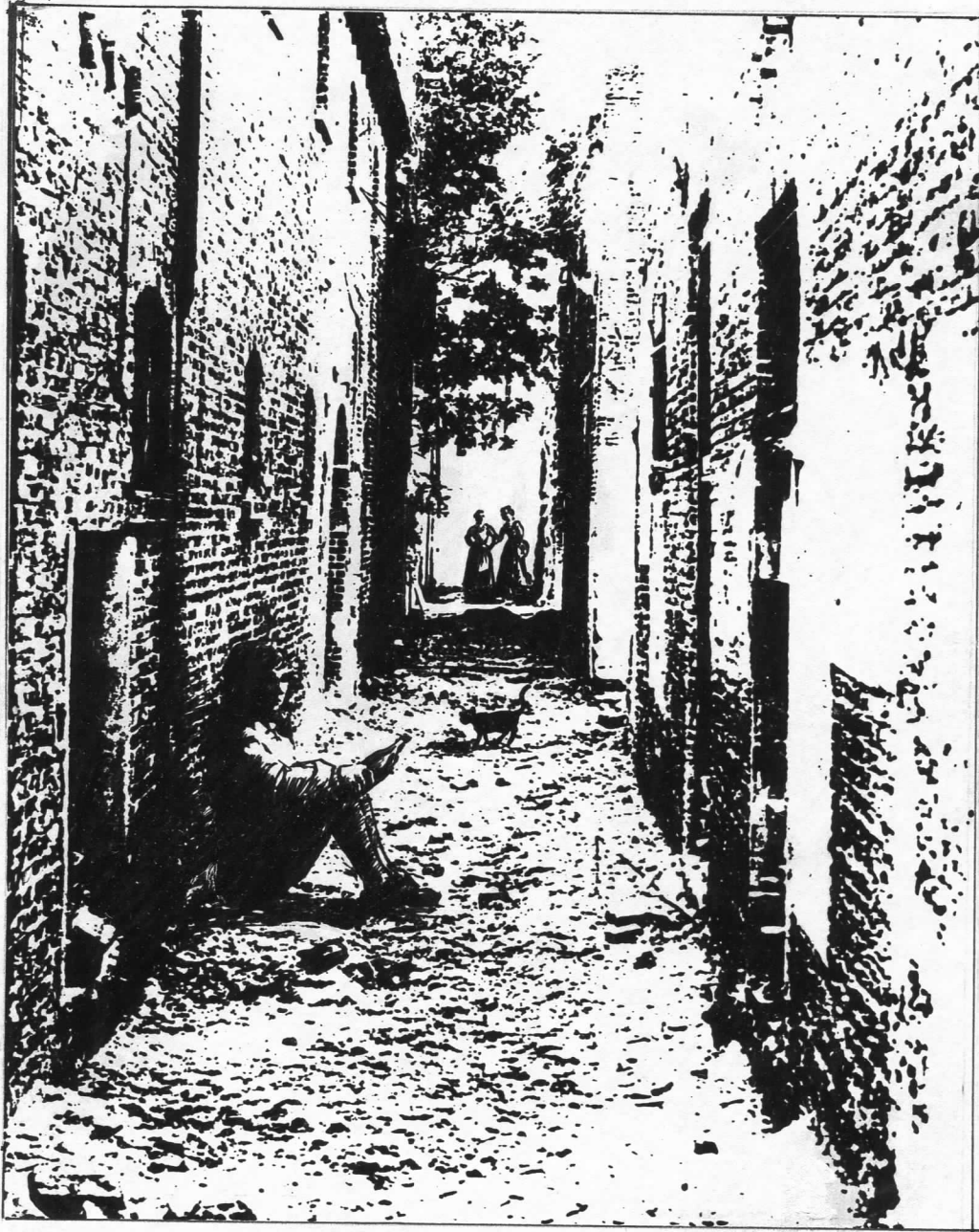


ARCHAEOLOGICAL INVESTIGATIONS AT LODGE ALLEY



by Martha Zierden, Jeanne Calhoun, and Elizabeth Paysinger

The Charleston Museum

Archaeological Contributions 5

July 1983

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CHARLESTON, SOUTH CAROLINA

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ABSTRACT

In January 1983 the Charleston Museum conducted limited archaeological excavations in Lodge Alley and an adjoining backlot courtyard. Excavations of 135 square feet resulted in the recovery of closed contexts and sheet deposits spanning the early eighteenth through the mid twentieth centuries. Historical research indicates that the properties were located on the northern fringes of the city's commercial zone during the colonial period, and within an area of mixed residential-commercial use throughout the nineteenth century. The documentary record suggests that the alley was used for primarily residential purposes by lower class citizens. The 38 State courtyard served a dual residential-commercial function, and was probably occupied by middle class citizens. Research focused on an examination of socioeconomic status and site function, comparing the Lodge Alley and 38 State assemblages. Faunal and floral analyses suggest an urban subsistence strategy which contrasts with that of comparable rural sites.

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CHAPTER I

INTRODUCTION

In January 1983 the City of Charleston contracted with the Charleston Museum to conduct limited archaeological excavations at the Lodge Alley site in downtown Charleston. Funding was provided by an Urban Development Action Grant to the City of Charleston. The block bounded by Cumberland, East Bay, State, and Queen streets is currently the site of revitalization efforts; several nineteenth century commercial structures, primarily warehouses, are being converted to a hotel/condominium complex. The City of Charleston, realizing the archaeological value of the site, and the importance of archaeological research to the elucidation of certain aspects of the history of the city, made funds available for investigation of the site, despite the fact that the project involved very little ground-disturbing activities. Excavations were focused on Lodge Alley itself and the rear courtyard of 38 State Street, in the south-central area of the block.

Archaeology in Charleston

Archaeological investigations in Charleston are oriented to meet several goals simultaneously. An important goal of the Charleston Museum's research program is public interpretation and education. Because archaeology can demonstrate details not available in historical sources, it is seen as an important vehicle for providing a more complete picture of the history of the city and the many groups who contributed to its development. Historical studies were the earliest thrust of historical archaeology. Gradually such studies shifted from an examination of shrines of national importance to studies of the "anonymous" citizen, of varying ethnic and social affiliations (Deagan 1982; Singleton 1980; Otto 1975; Fairbanks 1972, 1983; Schuyler 1980; Trinkley 1983). Such studies in Charleston can result in a more objective view of American history.

In addition to providing historical data, research in Charleston is aimed at generating data useful in addressing questions of anthropological interest (Cleland and Fitting 1968). Based on the quantification and pattern recognition approach espoused by South (1977), archaeological data from Charleston, and other areas, are used to address the issues of ethnicity, status variability, settlement and land use patterns, and adaptation to first frontier, and then changing urban, conditions (Zierden and Calhoun 1983).

In an attempt to efficiently integrate the preservation and/or recovery of archaeological resources with the development goals of the

City, the Charleston Museum initiated the preparation of a city-wide research design. This project utilized the skills of an archaeologist and a historian in a selective study of the documentary record. This study examined information relevant to the understanding of ethnic and social variability, diversity of site function, economy, and material culture, as well as that relevant to the physical formation of the archaeological record. The preparation of such a document results in a community focus, rather than a site-specific focus, for excavation projects, as a result of the formulation of broad research goals.

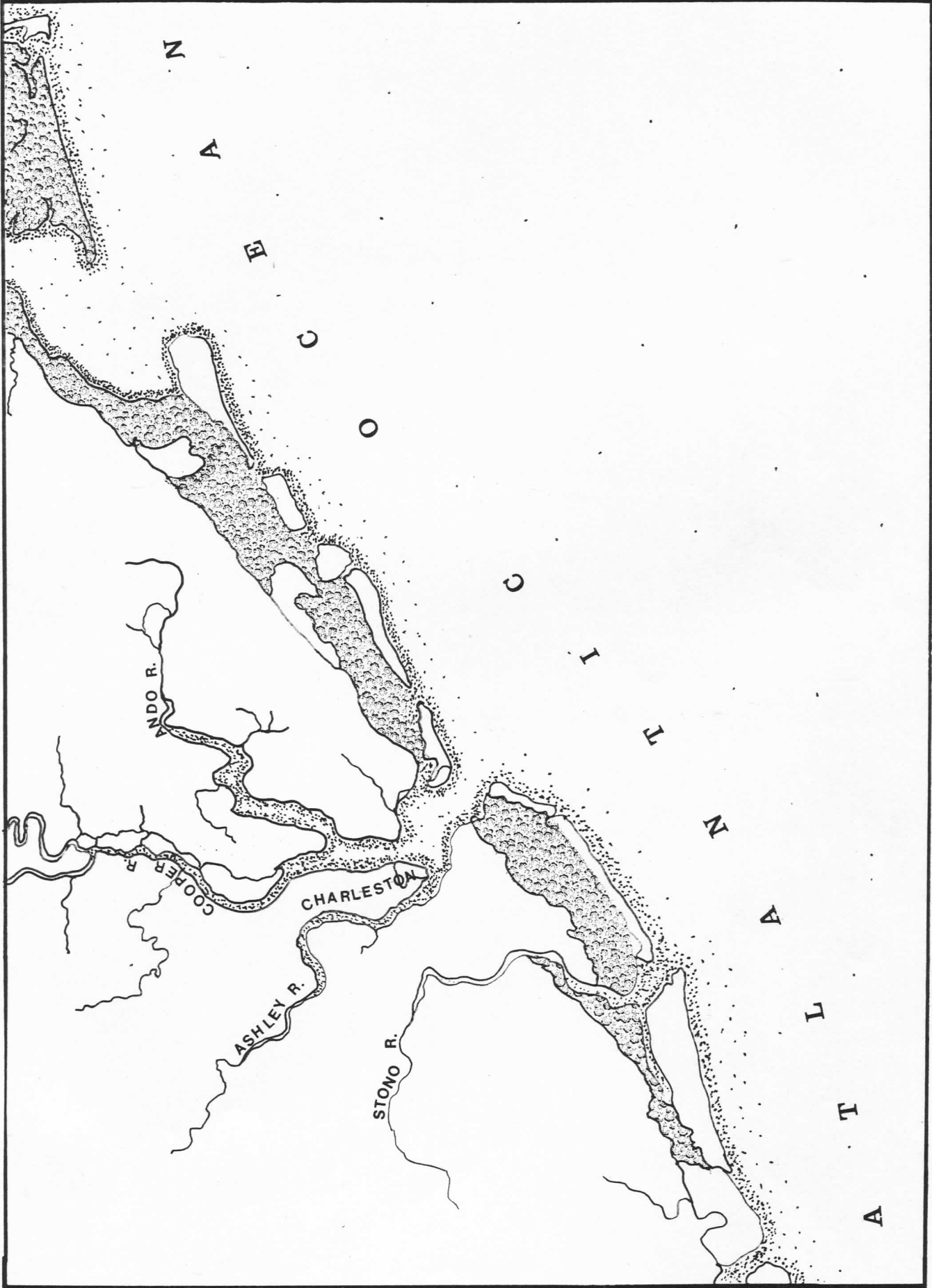
This is essential for the development of anthropological archaeology in Charleston, in that the program was developed under a cultural resource management orientation; sites are most often selected for testing and excavation on the basis of impending construction activity, rather than to provide data for specific studies. Moreover, samples obtained from these excavations are often quite small, and are more meaningful within a larger framework. The small sample excavated from Lodge Alley was utilized in comparative studies of socioeconomic status and site function.

The Lodge Alley Site

The Lodge Alley - 38 State Street site is located just north of Broad Street, within the oldest section of the city. The area was on the northern fringes of the frontier settlement, and was probably peripheral to the seventeenth century town (Figure 1).

Lodge Alley, or Simmons Alley, as it was known during the colonial period, was built in the early eighteenth century, and by 1739 was intensely occupied (Roberts and Toms 1739). The alley is within the core commercial area of the colonial city (Calhoun Paysinger and Zierden 1982). This portion of Charleston was intensely utilized by colonial citizens for commercial and residential purposes. The areas along East Bay and State Streets served this dual function. The heavily utilized frontage along the alley was primarily residential (Figure 2).

By the late eighteenth century, emphasis had shifted to East Bay Street and State Street, respectively, with a decreased utilization of the Lodge Alley frontage (Petrie 1788; Bridgens and Allen 1852). The alley was the site of numerous boarding houses and the home of lower status citizens (CCD 1816, 1822). By the mid-nineteenth century, however, the alley was mostly unoccupied, as the block contained unoccupied brick structures, presumably warehouses (CCD 1836, 1855). This is part of a general trend for the area, as the waterfront became more commercial and less residential as the nineteenth and twentieth centuries progressed (Zierden 1983). The present development of condominiums on the block is part of revitalization efforts for downtown Charleston.



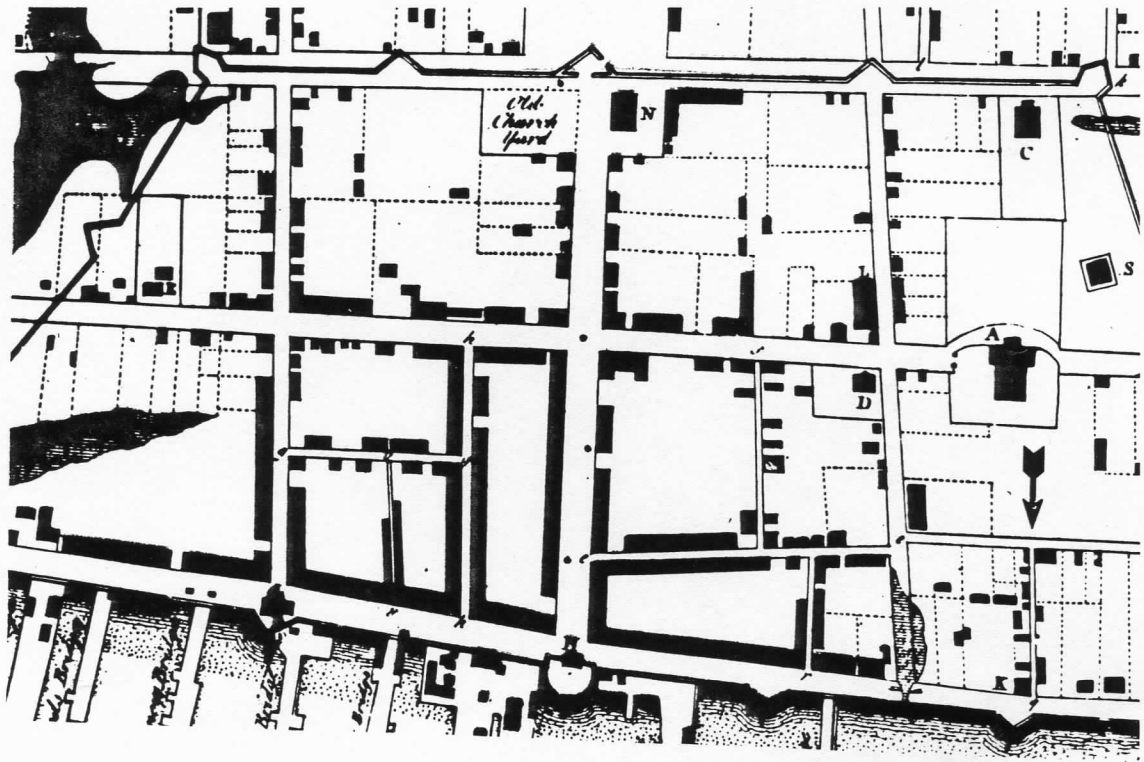


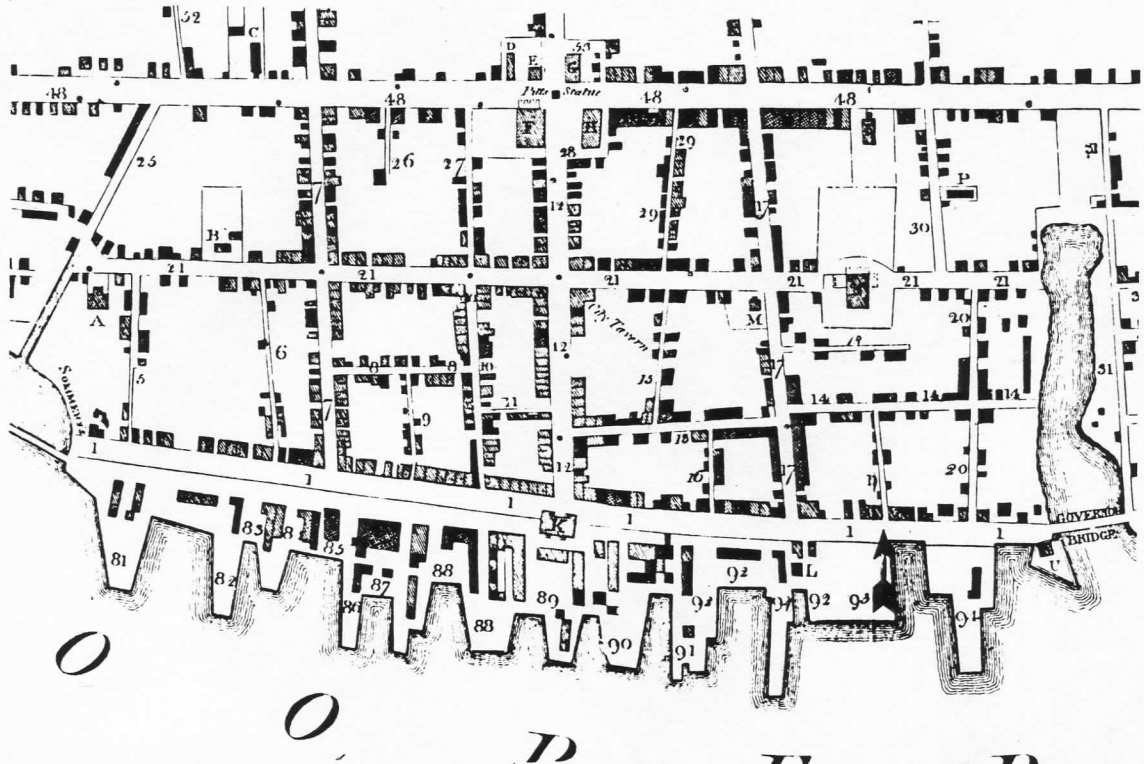
Figure 2

Changing Land Use Patterns for the Lodge Alley Area,
as Demonstrated by Cartographic Sources

Figure 2a shows a portion of the 1739 Roberts and Toms map. The Lodge Alley frontage is densely occupied in comparison to the adjoining frontage along East Bay and State Streets. Lots in this peripheral area are still comparatively large.

Figure 2b shows roughly the same area of the 1788 Petrie map. Occupation of the alley is less dense than during the colonial period, and occupation along East Bay and State Streets has intensified. The density of occupation along the East Bay frontage in comparison to blocks to the south suggest that this more northerly area is still peripheral to the commercial activity of the city.

Figure 2c shows a portion of the 1852 Bridgens and Allen map. The alley is almost completely unoccupied while the East Bay and State Street frontage is filled. Note especially the long, linear configuration of structures in this portion of the city.



Focus of Research

Although a number of research questions have been proposed for Charleston (Honerkamp, Council, and Will 1982; Zierden and Calhoun 1983), comparative research to date has focused on two subjects, site function and social variability. These questions were addressed in the Lodge Alley project.

Hypothesis 1: A recent focus of historical archaeology in general and urban studies in particular has been the delineation of social status (Deagan 1983; Spencer-Wood and Riley 1981; Cressey et al. 1982). Using the documentary record as a control, the socially stratified urban center can serve as an excellent data base for recognizing social status in the archaeological record. Previous studies in Charleston have examined an eating establishment utilized by middle- and upper-class citizens during the late eighteenth century (Zierden et al. 1982), and business-residences occupied by presumably middle class citizens during the nineteenth century (Herold 1981; Honerkamp, Council, and Will 1982).

Proposition 1-a: Historical research suggests that during the eighteenth and nineteenth centuries, Lodge Alley was occupied by individuals of low social status. This low status is expected to be reflected in diet and related kitchen artifacts. Previous studies indicate that diet may be sensitive to ethnic (Cumbaa 1975), environmental (Reitz 1983), and status (Otto 1975) affiliations. Associated with diet is the choice of appropriate artifacts used in food preparation, consumption, and storage (Otto 1977).

Proposition 1-b: Status should be reflected in sociotechnic (Binford 1962) items, specifically kitchen, clothing, and personal items. Although artifacts functioning as sociotechnic items may be found in any artifact category, it is expected that the artifact categories most sensitive to social status would be those containing more highly curated objects, rather than those items involved in the more mundane affairs of daily life (Zierden 1981). This would include items of adornment and personal possession. In addition, certain types of kitchen artifacts, such as wine goblets and oriental porcelain, are expected to be sensitive to social status (see Poe n.d.).

Hypothesis 2: A second focus of archaeological research in Charleston, and historical archaeology in general, has been the delineation of site function through analysis of archaeological materials (Lewis 1977; Honerkamp 1980; Honerkamp, Council and Will 1982; Zierden et al. 1982). Recent revitalization projects in Charleston, and thus recent archaeological investigations, have been located in sections of Charleston traditionally associated with a dual residential/commercial occupation (see Calhoun, Paysinger, and Zierden 1982). Recognition of this dual function archaeologically has been a problem in recent studies. A better understanding of this phenomenon is important to future studies in Charleston, in that future revitalization projects requiring archaeological research will be located within the area of the city historically associated with this dual occupation.

Proposition 2-a: Researchers have suggested that site function may be revealed by a comparison of empirical artifact profiles with the Carolina Artifact Pattern (South 1977). According to South's methodology artifacts are classified according to assumed function. An underlying assumption is that quantification of these functional groups will reveal a patterned regularity which, in turn, represents patterned behavior of the population being studied. The Carolina Artifact Pattern, as devised by South, reflects regularities of domestic behavior at British colonial sites; deviations from the mean of the Carolina Artifact Pattern should reflect specialized site activity.

Recent research has suggested that retail commercial activity will be poorly represented in the archaeological record. Such businesses engaged in the transfer, rather than production, of goods; such activities are unlikely to generate byproducts to be discarded (Lewis 1977; Honerkamp, Council, and Will 1982). In contrast, residential/craft sites are more likely to contain at least some byproducts of the craft activity. A comparison of the artifact profiles from Lodge Alley and 38 State Street with those from other urban sites, and to the documentary record, should provide information on site function.

Proposition 2-b: Previous research indicates that in certain cases commercially related materials may be present in the archaeological record as a result of different types of site formation processes (see Schiffer 1977). Studies indicate that deposits that are the result of abandonment activities, such as those resulting from fires, and major cleanup, may contain evidence of commercial activities. In contrast, deposits resulting from discard or loss at dual function sites are likely to be overwhelmingly domestic.

In addition to addressing these questions, the Lodge Alley - 38 State Street data will provide information on the daily life and activities of eighteenth and nineteenth century Charlestonians. The data will provide information on early crafts and industries. Such information will be utilized in the Charleston Museum's various public programs.

CHAPTER II

HISTORICAL BACKGROUND

The majority of the European immigrants to the North American colonies in the seventeenth and eighteenth centuries were not scions of the aristocracy. Primarily members of the middle class, these adventurers sought in the New World the opportunities they were virtually denied in the Old. In the colonies, there was the chance to improve both one's social and financial standing. The plentitude of land made its possession, a mere dream for most Europeans, a distinct possibility. As the colonies grew more settled, however, it became increasingly difficult for small farmers, tradesmen and artisans in the older settlements to acquire land or begin businesses. Although social mobility was still common, the Northern merchants and Southern planters had come to dominate the economic and political life of their respective provinces.

Early in the eighteenth century, Charleston had become the base from which the wealthy planters ruled the colony (Bridenbaugh 1955:9). These planters employed large forces of slaves who worked for their masters in the house, field, and around town. The racial stigma which thus came to be attached to manual labor created a schism between those who owned even one slave and those who had to depend upon the toil of themselves and their families. As slavery became increasingly prevalent, the social order which developed in Charleston became much more stratified and less mobile (Adams 1971:216). The increasing importance and prosperity of Charleston also resulted in decreasing economic opportunities for the lower and middle classes. Every increase in the size of the unit of trade made it proportionately more difficult for the little men to compete successfully with a capitalist provided with ample funds (Adams 1971:296).

The growth and development of Charleston's economy was the result of both domestic and international factors. Throughout the colonial period, England and her colonies were involved in intermittent conflicts with other European powers and their dependencies. As a major British colonial seaport, Charleston's trade waxed and waned according to the fortunes of war. Wartime created innumerable hazards for shipping; increased insurance rates and the risk of losing an entire vessel and cargo made it difficult for any but those buttressed by wealth to engage in overseas trade. As this commerce had been the foundation of most mercantile fortunes in Charleston, this resulted in an increase in income for the established merchants and decrease in speculative economic opportunities for the middle and lower classes. Privateering, an extremely risky business, was also open primarily to the wealthy; the poor could only participate in such potentially lucrative adventures by signing on as crew (Adams 1971:296). The end of the colonial era lessened the opportunities for enrichment through wartime speculation. It did not, however, help close the gap between the rich and poor in Charleston.

In 1842, Louis Fitzgerald Tasistro noted,

There is no city in the Union where the gradations in the great social system are so distinctly marked as in Charleston; each class seems to shun the other as a moral leprosy; there is less amalgamation of orders than anywhere else (Clark 1973:185).

Respected white craftsmen did exist in Charleston; they were paid high wages and, sometimes, rose in society. Often, however, Charleston's craftsmen found their competition with black artisans degrading and financially unrewarding. The psychological conflict in white and black artisans competing for, and performing, identical tasks often led to a deep aversion between the two groups. Frederick Douglass, himself a participant at one time in this economic warfare, declared that,

The slaveholders...by encouraging the enmity of the poor, laboring white man against the blacks, succeeds in making the said white man almost as much a slave as the black slave himselfThe slave is robbed, by his master, all of his earnings, above what is required for his bare physical necessities; and the white man is robbed by the slave system, of the just results of his labor, because he is flung into competition with a class of laborers who work without wages....The impression is...made, that slavery is the only power that can prevent the laboring white man from falling to the level of the slave's poverty and degradation (Douglass 1969:309-311).

In a society where slavery was synonymous with labor, many artisans came to scorn their work and hired or bought slaves to carry on their business (Nevins 1947:491). Others migrated to the northern colonies where wages were lower but their social status higher (Sellers 1970: 103). The frustration of the white mechanics in Charleston was officially recognized and, as early as 1770, formally registered in a Grand Jury Presentment which deplored the,

general supineness and inactivity in magistrates and others, whose duty it is, to carry the Negro Acts into execution; and we recommend, a thorough revival and amendment of the said acts; in particular, so as to prevent idle slaves interfering, with poor honest white people's supporting themselves and families amongst us, which we apprehend is, in some measure, owing to such slaves being suffered to cook, bake, sell fruits, dry goods, and other ways traffic, barter, and c. in the public markets and streets of Charleston (SCG Jan 25, 1770).

In writing of Charleston in 1773, Josiah Quincy remarked,

the inhabitants may well be divided into opulent and lordly planters, poor and spiritless whites and vile slaves (Bridenbaugh 1974:64).

He also commented on the absence of a viable middle class. Apparently, the denizens of Lodge Alley and 38 State Street were victims of this economic chasm. The majority of these Charlestonians were forced by economic circumstances to rent their homes. Consequently, few of these people are mentioned in the records utilized in a traditional title search. These documents record the names of the property owners and only rarely those of renters. Thus, in this case, that approach was largely irrelevant and, in fact, misleading. To compensate, newspapers were scoured for the years 1730-1770, city directories for the period following and, finally, the 1861 Census.

Lodge Alley

Small, dank and in close proximity to the fish market, Lodge Alley were undoubtedly seldom the choice of those who could afford to choose. Due to the difficulties inherent in studying such a relatively undocumented group of people, the South Carolina Gazette was utilized in the attempt to ascertain exactly who was living on Lodge Alley for the period 1732-1770. The presence of five occupants, three of whom were teachers, was revealed through the newspaper's advertisements.

Isaac Greenwood advertised in 1744 that he would teach in his chamber in the house where the Surveyor General keeps his office, in Simmons' (Lodge) Alley (SCG Dec. 31, 1744). In 1764, Osborne Straton,

from London, some years writing master at Mrs. Hoyland's boarding school, now teacher for the South Carolina Society; keeps evening school at his house the corner of Simmons' (Lodge) Alley, in Union Street...four young gentlemen may be boarded and educated (SCG Dec. 24, 1764).

The exact date of Alexander Alexander's school in Lodge Alley is unknown. In September, 1769, he advertised that he would open an evening school at his house on the Bay, a few doors from the corner of Queen Street (SCG Sept. 7, 1769). On November 30, 1769, he had for rent a large and commodious store in Simmons' (Lodge) Alley, contiguous to the Bay (SCG Nov. 30, 1769). He then gave notice, on November 6, 1770, that his evening school had opened the previous night at his house on the Bay. In 1773, the announcement of the purchase of a Lodge Room by the Mariners Lodge of Masons described the building as having been the school room of William Johnson and, afterwards, of Alexander Alexander (SCG May 31, 1773).

Teachers in colonial Charleston were numerous. Some were merely seeking employment in between other, more remunerative jobs. Others were fine teachers and assumed respected positions in the community in this, and other, capacities. Many, however, were ill-equipped for the role they were assuming. In 1751, New York had

twenty-two writing masters, only six of whom were considered "tolerably qualified" (Bridenbaugh 1955:175). Little information is available about Isaac Greenwood and William Johnson. Isaac Greenwood's advertisement in the South Carolina Gazette of December 31, 1744, gave his degree, A.M., and listed his subjects: arithmetic, trigonometry, surveying, navigation, accounts, gauging, dialling, geography, astronomy, algebra, conic sections, flexions and natural philosophy (Bowes 1942:133). William Johnson, whose first notice appeared on October 5, 1767, taught writing, arithmetic, accounts, and mathematics (Bowes 1942:135). Osborne Straton was one teacher in Charleston who did become a well established pedagogue. Although his social position as a teacher for the South Carolina Society was not high (Rogers 1980:98), he went on to found the "British Academy on the Green" where, in 1769, he made a novel experiment in coeducation which soon became an accepted procedure (Bridenbaugh 1955:374).

Two other residents of Lodge Alley were discovered during the search of the South Carolina Gazette. In an advertisement in the newspaper of January 19, 1769, Elinor Bolton flaunted herself as a "pastry cook from London, late house keeper to Lord Charles Grenville Montague" (SCG Jan. 19, 1769). By December, 1770, her notice merely stated, "Elinor Bolton, Pastry Cook, continues to make, when bespoken, all sorts of pastry at her house in Simmons' (Lodge) Alley..." She also did clear starching and cleaned blond lace (SCG Dec. 11, 1770). Mary-Brown Packwood, another resident of Lodge Alley advised the public in 1770 that she did clear starching, lace mending and dressed silk stockings. She also had two rooms to let, ready furnished, with use of a kitchen and cellar, at her house in Simmons' (Lodge) Alley (SCG April 5, 1770).

The survey of the South Carolina Gazette ended in 1770. Unfortunately, Charleston City Directories were not compiled until 1790. Twelve of these, ranging from 1790 to 1855, were scoured for the names and occupations of those living on Lodge Alley (Table 1).

The lack of rapid, inexpensive transportation made it necessary for those unable to afford either the luxury or the time entailed in using a private carriage to locate themselves either in or near their place of business. In a port city, those men who relied upon the sea for their livelihood made up a significant portion of the working class (Bridenbaugh 1955:86-87). These mariners needed inexpensive lodgings near the wharves. In 1793, Henry Jones, a ship carpenter signed a year's lease for a lot in Lodge Alley (CCRMCO K-6:126). The City Directories from 1790 - 1855 show the occupations of fourteen Lodge Alley residents as being directly related to the sea. There were undoubtedly more of these workers residing in the many boarding houses listed. Apparently, for mariners Lodge Alley was, if not a desirable, at least a practical abode.

Table 1

Inhabitants of Lodge Alley
Listed in City Directories

1790

1. Milligan, John, inspect. cuts., 3 Lodge Alley
2. Masonic Lodge #2, Lodge Alley

1796

1. Daulton, Peter, captain, Lodge Alley
2. Jones, Henry, ship carpenter, 3 Lodge Alley
3. Kiffick, Francis, mariner, 2 Lodge Alley

1801

1. Hopkins, Benjamin, 4 Lodge Alley
2. Johnson, John, cooper, 3 Lodge Alley
3. Jones, Henry, ship carpenter, 5 Lodge Alley
4. Moderen, Jane, Union Street and Lodge Alley
5. Quigyn, David, mariner, 6 Lodge Alley

1802

1. Harrison, J., rigger, Lodge Alley
2. Mitchell, Maria, nurse, Lodge Alley
3. Moderen, James, boarding house, Lodge Alley
4. Quigin, David, boarding house, Lodge Alley
5. Thompson, Thomas, boarding house, Lodge Alley

1803

1. Bennet, Afher, house carpenter, 3 Lodge Alley
2. Quigging, Mrs., boarding house, Lodge Alley

1806

1. Bruce, David, mariner, 7 Lodge Alley
2. Helfred, John, constable, 3 Lodge Alley
3. Kelley, John, pilot, 2 Lodge Alley
4. Quigging, Mrs., boarding house, 3 Lodge Alley
5. Williamson, Hannah, seamstress, 6 Lodge Alley
6. Wilson, John, mariner, 5 Lodge Alley
7. Winn, Joseph, eating house and tavern, Lodge Alley

1807

1. Bean, James, mariner, Lodge Alley
2. Elsworth, Thos., mariner, 6 Lodge Alley
3. Elsworth, Susannah, seamstress, 6 Lodge Alley

Table 1, cont.

4. Evans, Thomas, guardman, 5 Lodge Alley
5. Fillison, Thomas, boarding house, 7 Lodge Alley
6. Gayner, Thomas, boarding house, 6 Lodge Alley
7. Otto, Frederick, boarding house, 4 Lodge Alley
8. Shaady, Michael, boarding house, 5 Lodge Alley
9. Suydam, guardman, 5 Lodge Alley
10. Williamson, John, merchant, 2 Lodge Alley
11. William, Hannah, seamstress, 9 Lodge Alley

1809

1. Bright, Susannah, boarding house, 4 Lodge Alley
2. Coleman, Samuel, mariner, 5 Lodge Alley
3. Nelson, Christopher, mariner, 5 Lodge Alley
4. Quiggin, Mary, boarding house, 7 Lodge Alley
5. Smith, William, mariner, 2 Lodge Alley

1816

1. Lothrop's Wharf, end Lodge Alley

1819

1. Hinson, Sarah, seamstress, Lodge Alley

1822

1. Calder, Alexander, jr., baker, Lodge Alley
2. Grieg and Calder, bakers, Lodge Alley
3. Grieg, Alexander, baker, Lodge Alley
4. M'Guire, Hugh, 171 East Bay, cor. Lodge Alley

1855

1. Paul, John, grocer, cor. State and Lodge Alley

The presence of the four seamstresses listed in the Charleston City Directories as living on Lodge Alley is also easily understood. Some Some seamstresses, of course, undoubtedly did quite well in their profession. Many women, however, did their own sewing while others had slaves to do this work. Women without slaves to carry on a business or a husband to start one were virtually excluded automatically from many professions. Sewing was one of the few genteel occupations open to them. Even the reputation of seamstresses, however, was not free of suspicion. Joel Best, in his article "Careers in Brothel Prostitution: St. Paul, 1865-1883", asserts that some prostitutes, in an attempt to disguise the true nature of their profession, would list themselves as involved in one of the needle trades. In St. Paul's census of 1880, two young females living with George and Sarah Kimball, a notoriously unsavory couple with a long history of arrests for managing brothels, described themselves as dressmakers. This euphemism was so well known in St. Paul that the town's leading newspaper sometimes used the term "plain sewing" to mean prostitution. Obviously, this is only one city among many. It does, however, lead to interesting, if slightly malicious, speculation (Best 1982:600).

Alexander Calder, listed in the 1822 Charleston City Directory as a baker, bought one Lodge Alley lot in 1807 from John H. McCall (CCRMCO U-7:191) and another from John Oeland in 1821 (CCRMCO H-9:179). In 1834 he sold his Lodge Alley property to James Ross (CCRMCO C-10:149). In the Charleston Census of 1861, the Estate of J. Ross is listed as owning numbers one and three on the south side of Lodge Alley. Each of these lots had one brick building on it. One of these buildings is listed as unoccupied, while the other has the notation that it was occupied but, contrary to common practice, does not give the name of the occupant (Charleston City Census 1861). In addition to the two pieces of property listed as belonging to the estate of J. Ross, there are three other brick buildings on the alley. One of these is occupied. The other two, however, are both store houses, one of which was not being used (Charleston City Census 1861). By 1861, this portion of the city had changed from a combination residential/commercial to a commercial, wholesale area. Lodge Alley did the same.

38 State Street

A study of newspaper advertisements in the South Carolina Gazette for the period 1732 - 1770 suggests that State Street, along with other thoroughfares running a perpendicular angles to East Bay Street, was not as commercially important as Broad, Tradd and Elliot Streets (Calhoun, Paysinger and Zierden 1982). Craftsmen more often utilized these perpendicular streets than did merchants and factors, who preferred locations on Broad, Tradd and Elliot Streets. Thirty eight State Street is a relatively undocumented lot in the land use history of Charleston. It, along with numerous other pieces of property, was owned by Alexander Gillon.

Alexander Gillon was born in Rotterdam in 1741. The son of a wealthy family (McCrary 1900:32n-34n), he served an apprenticeship in a Dutch mercantile house and, in 1762, moved to London. In 1766, he immigrated to Charleston. By this time, Alexander Gillon was a wealthy sea captain. He continued this profession and also began his successful career as a merchant. In 1768, he advertised for sale at his store in Broad Street goods imported from St. Mary's and Sicily (SCG August 8, 1768). One year later, he gave notice of a shipment from Holland and Sicily which included, among many other things, long and short Dutch pipes, Delft dishes and plates, gallon jugs, empty cases, bottles of all sizes, breeding and common bird cages, assorted ship chandlery and hearth and chimney tiles (SCG March 9, 1769).

In January, 1773, Alexander Gillon established A. Gillon and Company with his two stepsons, John-Splatt and William Cripps, and Florian Charles Mey (Grimball 1951:10). A. Gillon and Company was reorganized in 1774. At this time, John-Splatt Cripps and Florian Charles Mey bought all of the stock belonging to A. Gillon and Company and formed the firm Mey and Cripps (Grimball 1951:11).

Alexander Gillon did not, however, relinquish his mercantile career. At the outbreak of the Revolution, he was actively engaged in trade and maintained a correspondence and credit unsurpassed in South Carolina or, perhaps, the North American colonies. In Charleston, he owned a residence on East Bay Street which fronted for a hundred feet on the river, a parallel water lot running to the channel, and a dock contiguous to the Exchange. The location of these properties is marked even now by Gillon Street. In addition, he owned fifteen lots on Meeting, Hasell and King Streets and a plantation of 5,500 acres on the Congaree River. Gillon himself assessed these and his other properties, along with their appurtenances, at 30,000 pounds (Smith 1908:189).

When trouble came to his adopted home, Alexander Gillon was not long outside the fray. In October, 1775, he made a contract with Congress in which that body and he would each advance 10,000 pounds sterling in order to import war materiel. This venture was apparently a success for, in the beginning of 1776, the ships returned safely, two of them to South Carolina, with the desired munitions (Smith 1908:190).

In 1778, the South Carolina Legislature decided to either have built or purchase three frigates in France and chose a commodore and three captains to command them. Gillon, who had retired from his business in May of 1777, was commissioned as commodore. He sailed for Europe in September, 1778, and reached France early in 1779. There he sold his cargo of indigo, rice and tobacco to raise the money necessary to supply the three eagerly anticipated frigates of the South Carolina Navy (McCrary 1900:32n-34n).

In May, 1780, the British captured Charleston. On December 30, 1780, the conquerors gave notice of the sequestration to the British Crown of the real and personal estates of several rebels, including Alexander Gillon. During this same period, Mrs. Gillon was expelled from Charleston by the British and her son, John-Splatt Cripps, sent as a political prisoner to St. Augustine (Smith 1908:199).-

Under the British, property in Charleston was not sacrosanct; many quarters and buildings were appropriated as whim or necessity dictated. The Circular Congregational Church, utilized first as a hospital and later as a storehouse for the provisions of the Royal Army, was merely one of the many public edifices confiscated for the British military's use (Courtney's Pamphlets:177). Private buildings also were not immune. On July 6, 1780, the Royal Gazette of Charleston printed the following "Garrison Orders."

FREQUENT Complaints having been made, that People take Possession of Houses without a proper Authority; to prevent such Irregularities in (the) future, the Commandant positively orders, that no Officer, Soldier, or other Persons do possess themselves of Houses or Apartments without first acquainting the Barrack Master of their Intentions, and having received his assent (RG July 6, 1780).

While things were progressing badly in Charleston for Alexander Gillon's family and possessions, his own quest in Europe was receiving similar blows. The intended purchase of the frigate South Carolina was fraught with difficulties. To overcome the financial straits in which Gillon found himself, he was forced to pledge both his own credit and that of South Carolina before he could take possession of the vessel. The "Luxembourg Claims", as this affair came to be known, severely damaged Gillon's finances.

In 1782, Commodore Gillon resigned his commission and, soon after, returned to Charleston, where he divided his time between his residence on East Bay Street and his country home, Ashley Hill, located on the Ashley River next to Middleton Plantation. In 1787 his wife, Mary Cripps, died at Ashley Hill. Soon after, he sold this residence and moved to Gillon's Retreat on the Congaree River. He died there in 1794. At his death, his estate was insolvent and heavily indebted to a number of Europeans with whom he had become involved during the purchase of the South Carolina (McCrary 1900:32n-34n). The Luxembourg claims against the State of South Carolina were themselves not settled for 75 years (Wallace 1934: v.2, 307-311).

Alexander Gillon's tumultuous career makes the history of 38 State Street exceedingly difficult to ascertain. In addition to the sequestration of his property by the British, he also bought a great deal of Loyalist property after the Revolution. A plat recorded in 1800 shows the portion

of 38 State Street which fronts on East Bay Street as being Commodore Gillon's lot and house. It is possible that he lived here prior to the time of his residence near Gillon Street, following his return to Charleston after the end of the British occupation, or subsequent to his removal in 1787 from the immediate Charleston area. It is known that he retained connections in Charleston for he was, among other things, a member of the South Carolina Convention by which the Federal Constitution was adopted in 1789 and one of the committee appointed to deal with the entertainment of President Washington during his visit to Charleston in 1791 (McCrary 1900:32n-34n). Most probably, however, 38 State Street was merely one small part of Gillon's large amount of rental property scattered throughout the city. Even if, at some point, he did live on the East Bay side of this lot, a man of his mercantile bent would have been unlikely to leave a valuable piece of land undeveloped. (Figure 3)

Implications

Charleston was dominated by water. Water had not only determined the town's location, but was its very lifeblood. Charleston's dependence on maritime trade for her prosperity resulted in a significant preference by many for property on and around the wharves. The pedestrian nature of Charleston throughout the eighteenth and nineteenth centuries led to increasing pressures on the desirable land in the commercial core. This in turn led to an intensification of land use. Alley housing, making the maximum use of available space for inexpensive housing, was often the result (Borchert 1980:17-23).

Alleys were not the only recourse of the lower economic class in Charleston. For the period 1760 - 1776, it has been said of Charleston that in no other North American city was there such a striking dichotomy between the houses of rich and poor. Due to the congestion in the commercial district of the city, there was a great deal of "jerry-building". "Benevolence" described this in the South Carolina Gazette,

I passed through Meeting-Street, and in a low Set of Wood Tenements, with Walls little thicker than a Sheet of Brown Paper, pent up on all Sides with Wooden Structures.

Tradesmen, craftsmen and shopkeepers were often forced by ruinous rents to house both their families and businesses in these buildings (Bridenbaugh 1955:227-228).

The results of the survey of the South Carolina Gazette and Charleston City Directories support the expected low economic status of the residents of Lodge Alley and 38 State Street. Lodge Alley attracted, among others, teachers, mariners, seamstresses and anonymous boarding house lodgers. State Street was apparently slightly higher in economic status. A study of the newspaper advertisements for the period 1732-1770 suggests

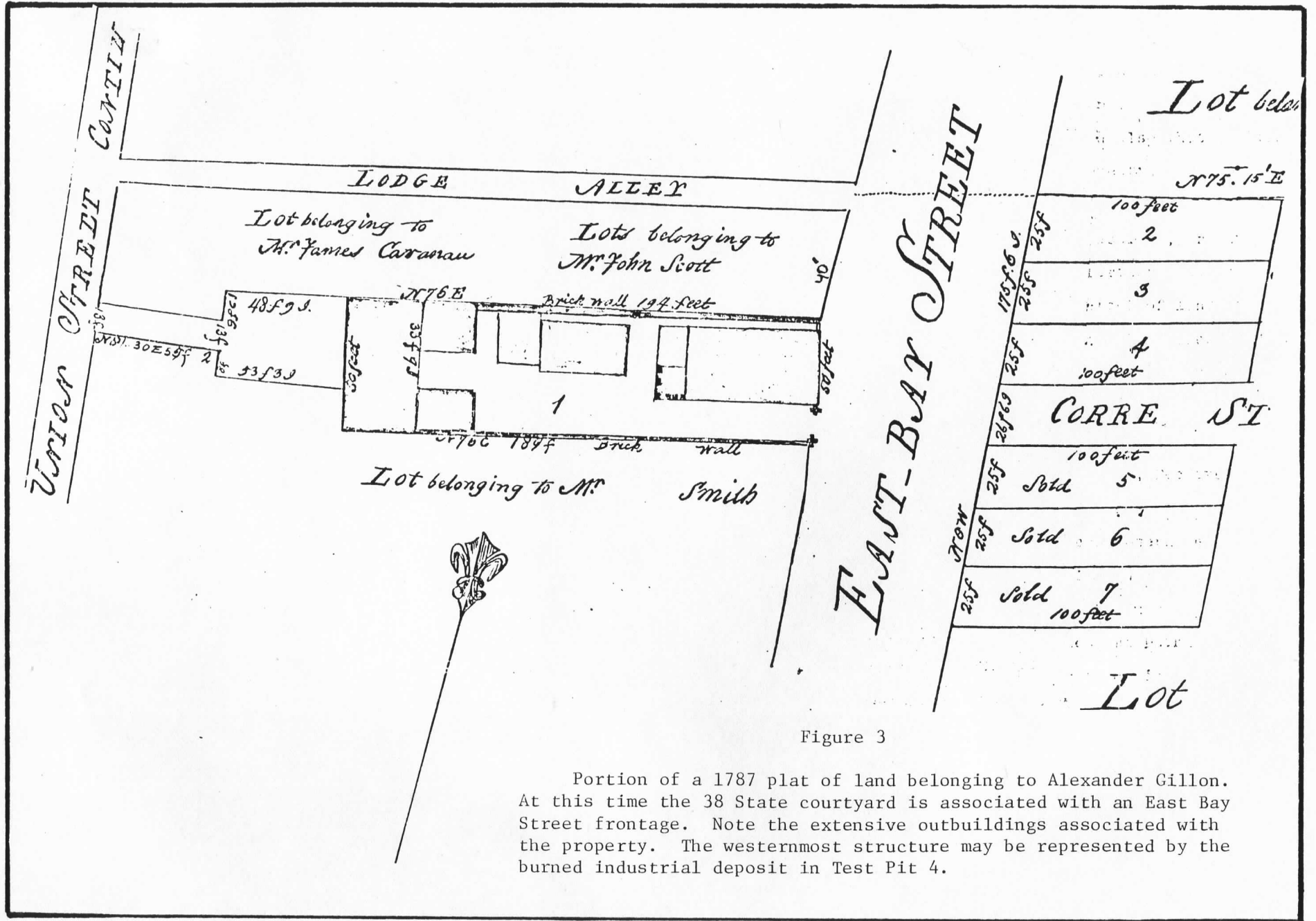


Figure 3

Portion of a 1787 plat of land belonging to Alexander Gillon. At this time the 38 State courtyard is associated with an East Bay Street frontage. Note the extensive outbuildings associated with the property. The westernmost structure may be represented by the burned industrial deposit in Test Pit 4.

that it was of minor commercial importance and, consequently, more heavily utilized by craftsmen than merchants. Charleston City Directories for 1790 and 1796 show a continuation of occupation of this part of State Street by small tradesmen, artisans and shopkeepers. In 1790 this portion of State Street had 2 teachers, 1 carpenter, 1 baker, 4 shopkeepers, 3 fishermen, 1 seamstress, 1 shoemaker, 1 bricklayer, 1 mariner, 1 planter, 1 state employee, 2 boarding houses and two women without professions. The 1796 City Directory lists 2 captains, 1 tailor, 1 grocer and factor, 1 painter and glazier, 1 mariner, 1 nurse, 1 broker, 2 tide waiters, 1 hairdresser, and 1 widow without an occupation.

The denizens of Lodge Alley and 38 State Street are sparsely represented in documentary sources. For the most part, the people in this study were part of the anomalous group of free whites whose lives are largely unrecorded. Few of these people owned their homes, thus rendering the title search which was conducted virtually useless. Most of the documentary sources for Charleston in the eighteenth and nineteenth centuries were written by planters, upper class merchants, lawyers, clergymen and politicians. People such as those who lived on Lodge Alley are seldom mentioned in these accounts; their names rarely appear on deeds of sale. Due to the fluid nature of colonial society, it is difficult to speak in terms of "class". The economic disparity between two craftsmen in the same field could often be striking. It does seem reasonable to assume, however, that the majority of those colonial Charlestonians residing on Lodge Alley were either upwardly mobile or permanent members of the lower "class". This trend is maintained throughout the early nineteenth century, when the alley began to be utilized primarily for wholesale commercial purposes. No real evidence has been found to determine exactly who was living at 38 State Street. The character of this portion of State Street and the high probability of it having been rental property, however, substantiates the assumption that, although its residents were probably of slightly higher status than those of Lodge Alley, the occupants were members of Charleston's lower economic class.

CHAPTER III

EXCAVATION METHODOLOGY

Site Characteristics

The site of the Lodge Alley adaptive reuse project is located in downtown Charleston, on a block bounded by Cumberland, East Bay, Queen and State streets. As is often the case with urban sites, the majority of this area is covered by standing structures or pavement. Lodge Alley was paved with granite blocks set in loose sand, dating from the nineteenth century. These blocks had been removed from the eastern two thirds of the alley to facilitate the construction of a drain. Locked gates were placed at either end of the alley prior to construction (Figures 4 and 5).

Located to the rear of the 38 State Street property was a garden enclosed on four sides by a brick wall (Figure 6). This garden is directly south of a stable structure fronting on Lodge Alley (see Figure 7). The garden and structure at this address are currently unoccupied, and have been for some time. The garden, consequently, was quite overgrown; the ground was covered by a thick network of English Ivy vines.

These two areas of the block proved to be the most accessible for archaeological investigations; in addition, excavations in this location did not interfere with ongoing construction activities. The alley was tested because construction of the drain would impact archaeological resources in the alley; this was the only extensive ground-disturbing activity scheduled for the project. Artifacts present in the soils beneath the granite blocks suggested that the alley might contain extensive archaeological remains. Excavations were conducted in the rear of 38 State street to obtain a larger sample for comparative purposes, both with the data from the alley, and those from other sites in Charleston. The location of the courtyard in the central portion of the block was suitable for the examination of "backyard activities" associated with British colonial sites (Fairbanks 1977).

Excavation Techniques

Because of the congested nature of the urban site, a Chicago-style grid was not established over the site; instead, a trench-unit grid was used. Excavation units were designated as Test Pits, and were numbered consecutively in order of excavation. Each test pit was located in reference to existing landmarks.

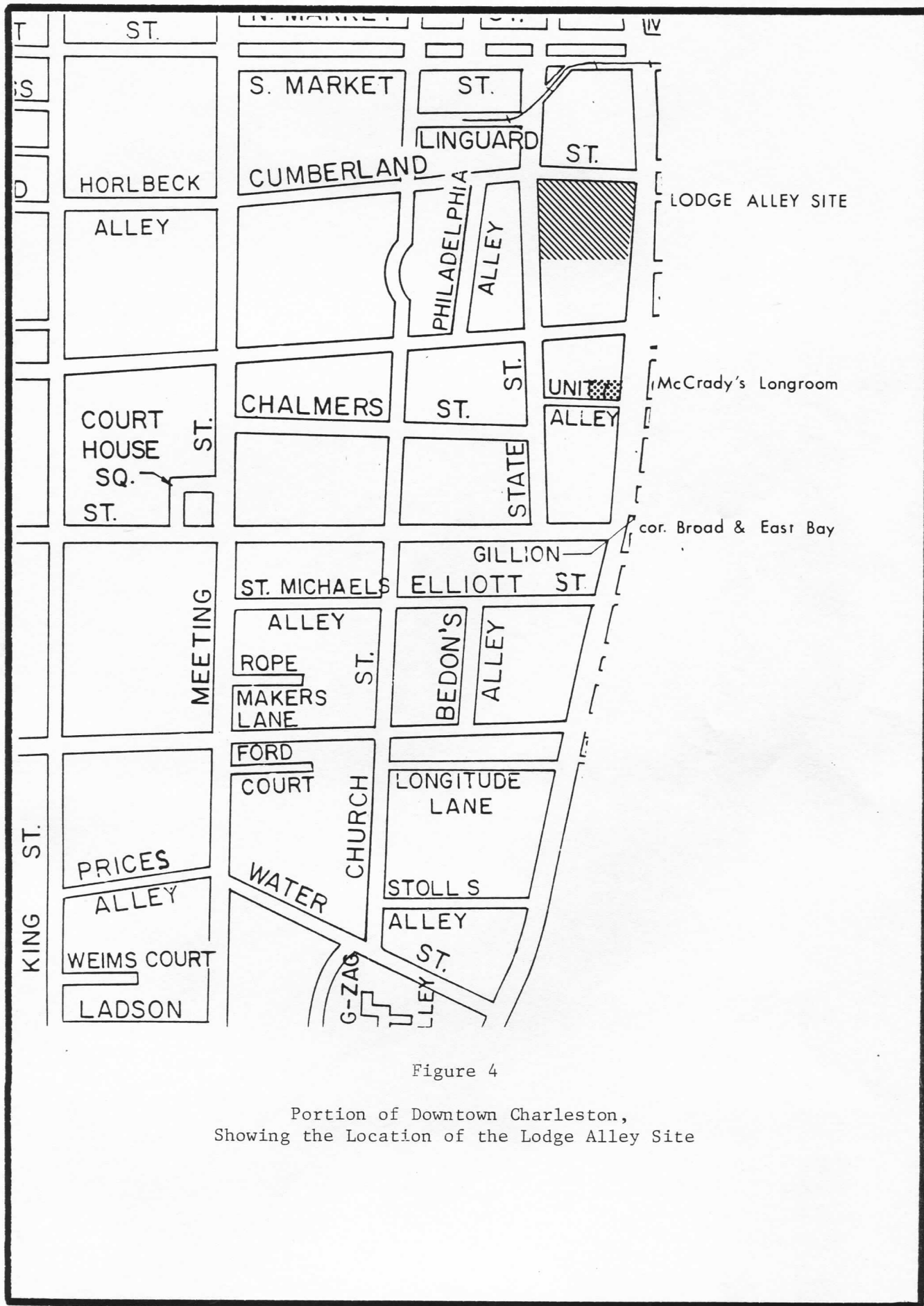


Figure 4

Portion of Downtown Charleston,
Showing the Location of the Lodge Alley Site



Figure 5

Photograph of Lodge Alley,
Facing East from the Intersection of Lodge Alley and State Street.



Figure 6

Photograph of the Courtyard to the Rear of 38 State.
Photo facing east from the third floor of the 38 State Structure.

Vertical control was maintained with the use of a transit. Elevations were taken in reference to a datum point established during construction. The absolute elevation of this datum is 11.93 feet above mean sea level. Several datum points were then established in reference to this point, and elevations were taken in reference to these. In this report, elevations are expressed as feet above mean sea level (MSL).

All units were hand excavated using shovels and trowels. Most proveniences were dry-screened using $\frac{1}{4}$ inch mesh. Organically rich deposits were water screened through $\frac{1}{4}$ inch mesh. Portions of these proveniences were water screened through 1/16 inch window screen. A soil sample of 4 gallons was retained from each of these for flotation; in addition, a .05 gallon soil sample was retained from each excavated provenience for comparative purposes. All materials were bagged and tagged separately, and each provenience received a field specimen number. Narrative notes, field record forms, and photographic documentation was maintained during all phases of the fieldwork.

Description of Excavated Proveniences

Test excavations were located in two distinct areas of the block; in Lodge Alley and in the center of the block behind 38 State Street (Figure 7). Because the two loci represent the results of different occupational histories and site formation processes, they will be discussed separately in this, and the following, sections.

Lodge Alley

Test Pit 1 was located in Lodge Alley, adjacent to the abandoned stable building (Figure 7). The southwest corner of the unit was 101.7 feet east of the eastern curb of State Street, or 2 feet east and 1 foot north of the western corner of the stable building. The unit measured 10 feet by 6 feet, with the long axis oriented parallel to the alley. The total width of the alley of 10.2 feet prohibited a wider unit.

Excavation of the unit revealed a general stratigraphy characterized by numerous shallow sheet deposits, resulting from the gradual accumulation of soil and refuse in the alley and the constant trampling of these deposits. Few features were present, and there was little evidence of deliberate filling in the alley.

Zones 1-2 were a mottled, waterwashed sand, averaging .2 feet in depth. The provenience had a Terminus Post Quem (TPQ) of 1980, provided by a twist-off beer cap. The disturbance of these zones is probably the result of the removal of the granite blocks by a backhoe. All subsequent zones predate the mid-nineteenth century paving of the alley.

Zone 3 was a medium brown sand containing moderate amounts of oyster shell and brick rubble. The zone was excavated in two separate levels, as the upper portion of the zone evidenced some disturbance from the

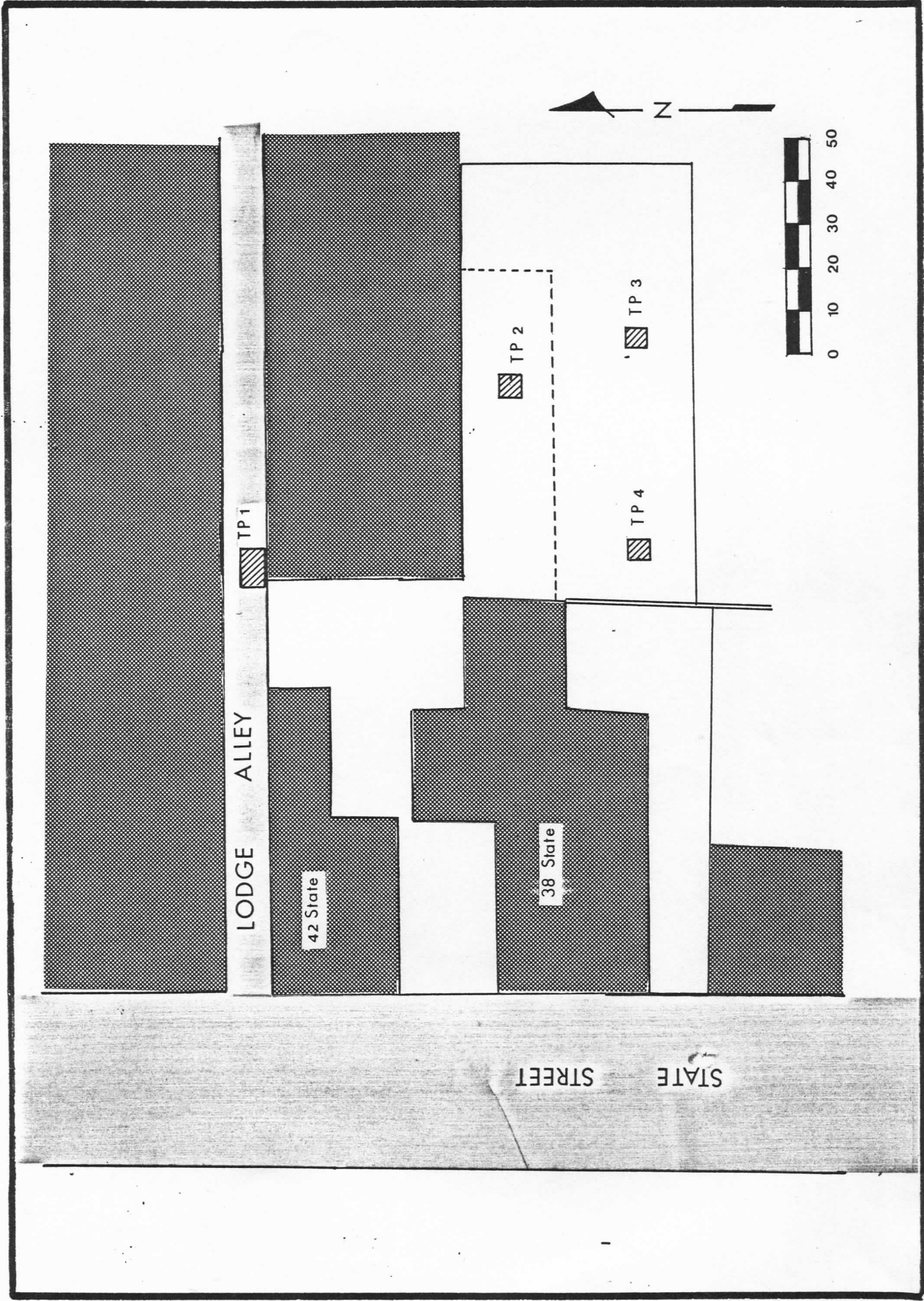




Figure 8

Excavation of Test Pit 1, Zone 9

backhoe activity. The zone was .9 feet deep, extending to a depth of 10.07 feet MSL. The zone has a TPQ of 1830 (whiteware) and was probably deposited in the mid-nineteenth century.

Initiating at the base of Zone 3 were three features of unknown function. Features 1 and 2 were small, shallow pits of medium grey-brown soil with mortar and oyster rubble. The fill of Features 1 and 2 was indistinguishable from Zone 3. Feature 1 was a shallow oval pit .08 feet deep. Feature 2 was a rectangular pit with a flat bottom, .8 feet deep. Both features have a TPQ of 1795 (Transfer print pearlware) and date to the early nineteenth century.

Features 1 and 2 are associated with Feature 3, a large circular feature whose exact function is unknown. Feature 3 was deep, with straight sides. The matrix of the feature was a medium grey soil that was very loose, friable and moist. The fill contained moderate amounts of brick and mortar rubble and a quantity of artifacts, including preserved organic materials. The feature initiated at 9.7 feet MSL and was excavated to a depth of 8.1 feet MSL, where excavation of the unit was suspended. The feature has a TPQ of 1795 (Transfer print pearlware) and dates to the early nineteenth century.

The presence of such a large, loosely compacted feature in the middle of a thoroughfare is somewhat puzzling. A possible explanation is that the feature was a public well. Such features were located in major thoroughfares in the colonial city (McCord 1848: 302-303; Petrie 1788; Bridgens and Allen 1852). The loose, grey, organic soil is similar to well fill at other sites. No brick was present around the edges of the feature; perhaps the brick was robbed when the well was paved over. An alternate explanation is that the well was wood lined or was a barrel well. A problem with this interpretation is that it is unclear how such a well, or pump, would be constructed to avoid interfering with vehicular traffic in such a narrow alley, as cartographic sources indicate that the alley was no wider than it is presently.

Zone 4 was a medium red-brown sand, slightly lighter than Zone 3. The major difference from the previous zone is one of consistency; Zone 4 was very compact sand with large quantities of brick and mortar. Zone 5, located under this zone was composed of crushed mortar containing brick fragments. Zones 4 and 5 are interpreted as road fill, deliberately deposited debris designed to make the road more passable. The soils of Zone 4 may have been deliberately compacted into the rubble to make a smooth road surface, or may represent soil and debris which built up on the road surface immediately following the "paving". These zones were deposited in the late eighteenth century.

Present at the top of Zone 5, along the northern wall of the square was a linear feature designated Feature 4. Feature 4 may best be interpreted as a ditch, or possibly deep rut, running down the center of the alley. Feature 4 was rather ephemeral, and was intermittently

present below Zone 4. Feature 4 was rarely visible in the profile, but was quite evident on the level floor of the square, as it was composed of water-washed fill, most often similar to the zone above. Feature 4 was excavated in three arbitrary levels to the base of the excavated square.

The need to fill the road with the architectural rubble in Zone 5 may be partially explained by the moist, organic nature of Zone 6. Zone 6 was a dark grey-brown loamy sand containing relatively large amounts of bone and charcoal. Zone 6 was .25 feet thick. Zone 6 and the subsequently excavated Zones 7 through 10 represent a series of thin, compact deposits of sand and refuse, most likely deposited in the alley and rapidly compacted by foot and vehicle traffic. Such compaction was noted during the excavation of a roadway in Massachusetts (Kirkorian and Zeranski 1981). Zone 6 has a TPQ of 1780 (plain pearlware) and was deposited in the late eighteenth century.

Zone 7 was a mottled tan clay and grey sand with coal and brick inclusions. The lower portions of Zone 7 were quite compact. The second level of Zone 7 contained quantities of crushed, burned shell, suggesting road fill. Zone 7 was .6 feet deep. Zones 8-9 were of a similar matrix, and were composed of several microstrata that flaked when troweled. These suggest hard, trampled dirt surfaces that accumulated in a short period of time. Zones 8-9 were .4 feet deep. Zones 7 through 10 have a TPQ of 1750 (creamware), supporting the suggestion that they were rapidly deposited in the mid eighteenth century.

Zone 10 was the final provenience excavated in Test Pit 1. Zone 10 was an orange-tan sand with oyster shell and mortar inclusions. Excavation of the unit was suspended at 8.01 feet MSL. Elevations, dates of deposition, and function of proveniences are summarized in Table 2 (Figures 9 and 10).

38 State Street

Three 5 foot squares, Test Pits 2 - 4, were excavated in the walled garden to the rear of 38 State Street. The walled garden measures 100 feet east-west by 50 feet north-south. The courtyard thus falls in the central portion of the block between East Bay and State Streets, as the block is 300 feet wide. As summarized in Chapter II, the property was at various times part of a tract that fronted on East Bay Street, as opposed to the present-day State Street frontage.

Because the courtyard bisects the presumed mid-line of the block, excavation units were placed in an attempt to recover backlot deposits associated with both a State Street and East Bay Street frontage. We initially hoped to sample the rear of the Masonic Lodge, but cartographic sources indicate that this area is contained within the standing stable building.

The rear of the stable which fronts Lodge Alley forms the north wall of the courtyard; the back wall of the 38 State structure forms a portion of the west wall, while the remaining boundaries are enclosed by a 10 foot brick wall.

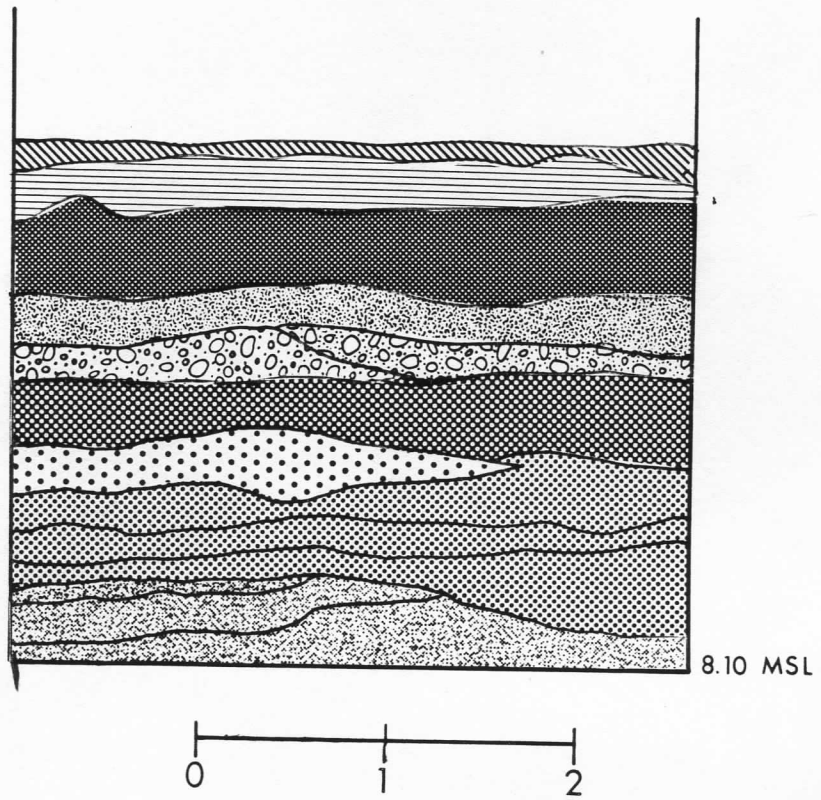


Figure 9
West Profile, Test Pit 1



Figure 10

Photograph of Test Pit 1, Top of Zone 10,
Showing West Profile, Features 3 and 4

Remnants of a brick foundation are visible in the northwest portion of the courtyard (see Figure 7). The ground surface inside this foundation was 2 feet lower than the rest of the courtyard. The depressed area inside this foundation also contained dense vegetation consisting primarily of ivy and overgrown garden species (see Figure 6).

Test Pit 2 was located inside the foundation. The southwest corner of the square is 14 feet south of the stable wall and 46.3 feet east of the east wall of the 38 State structure. Excavation of Test Pit 2 was initially hampered by the presence of an unbelievable network of English Ivy vines; close to 6 man hours were spent removing these vines from the ground surface and top of Zone 1.

Zone 1 consisted of demolition rubble in a matrix of dark grey-brown sand. The rubble represents the collapse of the kitchen building shown on the 1884 Sanborn map. The structure probably collapsed in the early twentieth century; the 3 foot deep deposit contained artifacts dating to this period. Demolition rubble consisted of roofing tin, bricks and mortar, often articulated in large blocks.

Directly beneath Zone 1 was a thin lens of sterile yellow fill. It may represent a builder's surface for the structure. Zone 2 was followed by Zone 3, an extensive deposit of medium grey sand. The zone initiated at 6.84 feet MSL and was excavated to the water table at 3.84 feet MSL, at which point excavation of the unit was terminated. Sterile soil was not encountered. The zone contained a sparse artifact assemblage dating to the early nineteenth century, with a TPQ of 1795 (transfer print pearlware).

Test Pit 3 was located parallel to the south wall of the courtyard. The southwest corner of the square is 10 feet north of the brick wall and 59.1 feet east of the west wall (see Figure 7). Test Pit 3 exhibited a different, more complex stratigraphy than Test Pit 2.

Zone 1 was a dark grey-brown sandy loam which was a mid-twentieth century deposit. The interface of Zones 1 and 2 was somewhat disturbed. Zone 2 was of the same matrix and contained quantities of brick, mortar, and glazed roof tiles. This rubble, and the disturbance, may be associated with the destruction of the kitchen building discussed earlier, or may represent materials used as fill. Zone 2 also contained a number of large cobble stones in a disturbed configuration. These cobbles may represent a disturbed portion of a mid-nineteenth century cobblestone walk, which will be discussed later. Zone 2 has mid-nineteenth century TPQ, provided by molded brown glass. These rather disturbed deposits were followed by a fill deposit of coal cinders, .5 feet deep. This deposit contained no diagnostic artifacts, and dates to the mid-nineteenth century.

Zone 4 was a lens of mottled white and tan sand fill, similar to the foundation for the cobble stone walk noted in Test Pit 4. This may be

a remnant of the disturbed cobblestone walk discussed above. These points will be clearer in the discussion of the stratigraphy of Test Pit 4. Zone 4 dates to the 1840's, with a TPQ of 1830 (whiteware).

Zone 5 was excavated in two levels. Level 1, as designated, was a deposit of brick, sand, and mortar rubble. The deposit has a TPQ of 1830 (whiteware) and dates to the 1830's. Levels 1 and 2 of Zone 5 were different, but it was not discerned until the proveniences had been so designated. Level 2 was a mottled water-washed sand of white, grey and tan. This zone has a TPQ of 1750 (White Saltglazed Stoneware) and dates to the mid-eighteenth century.

Although three more zones were designated and excavated, they all exhibited the same mottled, water-washed sand of Zone 5 Level 2. Moreover, they all date to the mid-eighteenth century. The zone designations were made on the basis of subtle differences in color, texture, and amount of clay included in the fill. The color and texture of the soil, plus the depth of the deposit, suggest a well construction pit. This suggestion is supported by the sparseness of the artifact assemblage. Because of the small size of the square, feature visibility was limited; the proveniences were designated as zones because no edge was visible at any level. It is possible that the waterwashed zones represent a well construction pit larger than the five foot square. The interpretation of Zones 5 Level 2 through 8 as a mid-eighteenth century well construction pit remains tenuous. Time constraints prohibited further excavation or expansion of Test Pit 3.

Test Pit 4 was located closer to State Street, with the southwest corner located 10 feet north of the south courtyard wall and 10 feet east of the west wall of the courtyard. Zones 1 and 2 of Test Pit 4 were identical to those encountered in Test Pit 3, except that they exhibited far less disturbance, and Zone 2 contained no cobblestones. Zones 1 and 2 have identical TPQ's to those encountered in Test Pit 3, supporting the suggestion that they are the same deposit.

Directly beneath Zone 2 was a drive or walkway of laid cobblestones dating to the 1840's (Figure 11). The large grey stones were laid on a foundation of white builder's sand; both the cobbles and the sand were designated Feature 5. The builder's sand has a TPQ of 1830 (yellow ware). Directly beneath Feature 5 was a brick foundation, designated Feature 6. Feature 6 was a foundation of red brick set in lime mortar. The foundation was 1 foot wide and 1.7 feet deep. It runs east-west along the south wall of the square (Figure 11). A very ephemeral builder's trench of yellow sand was visible along the north side of the foundation, and was designated Feature 7.

The soils adjacent to Feature 6 were designated Zone 3 and consisted of a mottled orange, tan and brown sand containing burned mortar, brick and wood. The deposit was .5 feet deep and has a TPQ of 1795 (Annular ware) and dates to the early nineteenth century. This

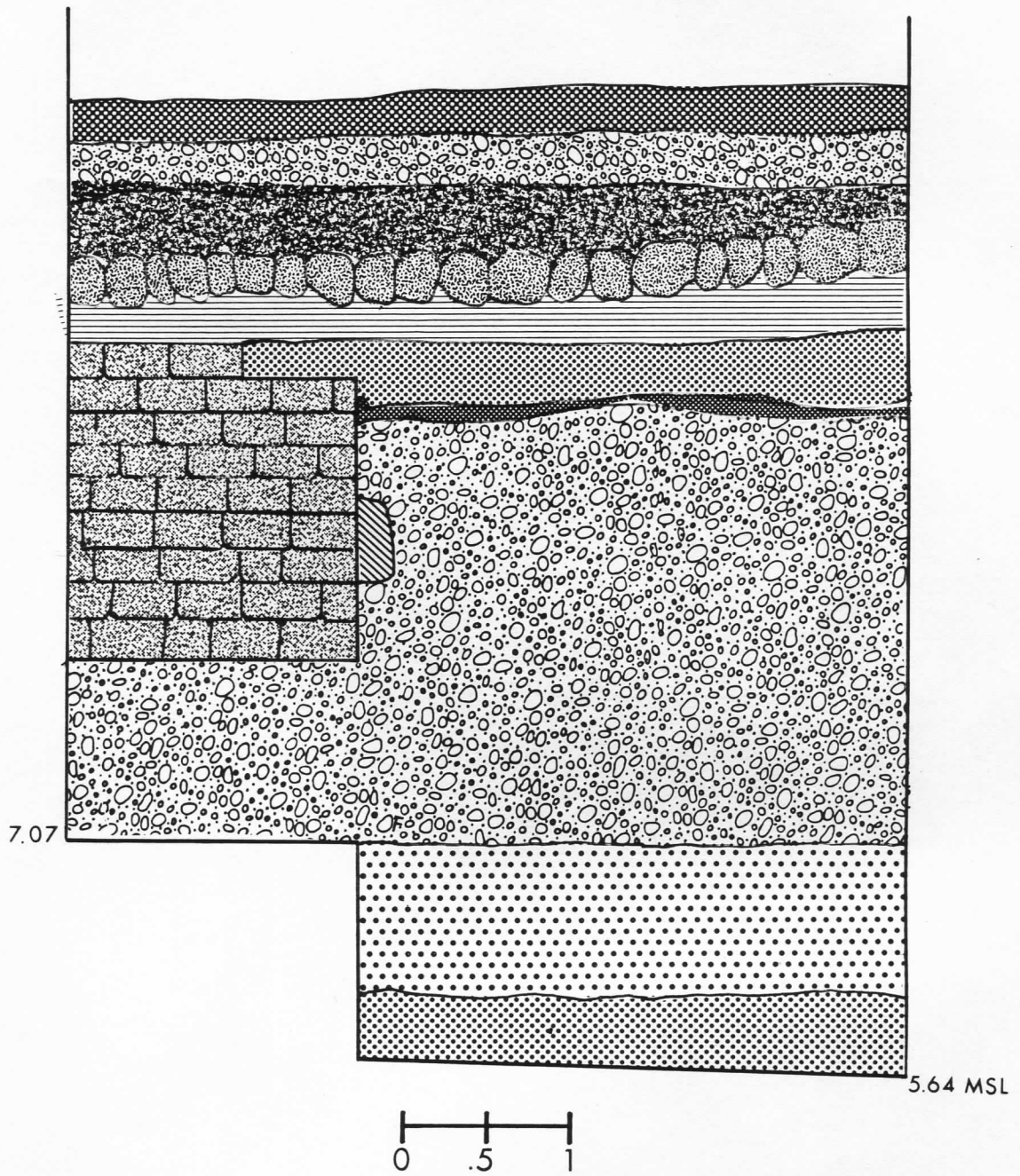


Figure 11

West Profile, Test Pit 4

deposit was followed by a thick deposit of building rubble consisting of loose brick and mortar, designated Zone 4. Zone 4 dates to the mid-nineteenth century.

At the base of Feature 6, the brick foundation, a cap of orange mottled sand was encountered, and underneath this was a deposit of unconsolidated brick and mortar rubble, consisting primarily of whole, fallen brick. This zone was present underneath Feature 6, thus predating it. The interface of Zones 4 and 5 contained a quantity of artifacts, specifically a quantity of slate pencils. This interface had a TPQ of 1760 (creamware), suggesting a late eighteenth to early nineteenth century date of deposition. Zone 5, the brick rubble, was 2.5 feet deep, to a depth of 7.04 feet MSL.

The deposit designated Zone 6 was radically different from any previously encountered at the site. The deposit consisted of grey sandy soil containing burned mortar and brick and quantities of burned artifacts, which seem to represent some type of burned in situ commercial deposit. These artifacts will be discussed further in the following section. Soil comprised less than one third of the total volume of this deposit, the remaining 2/3 being artifactual material. A lower portion of this deposit was designated Zone 7, and was distinguished from Zone 6 by the fact that more building rubble and fewer cultural artifacts were present. These materials exhibited less evidence of being burned than did those in Zone 6. The base of Zone 7 was a thin lens of black coal or charcoal, overlying orange sterile sand. This was encountered at 4.95 feet MSL. Zones 6 and 7 were 1.4 feet deep.

In summary, excavation of three 5 foot squares in the courtyard of 38 State Street indicated that cultural deposits in this area average 6 feet in depth. Stratigraphy was complex, with visibility limited by the size of the excavation units. Deposits ranged in date from the mid-eighteenth century through the mid twentieth century. A provenience guide is shown in Table 2. Materials recovered from these proveniences are discussed in the following section.

Table 2

Provenience Guide

FS#	Provenience	Top	Base	Terminus Post Quem	Date of Deposition	Function
1	Test Pit 1, Zone 1&2	10.95	10.86	Twist off bottle top	1980's	
2	Test Pit 1, Zone 3, lev 1	10.86	10.2	emerald green glass	mid-19th cent.	
3	Test Pit 1, Feature 2	9.81	9.01	Transfer print p.w.	early 19th cent.	unknown pit
4	Test Pit 1, Zone 3, lev 2	10.2	9.7	Whiteware	mid-19th cent.	
5	Test Pit 1, Feature 1	9.70	9.62	whiteware	early 19th cent.	unknown pit
6	Test Pit 1, Fea. 4, lev 1	9.6	8.1	whiteware	early 19th cent.	ditch
7	Test Pit 1, Zone 4-5	9.68	9.60	creamware	late 18th cent.	
8	Test Pit 1, Zone 5	9.60	9.41	green glass	late 18th cent.	road fill
9	Test Pit 1, Zone 6	9.41	9.17	hand paint p.w.	mid 18th cent.	
10	Test Pit 1, Fea 4, lev 2			creamware	mid 18th cent.	ditch
11	Test Pit 1, Zone 7, lev 1	9.17	8.87	whieldon ware	mid 18th cent.	
12	Test Pit 1, Zone 7, lev 2	8.87	8.57	whieldon ware	mid 18th cent.	
13	Test Pit 1, Zone 8	8.57	8.13	creamware	mid 18th cent.	
14	Test Pit 1, Zone 9	8.14	8.10	annular ware	mid 18th cent.	
15	Test Pit 1, Fea 4, lev 3		8.10	creamware	mid 18th cent.	ditch
16	Test Pit 1, Zone 10, fea 4	8.10	8.07	creamware	mid 18th cent.	
17	Test Pit 3, Zone 1	10.98	10.66	light bulb	early 20th cent.	
18	Test Pit 3, Zone 1, trowel		10.66		early 20th cent.	
19	Test Pit 3, Area A	10.66	10.42	paint can lid	early 20th cent.	
20	Test Pit 3, Zone 2	10.66	9.89	brown glass	mid 19th cent.	
21	Test Pit 3, Zone 3	9.89	9.43	redware	mid 19th cent.	
22	Test Pit 3, Zone 4	9.43	9.18	whiteware	early 19th cent.	
23	Test Pit 3, Zone 5, lev 1	9.18	8.67	whiteware	early 19th cent.	
24	Test Pit 3, Zone 5, lev 2	8.67	8.04	white saltglaze	mid 18th cent.	
25	Test Pit 3, Zone 5, lev 3	8.04	7.95	slipware	mid 18th cent.	possible well
26	Test Pit 2, Zone 1	9.49	7.17	toy truck	early 20th cent.	construction pit
27	Test Pit 3, Zone 6	7.95	7.66	white saltglaze	mid 18th cent.	
28	Test Pit 4, Zone 2	11.3	11.0	brown glass	mid 19th cent.	
29	Test Pit 4, Fea 5	10.5	10.25	yellow ware	early 19th cent.	
30	Test Pit 2, Zone 3	6.77	5.2	annular ware	early 19th cent.	

Table 2, cont.

FS#	Provenience	Top	Base	Terminus Post Quem	Date of Deposition	Function
31	Test Pit 3, Zone 7	7.60	7.2	white saltglaze	mid 18th cent.	possible well con-
32	Test Pit 4, Zone 3	10.19	9.57	annular ware	mid 19th cent.	struction pit
33	Test Pit 4, Fea 7	9.44	9.06	creamware	early 19th cent.	builder's trench
34	Test Pit 2, Zone 3, lev 2	5.2	4.77	annular ware	late 18th cent.	
35	Test Pit 1, Feature 3	9.7	8.10	pearlware	early 19th cent.	possible well
36	Test Pit 4, Zone 4	10.1	9.7	whiteware	mid 19th cent.	
37	Test Pit 4, Zone 4-5	9.7	9.6	creamware	early 19th cent.	
38	Test Pit 4, Zone 5	9.6	7.1	creamware	early 19th cent.	brick fall
39	Test Pit 4, Zone 5, base	7.10	7.05	pearlware	early 19th cent	
40	Test Pit 2 Zone 3, lev 3		4.77		late 18th cent.	
41	Test Pit 4, Zone 6	7.04	5.94	creamware	late 18th cent.	burned industry
42	Test Pit 4, Zone 7, lev 1	5.94	5.5	creamware	late 18th cent.	" "
43	Test Pit 4, Zone 7, lev 2	5.5	4.97	creamware	late 18th cent.	" "

CHAPTER IV

ANALYSIS OF MATERIALS

Approximately 23,300 artifacts were recovered during excavations at Lodge Alley and 38 State Street. The first step in the analysis of materials was the identification of the artifacts. Noel Hume (1969) was the primary source. Price (1979) was used for nineteenth century ceramic identification and Switzer (1974) was used for nineteenth century glass identification.

Following identification, the materials were grouped according to functional categories, based on South's (1977) model for the Carolina and Frontier artifact patterns. Under this method, artifacts are organized into different types, groups, and classes, based on their function. South's technique has been widely adapted by historical archaeologists; this methodology has the potential for providing general anthropological, rather than narrow historical, interpretations, in that the archaeological rather than the historical record is stressed (Honerkamp 1980: 28). In addition, South's categorization is an extremely useful heuristic device in that it allows complete quantification of the assemblage, and thus permits direct intersite comparison.

The Lodge Alley-38 State artifact assemblage was divided into five subassemblages, based on temporal, spatial and functional associations. These include the eighteenth and nineteenth century assemblages from Lodge Alley and from 38 State and the late eighteenth century industrial deposit from 38 State. Each of these five subassemblages will be quantified and described separately. Research questions utilizing these data are discussed in the following chapter (Table 4).

Lodge Alley - Nineteenth Century

Kitchen

Kitchen group artifacts comprised 81% of the nineteenth century alley assemblage. Ceramics comprised the majority of this group at 87%. Of the ceramics, 79% were tablewares and 21% were utilitarian wares. As suggested by the temporal association, whitewares, pearlwares, and creamwares comprised the majority of the tablewares, with the majority of the remainder of the category being composed of eighteenth century wares, probably present as a result of redeposition.

The majority of artifacts recovered represent English or American ceramics commonly found on British colonial and antebellum sites. Two unusual utilitarian ceramics were recovered, both of Spanish origin. One is a sherd of olive jar (Goggin 1968) while the other is an extremely small fragment tentatively identified as Marine Ware. Both of these wares are traditionally associated with shipping activities. Based on

Charleston's function as an important port, and the amount of privateering conducted during these periods, the presence of these Spanish shipping and storage vessels is not surprising. Colono ware, a low fired unglazed ware of local origin (Ferguson 1980), comprised 1.2% of the assemblage. South's Mean Ceramic Date formula was applied to the assemblage and a date of 1808 was obtained (South 1972). This slightly early mean occupation date is probably the result of the redeposition of earlier artifacts (see Zierden 1981).

Green bottle glass associated with alcoholic beverages comprised 12.3% of the Kitchen assemblage; clear and aqua bottle glass comprised 3.6%. Only a few items of decorative glass tableware were present, comprising only .4% of the group. The final kitchen artifacts were an iron knife blade and a portion of an iron fork with an ebony handle.

Architecture

Because of the extensive disturbance, redeposition, and filling characteristic of the urban site, especially one in which brick structures abound, architectural materials such as brick and mortar were neither collected nor quantified in any manner. Other artifactual artifacts comprised 15.8% of the nineteenth century alley assemblage. The most common artifacts in this category were iron nails, which were corroded beyond the point of recognition. A hinge, shutter pintel, bolt, and hook completed the category.

Miscellaneous

The remaining artifact categories comprised 5% of the total assemblage. Arms were very scarce, comprising less than .1% of the assemblage, and were represented by two flint flakes. A lack of arms has been noted at other sites in Charleston (Honerkamp, Council, and Will 1982: 144; Zierden et al. 1982). Furniture was also poorly represented; a brass lamp base was the only furniture artifact in the assemblage, comprising .03% of the total.

The Clothing group was represented by 2 brass buttons and a brass clothing hook. Five glass beads completed the category. The bead collection consisted of an aqua seed bead, a lavender seed bead, a blue striped tube bead, a white tube bead (Kidd & Kidd type 1b22, 1b11) and a white tube bead with longitudinal stripes and alternating layers of colored glass (Kidd & Kidd type 111n1). The clothing group comprised .29% of the assemblage. (The bead types are discussed in more detail on page 40 and summarized in Table 3).

Only 3 personal items were included in this assemblage, comprising .1% of the assemblage. This category included an unidentifiable coin, a fragment of an iron key, and a portion of a slate pencil. The Activities group comprised only .24% of the assemblage, being composed of five barrel strap fragments associated with storage, a clay marble, and a fragment of

remelted lead. The final category was the Tobacco Pipe group, comprising 1.4% of the assemblage. This category was composed entirely of kaolin tobacco pipe fragments.

In summary, those artifacts associated with subsistence and shelter comprised 96% of the nineteenth century alley assemblage. Such percentages have been noted for slave sites in the lowcountry (Zierden and Calhoun 1983) and the southeastern coast (Singleton 1980); it has been suggested that these ratios represent a low socioeconomic status. This will be discussed more fully in the following section.

Lodge Alley - Eighteenth Century

Kitchen

Kitchen artifacts comprised 72.2% of the eighteenth century assemblage from the alley. Ceramics comprised 81% of this assemblage. The ceramic assemblage was composed of 38.6% tablewares and 56.9% utilitarian wares. The assemblage was composed entirely of British or British-exported ceramics, with the exception of a single sherd of Brown Faience. A Mean Ceramic Date for the assemblage (South 1972) of 1739.8 was obtained, which probably corresponds well with the eighteenth century occupation of the area.

Green bottle glass comprised 15.26% of the kitchen assemblage while clear or aqua glass comprised 3.4% of the Kitchen group. Seven items of decorative glassware comprised .26% of the assemblage. Included in this category are two fragments of painted glass, one in yellow and green and the other in red and blue. A tumbler base, stemware fragment and decanter fragment completed the group.

Architecture

Architectural artifacts comprised 19.9% of the assemblage. Unidentified nails comprised the majority of the artifacts. A hinge and a shutter pintel completed the assemblage.

Miscellaneous

Non-subsistence categories comprised a higher percentage of the eighteenth century assemblage than the later assemblage, totalling 8% of the assemblage. Arms comprised .8% of the group, a relatively high percentage for Charleston sites (Honerkamp, Council, and Will 1982; Zierden et al. 1982). Arms related artifacts include 2 lead shot and a spall gunflint of honey-colored flint. Furniture was represented by three brass upholstery tacks and a fragment of a drawer pull. Furniture artifacts comprised .11% of the assemblage.

Clothing was somewhat strongly represented, comprising .94% of the assemblage. This group included 4 brass buttons and a fragment of a shirt button. The most unusual aspect of this group was the collection of 35 glass beads. Kirk and Kirk (1978) and Strain (1979) note

shoe leather. The most unusual aspect of this group was the collection of 30 glass beads. Kidd and Kidd (1970) and Brain (1979) were utilized in the bead identification. Brain's dates were used in this discussion. The mean dates for these bead types cluster from 1725 to 1762, which corresponds well to the mean ceramic date (South 1972, Table) of 1740 for the assemblage. Three major types of beads were recovered, and these types were isolated in separate levels. (Figure 12, Table 3).

The most common bead recovered was represented by eight specimens, commonly called "gooseberry beads". These are large, transparent barrel shaped beads with 16 to 18 longitudinal white stripes between two layers of clear glass. The bead is classified by Brain as Type 11A6 and by Kidd and Kidd as 11b18. The second most common bead was a group of large, translucent beads with 4 longitudinal stripes. The first was a blue bead with four alternating red and white stripes. The bead is of compound construction, exhibiting a blue core with a blue glass overlay. Lengths are close to 37 cm. Brain labels this bead UD Type 3; Kidd and Kidd do not show this particular type. The second type in this group is an opaque compound bead with a white to light blue core covered with a white glass. There are 6 sets of longitudinal stripes in red. This is Brain's type UID 1. The third cluster of bead types are a group of small monochrome tube beads. Three specimens are medium, opaque blue-grey beads, two are small opaque white beads, and one is a small, translucent dark blue bead. Brain's and Kidd and Kidd's type numbers are 1A2, 1A16; 111A2, 1A4; and 11A3, 1A9, respectively.

In addition to these three major groups of beads, a number of miscellaneous single beads were recovered from eighteenth century proveniences. A number of tiny beads, commonly called seed beads were recovered. These include two transparent, dark blue specimens, two opaque turquoise specimens, and an opaque light blue specimen. Brain identifies these as types 11A6, 11A7, and 11A8, respectively. Kidd and Kidd classify these as 11A51, 11A45, and 11A34.

A single, short white tube bead was recovered. This was not identified in Kidd and Kidd. Brain labels this type IVA1. Four wire wound beads were recovered. The first is a large, translucent pale blue bead that is somewhat dome shaped. Brain classifies this as W1B1, and Kidd and Kidd do not show this particular shape. The second is a large, translucent dark blue bead with 8 five-sided facets. This is Brain's W11A3 and Kidd and Kidd's W11C. The third is a large, transparent, clear bead, commonly known as a raspberry type. This is Brain's W11B2 and Kidd and Kidd's W11D. The final specimen was a translucent blue barrel-shaped bead. Brain does not identify this bead; Kidd and Kidd classify it as W1C.

A number of personal items were recovered from eighteenth century proveniences. Three coins were recovered; one is dated 1770 and is probably British. The other two are eroded beyond recognition. A portion of a slate pencil and eight fragments of bone or ivory fan slats were recovered. Seven of these were the basal portion of

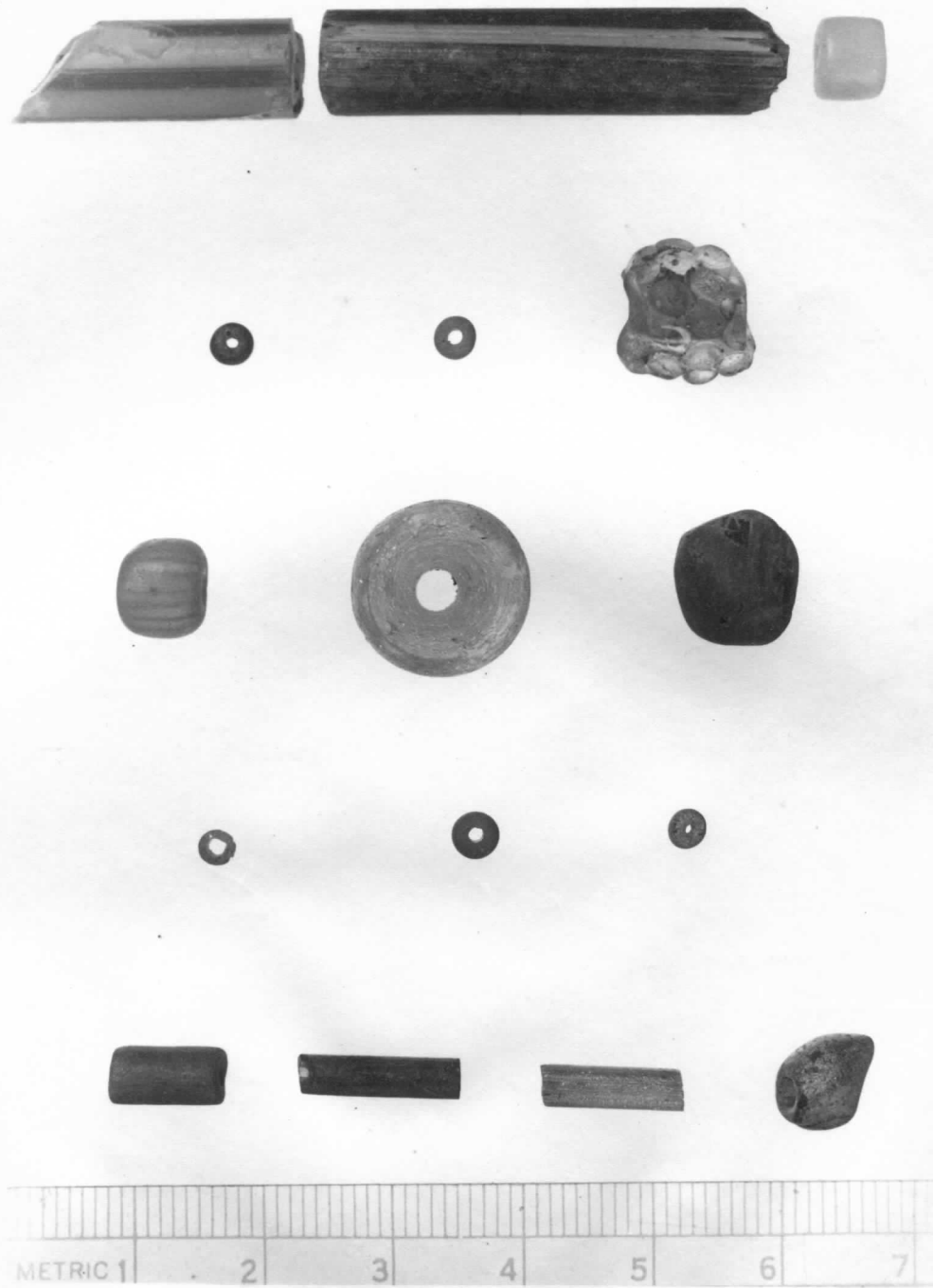


Figure 12

Beads from Lodge Alley

First row - UID Type 1, UID Type 3, Type 1VA1;
 Second row - Type 11A6, 11A8, W11B2; Third row --
 Type 1VB1, Type W1B1, Type W11A3; Fourth row -
 Type 11Alt, 11A6, 11A7; Fifth row - Type 1A2,
 11A3, 111A2, UID Type 4.

Table 3

Beads Recovered from Eighteenth Century
Proveniences, Lodge Alley

Provenience	Description	Type (Brain)	Type (Kidd & Kidd)	Mean Date	# recovered
FS# 9	blue striped tube	UID 3	-	?	6
FS# 9	white tube, striped	UID 1	-	?	2
FS# 9	raspberry	W11B2	W11d	1730	1
FS# 9	white tube	1VA1	-	1754	1
FS# 9	light blue seed	11A8	11A34	1743	1
FS# 9	aqua seed	11A7	11A45	1737	2
FS# 10	dark blue seed	11A6	11A51	1749	2
FS# 10	dark blue tube	11A3	1A9	1756	1
FS# 10	opaque blue-gray tube	1A2	1A16	1725	1
FS# 10	opaque white tube	111A2	1A4	1748	2
FS# 10	blue oval wirewound	UID 4	W1C	?	1
FS# 14	gooseberry	1VB1	11B18	1749	8
FS# 14	blue faceted wire- wound	W11A3	W11C	1739	1
FS# 14	lt. blue dome wirewound	W1B1	-	1754	1

30

individual fan slats, while the eighth was a thicker, rounded basal fragment, probably representing the outer slat. Personal artifacts comprised .23% of the assemblage.

Tobacco artifacts were more numerous in this assemblage than that of the nineteenth century. Pipe fragments comprised 6.3% of the assemblage. Binford's pipe stem dating formula was applied to the assemblage and yielded a date of 1760.8 (Binford 1962:19-21), slightly later than the mean ceramic date of 1739. The majority of the pipestem fragments were recovered from the higher, later eighteenth century zones, with only 10% of the sample from the three lowest zones.

A very low percentage of Activity artifacts were included in the assemblage, comprising only .11% of the total. This category was composed of three barrel strap fragments and a clay marble.

In summary, Kitchen and Architecture artifacts comprised 92% of the eighteenth century alley assemblage, a lower percentage than in the later proveniences. Miscellaneous items, including those in the clothing, personal, arms, and tobacco groups were more numerous in the eighteenth century proveniences. Outstanding in this assemblage was the large number of women's possessions, including glass beads and fan slats.

38 State Street - Nineteenth Century

Kitchen

Kitchen artifacts comprised 62.6% of the nineteenth century assemblage in the State Street courtyard. Refined earthenware tablewares associated with a nineteenth century occupation comprised 47% of the ceramic group. The remainder of the ceramics were utilitarian earthenwares whose manufacture dates span the eighteenth and nineteenth centuries and redeposited eighteenth century ceramics. The large percentage of early, redeposited ceramics (circa 25%) resulted in a relatively early mean ceramic date (South 1972) of 1793.

Green glass comprised 15% of the Kitchen assemblage while clear and aqua glass comprised an additional 15%. Glass represented a higher percentage of the nineteenth century Kitchen assemblage at 38 State than at Lodge Alley. No decorative glass or cutlery were recovered from these proveniences.

Architecture

Architectural artifacts comprised 27.8% of the assemblage, consisting totally of nails and window glass. No other architectural artifacts were recovered.

Miscellaneous

Very few miscellaneous domestic items were recovered from nineteenth century proveniences in the courtyard. No Arms, Furniture, or Clothing items were recovered from these proveniences. Two coins, one dating to 1690 and the other unidentifiable, constitute the Personal category, comprising .26% of the total assemblage. Tobacco artifacts comprise 1.69% of the assemblage (Figure 13).

In contrast to the above categories, the Activities group comprised 8.6% of the total assemblage. This category included 42 slate pencils; this type of artifact is usually included in the personal category, but the large number of these artifacts, and their association with other activities artifacts, suggest that they functioned in an activity capacity. Another interesting artifact was a fragment of flax with stains from copper or brass wire, which was entwined around the fibers. This may be associated with the latter nineteenth century occupation of the sites by copper smiths (Sanborn 1884; Eleanor Pierce: personal communication). Other artifacts in this category include nine barrel strap fragments and seven crucible fragments. These crucibles will be described in more detail later.

The nineteenth century assemblage from 38 State was quite different from that in Lodge Alley. The assemblage contained fewer domestic artifacts and more architectural and activity artifacts. These differences will be discussed in Chapter V.

38 State - Eighteenth Century

Kitchen

Kitchen artifacts comprised 64.3% of the colonial assemblage from 38 State. Ceramics comprised 59% of this group. Utilitarian wares formed the bulk of the ceramics, 77%, although some of the quantity of slipware may have served as tablewares.

In contrast to the other assemblages, green bottle glass comprised 34% of the kitchen group. Clear or aqua glass comprised 6.42% of the assemblage. Decorative glassware comprised the remaining .49%.

Architecture

Architectural artifacts comprised 27.8% of the eighteenth century assemblage. This group was comprised entirely of nails and window glass.

Miscellaneous

As with the nineteenth century assemblage, the early assemblage from 38 State contained very few miscellaneous items. No Arms or

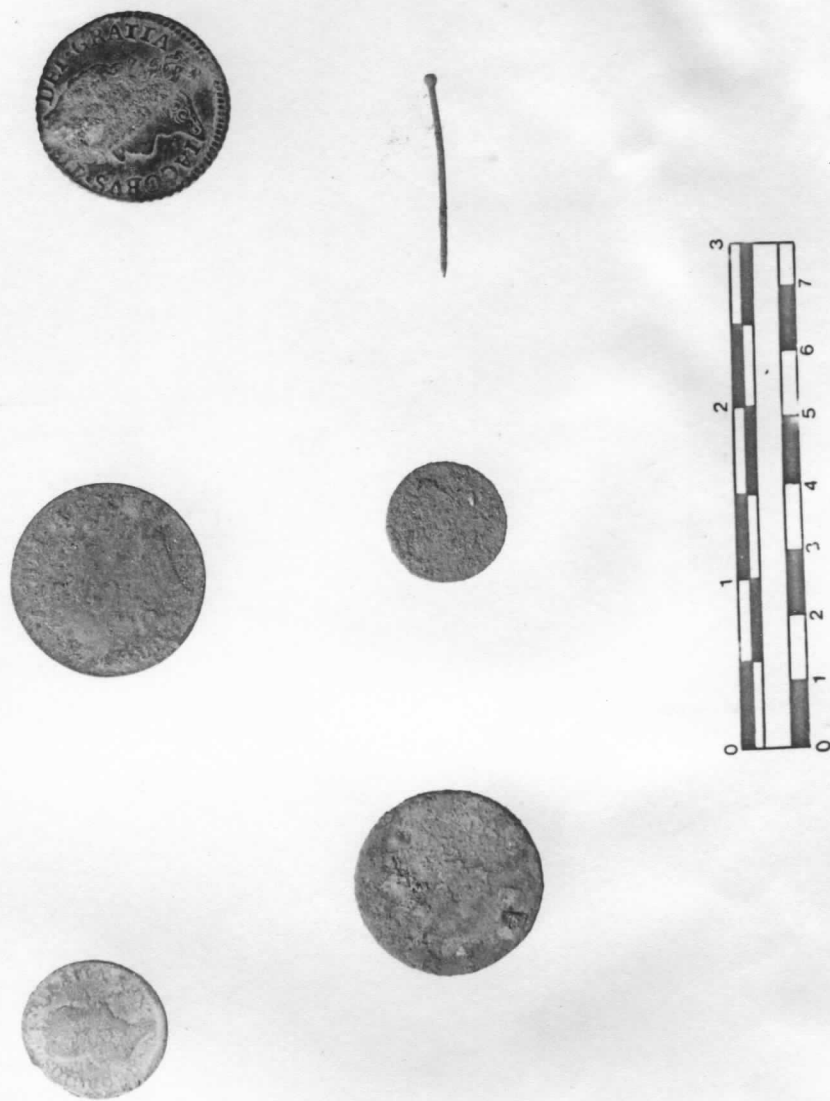


Figure 13

Coins and Straight Pin from Lodge Alley

Table 4

Quantification of Subassemblages,
Lodge Alley and 38 State

	Lodge Alley 19th C.	38 State 19th C.	Lodge Alley 18th C.	38 State 18th C.
Kitchen				
Whiteware, plain	338	10		
Pearlware, plain	103	25		
Pearlware, transfer print, blue	77	24		
Pearlware, transfer print, other	3			
Annular Ware	50	4		
Pearlware, hand paint, blue	72	5	1	
Pearlware, hand paint, poly	29	1		
Pearlware, shell edge	69	7		
Yellow ware		1		
Creamware, plain	704	62	56	
Creamware, transfer print	5			
Creamware, hand paint			1	
Whieldon ware	8		32	
Stoneware, misc	75		118	18
White Saltglaze Stoneware	53	9	311	8
Brown Saltglaze Stoneware	4	7		1
Westerwald	27	2	39	7
Scratch Blue	4		10	
Elers ware	1		1	
Gray Saltglaze Stoneware				4
Nottingham	1			
Porcelain, plain	23	9	38	
Porcelain, blue on white	79	3	173	9
Porcelain, overglaze	6	42	11	8
Agateware				
Astbury ware	3		10	2
Jackfield			13	1
Slipware	154	29	926	135
Tortoise shell glaze e. ware	3	2	9	
Delft, bisque			25	2
Delft, plain	39	8	129	6
Delft, blue on white	45	25	131	18
Delft, polychrome	3		21	3
Faience			1	
Majolica	1			
North Devon Gravel Tempered ware			1	2
Lead glazed coarse earthenware	27	10	61	3
Unglazed coarse earthenware	7	2	8	
Black lead glazed coarse earthenware			6	
"luster glazed" coarse earthenware			52	2
Gray coarse earthenware	7			
Colono ware	25	2	22	12
Olive jar	1			

4
Table 4, cont.

	Lodge Alley 19th C.	38 State 19th C.	Lodge Alley 18th C.	38 State 18th C.
Olive green glass	215	72	409	138
Clear bottle glass	38	10	49	18
Aqua bottle glass	36	2	43	7
Brown bottle glass	4	3		
Pharmaceutical bottle		5		1
Stemware	8		1	2
Tumbler	2		1	
Decanter			2	
Painted glass			2	
Cutlery	2			
Architecture				
Nail	419	160	723	167
Shutter pintel	1		1	
Hinge	3		13	
Bolt	11			
Hook	2	1		
Window glass	14	39		8
Spike	6			
Brick			4	
Slate		5		
Roof tile		1		
Arms				
Spall flint			1	
Flint chip	2			
Shot			2	
Furniture				
Tack			3	
Drawer pull			1	
Lamp	1			
Clothing				
Brass button	2		4	
Straight pin				1
Hook	1			
Shoe leather			1	
Bead	5		30	
Personal				
Coin	1	2	3	
Fan slat			8	1
Pencil	1		1	
Key	1			

Table 4, cont.

	Lodge Alley 19th C.	38 State 19th C.	Lodge Alley 18th C.	38 State 18th C.
Tobacco				
4/64 diameter stem	19		116	14
5/64 diameter stem	39		101	16
bowl fragment	5		17	3
Activities				
Wire				2
Crucible		7		
Copper thread		1		
Barrel strap	5	9		
Burlap		1		
Toy marble	1		1	
Pencil		48		
Lead	1			
Prehistoric sherd				2

Furniture artifacts were recovered. Clothing items were represented by a single brass straight pin, comprising .16% of the assemblage. The Personal category was represented by a fragment of a fan slat, comprising .16% of the assemblage. Two fragments of brass wire comprised the Activities group. The Tobacco group contained the largest number of miscellaneous artifacts, comprising 7.3% of the assemblage. A mean date of 1744 was obtained using Binford's pipestem formula (Binford 1962). This is only slightly later than the mean ceramic date of 1736 (South 1972).

Two prehistoric sherds were recovered from eighteenth century proveniences in the courtyard. One was a Pee Dee sherd, exhibiting the characteristic complicated stamping and reed punctations near the rim. The second was a simple-stamped sherd with sandy paste (Figure 14). The recovery of these sherds suggest a prehistoric component for the site, although no prehistoric contexts were encountered. The depth of cultural deposits at the site and the very limited areas of excavation precluded further investigation of this question.

In summary, the early eighteenth century assemblage from 38 State was more similar to the Lodge Alley eighteenth century assemblage than to the nineteenth century assemblage from the courtyard. Subsistence artifacts comprised 92% of the assemblages. These similarities and differences will be discussed in the following chapter.

An additional assemblage was recovered from 38 State. These proveniences represent a burned, in situ deposit from some type of craft activity. Because of the large number of artifacts recovered from this deposit (over 15,000) and the anomalous nature of the deposit, it will be discussed separately.

38 State - Late Eighteenth Century

Beneath Zone 5 of Test Pit 4 a deposit was encountered which was different from any other previously encountered in excavations in downtown Charleston. A description of the matrices and stratigraphy for these proveniences is found in Chapter III. The artifacts contained in the assemblage will be described here. Because of their anomalous nature, they have not been placed in traditional functional categories (South 1977); with the exception of eighteenth century ceramics, probably present as a result of redeposition, the entire assemblage represents products or tools of a craft enterprise.

The predominant artifact were crucibles of a hard fired clay. In addition to 429 whole or reconstructed crucibles, 6,133 fragments were recovered. The crucibles have flat, round base with straight, flaring sides, which were pinched to form a triangular rim. The crucibles are graduated in size from 2 cm to 16.5 cm in height (Figure 15). Many of these crucibles exhibited a maker's mark scratched into the side of the vessel, consisting of what appears to be two initials enclosed by a heart.



B



A



Figure 14

Prehistoric Sherds from 38 State Proveniences

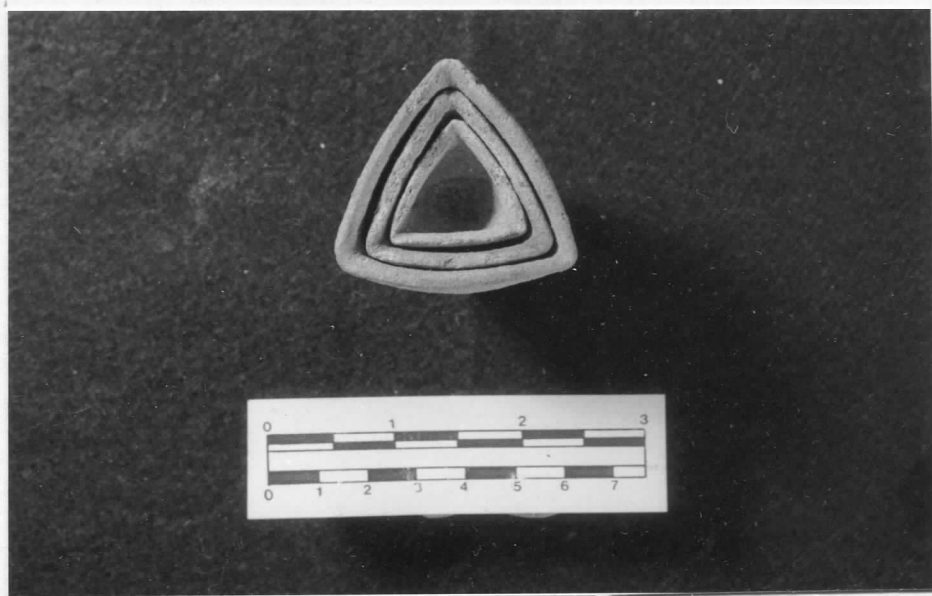


Figure 15
 Clay Crucibles from 38
 State

A Size Distribution
 of clay crucibles

B Nested Crucibles

C Incised maker's
 marks on the clay
 crucibles

(Figure 15). Table 5 shows the distribution of crucibles by size. Smaller crucibles are more common than the larger ones.

In addition to these clay crucibles, 91 fragments of graphite crucibles were recovered. These graphite crucibles had a red clay wash on the exterior, and were generally larger than the majority of the clay crucibles. The graphite crucibles exhibited a number of maker's marks stamped on the base of the vessel. One mark is attributed to a pottery in Malta dating to the turn of the nineteenth century (Hooper and Phillips 1896:68) (Figure 16). In addition to being larger and more carefully executed, the graphite crucibles have a round, rather than triangular, rim (Figure 16).

The next most common artifact in the assemblage was melted glass; 2009 fragments of melted glass were recovered. These fragments ranged from small "drops" of glass to whole melted bottles. In addition, 594 green and 914 clear fragments of unmelted glass were recovered. Twelve decanter necks, 22 fragments of ribbed tumblers, and 6 decanter stoppers were recovered (Figure 17). The decanter stoppers are traditional late eighteenth century styles (Noel Hume 1969:197).

Based on the presence of quantities of glass and the clay crucibles, it was initially suggested that the deposit represented a glass foundry. Crucibles of clay are an important tool in the production of glass (Kenyon 1968; Hatch 1941), and crucible fragments were recovered from the glass foundry excavations at Jamestown (Harrington 1952; 1958). More extensive research, however, indicates that the crucibles used in glass production were much larger (Hatch 1941; Harrington 1952; Ure 1840) ranging in size from "a large breakfast cup to very large bucket shaped pots" (Kenyon 1968).

Smaller crucibles, such as the ones recovered at 38 State, were used in metalwork, including the smithing and assaying of precious metals. Diderot shows crucibles being used in coining and smithing (Figure 18). Lazarus Ercker's treatise on Ores and Assaying (Sisco and Smith 1951) contains an extensive description of the clay crucibles required in the processes. The smith was often expected to manufacture his own. Old, broken crucibles were often crushed and mixed with the clay. Often, assayers "mixed so much of this with the clay that the clay can hardly be worked for brittleness". Pebblestones were also used in the mixture. The presence of these elements in the clay would account for the dry, cement-like quality of the crucible paste. The treatise also indicates that many crucibles were broken during the assaying process (Sisco and Smith 1951:24,112). Georgius Agricola describes the use of triangular crucibles in assaying (Hoover and Hoover 1950). Ure describes the manufacture of crucibles in a similar manner, indicating that the best were made from the cement of old crucibles (Ure 1840).

Ure also describes the graphite crucibles. They were,

"made of two parts graphite and one of fireclay, mixed with water into a paste, pressed into moulds and well dried; but not baked

Table 5

Size Distribution of Clay Crucibles

Basal Diameter	# recovered	Height	# recovered
1.0 cm	9	2.0 cm	3
1.5 cm	24	3.0 cm	32
2.0 cm	76	3.5 cm	2
2.5 cm	77	4.0 cm	1
3.0 cm	64	4.5 cm	1
3.5 cm	-	5.0 cm	21
4.0 cm	92	6.0 cm	4
4.5 cm	6	6.5 cm	2
5.0 cm	5	7.0 cm	1
5.5 cm	21	8.0 cm	1
6.0 cm	31		
6.5 cm	3		
7.0 cm	2	10.0 cm	1
7.5 cm	16		
8.0 cm	13	16.5 cm	1
8.5 cm	1		



Figure 16

Graphite Crucibles from 38 State

A Examples of graphite crucibles

B Maker's marks on base of crucibles



Figure 17

Glass Artifacts from In Situ Deposit

A Decanter neck, decanter stoppers

B Ribbed tumbler base, melted stoppers

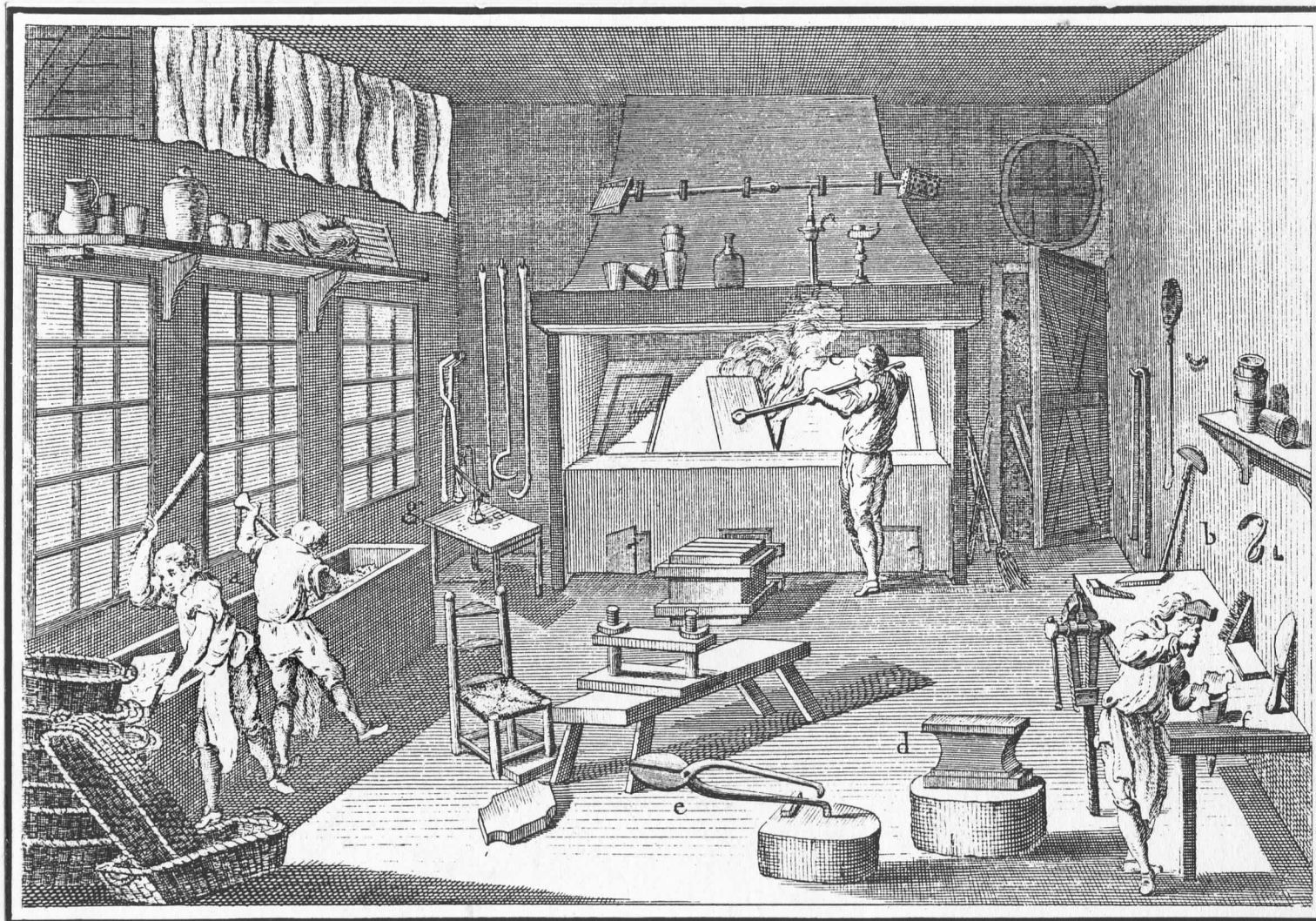


Figure 18

Figure from Diderot's Encyclopedia of Trades and Industries (1959) depicting the production of coins. Note the stacked crucibles, glass and ceramic containers on the shelves.

hard in the kiln. They bear a higher heat, as well as sudden changes of temperature; have a smooth surface, and are therefore preferred by the melters of gold and silver".

Graphite is also an inert element, and does not react with other chemicals. Descriptions of historic industries associate the triangular crucible with metallurgy as early as Roman times (Tylecote 1962).

In addition to the crucible and glass artifacts, a quantity of red-burned refined earthenware was recovered from the deposit; 1949 fragments were recovered. Although most were burned beyond recognition, some sherds were identifiable as to type. The majority of these were creamware (209), followed by Whieldon ware (9) and pearlware (1). The most common vessel forms present in the assemblage were a handled cup and a shallow bowl or saucer with ridges along the interior rim. Singer et al. notes that assayers commonly used "cheap glazed ceramics" and glass extensively in the assaying process (Singer et al. 1957"60).

Many of the artifacts from the deposit were covered with a dusty red powder. The powder was also found in a few of the crucibles. In addition, a red paste of this substance was mixed with the soil of these proveniences. These substances were analyzed by Dr. Frank Kinard of the College of Charleston. The results of the analysis are shown in Table 6. The powder is predominantly iron oxide; the function of such a substance in the activities associated with smithing is not clear, though it may have been a polishing rouge, used to polish both silver and pewter (Charles Fairbanks, personal communication).

The above research suggests that the crucible assemblage recovered from 38 State was associated with some type of metallurgy, probably a jewelry smith (Charles Fairbanks, personal communication). Studies indicate that several jewelers worked in the city during the eighteenth century (Calhoun, Paysinger, and Zierden 1982), supporting the suggestion that such an industry would be present in Charleston.

A few domestic items traditionally associated with a domestic occupation were recovered in the deposit. One hundred eighty four eighteenth century ceramics were recovered, in addition to an upholstery tack, three tobacco pipe fragments, and a clay marble. It is reasonable to expect that these, unburned, artifacts are present in this deposit as a result of redeposition of earlier materials (see Schiffer 1977).

These proveniences, then, are believed to represent a completely commercial/industrial deposit. The artifacts in this deposit traditionally associated with domestic activities, such as green bottle glass and refined earthenware, because of their relative proportions, may have been used in a commercial capacity. The suggested exclusive use of these materials in a commercial capacity is supported by the lack of faunal remains; only nine fragments of bone were recovered from the deposits. In addition, the majority of the domestic artifacts present are believed to be redeposited from earlier features.

Table 6

Chemical Composition of Substances
from Late Eighteenth Century Deposits, 38 State

Red Powder

Aluminum	1.4%
Silicon	1.7%
Iron	87.9%
Oxygen	8.0%
	(iron oxide)

Red Paste Contained in Soil

Oxygen	5.8%
Fluorine	4.0%
Aluminum	4.7%
Silicon	18.7%
Calcium	6.3%
Iron	45.8%
	(mixture of iron oxide and clay)

(Frank Kinard 1983, Personal
Communication)

Table 7

Quantification of Late Eighteenth
Century Assemblage, 38 State

Porcelain, plain	124
Porcelain, blue on white	32
Porcelain, overglaze	2
Pearlware	1
Creamware	205
Whieldon ware	9
White Saltglaze Stoneware	3
Brown Saltglaze Stoneware	3
Westerwald Stoneware	2
Stoneware, misc.	109
Delft, plain	1
Delft, blue on white	3
Slipware	3
Unglazed redware	9
Lead glazed redware	1
Colono ware	1
Burned earthenware	1949
Green bottle glass	589
Green bottle, melted	5
Clear bottle glass	911
Pharmaceutical bottle	3
Decanter neck, base	12
Tumbler	22
Decanter stopper	6
Brick fragment	321
Mortar	1778
Slate	53
Roof tile	285
Nail	449
Window glass	6
Furniture tack	1
Tobacco pipe fragment	3
Toy marble	1
Pencil	5
Graphite crucible sherd	91
Clay crucible sherd	5586
Clay crucibles	429
Melted glass	2008

Although the data are far from conclusive, the present evidence suggests that the deposit is associated with some type of metallurgy, probably the assaying or working of precious metals. This area of the city was a popular location for craftsmen in the eighteenth century, and Charleston supported a number of jewelers who would probably engage in such activities.

An alternate explanation is that the deposit represents a burned warehouse. Such an explanation may account for the quantities of so few artifact types. The proximity of the site to the wharves and waterfront supports this theory; warehouses were common in these blocks, especially in the nineteenth century.

The date of the deposit is as difficult to determine as the function. The one maker's mark identified from the crucibles bears a date of 1800-. The ceramics and glass, however, suggest a late eighteenth century date of deposition. The date of the strata above these proveniences support the earlier date. Based on these data, we suggest a date of deposition of circa 1780. Crucibles associated with metalworking were also recovered in late eighteenth century contexts in Newburyport, Massachusetts (Faulkner et al. 1981).

Regardless of whether the deposit represents an active industrial venture or the storage of items related to commercial activities, the deposits present an excellent opportunity to study the commercial activities of Charleston. This will be discussed in more detail in the following chapter.

CHAPTER V

RESEARCH EMPHASES

Two research questions have been emphasized in recent investigations in Charleston. The first concerns the delineation of site function on sites with a dual residential/commercial use. The second concerns the definition of socioeconomic status and the delineation of clusters of citizens of different status within the city. Each question will be discussed separately. In addition, processes responsible for site formation are considered.

Site Formation Processes

An archaeological site basically consists of a natural environmental setting modified by the activities of the humans who occupy the site. Specifically of interest to the archaeologist are activities which disturb the ground and introduce materials into the ground. Once introduced into the ground, materials can be redistributed in the ground, or they can be removed.

At complex sites such as the urban historical site, the archaeological record is a combination of all three events (Honerkamp and Fairbanks 1982). Redistribution, though, is often extensive at such sites, resulting in the mixing of earlier deposits with later ones. Several different site formation processes resulted in the complex archaeological record at Lodge Alley - 38 State.

The alley itself contains examples of sheet deposits, or the gradual aggradation of soils in combination with the general distribution of cultural materials on the ground surface. The numerous shallow zones present in Test Pit 1 suggest that this was the primary formation process for the archaeological record in the alley. In certain cases, soil and archaeological materials were introduced to the site as fill, as suggested by Zone 5.

The refuse present in the alley was probably discarded directly into the street from the structures fronting the alley. Excavations at several British colonial sites indicated that domestic refuse was often discarded adjacent to the home, in and around doorways, and in the public street. This pattern of refuse disposal was defined by Stanley South and termed the Brunswick Pattern of Refuse Disposal (South 1977:47). Although more recent investigations have demonstrated that the majority of British colonial refuse was deliberately deposited in subsurface features such as trash pits and abandoned wells and privies (Honerkamp 1980), it remains that some refuse was informally deposited on the ground surface. In a highly congested urban setting such as Lodge Alley, it is likely that at

least some refuse was simply dumped into the alley. Therefore, it is assumed that the artifacts recovered from Test Pit 1 represent refuse from structures fronting the alley.

The archaeological deposits in the 38 State Street courtyard are the result of several site formation processes. In addition to the gradual accumulation of soils and refuse in sheet deposits, such as those that characterized the alley, many feature deposits were present, resulting from discrete activities. The location of the courtyard in the center of the block suggests that it was the locus of many of the "backyard" activities characteristic of colonial and antebellum sites, including craft activities, food preparation, and refuse disposal (Fairbanks 1977; Honerkamp 1980; Deagan 1983).

An additional activity affecting the formation of the archaeological record in the alley is the construction and destruction of buildings. The upper zones contain architectural rubble from the collapse of buildings in the late nineteenth century. Feature 6 represents the construction of an auxiliary structure. Finally, the brickfall in Zone 5 and the deposit of crucibles beneath it represent the rapid destruction of a structure as the result of a disastrous event, in this case probably a fire.

The possible effect of such events on the archaeological record has been discussed elsewhere (Zierden 1983). Schiffer has discussed four primary activities which result in the transfer of materials into the archaeological record. These include discard, loss, abandonment, and disposal of the dead. The fourth did not affect the archaeological record at 38 State and will not be discussed further. Most materials enter the archaeological record as the result of discard or loss, as a result of the daily activities of domestic life. Abandonment activities also affect the archaeological record in Charleston, though not in the traditional sense. When a structure or dwelling is destroyed unexpectedly, such as by fire or storm, materials contained in the structure may be damaged beyond reuse, and thus abandoned. Of course, the site was often rebuilt upon, but the abandoned materials became part of the archaeological record. It has been suggested that the rapid filling of some of the privies in Charleston may be a result of the cleanup activities following such destruction.

The final site formation process evidenced at 38 State was filling, the deliberate deposit of soils to produce a more desirable ground surface. In addition, the redistribution of materials was evidenced by the presence of earlier materials in many late eighteenth and nineteenth century proveniences. These activities; the discard of refuse, either on the ground surface or in discrete features, secondary filling, redistribution, and, finally, abandonment of damaged structures and materials, resulted in the deep, complex stratigraphy characteristic of Charleston, and 38 State in particular.

Site Function

The Lodge Alley site, and all of the sites excavated in Charleston to date, have been located within the sections of the city that have historically functioned as the site of both residential and commercial activity. Previous research on the delineation of functional characteristics of a site through analysis of artifactual materials has led archaeologists to suggest that certain commercial activities may not be reflected in the archaeological record. Both Lewis (1977:177) and Honerkamp, Council and Will (1982:17) have suggested that commercial enterprises which transfer, rather than produce, goods are likely to produce little in the way of byproducts which would be recovered archaeologically. This was supported by data from the Charleston Center site, a locus of retail commercial activity which produced refuse from domestic activities almost exclusively (Honerkamp, Council, and Will 1982:142-155). By contrast, sites characterized by craft oriented, or combined craft/domestic occupations would be expected to generate at least some byproducts indicative of site function (Honerkamp 1980; Lewis 1977).

In order to examine the Lodge Alley subassemblages for evidence of site function, they were classified according to South's functional categories and compared to the Carolina Artifact Pattern (South 1977). The Carolina Artifact Pattern is a quantified artifact distribution which basically monitors domestic activities at British colonial sites (see Honerkamp 1980) (Table 8). Authors have noted that the empirical artifact profiles South used in establishing the Carolina Artifact Pattern were derived from assemblages of combined domestic-craft activity sites. Therefore, domestic-only refuse, from whatever source, should exceed the model mean for domestic artifact classes. This was the case at the Charleston Center site (Honerkamp, Council, and Will 1982:142-156).

Examination of the four subassemblages (excluding the anomalous late eighteenth century craft assemblage from 38 State) suggests that Lodge Alley was the site of different types of occupation and activities than 38 State Street. Both the eighteenth and nineteenth century assemblages from Lodge Alley were different from both assemblages at 38 State. Both assemblages in the alley contained a high percentage of Kitchen artifacts, 72.2% and 80.3%, respectively. This contrasts to 64.3% and 62.6% for the eighteenth and nineteenth century assemblages for 38 State. The alley also contained a larger percentage of the more personal artifact types, including items of clothing, furniture, tobacco, and personal possession. The biggest contrast was in the Activities group; the average activities frequency was .77% for Lodge Alley and 4.19% for 38 State. The nineteenth century activities group at 38 State comprised 8.06% of the assemblage.

Historical evidence suggests that occupation along the alley was predominantly domestic, until the area was utilized for warehouses in the mid-nineteenth century. In contrast, frontage along East Bay and

Table 8

Comparison of the Lodge Alley Assemblages
with the Carolina Artifact Pattern

Artifact Group	Lodge Alley 19th Century		38 State 19th Century		Lodge Alley 18th Century		38 State 18th Century		Carolina Pattern
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	
Kitchen	2344	81.28%	478	62.6%	2680	72.18%	405	64.29%	63.1%
Architecture	456	15.62%	214	27.83%	741	19.96%	175	27.78%	25.5%
Arms	2	.07%	0	0.00%	3	.08%	0	0.00%	.5%
Furniture	1	.03%	0	0.00%	4	.11%	0	0.00%	.2%
Clothing	8	.28%	0	0.00%	35	.94%	1	.16%	3.0%
Personal	3	.10%	2	.26%	12	.32%	1	.16%	.2%
Tobacco	63	2.24%	13	1.69%	234	6.3%	2	.32%	5.8%
Activities	42	1.46%	62	8.06%	4	.11%	46	7.30%	1.7%
Total	2884		769		3713		630		

State Streets was utilized primarily for dual function occupation. The archaeological evidence suggests that the commercial orientation of 38 State was craft activity.

Data from these assemblages were compared to a number of other sites (Table 9). For this comparison, the artifact groups were combined, based on the example of Honerkamp. Kitchen, Furniture, Clothing, and Personal groups were combined into a single Domestic category, and the Architecture, Arms, and Pipe into a Miscellaneous category. An Activities category is composed of the Activities class (Honerkamp, Council and Will 1982:157). The Lodge Alley domestic category forms a larger percentage of the total assemblage, 77.1%, than the mean of the Carolina Artifact Pattern, 66.5%. This is not true for the 38 State assemblage, where domestic materials comprise 63.7% of the assemblage. The 38 State assemblage is more similar to the other craft/domestic sites, including the Dobree and Hird sites from Frederica, Georgia (Honerkamp 1980), and the sites used for formulate the Carolina Artifact Pattern (South 1977). Interestingly, the Activities percentage from 38 State is higher than from any other site.

Higher frequencies of domestic artifacts were noted for the Camden, Ft. Moultrie, Charleston Center, and Lodge Alley assemblages. The close fit of the Camden and Charleston Center data (combined domestic/retail commercial) with the Fort Moultrie and Lodge Alley data (primarily domestic) supports Honerkamp's and Lewis' suggestion that retail commercial activities will not be reflected archaeologically, and the archaeological record at such multiple use sites will be composed of the byproducts of domestic activity. The data from the recent Charleston excavations also support the suggestion that site function is not monitored by the Activities group alone, but may be better monitored by frequency relationships of domestic-related artifacts (Honerkamp, Council, and Will 1982:156).

In addition, the Miscellaneous categories of combined craft/domestic sites tend to be higher than those where craft activities were absent. The Dobree, Hird, and 38 State assemblages contained a higher percentage of miscellaneous artifacts than suggested by the Carolina Artifact Pattern mean. An interesting parallel to these patterns can be seen in the McCrady's Longroom assemblage (Zierden et al. 1982), a combined domestic/tavern site in downtown Charleston. Although the McCrady's assemblage contained a very low percentage of Activities artifacts, the miscellaneous category was higher than the Carolina mean, while the domestic category was lower. This was a somewhat unexpected phenomena, since the goods and services dispensed by McCrady's were essentially domestic in nature. Based on these data, Zierden suggested that non-domestic activity may be reflected in artifact categories other than the activities group. This suggestion may be supported by the higher percentage of miscellaneous artifacts at the combined use sites, in that such diversity in the archaeological assemblage may reflect a greater range of activities at the site. Other authors have suggested that the miscellaneous

Table 9

Summary of Three Artifact Group Categories *
for Several British Colonial and American Sites

Group Category	Charleston** Center	Dobree ⁺	Hird ⁺	Camden ⁺⁺	Moultrie [@]	McCrady's ^a	Lodge Alley	38 State	Carolina = Pattern
Domestic									
Kitchen	68.9	53.5	61.2	71.4	68.9	63.0	76.2	63.2	63.1
Furniture	0.1	0.08	0.07	0.08	0.1	0.06	0.07	0.0	0.2
Clothing	1.7	0.5	0.7	0.3	3.1	0.41	0.6	0.21	3.0
Personal	0.1	0.05	0.07	0.04	0.15	0.06	0.21	0.13	0.2
Total	70.8	54.13	62.04	71.78	72.25	63.54	77.12	63.74	66.5
Miscellaneous									
Architecture	24.9	28.4	23.4	22.0	22.25	25.8	17.79	27.8	25.5
Arms	0.1	0.8	1.1	0.2	0.9	0.2	0.43	0.0	0.5
Pipes	2.7	13.6	11.9	3.1	2.8	9.98	4.23	4.49	5.8
Total	27.7	42.8	36.4	25.3	25.9	36.0	22.09	32.3	31.8
Activities									
Activities	1.5	3.0	1.6	2.8	1.8	0.25	0.77	4.19	1.7

*After Honerkamp, Council, and Will 1982:157

** Honerkamp, Council, and Will 1982

+ Honerkamp 1980

++ Lewis 1977

@ South 1974

a Zierden, Reitz, Trinkley, and Paysinger 1982

= South 1977

categories vary independently of site function (Honerkamp, Council, and Will 1982). The data presented here are insufficient to explore the question further.

The data from Lodge Alley and 38 State indicate that site function may be reflected in the archaeological record, despite the intensive occupation and reoccupation of the urban site (Honerkamp and Fairbanks 1982). Differences between the Lodge Alley and the 38 State assemblages are apparent even with the exclusion of the primarily commercial proveniences from the courtyard. These excluded deposits contained primarily craft-oriented artifacts, and provided solid support for the suggestion that 38 State was the site of craft activities. The reflection of commercial activity in deposits that are the result of abandonment activity has been discussed elsewhere (Zierden 1983). The present data suggest that craft commercial activity, at least, may also be reflected in deposits resulting from daily discard or loss.

Socioeconomic Status

The manifestation of sociocultural variables in the archaeological record has been the subject of recent archaeological investigations (Deagan 1982:165). Using the documentary record as a control, researchers have examined the ways in which social status may be reflected archaeologically (Deagan 1983; Poe n.d.; Otto 1975; Miller 1978). In a recent study at McCrady's Longroom in downtown Charleston, assemblages from the tavern and the later, more affluent longroom were compared for evidence of the social status of the clientele (Zierden et al. 1982). Research revealed trends towards a greater quantity of high status items in the longroom assemblage. In general, though, differences between the longroom and tavern assemblages were slight. Taken together, the assemblages from McCrady's establishment may represent the assemblage of higher status individuals. The extensive use of McCrady's tavern and longroom by prominent citizens, and the location of the site in the core of the prosperous city suggest that McCrady's represents a higher status assemblage.

Historical research has demonstrated that colonial and Revolutionary Charleston was a complex, cosmopolitan urban center, with a diverse population, and it has been suggested that social classes were to a certain extent spatially segregated (Rogers 1980; Zierden and Calhoun 1982). Although detailed historical records on residential patterns in the city are not available for this period, certain trends have been noted. Broad Street served as the central street during this period, with the Exchange building at the corner of East Bay Street, and St. Michael's church and other public buildings at the intersection of Meeting Street. East Bay Street, principally the area adjacent to Broad and Tradd Streets, served as the commercial core of the port city (Calhoun, Paysinger, and Zierden 1982). This core area, and the area south of Broad Street, was the location of the homes of prosperous citizens. Peripheral, less desirable areas of the city were occupied by individuals of lower socioeconomic status. In addition, frontage

along major thoroughfares was preferred by more prosperous citizens. Conversely, frontage along secondary streets and alleys was most often occupied by lower status citizens.

The limited information on spatial distribution of the colonial and federal population supports the suggestion that the McCrady's site was located in a more desirable section of the city. It also suggests certain trends for the Lodge Alley and 38 State locations. Alleys were traditionally occupied by lower status citizens. This, plus Lodge Alley's location on the northern periphery of the city, suggests a low status occupation for the alley frontage. This is also supported by the documentary research on site inhabitants (see Chapter II). In contrast, frontage along East Bay and State Streets was often utilized by merchants and especially craftsmen. Craftsmen were often located on these streets, and exhibited a more dispersed settlement pattern than did the merchants (Calhoun, Paysinger, and Zierden 1982). The association of the excavated courtyard with either an East Bay or State Street frontage would suggest a mixed residential/commercial use, and probably a middle-class occupation.

Based on this information, the assemblages from 38 State and Lodge Alley were examined for patterns suggesting the social status of the inhabitants. Data from McCrady's Longroom were also utilized in the comparison. Based on previous research in a variety of settings, diet is expected to be sensitive to socioeconomic status (Schultz and Gust 1983; Miller 1978; Reitz and Gibbs 1983; Cumbaa 1975). Thus artifacts in the Kitchen group which function in a sociotechnic and technomic sphere (Binford 1962) are expected to reflect social status, as are the floral and faunal remains (Deagan 1983). In addition, personal, highly curated objects are expected to reflect social status (Zierden 1981).

A comparison of the presumed lower status Lodge Alley assemblage with the McCrady's assemblage reveals some significant differences. A comparison of the ceramic assemblage reveals a much higher percentage of refined tablewares in the McCrady's assemblage, 56.5% compared to 38.6% in the alley. The reverse is true, of course, for utilitarian wares; the McCrady's assemblage contains 41.3% utilitarian wares, while the Lodge Alley assemblage contains 56.9%. Wine goblets and oriental porcelain have traditionally been used as indices of affluence on eighteenth century British colonial sites (Deagan 1976: 84). Porcelain forms a higher percentage of the ceramics from eighteenth century contexts at McCrady's, 12.4%, than at Lodge Alley, 8.4%. The McCrady's assemblage also contains a much higher percentage of decorative glassware, .25% versus .04%.

Certain differences are evident in a comparison of the faunal assemblages, although these are by no means conclusive. Likewise, ethnobotanical data from urban historical sites are much too preliminary to be utilized (Zierden and Trinkley 1983). Based on the presence of caprines and

and sawed bones in Longroom contexts at McCrady's, Reitz suggested the presence of an elite clientele. These elements are absent from the Lodge Alley assemblage. Although cow dominated both assemblages, the Lodge Alley assemblage contained a quantity of presumably undesirable elements, such as mandible and feet fragments. The presence of these elements in large quantities may reflect the low status of the alley inhabitants.

A comparison the clothing and personal categories revealed similar percentages of these artifacts in the total assemblage, but different types of materials present in the two categories. The clothing group at McCrady's was composed primarily of buttons, and contained only two glass beads. Although buttons were present in the clothing assemblage at Lodge Alley, beads dominated the category, and were recovered in unusually large quantities. On Spanish colonial sites, large numbers of glass beads have been associated with women of lower status (Deagan 1974; 1976:84). A comparison of the Personal category was inconclusive; both groups were composed primarily of fan slats.

The clothing and personal items recovered from Lodge Alley provide little additional information on the social status of the alley inhabitants. They do suggest that women comprised a significant portion of the inhabitants. The quantity of glass beads recovered from the alley may reflect the low status of these women.

The 38 State assemblages were too small for a valid comparison, but certain trends may be suggested. The ceramic assemblage contained 47% tablewares and 53% utilitarian wares. In addition, 38 State contained .14% decorative glassware, which falls between the relative percentages from Lodge Alley and McCrady's. These data from the Kitchen group tentatively support the suggested middle-class occupation of the property. These trends were not reflected in the relative percentages of oriental porcelain for the eighteenth century; 38 State contained only 6.2% porcelain, compared to 8.4% in the alley. The Clothing and Personal assemblages from the courtyard were too small for valid comparisons.

The sample from 38 State is too limited to provide concrete information on the relative socioeconomic status of the site's inhabitants. More extensive research is needed on this subject to determine the artifact categories most sensitive to socioeconomic status in Charleston. In addition, larger samples from more sites are needed to provide statistical validity to these measures. The small samples from McCrady's and Lodge Alley do provide preliminary information on socioeconomic variability in colonial Charleston, using the documentary record as a control.

CHAPTER VI

SUMMARY AND CONCLUSIONS

In January 1983 the City of Charleston contracted with the Charleston Museum to conduct limited archaeological excavations at the Lodge Alley site in downtown Charleston. The block bounded by Cumberland, East Bay, Queen and State Streets is currently the site of revitalization efforts, as several nineteenth century commercial structures are being converted to a hotel/condominium complex. Archaeological excavations focused on Lodge Alley, which bisects the block, running east to west, and in an abandoned courtyard in the south-central portion of the block.

Four units were excavated at the site, a 10 foot by 6 foot square in the alley and three 5 foot squares in the courtyard. Excavations revealed cultural deposits averaging six feet in depth; proveniences were recovered which date from the early eighteenth century through the mid-twentieth century. These deposits resulted primarily from domestic activities at the site. The temporal parameters of site occupation indicated by the recovered archaeological data generally support the range of occupation suggested by the documentary evidence, although it is quite possible that evidence of earlier occupation was destroyed by the ground disturbing activities of subsequent eighteenth century occupation.

Extensive historical research was conducted prior to, and after, the archaeological research. In addition to pursuing a title search of the particular properties, extensive general information on Charleston's development was integrated into the historical study. Formulation of a chain of title for the property proved to be of secondary importance to the study of Lodge Alley. First of all, the assimilation of a complete chain of ownership proved impossible due to several legal complications in the transfer of the properties during the eighteenth century. This is most evident in the case of Alexander Gillon, whose holdings were siezed for debts following the Revolution, and held in escrow for over 80 years. Secondly, and more pertinent to the present study, the property was rarely, if ever, occupied by the land owner; therefore, information on a property owner has little relevance to the study of the past occupation of the site. The property was most often owned in large blocks and rented to various tenants. This trend has been noted for the commercial area of Charleston as early as the colonial period; the resulting biases in relying on a title search alone for a site's history has been discussed elsewhere (Zierden et al. 1983; Calhoun, Paysinger, and Zierden 1982). Some information was available on the actual alley inhabitants from newspaper ads, censuses, and city directories.

The information contained in these sources, plus the extensive historical information compiled in preparation of a general research

design (Calhoun, Paysinger and Zierden 1982; Zierden and Calhoun 1982; 1983) allowed us to construct a general pattern of land use and development for the site. Studies of spatial patterning and differential land use indicate that Lodge Alley was located on the northern periphery of the city during the colonial period. During this period the alley frontage was intensely occupied, and this occupation was primarily domestic. During the colonial and antebellum periods, narrow alleys were the homes of lower status citizens; the high number of rental properties on the alley support this suggestion. This is also supported by the available information on the Lodge Alley inhabitants. Throughout the eighteenth and nineteenth centuries the intensity of occupation along the alley decreased; by the Civil War period the alley was primarily the site of warehouses and commercial buildings.

The areas of East Bay and State Streets associated with the excavated courtyard exhibited a slightly different land use history. Although on the northern periphery of the colonial city, these frontages were located within the commercial district of the city and were utilized for the combined domestic-commercial purposes characteristic of that period (see Calhoun, Paysinger, and Zierden 1982). Throughout the eighteenth and nineteenth centuries the lots were subdivided and structures became longer, narrower, and higher as property values increased (see Honerkamp, Council and Will 1982). Socioeconomic status of the site inhabitants is difficult to determine, although a middle-class affiliation is suggested. The limited information available on the function of the site and the income of its inhabitants supports the general trends suggested for the area.

The archaeological investigations at Lodge Alley were successful in meeting several goals simultaneously. First, the project provided historical details on daily life of the alley inhabitants. This information will be utilized by the developers to interpret the history of the project area to visitors. This information has also been utilized in a series of exhibits on display at the Charleston Museum. Through these two outlets, and this report, information on Charleston's history obtained through the archaeological investigation has been made available to the general public.

The same data were used to address questions of current interest in historical archaeology. For this, a combination of historical, artifactual, faunal, and ethnobotanical data were utilized, as well as comparative data from other investigations. Two research questions were examined utilizing these data.

The first question concerns site function. The site is located within the area of Charleston historically associated with commercial activity. Recently, a model was proposed for land use patterning in the commercial core of Charleston during the eighteenth and nineteenth centuries. (Honerkamp, Council, and Will 1982; Zierden et al. 1983).

Elements include maximal use of real estate, a dual residential/commercial function, frontage of the structure directly on the street, narrow, contiguous, linear arrangement of properties, and extensive reuse of backlot elements as trash repositories.

Recognizing the dual (residential and commercial) function of such sites in the archaeological record has been a problem in recent urban investigations. A lack of evidence for commercial activity in the assemblages from Camden and the Charleston Center site prompted researchers to suggest that commercial enterprises which transfer, rather than produce, goods are likely to produce little evidence in the archaeological record; the archaeological record at such sites is expected to consist overwhelmingly of refuse generated from the domestic activities. By contrast, sites characterized by craft oriented commercial activities are expected to generate at least some byproducts indicative of site function (Honerkamp 1980; Lewis 1977).

In order to examine the two subassemblages for evidence of site function, they were classified according to South's functional categories and compared to the Carolina Artifact Pattern (South 1977). Particular attention was paid to the Activities group and to the ratio of domestic, miscellaneous, and activities categories (Honerkamp 1980).

Results of this comparison, and comparison to other sites, indicate that the Lodge Alley frontage was utilized primarily for domestic purposes, while the courtyard was used for craft enterprises from the late eighteenth through the nineteenth centuries. These functions were revealed not only in the relative percentage of the Activities group, but also in the frequency relationships of domestic-related artifacts. The present research supports the suggestion that craft activity will be reflected in the discarded materials at a historic site.

Extensive evidence of craft activity was obtained from burned, in situ deposits in the courtyard. (These proveniences, because of their anomalous nature, were not included in the artifact frequency calculations). These materials represent a primarily commercial deposit, with a few, earlier domestic artifacts present as a result of redeposition, providing solid support for the suggestion that the courtyard was the site of craft activity.

The archaeological evidence suggests that this extensive deposit, the remains of a jewelry smithing enterprise, is present as the result of the destruction of the structure due to fire, and the subsequent abandonment of the damaged structure and materials. Previous research indicates that abandonment behavior results in the presence of different types of artifacts than does discard behavior (Lewis and Haskell 1981). Privy fill, for example, may at times be the result of abandonment; evidence of commercial activity was recovered from privies at the

Charleston Center site (Zierden and Paysinger n.d.). These data, plus the evidence from 38 State, suggest that evidence of commercial activity, including retail, may be contained in deposits resulting from abandonment activities. Discard and loss activities, in contrast, may only reflect craft and industrial activities. Thus the data from Lodge Alley-38 State strongly support proposition 2-b and moderately support proposition 2-a.

An examination of site function is an important concern in the ongoing archaeological research in Charleston; all of the archaeological investigations in the city to date have been in areas historically associated with commercial activity. Furthermore, most of the future development projects planned by the City will be within this commercial area, providing additional comparative data.

The second research question examined the relative socioeconomic status of the residents of Lodge Alley and 38 State. Based on the historical evidence, it was assumed that the Lodge Alley assemblage represents a low status occupation. The 38 State assemblage is assumed to represent a slightly higher status group. For this study, data from McCrady's Longroom were utilized for comparison. The McCrady's assemblage represents a presumed upper class assemblage.

Socioeconomic status was reflected in the relative percentages of tablewares (sociotechnic function) and utilitarian wares (technomic function). The Lodge Alley assemblage contained lower percentages of the expensive tablewares associated with a high status site. The low socioeconomic status of the alley inhabitants was also reflected in the faunal assemblage, although these results are very preliminary. The low status is reflected in the choice of poorer cuts of meat and a lower diversity. On the basis of these data, proposition 1-a was supported, although research results are preliminary.

The reflection of social status in clothing and personal items was only weakly supported by the present data; sample sizes are too small to provide statistically valid results. The low socioeconomic status of the female inhabitants of the alley may be reflected in the large quantity of glass beads recovered from the site (see Deagan 1976; 1983). Thus proposition 1-b was only weakly supported by the present data.

Comparison of the 38 State data with those from Lodge Alley and McCrady's tentatively supported the suggested middle class of the site occupants. The small sample size from the courtyard, however, precluded a valid comparison.

The Lodge Alley project, when considered with other small projects in Charleston, is beginning to provide information on subsistence strategies in the urban center. Faunal analysis reveals considerable difference between the urban assemblages and their rural counterparts.

The urban assemblages, including the Lodge Alley assemblages, are dominated by domestic species, especially cow. This is in contrast to the rural assemblages of both low and high status groups, where a variety of wild species were used in combination with domestic meats. Although dietary diversity was important to the upper classes in both a rural and urban environment, the urban groups relied primarily on domestic animals. Cow has dominated all of the Charleston assemblages examined to date. Ethnobotanical analysis of urban historical contexts has just begun, and very little comparative data are available. The problem has been complicated by a dearth of preserved plant food remains in Charleston. Charred plant remains are quite fragile, and the extensive redistribution characteristic of urban sites may result in the destruction of these fragile remains (Zierden and Trinkley 1983). Much more ethnobotanical research is needed in Charleston to establish species lists and basic trends. Ethnobotanical studies to date have provided preliminary information on diversity of wood species utilized by Charlestonians and on the plants utilized for food and medicinal purposes.

An important point to bear in mind is the preliminary nature of archaeological investigations in Charleston. Only one extensive excavation has been conducted in the city, and analysis of this project is still underway (Herold 1978). Other excavations have consisted only of testing and limited data recovery, therefore producing small samples. Although these samples have provided information that has been used to address a number of research questions, more baseline, descriptive studies are needed to suggest statistically valid trends. Likewise, a comprehensive examination of the historical record as it relates to archaeological research was initiated less than two years ago and is still in progress (Zierden and Calhoun 1982; 1983; Zierden 1983; Calhoun, Paysinger, and Zierden 1982). Completion of this project will facilitate the integration of future projects into a general research framework.

Despite the preliminary nature of research in Charleston, archaeological and historical research, including the present project, has provided preliminary information on the social composition and spatial patterning of the city, sources of available goods, and the subsistence strategy of the population. In addition to these emphases, the present project has also provided information used in a broader interpretation of Charleston's past for the general public. An appreciation of this past is essential to the maintenance of Charleston's unique heritage.

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APPENDIX I

Vertebrate Remains from Lodge Alley,
Charleston, South Carolina

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Vertebrate remains from Lodge Alley, Charleston, South Carolina, were excavated by Martha Zierden of the Charleston Museum in 1983. The deposits date to the eighteenth and nineteenth centuries. The larger portion of the component is associated with the low status area of Lodge Alley, while the smaller portion is associated with a middle-class occupation in the courtyard of 38 State Street. A total of 44 individuals were identified in the collection, which included 3070 bones weighing 14,493 gm. The faunal collection provides data primarily from an urban low-status occupation.

One of the problems facing historical archaeologists is the identification of social status markers in historic sites refuse. Although historic documents are expected to provide such information, all too often the historic record is incomplete or unclear when identifying owners and/or occupants of a lot or the activity which took place there. For this reason historical archaeologists frequently turn to the excavated materials for indications of social status or ethnicity (Deagan 1983).

Vertebrate remains recovered archaeologically have been examined for evidence of socio-economic status and ethnicity in several instances. John S. Otto's study of slave, overseer, and planter diets has been significant in explaining historic foodways (1975). Henry Miller interpreted socio-economic status for two seventeenth century deposits from vertebrate remains (1979). Stephen Cumbaa (1975) and Elizabeth Reitz (Reitz & Cumbaa 1983; Reitz and Gibbs 1983) have found social status and ethnicity was reflected in Spanish, British, and slave food refuse. Peter Schulz and Sherri Gutz also found a correlation between vertebrate deposits and social status in California (Schulz 1979; Schulz and Gust 1983). Lee Lyman found that butchering patterns defined from archaeological bone recovered at Fort Walla Walla (1903) correlated with recent butchering patterns (1977). Much of this work has focused on differences or similarities in species exploited. However, it has been suggested that the cuts of meat represented by identified elements may be more important as social status markers than the species themselves (Otto 1975; Kelley 1981). Researchers working with nineteenth century data from Sacramento have found account books indicating the value associated with specific cuts of meat (Schultz and Gust 1983). When the archaeological bone was compared with cuts of meat of known value, it was found that high status deposits had more of the expensive cuts of meat than did low status deposits. Gust also found that public establishments (hotels, restaurants, saloons) served more pork and mutton than did private parties and that only restaurants and saloons served pig's feet or hog's head (Gust n.d.). Private parties ate primarily beef (Gust n.d.). Roasts were found to be more common at saloons than steaks since saloons served free lunches and needed some cut which could be prepared economically (Schultz and Gust 1983).

Unfortunately, at most archaeological sites it is necessary to infer preferences for cuts of meat, and even the butchering units, from the archaeological assemblages themselves, or to assume that twentieth century American standards can be transferred to other ethnic groups and earlier centuries. Such interpretations are not always valid (Gust n.d.). In analyzing samples from eighteenth and nineteenth century Charleston we do not have knowledge of butchering practices or knowledge of the value placed

upon each butchered unit of meat. For that matter we do not even know if fresh or pickled meat was sold with or without the bone. If butcher meat was sold without bone, most of the bones recovered archaeologically may be entirely from home-slaughtered animals or from soupbones purchased specifically for that purpose. It seems probable, however, that preserved meats at least did contain some bone (Wilson and Southwood 1976; van Wijngaarden-Bakker and Pals 1981; Poplin 1982).

One further difficulty exists in inferring social status from the distribution of elements recovered archaeologically. The most expensive cuts of meat defined by Schulz and Gust (1983; Fig. 1) for Sacramento contained very few identifiable bones. The short loin contained split lumbar vertebrae. Sirloin and rib cuts contained an identifiable ilium, split thoracic or sacral vertebrae, and rib fragments. The flank, short rib, cross rib, short plate, and brisket likewise contained ribs or no bone at all. The rump, round, chuck, arm, foreshank, and hindshank were less valued than ribs, short loin, or sirloin, but contained far more identifiable bones. The neck (cervical vertebrae), head, carpals, tarsals, metapodials, and phalanges were all non-valued pieces of the carcass. Although the neck was sold for food, the feet and head were frequently left at the slaughtering house for further processing (Aldrich 1922; Eakin 1924; Clemen 1927; Lyman 1977; Schulz and Gust 1983). High status sites might be difficult to identify except for the absence of scrap bone and deceptively low numbers of domestic bones generally. Public eating houses, however, might contain unusual quantities of pig's feet, regardless of the socio-economic status of their patrons.

Another factor which might influence the types of fauna recovered is the urban or rural setting of the household, regardless of socio-economic status. Very little research has been done in this area. Karen Mudar (1978) comparing data from nineteenth century Detroit, Michigan with data from the Filbert site near the Straits of Mackinac, Michigan, isolated several distinctions between the rural and urban samples. One of these differences was that the urban collections contained more domestic species than wild species, using bone count, than did the rural collections. Socio-economic status in the rural and urban setting might influence this finding.

Study of the Lodge Alley collection is interesting for a variety of reasons. The first of these is that two other collections have been excavated in Charleston and the data are available for comparison. The Charleston Convention Center site was occupied during the late eighteenth to the mid-nineteenth century (Honerkamp et al. 1982). The socio-economic status of the occupants is unknown for most of this period; however, the residents were probably less affluent than the patrons of McCrady's Longroom and Tavern. This establishment was located near the Charleston Wharves. (Zierden et al. 1983). It was operated as a tavern between the 1770s and 1790s. The Longroom was added to the facility in the late 1780s. The Longroom was the site of special functions such as a reception given for George Washington in 1791. In addition to these two Charleston sites, one urban sample is available for Savannah, Georgia. The Telfair site was occupied in the early 1800s by people of unknown socio-economic status (Honerkamp personal communications; Reitz 1983). Both the Convention Center and the Telfair site were areas of combined residential/domestic activity. McCrady's was an eating establishment frequented by leading members of the Charleston community. Since Lodge

Alley is known to have been occupied by low status individuals, examination of this sample may clarify status markers in all four collections.

These four urban collections may also provide evidence of rural/urban contrasts in subsistence for the Atlantic seaboard. The rural contrast is provided by John Ott's data from the Cannon's Point Plantation on St. Simons Island, Georgia. Data are available for three socio economic groups' slaves, overseers, and planters. The Couper family which owned the plantation was one of the wealthy sea island cotton families, living on the island intermittently from 1794 to 1866 (Otto 1975). These collections from known socio-economic groups in a rural setting provide good data to compare with the urban data.

Methods

Excavations at Lodge Alley in 1983 were conducted by Martha Zierden of the Charleston Museum. The faunal materials were recovered from test pits excavated in Lodge Alley and in the courtyard of an adjacent structure, 38 State Street. Test Pit 1 was 10' x 6' unit in the alley. Three 5' x 5' test pits were excavated in the rear courtyard of 38 State Street. Only Test Pit 3 of these three units contained domestic midden, and it was sparse. Zierden interprets the alley materials to be trash deposited directly into the alley from the structures fronted it. The area was a low-status one. The alley appears to have been in existence since at least 1735 and was paved with stone blocks in the mid-nineteenth century. Prior to that the alley was unpaved. During excavation a number of road surfaces were encountered. The eighteenth and nineteenth century deposits in Test Pit 1 were divided by the brick and mortar paving. The structure at 38 State Street was in an area of middle class domestic and craft activities. Test Pit 3 deposits should also be divided into eighteenth and nineteenth century deposits. The lot from which Test Pit 3 was excavated was owned, and possibly occupied, by Alexander Gillon, a wealthy merchant. All of the field samples were either water or dry screened through 1/4-inch mesh. Twelve gallons of eighteenth century deposits from Test Pit 1 were also screened through window screen. This decision was based on the organic quality of the deposit and time constraints.

Standard zooarchaeological procedures were used during analysis. The identifications were done by Catherine H. Brown using the comparative skeletons of the Zooarchaeology Laboratory, University of Georgia. Bones of all taxa were weighed and counted in order to determine relative abundance of the species identified. Notes were made of modifications to the bones and the elements identified. Measurements were taken of all mammalian bones possible following the guidelines established by Angela von den Driesch (1976). Maximum length and width of fish otoliths as well as otolith weight were recorded also. The Minimum Number of Individuals (MNI) was determined using paired elements, size, age as criteria. In calculating MNI, the samples was divided into four units: Test Pit 1, eighteenth century; Test Pit 1, nineteenth century; Test Pit 3, eighteenth century; Test Pit 3, nineteenth century (Appendix A).

Although MNI is the standard zooarchaeological qualification medium, the measure has several problems. MNI is an index which emphasized small species over large ones. A faunal collection may have 10 individuals of catfish and only one deer, based on MNI. It seems unlikely that the catfish contributed more meat than did the deer, however. Further, MNI is based upon the assumption that the entire animal was utilized at the site. This ignores a basic facet of human behavior; exchange or trade. Particularly at historic sites it is quite possible that no live animals actually were ever at the site. It is possible that all of the bones recovered were from salted, smoked, or fresh butcher meat. Careful examination of the elements identified and butchering marks may provide information about this problem.

In addition to MNI, the bone count, and bone weight, as estimate of biomass provides information on the quantity of meat supplied by the identified species. In some cases the original live weight of the animal can also be estimated. The predictions are based upon the allometric principle that the proportions of body mass, skeletal mass, and skeletal dimensions change with increasing size. This scale effect results from a need to compensate for weakness in the basic structural materials, in this case, bone. The relationship between body weight and skeletal weight is described by the allometric equation

$$Y = aX^b$$

(Simpson et al. 1960:397). Many biological phenomena show allometry in accordance with this law (Gould 1966, 1971). In this equation \underline{X} is the skeletal weight or linear dimension of the bones, \underline{Y} is the quantity of meat or the total live weight, \underline{b} is the constant of allometry (the slope of the line), and \underline{a} is the \underline{Y} -intercept for a log-log plot using the method of least squares regression and the best fit line (Casteel 1978; Wing and Brown 1979; Reitz 1982; Reitz and Cordier 1983). A given quantity of bone or a specific skeletal dimension represents a predictable amount of tissue due to the effects of allometric growth. Values for \underline{a} and \underline{b} are obtained from calculations based upon data at the Florida State Museum, University of Florida. The allometric formulae used here are presented in Table 1.

Allometry is used to predict two distinct values. One of these is kilograms of meat represented by kilograms of bone where \underline{X} is archaeological bone weight. This is a conservative estimate of biomass determined from the faunal materials actually recovered from the site. (The term "biomass" is used to refer to the results of this calculation.) Biomass reflects the probability that only certain portions of the animal were used at the site. This would be the case where salted meats or butcher meats was consumed. On the other hand, when \underline{X} is a linear measurement of a skeletal dimension defined by von den Driesch (1976), scaling predicts the total live weight or total length of the animal. The total live weight estimate is used to assess the size of livestock and fish. It does not imply that the entire animal was consumed. At the moment allometric formulae are available only for drum otoliths and mammalian astragalus, so that only three predictions could be made.

Both MNI and biomass calculations are subject to sample size bias. In samples of less than 200 individuals or 1400 bones, the sample is undoubtedly too small for reliable interpretations (Grayson 1979; Wing and Brown 1979). With small samples the species list is too short, and the abundance of one species in relationship to others is probably somewhat inaccurate. It is not possible to determine the nature or extent of the bias, or correct for it, until the sample is made larger through additional work.

The age of the species identified was estimated by observing the degree of epiphysal fusion for selected elements. When animals are young their bones are not fully formed. Along the area of growth the shaft and the end of the bone, or epiphysis, are not fused. When growth is complete the shaft and epiphysis fuse. Elements fuse in a regular temporal sequence (Silver

1963; Schmid 1972; Gilbert 1980), although environmental factors influence the actual age at which fusion is complete. Fusion rates can be grouped into four general categories. Bones identified were noted as either fused or unfused in the age category where fusion normally occurs. This is most successful for unfused bones which fuse in the first year or so of life, and for fused bones which complete growth at three or four years of age. Intermediate bones are more difficult to interpret. An element which fuses before or at 18 months of age and is found fused archaeologically, could be from an animal which died immediately after fusion was complete or many years later. The ambiguity inherent in age groupings is reduced somewhat by recording each element under the oldest category possible. Although this method has drawbacks, it does provide a rough indication of husbandry techniques. For instance, the presence of very old cattle, or sheep, may indicate dairy or wool industries, while mostly young animals may suggest use of animals primarily for meat.

As a further step in analysis, the species identified were summarized into faunal categories. Domestic mammals include pig (Sus scrofa), cattle (Bos taurus), and caprines. Caprines include sheep and goat. These animals are difficult to separate from one another from their bones, hence they are identified as either sheep or goats and referred to as "caprines". Domestic birds include chickens (Gallus gallus). Wild birds include duck (Anas spp.), and turkey (Meleagris gallopavo). The turkey is a native North American bird which was found wild by early colonists. Eventually turkeys were domesticated. By the mid-1800s there were standards of excellence for them as poultry breeds (American Poultry Association 1874; Johnson and Brown 1903), however, most turkeys were probably wild until the end of the 1800s. Deer (Odocoileus virginianus), mink (Mustela vison), and rabbit (Sylvilagus spp.) were the only wild mammals. Marine resources included pond turtles (Chrysemys spp.), terrapin (Malaclemys terrapin), and sea turtle (Cheloniidae) as well as sea catfishes (Ariidae, Bagre marinus), sea trout (Cynoscion spp.), croaker (Micropogonias undulatus), black drum (Pogonias cromis), red drum (Sciaenops ocellatus), mullet (Mugil spp.), and flounder (Paralichthys spp.). The commensal species identified was the rat (Rattus spp.) Since this animal lives in close association with human residences it is assumed that the individuals identified from Lodge Alley are commensal with the deposits rather than food items.

Results

Although the Lodge Alley collection is very small (44 individuals) it conforms in many respects to other collections from Charleston (Honerkamp et al. 1982; Zierden et al. 1982) and Savannah (Reitz 1983). A species list for Lodge Alley is provided in Table 2. These data are broken down into the four subdivisions in Table 3. It can be seen that data from the 38 State Street Courtyard (Test Pit 3) are very sparse from both time periods. It is difficult to determine if the reduced diversity reflects temporal or social factors, or simply sample size. In no case was Test Pit 3 data not duplicated in Test Pit 1. For this reason it was decided to consider the two test pits as a single, homogeneous deposit.

The Lodge Alley data are summarized in Table 4. The majority of individuals and biomass were from domestic mammals. Although almost equal based on MNI, cattle contributed far more biomass than did pigs. Caprines were less significant in the list than deer. Wild birds were exploited to a limited extent as were both aquatic and marine turtles. Although a rabbit and a mink were identified, deer was the most significant wild terrestrial resource. No evidence could be seen that indicated the mink was consumed. However, it is unlikely that a humerus would be brought to the household if the mink had been collected for its pelt only. Presumably such bones would have been discarded at the trapping station. Marine fish were also exploited, providing more individuals than wild terrestrial resources, but less biomass. One of the caprines was from the nineteenth century deposits and two were from eighteenth century deposits.

Elements identified from the test pits are tabulated in Table 5. Pigs and cows were represented by many of the same elements. Pigs were represented by more head fragments, fewer fore and hind quarter fragments, and fewer feet fragments than cows. In both cases teeth, phalanges, carpals, tarsals, and metapodials were far more common than innominates, scapulae, humeri, femora, radii, or tibiae. Eleven of the cow head elements were mandibles. Four of these were horizontal fragments with teeth still in place. Five of these were fragments of the angular process and/or ascending ramus, and two were diastemal areas of the horizontal ramii between the premolars and the incisors of the mandible. Of these eleven fragments only one was from Test Pit 3. All were from eighteenth century deposits. Interestingly, there were also three maxillae. Two of these were fragments, but one was a tooth row also. All were from Test Pit 1, two from the eighteenth century component and one from the nineteenth century component. As mentioned earlier, the mink was identified from a humerus, and the rabbit from a maxilla fragment.

Modifications to the bones included gnawing, cutting, hacking, sawing, and burning (Table 6). Both rodents and dogs had access to the discarded bones, and very few bones were burned. Hacking and light cutting were the bone modifications most frequently observed. Less than 1% of the collection was sawed. All sawed bones were from Test Pit 1. Three of the sawed bones were from the eighteenth century deposit and two from the nineteenth century deposit. There were no butchering marks on the mink or rabbit bones. It is from FS #11, Test Pit 1, Zone 7, Level 1, eighteenth century.

Age at death as determined by epiphysial fusion indicates a preference for sub-adult animals except in the case of caprines. Two pig phalanges were from animals less than 18 months of age, as was a deciduous premolar. Most of the pig bones recovered, however, fuse prior to 3 1/2 years of age, and were recovered in a fused condition. A proximal fused humerus does indicate that a least one individual lived to reach adulthood. One individual was less than 18 months old, four were between 18 months and 3 1/2 years, and one was at least 3 1/2 years old when slaughtered. One of the deer was over 34 months old at death, but one individual was also less than 11 months old. The other two were at least 18 months of age and probably older. No specific cow elements were from individuals older than 3 years of age, although over half of the ageable bones were from individuals older than 18 months old and one individual was less than 3 years old. The other five individuals were older than 18 months old. The caprines were all at least 2 years old at death and may have been older. All of the birds were adults at death.

Very little evidence for sex is available in the archaeological record. For birds two indicators are available. The first of these is the presence or absence of a spur on the tarsometatarsus. The second of these is the presence of medullary deposits on the bones of female chickens. Medullary deposits are a source of calcium for females while laying eggs (Rick 1975). While the absence of medullary bone is not informative, the presence of medullary bone indicates consumption of laying hens. Only one coracoid containing medullary bone was identified from the Lodge Alley deposits (Test Pit 1), indicating consumption of a laying hen in the eighteenth century.

Bone measurements are one way to estimate the size of the animals utilized at the site (Table 8). The problem with the method is that it has been so recently applied to European colonial sites that few measurements are available for comparison. When the measurements from the alley are compared with those from Charleston Center, McCrady's, and Telfair, it appears that the alley animals are somewhat larger. One mammal bone could be used in an allometric formulae. This was a cow astragalus. This cow may have been about 463 kg in weight, which is similar to the cattle at Ft. Frederica a few years earlier, but a little larger than indicated by documentary accounts of the size of the Early American cattle (Rouse 1977; Rietz & Honerkamp 1983). These cattle may also be slightly larger than contemporary cattle in England (Maltby 1976). The croaker was about 313 mm long and may have weighed about 363 gm while the red drum may have been about 467 mm long weighing approximately 1164 gm.

Discussion

In spite of its small size, the Lodge Alley collection provides strong evidence for differences between rural and urban subsistence patterns. The collection also provides information on elements found at low status sites and on cuts of meat consumed there. Data, however, are not adequate for comparison of the State Street collection with Lodge Alley assemblages or eighteenth century with nineteenth century components.

Based upon the broad categories of fauna summarized in Table 9, all four urban collections contrast sharply with the rural Cannon's Point Plantation fauna. Although only the planter data are reported in Table 9, none of the three socio-economic status groups on the plantation consumed as many domestic individuals as did the urban groups. The urban residents all consumed more domestic meat than did the rural households. The urban households also consumed more fowl, both domestic and wild, as well as more turtles and generally more wild game, except for fish. The plantation samples contained far more fish than did the urban collections. This may reflect the location of the rural and urban sites in the estuarine system. St. Simons Island residents enjoyed easy access to abundant marine resources, while residents in the towns lived at the edge of the estuarine biotope. Marine fish were probably less abundant in the upper reaches of the estuary where the towns were founded than in among the sea islands. Transportation of fish from better fishing locations to the town markets or households probably increased the cost of fish due to labor costs and risk of spoilage. It may also reflect the influence of increased availability of fresh pork, beef, or mutton in the urban market. Disposal of fresh meat in areas with low population levels may have encouraged use of animals, such as fish, which come in single-meal quantities. None of the urban wild foods are exotic and all are species which have also been identified from rural settings. The data may be summarized as indicating that urban households consumed more domestic meat than did rural ones and used wild foods less. However, urban households did use a greater variety of wild game than rural ones did. Rural households used a greater variety of fish than did urban ones.

Differences among the urban collections are less clear. If we begin with the knowledge that McCrady's represents one end of the socio-economic continuum, and Lodge Alley the other, the data appear to make little sense. If Gust's description of tavern fare, however, holds true for Charleston taverns as well as for California ones, then McCrady's was clearly a tavern serving pig's feet and mutton to its patrons. If it was also serving the same cuts of meat highly valued in California a century later than the low level of limb bone fragments likewise is understandable (Table 10). Residents at Lodge Alley seem to have practiced a similar subsistence strategy, but with a difference. The amount of limb bone fragments recovered from Lodge Alley is almost twice that as from McCrady's. This suggests that the Lodge Alley people ate less expensive, more boney, pieces of meat. Subsistence at Telfair and the Convention Center sites was fairly similar. High levels of inexpensive cuts were consumed. Considering that heads contain far more elements (teeth) than do limbs, the low incidence of cow

head fragments recovered from Telfair is probably significant. Interestingly the pattern of mandible fragments found in the Lodge Alley collection was not seen in the other three collections. Since some coronoid processes and mandibular condyle fragments were recovered, some of these mandibles may have had the tongue attached.

Two other types of data might serve to define socio-economic status in these collections. Although some differences in the use of domestic animals is apparent among the collections (Table 11), these data serve more to underscore the monogeneity of urban samples when contrasted with rural ones. Another characteristic which might indicate social status is the quantity of sawed bone in a sample. While sawing is known from early contexts (Reitz and Scarry 1982), it does not become a common method of butchering until the nineteenth century. It could be that sawing as a butchering technique is also a matter of status, with upper status households serving more single-portion meat dishes than less affluent households. At McCrady's only 1.3% of the recovered bone was sawed, at Lodge Alley 1.6%, at the Convention Center 2.0%, and at Telfair 3.6% of the bone was sawed.

It must be remarked that temporally, McCrady's deposits pre-date those of the other urban samples, which are primarily nineteenth century deposits. In other situations it has been observed that wealthy individuals frequently have first access to new, expensive, fashions, ideas and habits. Only slowly do these filter down to the lower classes, by which time the wealthy have gone on to other fads. Sawing as a butchering technique and high use of caprines may have been popular among community leaders during the time of the Revolutionary War. Sawed bone increased for some people in the nineteenth century (Convention Center and Telfair) but had not yet come within the financial reach of Lodge Alley residents. Mutton may be an example of a meat once popular among the affluent, but not popular among antebellum people. It may be quite informative that a plantation owner in Louisiana owned several hundred sheep, to feed his slaves (Hilliard 1972:142). Occupants of the Convention Center and Telfair sites may have been better off than residents of Lodge Alley, with McCrady's fauna reflecting change in food habits through time and across social boundaries.

Although there appears to be good evidence of a rural/urban dichotomy; some evidence for change through time within Charleston; and indications of socio-economic markers in the faunal record, it must be acknowledged that the evidence is slim. Two of the samples examined are very small (Lodge Alley and McCrady's). The only upper status deposits are from a public eating establishment (McCrady's) rather than a private residence. McCrady's is also somewhat temporally earlier than the other samples. It is too bad that the 38 State Street component was so small, and disturbing that it was so similar to the Lodge Alley data. The sharp rural/urban contrast observed in these data may simply indicate that all of the urban domestic deposits are of low socio-economic households. A large sample directly comparable with the Cannon's Point data (same time period, activity type, and status) has not yet been excavated. It is important that investigations continue in this area with additional documentation of site function and identification of residents/owners. Future excavations, particularly of a nineteenth century upper class residence and larger low status collections will result in a greatly expanded understanding of the factors influencing historic subsistence decisions.

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Table 1. Allometric Constants Used in Calculating Biomass

Taxa	N	Slope (b)	log a	r ²
Mammal	97	0.90	1.12	0.94
Bird	307	0.91	1.04	0.97
Turtle	26	0.67	0.51	0.55
Siluriformes	36	0.95	1.15	0.87
Pleuronectiformes	21	0.89	1.09	0.95
Perciformes	274	0.83	0.93	0.76
Sciaenidae	99	0.74	0.81	0.78
Mammal (GLI)*	6	2.78	-2.48	0.99
Sciaenidae otolith length/Body mass	189	2.28	-3.06	0.63
Sciaenidae otolith weight/total length	160	0.78	1.60	0.71

*(von den Driesch 1976)

Table 2. Lodge Alley: Species List

	Ct	MNI		Wt. gms.	Biomass	
		#	%		kg	%
UD Mammal	2623			7574.88	87.769	51.8
<u>Rattus</u> spp.	11	2	4.6	2.70	0.064	0.04
Old World rat						
<u>Rattus norvegicus</u>	1	1	2.3	0.10	0.003	0.002
Norway rat						
<u>Sylvilagus</u> spp.	1	1	2.3	0.06	0.002	0.001
Rabbit						
<u>Mustela vison</u>	1	1	2.3	0.40	0.012	0.007
Mink						
Artiodactyl	14			54.14	1.011	0.6
<u>Sus scrofa</u>	104	6	13.6	842.66	12.180	7.2
Pig						
<u>Odocoileus virginianus</u>	16	5	11.4	187.88	3.168	1.9
Deer						
<u>Bos taurus</u>	136	7	15.9	5171.72	61.483	36.3
Cow						
Caprine	7	3	6.8	92.04	1.648	1.0
Goat/Sheep						
UD Bird	41			23.02	0.393	0.2
<u>Anas</u> spp.	1	1	2.3	0.80	0.017	0.01
Duck						
<u>Gallus gallus</u>	23	4	9.1	19.78	0.322	0.2
Chicken						
<u>Meleagris gallopavo</u>	1	1	2.3	2.50	0.047	0.03
Turkey						
Passeriformes	1	1	2.3	0.12	0.003	0.002
Perching birds						
UD Turtle	18			25.88	0.322	0.2
Emydidae	1			1.30	0.038	0.02
Pond turtles						
<u>Psuedemys</u> spp.	1	1	2.3	2.9	0.065	0.04
Pond turtles						
<u>Malaclemys terrapin</u>	1	1	2.3	1.00	0.032	0.02
Diamond-back terrapin						
Chelonidae	3	1	2.3	6.70	0.113	0.07
Sea turtle						
UD Fish	42			21.70	0.384	0.2
Ariidae	2			0.80	0.016	0.01
Sea catfishes						
<u>Bagre marinus</u>	1	1	2.3	0.60	0.012	0.01
Gafftopsail						
Sciaenidae	2			0.15	0.011	0.01
Drums						
<u>Cynoscion</u> spp.	1	1	2.3	0.05	0.004	0.002
Sea trout						
<u>Micropogonias undulatus</u>	1	1	2.3	0.80	0.033	0.02
Croaker						

Table 2. (continued)

	Ct	MNI		Wt. gms.	Biomass	
		#	%		kg	%
<u>Pogonias cromis</u> Black drum	8	1	2.3	13.6	0.268	0.21
<u>Sciaenops ocellatus</u> Red drum	4	1	2.3	6.4	0.154	0.09
<u>Mugil</u> spp. Mullet	2	1	2.3	0.02	0.001	0.0006
<u>Paralichthys</u> spp. Flounder	2	2	4.6	0.20	0.006	0.004
UD Bone	—	—	—	438.10	—	—
Total	3070	44	—	14493.0	169.581	—

Table 3. Lodge Alley: Distribution by Provenience, MNI

	Eighteenth Century		Nineteenth Century	
	Test Pit 1	Test Pit 3	Test Pit 1	Test Pit 3
Ud Mammal	x	x	x	x
Rats	2		1	
Rabbit			1	
Mink	1			
Artiodactyl	x		x	
Pig	2	1	2	1
Deer	2	1	1	1
Cow	4	1	2	
Caprine	2		1	
Ud Bird	x	x	x	x
Duck	1			
Chicken	2	1	1	
Turkey	1			
Perching birds			1	
Ud Turtle	x		x	
Pond turtles	x			
Pond turtle			1	
Terrapin	1			
Sea turtle	1			
Ud Fish	x	x	x	
Sea catfishes	1			
Drums	x		x	
Sea trout			1	
Croaker	1			
Black drum	1			
Red drum	1			
Mullet	1			
Flounder	1	1		
Total MNI	25	5	12	2

Table 4. Lodge Alley: Contribution by Class

	MNI		Biomass	
	#	%	kg	%
Domestic Mammals	16	36.4	75.311	94.6
Wild Terrestrial Animals	7	15.9	3.182	4.0
Domestic Birds	4	9.1	0.322	0.4
Wild Birds	3	6.8	0.067	0.08
Turtles	3	6.8	0.21	0.3
Fish	8	18.2	0.478	0.6
Commensal Species	3	6.8	0.067	0.08
Total	44		79.637	

Table 5. Lodge Alley: Elements Identified

	Pig	Deer	Cow	Caprine
Head	67	8	67	1
Vertebrae	2		2	
Forequarters	6	4	14	2
Forefeet	6		8	
Feet	15		23	
Hindfeet	4	2	14	2
Hindquarters	2	1	5	2
Innominate	2	1	2	
Other	—	—	1	—
Total	104	16	136	7

Table 6. Lodge Alley: Modified Bones

	Worked	Cut	Hacked	Gnawed	Sawed	Burned
UD Mammal	1	92	153	4	3	1
Artiodactyl		1			1	
Pig		1	4	1		
Deer		4	3			
Cow		16	14		1	
Caprine		1				
UD Bird						1
Chicken		1				
Turkey		1				
UD Turtle						1
Total	1	117	174	5	5	3

Table 7. Lodge Alley: Age Distribution

<u>Pig</u>			
<u>Age at Fusion</u>	<u>Unfused</u>	<u>Fused</u>	<u>Total</u>
12-18 months-2 years	2	12	14
2-2 1/2 years	3	1	4
3-3 1/2 years		1	1
Total	<u>5</u>	<u>14</u>	<u>19</u>
<u>Deer</u>			
<u>Age at Fusion</u>	<u>Unfused</u>	<u>Fused</u>	<u>Total</u>
8-12 months	1	1	2
14-29 months		1	1
29-35 months		1	1
Total	<u>1</u>	<u>3</u>	<u>4</u>
<u>Cow</u>			
<u>Age at Fusion</u>	<u>Unfused</u>	<u>Fused</u>	<u>Total</u>
12-18 months	4	15	19
2-3 years	4	11	6
3 1/2-4 years	4		4
Total	<u>12</u>	<u>17</u>	<u>29</u>
<u>Caprine</u>			
<u>Age at Fusion</u>	<u>Unfused</u>	<u>Fused</u>	<u>Total</u>
10-16 months			
1 1/2-2 years		2	2
3-3 1/2 years			
Total	<u>—</u>	<u>2</u>	<u>2</u>

Table 8. Lodge Alley: Bone Measurements, in mm

Odocoileus virgianus*

astragulus GL1 = 36.1
GLm = 33.1

Bos taurus*

calcaneus GL 151.1
GB 57.5
astragulus GL1 71.0
GLm 65.1

Caprine*

astragulus GL1 24.0; 27.2
GLm 22.0; 27.0

Micropogonias undulatus

otolith length 14.1
otolith width 10.0
otolith weight 0.74g

Sciaenops ocellatus

otolith length 23.5
otolith width 13.4
otolith weight 3.34g

*following von den Driesch (1976)

Table 9. Comparison of Several 18th Century/Early 19th Century Deposits, % MNI

	Convention ¹ Center	McCrary's ²	Lodge Alley	Telfair ³	Cannon's ⁴ Point
Domestic Mammals	34	36	36	25	7
Domestic Birds	22	15	9	28	2
Wild Mammals	10	10	16	4	7
Wild Birds	4	15	7	7	-
Turtles	5	3	7	7	1
Fishes	11	15	18	21	60
Commensal Species	14	5	7	9	8
Total MNI	183	39	44	186	195

¹Charleston Convention Center, Charleston, S.C., late 18th Century-mid 19th Century (Homerkamp et al. 1982). urban

²McCrary's Longroom and Tavern, Charleston, S.C., 1770s-1780s (Zierden et al. 1983). urban

Lodge Alley, Charleston, S.C., 18th/19th Century. urban

³Telfair, Savannah, Ga., early 1800s (Reitz 1983). urban

⁴Cannon's Point Plantation, St. Simons Island, Ga., 1794-1860 (Otto 1975). rural

Table 10. Comparison of Elements Identified at Four Sites, Raw Bone Count

	<u>Beef</u>			
	<u>Convention Center</u>	<u>McCrary's</u>	<u>Telfair</u>	<u>Lodge Alley</u>
Head	88	15	5	67
Ribs, Innominate				
Vertebrae	25		4	4
Forequarters	57	2	14	14
Forefeet	17	5	7	8
Feet	24	10	3	23
Hindfeet	9	7	22	14
Hindquarters	23	1	10	5
Other	—	—	2	1
Total	243	40	67	136

	<u>Pork</u>			
	<u>Convention Center</u>	<u>McCrary's</u>	<u>Telfair</u>	<u>Lodge Alley</u>
Head	50	3	145	67
Ribs, Innominate				
Vertebrae	5		10	4
Forequarters	15		15	6
Forefeet		2	4	6
Feet	29	14	63	15
Hindfeet	10	2	12	4
Hindquarters	27	1	17	2
Other	—	—	7	—
Total	136	22	273	104

Table 11. Use of Domestic Animals, % MNI

	<u>Convention Center</u>	<u>McCrary's</u>	<u>Lodge Alley</u>	<u>Telfair</u>	<u>Cannon's Point</u>
Pigs	14.2	15.4	13.6	12.4	2.8
Cows	18.0	15.4	15.9	9.7	2.2
Caprines	2.2	5.1	6.8	2.7	2.8
Chickens	20.8	12.8	9.1	26.3	1.7
Total MNI	183	39	44	186	195

Appendix A

Test Pit 1, 18th Century

FS #7	FS #13
FS #8	FS #14
FS #9	FS #15
FS #10	FS #16
FS #11	
FS #12	

Test Pit 1, 19th Century

FS #2
FS #3
FS #4
FS #5
FS #6
FS #35

Test Pit 3, 18th Century

FS #24
FS #25
FS #27
FS #31
FS #45

Test Pit 3, 19th Century

FS #22
FS #23

APPENDIX II

The Lodge Alley Ethnobotanical Samples:
Evidence of Plant Use from Two Urban Sites,
Charleston, South Carolina

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Introduction

In late 1982 personnel of the Charleston Museum, under the direction of Ms. Martha Zierden, conducted test excavations in Lodge Alley and the backyard of an adjacent structure on State Street. Test Pit 1 was excavated in Lodge Alley, which dates from the eighteenth century and which is today paved in stone blocks. Archival research has indicated that alleyways were frequently occupied by the lower classes of Charleston society (Martha Zierden, personal communication) and Lodge Alley is not expected to be an exception. Test Pit 1 revealed a series of eighteenth and nineteenth century zones which represent alternating layers of hard-packed road surfaces and accumulations of secondary refuse. These zones of secondary refuse presumably represent domestic garbage, deposited by the denizens of Lodge Alley. Consequently, the Test Pit 1 samples were expected to provide information on the types of plants used by individuals of lower socio-economic status, as well as possible change from the eighteenth through nineteenth centuries. Test Pits 2, 3, and 4 were placed in the rear courtyard of 38 State Street. Test Pit 2 contained large quantities of demolition rubble in questionable context; consequently, few data are forthcoming from this unit. Test Pit 3 contained sparse domestic deposits in a context of lensed sand which dates primarily from the eighteenth century. Test Pit 4, while containing both eighteenth and nineteenth century remains, is of particular concern because of a late eighteenth century burned industrial or warehouse deposit. Although all of these units have variable amounts of domestic association, none are typical of the domestic deposits associated with "backyard archaeology" (Fairbanks 1977). The ethnobotanical remains from Test Pits 2 and 3 were expected to provide little significant data because of the disturbed context of Test Pit 2 and the enigmatic context of Test Pit 3. Plant remains from Test Pit 4, however, might provide data on the use of the site area and the extent of associated domestic activity.

Samples from the excavations were collected by waterscreening through both 1/4 and 1/16-inch screens and by water flotation of primarily 0.5 gallon soil samples. Flotation samples from the eighteenth century deposits of Test Pit 3, zone 7 and Test Pit 4, zone 6 were both about 4 gallons in size. The soil samples were floated by the Charleston Museum personnel after the completion of the fieldwork; the light fraction of the waterscreened samples was separated by hand. With the exception of the fill from Test Pit 4, zones 6 and 7, the soils from these excavations had a very low density of carbonized plant remains. This absence of rich, organic deposits accounts for the low weights of the flotation samples. While larger soil samples might have assisted in correcting for the low density of ethnobotanical remains, 10 to 15 gallons of soil would have been required from many of the zones to obtain an adequate flotation sample.

Procedures and Results

The two floated samples were prepared in a manner similar to that described by Yarnell (1974:113-114) and were examined under low magnification to identify carbonized plant foods and food remains. Remains were identified on the basis of gross morphological features and seed identification used U.S.D.A. (1948, 1971) and the comparative collections of the

University of South Carolina Herbarium. The results of this analysis are shown in Table 1.

The flotation samples, for the most part, were unrevealing. Both the eighteenth and nineteenth century assemblages from Test Pit 1, within Lodge Alley, contained very low quantities of plant remains. The bulk (98 to 100% by weight) of the ethnobotanical materials were wood charcoal. The few plant remains present were unidentifiable seeds, probably of the Brassicaceae family. Plant remains from Test Pit 3 were more abundant, although wood charcoal still accounted for 90 to 96% of each sample. Small quantities of a carbonized fiber were present in zone 5 of Test Pit 3 and a small amount of coal was separated from the zone 7 sample. Abundant seeds were found in zones 6 and 7, although very few were found in zone 5. The seeds recovered from Test Pit 3 were highly fragmented and in poor condition. A number appeared to be of the Brassicaceae family while a few possibly represented seeds of the Poaceae family. Genus level identification was not attempted because of the poor condition of the seeds. Samples from Test Pit 4 spanned the eighteenth and nineteenth centuries, but indicate little difference. The zone 6 sample does contain several unidentified seeds and a small quantity of hickory nutshell (Carya sp.). This sample was the only evidence of nutshell fragments from the 11 flotation samples.

The examination of ethnobotanical remains from the waterscreened samples was conducted under low magnification with the wood charcoal identified, where possible to the genus level using comparative samples, Panshin and de Zeeuw (1970), and Koehler (1917). Wood charcoal specimens were broken in half to expose a fresh transverse surface. The results of this analysis are shown in Table 2, which is organized by century, unit, and provenience.

The most common wood charcoal was pine (Pinus sp.), found in all of the samples (16 of the 19 samples represent carbonized wood and carbonized pine is dominant in seven of the samples, non-carbonized pine is dominant in four additional samples). The next most common wood was oak (Quercus sp.), found in only seven of the 19 samples and dominant in four.

Test Pit 1 contained six genera of wood, including abundant quantities of pine (Pinus sp.) and oak (Quercus sp.), and small quantities of ash (Fraxinus sp.), elm (Ulmus sp.), tupelo (Nyssa sp.), and maple (Acer sp.). In addition three samples, two from the nineteenth century and one from the eighteenth, evidenced small quantities of coal. All of these remains, except the non-carbonized pine typical of zones 7 and 8, and Feature 4, appeared to represent firewood debris. The non-carbonized remains suggest discarded building materials, which possibly were from finishing work given the size of the pieces.

Test Pits 2 and 3 were represented by only three samples, which contained both oak and pine. The remains from Test Pit 3 were very fragmented and few pieces were large enough to be identified to a genus level.

Sample	Weight	Wood Charcoal	Debris	Plant Food/Remains	Other	Hickory	Seeds
<u>19th Century</u>							
TP 1, Zone 3	0.19	0.19					
TP 4, Zone 4	0.63	0.62	0.01		t ^a		
<u>18th Century</u>							
TP 1, Zone 5-6	1.17	1.15	0.02				
Zone 6	2.03	2.01	0.02				
Zone 7	0.46	0.45		0.01			0.01 (1)
Zone 8	7.47	7.44		0.03			0.03 (4)
Zone 9	0.96	0.95	0.01				
TP 3, Zone 5	1.12	1.08	0.03	0.01	t ^a		0.01 (3)
Zone 6	2.55	2.44	0.10	0.01			0.01 (42)
Zone 7	19.47	17.57	1.85	0.05	t ^b		0.05 (37)
TP 4, Zone 6	44.89	42.30	2.47	0.11	0.01 ^c	0.10	0.01 (2)
<hr/>							
^a Carbonized fiber		^b Coal fragments	^c UID	t = less than 0.01g			

Table 1. Flotation samples from Lodge Alley, weight in grams.

	<u>Pinus sp.</u> (Carbonized)	<u>Pinus sp.</u> (Non-carbonized)	<u>Acer sp.</u>	<u>Quercus sp.</u>	<u>Liquidambar sp.</u>	<u>Betula nigra</u>	<u>Diospyros virginiana</u>	<u>Fraxinus sp.</u>	<u>Juniperus virginiana</u>	<u>Juglans sp.</u>	<u>Salix sp.</u>	<u>Carya sp.</u>	<u>Ulmus sp.</u>	<u>Nyssa sp.</u>	Rosin	Peach pits	UID	Coal
<u>19th Century</u>																		
TP 1, Zone 3, Level 1		t															t	
TP 1, Fea. 2	t			+													t	t
TP 1, Fea. 3	t																t	
TP 1, Fea. 4	+	t		+				t					t					t
TP 2, Zone 3	t																	
TP 4, Zone 3	+					t									t		t	
TP 4, Zone 4-5 interface	t								t									
<u>18th Century</u>																		
TP 1, Zone 6	t			t										t			+	t
TP 1, Zone 7, Level 1	t	+		+													t	
TP 1, Zone 7, Level 2		+																
TP 1, Zone 8		+																
TP 1, Fea. 4, Level 2	t	+																
TP 1, Fea. 4, Bottom	t		t													t	t	+
TP 2, Zone 3, Level 2	+			t														
TP 3, Zone 7	+																	
TP 4, Zone 6	+	?	+	+	t	t	t	+	t	t	?	?					t	
TP 4, Zone 6-7, profiles	t																	
TP 4, Zone 7, Level 1	+			t				t	+								t	
TP 4, Zone 7, Level 2	+																	+

+ = dominant t = trace ? = identification tentative

Table 2. Analysis of wood charcoal from hand picked samples.

Test Pit 4 contained 11 genera of wood, including the dominants of pine, oak, maple, ash, and cedar (Juniperus virginiana), in addition to small quantities of river birch (Betula nigra), gum (Liquidambar sp.), persimmon (Diospyros virginiana), walnut (Juglans sp.), willow (Salix sp.), and hickory (Carya sp.). In addition coal was found in a single eighteenth century sample. Both the quantity and the variety of the woods found in Test Pit 4 decrease into the nineteenth century zones.

Discussion

There seems to be little change in the types of plant remains found in Lodge Alley from the eighteenth through nineteenth century. Very low quantities of plant remains, including several seeds and peach pits were found. The seeds, probably from plants of the Brassicaceae family, occurred in such low quantities as to suggest accidental inclusion. The Brassicaceae are mostly herbs with pungent watery juice and include noxious weeds, ornamentals, and potherbs. The peach pits were uniformly non-carbonized and possibly represent primary refuse in the alleyway. There was no indication, based on the available flotation samples, that plant foods were important in the diet of the inhabitants of Lodge Alley. The diets might therefore be assumed to be low in carbohydrates, very low in fiber, and low in essential vitamins such as A and C. This conclusion, however, may be affected by the types of plant foods used, the methods of processing these foods, and the preservation potential of surface scattered debris in an alley (see Zierden and Trinkley 1983).

The wood charcoal found in Test Pit 1 appeared to represent the discarded ash and charcoal from wood fires. The dominant woods included pine and oak, with minor amounts of ash, elm, tupelo, and maple. Most of these woods (including ash, maple, and oak) are good firewoods (U.S.D.A. 1978). That is, they burn slowly with high heat and little smoke. The tupelo, elm, and pine are judged slightly less satisfactory, primarily because of their quicker burning and heavier smoking qualities (Graves 1919). It is reasonable to expect that all of these woods might serve equally well for both heating and cooking in the lower status households.

The use of coal in the early eighteenth century was sporadic and confined to the wealthy who used "cannel" or other imported English coal. The discovery of soft coal near Richmond, Virginia in 1750 appears to have made little impact on the domestic use of heating and cooking fuels. It was not until the late nineteenth century that coal became the predominant fuel in the south (Reynolds 1942:5). The presence of small quantities of coal in the examined samples has been previously noted. One of these samples, from zone 6, dates to the mid-eighteenth century, early in the use of imported coal. The two other collections both date to the early nineteenth century. The presence of imported coal in an area of lower class residents may indicate that small quantities of coal were falling into their hands because of their proximity to the wharfs, or that waste coal was being used to pave the alleyway.

The available data from Test Pit 3 provided information only from

the eighteenth century and this information was equivocal. Abundant plant remains were found in the mid-eighteenth century zones, but these remains appeared to represent secondary deposits, washed into the area. The seeds are fragmented and many of the seed coats are missing or damaged. The presence of seeds from the Brassicaceae and Poaceae families suggests a disturbed habitat exposed to fire. Since Test Pit 3 appears to represent the area of a secondary deposit, this provides little insight concerning the site ecology or function. The only identified charcoal present in Test Pit 3 is pine.

The data from Test Pit 4 suggested that the woods used in the eighteenth century were more diverse than those of the nineteenth century. Eleven genera were present in the eighteenth century zones, with pine, maple, oak, ash, and cedar occurring in significant quantities. Less common were birch, sweetgum, persimmon, walnut, willow, and hickory. Most of these are good to excellent firewoods, although cedar and willow provide considerably less heat than the other woods. The waterscreened samples contained large quantities of identifiable branch and twig parts, which indicated that these remains constitute primarily firewood debris and not burned architectural or saw timber remains. These woods were intermingled with the crucible deposit in Test Pit 3, as well as quantities of burned ceramics and glass. This analysis suggests intentional burning of good grade firewoods. Coal was present, in large quantities, in zone 7, level 2 of Test Pit 4, which dates to the late eighteenth century and which includes the crucible deposit. The presence of coal in what may be an industrial deposit is reasonable.

The woods found in Test Pit 4 are native to South Carolina and might have been easily procured in the immediate vicinity, assuming that wood had not become scarce around Charleston by the late eighteenth century. The pine, oak, and hickory species are abundant and may be found on either dry, sandy soils or on low, rich soils. Several of the species are typical of sandy soils and old fields, including the cedar (which may be Juniperus silicicola rather than J. virginiana) and the persimmon. Most of the species, however, prefer low, rich woods or swampy forests, including the maple (probably Acer rubrum), ash (probably Fraxinus caroliniana), birch (probably Betula nigra), gum, walnut, and willow (Radford et al. 1968). There appears to be an unnatural abundance of woods from low, moist habitats.

In summary, the data obtained from Lodge Alley provide an interesting view of urban plant use and possibly disposal during the eighteenth and nineteenth centuries. While the data are too sparse to allow generalizations, they do allow some speculations. The remains from Test Pit 1 suggest secondary refuse deposit from adjacent lower class residences. The use of plant foods appears to have been limited, although evidence of firewood was abundant. Firewood species diversity was high and there seems to be no indication of the lower class consuming large quantities of poorer woods. The remains from Test Pit 4 suggest primary refuse from some sort of industrial activity. Food remains are absent and a variety of woods are present, in addition to coal. Much of the wood can be readily identified

as small branches -- which may have served as tender or kindling for the coal fire.

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