuthobium	dwarf mistletoe
Artemisia	sage
Betula	birch
Carya	pecan, hickory, and relatives
Castenea	chestnut
Celtis	hackberry
Cheno Am	goosefoot and pigweed families
Asteraceae	composite family
Cornus	dogwood
Corylus	hazel
Cyperaceae	sedge family
Elaeagnus	oleaster
Ephedra	mormon tea
Poaceae	grass family
Ilex	holly
Juglans	walnut
Juniperus	cedar, juniper
Fabaceae	bean family
Liliaceae	lily family
Liquidambar	sweet gum
Nuphar	yellow pond lily
Nyssa	gum
Osmunda	royal fern
Pinus	pine
Plantago	plantain
Polygonum	smartweed
Polypodium	polypody
Potamogeton	pondweed
Pteridium	braken fern
Quercus	oak
Ribes	wild black currant
Rhus	sumac
Salix	willow
Sium	water-parsnip
Sphagnum	sphagnum moss
Tilia	basswood
Typha	cattail
Ulmus	elm
Vitis	grape



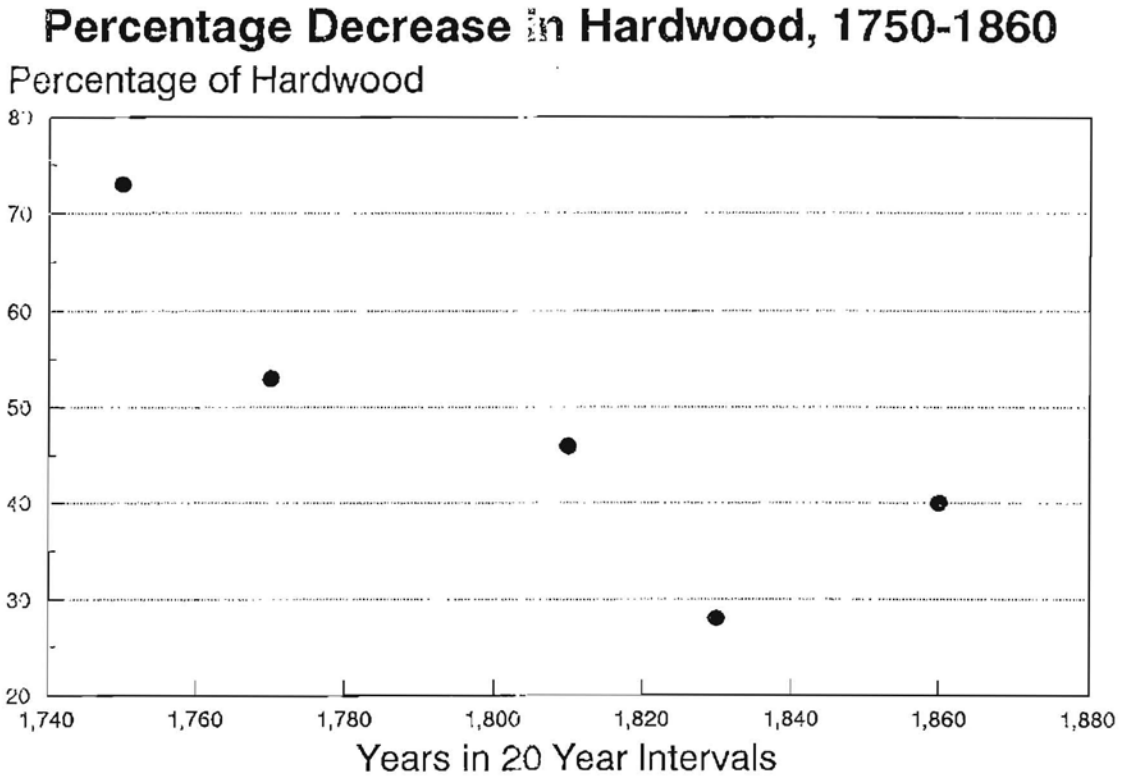
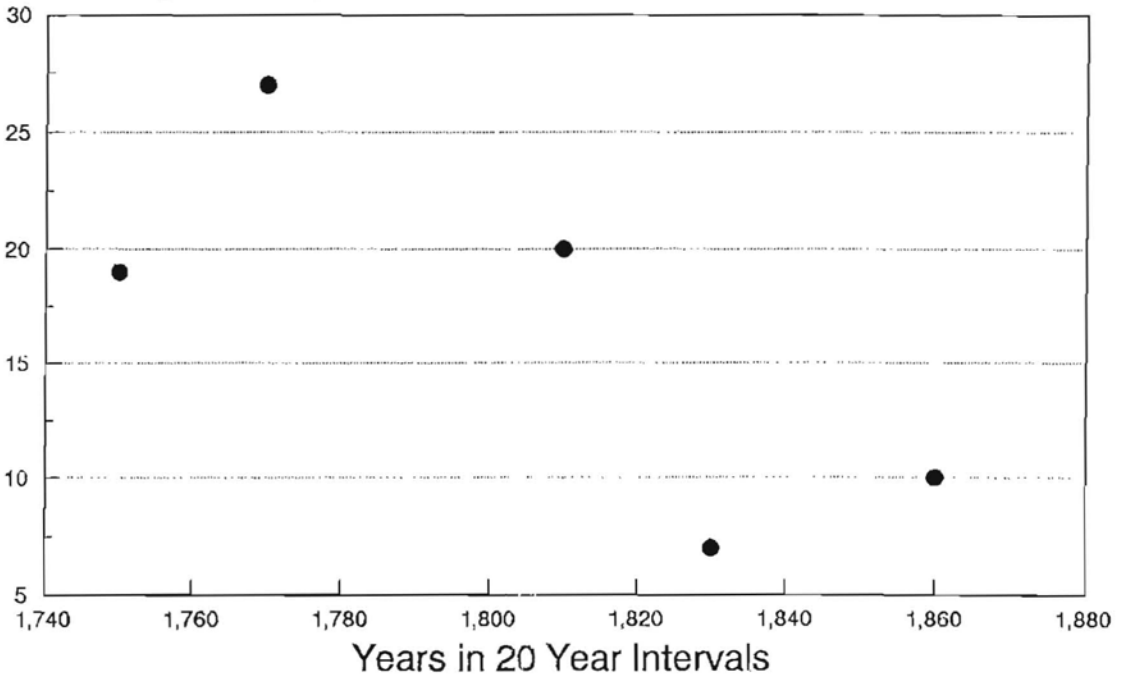


Figure 1: Fluctuations in, a) oak pollen percentage showing decline with time and, b) hardwood pollen percentage also showing decline with time



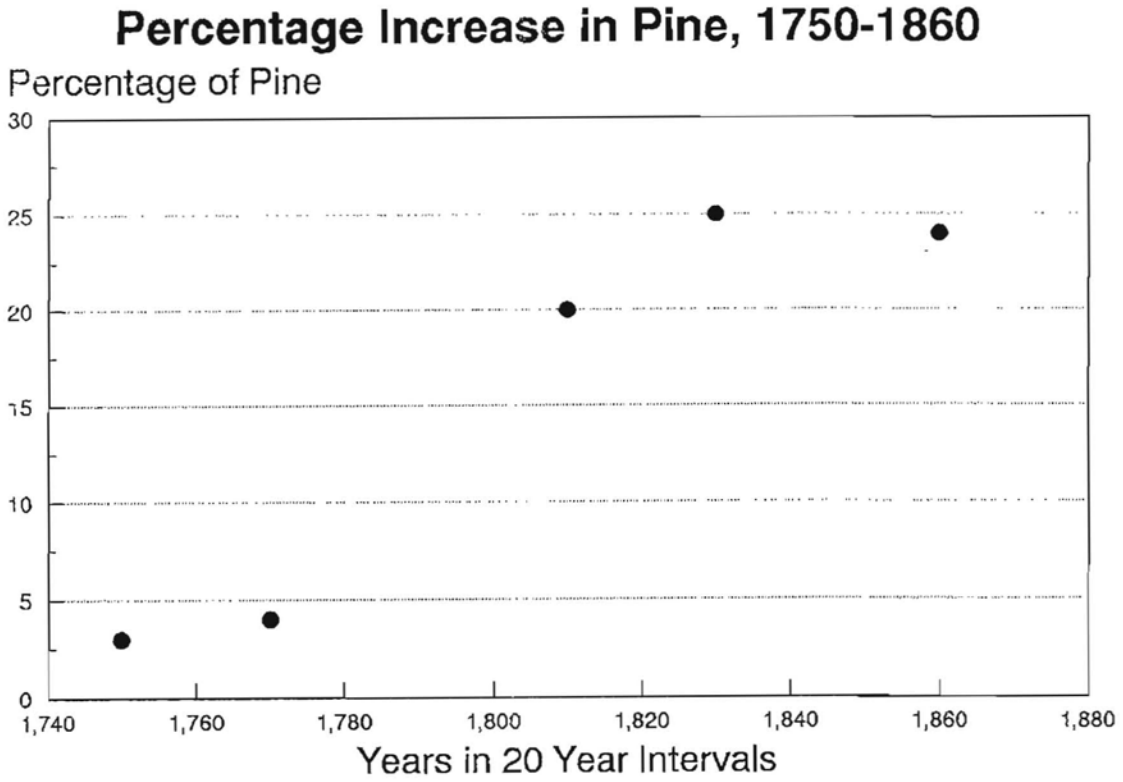


Figure 2: Fluctuations in a) percentage of mesic pollen showing a general decline through time and, b) percentage of pine pollen showing a relative increase in relative percent with time.

Chapter VII
Archaeological Interpretations

The focus of this discussion is an exploration of how Charlestonians changed, and were changed by, their interaction with the land. Examination of the myriad details of the physical and ideological parameters of the Miles Brewton site serves as a link to a broader examination of Charleston's evolution as an urban center, through the paradigm of landscape studies. Following the lead of geographers, a landscape perspective attempts to form linkages among material, social, behavioral, ideological, and natural elements in a region of study (Zierden and Stine 1996)

Evolution of the urban landscape has been the principal focus of archaeological research in Charleston for the past ten years. This broadly based study encompasses previously discrete research topics, including diet and subsistence strategies, terrain alteration and site formation, health and sanitation, and mental constructs. The Brewton data formed the cornerstone of these studies in 1992, and reexamination of these data in comparison to subsequent projects contributes significantly to these studies. To that end, a review of the Charleston data base is in order.

The Charleston Data Base

Research at Brewton derives meaning from the comparison with numerous previously studied sites in Charleston, and elsewhere. The twenty-two archaeological sites considered in this research differ in many respects, but can be grouped into two categories: residential only and dual residential-commercial. The latter are located in that portion of the city that has been intensely utilized from at least the early 18th century through the present day. The dual residential-commercial sites include retail, craft, and service enterprises (Charleston Place, First Trident, Lodge Alley, 38 State Street, Visitor's Center, McCrady's Longroom and Tavern); public sites containing some residential debris include the Beef Market and two waterfront dumps (Exchange building, Atlantic Wharf), and the 1712 Powder Magazine (Zierden and Hacker 1987; Zierden et al. 1983b; Zierden et al. 1983a; Grimes and Zierden 1988; Zierden et al. 1982; Calhoun et al. 1984; Zierden and Hacker 1986; Zierden n.d.; Zierden 1997).

The ten residential sites are, with two exceptions, located in what were suburban areas in the late 18th or early 19th centuries and contain standing structures dating to those periods. Their continuous use as residential property to the present facilitates study of the domestic evolution of the property. Given the extensive excavations conducted here, particularly of late 19th and early

20th century deposits, the Brewton site adds tremendously to the present data base. All of the properties, including the present one, retain their residential landscape characteristics; eight (including Brewton) were the homes of elite, four the homes of middle class residents.

Among the present sample, those property owners classified as "wealthy" and "elite" owned their townhouses and at least one plantation. They maintained at least eight slaves in the city, as well as a larger number on their plantation(s), and they held public office at some point in their adult life. In physical terms, the elite are those with houses in excess of 7,000 square feet and urban lots larger than 18,000 square feet. The middle class houses averaged 4,600 square feet on lots 6,000 square feet. These latter men often rented their properties, and earned a living elsewhere in the city (Jones 1980).

David Smith (1987) and others (Edgar 1998) have argued that a heavy dependence on trade with Britain and on slaves for every kind of labor from domestic servitude to fine carpentry led to a lack of growth of a sturdy middle class in Charleston. The few successful small proprietors employed slaves and invested their earnings into their own lands and slaves; most merchants were also planters. Charleston's elite was the richest society in colonial America; historians have suggested that in 1774 Charleston's wealth per (free) capita was 416 pounds sterling, compared to 38.2 for New England and 45.2 for mid-Atlantic colonies (Coclanis 1989; see also Jones 1980, Edgar 1998).

Urban gentry who built homes in the 18th and 19th century suburbs include William Gibbes (1772), John Rutledge (1763), Thomas Heyward (1772), Joseph Manigault (1803), Nathaniel Russell (1808), William Aiken (built by John Robinson in 1817), and George Edwards (built by Francis Simmons, as well as Miles Brewton. The Russell, Heyward, and Rutledge lots were occupied in the early 18th century, prior to construction of the present houses. The remainder of the houses were among the first in their respective neighborhoods.(Zierden et al. 1987; Zierden 2001; Zierden and Grimes 1989; Zierden 1993a; Zierden 1992; Zierden 1996; Zierden et al. 1985) The four middle class sites include 66 and 40 Society Streets and 72 Anson Street, rebuilt on Ansonborough lots after the 1838 fire, and 70 Nassau Street, built in the Charleston Neck in the 1840s (Zierden et al. 1988; Zierden 1989; Zierden and Anthony 1993; Zierden 1990b). More extensive and more recent archaeological work has been conducted at the residential sites, and this work has produced the core of information on the Charleston landscape; however, the commercial sites have also informed the interpretations presented here.

The sites most significant to the Brewton study are the adjoining 14 Legare Street property and the nearby Nathaniel Russell House. Though both houses were built some decades after the Brewton site, the three properties share similar occupational histories after 1800. Further, these three sites have been the subject of the most extensive excavations, and so have data of sufficient size to make comparisons meaningful. As noted in the study of 14 Legare Street (Zierden 2001), the common property line and shared site formation history make that study part of the story of the Brewton property.

Site Formation Processes

A basic question guiding archaeological analysis, though one rarely articulated, is "how did these artifacts get here?" When working with students and volunteers, and in front of the public, this question is asked repeatedly, engaging the archaeologists in a constant struggle to answer this question clearly, and without hesitation. An often unarticulated assumption prefacing most archaeological studies is that the artifacts were discarded, or otherwise deposited, by the previous site residents only. On an isolated rural site, this is a fairly safe assumption. On urban sites such as Brewton, however, this has been a 'monster under the bed', waiting to undermine our reconstruction of the past. As we shall see, this has now occurred with the discovery of the 18th century refuse at 14 Legare. For urban residents clearly moved great quantities of earth and their contents. Such earth moving began on lower King Street with the filling of low-lying areas and may have continued through the early 19th century, as residents created driveways and new gardens.

In his path-breaking articles, Michael Schiffer has suggested that cultural materials enter the archaeological record by four basic methods: discard, loss, destruction, or abandonment (Schiffer 1977). Discard, the throwing away of refuse, is the most common form of archaeological site formation. Artifacts and other debris are either broadcast on the ground surface, gradually forming zone deposits, or placed in newly dug (trash pit) or previously existing holes (such as abandoned wells, privy pits, etc.), called features. Items deposited due to loss are usually small, such as buttons, coins, toys, bits of jewelry, etc. Archaeologists discover lost items in wells and drains, or soil lenses that collect beneath wooden floors, or in the 19th century, lost by children in the yard. Abandonment includes destruction of buildings and their contents from fire or storm, or the artifacts cleaned out and left behind when tenants vacate a property. In some cases, though not all, it is possible to distinguish proveniences (the defined archaeological boundaries of single behaviors) resulting from specific depositional processes.

Once in the ground, artifacts can be redistributed, or they can be removed (Ascher 1968; Honerkamp and Fairbanks 1984; Schiffer 1983). Such deposits have been described by Schiffer as secondary, those that have been removed from their original placement in the ground; nearly all of the urban deposits are secondary, if not tertiary, in nature. Archaeological deposits can also be removed, as when an area or refuse deposit is loaded up in a wagon and deposited elsewhere. Modern construction entails a good deal of removal of old (archaeological) soil and replacement with new sterile soil. Usually the archaeological record is a combination of all three events - introduction, redistribution, removal. In the urban situation, where these processes can become very complex, archaeologists are particularly interested in the processes which introduce and redistribute materials.

Urban residents deposited most of their refuse in the back yard or work yard, if they

deposited it on-site. Crowded conditions and health considerations also resulted in the deposition of refuse in any convenient space in the city. Open lots, unpaved streets, and alleys were likely candidates (Calhoun et al. 1984; Zierden et al. 1983a; Rosengarten et al. 1987). Quantities of refuse were also dumped into creeks and low-lying marsh areas, creating new real estate (Sapan 1985; Zierden and Calhoun 1986; Zierden et al. 1983b; Zierden 1996; Zieden n.d.).

Urban archaeological deposits reflect abandonment and loss, as well as discard. Abandonment activities include loss of materials due to fire or storm, and the resulting cleanup activities (Zierden et al. 1983a), and the transfer of a domicile to a new tenant or owner (moving out). The single event filling of large features such as privies, and occasionally wells, sometimes reflect this activity (Lewis and Haskell 1981; Zierden and Hacker 1987). Artifact deposits resulting from loss have been manifested as zones beneath a present or former wooden floor (small items swept through cracks between boards) and in the small artifacts accumulated in drains. Loss and abandonment deposits can often be distinguished from discarded deposits by the artifact profile, as well as the physical properties of the artifacts (see, for example, the artifacts from James Stobo's plantation, in Zierden et al. 1999)

Another key aspect of the urban site may be disorganization, the result of continuous occupation and the intrusion of later deposits into earlier ones. Additional factors unique to urban sites are private or municipal collection of refuse, which resulted in the redeposition of refuse in a central location far from its place of origin (Dickens and Bowen 1980) and the replacement of private handling by municipal or corporate management of such basic needs as water procurement and storage, sanitary waste management, and trash disposal. This may result in a remaining archaeological record that reflects, in Nicholas Honerkamp's view, mostly idiosyncratic activities, such as lost toys and pet burials (Honerkamp and Council 1984; Zierden and Calhoun 1986).

An additional site formation process might be described as construction, the moving of earth to build massive structures such as Charleston's urban townhouses. At Brewton and other sites, when the large extant townhouse represents the first major building episode (though not necessarily the first use of a property) we see principally yellow sand and orange clay mottled with a few pockets of darker midden sand, sparse artifacts, and large brick and mortar fragments. Such deposits were first defined at Brewton, in N225W185, as zone 3. The fill beneath the floor of the 'plantation room' in the main house is another such deposit. At other sites, such as 14 Legare and Nathaniel Russell sites, such soil was encountered well beyond the probable limits of a typical "builder's trench" suggesting that the massive reorganization may have impacted a large area of the urban lot. On lots where a massive townhouse represents the second structure on a lot, these construction soils contain greater densities of artifacts. Destruction may also be evident in the urban archaeological record, often in the form of features or zones of building rubble and associated artifacts.

Several deposits at Brewton clearly resulted, at least in part, from the loss of small artifacts. This is particularly true with the fill of feature 12, the drain. Here, the nails, coins, marbles, small toys, and buttons all appear to be the result of loss (figure 56). They likely ended

up in the drain as a result of being washed there, either by storm water or waste water. The fill in the basement of the kitchen/carriage house, in unit N231W122.5, was also the result of lost items mixed with a gradual soil accumulation, rather than the deliberate discard of rubbish.

The primary site formation process at Brewton, however, appears to be discard of rubbish. Disposal of refuse, then, is the principal process operating here, and elsewhere in Charleston. But these processes were not uniform across time and space, as the quantification exercises discussed in the previous section suggest. Analysis of artifact density and temporal association, as well as an overall calculation of Mean Ceramic Dates and artifact profiles (South 1972, 1977) usually provides some clues to changing refuse disposal practices at urban sites. In his discussion of discard, Michael Schiffer distinguished between primary refuse, discarded at its place of origin, and secondary refuse, which has been moved at least once after deposition. The midden layer in the Brewton garden is an excellent example of primary refuse. Here, all of the artifacts date to the same few decades and appear to be broken in place, or at least broken and discarded together. Vessels such as the blue Chinese export porcelain and the redware cream pan were all broken *in situ*, and mendable within a single 5' excavation unit (figures 40-46). The midden layers of the work yard, in contrast, contain artifacts much smaller, with a wider date range, and none that are mendable. This suggests refuse that was moved, reorganized, and trampled continuously, so that its final resting place (i.e., the one defined by archaeological excavation) is not necessarily the place where it was originally discarded.

An important issue to consider when analyzing refuse disposal practices at a site of long-term, evolving occupation such as Brewton is redeposition. As a mid-19th century resident works and builds on his property, his ground-moving activities disturb earlier deposits, bringing artifacts to the surface and mixing them with later materials in their new provenience. Precisely isolating redeposited artifacts is almost impossible, for while we do know when an artifact was manufactured, we cannot say for certain how long it was used and when it was discarded. North Devon gravel-tempered earthenware serves as a good example. Manufactured from 1650 to 1775, it is often considered a marker of 17th century sites (cf. South and Hartley 1980; South et al. 2001). Yet when it is recovered in a zone with a TPQ of 1780, is it a 17th century discard redeposited, or a piece manufactured in 1775, used a short time, and then discarded? In absence of clear evidence, each ceramic encountered in the early 19th century proveniences has been analyzed as antebellum material culture. Yet Mean Ceramic Date calculations that are earlier than the documented mean date of occupation usually indicate that redeposition is a factor in site formation (see Zierden 2001 for an expanded discussion of this at 14 Legare Street).

A few of the particular artifact types recovered on site provide a general guide to the purchase-use-discard lifespan of breakable artifacts. A number of the special types discussed are of a style manufactured in the last quarter of the 18th century. Yet they were discarded at various times in the first half of the 19th century. This suggests a twenty to forty year use life for many of the finer, highly curated goods. Though no measure was possible, use life for the less expensive, "everyday" goods is likely shorter. Archaeologists William Adams and Linda Gaw calculated this 'time lag' (the difference between the date of manufacture and the date of deposition) for

ceramics and glass on a northwestern site, and concluded that ceramic items remained in use about 22 years before discard (Adams and Gaw 1977).

The above discussion provides some general information on the formation of the archaeological record at Brewton, and some underlying assumptions for the analysis that follows. At the same time, it provides some caveats regarding our current state of knowledge and derived analysis. An additional cautionary note must be sounded in regard to refuse disposal on platted and bounded urban town lots: The basic unit of excavation and analysis is the land or house lot associated with a domestic structure and outbuildings. The archaeological data associated with one structure usually cannot be divided to correspond with smaller economic or social units (such as white masters and enslaved Africans) that may be housed in that structure. At Brewton, and other townhouse sites, this means that it is nearly impossible to separate rubbish from the Brewton, Alston or Pringle families from that of their slaves. Archaeological analyses represent, then, the combined acquisition and deposition behaviors of all residents in a domestic compound.

Although a few artifacts could be lost in the yard by visitors to a house, the vast majority excavated from deposits in a yard that is well-fenced or otherwise clearly separated from adjoining properties are assumed to have been deposited by the house residents who controlled the yard space (Deagan 1982:161; Spencer-Wood 1987:2; see also Zierden 1996; Zierden and Herman 1996). Following from that, analysis of townhouse assemblages begins with the assumption that artifacts being studied were deposited there only by property residents. The analysis of the 18th century refuse at 14 Legare, however, suggests that this may not always be the case, and that the true sequence of events is more complicated.

A decade after the Brewton project was completed, the author encountered irrefutable evidence of off-site refuse disposal. This was the recovery of a personalized wine bottle and engraved silver spoon handle, both monogrammed "MB or Mbrewton" on the adjoining 14 Legare Street property. Both were recovered in refuse deposits dating to Brewton's tenure on King Street, and the deposits in their entirety appear to be Brewton's, later moved by George Edwards to level the razed 12 Legare Street property (see Zierden 2001; Chapter 5). The recovery of artifacts attributable to Brewton on a lot not owned by him raises the question of such events occurring elsewhere on the city, undocumentable without the recovery of personalized artifacts. Thus it is possible that some of the early refuse on the Brewton property came from elsewhere in the city. There remains the troubling question, as well, of the source of the debris layer used to create the garden; where did so much refuse from a single era come from? These issues will be discussed further in the section on terrain alteration.

The Landscape Approach

Of particular importance to the study of Charleston is the concept that land is not 'natural', but modified for human occupation and use; above all, it is a shared space, evolving to

serve a community (Jackson 1984:7-8). John Stilgoe (1982:3) defines landscape as "that area comprehended in a single view." Dell Upton (1990) challenged Stilgoe's definition, suggesting that the landscape, particularly that created by the elite, was meant to be experienced dynamically; the visitor passed from one contrived setting to another, and was expected to piece together many partial views and symbols. Thus Paul Shackel and Barbara Little suggest that cultural landscapes are expressions of ideals, of emulation and assertions of power, used to reinforce hierarchies (1994). Elizabeth Kryder-Reid (1994) further explores the idea that they are three dimensional spaces, entered into and experienced. The King Street house and gardens may thus be viewed as a single, definable element, and simultaneously part of a larger, equally distinct landscape (see also Deetz 1990). Further, the same landscape was viewed in different ways by the various groups who used it: the swampy tract between the Brewton and Legare houses is such a landscape feature.

Thus the urban landscape is more than just an amalgamation of individual landscapes of the elite, middling, and poor. It also possesses a unique and definable character of its own, simultaneously collective and contradictory; as such it requires a broader level of study, beyond that of individual sites. For an urban center was, as Dell Upton has suggested, "a product of large social and economic forces, a pattern reflecting collective action" (1992:51). A material culture study of the city moves beyond individual sites and individual actions to an investigation of reciprocal relationships among selves and human alterations of the physical world.

Upton further suggests that intentional creation is only one change among many in the ways humans interact with their surroundings. People moved through their environment, interacted with it, and reacted to it in many ways. Upton suggests that the cultural landscape "fuses the physical fabric of the city and the culture of its residents with the imaginative structures that urbanites used in constructing, explaining, and representing them (Upton 1992:53). The urban environment in particular was experienced through all five senses - sight, sound, smell, taste, and touch. While many of these aspects become difficult to recover through archaeological, or even historical, methods, they were integral to the mental constructs of daily life in cities. Verbal and visual descriptions may prove linkages between the intangibles of city life and tangible surviving artifacts, be they buildings, ceramics, or soil stains.

Archaeological evidence for evolution of the landscape may generally be divided into three categories: material culture, stratigraphy (the layered deposition of earth and trash), and the biological (plant and animal) remains. Of the first two categories, it is the former that most often comes to the mind of the public, yet it is the latter that is the most informative for landscape evolution; in fact, the recovered artifacts assume their importance from their position in the stratigraphy and their role in determining the source of those deposits. The third category of data, plant and animal remains, includes seeds, pollen, phytolith, and bone fragments. These have provided essential landscape information.

Physical Transformation

The beginnings of the city have been described as "conversion of the native terrain, flora, and fauna into what would become Charleston" (Herman in Zierden and Herman 1996). Changing the native peninsula to suit the needs of soon-to-be urban residents began almost immediately and included, among other things, imposition of a regular grid, known as the Grand Modell, over a very irregular peninsula (figure 8). The original lot configurations allowed for these irregularities to some extent, but the spider-like maze of creeks and lowlands that marked the peninsula were soon altered and filled to create real estate that was more usable, more desirable, and certainly more regular (see figures 4 and 7). The social goals that were manifested in the 18th century as gridded and platted cities intensified as the city progressed, to a drive to 'conquer space'. Upton suggests that early Americans thought of regulated space as essential to human society (Upton 1992:53-54).

The immediate and gradual filling of creeks and lowlands on the Charleston peninsula ultimately reduced the natural relief of the peninsula. Originally distinguished as a ridge of high land running up the center of the peninsula, King Street is now hardly recognizable as such. A review of the city maps created in 1739, 1788, and 1852, and 1872 show a startling amount of land creation, particularly along the Cooper river front and in the areas of former large creeks, such as Water Street and Market Streets. Creation of 'made land' along the Cooper began in the late 17th century and continued for nearly 300 years. Concurrent with this, and noted at the Brewton site, was the filling of small marshy and low areas to improve individual lots. Evidence of this was discovered along the northern portion of the Brewton lot, where extensive filling and levelling seems to have occurred prior to house construction. Trench 3 across the front of the Brewton property revealed layers of fill pre-dating the house, and seemingly deposited simultaneously, suggest that the entire northern border of the property sloped dramatically and so was 'corrected' prior to construction (figure 33).

The most dramatic evidence for the filling of low areas to 'improve' individual lots was recovered in the excavation units of the Brewton work yard, recently revisited during work at 14 Legare Street, when the same swampy area was encountered in the rear of the Legare lot. Our discussion of this landscape transformation begins with the recovery of a wine bottle marked "MBrewton" on the rear of the 14 Legare lot, in feature 226, along with quantities of 1770s artifacts that predate occupation of the Legare Street property..

So where exactly was this trash between the time that the ceramics and wine sat on Brewton's table and the time that they filled in holes inconvenient to Edwards? Miles Brewton, a wealthy merchant and slave trader, built his grand Georgian townhouse at 27 King Street, on a large, deep lot that continued to Legare Street, its back garden sharing a common boundary with the southern edge of the 12 Legare lot. Brewton completed his house in 1769, but only enjoyed the grandiose property a few years, before he and his family were lost at sea in 1775. The house was inherited by his sister, Rebecca Brewton Motte, and she and her family were in residence during the Revolutionary War. When Charleston fell to the British in 1780, the British officers used Mrs. Brewton's house as their headquarters, demanding that Mrs. Motte remain there as 'hostess'. That the refuse at 14 Legare originated in the Brewton household seems clear enough.

But questions of site formation processes were many: Did the trash move once? twice? More than that? Who took it away from Brewton's yard and put it on a neighboring lot? And how did they do it? What did backs of these properties look like, and how did this facilitate movement of this refuse?

It is at this point that the presence of zone 4 at the rear of the 14 Legare property becomes significant. This appears to have been a low-lying marsh or swampy area in the 18th century. The same strip of marsh ran the length of the northern side of the Brewton lot, recurving northwestward across King street. The dark homogenous soil defined as zone 4 at the rear of 14 Legare was also encountered beneath late 18th century work yard deposits at the Brewton house, there defined as zone 5. So at some point their common property line was in a swamp (figures 64 and 65).

Figure 64. Property boundaries, 27 King St (dark green) and 14 Legare St (light green).

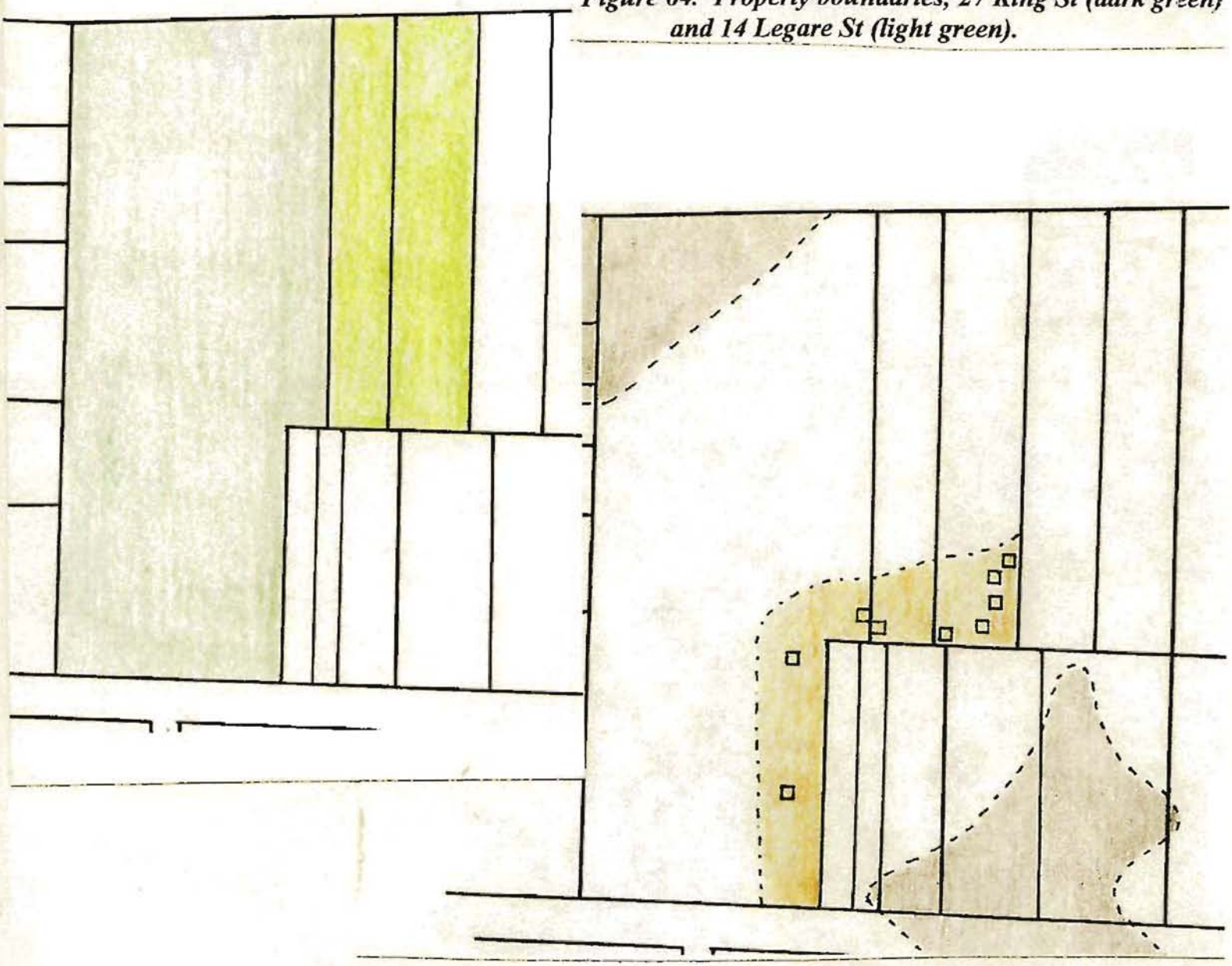


Figure 65. King St. and Legare St, c. 1730-1770 (dark brown indicates swamp shown on per light brown is marsh encountered archaeol excavation unit locations are approximate

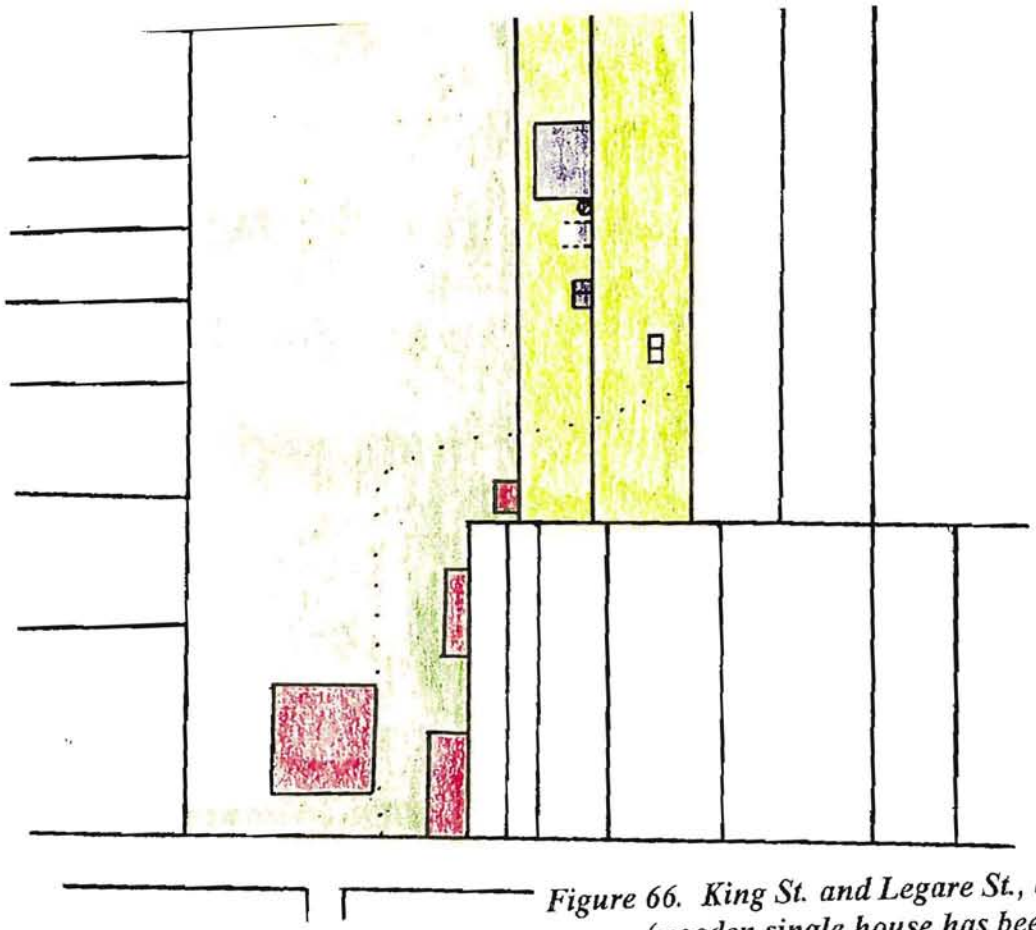


Figure 66. King St. and Legare St., c. 1790
(wooden single house has been constructed on 12 Legare lot; area of marsh my still exist)

Figure 67. King St. and Legare St., c. 1820
(the 12 Legare complex has been razed and the 14 Legare house and garden completed)

Figure 68. King St. and Legare St., c. 1870
two properties have been created from the rear of the Brewton garden

Figure 70. Aerial view of 27 Ki
and Legare St.

Figure 69. View of Brewton privy and encl

Bernard Herman has suggested that "where early 19th century watercolors depict open urban vistas and post-and-rail fences separating private yards from public thoroughfares, we now see high brick walls and congested lots" (Zierden and Herman 1996) The 14 Legare property and the Miles Brewton property are now isolated from one another by 8' high brick walls (figure 69 and 70). But was this always so? Does the informal boundaries at the front of properties, shown in the Fraser watercolors, translate into informal, even unimproved, rear yards and property boundaries? Or was the 14 Legare lot accessible from the rear of the Brewton property, and as unimproved, even swampy land, a convenient place to deposit refuse?

If the marshy area at the back of 14 Legare and on the north side of Miles Brewton was the same landscape feature, and if we move to a time before a brick wall divided the two properties (even if ownership did), then we may return to two sets of data to sort this out. The key proveniences are the zone 5 dark soil at N225W185 in the Miles Brewton work yard (figure 25); feature 11, a charcoal-filled hearth that intrudes into it (figure 23), and the composite of zone 4 soils at the rear of 14 Legare (see figures 66-68). The artifacts contained within the soil help provide a set of dates that sequence the soil deposits, and their use by humans. Zone 5 at Miles Brewton is first, with a TPQ of 1763, a MCD of 1745, and a stratigraphic position below feature 11. Feature 11 is next, with a TPQ of 1750 and an MCD of 1747. Significantly later in its use life is zone 4 at Legare, with a TPQ of 1795 and a MCD of 1776.

It is at this point that Karl Reinhard's analysis of pollen data becomes key. In his study of the Brewton pollen samples in 1989, Reinhard interpreted zone 5 as 'undisturbed landscape'. The pollen was dense, suggesting a slow accumulation of the deposit. It was dominated by arboreal pollen, most of which comes from hardwood taxa. Croylus (hazel) is common (and disappears rapidly with settlement). The low counts of Cheno Am pollen (weedy plants that rapidly colonize cleared lands) reflects a stable, relatively undisturbed environment. Very little grass pollen was present. Both zone 5 and feature 11 contain high amounts of mesic taxa (those plants that grow in wetlands), but the majority in zone 5 were derived from arboreal (tree) pollen, Salix (willow) and Alnus (alder). The majority in feature 11 were from herbaceous plants. Feature 11 contains a pronounced Cheno Am component, a declining arboreal component, and an increase in grasses, which indicates that the environment represented by this sample was more open with a decrease in trees. Though the pollen was much more poorly preserved in zone 4 at Legare, the proportions of arboreal to herbaceous pollen are comparable to feature 11. This was also reflected in the phytolith analysis for 14 Legare (Kealhofer and Sullivan 2001). Here, zone 4 was full of grasses, particularly bambusoid (expected to be sedges).

The possibility that the low-lying portions of the Brewton and Legare lots remained unfilled and unclaimed is bolstered by the recent discovery of an 1804 plat of a property on Wentworth street. The layout of the lot is very similar to 14 Legare, with a single house and outbuildings aligned along the north property line, and the southern half of the property labeled 'garden.' The rear third of the lot is "marsh land." Fences surrounding the garden are clearly delineated, and each proceeds past the marked boundary of the marsh, but only by a single fence

section, where the fence simply ends. Clearly the property owner improved and segmented his property only to the edge of the low-lying land, leaving that area open and unimproved. Such an arrangement is conceivable at 14 Legare.

What emerges from this analysis is a revised view of the Charleston landscape; in the 18th century at least, when Euro-American people were new to this portion of the peninsula, the Georgian emphasis on symmetry and order seems to have ended somewhere beyond the gate from the work yard (if there was a gate) and the edge of the garden, in an area still swampy and, though no longer wooded, still weedy and uncontrolled, in what Bernard Herman has termed "a progression of decreasing order and increasing dirtiness". Even more interesting than the movement of refuse is the agency of that movement. In the preceding discussion I have implied that Miles Brewton moved his trash off-site; that is not really true. A wealthy slaveholder and slave trade, Miles Brewton never even touched that trash. The human agents responsible for that site-forming event were his anonymous bondsmen. It is tempting to suggest that more than refuse disposal took place here. Both Bernie Herman and Ted Rosengarten have discussed the "seen but unseen" aspects of behavior and survival exhibited by the urban slave population, what Rosengarten has termed the "parallel worlds" of black and white Charlestonians (Herman 1999, 1997; Rosengarten 1986). Herman describes urban settings as places where "the authority and identity of the processional landscape of city mansions exist in a larger context of segmented social and cultural relationships" (Herman 1999:88; Upton 1988).

Herman goes on to suggest that the 'marginal' spaces of the city - streets, work yards, and back lot domestic compounds - also defined a locus of 'political and economic agency' for the people who lived and worked there, seemingly under the careful scrutiny of their masters. He further describes a late 18th-early 19th century reorganization of the spaces that were built by white masters for black servants. From the 1780s onward, this reorganization of quarters, kitchen, washhouse segregated and more precisely defined work spaces and in many cases provided better finishes for the quarters, but the new arrangement also restricted access and flow of areas previously the domain of the enslaved residents (Herman 1999:92). These changes were an organizational response to increasing fear of the black majority, heightened by the 1822 Denmark Vesey insurrection. But African residents of these urban compounds continued to find some measure of privacy and even independence within urban spaces; master and slave simply viewed and used these same physical spaces in different ways.

Whether the refuse movement from Brewton's yard to a vacant lot was his decision, or that of his bondsmen, remains unknown. Whether it was done during Brewton's tenure or as his property passed to his sisters, or during the Revolution by the British occupants, also remains unknown. The other tantalizing question is whether refuse disposal is the only activity that took place over in this swamp. Was this, as Maurie McInnis suggested, a meeting place/safe haven for bondsmen? To this end, Dr. McInnis has suggested a consideration of the bottle separate from its accompanying trash. The bottle could represent what Michael Schiffer called 'lateral cycling', a full, or refilled, bottle pilfered from Brewton's stock and consumed by the bondsmen before discard. Both Dell Upton (1988) and Leland Ferguson (1992) have discussed the notion of

different views of plantation landscapes by masters and slaves; white owners focused on the main roads and waterways, often viewed from horseback or carriage, while black laborers focused on a series of footpaths, from work spot to quarters to neighboring plantation; they viewed the same property with very different mental maps. The same is likely the case for the rear yards and still-unregulated spaces of the city. What appeared to white members of the Brewton household as a swampy nuisance area, not yet filled and regulated, was likely viewed as an 'opportunity' by their bondsmen.

A more detailed consideration of feature 11 on the Brewton property, supports such a scenario. This feature was considered unusual at the time of its discovery in 1988, and remains unique among urban features encountered since that time. This oval pit measured 5' by 3', and was .5' deep. The feature was a shallow pit of dark grey sand full of charcoal and oyster shell. A portion of the western edge was lined with half-bricks set on edge. A large lump of ash was visible in the middle. The feature contained a number of long pipe stems, bone, brick fragments, green bottle glass, and colono ware. At the time it was interpreted as an outdoor hearth, possibly for socializing as well as cooking, and likely a hearth used by the African bondsmen in residence in the work yard. The early date of artifacts from the feature suggested it could have been used prior to completion of the Brewton complex. Outdoor communal cooking is a known preference of colonial Africans, but the discovery of such a 'casual' feature in an urban yard was unexpected.

The presence of the feature, and its interpretation as a hearth, though, bolsters the possibilities of the scene presented above, where the territory in the social, if not legal, possession of the Brewton house servants extended from the 'yard', long considered the domain of the resident slaves, to the swamp behind and beside the yard, to the unoccupied lots beyond the unclaimed lowlands.

The implications of the Brewton wine bottle discovery for future research in Charleston are many. What about all those times when urban residents have deposited their trash outside of the bounds of their property, but failed to conveniently include an artifact with their name on it? How many times have urban archaeologists dug just such trash and not known it? The above analysis presents a sequence of site formation events that were far more complex and intricate than previously encountered. This suggests that site history and site formation processes must always be carefully considered before further site analysis proceeds, and together remain the foundation of archaeological interpretation in Charleston.

The filling sequence noted at Brewton and the neighboring Legare street lot is not unique. Pollen studies at other Charleston sites have revealed a city-wide gradual decrease in the plants associated with marshes and lowlands, further supported by ethnobotanical data from commercial sites. Many sites a gradual decline in mesic pollen and seeds.

Palynological and ethnobotanical studies have also documented a dramatic deforestation of the Charleston peninsula in the second half of the 18th century. Pollen studies at the Rutledge and Brewton houses show a decrease in the amount of oak and pine during this period and a

dramatic increase in the weed species which colonize open, or disturbed, habitats (Reinhard 1989; 1990). While some of this change through time reflects individual lot clearing for house construction, the pollen spectrum reads a much larger range, and reflects general deforestation of the Charleston environs, ostensible for lumber and firewood. The documents hint at this deforestation through a dramatic rise in firewood prices during the colonial period (Weir 1983:44). The enthobotanical samples from the Charleston sites are dominated by weedy plants (Trinkley in Zierden and Grimes 1989). Pollen analysis from 19th century samples at the Powder Magazine (Reinhard 1996) likewise documents a number of weed species, as well as an increase in pine and decrease in hardwoods. In contrast, a mid-18th century midden from the Courthouse site revealed a variety of hardwood species - oak, elm, gum, hickory, pecan, cypress, juniper, and palm - as well as pine, some weed species, and some grasses. Though the analysts suspect some recent contamination of this midden (Joseph and Elliott 1994:94), the pollen profile supports the current model. In their study of Georgian London, Cruikshank and Burton (1990) note that the average house might have two to three fires burning during the day, consuming fuel (principally coal) and producing ash, both of which needed storage. In London, and most likely in Charleston, a basement space was used. Charlestonians used coal as well as wood, and archaeological analysis of the charcoal content of dated middens has shown that they used coal in increasing proportions through time (Trinkley in Calhoun et al. 1984). Excavations in the basement rooms, and beneath the kitchens, at the Brewton and Russell houses revealed deep deposits of coal dust, while coal ash lenses are a common feature of 19th century soil deposits in townhouse work yards.

Evolution of the Built Environment

In a shift from a pan-Atlantic, more diverse style, the Charleston single and double houses emerged in the mid-1700s as local forms that dominated the city's architecture for the next 150 years. The much-discussed single house, one room wide and two deep with a central hall and a side piazza, has been interpreted in a variety of ways. Origins for this style have been attributed to England, adapted to the tropics in the West Indies, and to Africa. Most recently, Bernard Herman (1997) has suggested a new approach and has attributed this style to the pervasive ideology of Atlantic mercantilism and the plantation system, calling these "urban plantation houses". The double house featured a four-square plan with central hall; Charleston's most elaborate double houses date to the late 18th to early 19th centuries. The Miles Brewton house is considered Charleston's superlative example of this form.

After construction, town house owners enlarged or simply remodeled their homes to make them more fashionable. William Alston made the most substantive changes to the Miles Brewton house in the early 19th century. He constructed the two-bay dressing rooms to the rear, enclosing the formerly projecting stair tower. He also added a great deal of ornamentation and replaced window sashes and sills. He also built several new service buildings, including the two-story quarters to house the large number of servants brought to the property and the ranges of horse stalls and tack rooms, to support his passion for horse racing. This attention to architectural detail is manifest in an elevated proportion of architectural artifacts, usually over

30% of the assemblage, despite the fact that no buildings were razed or destroyed on the property. Another type of archaeological evidence for these changes is large pits filled with architectural debris such as half bricks, broken roof tiles, and excess mortar. Feature 21 in N223.5W280 is such a deposit.

The town house owners periodically renovated their outbuildings as well as their houses. The support structures and activity areas that, in conjunction with the main house, formed the urban compound were integral to daily life in the city, and often received attention comparable to the main house. The support structures include kitchen, slave quarters, stables, carriage house, livestock sheds, privy, well, cistern, and drainage system. The maintenance of gardens might require additional features. While variation in the size, content, construction method, arrangement, and specialization of these structures existed, they were considered essential functional components for urban life and were present in some form at all sites, not just those of the elite. The early 19th century saw the addition of several structures to the King Street property. The original kitchen/carriage/slave quarter building that fronted King Street and the yellow brick privy in the northeast corner of the garden were augmented with the new two-story slave quarter and stable retinue in the early 19th century. A few years later, possibly under William Bull Pringle's ownership, the carriage house received an updated gothic facade, three feet closer to the street. Of greater significance, though, was the closure of second story (slave quarter) windows that faced outward to the adjoining property (figure 71). These changes have been discussed by Bernard Herman (1996) and Maurie McInnis (1996) as associated with increasing restrictions on the slave population. These changes were designed to keep the focus inward. They also suggest that domestic space in the city likewise became more segmented and partitioned into discrete areas. Open walls and fences were rebuilt in brick, yards were subdivided into discrete areas with walls and fences, and exterior windows were sealed.

There was also extensive evidence for changes in the fences and boundaries of the Brewton property, both internal and external. It was during the excavations at the King Street property that Bernard Herman first suggested that the brick enclosing walls might be a 19th century addition to the urban landscape; he challenged the author to excavate adjacent to these walls to determine their date of construction. The results of these excavations were significant. The first area studied was the front entrance and the walls that now enclose it.

The front of the Brewton house, elevated on an above-ground basement, is separated from the street by eight-foot brick walls and a wrought iron gate. The chevaux-de-frise were added to the original wrought iron fence and walls after the Denmark Vesey slave insurrection of 1822. Visitors coming to the house may only advance as far as the front portico, where they are visible from the house, yard, and street, for the front entrance is separated from the side yards by equally imposing brick walls (figure 72). Excavations of the builders trench in N193.7W120 revealed an intact builders trench, one filled in the 1820s (see figure 28). Feature 51 in Trench 3 Section 6, adjacent to the south wall, was less conclusive.

The front wall separating the house from the street along the south side yard evolved from

boundary to barricade as well. Discovery of a well-defined postmold beneath the brick wall suggests that this boundary was originally delineated by an informal wooden fence, either post-and-rail or picket. Variations in the brick work suggest that the wooden fence was then replaced with a low brick coping topped with either wrought iron or wood. The builders trench for the bricks contained no firmly datable material, but the stratigraphy generally indicted a 1770s-1780s date of construction. Sometime later the wooden or wrought-iron portion was replaced with solid brick to a height of eight feet. With a stuccoed exterior, the wall is physically as well as visually intimidating (figure 29).

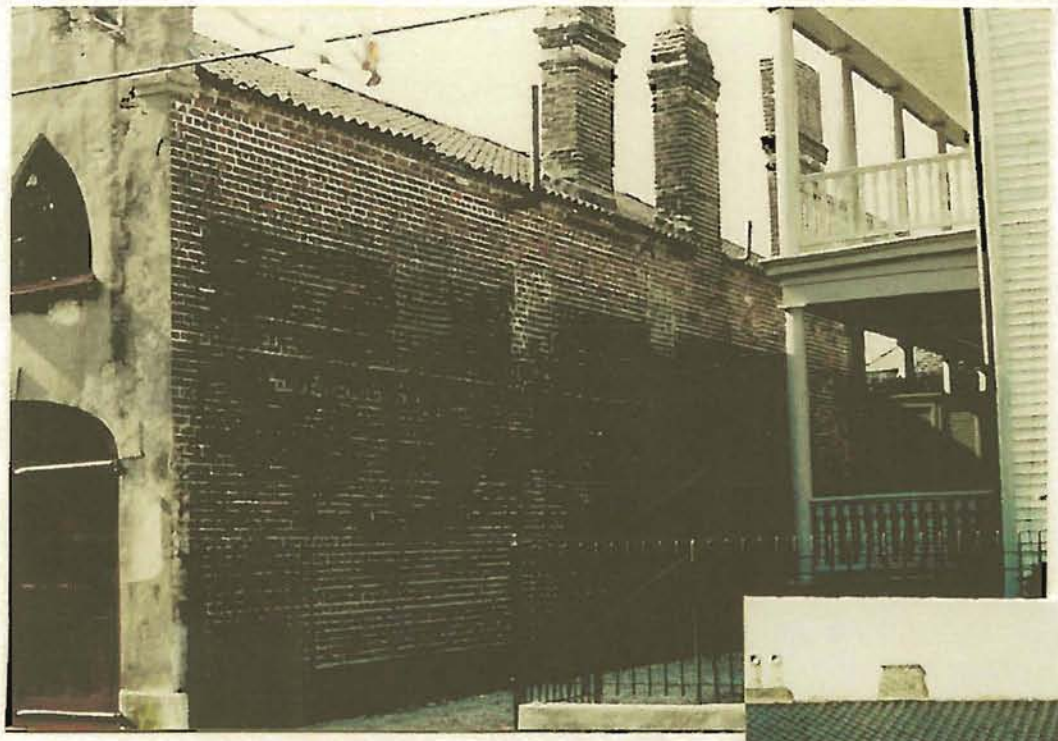


Figure 71. External wall of carriage house

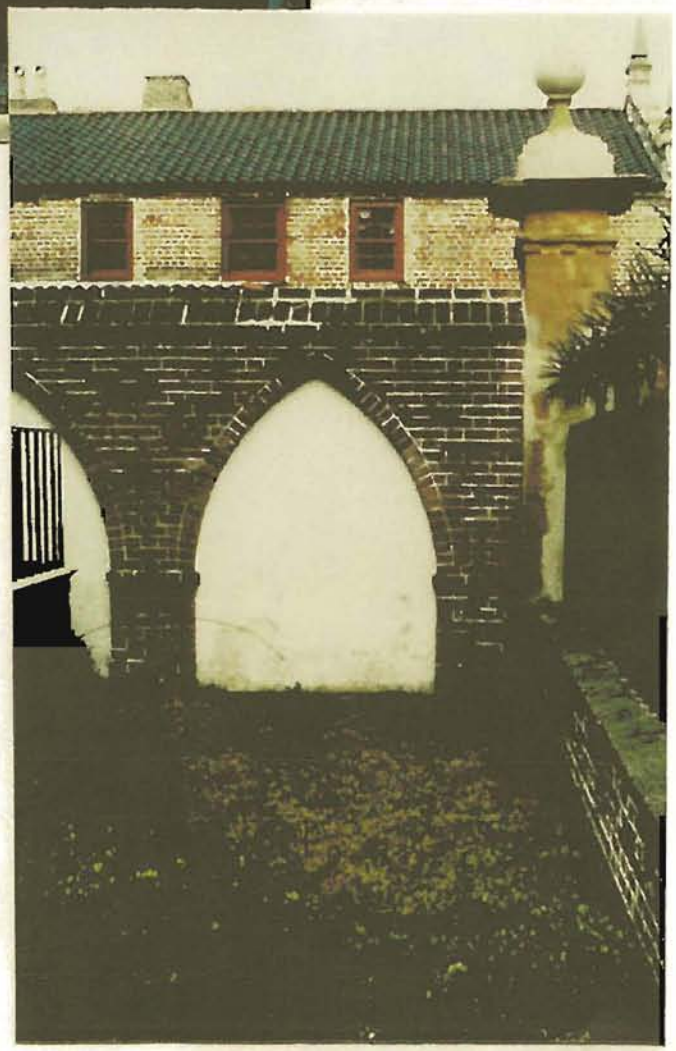


Figure 72. Front entrance walls

Likewise, internal segregation of the urban compound appears to have been a gradual process. The line of outbuildings is separated from the formal garden by a low brick wall surmounted by a wooden picket fence, segregating but not totally screening one from the other (figure 20). Ceramics contained in the builders trench suggest an 1820s construction date. Further, the two excavation units in this vicinity (N223.5W280 and Trench 4 Section 4) each revealed a well-defined posthole stain beneath the brick foundation (feature 23 and feature 37/42). Creamware within these features dates them after the 1770s. These features suggest that the present wall replaced a less formal and less restricting post-and-rail fence.

Excavation of feature 23 showed the somewhat unusual juxtaposition of these two features. The posthole initiated beneath the brick wall, but the soils of the postmold also filled a 'gap' in the portion of the brick wall beneath present grade but above the top of the posthole. This indicates that the brick wall originally incorporated the lower portion of the wooden posts. When the post remnants later rooted in place, repair to the brick wall was necessary. A similar evolution of garden features was noted by Larry McKee at The Hermitage. His excavations clearly showed wooden post remnants incorporated into later brick walls (Smith and McKee 1990). Such features as post-and-rail fence are no longer extant, but their existence and the more open nature of the urbanscape is captured in Charles Fraser's watercolors of the early 19th century, particularly in the "View from Mr. Fraser's City Residence, 1796", taken from King Street a few houses north of the Brewton property (Huger Smith 1959).

A visitor to the King Street property may now view an architectural complex completed in 1769; their view also incorporates changes made to the property over a subsequent hundred-year period. All are compressed into a single view. Archaeology has helped provide a diachronic perspective to the archaeological evolution of the property, and has presented a revised model of urban life that evolved in the 18th and 19th centuries to meet the changing needs of its residents.

The Garden

Just as the buildings, fences and the work yard of the Brewton compound evolved to fit the changing needs of the property residents, so too did the formal garden. As with their buildings, Charlestonians copied English and other European garden styles, but melded them with the physical conditions of their American settings and their community self-image. Along with houses, furnishings, and fashionable possessions, gardens were "statements of wealth and the right to own it" (Kryder-Reid 1994:131). A garden was "an extension of the parlor, a place where polite people walked and conversed," and a surrounding fence separated it from areas unrefined (Sarudy 1989; Bushman 1992:130). Barbara Sarudy has expanded this metaphor further in her analysis of garden furniture - Charlestonians often moved themselves and their furniture outside in search of cooling breezes (Sarudy 1995). Besides providing a stage for genteel performances, the house and garden was itself a performer on its own stage (Bushman 1992:132). an outdoor platform designed to present the owner to his guests and to the community at large. Allan Brown has suggested that designed landscapes "address fundamental questions of man's relationship to

his environment" more strongly than any other cultural artifact. "They reflect our most deeply-held attitudes about nature - whether to exploit it, idealize it, abstract it, or become subsumed within it" (Brown 1999:131)

Gardens emerged as one of the sites where public and private worlds intersected (Harwood 1993). Part and parcel of the elite homes of the 18th century was a formal garden. Bushman notes that by 1725, as mansions began to appear on the American landscape, gardens came with them. From 1750 on, a garden was requisite for every mansion (Bushman 1992:129). Far from a separate element, a formal garden was "an extension of the parlor, a place where polite people walked and conversed. The formal finish on lawns, beds, and walks continued the polish and decor on the passage from door to parlor to stairway" (Bushman 1992:130; see also Sarudy 1989).

Particularly adopted were the highly formalized and structured English gardens of the 18th century, including symmetrical vegetable and flower gardens. Americans continued the ornamental farm, or ferme ornee, which integrated the pleasurable and profitable. In England, the ferme ornee was replaced by the picturesque garden promoted by Capability Brown. His undulating, less formal, large-scale landscapes were not popular in America, possibly for two reasons. First, it did away with the flower garden, which Americans loved and, secondly, Americans already had unspoiled landscape, one constantly in need of taming, not emulating (Sarudy 1989; O'Malley 1989; Leighton 1976). Americans of this period sought a middle ground; the effect of nature cultivated by art. But the new century would see gardens grow less and less formal, until mid-century when Andrew Jackson Downing would seriously introduce a 'natural grounds' movement into America. As with their architectural counterparts, gardens would be changed and altered to fit new styles as the owners saw them.

Gardens as an outdoor extension of interior space may have held particular importance in Charleston, where hot weather abounded. Barbara Sarudy has noted in her study of garden furniture that Charlestonians moved themselves, and their furniture, outside in search of cooling breezes (Sarudy 1995b; personal communication). There is plenty of evidence that gardens and gardening has been an important element of the Charleston landscape since at least the mid-18th century, though the styles and meanings of gardens have evolved through the centuries. James Cothran (1995) suggests that early in her history the city became the center of gardening in the southern colonies. Through the 18th and 19th centuries, the city boasted a number of nationally-important naturalists and horticulturalists. Charleston's horticultural knowledge was greatly enhanced by the founding of the Charleston Library Society in 1748, which boasted many important reference works. Local nurseries and seed dealers gradually replaced English suppliers as the colonial period proceeded. Formal gardens in the European style could be found on plantations by the second quarter of the 18th century and in the city by 1750. By the Revolutionary period, professional gardeners were advertising their services (Cothran 1995; see also Rogers 1984).

Most sources suggest that Charleston gardeners eschewed the informal styles that began

sweeping Europe in the early 19th century, and instead continued to embrace formal designs, a trend echoed throughout much of the South (Jansma and Brown 1996; see also Turner 1997). While many of the town gardens were neglected or abandoned during the financially-stressed postbellum decades, a renewed interest in the town gardens emerged in the early 1900s. Cothran suggests that many of the new 20th century gardens were smaller and more modest in scale. While contemporary in design, they often incorporated historic elements and details. The new garden movement received considerable impetus and refinement from the creation of the Garden Club of Charleston and from the career of the prolific and influential landscape architect, Loutrel Briggs (Cothran 1995:32-43; Briggs 1951). Briggs is credited with establishing the term "Charleston Garden" (Cothran 1995:42).

Examinations of the McCrady Plats of Charleston properties by a host of scholars suggest that, like the Brewton property, the formal Charleston gardens of the 18th century were often located behind the townhouses, which fronted the streets (Richardson 1943; McInnis 1996) . By the 19th century, many engaged in creation of formal spaces placed their gardens in front of, or in the case of Nathaniel Russell and George Edwards, beside their grand single houses, so that the garden might be viewed by those passing by.

In a further connection between the garden and the interior, the plants functioned just as the delightful objects did, as subjects for conversation and comment. Just as with their buildings, Charlestonians copied English and European garden styles, but melded them with the physical conditions of their new world settings and their own community self-image. Gardens were, according to Elizabeth Kryder-Reid (1994:131), "powerful statements of wealth and the right to own it". A proper garden required financial resources, but also privileged knowledge. Gardening required a familiarity with literature, classics and art, as well as the sciences - geometry, botany, husbandry, hydraulics, surveying, and architecture. Gardens were, particularly in the 18th century, "controlled domains of nature". Yet gardens almost always combined the useful with the purely ornamental, even if the design was carefully contrived (Sarudy 1998:62; see also Rogers 1984; Haney 1996)

Elizabeth Kryder-Reid further suggests that, as media of identity and social control, gardens were also subject to diverse readings, whether one was owner, guest, or tending slave (Kryder-Reid 1994; Leone 1988; Leone et al. 1989; Yentsch 1994). Certainly access to the formal paths, the summer house, and possibly the orchard and vegetable garden varied according to one's status and one's relation to the Brewton, Motte, Alston, or Pringle family. Our challenge, as scholars of the past, is to recover all of these meanings (or 'conceptualizations' [Brown 1999:131]) to the fullest extent possible, from the documentary, the material, and the physical records.

The Brewton house project provided the first opportunity to define the archaeological signature of Charleston gardens. The 1988 project was designed to examine areas of the house to be impacted by restoration, and to inform on the architectural evolution of the property. The 1989 excavations were designed to mitigate damage to the archaeological record caused by these

renovations. The second phase of work, like the first, avoided the garden area. Two service trenches, from the rear set of stalls to the house, crossed the formal garden area and provided an opportunity to examine evidence of the garden. The first trench, (trench 6) was excavated by the restoration crew and its profile examined by garden archaeology expert Dr. William Kelso. Dr. Kelso visited the property at the invitation of the Manigaults and drew the profile exposed by the trench. Here, Dr. Kelso was able to define remnants of walkways and planting beds, and proposed a rectilinear plan likely original to the property, c. 1765-1770 (Kelso1990; figure 38). Dr. Kelso also suggested that some controlled excavation in the garden would be necessary to refine this definition, and to date the paisley garden, presumably a second garden design, more precisely. At the time of the project the paisley garden was presumed to be Victorian, but some documents had suggested that William Alston was responsible for the changes.

Excavation of sections of Trench 7 were then conducted under consultation with Dr. Kelso. Zone 1 was culturally sterile and associated with the 20th century. Zone 1 level 2 was defined as the construction layer for the paisley garden, and exhibited brown soil beds and paths of finely crushed shell. Artifacts contained in these layers suggest construction in the first half of the 19th century (yellow ware with a TPQ of 1820-50 is the latest artifact recovered), supporting the attribution of this garden to the Alston era . The following zone 2 was a deep deposit of dark grey-brown loamy sand, about one foot thick, with a concentration of cultural material, bone, and brick rubble, particularly near the base of the zone. The latter were excavated as zone 2 level 2. All of the materials appear to be primary refuse and date to the 1770s, suggesting that these are the original garden beds defined by Dr. Kelso

The rectangular design proposed by Dr. Kelso for the 1770s design and the paisley design extant through the 20th century, and now attributed to the second quarter of the 19th century, both follow general patterns proposed for Charleston gardens of the period. The rectangular beds and wide central path are in keeping with other late 18th century gardens in the southern colonies (Kelso 1990). And the bolder design of the second garden echoes that of Edwards' 1818 garden at Legare Street, one that, though complex, was based on the geometrical integrity and mathematical proportion that characterized sophisticated gardens of the early 19th century. Garden historian Allan Brown has found that variations on such designs were evidently common in early 19th century Charleston, and he warns against attributing these to the Victorian era (Brown 2001:14). Charleston garden designer Loutrel Briggs shows comparable gardens on Hasell Street, South Battery, and elsewhere in the city (Briggs 1931).

The limited visibility afforded by excavations of sections of Trench 7 did not add to data on garden layout, but instead provided fairly firm dates for the two garden events. The data also suggest that both gardens are well-preserved beneath the present ground surface and amenable to further research. Since the excavations at Brewton, limited work in the garden of the Nathaniel Russell House have also demonstrated preservation of garden features beneath the current surface (Zierden 1996). And the extensive excavations at 14 Legare demonstrated that even complex gardens could be defined archaeologically, but only through extensive horizontal excavation (Zierden 2001). The excavations in the Brewton garden have, however, provided an

archaeological signature for formal gardens and, as we shall see, one dramatically different from that of the work yards. The excavations here provided a critical foundation for subsequent garden research in Charleston.

The Work Yard

The deliberate placement of specialized service buildings, separation of work yards and gardens, and specific locations for refuse disposal were conscious attempts to mold an urban landscape suitable to the social values, as well as physical needs, of urban residents. The needs and values of Charleston's citizens changed as the 19th century progressed. Archaeology has not only outlined the basic features of an 18th century compound, it has also documented changes in these feature for the next century. Many of the visible changes were attempts to improve sanitation and prevent the spread of disease in an increasingly crowded city (Rosengarten et al. 1987).

The work yard, surrounding the outbuildings, was the scene of daily activities, including food preparation, livestock maintenance, cleaning, and laundering. Sheet midden deposits contain quantities of discarded animal bone fragments; recovered skeletal elements suggest on-site butchering. The work yard was also the locus of refuse disposal, a critical problem of urban life and the one most visible archaeologically.

Refuse disposal, for example, must have reached critical proportions in the city in the early 1800s. Many of the townhouse work yards were paved in the early 19th century; this is reflected in plat data as well as archaeological data. Examples of extensively paved work yards include the Heyward-Washington house, the Aiken-Rhett house, and the Miles Brewton house. The stratigraphic sequence in the N225W185 block of the Miles Brewton work yard serve as a good example of the evolution of refuse disposal. Debris was concentrated in the work yard, adjacent to the outbuildings, from the time of initial occupation of the property in 1769. Over the next 75 years, 2.5' of refuse accumulated in a series of sheet deposits and small trash pits (figure 25). A significant portion of the animal bone from these deposits exhibited rodent-gnawing, indicating the bones lay exposed on the ground for a period of time following their disposal (Reitz 1989; Reitz in Zierden 2001). The upper zones were first covered with irregular lenses of tabby mortar, and then paved with brick and slate. Datable ceramics indicate that the mortar paving occurred after 1800 and the brick paving between 1830 and 1840. Refuse was then evidently disposed of elsewhere, for soil accumulation in the next 150 years amounted to one half foot. Likewise, artifact density was low for this post-paving period.

No paved yard areas were encountered at the Nathaniel Russell house, but the site was subject only to dispersed testing. Interestingly, no paved areas were encountered at 14 Legare, with the exception of the driveway. These two early 19th century properties also share a characteristic not noted at Brewton; overall artifact density is much lower at these two sites, compared to Brewton. The 14 Legare site averaged 11.8 artifacts per cubic foot of excavated soil

and the Russell house contained 16.7. The Brewton site contained 24.8 artifact per foot of soil. It may be that the occupants of both Legare and Russell hauled more refuse off site, and therefore found paving of the work yard less pressing. Documentary sources, particularly plats, reflect the widespread addition of paved yards; they also document such additions as cisterns, drains, and wells.

A significant vehicle for a more sanitary yard was a drain system. Such features have been encountered at most of the townhouses excavated to date. While a few are earlier, most are antebellum improvements. Wile some of them facilitated storm water runoff, their presence on some high lots suggest other functions as well. The elaborate late 18th century drain in the Brewton work yard (feature 12) evidently transported waste water from the work yard. The accumulation of small artifacts and animal bone, particularly fish scales, suggest that the drains were used primarily for the disposal of waste water. Zooarchaeologist Elizabeth Reitz has discussed the significance of the recovery of the fish remains in this drain (chapter 5; see also Reitz 2000). This, plus the lost items, suggest that waste water used in the work yard was deliberately flushed into this drain system. The late 18th century drain was expanded in the 1800s (feature 13/16; date based on pearlware in the builders trench), although this brick drain was not nearly so well constructed. The presence of yellow ware and other later artifacts in association with collapsed portions of the drain in Trench 4 section 5 suggests that the earlier drain was repaired periodically throughout the 19th century.

While municipal drains in Charleston and other cities appear about mid-19th century, many houses of the well-to-do had their own drains. Nathaniel Russell's 1808 construction included a large drain in the driveway; sometime later he added a small drain in the garden. The modest drain at Legare appears to be contemporaneous with the house and outbuildings. Cruikshank and Burton (1990) suggest that many of the better English houses had some type of drains by the early 19th century. But even with these 'conveniences' there were problems. There was a constant seepage problem and a perennial problem of blockage. While some drained well, others were built with inadequate fall. In dry weather there was no flush, and solid deposits could build up rapidly. For this reason most cities outlawed connections to privies. On properties without drains, "night soil was kept in poisonous pools, of which the inhabitants pump out the contents into open channels in the streets at night" (Cruikshank and Burton 1990).

Wells were the principal source of water, including drinking water, in 17th and 18th century Charleston. Due to the city's low elevation, potable water may be encountered no deeper than 10-12 feet below surface. Wells in the city were first wood or barrel lined, and then built in brick. Because of their open top and shallow nature, they were subject to contamination. This ranged from stray rats and kittens who fell into foul substances which seeped in from the sides. Contaminated wells were often abandoned and another constructed in close proximity. Others, particularly public wells, remained open as a source of water for fire fighters. Many properties contained more than one well. Often these were located close to the kitchen. No wells were encountered or excavated at the Brewton house.

Cisterns to collect and store rainwater are another sanitation feature added to Charleston lots. As the 19th century progressed, Charlestonians became increasingly concerned with health problems that plagued the city and began to relate them to poor sanitation and increased population pressure. Specifically, increasingly large numbers of wells and privies resided on increasingly small lots in all-too-close proximity to each other (Honerkamp et al. 1982; Honerkamp and Council 1984). The result was contamination of the groundwater, described in graphic language in 1880s reports by the Public Health Officer (Rosengarten et al. 1987). Cisterns designed to collect rainwater via gutter systems from roofs, provided an alternate source of drinking water. They were first constructed in the early 19th century and became a standard feature by the 1850s. These were newly-constructed rectangular or circular vaults, often lined with mortar. They were designed to be free of contamination; the archaeological signature is often a clean sand fill with no artifactual material. All of the townhouses studied to date have at least one cistern, and the Aiken-Rhett house has several. The above-ground cistern that occupies the front set of horse stalls at Brewton is the most graphic; however, restoration excavation in the vicinity of the rear stalls revealed an earlier cistern beneath the foundation of the Alston servant's quarters; this suggests the cistern was constructed in the first decades of the 19th century. The Brewton yard, then, contained well-constructed examples of the features antebellum Charlestonians found necessary for public health.

Health and Sanitation

A large part of maintaining a healthy and sanitary site was managing the animals who lived on that site. Zooarchaeologist Elizabeth Reitz has recently summarized the animals who would have lived alongside the human residents of a townhouse property such as Brewton. The archaeological record, and to a lesser extent the documentary record, suggests that the work yard was filled with domestic animals such as cows, pigs, and assorted fowl, maintained for milk and eggs and ultimately destined for the dinner table. Also present were work animals and pets. The maintenance of these animals, their feed, other food stocks, and the resulting refuse, attracted other unwanted animals. These practices were common in the 18th and early 19th centuries, and they persisted in some form into the 20th century (Reitz 2000). Further, the character of this animal maintenance changed through time, as urban sanitation and public health became an increasing problem, and an increasing concern, as the 19th century proceeded. Reitz further suggests a large part of garden maintenance, then, as well as overall site maintenance, involved "keeping chickens and pigs out of the garden, cats out of the well, and rats out of the larder" (Reitz 2000)

Analysis of the faunal remains from drain fill, trash pits, and other work yard middens has also provided information on urban sanitation. Zooarchaeologist Elizabeth Reitz has determined that such animals as mice, rats, toads, cats, and dogs comprise 4.3% of rural faunal assemblages and 10.6% of urban ones, suggesting that vermin were more closely associated with human activity in cities. The urban elite sites, including Brewton, contain a lower percentage of vermin, 7.5% average, possibly indicating some success in sanitizing the urban environment (Reitz 1986).

Gina Haney has found reference to the Horlbeck brothers, local contractors, building a brick wall to "keep out the rats" (Haney, personal communication; Haney 1996). Reitz has further noted a general increase in the quantity of vermin in the city as the 19th century progresses. Reitz attributes this to the amount of food stored on site, or the amount of waste discarded on the property. In general, maintenance of townhouse lots seems to decline after the economic devastation and social upheaval of the Civil War. The Miles Brewton household, for example, went from three dozen household servants before the War to three (Cote 2000). Archaeological evidence suggests that it was during this same post-War period that the brick-lined basement of the kitchen building began to fill with silt and debris.

This economic downturn for the Charleston elite seems to co-exist with an increased reliance on all available resources, particularly fish. Considering its coastal and estuarine location, fish have always been a surprisingly small part of the domestic faunal record. Though the number of samples are still small, there is some evidence for an increased reliance on fishes as the 19th century progressed. This is particularly true for the faunal collection from the Pringle and Frost eras of 27 King Street. Webber (2000) has noted larger-than-normal proportion of fishes in the 19th century proveniences at Legare Street, with a proportional decrease in the use of domestic mammals. Webber has suggested that increasing urban density made the large-scale maintenance of domestic mammals on these sites increasingly impractical; an exception to this was the continued dominance of domestic mammals at the Aiken-Rhett house, a suburban townhouse (Webber 2000).

A somewhat surprising aspect of the urban diet was the extensive use of wild animals. Over half of the animals recovered from Charleston are wild species. These include small mammals such as opossums, rabbits, squirrels, and racoon. Wild birds include Canada geese, ducks, turkeys, and shore birds. Turtles were consumed, and often considered a delicacy. Many of the mammals, birds, and fish we no longer consider edible were consumed in great numbers. Domestic mammals comprised the majority of the calories. Cattle were most commonly consumed, followed by pigs. Sheep and goats are consistently present, but were relatively uncommon. Chickens and muscovy ducks are the most common domestic birds. There seems to be little status or ethnic differences in the meats consumed; the elite sites are reflected only in a greater diversity of species consumed (Retiz 2000)

The urban townhouse sites evidently needed special cleanup efforts, as the faunal record also indicates that the maintenance and butchering of cattle was commonplace on these properties. This is seen in the distribution of carcass elements recovered at residential sites when compared to those at the market and at sites patronized by the general public. Further, these data suggest that on-site butchery was more common on elite sites than those of the middle class (Reitz and Zierden 1991; Reitz 1989; Reitz 2000). The Russell house, for example, featured a dense deposit of bone beneath the kitchen building, much of which evidenced on-site butchery (Reitz in Zierden 1996). Documentary sources suggest the maintenance of livestock, particularly cattle, by Charleston residents persisted into the 20th century (Pease and Pease 1986; Rosengarten et al. 1987). Gina Haney's research on back buildings has revealed new, dramatic evidence for

the keeping of livestock at townhouses (Haney 1996). In her study she quotes prominent planter Ralph Izard, who in 1816 reported,

> "I have a cow yard fenced off & a division made for poultry & a fence running across the lot meeting these give us a tolerably sized garden & a square secured from intrusion for drying clothes" (Ralph Izard, Charleston to Mrs. Alice Izard, Bristol, c. 1816, quoted in Haney 1996:30).

Plats of Charleston townhouse lots from 1750 to 1850 show a great variety of back buildings, including pigeon houses, poultry houses, cow houses and, most telling, slaughter houses.

Archaeological research has demonstrated the crowded and messy condition of the urban work yard; two decades of zooarchaeological research have further demonstrated the noisy and smelly characteristics of this area. Reitz suggests,

> "The work yard was crowded with debris, livestock, horses and people. While it may have been visually separated from the formal part of the house and garden, the odors and sounds of livestock, their slaughter, and the discard of rubbish must have been a fairly common phenomenon"

She further suggests that the good health enjoyed by urban residents today owes as much to public water treatment, sewage projects, and curb-side garbage collection as to improved medical care. Archaeological research has provided ample evidence of the formidable problems of daily life faced by residents of 27 King Street.

Residents of the Brewton House and their Possessions

Archaeologists are concerned with the meaning of archaeological remains: what they meant to the people who made them and used them, and what they mean to the people who study and protect them. Since the publication of Leone and Potter's *The Recovery of Meaning* in 1988, archaeologists have been concerned with discerning the meaning or meanings of artifacts to past users, the social and ideological template encoded in the material culture, and how this material culture was used to define and reinforce the social mores to a diverse population in the 18th and 19th centuries.

Discussion of these issues follows the premise so eloquently stated by Bernard Herman and Lu Ann De Cunzo, who note that material culture maintains an active role in facilitating social performance, constructing socio-cultural identity, and mediating individual and group interaction (De Cunzo 1996:1). Herman, quoting Ian Hodder, further notes that context is multilayered and complex, implying a connecting or interweaving of things in a particular situation or group of situations, the idea of object as action. Context is defined by multiple, competing, individually

held contextual readings (Herman 1996:19). There is perhaps not better place to study competing contexts that on an urban townhouse lot occupied together by wealthy Euro-American families and enslaved African-American laborers.

Underlying these discussions is the premise, best articulated by Ann Smart Martin, that human made things, or artifacts, are "complex bundles of individual, social, and cultural meanings grafted onto something that can be seen, touched, and owned" (Martin 1996:6). According to Martin, this assumes that material things "are not just products of culture, but are imbedded in culture; they are symbolic and communicative". Humans use material things to create, learn, and mediate social interactions and relations"(Martin 1996:5). Discussed below are the material items, other than the house and gardens, left behind by residents of 27 King Street, and those recovered on the neighboring lot of 14 Legare.

The layers of earth on archaeological sites such as Brewton have produced assemblages of material culture that reflect the purchasing power of Charleston's elite, which was the greatest of any colonial city. The material culture reflects the transformation of Charleston from a frontier settlement to a flourishing metropolis, defines the characteristics of daily life in the city, and prescribes a language of shared beliefs among the planter-merchant elite. At the same time, it presents the somewhat muffled voices of the city's middling and poor, free and enslaved residents who understood this language of artifacts, even if they did not share its rewards. The Charleston data reflect the "refinement of America" argued by Richard Bushman and others (Bushman 1992; McInnis 1996; Carson et al. 1994).

Possessions of the Planter Families

Maurie McInnis has noted that townhouses were the "ultimate consumer object" (McInnis 1996; Chappell 1994). As refinement took hold in the early 18th century, the first object acquired by the rising gentry was a new house (Bushman 1992; Sweeney 1994:15). Within these houses, a well crafted and appointed interior became "a carefully orchestrated processional space. Charlestonians knew the importance of having a house 'in order' and they strove to create the proper setting for the enactment of their social rituals. It was on the interior where the patron could impart his personal cultural refinement with the combination of interior architectural details and collections of paintings, furniture, and decorative arts" (McInnis 1996:7, 10, 15). Indeed, addition of plasterwork and other finishes was the first step in creating a separate dining room in the early 19th century (Jordan 1988). Sweeping staircases, large sash windows, elaborately detailed public rooms, and a carefully arranged traffic pattern were element which emphasized social inclusion within clearly defined boundaries of social division and distance.

Through the development of refinement and gentility, the rising gentry sought to distance themselves from the lower social classes. Gentility was the visible expression of gentry status. Gentility elevated old activities by surrounding them with a beautiful environment. Most germane to the discussion of the gentility movement is that the genteel life depended on the creation of

these proper environments. As gentility trickled down to the middle class, the need for 'refined' objects created an unprecedented mass market for individual items. Those who had achieved gentry status during this period proclaimed this status through possession and use of the proper equipment, all increasingly available from the European markets. People wanted carpets, mahogany furniture, drapes and coverings, tableware, fine fabrics, candlesticks, buckles and buttons, hats, and a host of signifying objects. Charlestonians had a particular affinity for British style and British goods, attributed to the "constant arrival of both foreign artisans and imported consumer goods, the availability of imported design books relating to both architecture and furniture, and the experiences of Charlestonians traveling abroad (Savage 1995:4; Savage and Iseley 1995; Savage and Leath 1999).

The above list reminds the reader that the archaeological record contains only a small fraction of such objects, as the archaeologist deals only with what was discarded, lost, or abandoned. The objects that dominate advertisements, such as fabrics, household furnishings, fashion accessories, and exotic foodstuffs (Martin 1995; Calhoun et al. 1982) rarely find their way to the archaeological record. Likewise, we rarely recover the goods and services for aspiring gentlemen touted by local craftsmen: portraiture, silver, clocks and cabinetry, luxurious dresses, china painted with "gentlemen's coats of arms". Though the range of items is limited, the extensive archaeological excavations have revealed a number of artifacts which, when viewed from this perspective, provide tangible evidence of the items used by the King Street owners and, inferentially, the meaning of these objects to them, to guests, and to the rest of the city.

On a broader level, archaeologists have been investigating the relation between material culture and symbolic behavior since the 1970s, and have looked for indicators of socioeconomic status in the archaeological record. Studies of status have focused on specific artifact types on a presence/absence basis, and on relative proportions of broad artifact categories (Otto 1975; Spencer-Wood 1987; Zierden and Calhoun 1990; Zierden 1999). The results of these studies have been mixed, and scholars have agreed that the issue of an individual's status in a community is complex, with both individuals and groups ascribing status in different ways. Status in a complex society is determined by a variety of factors and is often revealed by differing access to symbolic and material rewards. Measuring symbolic rewards is beyond the scope of archaeological study, but scholars have worked to relate socioeconomic status to material remains. Here, socioeconomic status refers to the relation of unequal distribution of goods in a market economy relative to social and economic differentiation. An assumption of archaeological research is that the material culture served a sociotechnic function, and was reflective of both income level and the prestige level of its users (Binford 1962; Deetz 1977; Spencer-Wood 1987:2; Zierden and Calhoun 1990).

The wealth and prestige of the Brewton household is most strongly reflected in the kitchen and dining artifacts recovered on site. The wealth of Chinese porcelains and elaborate table glass recovered from the garden deposits suggest that such items were owned, and discarded, in relatively large numbers by the household. These assemblages, too, contained a number of tea wares, in both porcelain and white saltglazed stoneware. The somewhat more mundane

creamware assemblage contained a pattern of hand-painted dinner wares, possibly a special order for the family. The later Pringle-Frost assemblage, in contrast, is filled with everyday items, from buttons to ceramics, suggesting that little of the family's remaining finery was cycled into the archaeological record during this period

Table 7
Relative Frequency of Status Markers
Early 19th Century Assemblages

	14 Legare	Russell/ Allston**	Brewton/ Br. garden*	Charleston avg.
#artifacts/ft3 of soil	11.86	16.7	24.8/32.4	
Kitchen, % total		58.5/54.4	55.7/55.4	58.4
clothing, % total	.5	.65/1.16	.74/.33	1.13
personal, % total	.18	.29/.46	.81/.27	.45
furniture, % total	.29	.20/.44	.19/.06	.20
ceramics, % kitchen	59.9	54.8/47.5	60.4/61.9	58.6
table glass, % kitchen	3.0	2.8/2.5	1.7/16.9	2.8
tableware, % ceramics		82.0/78.4	80.5	82.0
Chinese porc., % ceramics	10.45	12.2/9.5	25.9/33.8	20.3
Creamware, % ceramics	20.7	24.9/19.0	11.6/2.06	20.6
Pearlware, % ceramics		24.8/23.3	5.9/0	12.9

** The Russell assemblage dates from 1808-1857; the Allston from 1857-1870

* The Brewton assemblage encompasses many discrete proveniences, from 1765-1780; the Brewton garden appears to be a single disposal event, c. 1770

Artifacts of the African American Residents

Easily lost in the interpretation of properties like Brewton is that for more than half a century African Americans likely comprised the majority of residents at the property. One of the frustrations of townhouse sites, though, is that the rubbish of master and slave are likely mixed in

most primary contexts, and certainly in all of the secondary ones. Further, master and slave used many of the same materials, but ascribed to them different meaning, difficult to decipher from archaeological data alone. Master and slave ate many of the same foods, but perhaps prepared them in a different way. To the extent possible, the limited archaeological data will be used to give 'voice' to the black bondsmen and women. In her study of the Calvert household of Annapolis, Maryland, Ann Yentch worked to give voice to these urban residents, teasing their presence from ethnographic, historic, and demographic data. From here, she discussed architecture and social spaces of the "workaday world" and the few artifacts that could clearly be attributed to African American residents (1994:188). Her research has served as a model and a comparative base for subsequent work in Charleston (Zierden 1996; 1999).

The basic unit of excavation and analysis is the land or house lot associated with a domestic structure and outbuildings. Although a few artifacts could be lost in the yard by visitors to a house, the vast majority excavated from primary deposits in a yard that is well fenced or otherwise clearly separated are usually assumed to have been deposited by the house residents who controlled the yard space (Deagan 1982:161; Spencer-Wood 1987:2), evidence from the 18th century deposits at 14 Legare notwithstanding. The archaeological data associated with one structure, though, usually cannot be divided to correspond with smaller economic or social units that may be housed in that structure, such as multiple families, servants, or boarders. Therefore, the archaeological meaning of a household corresponds to all residents of a domestic structure that have created primary deposits of artifacts in the house yard. Archaeological analyses represent, then, the combined acquisition and discard behaviors from all residents in a house structure, and possibly from some visitors as well (Spencer-Wood 1987:2).

Archaeologists began their research on African American sites in a quest for "Africanisms" (Ascher and Fairbanks 1971) - material signatures of an African past and African identity (Singleton 1991; 1999). Few were found. But with a black majority, sizeable and continuous influx of people directly from Africa, and black communities living in relative isolation into the twentieth century, the South Carolina lowcountry seemed an apt location for such a search.

And Lowcountry sites did yield a relatively large number of things that seemed to be peculiarly African - colono wares, mud-walled houses, distinctively marked graves, cowrie shells and, as an example of European goods used in an African way, blue glass beads (Ferguson 1992; Joseph and Zierden 2001; Shlasko 2001; Combes 1974; Stine, Cabak and Groover 1996). But what has emerged is a picture of complexity. The people being studied were not, particularly by the 19th century, African, but African American, a creolized society encompassing ideas and traits acquired from contact with Native Americans and Europeans (Singleton 1999). The enslaved people who lived at 14 Legare were not African, but African American. The objects they used, and the few objects they owned, were created in a multi-ethnic new world setting or, primarily, obtained from the vast European market of mass-produced goods. But what did these manufactured, or hand made, objects mean to the people who used them?

Leland Ferguson (1992:xli) has suggested that creolization theory is an appropriate avenue

for exploring the material expressions of African American material culture. Creole people are culturally and/or racially mixed; more significant is the examination of the creolization process, a multicultural adjustment experienced by all of the groups in contact, entailing interaction, exchange, and creativity. Moreover, differences of time, place, and ethnic mix resulted in different creolized cultures in various parts of the Americas. In Ferguson's study, based on the examples of Kamau Brathwaite and Charles Joyner, linguistic concepts of cognition are used to explain that material things are part of the lexicon of culture while the ways they are made, used, and perceived are part of the grammar or structure. Within a creolizing culture, change can take place in either superficial features, or underlying structure, or both. With Ferguson's model in mind, we can examine objects of both European and local manufacture recovered at Brewton and suggest how they might have been used by the site residents.

Archaeological evidence of ethnicity is indicated from several sources; objects presumably brought from Africa; recreations of African-styled or African-influenced objects, and mass-produced objects and other Euro-American materials reinterpreted for a special African American meaning (Singleton 1991; Ferguson 1992). It is the latter group that has held the greatest interest to archaeologists in recent years.

Archaeologists have suggested that these European artifacts were appropriated and altered by Africans for use in protection rites grounded in African cosmology (Franklin 1996). Most common were a variety of artifacts marked with an X or other markings, interpreted as symbolic of the Bakongo cosmogram (Ferguson 1999; Franklin 1996; Russell 1997; Young 1994). Such marks have been found on pewter spoon bowls, colono ware vessels, clay marbles, and coins. Other artifacts were appropriated, given religious meanings, and possibly worn as charms, such as pierced silver coins and a variety of glass beads (Stine et al. 1996; Young 1996; Heath 1999; Singleton 1991). Still other objects have derived meaning from their deliberate placement, as shrines or charms, in sub-floor pits, beneath floors and within walls, or in other hidden locations (Brown and Cooper 1990 ; Samford 1999; Bankoff et al. 2001). Stine, Cabak and Groover have separated these into two groups: personal charms, worn on the body, and household charms, placed around the household to protect the structure, its contents, and its residents (Stine et al. 1996:54). Interpretations of the latter group have been based principally on their place of recovery and the *in situ* association of altered and unaltered objects. While these interpretations are supported by the current archaeological, historical, and ethnographic evidence, some scholars have warned that African culture is complex and varied, and the objects may have held multiple meanings (DeCorse 1999:132-133).

Researchers have focused on glass beads. Bead color has been a particular focus, with blue beads are the most common on African American sites. William Adams has suggested that a single blue bead protected the bearer from the evil eye (Adams 1987). Others have suggested that the blue beads may have a broader meaning (Yentsch 1994; Stine et al. 1996:64). Glass beads were widespread in the 18th century, and were used in a variety of ways by many cultural groups, most notably as an item traded to Native Americans. Therefore, all beads recovered on colonials sites cannot be attributed to African residents. It has been suggested, however, that glass beads

were not popular among Euro-Americans in the 19th century (Yentsch 1994). Glass beads were relatively infrequent at Brewton, however. The most common type recovered were the cornaline d'alleppo, which are green glass tube beads covered in opaque red glass, in imitation of carnelian The site did produce a pierced silver coin and a cowrie shell, of tropical or possibly African origin. The final artifact of slavery was a slave tag (Singleton 1984), too eroded to read the date or inscription.

The most common artifact associated with African American residents is colono ware. Unlike the objects described above, the colono ware recovered at Legare, and on other lowcountry sites, has been attributed primarily to African American potters. African Americans are also viewed as the primary users of this ware, thought this attribution is less clear. The Brewton site contained a moderate amount of colono ware, compared to other townhouse sites. The ware particularly predominates the early assemblage. When viewed in the context of primary disposal in feature 11, it speaks to a stronger African presence in material culture in the 18th century, with a more muted material presence in the 19th century.

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