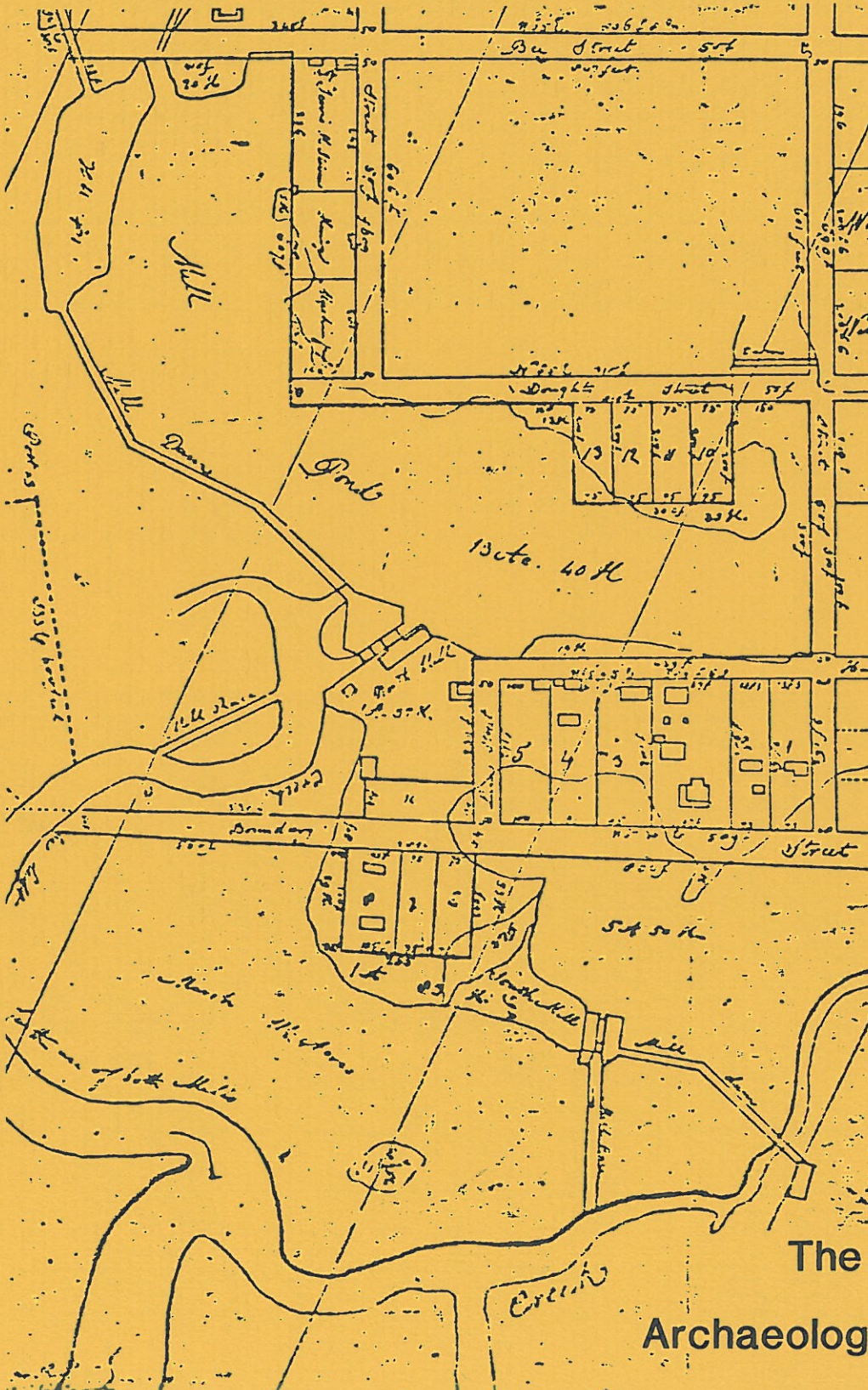


# THE PRESIDENT STREET SITE:

## An Experiment in Public Archaeology



The Charleston Museum

Archaeological Contributions 18



THE PRESIDENT STREET SITE:  
AN EXPERIMENT IN PUBLIC ARCHAEOLOGY

by

Martha Zierden  
The Charleston Museum  
and  
Robert P. Raynor  
Medical University of South Carolina

with contributions by

Ziyadah Owusu  
Debi Hacker  
The Charleston Museum

Karen G. Wood  
University of Georgia

Jenny L. Peabody  
College of Charleston

The Charleston Museum  
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prepared for  
the Department of Psychiatry  
Medical University of South Carolina

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Sharon Whitworth, Special Education  
Thomas Tyner, Special Education  
Deborah Fields, RN  
Sarah Anderson, LPN  
Robin Chambers, RN  
Bruce Chapman, TA  
Steve Mackin, RN  
Glen Hawkins, MS  
Lois Worden, RN  
Betty Sue Kelsor, RN  
Nancy Sharkey, TA  
Gil Taylor, RN  
Brooks Oglesby, RN  
Valerie Kruger, RN  
Angie O'Neal, TA  
Alex Morton, Pharm. D.  
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## CHAPTER I

### INTRODUCTION

Archaeological investigations at the President Street site began when Bob Raynor contacted The Charleston Museum in August 1985. Construction of the new Institute of Psychiatry was imminent, and Bob felt that some archaeology should be done at the site prior to construction. Further, the work could involve psychiatric inpatients and hospital staff, as well as museum archaeologists, with the result being a combined research/therapy program. This initial discussion was followed by a visit to the site by Raynor and Zierden. A trench for underground utilities to the University Services Building had just been backfilled, and a surface collection of this area yielded over 100 items.

At this point planning began in earnest. Construction was scheduled to begin in less than two months, and an excavation project would have to precede this event. Based on the time and financial limitations, a modest project was proposed, consisting of one week of field work and three weeks of laboratory analysis and report writing. This was later expanded to include a week of testing. The project would be a joint effort of The Charleston Museum and the Medical University of South Carolina. MUSC administration, initially skeptical of the possible ramifications of such an endeavor so close to a construction startup date, later approved and provided funding for the project. Excavations were conducted and supervised by Museum staff, while MUSC patients and staff served as crew members at various times. Raynor served as project coordinator, arranging a myriad of details ranging from site security to use of heavy equipment.

The result was a testing program, conducted primarily by MUSC staff and patients, followed by limited excavation conducted by the Museum and MUSC staff. Patients participated in all aspects of the field work, including clearing, digging, screening, bagging and labeling. Later, patients participated in the washing and sorting of the materials prior to laboratory analysis. These educational efforts were augmented by visits to other excavation sites, trips to the Museum, and participation in Museum educational programs. The results of these efforts are the acquisition of a controlled sample from a previously untested portion of the city, and the initiation of an innovative therapy program.

#### Background

The site is located on the west side of President Street, between Doughty and Bee streets, within the confines of the MUSC campus (Figure 1). Construction of the psychiatric hospital is only the latest phase of new construction at this rapidly expanding institution.

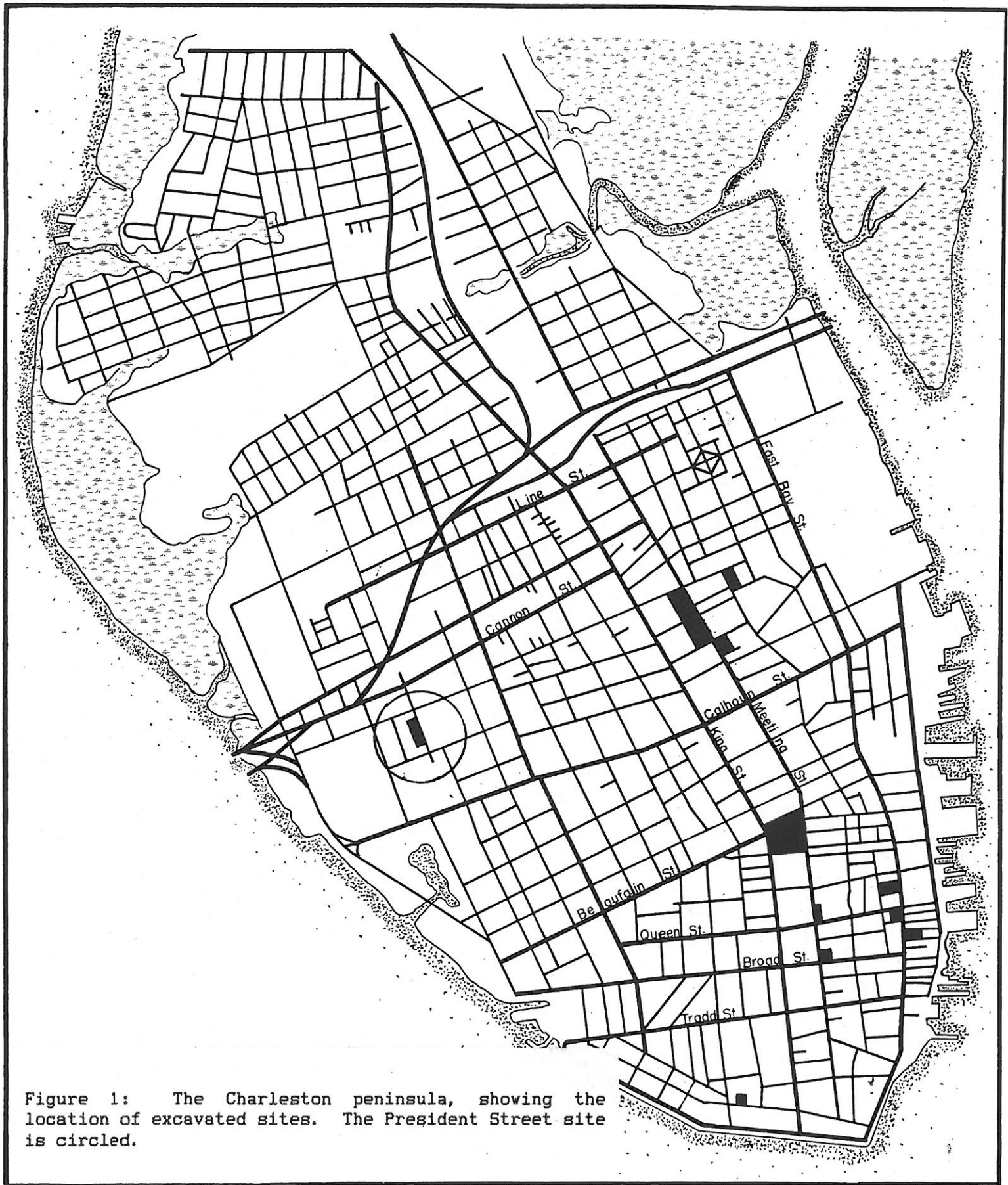


Figure 1: The Charleston peninsula, showing the location of excavated sites. The President Street site is circled.



The President Street site is located northwest of the original city limits, within the historic subdivision of Cannonsboro. Cannonsboro was a low, marshy tract owned in the second half of the eighteenth century by Daniel Cannon, a prosperous house carpenter and mechanic who operated lumber mills in the area. The low area contained extensive mill ponds during this period; the President Street site, however, was situated on a small point of high land.

Subdivision of the tract began after Cannon's death in 1800. The President Street block was divided into three lots. Eventually other portions of Cannonsboro were filled and built upon (Figure 2). Increased settlement of the area is reflected in the linear subdivision of the President Street block, and the construction of newer houses between the older ones throughout the nineteenth century. The neighborhood remained primarily residential throughout this period.

In the 1980s, the Medical University acquired the site, including the eight antebellum and victorian homes located there. Instead of razing the structures, the Medical University moved them a few blocks to the edge of the Ashley River, to be renovated and sold. The block was paved and used as a parking lot until construction of the hospital commenced.

#### Archaeological Goals

Scientific archaeological investigation of Charleston began with a city wide archival survey. This two year project examined historical documents relevant to several archaeological issues, explored general trends in city demographics, and presented an overview of the growth and development of the port (Zierden and Calhoun 1984). The overriding goal was to develop broad, long-term research goals and to make recommendations to the city concerning the preservation and exploration of the archaeological record.

Following completion of this project, several excavations were conducted in the city, all of them located within the original boundaries of the eighteenth-century city. These studies have explored a number of research problems, including site formation processes, spatial patterning, site function, socioeconomic status, and subsistence strategies. Studies of lowcountry plantation sites have complemented these efforts, through the investigation of the rural-urban dichotomy, and connections between plantations and the city (Zierden et al. 1982, 1983a, 1983b, 1985, 1986a; Zierden and Hacker 1987; Zierden and Calhoun 1986).

A recent goal of the urban archaeology program was to expand the sample to include sites in Charleston Neck (that area of the peninsular city north of Calhoun Street). Antebellum suburban sites should exhibit different spatial patterning, site formation processes, and site functions (Rosengarten et al. 1987). The President Street site represents the third small sample from such sites, and the only one to date from the West Side. Though small, the President Street



Figure 2: Portion of the 1852 Bridgens and Allen map, showing the western portion of Charleston Neck.



sample is useful in addressing several archaeological questions, using previously excavated sites for comparative purposes.

1) Site Formation Processes - In order to properly interpret an archaeological site, it is first important to understand the processes responsible for the formation of that record (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. The urban site is often a complex combination of such events. Site formation processes on suburban sites are expected to be different from those in the densely occupied commercial core.

2) Site Function - Most of the sites investigated within the older city have been combined residential-commercial establishments. Research on these sites has focused on delineating site function (Honerkamp et al. 1982; Lewis 1977). Investigation in the suburban areas should complement this study by acting as a control; the majority of such sites, including President Street, functioned only as domestic units.

3) Spatial Patterning - Spatial patterning (the arrangement of buildings, activity areas, and open spaces over the urban landscape) in the suburban areas was quite different from that in the constricted commercial core, and is reflected in both individual site and neighborhood patterns. Exploration of suburban areas provides a more complete picture of the growth and development of the city, and on the use of urban space (Geismar 1985; Mrozowski 1987; Rothschild 1985, 1987).

4) Subsistence Strategies - Increasing attention is focusing on the study of subsistence strategies in historic populations, using faunal and floral remains recovered from historic sites (Reitz and Scarry 1985; Zierden and Trinkley 1984). These remains have been used to address a variety of questions concerning historic subsistence strategies, including cultural conservatism, adaptation to local environments, ethnicity, and social variability. Faunal and floral remains, recovered and examined in a consistent manner from Charleston sites, have resulted in the formation of several dietary models; samples from suburban sites are an important addition to this data base.

5) Socioeconomic Status - A recent focus of historical archaeology in general, and urban studies in particular, has been the delineation of socioeconomic status (Cressey et al. 1982; Spencer-Wood 1987; Wise 1984). Using the documentary record as a control, the socially stratified urban center can serve as an appropriate data base for recognizing socioeconomic status and consumer choices in the archaeological record. Investigation of less complex, more thoroughly documented antebellum suburban sites has resulted in the identification of correlates between socioeconomic status and material culture in Charleston (Zierden et al. 1986b; 1987).

## Therapeutic Goals

Many archaeologists have stressed the importance of sharing the goals and results of archaeological research with the general public (Bryan 1982; Leone 1983; Shephard and Stevens 1983). However, the planned archaeological project at MUSC appears to be the first case reported where a special group such as psychiatric inpatients participated in the process of archaeology, with this participation being defined within the context of a treatment program. The educational programs and resources of the Charleston Museum had been previously utilized by inpatient programs in the Department of Psychiatry. Recreation Therapy, working together with Occupational Therapy, Special Education, and Nursing Staff, designed and implemented this archaeological-therapy project.

In the proposal stage of the project, a program protocol was designed which outlined therapeutic goals for patients.

1) To demonstrate the ability to work on a service project benefitting the community rather than the individual.

An important objective of the project was the scientific study of the President Street site. Patients participating in the program were oriented to this fact, and to the knowledge that their efforts would make a contribution to the understanding of Charleston's history. The orientation also described the need for all artifacts to be given to the project. The artifacts had two possible end points: the Charleston Museum's collections where they would be accessible to scholars for research, or a permanent display in the new Institute of Psychiatry.

2) To demonstrate increased knowledge concerning the history and archaeology of Charleston.

Charleston has a high profile as a city of history. The average citizen has only a small idea of the area's significant history. The program was designed to stimulate patients' curiosity through the ongoing orientation, work, and interpretation. The asking of questions seemed as important as the providing of answers. Concurrent interpretive programs at the Museum and associated archaeological sites were planned to facilitate the learning process.

3) To demonstrate the ability to work together as a team with other individuals.

Initial discussions between the Department of Psychiatry and the Charleston Museum staff allowed each party to gather information about the other's disciplines. From these discussions, archaeological fieldwork was structured to focus on the goal of teamwork. Fieldwork requires some division of labor, and the efficiency of the work is dependent on the level of coordination and teamwork of the various work crews. While this goal is incorporated into other inpatient programs, this program presented significant opportunity for patients to make gains in their cooperative ability.

The emphasis of the community service component of the project was certainly unique to the project. Yet the employing and defining of the archaeological process in the treatment of patients was the most innovative aspect of the program. The use of the building site for excavation, with the present patients of the Department of Psychiatry participating there, gave a special meaning to the program for staff and patients. The project began with an archaeological ground breaking and included a parade to the site by staff and patients, banners made by patients, and speeches. This was followed by the testing, controlled excavations, and laboratory sessions. Involved staff met on a weekly basis to plan and schedule the necessary sessions into each unit's crowded schedule. Additional educational sessions for patients were held at the Charleston Museum and at the site of another excavation by Museum archaeologists. A closing ceremony was held on the MUSC campus.

What occurred at MUSC was a small, professional archaeological study. While the initial conception of the project set forth interpretation as an end point, the objective here was scientific study, and patient participation in that process. This dimension of the project was certainly another most innovative component. The professional study added weight to the potential for the public relations value of the project. Because of these various dimensions, the program summatively went beyond the bounds of normal programming into the arena of a large scale therapy project with numerous implications (Raynor 1987).



## CHAPTER II

### BACKGROUND

A group of patriotic and profit seeking English noblemen founded the Carolina colony in 1670. In 1680, the Lords Proprietors, eager to establish a port city in Carolina, relocated their first town from a marshy area on Albemarle Point to the more defensible and commercially suitable peninsula formed by the confluence of the Ashley and Cooper rivers (Earle and Hoffman 1977). Here the English settled the area along the Cooper River bounded by present-day Water, East Bay, Cumberland, and Meeting streets. The planned city, known as the Grand Model, encompassed the high land from Oyster Point to Beaufain Street. The town was laid out around a central square and divided by wide street into deep, narrow lots, a plan characteristic of seventeenth century Irish towns colonized by the British (Reps 1965). While the new Charles Towne was a renaissance city in many ways, the surrounding wall and steep roofs gave it a decidedly medieval atmosphere (Coclanis 1984).

As colonists searched for profitable staple crops, the settlement developed gradually as a port and market center. An initially successful Indian trade in deer skins provided the impetus for Charles Towne's commercial growth. The decade of the 1730s witnessed the 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, Carolina entered the mainstream of the colonial economy. The development of outlying settlements, following the Township Plan of 1730, brought an influx of products from the backcountry. Meanwhile, as rice became more profitable, lowcountry plantations rapidly expanded. Thousands of Africans, experienced in rice cultivation, were imported as a labor force, and merchants grew rich dealing in staples and slaves. Merchants and planters formed the elite of Charleston 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).

As the eighteenth century advanced, Charles Towne expanded in size, economic importance, and the relative affluence of its citizens. White per capita income was among the highest in the colonies (Weir 1983). Still, the city limit remained at Beaufain Street until 1783, the year the city was incorporated and renamed Charleston; the limit the moved four blocks north to Boundary Street. Within these confines, a growing population was accommodated by subdividing lots and expanding into the center of blocks. The city was oriented on an east-west axis. Charleston's merchants and craftspeople lined the waterfront and three streets, Broad, Tradd and Elliot, which carried

traffic west across the peninsula (Calhoun et al. 1982). Like other eighteenth-century cities, Charleston was a pedestrian town. Merchants needed to be near the waterfront for the sake of convenience as well as for economy of transportation. Hence, the area known as Charleston Neck, north of the city proper, was slow to develop.

Throughout the colonial era, the peninsula above Beaufain Street was countryside, occupied by plantations and small farms. Many large landholdings were subsequently divided among heirs. As the city spread northward, these tracts were subdivided and developed along the lines of English "villages".

Around and between planters' large houses and spacious lots, a heterogeneous population took up residence. Charleston merchants, manufacturers, attorneys, and physicians built or rented substantial homes in the suburbs. White artisans, tradespeople, and mechanics lived in more modest houses, above shops, or in "workers cottages" built by their employers. German and especially Irish immigrants in increasing numbers staked a claim on the Neck, competing for jobs with black people, slave and free (Silver 1979; Rosengarten et al. 1987).

The Neck had special advantages for city dwellers of African descent, especially for free Negroes and for slaves granted the privilege to work and live on their own. Rents were lower, real estate was more available and less expensive, and new houses could be built of wood, a practice discouraged within the city limits. The suburb also offered some respite from police surveillance and control; hence the Neck appealed to runaways, slaves "passing as free," and other people eager to expand their personal liberty (Rosengarten et al. 1987:9; Wade 1964; Berlin 1974; Koger 1985).

The land above Beaufain Street and the Grand Model was originally granted in parallel parcels, each extending from the Ashley to the Cooper River. The parcel between present day Calhoun and Line streets was granted first to Richard Cole, but in 1677 was regranted to Richard and Rebecca Batten. The Cole-Batten land was subdivided among various persons, and in the 1730s, Joseph Wragg acquired a portion of it.

Smaller acreages went to Daniel Cannon, Alexander Mazyck, the Elliott family, Henry Laurens, and others (Stockton 1985). As the colonial period came to an end, landowners turned an investor's eye towards the burgeoning city. The lands between Beaufain and Boundary had already been developed as discrete communities: Middlesex, Laurens Square, Rhettisbury, Harleston Village, and Ansonborough. Wealthy merchants with large holdings on the Neck followed the same pattern in designing the subdivisions of Hampstead, Wraggsborough, Mazyckborough, and Cannonsborough.

The President Street block was part of the large tract acquired by Daniel Cannon, a house carpenter and mechanic. His lands included the large, low, and marshy area north of Boundary Street and west of Cannon's Creek (Stockton 1985; Stoney 1976). Cannon acquired these lands between 1762 and 1800.

In 1780, Cannon impounded the watery portions of his property by a series of dams and embankments, and used the tide to flood his mill pond. Cannon built two water- and one wind-powered saw mill on the property. The "northern" water mill was situated at the intersection of Mill and President streets; the wind saw mill was located at the foot of Bee Street on a little island, known as Crow Island. The following advertisement appeared in the City Gazette and Daily Advertiser in 1794:

"Ranging Timber and Pine Lumber of every kind will be delivered at Mr. Cannon's Wind Mill on the shortest notice. Merchants or others in want will please leave their orders at my house in Moore Street where every attention will be paid. John Webb. (City Gazette and Daily Advertiser, February 24, 1794).

Daniel Cannon died in 1802. His property was sold in two parcels. The mills on the portion north of Calhoun Street were sold to Jonathan Lucas in 1805. Lucas, a skilled millwright, converted the property into a rice mill. He constructed numerous other rice mills on the Santee, Cooper, Waccamaw, and Edisto Rivers (Forests). The high ground was deemed Cannonsborough, and subdivided and sold. The high land on the western edge of the tract at the end of Cannon Street was developed as the village of Islington. These subdivisions were outside the city limits until 1849, when the Neck was annexed.

Much of Cannonsborough was subdivided into small lots for resale (Figure 3). The northernmost lot on the President Street block was first sold to John Frierson in 1800 for L 30 sterling (CCRMCO B-7:366). Frierson must have defaulted on his mortgage, for in 1801 Cannon sold two lots, including the northernmost tract, to Jervis H. Stevens (CCRMCO D-7:142, 364-365). These consolidated holdings on President and Bee streets measured 120 feet in depth and 240 feet along President (CCRMCO U-10:554).

Stevens died in 1838, and his executor sold the property to Jacob Cohen for \$1,900, with \$900 plus interest due in one year (CCRMCO U-10:554-555). In 1856, J. Solomon Cohen sold the property to Jacob Cohen for \$3,000 (CCRMCO R-13:283); although the original Jacob Cohen had purchased the entire 240 feet, he sold only the northernmost 200 feet to Jacob in 1856. Several years later, in 1885, Jacob and Joseph Cohen, executors of Jacob Cohen, sold the property for \$3,000 to Otto Winters (CCRMCO D-20:471). This was the same 200 foot tract, bounded to the south by lands formerly of Jacob Cohen.

The 40 foot lot to the south was sold by Jacob Cohen and Judith Barnett to Barbara Quinnan in 1839 (CCRMCO A-11:44; U-10:57). Barbara Quinnan died intestate, and in 1868 Joseph Gray, Master in Equity, sold the property measuring 128 by 40 feet to Ann Eliza Quinnan (CCRMCO K-14:10, 292). A complaint was filed and the mortgage was foreclosed. C.C. Brown, Sheriff, sold the property in 1875 to Barrett Cohen (CCRMCO G-16:136), who mortgaged the property to Moses Lopez in 1881 (CCRMCO C-18:102). In 1882, Joseph Cohen, a widower, sold to property to Elizabeth Dawson (CCRMCO T-18:229). In 1894 she sold to J.D. Alexander (CCRMCO C-17:207), but he was unable to pay the



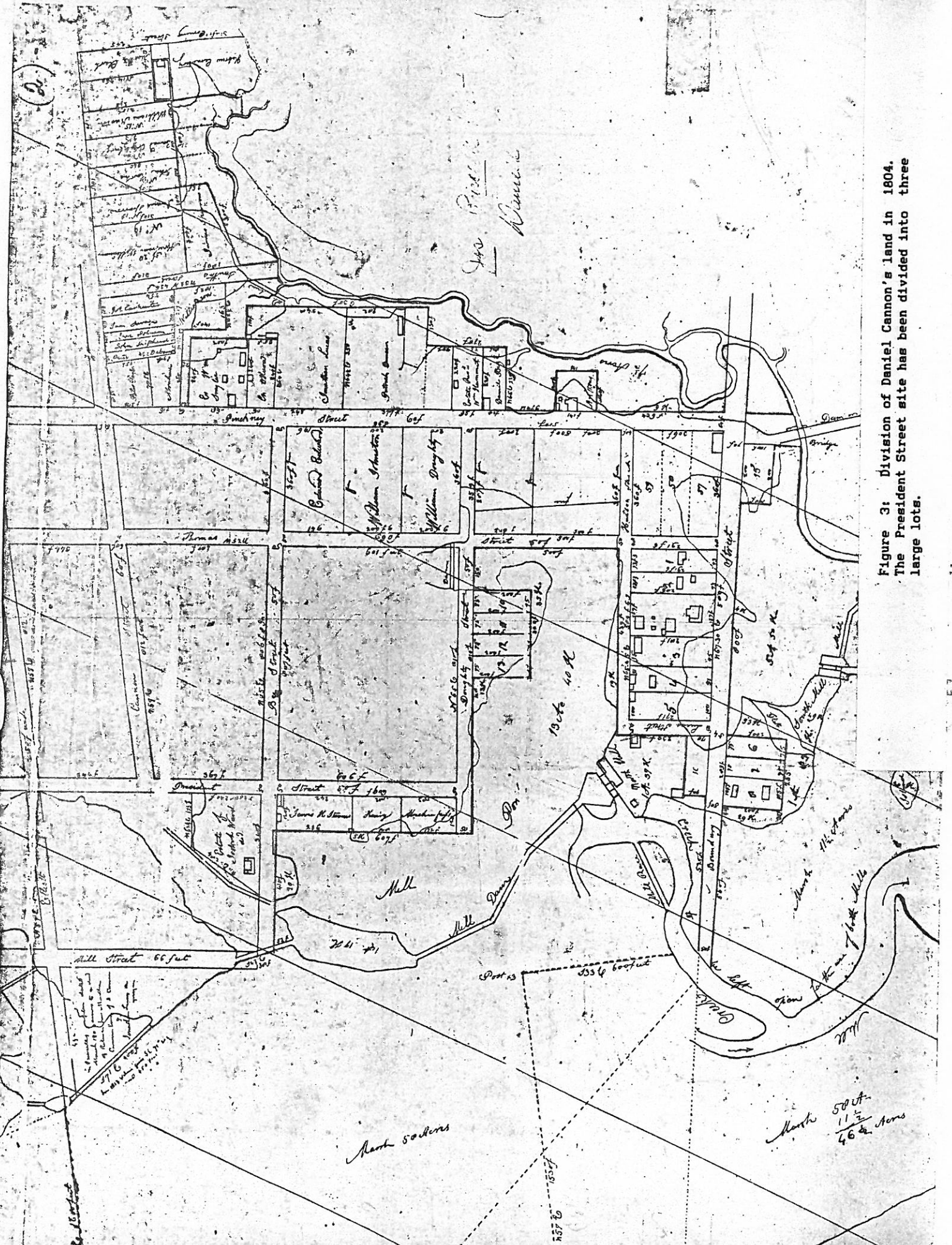


Figure 3: Division of Daniel Cannon's land in 1804. The President Street site has been divided into three large lots.

mortgage, and in 1902 the property reverted to Elizabeth Dawson (CCRMCO Q-22:281). In 1904, she sold the property to Louisa B. Dawson (CCRMCO D-24:182).

The second, or middle, large lot was sold by Cannon's estate to Henry Muckenfuss in 1802. This lot measured 120 feet in depth and 182 feet along President Street (CCRMCO T-11:59). The third large lot, of identical dimensions, was purchased from Daniel Cannon by James Spears. In 1803, Henry Muckenfuss consolidated his holdings on President Street by purchasing this property from James Spears.

Henry Muckenfuss was a carpenter who spent most of his life at his Wentworth Street residence. After his death in 1858, his President Street property was divided among his descendants. The large lots were divided into smaller lots and built upon by several generations of the Muckenfuss family (Stockton 1981). The properties first went to Henry's children, Benjamin S.D. Muckenfuss and Charles H. Muckenfuss. The earliest improvement was the house at 51 President, constructed in the early nineteenth century.

In 1853, the block was divided into nine lots. The three southernmost lots, owned by Henry Muckenfuss, included five structures with a total frontage of 300 feet, valued at \$4,000. This was adjoined by a 48 foot wide lot with house, valued at \$2,200 and owned by Harriet Pelser. W. McIntosh owned the next lot, valued at \$600. Barbara Quinnan's house and lot, 40 feet wide and worth \$1,600, was next. The northern three lots owned by Jacob Cohen included one dwelling; his property was valued at \$4,000 (City Ward Book 1853) (Figure 4).

By 1864, four southern lots (#1 and #3, including two houses) were owned by B.S.D. Muckenfuss, valued at \$7,500. The next lot, #5, was owned by Thomas W. Malone, but was purchased in the same year by B.S.D. Muckenfuss. W. McIntosh owned #9; Numbers 11 and 13, owned by Charles H. Muckenfuss, included one house, valued at \$2,000. Number 15 was owned by B.S.D. Muckenfuss, valued at \$2200, and #17 was owned by a Mr. Brown. Number 19 was pencilled in as belonging to Jacob Cohen, followed by the estate of Barbara Quinnan, and Jacob Cohen's property (City Ward Book 1864).

The house at #53 President Street was built on Benjamin Muckenfuss' property in the 1870s. Mary Muckenfuss, his wife, sold the property to their sons, B.A. and William J. Muckenfuss in 1892 (CCRMCO X-27:14). Number 59 President Street was purchased from B.S.D. Muckenfuss by Fannie A. Mosely, a relative, in 1872 (CCRMCO O-17:3); this property included a "new" house. In 1918, Fannie Mosely sold it to Mary E. Mosely (CCRMCO S-28:139).

B.S.D. Muckenfuss sold the next property to F. J. Pelzer in 1868 (CCRMCO E-15:435). It was then purchased by Benjamin's brother, Charles, in 1887 (CCRMCO H-19:85). This then passed to William Muckenfuss. In 1891, William Muckenfuss sold the property to Mary N. Ball (CCRMCO A-21:212).

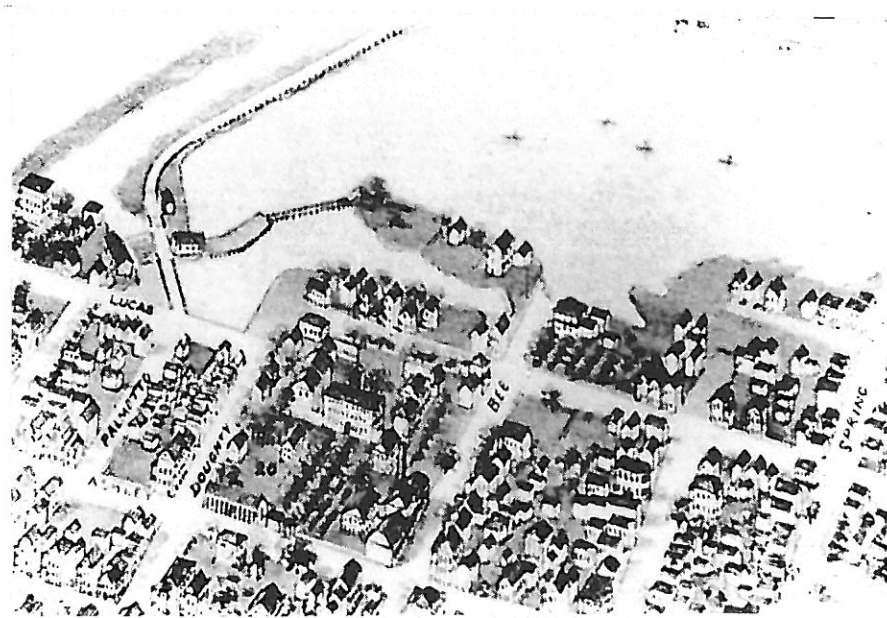
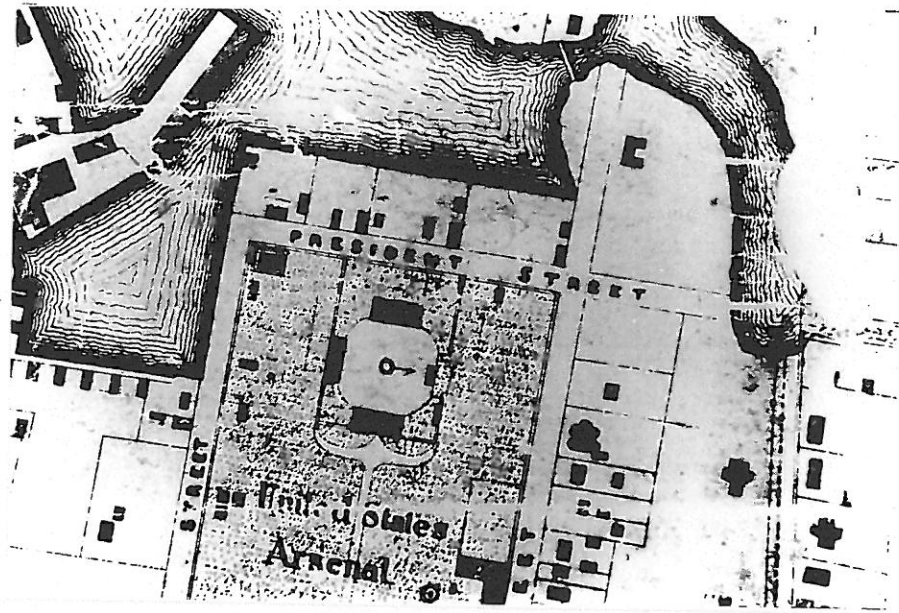


Figure 4: The President Street block in 1852 and 1872.



Hannah M. Pelzer purchased the adjacent lot from Henry Muckenfuss in 1848 (CCRMCO R-13:144); it was sold to Thomas Malone in 1859 (CCRMCO F-14:217). Mr. Malone died intestate, and in 1889 the auditor, W.G. Eason, sold the property to C. McK. Grant, who later sold to Henry E. Ball in 1905 (CCRMCO V-24:272).

Throughout the nineteenth century, the President Street block served as a residential neighborhood. Retail businesses and professional offices on Charleston Neck were highly concentrated on King Street; between 1803 and 1860, the only Neck businesses advertising in the Charleston Courier, soliciting a city-wide clientele, were located along King. Other streets were primarily residential, with a few distinct clusters of industries. Scattered, family-owned shops sold groceries, liquors, and household goods to neighborhood clientele. Many of them occupied street corners; hence their nickname "corner stores". When the first floor of a structure was renovated as a store, the corner frontage might be cut away at a 45 degree angle to accentuate its new function; upper floors continued to serve as residences. A number of these corner stores are still in business on the Neck (Rosengarten et al. 1987:17). The President Street block is typical of the nineteenth-century suburbs of the Neck, in that its residents, particularly the lower to middle classes, commuted to work from their residential neighborhoods (Figure 5).

The area across from the President Street site served as a pauper's cemetery in the eighteenth century. The United States Arsenal was developed in 1844. It was occupied by South Carolina troops following the Ordinance of Secession, only to be reoccupied by Federal troops in 1865, who remained until 1879. The abandoned arsenal was leased by the Holy Communion Church Institute, which later became the Porter Military Academy. The Academy remained active at this site until 1963, when the property was purchased by the Medical University (see Figure 4).

The growth of the medical complex on the western side of the Neck is a major aspect of Charleston's development in the twentieth century. These activities began in 1887, when the City of Charleston purchased the Lucas Mill structures at the northwest corner of Calhoun and Barre streets to build a city hospital. The city hospital was replaced in 1904 by the New Roper Hospital. This was in turn replaced in 1946 by the present Roper Hospital at Calhoun Street and Courtenay Drive. The Medical College, chartered in 1833, was moved from Queen Street to a new building on Barre Street in 1914, opposite Roper Hospital. This is the oldest building on the campus. The Medical University, chartered in 1969, expanded into adjacent blocks, including the Porter Military Academy, and west into areas of former salt marsh (Stockton 1985). The rapidly expanding Medical University is currently one of the city's most important public institutions (Figure 6).

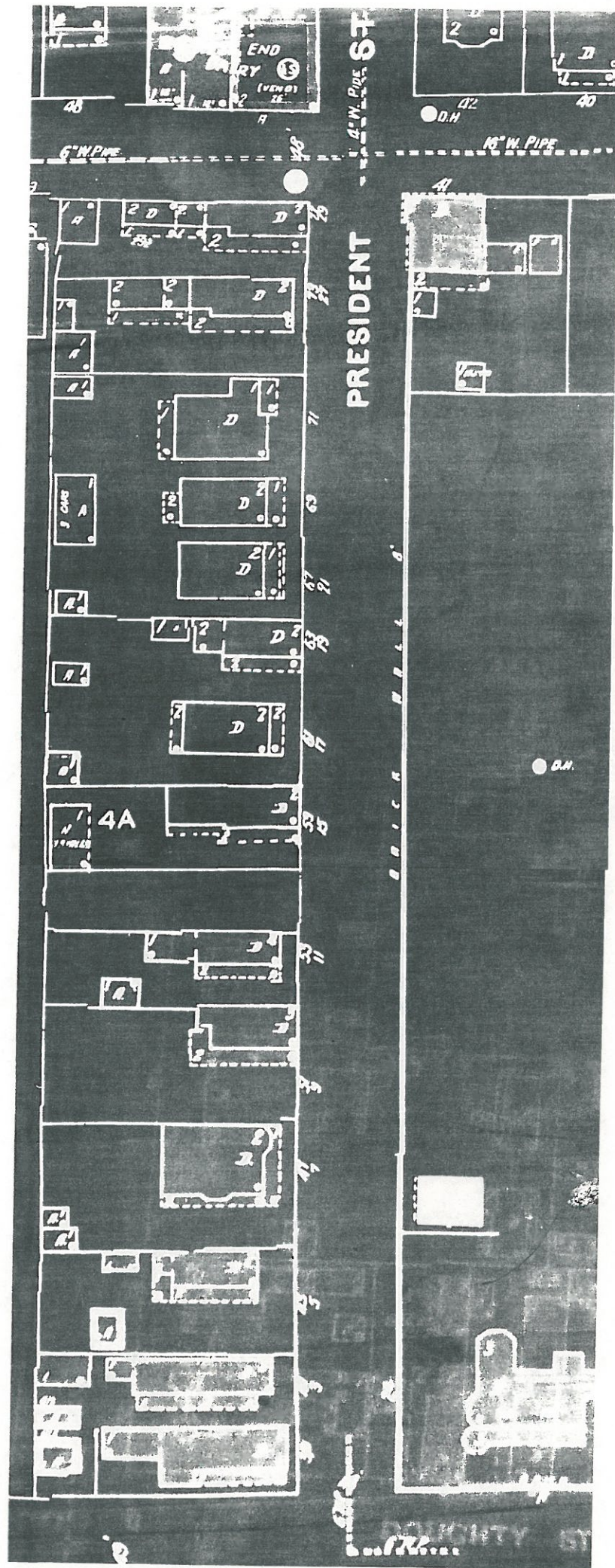


Figure 5: The President Street block as shown on the 1944 Sanborn Fire Insurance map.





Figure 6: Aerial photograph of the MUSC area, 1939.  
Note the expanse of marsh west of President Street.



## CHAPTER III

### EXCAVATION METHODOLOGY

#### Site Description

The President Street site is located within the campus of the Medical University of South Carolina. The site consists of the west side of President Street, between Doughty and Bee streets. New structures are located in the southeast and northeast corners of the block; the area between these buildings consisted of an asphalt parking lot. This was the area available for excavation (Figure 7a).

The buildings and parking lot are of relatively recent construction, replacing a series of wooden two-story single houses. These structures, built between 1800 and 1912 (Stockton 1981), were moved to a vacant lot of land on the Ashley River in 1982 and refurbished (Figure 7b).

The area encompassed by the site, the eastern half of the block, was originally high land, while the western half of the block was low land, part of Bennet's mill pond. The elevation difference is still reflected in the present landscape; the western half of the block is considerably lower than the eastern portion, and floods during even moderate rains and tides (see Figure 6).

Beginning with the removal of the houses, the site evidently experienced considerable reorganization due to construction processes. These include razing and removal of houses foundations, construction of new buildings on each corner, the installation of subsurface electrical lines, and the construction of parking lots.

#### Excavation Methodology

The President Street project consisted of excavation of two 5 by 5 foot units and three 5 by 10 foot units. Excavation units were strategically placed across the site, based on targetted features and areas present on cartographic sources, as well as availability of open land.

Horizontal control was established by measuring the distance from the southeast corner of each unit to the true northwest corner of Doughty and President streets. No Chicago grid was used due to the limited nature of the project and the imminence of large-scale construction. A transit was used to locate all units, and they were oriented parallel to President Street. Location of each unit is indicated in Table 1.



Figure 7a: The President Street site at the time of excavation, as seen from the University Services building.

Figure 7b: Houses from the President Street site relocated to Lockwood Boulevard.

Table 1

Provenience Guide

FS#	Provenience	Function	TPQ	Date of Deposition
1	Unit 1, zone 1	zone	.32 cal. shell	19th century
2	Unit 1, postmold 4	postmold	black glass	mid-19th cent.
3	Unit 1, fea 3	pit	tin can, 1850	mid-19th cent.
4	Unit 1, fea 1 w.	trench	thumbprint glass	late 19th cent.
5	Unit 1, fea 1 e.	trench	thumbprint glass	late 19th cent.
6	Unit 1, postmold 3	postmold	hand paint ww	mid-19th cent.
7	Unit 1, zone 1 tr.	zone	tr.pr. ww	19th century
8	Unit 1, postmold 2	postmold	tr.pr. ww	mid-19th cent.
9	Unit 1, postmold 5	postmold	tr.pr. ww	mid-19th cent.
10	Unit 1b, zone 1b	zone	sponged ww	mid-19th cent.
11	Unit 1b, zone 1	zone	tire valve	late 19th cent.
12	Unit 2, zone 2	fill zone	decal porc.	late 19/early 20 c.
13	Unit 2, zone 3 collected	"	"	early 20th cent.
14	Unit 2, zone 4	"	ww, makers mark	late 19/early 20 c.
15	Unit 2, zone 3 lev 2	"	key	late 19/early 20 c.
16	Unit 2, zone 1	"	tin foil	late 20th cent.
17	Unit 2, zone 3 lev 1	"	fountain pen	late 19/early 20 c.



Vertical control was maintained with the use of a transit. An elevation point was established on the top of the fire hydrant on President Street. The absolute elevation of this point is 10.64 feet above mean sea level. All elevations were taken relative to this point, and are reported herein as feet above mean sea level (MSL).

The excavations were divided into two phases; testing and excavation. The testing phase was conducted by MUSC staff, with supervision by Museum personnel. Testing consisted of the excavation of two 5 foot squares, in order to assess the nature and depth of site stratigraphy. These units were located in available unpaved areas of the site; Test Pit 1 in a grass-covered strip adjacent to President Street, northeast of the University Services building, and Test Pit 2 on the western edge of the site, near the north end of the parking lot (Figure 8). These two test pits were excavated in arbitrary .4 foot levels, and all materials were screened through 1/4 inch mesh.

Excavation units were located to intersect specific features and other areas of interest. This involved removal of the asphalt pavement. Three units were laid out, consisting of areas measuring 15 feet square. Heavy equipment for this operation was provided by the South Carolina Electric and Gas Company. The asphalt was cut, and the upper zones of rubble were removed with a backhoe. The area was then cleared by hand, and a 5 by 10 foot unit was located within each area. Unit 1 was located to intersect the rear lot corner and possible privy of Mr. Stevens' lot, as indicated on the 1804 plat (see Figure 3), and also to be located on high land. Unit 2, located southwest of Unit 1, was placed to intersect the marsh edge, as indicated on the 1804 plat. Unit 3, located in the center of the site, was designed to intersect backlot elements on 53 President Street, as indicated by the 1944 Sanborn map (see Figure 5). Unit 3 was excavated by backhoe, and evidenced disturbance to a depth of 4.25 feet MSL.

All subsequent excavations were conducted by hand, using shovels and trowels. All materials were dry screened or water screened through 1/4 inch mesh. Artifacts were bagged and tagged, and a Field Specimen log was maintained. Complete field notes were kept, including narrative notes, feature forms, and excavation unit forms. Photographs were taken in black and white and color, and a photographic log was maintained. Planview drawings were made for each unit. As work commenced, each unit was cordoned off for security purposes; the site continued to serve as a parking lot throughout the project.

Excavations during the testing phase were conducted by MUSC staff and patients, under the supervision of Museum personnel. Test excavations were conducted intermittently during a two week period, depending on the weather and on the schedules of staff and patients. Excavations during phase II were conducted daily for one week by Museum staff. During this time, adult, adolescent, and children patient units participated in the excavations at various times, and volunteers and staff worked with the Museum to complete the excavations (Figure 9).

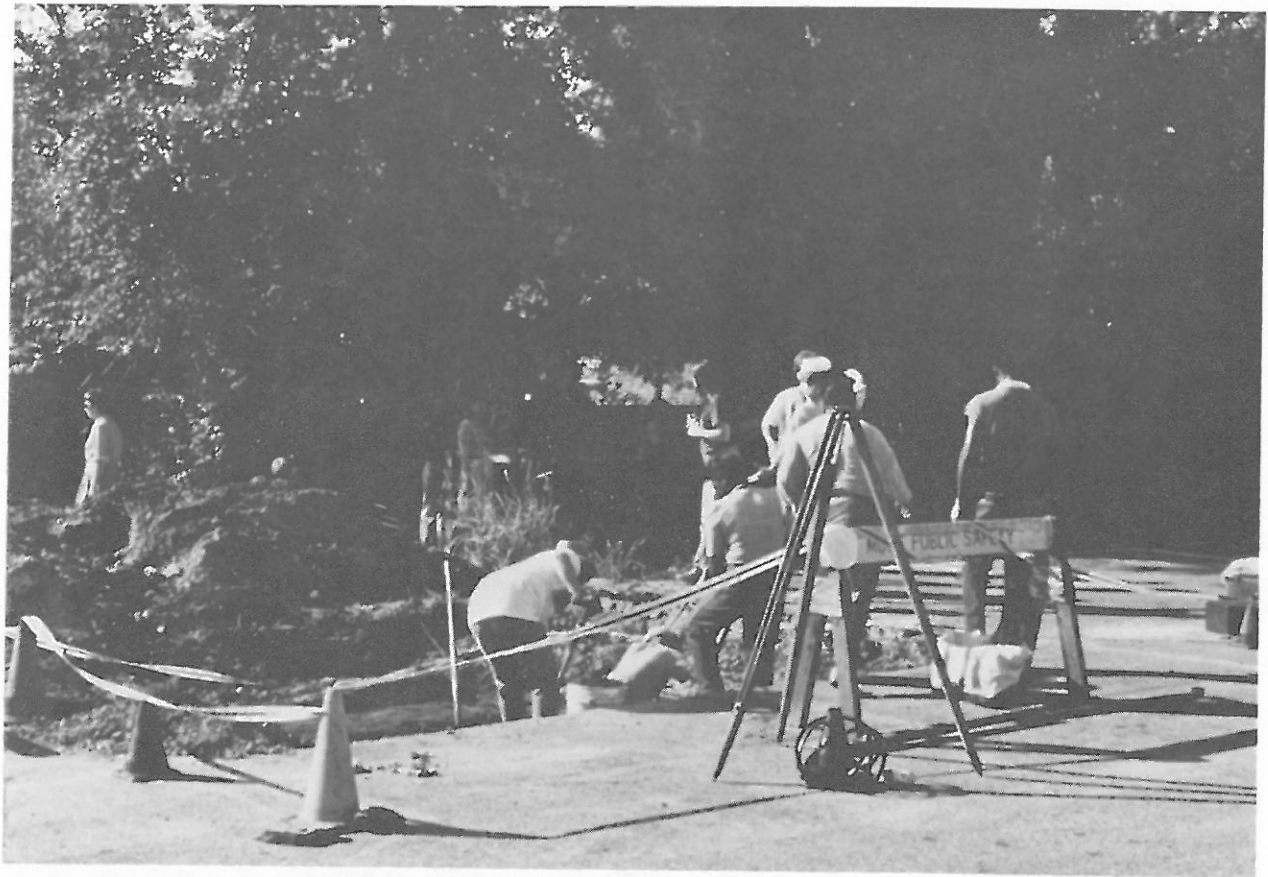


Figure 9a: Excavation of Unit 1 in progress.  
Figure 9b: Uncovering late nineteenth-century artifacts in Unit 2.

### Description of Excavated Proveniences

Test Pit 1 was excavated in seven arbitrary .4 foot levels to a depth of 4.10 feet MSL, where sterile subsoil was encountered. Profiles revealed several zones of soil, all of them either resulting from recent ground disturbing activities, or consisting of modern introduced fill. The first zone was black humus, topsoil imported for grass planting. This was followed by mottled brown sand. A narrow pipe trench initiated at this point and continued into sterile soil. Beneath the mottled brown sand was a zone of crushed rock. Below this were lensed yellow and black soil, grey sand, and tan sand. The grey sand continued into sterile subsoil in the southwest corner of the square (Figure 10a).

All of the levels excavated contained modern artifacts such as styrofoam, plastic, painted wood scraps, and tin foil (jokingly referred to as the Construction Worker artifact pattern). The grey soil in the corner of the pit appeared to contain the same material. Nineteenth-century artifacts, as well as two prehistoric sherds, were also found in these deposits.

The stratigraphy of Test Pit 1 reflects the massive reorganization of the site resulting from recent activities. The crushed rock and zones above are probably the result of construction of the University Services building, while those below are associated with the removal of the houses.

Test Pit 2 was excavated in four arbitrary .4 foot levels. The soil in this unit consisted of mottled brown soil. The unit was excavated to the top of a concrete slab, which houses new electrical lines. Therefore, soils above this feature were redeposited in the past few years; the levels contained numerous nineteenth century materials, with few modern intrusions.

Unit 1 was located to intersect a possible privy shown on the 1804 plat. Unit 1 contained two caps of pavement, with associated crushed rock foundations. Directly beneath the second level of gravel foundation was a zone of grey-black soil containing coal and oyster shell. Designated Zone 1, this soil was excavated in two arbitrary levels. The pavement layers were 1.2 feet deep, initiating at 7.07 feet MSL, and zone 1 was .6 feet deep. Sterile white sand was encountered beneath this zone.

Intruding into this sterile sand were several features. Feature 1 was a trench with straight sides and a flat bottom, oriented east-west. The feature was .95 feet wide and .45 feet deep. Feature 3 was a circular pit 2.5 feet in diameter and .6 feet deep. Both of these features contained dark grey soil similar to zone 1 (Figures 11 and 12).

Five postmolds were also present at the base of zone 1. Unlike the features, the fill of these postmolds was quite different from zone 1, and consisted of light to medium grey sand with oyster shell. Postmolds 1, 2, and 3 were rectangular with flat bottoms, while





Figure 10a: East Profile, Test Pit 1  
Figure 10b: East Profile, Unit 2.

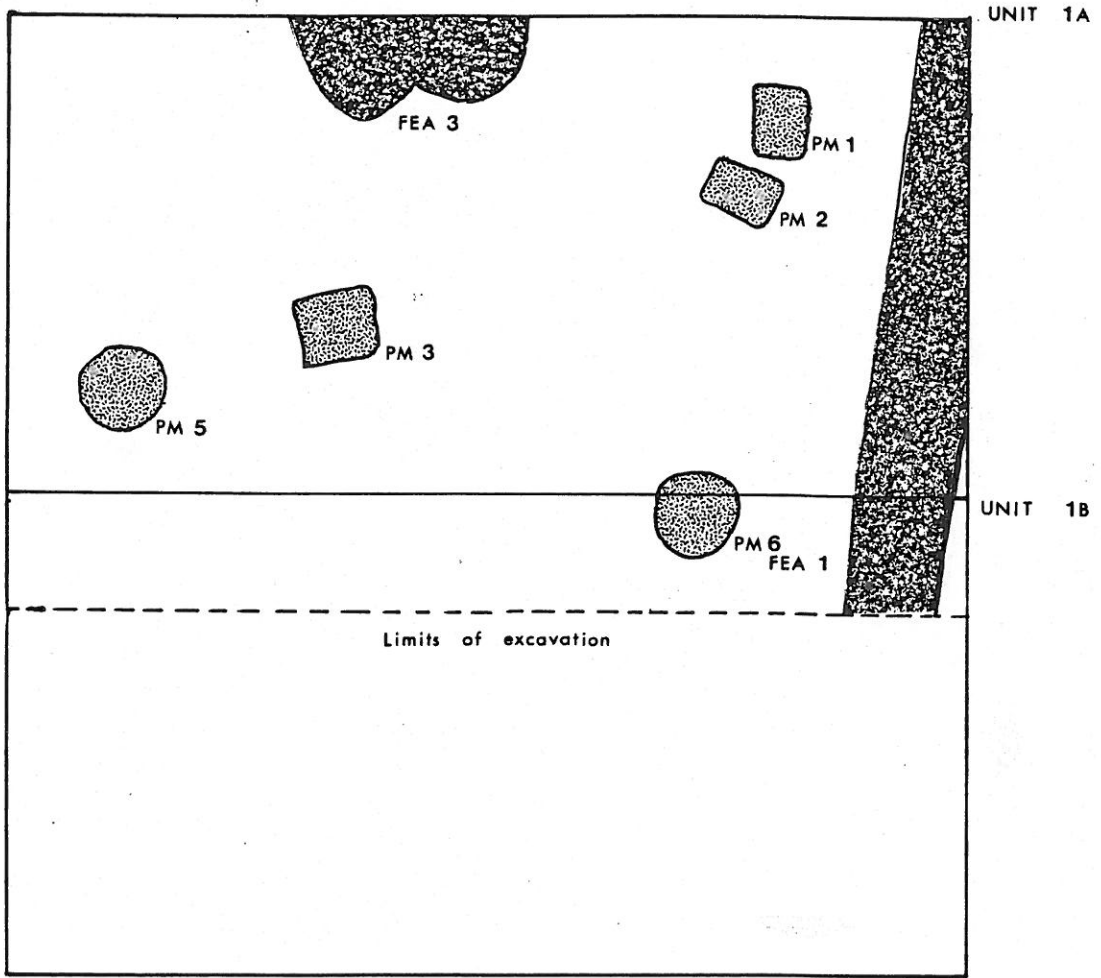


Figure 11: Planview, Unit 1.



Figure 12: Unit 1, base Zone 1, facing south.



postmolds 4 and 5 were round, with pointed bottoms (Figure 13). All of the features were deposited in the mid- to late nineteenth century.

Because of the productive nature of Unit 1, the square was expanded 5 feet to the west, making it a 10 by 10 foot square. This unit was designated 1b. Excavation of zone 1 was initiated from the east, but was halted one foot to the west, where a concrete capped electrical conduit was encountered; excavation of Unit 1b was discontinued. An additional circular postmold, Postmold 6, was encountered in the exposed portion of Unit 1b.

Unit 2 was located southwest of Unit 1, and exhibited totally different stratigraphy. Unit 2 consisted of several superimposed layers of fill. Excavation began with the removal of a gravel cap, which was discarded. Four zones were subsequently designated. Zone 1 was mottled tan and brown sand fill. Zone 2 was a compacted black sand. Both of these zones postdated the mid-twentieth century. Zone 3 consisted of tan sand with rubble, while Zone 4 was dark grey loam (Figure 10b). Zone 4 contained quantities of artifacts, dating to the late nineteenth/early twentieth centuries. Excavation of Zone 4 continued to the water table; sterile sand was encountered directly beneath the water table but was not fully exposed. Unit 2 initiated at a lower point than Unit 1, 6.29 feet MSL, and continued to a depth of 4.15 feet MSL.

### Interpretations

Units 1 and 2 contained very different stratigraphy, revealing several interesting aspects of the site. Unit 1 was located on the edge of original high land, reflected in the relatively shallow deposits (the elevation of sterile subsoil at 5.27 feet MSL) and the presence of features. Unit 2, in contrast, was located in an area of former marshland; sterile soil was encountered below 4.0 feet MSL. Filling of the "ragged edges" of the block initiated in the early nineteenth century, but continued in earnest after the turn of the twentieth century. This dumping activity resulted in a concentration of refuse from the late nineteenth century. The temporally discrete artifact assemblages will be described in the following chapter.

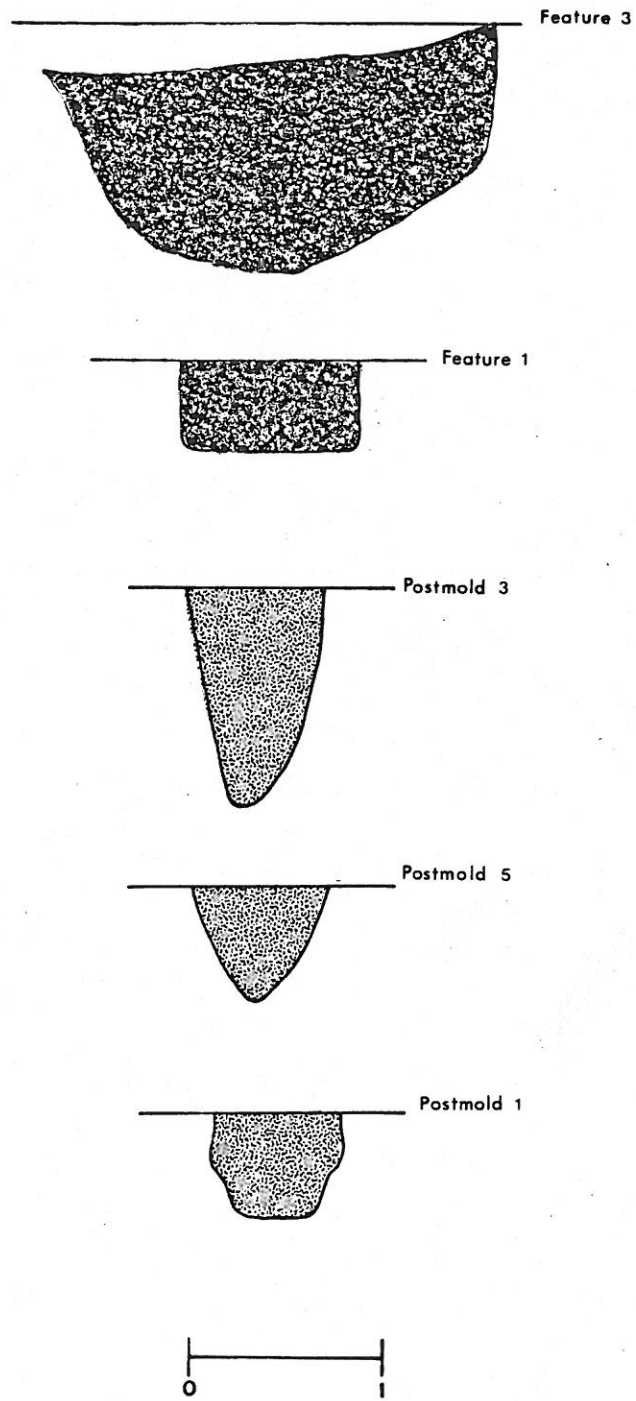


Figure 13: Profile of postmolds and features, Unit 1.

## CHAPTER IV

### ANALYSIS OF THE MATERIALS

#### Laboratory Methods

After excavation, the materials were removed to the Department of Psychiatry, where they were washed by inpatients and Recreation Therapy, Occupational Therapy, and Nursing staff. They were then transferred to The Charleston Museum where they were sorted and analyzed. The first step in the analysis of the materials was the identification of the artifacts. The Museum's type collection, Noel Hume (1969), and Stone (1974) were the primary sources used, although a number of other reference works were consulted for specific artifacts. Lorraine (1968), Huggins (1971), Kechum (1975), and Switzer (1974) were used to identify bottle glass.

Following identification, the materials were grouped according to functional categories, based on South's (1977) and Garrow's (1982) model for the Carolina Artifact Pattern. Under this method, artifacts are organized into different types, groups, and classes, based on their function. South's technique has been widely adopted by historical archaeologists, allowing for direct intersite comparison; all of the data from Charleston has been organized in this manner. South's categorization is an extremely useful heuristic device in that it results in complete quantification of the assemblage.

Conservation procedures included reconstruction of ceramic and glass vessels, and stabilization of metal artifacts. Ceramic and glass vessels were restored with DAP china and glass mender, a non-yellowing glue soluble in acetone. Ferrous materials were stabilized by soaking them in successive baths of distilled water to remove chlorides, and then air dried. Selected items were placed in electrolysis in a weak sodium carbonate solution with a current of 6 amperes. Upon completion of electrolysis, they were placed in successive baths of distilled water to remove chlorides. Finally, the materials were coated with a solution of tannic acid and phosphoric acid, and dipped in microcrystalline wax to protect the surfaces.

Non-ferrous copper based artifacts were also placed in electrolytic reduction, in a more concentrated solution with a current of 12 amperes. They were placed in the distilled water baths to remove surface chlorides before being coated with Inbralac to protect the surfaces. Non-ferrous metallic artifacts not requiring electrolysis were cleaned with a soft, dry brush and bagged.

All materials excavated under controlled conditions are curated in The Charleston Museum storage facility according to standard museum policy. Artifacts were packed by provenience in standard sized low acid boxes, labeled, and stored in a controlled environment. Field



records and photographs are curated in The Charleston Museum Library in the high security section. Copies on 100 percent rag paper are available in the general research section of the library.

For study purposes, the President Street assemblage was divided into two temporally distinct subassemblages (Table 2). These two groups, labelled "mid-nineteenth century" and "late nineteenth century" will be discussed separately. These temporal divisions were based on the stratigraphic point of initiation and the Terminus Post Quem (TPQ) of each provenience. The TPQ is defined as the initial manufacture date of the latest dating item in the provenience. This principal dictates that a given provenience must have been filled after this date. A further rationale for the subdivision of the assemblage is the apparently different behaviors that resulted in the archaeological deposits in the two units.

### Mid-Nineteenth-Century Assemblage

The mid-nineteenth-century assemblage consists of proveniences from Unit 1, including Zone 1 and all of the features which initiated beneath this zone. The assemblage contains 2087 artifacts.

Kitchen: Kitchen materials comprised 64.11 percent of the assemblage; ceramics comprised 60 percent of these materials. The datable ceramics yielded a mean ceramic date of 1846.42, using the proposed dates of Bartovics (1974) and Brown (1982). This derived date is comparable to the suspected mid date of occupation; although the site was occupied from 1804 until 1980, documentary evidence suggests that the increased regularity of centralized garbage collection resulted in primarily off-site disposal after about 1900.

Table wares, consisting of porcelains and refined earthenwares, comprised the majority of the ceramics (91%); over half of these were whitewares, manufactured after 1820. The predominance of undecorated whitewares, which increased in popularity after 1850, underscores the increased density of site occupation by this time (Price 1979:22). Whitewares comprised 31 percent of all ceramics, while the earlier pearlwares and creamwares, manufactured between 1760 and 1820, comprised 16 percent of the ceramics. The pearlware and whiteware ceramics exhibited a variety of decorations, including shell edged, transfer printed in blue and other colors, hand painted, sponged, and annular designs. Porcelains included a few examples of late eighteenth/early nineteenth-century Oriental wares with both blue on white underglazed and red and gold overglazed designs. The majority of the porcelains, however, were the American-made white types, manufactured after 1825. These wares were both undecorated and gilded.

Utilitarian wares comprised 9 percent of the ceramics and included a number of stonewares and earthenwares. Earthenwares included yellow ware, Rockingham ware, lead glazed and unglazed earthenwares. Stonewares included a variety of salt-glazed wares manufactured in regional American potteries; predominant among these were the alkaline-glazed stonewares, manufactured throughout the

nineteenth century in the Edgefield, South Carolina area (Burrison 1985; Greer 1970). Other stonewares included the later, debased style of Westerwald, either of German or American origin.

The remainder of the kitchen group consisted of fragments of glass bottles. Few of the fragments were large enough to determine vessel form; the majority were from molded bottles. Clear glass was the most common type, followed by aqua, light green, black (dark olive green), brown and blue. Manganese glass, manufactured after 1880, was also present. Three fragments of pharmaceutical glass were recovered; table glass, primarily tumbler fragments, comprised 1.6 percent of the kitchen group. Most of these were pressed glass, which became popular after 1848. The final kitchen artifact was a spoon bowl.

Architecture: Architectural materials comprised 31 percent of the assemblage. This group was composed primarily of window glass and nail fragments. Other items included a spike, a wood screw, and a shutter pintel.

Arms: Arms materials comprised .28 percent of the assemblage. This group contained a lead bullet, a lead shot, and four brass shells (Figure 16s). These were .44, .38, and .22 calibre.

Clothing: Clothing items comprised 1.1 percent of the assemblage and included seven safety pins, a badly eroded glass bead, and a brass eye. Six bone buttons were recovered; these included single-hole bone discs as well as five-hole buttons (Figure 16f,h). Eleven porcelain buttons and two porcelain collar studs, temporal markers of the nineteenth century, were recovered (Luscomb 1967:183)(Figure 16j,m). The final artifact in this group was a small brass button with a wire eye.

Personal: Personal artifacts comprised .19 percent of the assemblage. This group included two slate pencils, a coin (a 1916 nickel) and a fragment of a bone comb (Figure 16o,r).

Furniture: Furniture items comprised .33 percent of the assemblage. This slightly higher percentage, when compared to the Carolina Artifact Pattern, is due to the recovery of several fragments of lamp chimney glass, from kerosene lamps. These lamps increased in popularity and availability as the nineteenth century proceeded, as reflected in the late nineteenth century assemblage. Glass shades were first added to lamps in the 1830s; by the mid-nineteenth century, the kerosene lamp was developed and glass chimneys became quite popular (Trinkley 1986:244). Other furniture materials included three brass tacks and a small brass hinge.

Pipes: Fragments of white clay tobacco pipes comprised 1.63 percent of the assemblage. The tobacco group is highly variable, based on personal habit. The use of kaolin pipes also declined as the nineteenth century progressed, except among the lower classes.

Activities: The activities group was relatively small, .86 percent, and reflects the domestic use of the property. A single lead bale seal, impressed with a "1", was recovered (Figure 16p). Other

materials included three fragments of wire, 16 barrel strap fragments, and three pieces of slag. The single toy was a stone marble.

### Late Nineteenth Century Assemblage

Kitchen: The kitchen group comprised 60.38 percent of the assemblage. Ceramics comprised 25 percent, glass materials comprised 73 percent, and tin cans, 2 percent. Tin cans were patented in 1818, became popular in the mid-nineteenth century (Fontana and Greenleaf 1962) and, along with mason jars for home canning, greatly expanded the possibilities for food preservation.

Ceramics consisted of table (95%) and utilitarian (5%) wares. The tablewares consisted of refined earthenwares and porcelains. Some of the refined earthenwares predate the presumed date of deposition for the deposit, and suggest early, gradual filling of the lowlying edges of the site. The creamware and pearlwares were manufactured between 1780 and 1820. These wares comprise 12.5 percent of the ceramics. Whitewares, manufactured after 1820, comprised the majority of the ceramics, 60 percent, and exhibited a number of decorative motifs: annular, wormy fingerpainted, shell edged, hand painted, and transfer printed. The whiteware group also included a number of later styles, such as molded, decaled, silver banded, and tinted. The molded blue style dates to the 1850s, while the other types were manufactured after 1890 (Bartovics 1974; Brown 1982). Many whiteware vessels exhibited identifiable makers marks, most of them from Trenton, New Jersey potteries; these included Glasgow pottery, Mercer Pottery Company, Etruria Pottery, and Cook Pottery. Wares from English potteries included those from W & C Corn, and Baker & Company. These marked vessels all date to the 1890s and 1900s (Godden 1964; Kovel 1986; Knowles 1986) (Figure 14a-c).

The porcelains included Oriental types dating to the early nineteenth century and white-bodied American porcelain, dating primarily to the mid-nineteenth century. Utilitarian wares included yellow ware, manufactured throughout the nineteenth century, Rockingham ware, manufactured between 1826 and 1880, and black lead glazed redware, manufactured from the late eighteenth through the mid nineteenth century. The most common was alkaline glazed stoneware, a regional pottery from Edgefield (Burrison 1985; Greer 1970).

Glass artifacts comprised the majority of other kitchen materials, reflecting the decreased price and increased availability of these materials in the nineteenth century (Lorrain 1968). Container glass included vessels of light and dark green, aqua, clear, brown, and manganese glass. Many of these held alcoholic beverages, such as wine, whiskey, stout, ale, and bitters (Figure 15i). Other beverage bottles held soda or mineral water, popular from the 1840s through the 1880s (Figure 15g). The biggest supplier of these products in Charleston was James Cosgrove (Trinkley 1986).

Condiment containers, which became popular in the second half of the nineteenth century, included a preserve jar with lightning

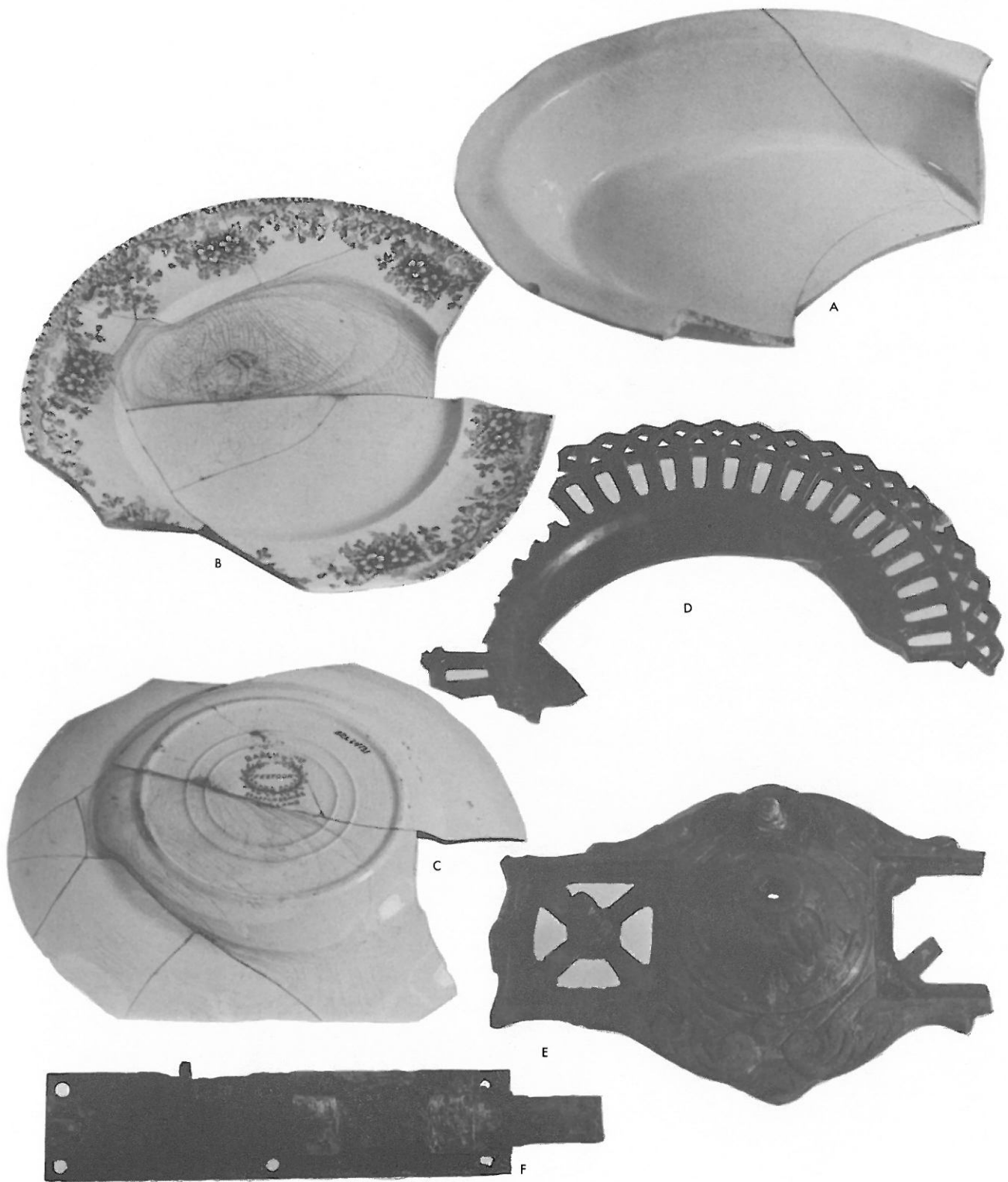


Figure 14: a) green transfer printed whiteware place, ca. 1900; c) maker's mark on same vessel; b) whiteware vegetable bowl, ca. 1880; d) purple glass window plate; e) door buzzer, ca. 1900; f) door latch.





Figure 15, glass artifacts: a) pressed glass tumbler; b) pressed glass goblet; c) pressed glass lamp base; d,e) condiment jars; f) vaseline jar; g) Charleston soda water bottle; h,j-l) medicine bottles; i) whiskey bottle.

closure, patented in 1886 (Toulouse 1971; Lorraine 1968), and a ketchup bottle from the H.J. Heinz Company (Figure 15d-e). Other food containers included canning jars patented in 1858. Items recovered included blue and clear glass jars, as well as milk glass lid liners.

Pharmaceutical and patent medicine bottles were also present. Predominant among these were rectangular panel bottles, developed in the 1860s (Lorraine 1968)(Figure 15h,j-1). Medicine bottles included one with the following inscriptions: "only the best" and "accurate prompt and reliable prescription service". Also recovered were several examples of decorative or table glass; pressed glass tumblers, goblets, vases, and compote dishes were the most common (Figure 15a,b). Pressed glass was developed in 1827 and became popular after 1845 (Lorraine 1968). Other tumblers and goblets were molded. The most outstanding example of decorative glass was a plate of purple glass, with an openwork rim (Figure 14d).

Architecture: Architectural materials comprised 33.15 percent of the assemblage. The majority of this group consisted of nails and window glass. The majority of nails were unidentifiable as to method of manufacture, but most appeared square in cross-section. Six wire nails, manufactured after 1850 (Fontana and Greenleaf 1962), were recovered. Other architectural elements included a roofing tack, a staple, 14 spikes, and a shutter pintel.

Arms: Arms materials comprised .25 percent of the assemblage, consisting of two percussion caps, a lead bullet, two shotgun shells, and two 22-calibre bullet casings. Percussion caps were developed between 1808 and 1816, and were common by 1845. Likewise, shotgun shells were developed by the mid-nineteenth century; 12-gauge shells post-date 1870. The .22 calibre cartridges were common from the 1870s to the 1890s (Trinkley 1986:245-246; Johnson and Haven 1943). The final arms artifact was a fragment of folded lead, used for holding a gunflint in place.

Clothing: The clothing group comprised 1.91 percent of the assemblage and was quite varied. Buttons of bone, porcelain, brass, and shell were the most common artifacts. The bone buttons were the four-hole or two-hole variety (Figure 16g,i). The shell buttons included plain and decorated discs, once again with four or two holes (Figure 16j). One shell button was spherical, with the bottom cut away to form a shank (Figure 16k). The porcelain buttons were all undecorated and featured four holes in the style typical of the nineteenth century (Luscomb 1967). The brass button was a large, elaborately molded specimen from a Charleston Police uniform (Figure 16a-b). The button features the city seal, complete with lady liberty in the foreground and the harbor skyline in the background. The Waterbury Company began in 1812, and became the Waterbury Button Company in 1849. Its main product was metal buttons. Uniform buttons were popular after the Civil War into the 1900s (Luscomb 1967:204). These buttons are still used on dress uniforms (Figure 16c-e), and are manufactured at the Waterbury Company. Information on the history of uniforms for the Charleston police is surprisingly sparse; it is documented that the term "police" was in use by the 1850s (Rosengarten et al. 1987). A French button of similar size and construction was

recovered from Fairbank plantation on Daniels Island; this particular artifact dated to the late nineteenth century (Zierden et al. 1986a). Based on the available information, it appears that the police button is a late nineteenth-century artifact.

The only bead recovered was a small round bead of clear glass. Recovered clothing items which were popular in the second half of the nineteenth century include a porcelain collar stud, two tin garter hooks, shoe grommets, and snaps. The final clothing items included fragments of shoe leather and a brass belt buckle.

Personal: Personal items comprised .21 percent of the assemblage. This group included a fountain pen, a purse closure, a key, a slate pencil, a bone tooth brush, and a harmonica plate. The slate pencil was a common artifact after the late eighteenth century, while bone toothbrushes are hallmarks of the nineteenth century. The purse frame postdates the 1880s, when slimmer skirts made the use of deep pockets for personals impractical (Trinkley 1986:252) (Figure 16u). Fountain pens were introduced in the 1850s. The key, manufactured by the Sargeant Company, was patented in 1897 (Figure 16n).

Furniture: Furniture items comprised 2.52 percent of the assemblage; this unusually large number, compared to the Carolina Artifact Pattern, is due to the presence of numerous fragments of kerosene lamp chimney glass. Other furniture artifacts include six fragments of decorative brass and a brass wick turner (Figure 16t). Most of the chimney glass exhibited straight tops, while some exhibited the pearl top, patented in 1883 (Lewis and Haskell 1981:119; Trinkley 1986:242). Final artifacts were two pressed glass lamp bases (Figure 15c).

Pipes: The pipe group was remarkably small, comprising only .14 percent of the assemblage. This group consisted of three fragments of white clay pipes and a snuff box. Kaolin pipes were immensely popular in the seventeenth and eighteenth centuries, but their use declined dramatically in the late nineteenth century. The lack of pipes may reflect this decline in popularity, or it may reflect a lack of smoking among site residents.

Activities: Activities items comprised 1.47 percent of the assemblage; the majority of these items reflect daily domestic activities. Eight toy items were recovered, including marbles and fragments of porcelain dolls (Figure 16q). Seven fragments of flower pots were recovered. Other items included miscellaneous hardware, strap iron, and fragments of wire.



Figure 16: a,b) Charleston police button, front and back; c-e) modern police uniform buttons; f-i) bone buttons; j) porcelain button; k,l) shell buttons; m) porcelain collar stud; n) key; o) 1916 nickel; p) lead bale seal; q) porcelain doll's arm; r) bone tooth brush; s) .22 calibre shell; t) kerosene lamp wick; u) purse closure.



Table 2

Quantification of the Assemblage

	mid-19th century	late 19th century
Kitchen		
porcelain, undecorated	55	
porcelain, hand painted	12	1
porcelain, overglazed	3	2
porcelain, molded	13	1
porcelain, canton		8
porcelain, bisque		1
porcelain, brown glaze		1
porcelain, white		60
porcelain, misc		10
yellow ware	22	3
creamware	37	24
pearlware, plain	37	8
pearlware, blue shell edge	7	4
pearlware, blue transfer print	16	8
pearlware, annular	10	1
pearlware, hand painted	6	1
whiteware, undecorated	327	152
whiteware, shell edged	21	4
whiteware, annular	80	16
whiteware, sponged	13	
whiteware, blue transfer print	60	13
whiteware, transfer print, other	19	13
whiteware, hand painted	29	18
whiteware, gilt trim		5
whiteware, other		25
whiteware, decaled		10
tortoise shell glazed earthenware	1	4
rockingham ware	4	3
alkaline glazed stoneware	1	1
grey saltglazed stoneware	4	1
misc stoneware	4	
lead glazed earthenware	19	4
unglazed earthenware	8	
blue glass	2	
milk glass	10	3
brown glass	23	20
black glass	72	18
green glass	38	32
clear bottle glass	258	1043
table glass	21	
aqua glass	51	101
manganese glass	46	
pharmaceutical glass	3	
tin can	4	39
spoon	1	

Table 2, cont.

	mid-19th century	late 19th century
Architecture		
window glass	198	437
ud nail	451	447
spike	1	14
screw	1	
shutter pintel	1	1
wire cut nail		6
staple		1
roofing nail		1
Arms		
bullet	1	1
shot	1	
shell, shotgun		2
bullet casing	2	2
percussion cap		2
Clothing		
safety pin	2	1
bead	1	1
bone button	6	3
brass button	1	1
porcelain button	11	17
collar stud	1	1
wire eye	1	
grommet		10
shell button		3
shoe leather		2
garter hook		1
buckle		1
snap		1
Personal		
fountain pen		1
purse edge		1
key		1
slate pencil	1	1
toothbrush		1
comb	1	
coin	1	
Furniture		
lamp chimney glass	3	63
brass tack	3	
brass hinge	1	
lamp hardware		1
decorative brass		6
Pipes	34	3

Table 2, cont.

	mid-19th century	late 19th century
Activities		
toys	1	8
flower pot		7
misc hardware		13
strap iron	16	4
wire	3	9
bale seal	1	
slag	3	

## CHAPTER V

### INTERPRETATIONS

The data generated from the present investigations are useful in addressing several research questions. Though the sample retrieved is small, the President Street site is the only one from the west side of the Neck, and one of the first from a middle-class residential area. The questions addressed here are long term studies, employing the accumulating data from rural and urban lowcountry sites. The President Street sample is useful in addressing these descriptive and processual questions, using previously excavated sites for comparative purposes.

#### Site Formation Processes

Investigation of site formation processes has been central to ongoing archaeological research in Charleston. In order to properly interpret an archaeological site, it is first necessary to understand the processes responsible for the development of that data base.

Cultural materials are introduced into the ground by three basic methods; discard, loss, and abandonment (Schiffer 1977). Once in the ground, they can be redistributed, or they can be removed (Ascher 1968; Honerkamp and Fairbanks 1984; Schiffer 1983). Usually, the archeological record is a combination of all three events. In the urban situation, where these processes can become very complex, archaeologists are particularly interested in the processes which introduce and redistribute materials.

Continuing research suggests that sheet midden, or zone deposits, are characteristic of rural sites, particularly farm or plantation sites. This pattern has been noted on plantation sites in coastal Georgia (Singleton 1980) and South Carolina (Drucker and Anthony 1979; Zierden and Calhoun 1983; Zierden et al. 1985; 1986a). Another common depositional practice during the colonial and antebellum periods seems to have been the use of adjacent swamps and marshes for refuse disposal. Features, while present on these sites, usually contained sparse materials. With the availability of large, open areas, rural residents were able to deposit refuse on the ground surface, or in lowlying areas, a convenient distance from the habitation area. The extensive excavations at Daniels Island revealed the prevalence of this practice, but also revealed large, refuse filled subsurface features, including a well and abandoned brick foundation (Zierden et al. 1986a).

Although there is considerable overlap, reuse of subsurface features for refuse disposal appears to be more common on urban sites. The backyard area was the locus of refuse disposal. Although some



refuse was scattered on the ground as sheet midden, much of it was deposited into features such as wells and privies. This was probably done in response to the relatively crowded urban conditions and resulting health considerations.

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 and Calhoun 1983a; Rosengarten et al. 1987). Quantities of refuse were also dumped into creeks and lowlying marshy areas, creating viable real estate (Zierden and Calhoun 1986; Zierden et al. 1983b).

Urban archaeological deposits reflect abandonment and loss, as well as discard. Abandonment activities include loss of materials due to fire and storm, and the resulting cleanup activities, or the exchange of property between tenants and owners (Zierden and Hacker 1987; Lewis and Haskell 1981). Another key aspect of the urban site may be disorganization, the result of continuous reoccupation and the intrusion of later deposits into earlier ones. Additional factors unique to urban sites are private or municipal collection of refuse, (i.e., removal of refuse by scavengers, and later municipal crews, which resulted in the redeposition of refuse far from its place of origin), 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 (Honerkamp and Council 1984; Zierden and Calhoun 1986; Rosengarten et al. 1987).

The President Street site provided dramatic evidence of many of these processes. Zone 1 in Unit 1 represents sheet midden, the gradual accumulation of refuse in a back yard. The limited nature of the excavations makes it impossible to assess the amount of refuse deposited in subsurface features relative to that present in sheet midden. No doubt most of the refuse generated by site residents was conveniently dumped into the extensive lowlying areas adjacent to the site. This filling process is dramatically reflected in the refuse deposits of Unit 2. Although conscious attempts to drain and fill the marsh occurred in the late nineteenth century, the presence of earlier artifacts in these zones indicate that this had been an ongoing, if small scale, endeavor for decades. These deposits also demonstrate that domestic refuse was used to fill lowlying areas well into the twentieth century, probably until the Romney Street dump was established in the 1930s (City Yearbook 1939). Finally, the stratigraphy of Test Pits 1 and 2 is dramatic evidence of the redistribution of archaeological materials on an urban site. These many zones, which contained artifacts from the prehistoric period as well as from the nineteenth century, were nonetheless deposited in the 1980s.

#### Artifact Patterning and Site Function

To date, all of the Charleston assemblages have been quantified by grouping the artifacts into functional categories, according to South's methodology (South 1977). Under this technique, artifacts are

grouped by their presumed function in the daily affairs of the site occupants. By utilizing data from a number of British colonial sites, South proposed a range of variability that can be expected for the frequency percentages of artifact classes and groups. He named this range of variability the Carolina Artifact Pattern; this pattern is presumed to represent an averaging of domestic behavior. By establishing the range of normal variation, it should be possible to recognize aberrant activities as variations from these ranges.

Comparison of assemblages from mixed residential-commercial sites to the Carolina pattern is shown in Table 3; the mean for these sites, which include the homes and businesses of merchants and craftspeople, reflects a general conformity to the Carolina pattern. The major difference is in the activities group, which averages 4.14 percent for these sites, compared to 1.7 percent for the Carolina pattern.

Research on these sites has suggested that commercial enterprises that transfer, rather than produce, goods (such as retail shops) are likely to produce little in the way of byproducts which would be recovered archaeologically. In contrast, sites characterized by craft oriented, or combined craft-domestic occupations appear to generate at least some discarded byproducts indicative of site function (Lewiss 1977:177; Honerkamp et al. 1982:17,145-155; Honerkamp 1980; Zierden and Hacker 1987). The slightly elevated activities group, then, is evidently a strong reflection of commercial activity at these sites.

In contrast, data from Gibbes (Zierden et al. 1987) and Aiken-Rhett (Zierden et al. 1986b) were used to derive a pattern for domestic-only sites. These elite townhouses are comparable to the President Street site in that they were both suburban and were first occupied in the late eighteenth to early nineteenth centuries. Further, the three sites experienced no major rebuilding episodes. These sites revealed an activities group even lower than the Carolina pattern. This is not necessarily unexpected; other researchers have noted that the empirical artifact profiles South used in establishing the Carolina pattern were actually derived from assemblages of combined domestic-craft sites. Therefore, domestic only refuse, from whatever sources, should exceed the mean for domestic artifact classes; the kitchen, clothing, personal, and furniture classes (Honerkamp et al. 1982:147-157).

The President Street assemblage showed closer agreement to the townhouse profile and the Carolina pattern than to the dual function profile. The lower percentage in the clothing and personal groups probably reflects status rather than function, while variation in the pipe group reflects temporal differences or personal habit. The President Street artifact pattern reflects the domestic-only role of the neighborhood, and conforms to the expectations that refuse recovered from Unit 2 was generated locally (Table 3).

The middle class residents of the President Street block evidently worked away from their place of residence. This separation of home and workplace was a major nineteenth century social change, and is closely associated with the development of modern urban life

Table 3

Comparison of MUSC Assemblages  
to Composite Artifact Profiles

	% Mid-19th cent. assemblage	% Late 19th cent. assemblage	% Townhouse Profile	% Dual-Function Profile	% Carolina Artifact Pattern
Kitchen	64.11	60.38	57.82	63.1	63.0
Architecture	31.0	33.15	36.89	25.03	25.5
Arms	.28	.25	.15	.20	.5
Clothing	1.10	1.91	.74	1.18	3.0
Personal	.19	.21	.24	.14	.2
Furniture	.33	2.52	.22	.08	.2
Pipes	1.63	.14	2.71	5.97	5.8
Activities	.86	1.47	1.18	4.14	1.7

(Wall 1985:185). In eighteenth-century Charleston, as in other cities, the "organization of the productive unit consisted of the internal integration of house and shop and living and working space among merchants and artisans. Their clerks, journeymen, and apprentices either lived with their employees or boarded nearby" (Wall 1985:185; see Nash 1979). By the late nineteenth century, the two were no longer integrated, and in some cities separate socioeconomic neighborhoods had emerged (Wall 1985; Warner 1962, 1968). The household changed "from a unit of economic production to one only concerned with consumption and social reproduction" (Wall 1985:185). Social relationships were enhanced by the spatial concentration of the "walking city", one small enough for pedestrian traffic to be practical (Radford 1974; Wall 1985; Warner 1962, 1968). This spatial arrangement was not static, and a number of changes, industrial, technological and social, occurred throughout the nineteenth century which allowed physical expansion to occur. Though its finite water boundaries limited such expansion in Charleston, industrial growth and the development of the Neck suburbs reflects these changes. The antebellum suburbs, in contrast to the eighteenth century city, were overwhelmingly residential.

### Spatial Patterning

As anthropologists, archaeologists have used spatial patterning, the arrangement of people, resources, and institutions across the landscape, to explore social structure and social organization. In cities, changes in social structure are consistent with urbanization, and these changes are reflected in land use. It is assumed that land will be used with increasing intensity and specialization as the community becomes more urban (Rothschild 1985:163). Increasing urbanization will in turn result in physical changes in the landscape (Mrozowski 1987:3).

Rothschild (1985) has suggested that urbanization is reflected in the degree to which land in a community is formally integrated into that community but being built upon or defined in some other formal way. Such processes in Charleston, and elsewhere, include landfilling, construction of drainage and other municipal systems, separation of home and workplace, and increasing regulation and attention to daily needs, such as water procurement, livestock maintenance, food procurement, and sanitary waste management (Calhoun et al. 1984; Honerkamp and Council 1984; Mrozowski 1987; Rosengarten et al. 1987; Sapan 1985; Wall 1985; Zierden and Hacker 1987).

The spatial patterning of Charleston, particularly on the individual site level, reflects the particular demands of the urban environment. During the eighteenth and nineteenth centuries, most of the structures found dispersed across the rural plantation site were also crammed onto the constricted urban lot (Castille et al. 1982:5; Wade 1964:61; Rosengarten et al. 1987). Urban compounds, particularly those located within the commercial core, were organized to make the most efficient use of available land.



Lots were deep and narrow, to maximize the available street frontage. Houses fronted directly on the street, with the narrow end facing the road. The southern side was open, complete with piazzas, while the northern side was devoid of openings, allowing residents to take full advantage of prevailing breezes while maintaining maximal privacy. Two English architectural styles adapted to semi-tropical conditions in the Caribbean proliferated in the city and became famous as the Charleston single house and the Charleston double house (Calhoun 1986; Weir 1983). The single house received its name from its one room width. Typically the single house contained two rooms to a floor, with a hall between containing the staircase, and a piazza to the south or west. The gable end fronted the street, and entrance was through a false front door onto the piazza. Later, this plan was modified slightly; the entrance was placed on the northern side of the house, resulting in a suite of rooms along the south side (Rogers 1980:66). As its name suggests, the double house contained four rooms to a floor, with a central hall, and was often grander than the simpler single house. The larger Charleston houses, particularly the double houses, were often elevated, with an above-ground basement; the second floor was then the first living floor. This served to catch prevailing breezes, and to "distance" the occupants from public streets (Coclanis 1985:612; Weir 1983). The first floor of Charleston houses often contained a business, while residents lived on the upper floors; this was particularly common in the commercial core.

Behind the main house, auxiliary structures were arranged within a fenced compound, and often included slave quarters, kitchen, stable, well at mid-lot, and privy in a rear corner. Gardens, both ornamental and functional, might be planted and livestock might be kept. While there was some variation in the size, content, and arrangement of these structures, they were considered basic functional components of urban life, and were present in some form. The urban compounds of the wealthy often contained substantial brick structures for all of these functions (Zierden et al. 1986b; 1987). The properties of less affluent residents might contain less substantial structures, or fewer outbuildings; such residents owned fewer horses and fewer, if any, slaves, for example. More than one household might share privies, wells or passageways (Zierden and Hacker 1987:99).

Spatial patterning on suburban sites is expected to be somewhat different from that of the commercial core. Many of the sites in these areas served only as residences, with the site occupants commuting to work in the commercial core or, in the case of wealthier citizens, deriving income from plantations and a variety of enterprises. The lots of the suburban areas were often more spacious, and indeed were specifically chosen for this attribute. For example, lots within the Charleston Place block, central to the nineteenth-century business district, were initially long and narrow; over the years, they were continually subdivided to a point where the majority measured 30 feet in width, but were over 200 feet long. In contrast, wealthy suburban townhouses examined archaeologically were between 80 and 150 feet wide, and over 250 feet deep. Lots in Charleston tended to be a standard depth; street frontage was the valued commodity, and the width of a lot reflected the buying power of the owner (see Rosengarten et al. 1987:chapter 2).

The development of the President Street block reflects many of these trends. By the early nineteenth century, an expanding population pushed the areas of settlement north across Boundary Street. Large plots of land on the Neck, functioning as plantations or held for speculation, were subdivided and sold. For several decades, holdings remained larger than those in the city. But as the population grew, lots continued to be partitioned. Because blocks in the Neck tended to be smaller than those downtown, by mid-century the average suburban lot was smaller than its counterpart in the city. In both sections, creeks and marshes were gradually filled to create new real estate and reduce health hazards. Planters' houses that initially fronted the rivers now looked over roof tops or into the yards of commercial enterprises.

The depth of the lots on President Street was predetermined by the area of available high land, and averaged 150 feet. When Daniel Cannon's land was subdivided in 1800, the tract appeared as a single lot. By 1804 it had been divided into three spacious lots; the northernmost measured 120 feet in width and contained three widely spaced structures. The two remaining lots measured a total of 365 feet in width (Stockton 1981)(Figure 3). By 1852 the block still contained only four lots, with two to four structures on each; the narrowest measured 140 feet. In contrast, some lots around the corner on Bee Street were as narrow as 45 feet (Figure 4). By 1872, another lot had been created on the block, and by 1915 seven structures stood on the site. Though lot width varied, they averaged 70 feet; this is still generous by city standards, but considerably less than the mid-nineteenth century dimensions.

The President Street lots contained fewer support structures than the upper status suburban townhouses. Late nineteenth century maps suggest that each household had its own privy; most houses had detached kitchens located to the rear of the main houses and a few small sheds or stables. The number and configuration of these support structures suggest a middle class status for the block residents.

While land use on the Neck differed from that of the lower city, individual lots were laid out in remarkably similar ways. Responding to the same daily needs and confined to a comparable amount of space, residents of the Neck turned their single houses sideways, built kitchens behind them, and put as much distance as possible between their wells and privies. The arrangement of lots and buildings over the suburban landscape, however, varies from that of the older city in significant respects.

In the colonial city, the area which later became Wards 1 and 3, many dwellings doubled as places of business. In newer sections, including the Neck, residential and commercial functions tended to be separate. Tradesmen and women, corner grocers, and King Street retailers might live above their shops, but manufacturers, mechanics, and railroad employees usually resided some distance from their workplaces. This trend conformed to conditions imposed by new industries and represented a break with the mercantile past.

## Subsistence Strategies

Investigation of subsistence strategy is an important aspect of archaeological research in Charleston. Since 1982, consistent methods have been applied to the recovery and analysis of faunal and floral remains. These have been used to address a number of research problems, including cultural conservatism, adaptation to local environments, resource utilization, ethnicity, and social variability.

Research on subsistence practices on the southeastern coastal plain has been aimed at delineating a regional pattern of animal utilization, using vertebrate remains from a variety of sites (Reitz 1979; Honerkamp and Reitz 1982; Reitz and Honerkamp 1983, 1984; Reitz and Scarry 1985). The pattern is characterized by heavy dependence on beef, and utilization of a variety of wild species indigenous to the local environment. This archaeological model is in contrast to the documentary evidence, which suggests a heavy dependence on pork (Genovese 1974; Hilliard 1972; Gray 1933). The model is also in contrast to the traditional Old World English diet (Anderson 1971; Reitz and Honerkamp 1983). The Charleston data fit the model of resource utilization for the southeastern coastal plain (Reitz and Honerkamp 1984).

Recently, subsistence research has focused on two topics, with promising results. The first is rural-urban contrasts. Based on research on a number of sites, it appears that there are basic dietary differences between rural and urban sites, which cross-cut temporal, ethnic, and social boundaries (Reitz 1986). Urban citizens relied more heavily on domestic fauna, mammals and birds, than did their rural neighbors, which most likely is due to the function of the market in the urban setting. Domestic meats may have been more available to urban citizens because of the market (Calhoun et al. 1984). In contrast, wild game would have been more difficult to obtain for the average urban citizen. Wild game was more easily obtained by rural citizens, while domestic fauna would have been available less often. Data from recently excavated sites, including Aiken-Rhett, Gibbes (Ruff 1987), and Charleston Place (Carder 1987) all conform to this model. Although data is less extensive, similar trends are noted in floral remains. Wild plant foods are extremely rare in urban samples, while cultigens such as corn and wheat have been noted (Trinkley 1987; Trinkley et al. 1985).

Another trend emerging from this recent research involves indicators of socioeconomic status (Schultz and Gust 1983; Ruff 1987). It appears that the diet of the wealthy, whether urban or rural, was more diverse than those of the lower class. Research at Gibbes and Aiken-Rhett has supported this model of diversity. While domestic fauna formed the mainstay of the diet, wild taxa contributed variety to the menu. The variety was enhanced by the consumption of fish (including off-shore species), turtles, alligator, and wild birds. All of these were relatively expensive; turtle flesh was considered a delicacy (Rogers 1980). Basically, wealthy Charlestonians enjoyed a diet that was expensive; expense may be considered in terms of time invested, as well as money invested (Reitz and Cumbaa 1983).

The faunal sample from the President Street site was too small for detailed analysis, but when combined with other samples from Charleston, it supports the proposed urban pattern (Reitz 1986). The predominance of domestic mammals is consistent with the urban pattern, while the butchering pattern suggests market purchase.

The sample was also too small for an analysis of socioeconomic status based on diversity. Despite these shortcomings, the President Street sample is an important addition to the Charleston data base, in that it is presumed to represent a middle class site. Additional excavations at other middle class sites will be needed to continue this research.

### Socioeconomic Status

The investigation of class differences, or socioeconomic status, has been a central concern of historical archaeologists in recent years (Binford 1972). Pioneering investigations of the archaeological manifestations of status have focused on southern plantation sites (Otto 1975, 1977; Lewis 1985; Drucker 1981) and Spanish colonial sites (Deagan 1983), where occupants of the site, and their social and ethnic affiliations, were known.

Urban centers are characterized by distinct social groups living and interacting within a proscribed area. For this reason, status studies are an important aspect of urban archaeological studies (Baughner and Venables 1987; Garrow 1987; Shephard 1987; Spencer-Wood 1987). A major 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 (Zierden and Calhoun 1987). Recent exceptions to this were the Aiken-Rhett and Gibbes sites, federal/antebellum townhouses owned and occupied by wealthy and prominent planter-merchants. Excavations at these sites have provided baseline data for the study of status in Charleston (Zierden et al. 1986b, 1987).

Status should be reflected in four aspects of the archaeological record: patterns of material culture, diet, housing, and site location. Comparative data suggests that site location in Charleston was a conscious, value-laden choice, deliberately made for a number of reasons, one of them being status-related. House and lot size choices were also made on the basis of buying power.

The documentary record suggests that the residents of President Street were primarily middle class. This is supported in the site location and housing style. The Charleston Neck was home to a cross-section of Charleston's antebellum population, including wealthy planters, middle to lower class whites, prosperous free Negroes, and enslaved blacks (Rosengarten et al. 1987). Middle class white laborers and professionals were a large portion of this population. These people tended to locate on secondary, but through streets. In contrast, the wealthy often located on major thoroughfares, while the poorest residents, white and black, were crowded onto narrow courts



and alleys. The President Street frontage and location is typical of middle class suburbanites. Likewise, the housing style, modest single houses of wood occupied by a single family unit, is typical of the middle class. Also reflective of this status is the size and number of outbuildings per lot. The relative width of the lots would suggest households of higher status, but this was tempered by the relatively shallow nature of the lots; 120 feet in contrast to 250+ feet at Gibbes and Aiken-Rhett. Likewise, subdivision and additional building by the late nineteenth century served to make the average lot width and overall size comparable to the model for middle-class households in Charleston.

The small size of the faunal assemblage, as discussed in the previous section, precluded an examination of status and diet. The material culture was equally difficult to assess in terms of status; this is primarily due to the temporal affiliation of the assemblage. Technological advances changed the availability of certain types of material culture, and status profiles have not yet been developed for this period. On a very general level, status is reflected in the relative percentage of luxury goods, such as clothing, personal and furniture items. On slave sites, for example, the emphasis is on subsistence and shelter, and the luxury categories often comprise less than 1.5 percent of the total assemblage (Zierden and Calhoun 1983; Singleton 1980). Likewise, these items comprised .9 percent for the low status Lodge Alley assemblage in Charleston (Zierden et al. 1983a). In contrast, these categories comprised 2.5 percent of the upper status assemblages in Charleston (Zierden et al. 1987), and 1.5 percent at Drayton Hall (Lewis 1985). The President Street assemblages contained 1.62 percent and 4.64 percent of these categories, respectively. The high percentage in the late nineteenth century-assemblage is due to the presence of new, inexpensive wares, and therefore is not valid for comparative purposes. The mid-nineteenth century-assemblage appears to fall between the two profiles, tentatively supporting the proposed middle status affiliation.

Generally, small sample size precluded an adequate examination of status at the President Street site. Lot size, house style, and house size are the most reliable indicators of middle-class status at this site.

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APPENDIX I

ZOOARCHAEOLOGICAL ANALYSIS OF THE VERTEBRATE FAUNA  
FROM THE VRTC AND PRESIDENT STREET SITES

by

Karen G. Wood

Department of Anthropology  
University of Georgia



## Introduction

Historic Charleston, South Carolina has become one of the best studied urban centers in the country for historic vertebrate remains. In recent years, vertebrate materials from a number of excavated historic sites in and around Charleston have been analyzed, substantially adding to the zooarchaeological data base of the area. This study, although representing small samples from two historic urban sites in Charleston, will nevertheless add to our increasing understanding of historic subsistence behavior as revealed in the zooarchaeological record.

The two historic Charleston sites examined in this study were excavated by Martha Zierden of The Charleston Museum. The Visitor's Reception and Transportation Center (VRTC) site, excavated in 1986, located on the block across from the Museum, was first occupied during the antebellum period, when a number of residential lots were occupied by whites, free blacks, and slaves. The faunal materials came from several units and features excavated at the site. Faunal material from the President Street site, located in the western area of Charleston Neck, was excavated in the fall of 1985 in two areas: material from Unit 1 dated to the mid-nineteenth century while material from Unit 2, thought to be a trash dump, dated to the late nineteenth and early twentieth century. This site is thought to represent a middle class residential area of Charleston. All of the faunal material from both sites were recovered using 1/4 inch mesh hardware cloth. Most of the bone from both assemblages was in a poor state of preservation.

## Methods

Standard zooarchaeological procedures were used during identification and analysis of the vertebrate materials. All identifications were made by Karen G. Wood using the zooarchaeological comparative collection at the Department of Anthropology, University of Georgia. All specimens were identified to the nearest species, genus, family or class level possible and quantified by weight and count. Element and element symmetry (pairing), bone modifications (burning and gnawing), butchering (sawing, cutting, hacking), and aging characteristics (such as the degree of epiphyseal fusion) were recorded. Those elements complete enough and exhibiting butchering marks were recorded on butchering diagrams for further analysis. The maximum length of fish otoliths were also recorded for determining standard length and weight.

Minimum numbers of individuals (MNI) were determined based primarily on paired elements, size, age, and sex characteristics. MNI, a standard zooarchaeological quantification measure, was determined based on a number of discrete analytical units specified by

the archaeologist. For the VRTC site, seven analytical units were used and the data from each of these units were combined to determine MNI. The material from the President Street site was combined into two units (a mid-nineteenth century component and a late nineteenth through early twentieth century component) for determining MNI. A list of field samples studied is provided in Tables 13 and 14.

There are several inherent problems that exist with the MNI measure. The most obvious problem is the fact that MNI tends to emphasize small species over large ones. At first glance, it might be assumed that catfish was a preferred food at a site which had ten catfish and only two deer individuals identified. However, the amount of meat provided from the deer would probably far exceed that supplied from ten catfish. Another problem with MNI is that the presence of the complete individual may be assumed when in actuality only a portion of the animal may have been used. At most urban historic sites it is possible that only parts of animals are consumed due to ready access to markets. MNI determinations can also be influenced by biases placed on the material by archaeologists and zooarcheologists. MNI counts are dependent upon the manner in which analytical units are determined during actual field excavation and laboratory analysis (Grayson 1973; 1984). Other inherent problems during analysis may involve the ease in which certain elements can be identified causing certain species to appear more abundant in a sample than they were in reality.

Because of these problems with MNI, another method of quantifying the bone was also implemented. This method allometrically estimates biomass or meat weight based on bone weight. Biomass determinations are based on the premise that skeletal mass, dimensions and body mass scale allometrically. The allometric equation used for determining biomass is:

$$Y=aX^b$$

(Simpson et al. 1960:397). This equation employs a linear regression formula using the relationship of skeletal weight and body weight. Table 1 presents the allometric constants used to calculate biomass for this study. In the above equation  $Y$  is the meat quantity,  $X$  is the skeletal weight (archaeological bone weight),  $b$  is the slope of the line or the allometric constant, and  $a$  is the y-intercept (Casteel 1978; Reitz and Cordier 1983; Reitz et al. 1987; Wing and Brown 1979). The values for  $a$  and  $b$  are calculations derived from data gathered by the Florida State Museum, University of Florida, and the Zooarchaeological Laboratory, University of Georgia.

There also some inherent problems with biomass. The most apparent is that archaeological bone weight is effected by a wide range of factors that can skew the biomass calculation. Further, just as MNI emplasize small species, biomass emphasizes large species.

Sample size biases can effect both MNI and biomass calculations. Some researchers have suggested that a sample of at least 200 individuals or 1400 bones is necessary for reliable interpretations of an assemblage (Grayson 1981; Wing and Brown 1979). Smaller samples

may present inaccurate pictures of the composition of the taxa for a site. A certain taxon which may appear abundant in a small sample from a site may in actuality be less significant when a larger sample from the same site is examined. Grayson (1984:129) has demonstrated that the apparent taxonomic abundance of a species in a faunal assemblage may be more a function of sample size than actual population size and site utilization.

For a more simplified presentation of the distribution of elements identified, elements were lumped into several categories instead of being listed individually. The head category includes all elements from the head, including skull, mandible, teeth, atlas, and axis. The forequarter contains the upper portion of the animal which includes the scapula, humerus, ulna, radius. Forefeet are the carpals, metacarpals, and phalanges from the front limbs. Hindquarter is the lower portion of the animal including innominate, femur, tibia, fibula. Hindfeet are the astragalus, calcaneus, tarsals, metatarsals, and phalanges in the hind limbs. The feet category includes all metapodials and phalanges that could not be identified to the front or hind limbs.

Aging characteristics were noted by the degree of epiphyseal fusion present on some elements and bone texture indicating immaturity were noted whenever possible. These data were used for estimating the age of identified species. The bones of immature animals are not fully formed and in mammals the relative degree of ontogeny can be determined by examining the area of growth along the shaft, diaphysis, and at the end of the bone, the epiphysis. Elements fuse in a regular sequence. Ages at which fusion usually occur has been observed by several researchers (Gilbert 1970; Schmid 1972; Silver 1963). Elements can be placed in groups based on the relative age of fusion. Because elements do not usually fuse at both ends at the same time, a particular element may be placed in one age grouping based on the degree of fusion evident on its proximal end and in another age grouping based on the degree of fusion evident on its distal end. During identification, the element is noted as being fused or unfused for any epiphyseal ends present. These notations are then used for placing elements into age categories.

There are a few characteristics on certain bone elements that may indicate the sex of the animals. Males can be determined based on the presence of bacula in certain mammals, antlers in deer, the well erupted canine in horses and pigs, and the presence of spurs on the tarsometatarsus of Galliformes. Females can be determined based on the presence of the epipubic bone of certain small mammals, the lack of spurs on the tarsometatarsus of an adult Galliformes, and the presence of medullary bone (Rick 1975) in laying hens. Unfortunately, these elements or conditions are not always present in the archaeological sample.

The data for this study was determined from the above analytical procedures and is recorded in a series of tables appearing at the end of the text. In Tables 2-4, when bones could only be identified to a class level and there were no other taxa identified representing that class, one individual was determined for that class. The identified

species were summarized into faunal categories as a further step of analysis. A few explanations concerning these summary tables (5 and 6) should be noted. The domestic mammal category includes cow (*Bos taurus*), pig (*Sus scrofa*), and sheep/goat (*Caprines*). Wild mammal includes deer (*Odocoileus virginianus*) and rabbit (*Sylvilagus* spp.). The domestic bird category for this report includes only chicken (*Gallus gallus*). The wild bird category included all other birds identified. The commensal taxa category includes the rat (*rattus* spp.), the domestic cat (*Felis domesticus*), and the dog (*Canis familiaris*). The summary tables were determined only for those animals represented by an MNI estimate; in other words, possible identifications (Cf.) are not included in the summaries.

## Results

The samples from both the VRTC and President Street sites are quite small. A total of 839 bone fragments equalling 1,562 grams were identified from the VRTC site with a total MNI of 26 (Table 2). The President Street site, which had two chronologically discrete components, had a total for both components of 398 fragments weighing 1,411 grams and producing an MNI of 17 (Tables 3 and 4). The results that follow must be tempered with the realization that the small size of the samples may drastically skew interpretations. Nevertheless, since there is already a substantial subsistence data base for Charleston, this may alleviate some of the problems inherent in the small samples.

A total of 14 different taxa were identified from the vertebrate assemblage of the VRTC site. Chicken (*Gallus gallus*) is represented with the most individuals (23%) of any taxon identified (Table 2); however, domestic mammals dominate overall with 27% of the individuals and 83% of the biomass (Table 5). Within the domestic mammal category, pig (*Sus scrofa*) dominates with 43% of the individuals while cow (*Bos taurus*) is slightly more dominant with 36% of the total domestic mammal biomass (pig has 28% of the total biomass in the domestic mammal category). Only one Caprine (sheep/goat) was identified for the assemblage. Much of the unidentified mammal fragments ranged from pig to cow size (based on the size and cortex thickness of the bone fragments), but were too fragmented or weathered to indicate diagnostic characteristics. Domestic birds ranked closely behind domestic mammals with 23% of the individuals; however, a look at the total biomass derived for the domestic bird category indicates a contribution of only 4%. The only species in the domestic bird category is chicken.

Wild species are represented in the VRTC collection by all classes. An equal number (n=3) of individuals were estimated for the wild birds and fishes category, although the biomass is 3% for wild birds and 0.8% for fishes. The wild bird category is composed of a marsh duck (Anatinae), a turkey (*Meleagris gallopavo*) and a member of the Muscicapidae (Thrushes) family. Fishes consist of catfish (Siluriformes), a probable sea bass (*Centropristis* spp.), and a grunt (*Haemulon* spp.). Only one aquatic reptile was identified, a cooter or slider turtle (*Chrysemys* spp.). The commensal taxa category is



represented by 19% of the individuals and 6% of the biomass. In this category rat (Rattus rattus) represents 80% of the individuals and 83% of biomass. The other commensal species was a domestic cat (Felis domesticus), which interestingly appeared to have a series of superficial cut marks along the shaft of the radius.

The President Street collection, a much smaller sample than the VRTC sample totalling only 17 individuals for the two components, shows some interesting differences which might be assumed to be temporal, but probably result from the small sample size. With an increased sample size these dissimilarities might decrease or totally disappear. The mid-nineteenth-century component had only six different taxa and the late nineteenth-century component had nine different taxa. In the mid-nineteenth-century component (MNI=6), domestic mammal represents 50% of the individuals and 98% of the biomass; however, in the late nineteenth-century component domestic mammals represent 18% of the individuals and 90% of the biomass (Table 6). Cow and pig are the only domesticates and are estimated to have equal numbers of individuals, although the cow shows a somewhat higher biomass in both components. While the earlier component has only one domestic bird individual and no wild birds, the later component has equal numbers of domestic and wild bird individuals (27.3% of the biomass). The biomass for domestic birds is much greater than for wild birds, 3.2% and 0.7%, respectively. Chicken was the only domesticated bird in both components. Wild birds in the later component are represented by a marsh duck, a turkey, and a probable member of the Scolopacidae family (sandpipers, dowitchers, etc.). The mid-nineteenth-century component had one commensal species, a dog (Canis familiaris). Although turtles and fish are represented by one individual each, the bones could only be identified to the class level. The late nineteenth-century component had one wild mammal individual, a rabbit (Sylvilagus spp.). There was one bony fish, an Atlantic croaker (Micropogonias undulatus), identified from an otolith. A cartilaginous fish, a shark, was also identified. There were no commensal species in this later component.

Analysis of the bone modifications observed (Table 7) for the vertebrate specimens at the VRTC site indicates that of the 109 specimens that have evidence of modifications, sawing is the most prevalent (41%) type of alteration noted and burning (22%) is the second most common modification. The unidentified mammal category has the largest number of modifications, which isn't surprising since it has the largest bone count of any category.

Out of 28 modified bones (Table 8) at the President Street site, sawing is again the most prevalent (79%) type of modification for the mid-nineteenth-century component. The late nineteenth-century component has 77 modified fragments (Table 9) and more (51%) rodent gnawed bones than any other type of modification. Since this component is thought to represent a trash dump, the rodent gnawed bones are not surprising; however, the lack of identified rodent bones in the trash dump seems odd, since the VRTC site had six rodent bones and at least four individuals. Most Charleston sites have rodents included as commensal taxa. There are also more types of bone modifications noted in the late nineteenth-century component than in

the earlier component; this most likely is a result of the assemblage size. However, the VRTC sites, which has a larger assemblage, has no identified hacked bones while 16% of the modified bones were hacked at the later component of the President Street site.

Element distributions at the VRTC site indicate the presence of slightly more head elements (50%) than any other element group for pig and cow (Table 10). The forequarter ranks next in number (30%) of elements identified for pig, deer, cow, and caprine, each having one to two elements in this category. There are few feet elements identified (10%) for any of the species, including pig, which had none. Since all parts of the pig can and are consumed by some, this seems a little surprising.

The President Street site has more feet elements than the VRTC site. When both components are combined, 42% of the elements are from feet (Table 11). From a total 33 elements for both components, head and feet elements are more prevalent (55%) than the forequarter and hindquarter, the meatier portions of the animal. However, most of the head and feet elements were from the cow and not the pig. Since the feet and head elements of the cow are rarely consumed while pig feet and head are, this would tend to support the idea that the trash dump represents primary refuse, the pig feet and head elements being discarded elsewhere after consumption.

An analysis based on the butchering diagrams recorded for each identified elements with butchering marks did not conclusively indicate which cuts of meat were used. The most common sawed bone was represented by a one to two inch shaft section of a long bone sawed on both surfaces. For cattle, such bones are quite similar to those in the present-day bone from a round steak, shank cross cut, arm pot roast, or steak of beef. In the pig this might be the residue from an arm steak, sirloin chop, or ham center slice. Most of these sawed "steak bones" could not be identified to species although in the President Street collection three of these specimens were identified as cow humerus, tibia, and femur shafts. There were no other prevalent meat cuts evident besides these "steak bones".

Tables 12 and 13, which list the number of elements identified for selected age categories for the domestic mammals, indicate that few elements had age defining characteristics. This is primarily the result of the poor condition of much of the bone at both sites. Adult and sub-adult chicken individuals were noted at both sites.

There were few sex characteristics identifiable on the faunal materials from both sites. The only species that had any elements indicating the sex of the individual was the chicken. At the VRTC site two tarsometatarsus elements (a left and a right) of the chicken lacked spurs, indicating a female; two elements had medullary deposits indicating laying hens (these deposits supply calcium to the bird, Rick 1975). Four unidentified bird fragments also had medullary deposits at the VRTC site. The later component of the President Street site had four chicken elements with medullary deposits in the shaft; three unidentified bird fragments also exhibited medullary deposits.

## Discussion

Overall the VRTC site is comparable to other urban Charleston sites in the composition and percentages of their taxa, despite the small sample size. Reitz (1986) has compared a number of rural and urban vertebrate collections along the southern Atlantic coast and has observed some characteristic differences in the general makeup of the two geographically distinct environments. As with all historic sites, domestic animals are the most prevalent species identified for a vertebrate assemblage, but the percentages of domestic animal individuals can vary considerably. Reitz has observed that urban sites tend to have a higher percentage of domesticated animals and a lower percentage of wild species than do rural sites, which show a larger diversity in the types of animals identified. This would tend to indicate a somewhat less varied diet for urban dwellers than their rural counterparts. This diversity in species is sometimes tempered by other factors such as the socioeconomic status of the occupants; higher status urban sites tend to show more species diversity than lower socioeconomic urban sites (Reitz 1985). It has been suggested that those who live in an urban situation may have more access to domesticated animals (in markets) and less opportunity to procure other types of animals for consumption. Also important is the realization that meat purchased at the market has probably been processed more, particularly with such animals as fish (fillets) and turtles. Therefore, urban sites may contain less bone, placing certain biases upon the zooarchaeological record.

The number of domestic mammals identified at the VRTC site is very close (26.9%) to that which Reitz (1986:53) has observed for other urban sites (28.9%). The domestic bird percentage (23.1) at the VRTC site is fairly close to that which Reitz observed for urban sites (19.7%). There is no more than a 5% difference between the VRTC site and Reitz's urban sites for wild mammals, wild birds, and turtles.

The largest differences between the VRTC site and other urban sites is found in the fishes and commensal species categories. There is an 8% difference between the number of fishes identified at the VRTC site and the urban sites compared by Reitz, the percentage of fish individuals being lower at the VRTC site. The much lower percentage of fish identified at the site is interesting since even at Lodge Alley (Reitz in Zierden et al. 1983), a lower socioeconomic level site, fish represented 18% of the taxa identified, compared to 11.5% at the VRTC site. The commensal taxa is represented by 9% more individuals than has generally been observed for other urban sites; this higher percentage is the result of four rat individuals being identified at the VRTC site. It may be that bone refuse was disposed of in such a manner that commensal species had easier access to the remains than at other urban sites, although this seems unlikely.

With a total MNI of six for the mid-nineteenth century component and eleven for the late nineteenth century component at the President Street site, very little interpretation of the vertebrate remains from the site can be offered at present. Certainly domestic mammals

predominate in both MNI and biomass for the mid-nineteenth century component. However, the late nineteenth century component indicates a predominance of domestic mammals in biomass, but domestic birds and wild birds predominate in actual numbers of individuals identified. Other percentage figures for the early component and the late component do not compare well with Reitz's results, except for the fishes category, which is within 1% of what other urban sites have averaged.

Although a total of only five fish taxa was identified for both the VRTC and President Street sites combined, the types of fish identified are typical for other coastal urban sites. Jordan and Evermann (1969) state that the grunt, sea bass, and sea croaker in particular are very important food fishes and they state that the grunt is considered a "highly valued" food fish. These fishes were likely sold at markets in Charleston. The presence of the "steak bones" and the general lack of head and feet elements (indicative of in situ butchering) might also indicate the purchasing of meat at the market.

### Conclusions

The small vertebrate sample size of the President Street site precludes an in depth examination of the results, which is unfortunate since the site is supposed to represent a middle class residential area. The vertebrate remains from high status (Ruff 1986a and 1986b), low status (Reitz in Zierden et al. 1983), and mixed status sites (Carder 1986) in Charleston have been analyzed in the last few years, but the vertebrate assemblage of a distinct middle class status site had not been examined until this study.

The VRTC sites seems to compare quite well with other urban Charleston sites and did not offer any unusual or unexpected patterns of subsistence behavior other than a somewhat higher than normal number of commensal taxa. This is probably a result of the small sample size and would probably change to a lower percentage with a larger vertebrate sample.

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Table 1. Allometric Values Used<sup>a</sup>

Faunal Category	N	Y-Intercept	Slope	r <sup>2</sup>
Bone Weight to Body Weight				
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
Siluriformes	36	1.15	0.95	0.87
Perciformes	274	0.93	0.83	0.76
Sciaenidae	99	0.81	0.74	0.73

Otolith Length (mm) to Total Length (mm)

Sciaenidae	121	1.54	0.83	0.69
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Otolith Weight (gm) to Body Weight (kg)

Sciaenidae	148	-0.09	0.84	0.57
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The Allometric Formula:  $Y=aX^b$

where

y=biomass, total length, or body weight

a=the Y-Intercept

X=the bone weight, otolith weight, or  
otolith length

b=slope

N=the number of observations

<sup>a</sup> Reitz and Cordier 1983; Reitz, Quitmyer, Hale, Scudder and Wing 1987; Wing and Brown 1979; Wing and Quitmyer 1983

Table 2. Species List: Visitors Center.

Taxon	Count	MNI		WT gm	Biomass	
		#	%		kg	%
UID Mammal	696			1148.94	14.937	67.2
<u>Rattus</u> spp. Rat	6	4	15.4	1.76	0.308	1.4
<u>Felis domesticus</u> Domestic cat	1	1	3.8	2.63	0.063	0.3
UID Artiodactyla (Even-toed hoofs)	8			29.75	0.557	2.5
Cf. <u>Sus scrofa</u> Possible Pig	1			6.14	0.135	0.6
<u>Sus scrofa</u> Pig	9	3	11.5	82.64	1.398	6.3
<u>Odocoileus virginianus</u> Deer	1	1	3.8	5.45	0.121	0.5
Cf. <u>Bos taurus</u> Possible Cow	2	1	3.8	100.46	1.667	7.5
<u>Bos taurus</u> Cow	9	2	7.7	110.63	1.818	8.2
Caprine Sheep/Goat	1	1	3.8	5.49	0.122	0.5
UID Bird	66			29.60	0.446	2.0
Anatinae Marsh Ducks	1	1	3.8	1.23	0.025	0.1
Cf. <u>Gallus gallus</u> Possible Chicken	2			1.84	0.036	0.2
<u>Gallus gallus</u> Chicken	18	6	23.1	15.48	0.247	1.1
<u>Meleagris gallopavo</u> Turkey	4	1	3.8	10.50	0.174	0.8



Table 2, continued.

Taxon	Count	MNI		WT gm	Biomass	
		#	%		kg	%
Cf. Muscicapidae Thrushes	1	1	3.8	0.04	0.001	0.8
UID Turtle	1			2.56	0.059	0.3
<u>Chrysemys</u> spp. cooters, sliders	1	1	3.8	0.30	0.014	0.06
UID Fish	7			0.99	0.029	0.13
Siluriformes Catfishes	1	1	3.8	0.22	0.005	0.02
Cf. <u>Centropristis</u> spp. Possible Sea bass	1			1.34	0.035	0.20
<u>Centropristis</u> spp. Sea bass	1	1	3.8	0.80	0.023	0.10
<u>Haemulon</u> spp. Grunt	1	1	3.8	0.60	0.018	0.08
UID Bone				0.83		
UID Shell				1.92		
TOTAL	839	26		1562.14	22.239	

Table 3. Species List: President Street Site , Mid-Nineteenth Century

Taxon	Count	MNI		WT gm	Biomass	
		#	%		kg	%
UID Mammal	122			130.61	2.111	43.1
<u>Canis familiaris</u> Dog	1	1	16.7	2.51	0.060	1.2
<u>Sus scrofa</u> Pig	5	1	16.7	26.48	0.502	10.2
<u>Bos taurus</u> Cow	7	1	16.7	131.72	2.127	43.4
UID Bird	8			3.33	0.061	1.2
<u>Gallus gallus</u> Chicken	1	1	16.7	0.67	0.014	0.3
UID Turtle	1	1	16.7	0.22	0.012	0.2
UID Fish	3	1	16.7	0.48	0.016	0.3
UID Bone				0.16		
TOTAL	148	6		296.18	4.903	

Table 4. Species List: President Street Site, Late Nineteenth to Early Twentieth Century.

Taxon	Count	MNI		WT	Biomass	
		#	%	gm	kg	%
UID Mammal	157			378.55	5.499	32.6
<u>Sylvilagus</u> spp. Rabbit	1	1	9.1	0.73	0.020	0.1
Cf. <u>Sus scrofa</u> Possible Pig	2			16.81	0.333	2.0
<u>Sus scrofa</u> Pig	8	1	9.1	192.08	2.986	17.7
Cf. <u>Bos taurus</u> Possible Cow	8			174.60	2.746	16.3
<u>Bos taurus</u> Cow	15	1	9.1	314.27	4.651	27.6
UID Bird	37			12.08	0.197	1.2
Anatinae Marsh ducks	1	1	9.1	0.64	0.014	0.1
Cf. <u>Gallus gallus</u> Possible Chicken	1			0.36	0.008	0.04
<u>Gallus gallus</u> Chicken	13	3	27.3	17.17	0.271	1.6
Cf. <u>Meleagris gallopavo</u> Possible Turkey	1	1	9.1	2.41	0.046	0.3
Cf. Scolopacidae Sandpipers, dowitches	1	1	9.1	0.19	0.005	0.02
UID Fish	3			1.54	0.042	0.3
Squaliformes Sharks	1	1	9.1	0.31	0.046	0.3
<u>Micropogonias undulatus</u> Atlantic Croaker	1	1	9.1	0.50	0.001	0.01
UID Bone				1.52		
UID Crab				0.64		
TOTAL	250	11		1114.40	16.865	

Table 5. Species Summary: Visitors Center Site.

Summary Group	MNI		Biomass	
	#	%	kg	%
Domestic Mammals	7	26.9	5.004	83.4
Domestic Birds	6	23.1	0.247	4.1
Wild Mammals	1	3.8	0.121	2.0
Wild Birds	3	11.5	0.200	3.3
Turtles	1	3.8	0.014	0.2
Fishes	3	11.5	0.046	0.8
Commensal taxa	5	19.2	0.371	6.2
<b>TOTAL</b>	<b>26</b>		<b>6.003</b>	

Table 6. Species Summary: President Street Site.

Summary Group	Mid-19th Cent.				L 19th - E. 20th Cent.			
	MNI		Biomass		MNI		Biomass	
	#	%	kg	%	#	%	kg	%
Domestic Mammal	3	50.0	2.24	98.2	2	18.2	7.64	90.3
Domestic Bird	1	16.7	0.01	0.4	3	27.3	0.27	3.2
Wild Mammals	-	-	-	-	1	9.1	0.02	0.2
Wild Birds	-	-	-	-	3	27.3	0.06	0.7
Turtles	1	16.7	0.01	0.4	-	-	-	-
Fishes	1	16.7	0.02	0.9	2	18.2	0.47	5.5
<b>TOTAL</b>	<b>6</b>		<b>2.28</b>		<b>11</b>		<b>8.46</b>	



Table 7. Modifications Observed: Visitors Center Site.

Taxon	Stained*	Cut	Burned	Sawed	Gnawed		Total
					Rodent	Dog	
UID Mammal	3	8	23	42	2	3	81
Cat		1					1
Artiodactyl		2					2
Cf. Pig		2				1	3
Pig		2		1		1	4
Cf. Cow				1			1
Cow					2		2
UID. Bird		2	1		3		6
Cf. Chicken					1		1
Chicken	1	1			3		5
Turkey						1	1
UID Turtle				1			1
UID Bone					1		1
<b>TOTAL</b>	<b>4</b>	<b>18</b>	<b>24</b>	<b>45</b>	<b>12</b>	<b>6</b>	<b>109</b>

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 \*darkly stained bone

Table 8. Modifications Observed: President Street Site, Mid-Nineteenth Century

Taxon	Cut	Burned	Sawed	Total
UID Mammal	3	3	19	25
Pig			1	1
Cow			2	2
<b>TOTAL</b>	<b>3</b>	<b>3</b>	<b>22</b>	<b>28</b>

Table 9. Modifications Observed: President Street Site, Late Nineteenth - Early Twentieth Century.

Taxon	Stained	Cut	Burned	Hacked	Sawed	Gnawed		Total
						Rodent	Dog	
UID Mammal		4	10	1	30			45
Cf. Pig				2				2
Pig		2		2	4	1	1	10
Cf. Cow				5	5	1		11
UID Bird			1					1
Chicken	2*	4	1				1	8
<b>TOTAL</b>	<b>2</b>	<b>10</b>	<b>12</b>	<b>10</b>	<b>39</b>	<b>2</b>	<b>2</b>	<b>77</b>

\*Copper or brass stained

Table 10. Element Distributions: Visitors Center Site.

Element Groups	Pig	Deer	Cow	Caprine	Total
Head	6		4		10
Forequarters	2	1	2	1	6
Forefeet			1		1
Feet			1		1
Hindquarters	1		1		2
<b>TOTAL</b>	<b>9</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>20</b>

Table 11. Element Distributions: President Street Site.

Element Groups	Mid-Nineteenth Century		Late 19th -Early Twentieth Century		TOTAL
	Pig	Cow	Pig	Cow	
Head	1	3			4
Forequarters	1	1	4	2	8
Forefeet	1				1
Feet				12	12
Hindquarters	2	1	4		7
Hindfeet				1	1
<b>TOTAL</b>	<b>5</b>	<b>5</b>	<b>8</b>	<b>15</b>	<b>33</b>

Table 12. Number of Elements Identified for Selected Age Categories: Visitors Center Site.

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<u>Pig</u>	
Less than 2 years	1
Less than 3 years	$\frac{1}{2}$
Subtotal	$\frac{1}{2}$
<u>Cow</u>	
Less than 3 years	2
<u>Caprine</u>	
At least 10 months	1
TOTAL	$\frac{5}{2}$

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Table 13. Number of Elements Identified for Selected Age Categories: President Street Site.

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Mid-Nineteenth Century

<u>Pig</u>	
Less than 2.5 years	1

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Late Nineteenth to Early Twentieth Century

<u>Pig</u>	
Less than 2 years	3
Less than 3 years	$\frac{3}{6}$
Subtotal	$\frac{3}{6}$
<u>Cf. Cow</u>	
Less than 3 years	3
TOTAL	$\frac{9}{6}$

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Table 13: A Visitors Center Site Provenience List.

FS	Unit	Zone	Level	Area	PM	Feature
3	1	1				
4	1	2				
5	1	2				
7	1			B		
8	1			B		
10	1				3	
12	1				2	
13	1	3				
15	2	3				
16	2	2	1			
17	2	2	2			
18	3	2	1			
19	3	2	1			
20	3					5 (S.1/2)
21	3					5 (N.1/2)
22	3					7
23	3					7 (trowl.)
24	4	1				
25	5	1				
26	5					8
30	6					10
31	6	3				
32	7	2				
33	8	1				
34	8	1-2				
35	8	2				



Table 14: B. President Street Site Provenience List.

FS	Unit	Zone	PM	Feature
Mid-Nineteenth Century				
1	1	1		
3	1			3
4				1 (W.1/2)
6	1		3	
8			2	
9			5	
10		16		
11	1	1		
Late Nineteenth to Early Twentieth Century				
14	4			
15	3			
17	3			

APPENDIX II

COMPARATIVE ANALYSIS OF REDEPOSITED ARTIFACTS  
DISCOVERED IN MOUNT PLEASANT, 1987

by

Jenny L. Peabody  
College of Charleston

The following discussion is intended to be a preliminary analysis of a specific group of redeposited artifacts discovered in Mount Pleasant by Dr. Michael Trinkley of Chicora Foundation, Inc. of Columbia. These artifacts, primarily ceramics and glass, will be evaluated in depth to support the oral tradition that they originated as materials removed from the President Street site. The location of the building site is the west side of President Street between Doughty and Bee streets. Excavation by the Charleston Museum in the fall of 1985 yielded two temporal groups of artifacts, recovered from Units 1 and 2, which will be used as a basis for comparative analysis with the redeposited materials.

Prior to construction, which began in 1985, the President street site underwent physical alteration in 1982. A series of single houses built between 1800 and 1912 were relocated from the site and the foundations were razed and removed in preparation for the construction of new buildings. According to a dump truck operator, the materials removed during construction were taken to a dump site in the Mount Pleasant area. Therefore, it is possible that the redeposited materials in question originated in the President Street site.

Analysis of the redeposited artifacts began with identification and description. Since the collection was composed primarily of ceramics and glass of domestic function, it was possible to apply South's (1972) Carolina Artifact Pattern and dates of manufacture respectively in order to date the artifacts. However, this was not a controlled excavation, and the normal Terminus Post Quem analysis was therefore not applicable. Without a TPQ, the method of analysis was necessarily limited to date ranges and functions of the artifacts.

The ceramics of the redeposited materials range in date from 1766, with two fragments of plain creamware, to the mid-1900s, with five fragments of plain whiteware. The vessel form, shape and thickness of all the ceramics point to their use as domestic vessels of various expense. The Mean Ceramic Date of this assemblage is 1854, which corresponds with the dating of artifacts from both units of the President Street excavations.

The refined earthenwares include the creamware and whiteware mentioned, as well as decorated pearlware and one fragment of Flow Blue whiteware. The Flow Blue whiteware and the green shell edged poorly executed pearlware have tight date ranges for manufacturing, placing them in the early to mid nineteenth century. The fragment of distinctly dark blue transfer printed pearlware also has a tight date range from 1816-1850, placing it within the same period.

The three fragments of porcelain in the collection are of comparatively poor and less expensive quality. The Canton blue willow fragment is of a pattern and type that emerged late in the export dates of Chinese porcelain. The date range of this type of crudely made porcelain is from 1800 through 1830. Later still is the date

range of the single fragment of white glazed porcelain, from 1825 to 1915. The one fragment of decal polychrome transfer porcelain cannot be dated prior to 1900, since it was not until the turn of the century that this process was applied to porcelain as well as whiteware. Thus the single fragment of Chinese porcelain and the two fragments of American porcelain indicate a mean date of around 1874, which again corresponds to the dates of the President Street site.

The dominant percentage of whiteware among the redeposited material indicates a mid to late nineteenth century accumulation, as the transition from pearlware to whiteware did not begin until the 1820s. Whiteware was cheaper, and was utilized as a source of everyday tableware in domestic households. The five fragments include a handle, probably from a pitcher or other type of serving vessel, which is decorated with a molded raised design common on tablewares in the late nineteenth century.

The glass fragments found among the redeposited material also indicate domestic function. This lends validity to the supposition that these artifacts originated in a purely domestic site. Although there is no standardized way of dating glass as the manufacturing dates vary considerably, it is possible to analyze the methods and date of manufacture of the glass and roughly determine the most probable period of common usage.

The most identifiable of the glass artifacts was a completely intact, clear bottle, approximately 5 inches in height and rectangular in shape. Several characteristics, including a slightly pebbly surface, small molded seams, and a raised number on a side panel, indicate that the bottle was blown in a contact mold. This particular shape and form of lettered paneled bottle is typical of the type used as medicine bottles in the latter half of the nineteenth century. As this type of bottle would be common in domestic usage after 1867, it is assumed that this bottle supports the mid to late nineteenth century date range of the redeposited material (Lorraine 1968).

Seven other fragments of what appear to be the same type of clear lettered paneled bottle glass, indistinguishable makers marks appearing as the raised letters, may be assumed to have similar date ranges. The one large fragment of what appears to be clear bottle glass, formed in a two-piece hinged bottle mold, was also common in domestic usage from 1840 (Lorraine 1968). The remaining fragments of glass, which include two fragments of green bottle glass, probably molded, and one fragment of window glass, cannot be precisely placed. However, it should be noted that they do not conflict with the mid nineteenth century date range of the other artifacts.

The one artifact that seems to conflict with this date range was a large iron decorated object approximately six inches in height and four in width. Its shape initially indicated some sort of electrical socket cover, as there was a series of small wires protruding from what might be the seat of the electrical housing. However, closer inspection indicated housing for some type of buzzer or ringing device and the location of what might have been a small light bulb. The voltage, 125, still legibly printed on the back,

together with the partial manufacturer's name, "Levit\_\_\_", led to the conclusion that this was some sort of doorbuzzer manufactured by the Levitron Company between 1900 and 1920. As voltage was standardized around 1920 to 110 and items of this nature were probably not common to households until the turn of the century, the 1900 to 1920 date range is a valid assumption. This distinct artifact, together with the late manufacturing dates of the decal porcelain and the whiteware, suggest that the artifacts were recovered from the area of former marsh, in the vicinity of Unit 2.

Unit 1 of the President Street site yielded a dominant percentage of mid nineteenth century artifacts and an earlier date of deposition than Unit 2. Original construction on the excavation sites of Unit 1 began in 1800 on the highland area of President Street in the historic district of Cannonsboro. Analysis of the soil stratigraphy revealed that the area was not filled, being high ground, and thus contained no artifacts from previous periods.

As the block developed and expanded later in the nineteenth century, it became necessary to fill the series of mill ponds that surrounded the highland area. Unit 2 is located on the filled area and its soil stratigraphy and artifacts reflect a conglomeration of late nineteenth century artifacts and fill materials. Later, the area of Bennett's Mill Pond was drained and filled, resulting in an accumulation there of early twentieth century artifacts. Unit 2 also contained some early nineteenth century material, indicating filling, or at least refuse disposal, on a limited scale during this earlier period.

The historical background of the President Street site as a residential and non-industrial neighborhood is supported by the accumulation of artifacts from both units. In both units, kitchen and architectural artifacts dominate in percentage, while there is no evidence of industrial accumulation.

The ceramics and architectural artifacts of this site exhibit no extreme deviation from what might normally be expected from a domestic site. The ceramics from these assemblages are varied in type yet revealed matching sherds amongst the individual zones from each unit. This supports the pattern, typical of domestic sites in which household garbage was buried in successive layers. The architectural artifacts composed mainly of nails and roofing tile, are also typical of the type of domestic residence said to have existed on this tract of land.

The redeposited artifacts exhibit no industrial/commercial influence. Domestic in function, the dominant percentage of kitchen ceramics are of the same pasts, types and decoration as the President Street assemblages. They are dated, according to the Mean Ceramic Date formula, at 1854, well within the confines of the historically documented President Street date range. The glass artifacts, analyzed by the method and date of manufacture, supports the ceramic date as well as the domestic function of the site.

It may be concluded that the redeposited artifacts did originate



at the President Street site based upon artifact analysis and the assumption that the Mount Pleasant area was used as a dumping ground for the substructure soil of the nineteenth century houses removed from the President Street site. Given a greater amount of material for analysis, it might be possible to assert a correlation between the redeposited material and a specific unit. This small assemblage, however suggests that these materials were removed from the area of filled marsh, in the vicinity of Unit 2.

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