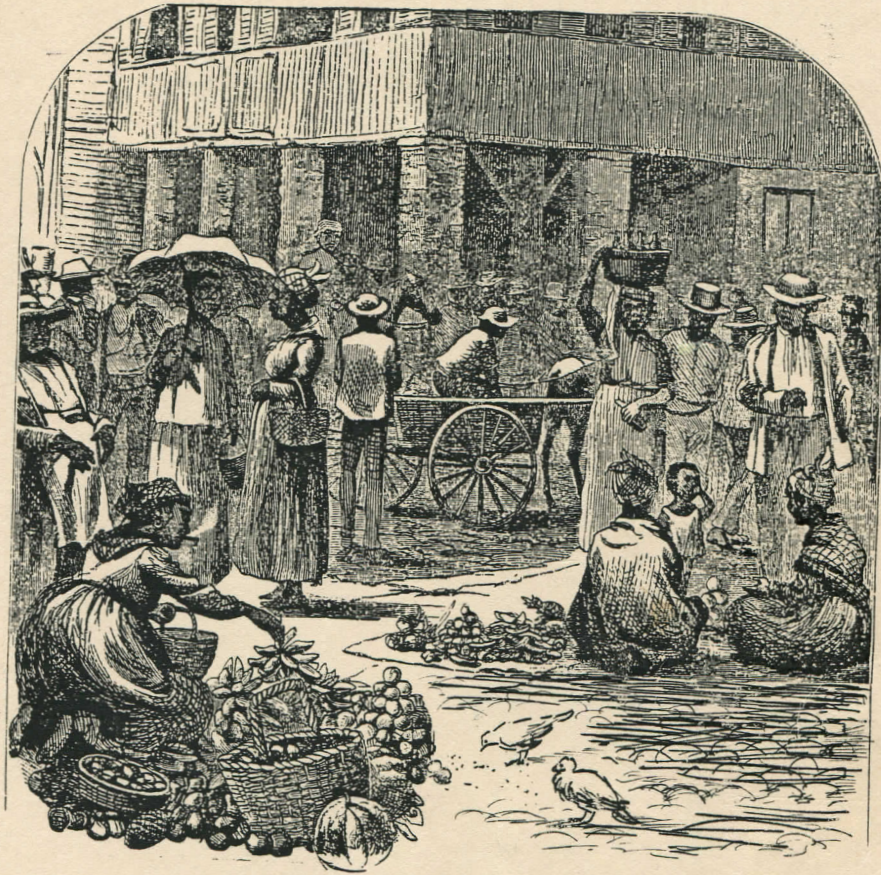


Meat in Due Season:
Preliminary Investigations of Marketing Practices
in Colonial Charleston



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The Charleston Museum
Archaeological Contributions 9.

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This project was conceived during "after hours" discussions between Betsy Reitz and Martha Zierden. Jeanne Calhoun and Mike Trinkley were soon involved in the planning stages. Both Reitz and Trinkley have been involved in every Charleston project since 1982, and all have research interests in the project. The following report, then, is a combined effort by all four researchers, and many of the ideas presented in the different chapters have been discussed among us. Throughout the course of the project, many other individuals have become involved and aided greatly in the project.

Permission was granted by the City of Charleston to excavate in Washington Square Park. We are once again grateful to the Honorable Joseph P. Riley, Jr., Mayor of Charleston, and Ms. Mary Ann Sullivan for their continued support and enthusiasm. Special thanks go to Mr. Steve Livingston for his support and assistance with several logistical problems. His efforts made ours much easier. Thanks also to all the City employees who were interested enough to visit the site daily.

The field crew consisted of Reitz, Trinkley, Zierden, and Ms. Debi Hacker-Norton. We received assistance from Mr. Alec Knight and Ms. Carol Dowell, intern from the College of Charleston. Ms. Debi Hacker-Norton was responsible for analysis of the cultural materials and discussed many of the ideas with us. Ms. H. Catherine Brown identified the vertebrate fauna.

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Chapter I

Introduction

Studies of subsistence strategies and analysis of faunal remains have been an important aspect of historical archaeological research for a number of years. Initially, the primary goals of archaeological excavations were to identify historically significant sites, and to assist in architectural reconstruction and public interpretation. While such projects continue to form one aspect of historical archaeology, other goals have recently taken precedence. The goal of most current research is to interpret human behavior from archaeological remains, and research has recently focused on a series of problems: the identification of social status markers from archaeological assemblages; the identification of economic activity, the identification of ethnic affiliation and, among others, studies of acculturation and cognitive framework (Deagan 1982). With the recent interest in urban archaeology and urban studies (Dickens 1982; Staski 1982, Zierden and Calhoun 1984), studies have also focused on rural versus urban characteristics (Reits 1984; Zierden 1984). Recent archaeological evidence suggests that socioeconomic, temporal, and rural/urban contrasts are visible in the archaeological record.

These contrasts are often quite pronounced in the archaeological food remains (Reitz 1984; Zierden and Trinkley 1984). Recent studies utilizing faunal data from the Georgia sea islands (Reitz et al. 1985 Reitz and Honerkamp 1983), St. Augustine, (Reitz and Cumbaa 1983), Charleston (Reitz 1984), and Savannah (Honerkamp et al. 1983) reveal striking rural/urban differences, cross-cutting temporal affiliation and socioeconomic status where such information is known.

The source of these differences may be the market system. The way food supplies entered each of the different systems (Charleston, Savannah, Fort Frederica, St. Augustine, Sea Island plantations) and were distributed (Figure 1) within that system must have an impact on what is recovered at archaeological sites. Further, knowledge of marketing versus household level production of food products is important to the understanding of the urban archaeological site. It should be possible to discuss the market's role in the distribution of goods and the everyday life of the urban center, and the surrounding region.

At the same time that the above results were being obtained and the explanatory ideas being formulated, historical research for an archaeological research design for Charleston was in the final stages (Calhoun et al. 1982; Calhoun and Zierden 1984; Zierden and Calhoun 1984). During the course of this research several eighteenth century market locations were discovered, including the Fish Market at the foot of Queen Street, the new market at the foot of Tradd Street, and the Beef Market at the corner of Broad and Meeting (Figure 7). The sites of both the Fish Market and the New Market are located beneath busy city streets, but the Beef Market was located beneath City Hall and an adjacent park. Because of this potential for preservation, it was felt that the Beef Market site would be amendable to archaeological research.

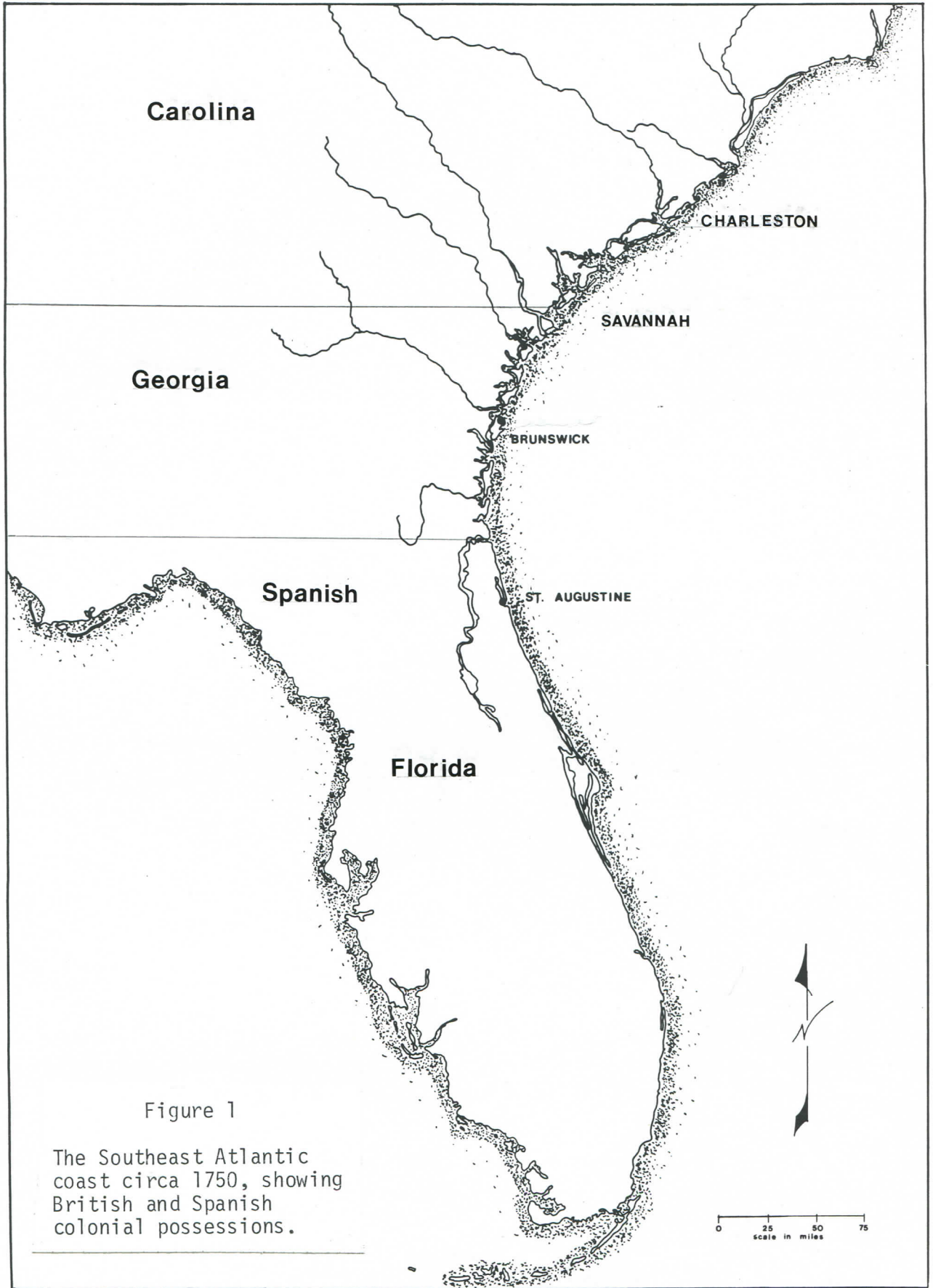


Figure 1

The Southeast Atlantic coast circa 1750, showing British and Spanish colonial possessions.

With this information in hand, efforts to initiate long term archaeological and historical research at the site were begun. Research at the Charleston Beef Market would be useful in addressing a number of general issues, in addition to rural/urban dietary contrast. We may learn if the market was a social as well as commercial center, not only for the town, but for the region. It is known, for example, that produce from plantations was sold in town, and that itinerant merchants also were attracted to Charleston. Perhaps these activities were associated with the market place. The market may have been an outlet for goods raised or made by slaves and sold for their benefit. Most imported goods were sold through factors, but everyone did not have access to a factor. Perhaps some imported goods were also sold through the market, at least on a secondary level. Some of these foreign goods might have been smuggled in or seized from foreign vessels. Through time markets may have become more specialized, being first known only as the "market" and then by a specialty term such as Beef Market or Fish Market. This may have been in response to the growth of the town. Use of markets may have been limited to certain products or certain groups of people. It is possible that some of the differences observed at sites where consumption was the primary food related activity can be accounted for by household level husbandry of livestock, even within the urban setting. Pigs and chickens for example, were known to roam the streets of many colonial cities. Study of market debris may provide information which will help identify which products were obtained from markets, raised or produced by the household unit itself, or obtained from other sources such as factors or street vendors.

Before these questions could be addressed, we felt it was necessary to determine that the site contained archaeological evidence of market activity that could be isolated and identified. In order to accomplish this a small, preliminary project was planned. Historical research would be initiated to learn more about the temporal and functional parameters of the site. At the same time, a one-week field project was planned to recover a small sample from the site. The Honorable Joseph P. Riley, Mayor of Charleston, enthusiastically endorsed the project, and granted permission to excavate in the park. Elizabeth Reitz obtained a Faculty Development Grant from the University of Georgia, the purpose of which was to initiate long term research.

The preliminary project, then, was designed to test four hypotheses. The first of these was that some evidence for a market could be found. This assumed that our documentary evidence was correct and that nineteenth and twentieth century activities had not displaced earlier deposits. The second was that we would find materials which would be a signature for the market. Extensive excavations at colonial streets in Charleston and elsewhere have provided a pattern for the types of eighteenth century artifacts found at sites where the primary activity was either residential or a mixture of residential and commercial. We anticipated that a market assemblage would be different from these. The third hypothesis was that the name "Beef Market" would correspond in some way to the materials recovered: that we would find bone refuse at the site and that this would be primarily from beef cattle. In the absence of public refuse collections at this early date, we thought that debris would not have been removed, but it was possible that all of the carcasses were sold out of the market, leaving

no refuse behind to document the enterprise. The fourth hypothesis was that additional documentary evidence could be found which would specify what was sold in the market, by whom, and for what price.

While these hypotheses may seem elementary, it must be remembered that the urban site is the scene of many continuous, often large scale ground disturbing activities (Staski 1982); in fact, the degree of "urban-ness" has been related to the degree of disturbance and redeposition at a site (Honerkamp and Fairbanks 1984). Attempts to associate specific archaeological proveniences with specific activities or occupants have met with little success in urban areas (Honerkamp et al. 1982; Zierden et al. 1983a, 1983b), and have been viewed as secondary or unimportant in more recent studies (Beidleman et al. 1983; Cressey 1983; Henry 1983; Honerkamp et al. 1983; Zierden and Calhoun 1984). Therefore, the ability to pinpoint archaeological proveniences definitely associated with the market was not at all presupposed.

The data recovered were also suitable for beginning to address some issues of broader interest. The data were potentially useful not only to the interpretation of market behavior, but also to the analysis of materials excavated from residential sites. To this end, the floral, faunal, and cultural assemblages were compared to previously recovered domestic/commercial assemblages in Charleston. Such studies will help us understand consumer choices at residential sites as reflected in the products found at these sites which were available in the market. Hypotheses were also proposed on the products other than beeft which may have been sold at the market. These issues were discussed in Chapters 4 and 6. Finally, the present research generated several additional avenues of inquiry to be addressed through subsequent historical and archaeological investigation. These are presented in Chapter 7. The present document, then, as but a first step in a long-term research effort on the relation of the market system to the urban area.



Chapter II

Charleston and the Beef Market

In 1670, Charleston was founded on Albemarle Point on the west bank of the Ashley River. The colonists were dissatisfied with this location, however, and drifted in increasing numbers towards Oyster Point, approximately four miles away at the confluence of the Ashley and Cooper Rivers. The leaders of the colony acquiesced to the desires of the settlers and, in 1672, the Grand Council of Carolina, in session at Albemarle Point, issued the following proclamation to John Culpeper, Surveyor General:

You are forthwith to admeasure and lay out or cause to be layd out upon the land lying between Ashley River and Wando River twelve thousand acres of land for a Collony in a square as much as Navigable Rivers will permitt, bounding same with limitts running directly from East to West and from North to South beginning upon Ashley River towards the South at a place there knowne by the name of the Oyster Poynt. And a Plott thereof fairly drawne you are to returne to us with all convenient speed whereof you are not to fayle.... (McCormack 1944: 184).

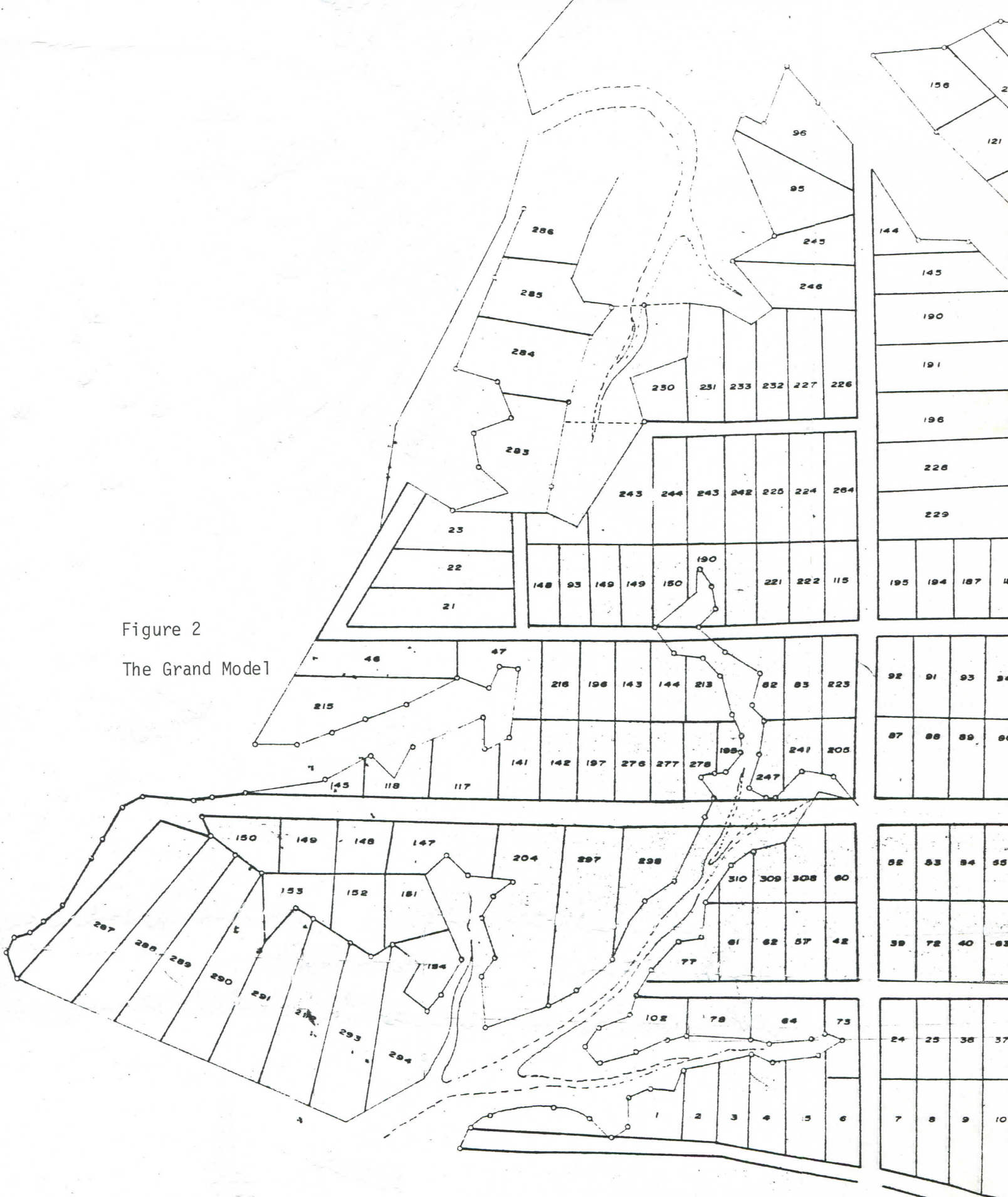
This "Plott" came to be known as the Grand Model (Figure 2). Utilizing the central square commonly identified with Philadelphia, this plan divided the peninsula into the deep, narrow lots characteristic of 17th century British colonial towns (Reps 1965: 177). Specified lots were reserved for a church, town house and other "publick structures" (Bridenbaugh 1938: 10). From 1673, the future site of City Hall and the park to its north and east (Figure 9) was made up of lots which were never built upon and common lands which gradually came to be recognized as a public square. In 1692, the South Carolina Assembly made permanent the act which, in 1690, had established a temporary market at the corner of Broad and Meeting Streets for two years (Bridenbaugh 1938: 193). This was reconfirmed in 1710 and 1736 (Childs 1981: 24; McCord 1840: 2: 73, 351; 3: 458, 516).

The early market probably began as a gathering of wagons manned by farmers and slaves bringing viands from the surrounding area. As the town stabilized, crude stalls may have been built and occupied by quasi-permanent vendors. The 1698 will of Mary Crosse, a prominent and widely respected Quaker, referred to her,

three town lots situate near ye Market Place in Charles Town... as followest ye front to ye Broad Street alias Cooper Street and ye front to ye little Street yt runs by Dr. Franklings and Mr. Simonds.... (Charleston County Wills Book 1: 71).

The lot on which she resided was apparently just north of the public market and was later incorporated within the square (Childs 1981: 24). The reference in the will of Mary Crosse to "ye Market Place" emphasizes its permanence and place in the collective consciousness of the townspeople.

Figure 2
The Grand Model



FEET 338 $\frac{0}{13}$ TO AN INCH

306
307
182
181
183
177
178
118
164
103
104
108
159
71
31
26
27
11
12
13

CAPT'N
HEWET'S
SQUARE
OF 10 ACRES

THE OLD CHURCH
YARD

MRS HANSON'S 4 LOTS

163	170
162	168
161	169
160	171
	172
	173

250	251	239	253	258	259	255	260	263	157	158	137
236	237	238	252	256	257	254	261	262	155	156	136

105	
106	
ARCHDALES SQUARE	
107	

110	140													
	281								220	249	301	184	138	139
	279	280							219	243	300	126	127	128
111														125

MRS. CROSS 59 124 3 LOTS					
30					111
58					90
42	43	69	70		118

78	189			174	187									305
	26			179										304
85	84	182	182	175										303
66	67	217	218											302
														209
														208
														235
														234
32	33	34							80	51	50	49	48	

(Figure 3).

The growing number of immigrants combined with the difficulties of establishing a farm, adapting to an unfamiliar climate and soil, and experimenting with various crops, resulted in some scarcities for town dwellers unable to be self-sufficient. In 1682, Thomas Newe boasted in a letter to his father,

The Town which two years since had but 3 or 4 houses, hath now about a hundred houses in it, all which are wholly built of wood.

He went on to complain, however, that,

All things are very dear in the Town; milk 2d a quart, beefe 4d a pound, pork 3d.... Severall in the Country have great stocks of Cattle and they sell so well to new comers that they care not for killing, which is the reason provision is so dear in the Town, whilst they in the Country are furnisht with Venison, fish, and fowle by the Indians for trifles, and they that understand it make as good butter and cheese as most in England (Sally 1939: 181 - 182).

The early American colonists found many of the English fruits, such as apples, plums, pears, cherries, peaches, apricots and quinces, readily available. In Carolina, they also discovered a plentiful supply of figs, oranges and pomegranates. Peaches were so prevalent in the southern colony that one traveler reported, "the principal use made of them was to feed them to the hogs" (Adams 1971: 27). The colonists were eager to retain as much of their traditional foodways as possible. Many of them were dissatisfied with American equivalents and attempted to import English foodstuffs. In 1702, Elizabeth Hyrne wrote her brother in England,

If you can spare the mony send me one frail of (ma?)ligo raisons and some corranes, for I have had but two plum puddings since I came hither; also some raisons of the sun, some brown and white sugar candy which is not to be had here and is very usefull in this country diseases. Otemeal is very usefull in a voiage, which is not to be had here, as likewise pees, bacon, rice, butter and chees; if you can send me some of Jer. Landys best cheeses it will doe me a kindness, this country being so hot that chees made here will not keep well.... Here wants most sorts of English plants and seeds, here being no plenty of English frutes, but peaches and mellons. Here is one sort of mulberys good for silkworms, elce very infearer to the English. Here is also a sort of strayberys much like the English. Therefore send me all sorts of frute trees that is not here and all sorts of garden seeds (Merrens 1977: 19 - 21).

Some foods which were readily available in Carolina were highly desirable but scarce commodities in England. Green and loggerhead turtles were considered delicacies and were often sent live as gifts to friends and acquaintances in England. Soon turtles were common enough in the diet of indentured servants in Carolina to cause complaints. These same turtles are now endangered species (Weir 1983: 42 - 43).

Throughout the early years of the existence of Carolina, industrious,

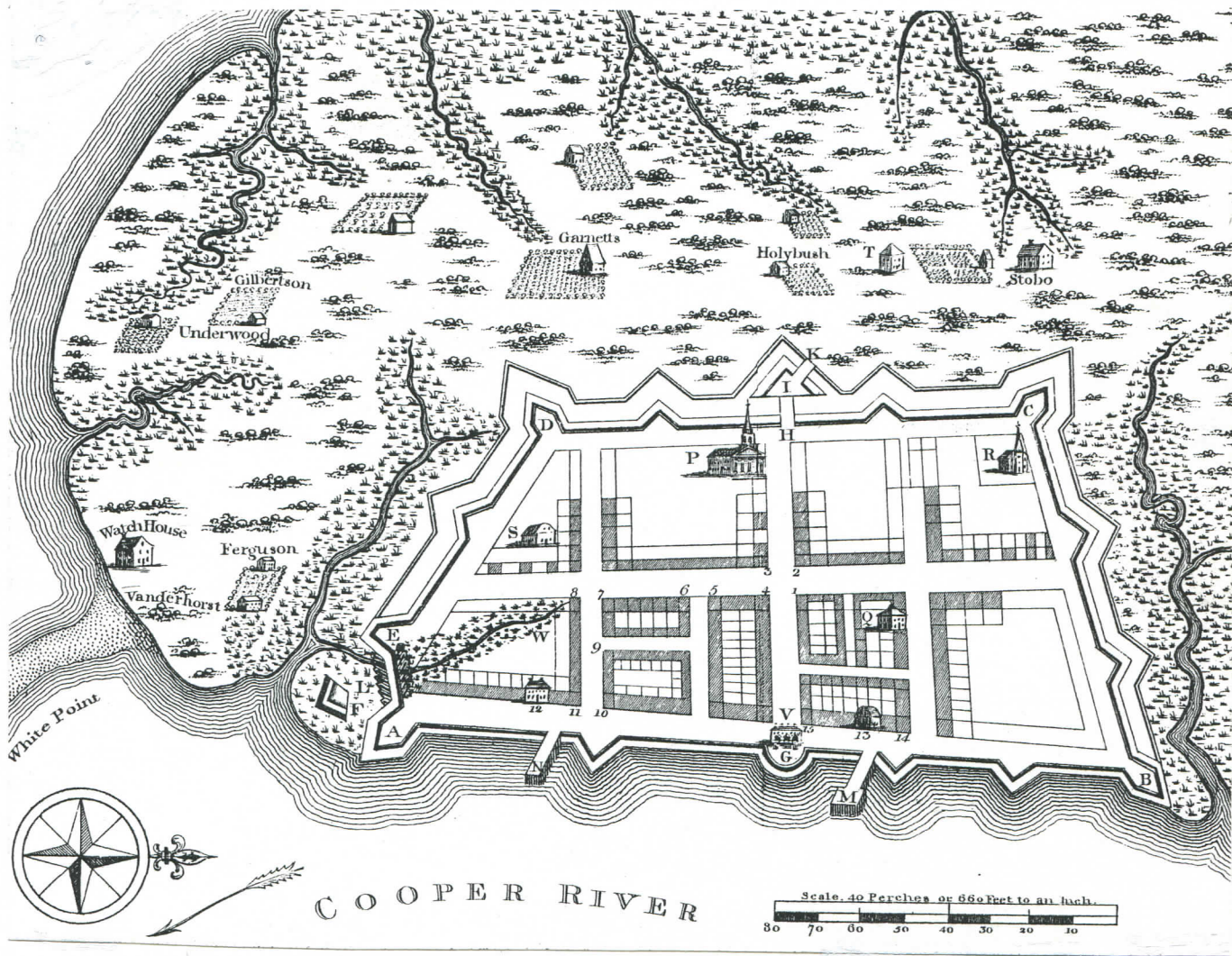


Figure 3
 Portion of the 1700 Crisp map,
 showing public square set aside for a market.

money-hungry colonists experimented with a variety of crops in an effort to discover a highly profitable staple suitable for export. Ginger, grapes, olives, silk, flax and hemp were merely some of the crops tried and discarded as either non-viable or unprofitable (Wood 1975: 27; Calhoun et al. 1982: 33). Rice, however, proved the salvation of the Carolina economy and, by the 1730s, the exports of this commodity accounted for from 1/2 to 2/3 of the total value of the exports of the province. Indigo, following a late start in the 1740s, was second and the products of the backcountry - provisions, lumber and naval stores - were third (Earle and Hoffman 1977: 37; Calhoun et al. 1983: 3).

Although some of the farmers in the surrounding area raised provisions, primarily for export to the West Indies, this was a decreasing trend throughout the 1700s. As rice plantations came to cover the Carolina landscape, most planters raised only enough grain for their own use, forcing the townspeople to depend upon shipments from Pennsylvania and New York. This kept prices consistently high and it was not uncommon for the town to discover, as it did in 1741, that it was "entirely without Flour or Bread of any Sort" (Bridenbaugh 1938: 354).

In an attempt to be at least partially self-sufficient, many colonial Charlestonians raised a few animals, such as poultry, hogs, goats and an occasional cow, for their own use. Crowded conditions often made the maintenance of these animals a nuisance to the other inhabitants. As early as 1692, an act was passed to prevent swine from running loose in the streets. In 1698, a statute indicated that the residents must remove slaughter houses, hog, cattle and sheep pens from the town proper (Waring 1964: 15). Apparently, these laws were ignored by both townspeople and officials. An act passed in 1741 once again forbade the practice of allowing swine to run about unhindered throughout the town (Waring 1964: 53). In 1744, this was still a problem. A Grand Jury Presentment made in that year deplored,

the suffering of Hogs to run about the streets of Charlestown, contrary to an express law (South Carolina Gazette November 5, 1744).

Two years later, an act passed by the General Assembly of South Carolina declared,

all goats and swine found running at large in Charlestown shall be forfeited to use of the poor in St. Philips Parish (South Carolina Gazette July 7, 1746).

Swine and goats were not the only livestock which caused problems. A notice in a September, 1732 issue of the South Carolina Gazette stated,

Whereas there is great Want of Pasture for the town cattle, whereby fences are continually broke, This is to give notice to all persons who keep cows in Charlestown, That 40 head of Cows, and no more, will be taken in to pasture at New-Market Plantation for half a crown a head per week, from Monday next till April and no longer, The money to be paid on Entrance every Monday morning.

N.B. any Negro lad or old Negro fit for nothing else can easily drive up and bring back all the cattle night and morning (South Carolina

Gazette September 2 - 9, 1732).

Regulation of the market was a problem in Charleston as it was virtually everywhere in both the Old and the New Worlds. For a while, however, control of prices, weights and measures, forestalling and other abuses, was not even attempted in Charleston, a situation which the governor denounced in 1706 as "a living Sin" (Bridenbaugh 1938: 193). In a vain attempt at control, a woefully inadequate law was passed in 1710. Under this act, royal placemen were appointed by the Duke of Newcastle to serve as market clerks. These men remained in England and authorized clerks to perform the actual work in Charleston. The deputies of the absentee market officials had little motivation to be conscientious in their duties. Their negligence forced consumers to continue to suffer from a lack of regulation which the Grand Jury decried in 1735 as an "intolerable hardship" (Bridenbaugh 1938: 351 - 352).

In 1739, an act was passed,

for the establishing of a market in the parish of St. Phillip, Charlestown; and for preventing engrossing, forestalling, regrating, and unjust exactions in the said town and Market.

It legislated,

That a public market shall be held and kept in Charleston, on every day of the week (Sundays excepted) at the place whereon a new Market-house has been lately built, which is commonly reputed to be the place appointed, established and laid out for a market place in the original plot or model of Charlestown (McCord 1840: 403).

A map made in 1739 shows the new market building as a large brick structure on the southwest corner of the square (Figure 4). Variouslly referred to as the New, Upper or Beef Market, it was reputed to be "well regulated and plentifully supplied with provisions" (Bridenbaugh 1955: 82).

Unfortunately, the description "well regulated" was probably a result more of wishful thinking than a strict regard to veracity. It was difficult to enforce market regulations even under the best conditions. Countrymen frequently attempted to forestall the market by selling before the opening bell was rung; townsmen often tried to monopolize the market by buying up quantities of goods in advance with the intention of profiting from the subsequently inflated prices (Bridenbaugh 1955: 82). The law of 1739 attempted to prevent this practice by declaring,

And all and every Butcher and Butchers, Poulterer and Poulterers, Country Planter, Victualer, Lader, Kidder, or other Person whatsoever, shall and may there sell, utter and put to open Shew or Sale, his or their Beef, Mutton, Veal, Lamb, Pork or other Butchery Wares, Poultry, Fish and other Pfovisions whatsoever, upon every Day of the Week, except Sundays, from the Rising of the Sun all the Year long, as long as he or they shall furnish the said Market, with good and wholesome Flesh and other Provisions, and if any Person or Persons whatsoever, shall sell, or offer to Sale any Manner of Butchery or Poultry Wares or other Provisions in the said Market or other Place



Figure 4

Portion of the 1739 Roberts and Toms map,
showing the market square.

in Charlestown aforesaid, before the ringing of the Market Bell at Sun rising in the Mornings respectively, every such Person or Persons offending and being convicted before the Commissioners or any three of them herein after mentioned, on the Oath or solemn Affirmation of any one or more Person or Persons, shall forfeit the Meat so expos'd to Sale, and pay the Sum of 2 (pounds) current Money for every such Offence, one Moiety thereof to the Use of the Informer, the other to the Poor of the said Parish of St. Philip's Charles-Town, to be recovered by Warrant under the Hands and Seals of any three of the said Commissioners (South Carolina Gazette December 8 - 15, 1739).

Officials were also constantly worried by unscrupulous or merely careless vendors whose weights and measures were inconsistent or worse. In 1744, the Grand Jury in South Carolina complained,

due regulation of weights and measures throughout (the) province (is) not being observed (South Carolina Gazette November 5, 1744).

Officials also found it very difficult to enforce reasonable standards of quality; ignorance and greed were both an excuse and a motivation for the sale of tainted meats. A Grand Jury Presentment made in 1744 protested the,

disregard of ... proclamation in having drove, and still driving, distempered cattle through other peoples' plantations, pastures, stocks, and lands, and even down to (the) Quarter House where several have died lately; and people who have killed sick cattle and sold them at market; and people who have left their dead cattle unburied on their lands and marshes (South Carolina Gazette November 5, 1744).

Regulation was made even more difficult by the number and variety of people who sold goods at the market. Slaves huckstered a variety of items, probably including some goods they themselves crafted, both for their own benefit and that of their masters. In an advertisement for a run-away slave which was placed in a 1744 edition of the South Carolina Gazette, the man was described as

a lusty young Negro Fellow, named Bacchus, with a broad Face and large Feet, well known in Charles-Town, where he used to go about selling Greens, Fruits, & c...(South Carolina Gazette June 11, 1744).

The entrepreneurship of slaves was not always approved or tolerated. A Grand Jury Presentment in 1742 complained of,

The unlawful practice of Negroes, buying and selling in the public market (South Carolina Gazette March 27 - April 3, 1742).

In 1744 a statement was printed which declared,

We present, as a Grievance, Negroes being allowed to go from Town into the Country, under Pretence of picking Myrtle berries, & c and who at the same time carry Rum and other Goods to trade with Negroes in the Country, by which they are debauched, and encouraged to steal

and robb their Masters of their Corn, Poultry and other Provisions
(South Carolina Gazette November 5, 1744).

Two years later, "Many well dispos'd Poor white People" complained of slaves who, as a result of non-regulation, forestalled the market and frequently sold goods "by very indirect methods." The Assembly responded with a law which forbade slaves to vend anything except fish, oysters and 'Herbage' (Bridenbaugh 1955: 82).

In 1760, the old market building was apparently adjudged unequal to its role in the growing town. The Commissioners of the Markets began construction on the same site of a "neat building, supported by brick arches, and surmounted by a belfry" (Bridenbaugh 1955: 82; Fraser 1854: 32 - 33). By 1744, the structure had deteriorated into "only a low dirty looking brick market house for beef" (Merrens 1977: 282) (Figure 5).

In colonial Charleston, the Beef Market was apparently a landmark. Members of the business community often advertised their locations in terms of their relation to the Beef Market. Peter Laurens was only one of the many colonials who followed this trend in the advertisement of "his shop fronting The new Market Square" (South Carolina Gazette November 7 - 14, 1741).

As a commercial focal point for both the town and the surrounding countryside, the market district attracted both craftsmen and merchants. The Beef Market and Broad Street, the thoroughfare on which it fronted, attracted a large number of the saddlers in Charleston (See Table I). Of the 25 saddlers who advertised in the South Carolina Gazette during the period 1732 - 1770, five gave their addresses as Market Square and five more were located on Broad Street. Another five were on King Street, the main road from the backcountry to the town, while one was on Meeting Street, the thoroughfare which intersected with Broad Street at the market. The remaining nine neglected to list specific locations, which could perhaps be attributed to the financial or visible prominence of their businesses. Very few butchers gave an address in their notices. Of the fifteen who advertised in the South Carolina Gazette during this period, one was on Market Square, one moved from Broad Street to the market, two were on King Street and the remaining eleven did not list specific streets. Ten tanners, leather dressers & c. advertised in the Gazette from 1730 - 1770. These artisans were more dispersed. One was on Market Square, two on King Street, one on Bedon's Alley and one on White Point. Five gave no identifiable locations. Shoemakers were also spread throughout the town. It is probable that, although proximity to the market might have been desirable, it was not financially possible for these often poorly paid craftsmen (Calhoun et al. 1983).

The attraction of saddlers to the market area might have been a result of not only its high visibility but also the number of countrymen who slaughtered their own beef cattle and transported not only meat but skins to market. By being close to the market, saddlers could probably obtain skins at lower prices than if they had to pay additional transportation costs and bargain with an individual as opposed to a group. Also, many saddlers could probably afford the higher prices demanded by commercially desirable real estate. Although initially most finished products were imported from England, by 1741 Robert Pringle, a Charleston merchant, could write to a

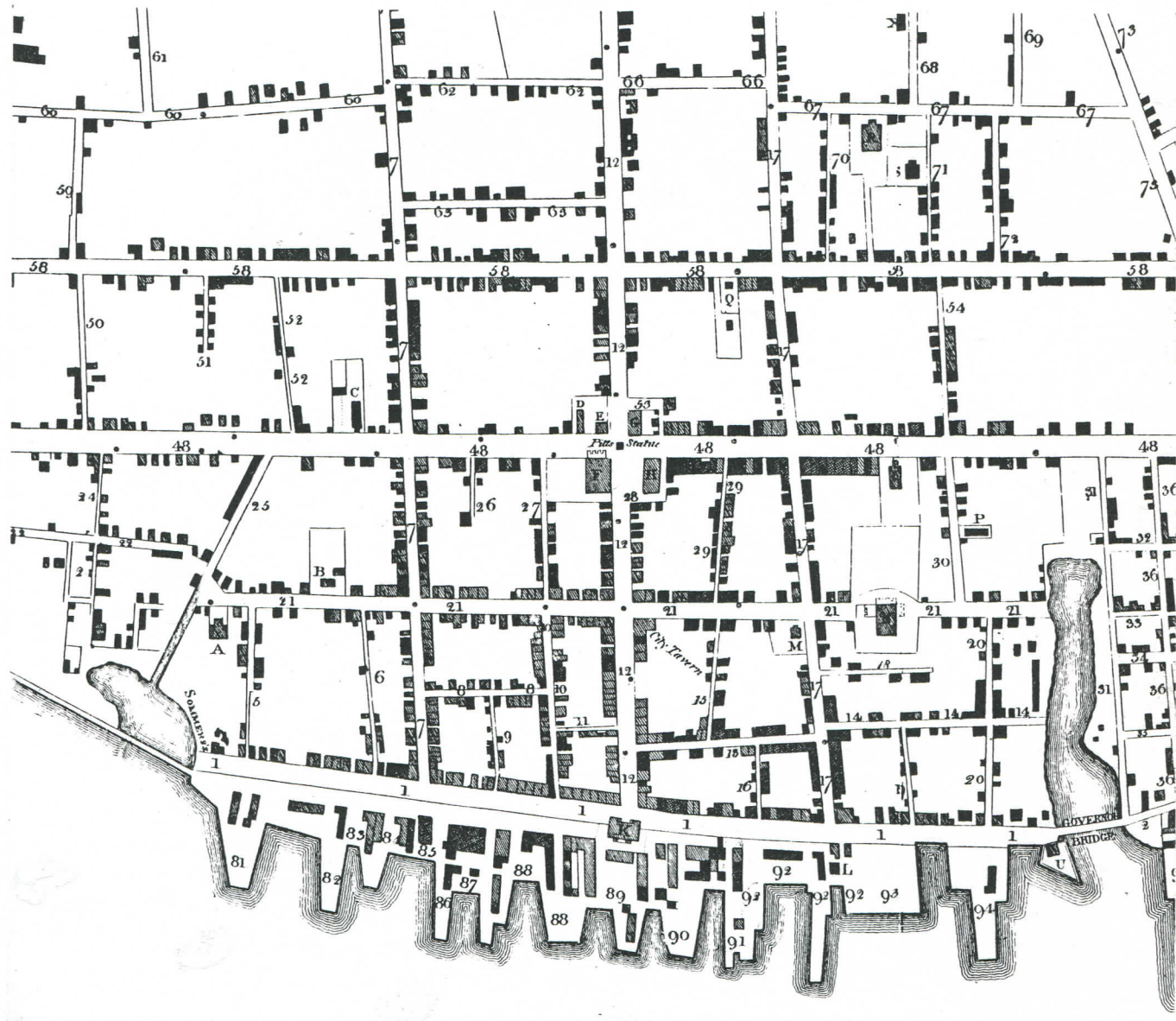


Figure 5
Portion of the 1788 Petrie map,
showing the Beef Market.

Table 1

Location of Select Artisans, 1732 - 1770

	Unknown	Market Square	Broad	Meeting	King	Church	Elliot	Tradd	Union	Bedon's Alley	White Point
Sadlers	9	5	5	1	5	0	0	0	0	0	0
Butchers	12	1	1	0	2	0	0	0	0	0	0
Tanners, Leather Dressers	5	1	0	0	2	0	0	0	0	1	1
Shoemakers	3	0	0	1	1	1	2	1	1	0	0

saddler in London,

There are now Severall of your Trade Sett up in this Town and some of them have very Good Business So that there is not now the Encouragement to Import Sadlery from England that has been formerly as they make Saddles, & c. in Town, Especially for Country people cheaper than they can be Imported (Edgar 1972: 305).

John Laurens, a prosperous saddler and patriarch of the prominent and wealthy Laurens family of Charleston, was situated on Market Square (Calhoun et al. 1982: 99).

The market area also appears to have served as a social center. This was probably especially true for the lower and middle classes who made their own purchases in lieu of a servant or slave. In 1743, a shuffle board was set up in a house in Market Square, "where Gentlemen may enjoy their Bowl and Bottle with satisfaction and be handsomely served... (South Carolina Gazette May 9, 1743). The intersection of Broad and Meeting Streets assumed greater social and institutional significance with the additions of St. Michael's Episcopal Church (1756) on the southeast corner and the State House (1752 - 1788; Court House 1788 - present) on the northwest corner of the crossing (Childs 1981: 24).

The fire which broke out on June 13, 1796, in Lodge Alley destroyed the colonial Beef Market. The City Gazette and Daily Advertiser reported,

Again has this city been visited with the dreadful calamity of fire. On Monday last, at 3 o'clock in the afternoon, a room in Lodge-Alley was discovered to be on fire, which in a few minutes communicated to the neighboring buildings. The citizens soon assembled; but their exertions could not stop the devouring flames 'till three o'clock on Tuesday morning, nor until a very considerable part of the city was destroyed.... those acquainted with the city will conceive the damage done, on being told that every house in Queen-street, from the Bay to the corner of Church-street; all Union-street continued; two-thirds of Union-street; Church-street, from Broad-street to St. Philip's church, with only two exceptions; Chalmers and Beresford's alleys; Kinloch's court; and the North side of Broad-street, from the State-house to Mr. Jack's, four doors below Church-street; and five houses on the Bay, from the corner of Queen-street, were burnt to the ground.

The public buildings destroyed are, the French Church and the Upper or Beef Market... (City Gazette and Daily Advertiser June 15, 1796). (Figure 7).

By this time, the area surrounding Broad and Meeting Streets had changed character. Although these thoroughfares were still important commercially, most of the craftsmen and merchants were now located north of Broad Street (Calhoun and Zierden 1984). South of Broad, an elite residential district was becoming increasingly differentiated. St. Michael's Church was rapidly becoming the most prestigious in town and its role in protecting the city, through its fire watch, and the tolling of the hours gave it an additional institutional importance (Radford 1974: 194 - 195; Calhoun and Zierden 1984: 50).

The raucous and undoubtedly malodorous Beef Market was no longer suitable for the intersection of Broad and Meeting Streets. On July 29, 1800, the City Council of Charleston conveyed to the president, directors and company of the Bank of the United States,

All that piece... of land situate and being on Meeting and Broad Streets in the City of Charleston measuring in width from North to South Eighty Six feet and in length from East to West one hundred and thirteen feet.... To have and to hold... forever. Provided... that upon the said Lot... the Bank of the United States shall... erect and Build... an elegant Edifice or Bank House... (Register Mesne Conveyance Book 7: 317 - 320) (Figure 6).

Gabriel Manigault, an amateur architect in Charleston, is credited with the design of the new bank. The exterior of the original building was local red brick laid in Flemish bond and lavishly trimmed in white marble (Childs 1981: 16). The effect was so colorful that, in 1826, Robert Mills asserted,

Its facade is showy, but... exhibits a crude taste in architecture, only meritorious as a work of art unaided by science.

But though this building is repugnant to good taste, and offensive to the critical eye, it is yet an ornament to the city, and will probably, at some future day, be so improved as to be brought within the pale of good taste, of which it is in some degree capable (Mills 1826: 408 - 409).

In 1818, the city council of Charleston resumed control of the lot and bank building. At this point, the former Beef Market and Bank Square became known as City Hall Square. Soon after, the council advertised for bids to

enclose the Square with an iron palisade fence four and a half feet wide on a brick and stone wall, fourteen inches, with two large iron gates.

Within a year, it was possible to hold militia parades on the square. In 1839, Mayor Pinckney wrote,

In the City Hall Square, the railings and the walls have been repaired and painted, and the gardens put in order.... Brick and stone pavements have been replaced (Childs 1981: 24 - 25).

During the Civil War, downtown Charleston was heavily bombarded by Union troops. For protection, the city government was moved from the corner of Broad and Meeting Streets to the Charleston Orphan House on the more northward Calhoun Street. The Northern troops took possession of Charleston on February 18, 1865. General W.W. Burns, the Union commandant of the prostrate city, made the former city hall both headquarters for the occupying army and the Provost Guard House. In 1868, the building was returned to the city and once again sheltered the government of Charleston (Childs 1981: 1).

The shelling suffered by downtown Charleston during the Civil War plus

Recorded in book B No 7 page
317 the 7th day of August 1800 &
Examined by

Stephen Raviney
Register

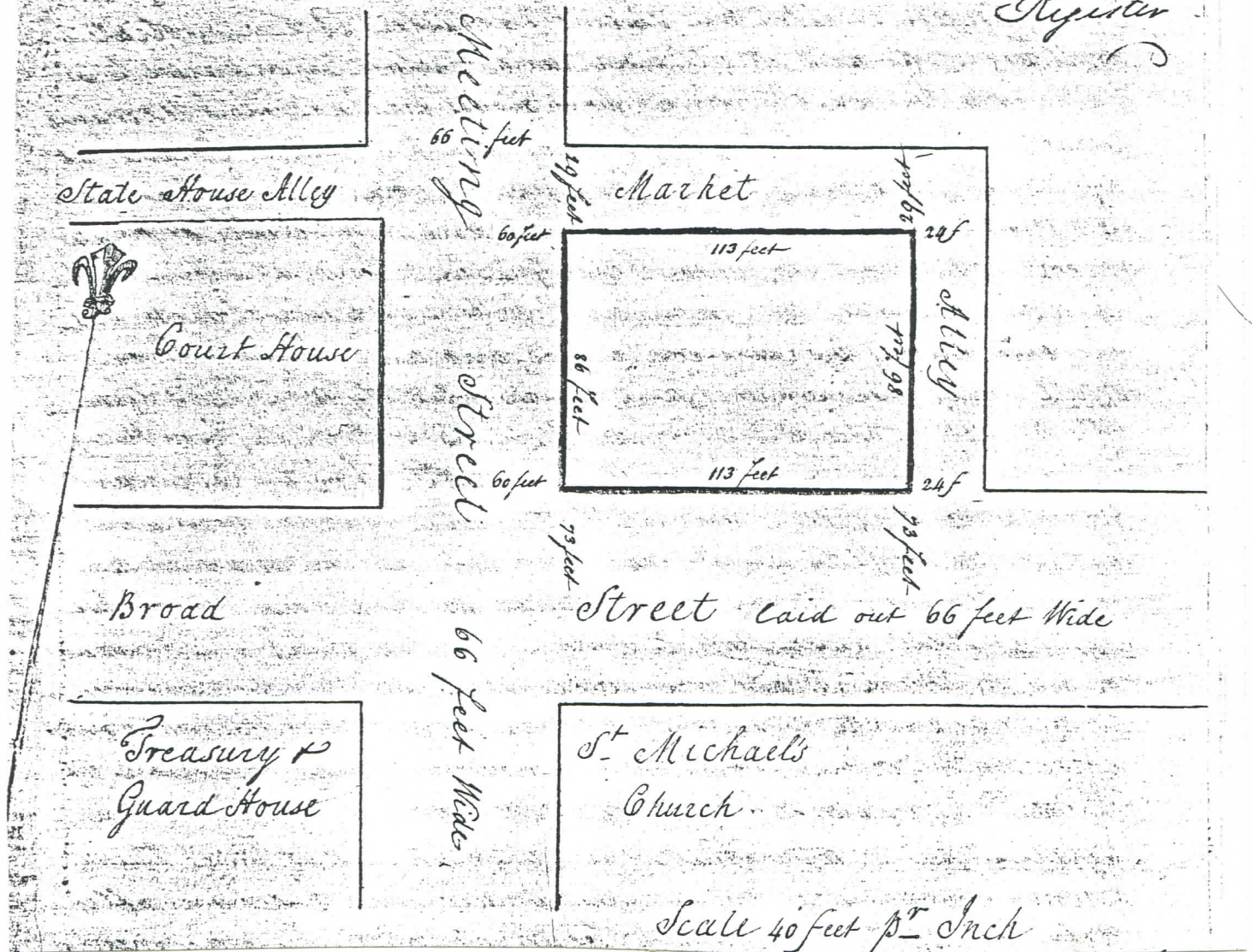


Figure 6

Plat of the Beef Market Site, 1800.

(CCRMCO B-7: 319)

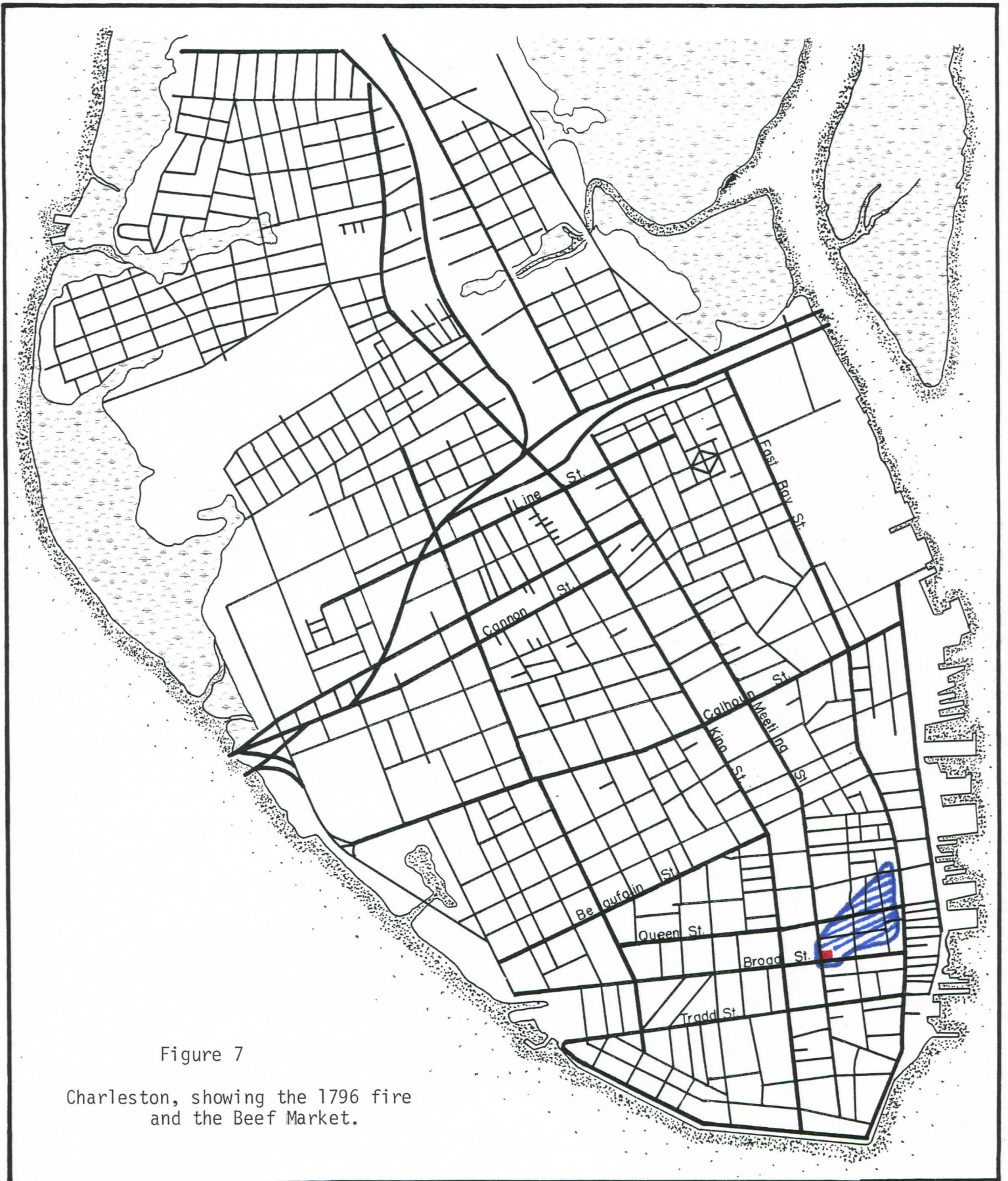


Figure 7

Charleston, showing the 1796 fire and the Beef Market.

the natural deterioration through time persuaded Mayor William A. Courtenay in 1882 to transform the building. The red brick was covered with white stucco and the mutined windows replaced with large panes. In the course of the restoration, the interior was gutted and a new trussed roof allowed the ceiling to be raised the five feet needed to shield a new ventilator (Childs 1981: 8).

The terribly destructive earthquake of 1886 severely damaged the building. A "tent city" was erected in the square to shelter citizens afraid or unable to return to their homes (Figure 8). The structural damage caused by the earthquake necessitated major repairs which were completed in 1898.

During the tornado of September, 1938, City Hall lost its roof and all of its window panes. The masonry of the upper floors on the northeast corner collapsed and much of the furniture was damaged. Once again, major repairs were needed before all signs of the tornado were obliterated (Childs 1981: 10 - 11).

Conclusions

One hears a great deal about the role of the town in the development and diversification of consumption, but very little about the extremely important fact that even the humblest town-dweller must of necessity obtain his food supply through the market: the town, in other words, generalizes the market into a widespread phenomenon (Bruadel 1981: 481).

Although it is difficult to ascertain to what extent Charlestonians utilized the Beef Market through time, its continued existence makes its significance to the town dwellers obvious. The specialization inherent in the appellation Beef Market was probably a result of colonial commercial development. Initially, it is likely that the market at the corner of Broad and Meeting Streets was a diversified one. The reliance of the Charleston economy upon the plantation system discouraged the cultivation of foodstuffs while the rapid development of the town forced increasing numbers of people to rely upon shops or markets for most of their food. It is possible that this dependence led to the establishment of more markets and an increased specialization through time. This is supported by the construction in 1764 of a new market on the Bay for the sale of grain, vegetables and melons and, six years later, the opening of a Fish Market at the foot of Queen Street (Bridenbaugh 1955: 278).

As Charleston developed into a prosperous urban economic center for the surrounding area, commercial and residential areas became increasingly differentiated. In the colonial period, the commercial core centered on Broad and East Bay Streets. Artisans and merchants made the area south of Broad Street commercially important with a progressive development throughout time of the area north of Broad Street (Calhoun et al. 1983). The antebellum era saw the culmination of a colonial trend which resulted in a significant decrease in the number of businesses located south of Broad Street. By the early 1800s, this area had been transformed from a commercial/residential district to a predominately elite residential area. In 1859 and 1860,

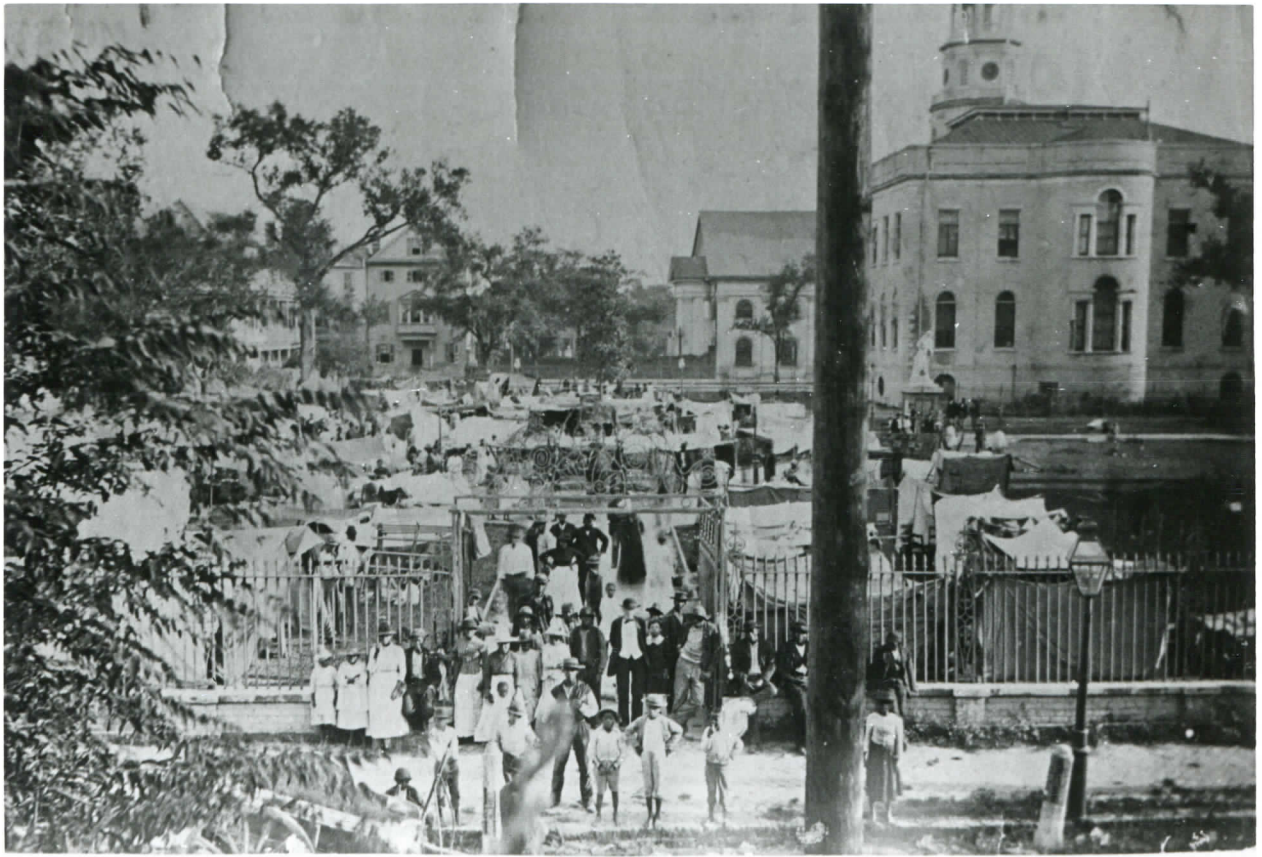
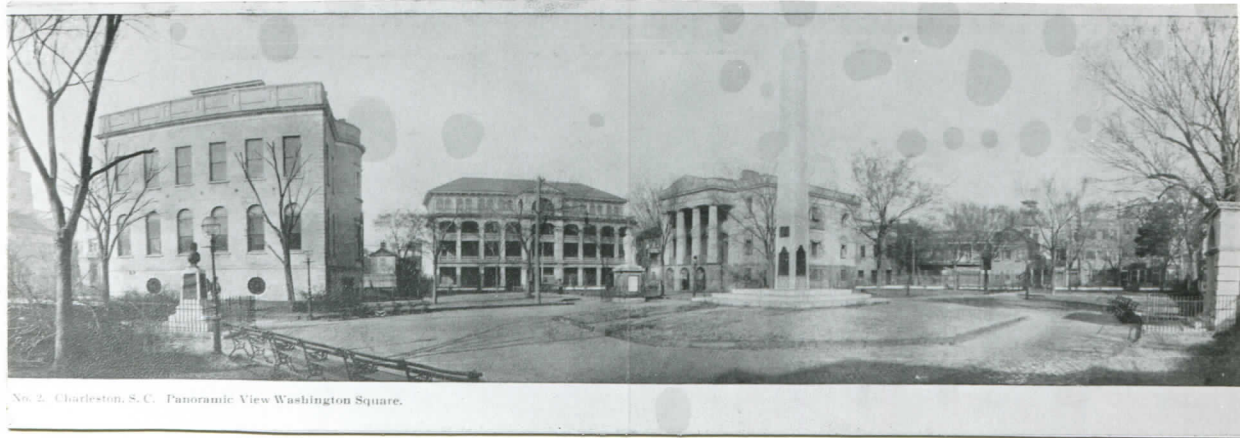


Figure 8

The Beef Market Site in 1886.



No. 2. Charleston, S. C. Panoramic View Washington Square.

Figure 9

View of the Beef Market Site, facing northwest
towards the Fireproof Building. From a Panoramic
View, ca. 1938

the homes of planters formed three major clusters; these were, in order of numerical importance: south of Broad, including most of the southern tip of the peninsula; the northwest section of the city, in Harleston and Cannonsborough; scattered along the east of the city, from Hampstead to Rhettisbury (Radford 1974: 155; Calhoun et al. 1984: 50).

Many of the wealthy Charlestonians attracted to the area south of Broad Street were motivated by the desire to be within sight and sound of St. Michael's Episcopal Church. There were several reasons for this choice. St. Michael's was a prestigious church; a large number of Charleston's most prosperous citizens worshipped there every Sunday. The bells of St. Michael's tolled the hour and were used to raise the town in case of fire or disaster. A sentry stationed on the steeple called out the quarter hours as they struck, maintained a fire watch and, if a fire was seen, not only made sure the bells were rung but also would hang a warning light on the side of the spire nearest the fire. In a city frequently assaulted by flames and terrified of arson by a large slave population, the ability to hear the bells and see the warning light was undoubtedly a great comfort. By 1818, the other three corners of the intersection of Broad and Meeting Streets were occupied by the Guard House, Court House and City Hall. These four corners were the physical embodiment of social control in Charleston (Radford 1974: 194 - 195; Calhoun et al. 1984: 50).

The displacement of the Beef Market by the Bank of the United States was the natural result of the urbanized character of post-revolutionary Charleston. The choice of this lot for first a major bank and then City Hall underscores the continuing centrality of its location in the life of the townspeople. By 1796, much of the refinement of downtown Charleston had already been accomplished. The upper class of Charleston undoubtedly received the news of the destruction of the Beef Market with a hint of nostalgia, and a sigh of relief.



Chapter III

Excavations

Site Description

The site of the Beef Market is located in Washington Square Park. The park is bounded by Broad Street to the south, Meeting Street to the west, and Chalmers Street to the north. City Hall occupies the southwest corner of the park while the Fireproof building, housing the South Carolina Historical Society, occupies the northwest corner. The park is bisected by laid brick walkways, with a central monument to the Civil War dead. The walkway divides the park into four quadrants, each exhibiting lush grass and ample live oak trees (Figure 9). The park is a popular spot for lunch, resting, or just cutting the corner, and traffic is heavy.

Both the City Hall and Fireproof buildings are massive structures, built in the early nineteenth century. The park was established shortly after the construction of City Hall; thus the archaeological deposits in this area have been relatively undisturbed.

Excavation Methodology

Because of the limited nature of the archaeological excavations, a trench unit grid was established for the site. The meridian was oriented parallel to the east wall of City Hall, rather than along cardinal directions. A permanent datum point was established 8.0 feet east of the southeast corner of City Hall. A second point, datum B, was established 8.0 feet east of the northeast corner, or 60.1 feet north of datum A. Datum point C was located 100.0 feet due east of datum A. All three points consist of a section of $\frac{1}{2}$ inch iron bar set in concrete. These were placed below the ground surface to facilitate mowing in the future. Points A and B were established by triangulating with tapes from the east wall of City Hall; datum C was established with a transit and tapes (Figure 10).

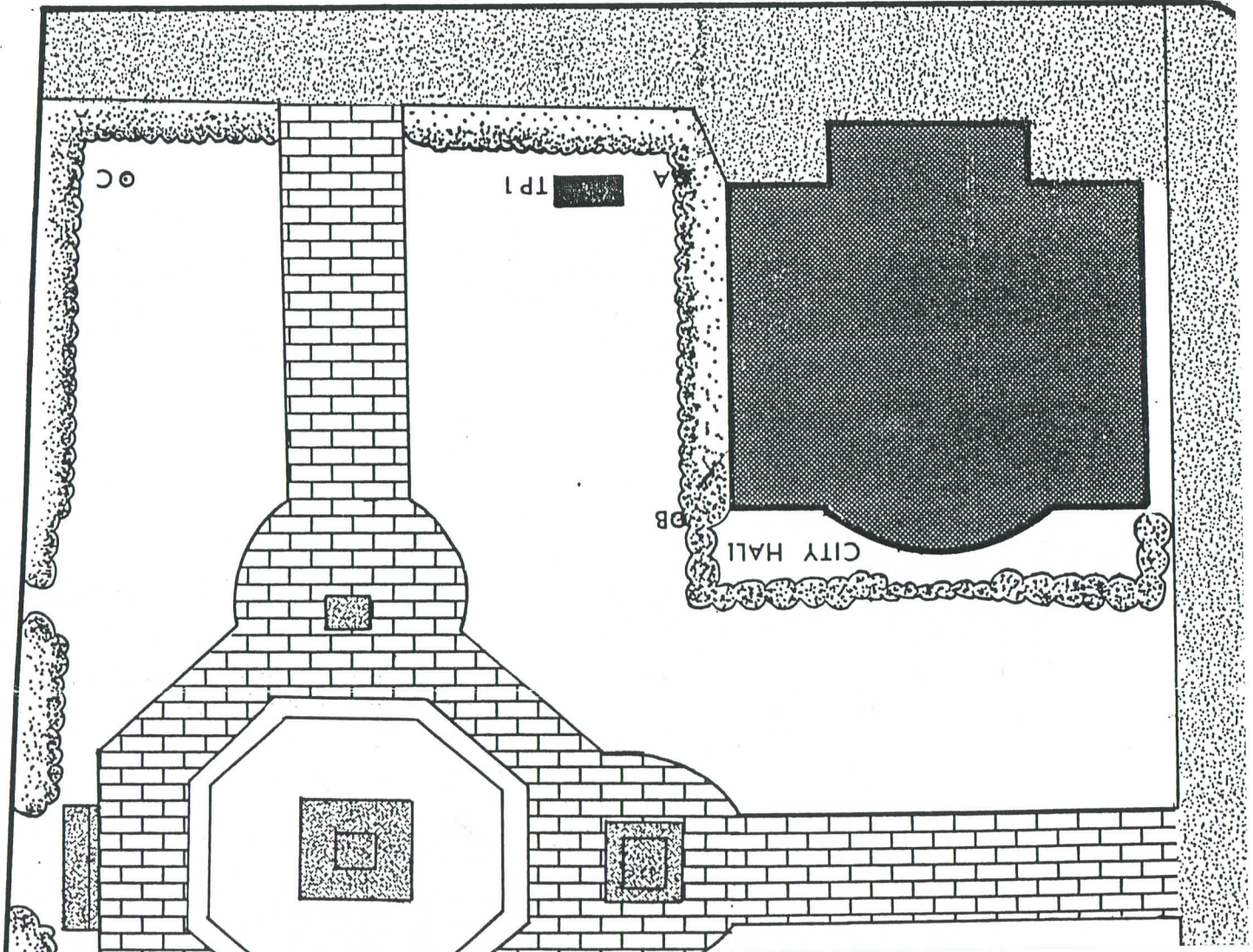
Vertical control was maintained with the use of a transit. All elevations were taken in reference to an arbitrary datum plane which was tied into mean sea level. Datum point C is 12.99 feet above mean sea level (MSL) and was established in reference to the USGS survey marker located in the east steps of the post office building, located on the southwest corner of Meeting and Broad Streets. All subsequent elevations were recorded with reference to datum C. They are reported as feet above mean sea level.

A single 5 by 10 foot unit was excavated. The southeast corner of the unit is 18.0 feet east and 0.0 feet north of datum A. The long axis of the unit is oriented east-west. The unit was excavated in natural zones using shovels and trowels. All proveniences, with the exception of Zone 1, were waterscreened through $\frac{1}{4}$ -inch mesh. Four gallon flotation samples



Figure 10

BROAD ST

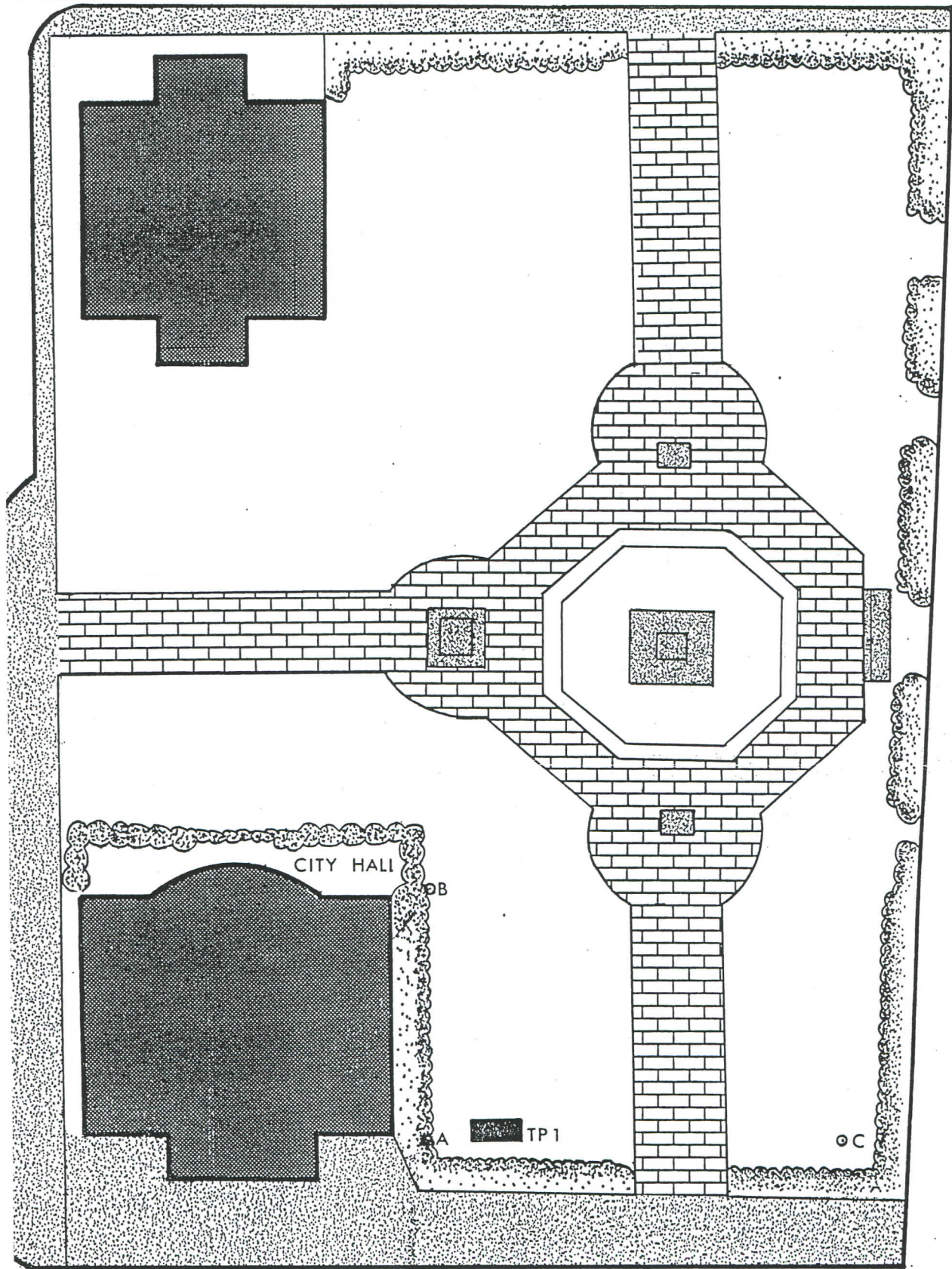


OC

TP1

AB

CITY HALL



BROAD ST

Figure 10



were retained from all organically rich proveniences. Shell and brick were sampled. Soil samples were retained from all proveniences. Following excavation, all materials were removed to the Charleston Museum for processing.

Because of the highly visible nature of the project and the location of the project in a popular urban park, efforts were made to minimize the "messiness" of the field work. The excavation area was roped off for the safety of both visitors and archaeologists. The water screen was located near a drain, and was constructed with a special box and drain to retain back dirt while allowing water to drain off. Several man hours were spent unclogging the drain and periodically removing the back dirt. Back dirt was segregated and sod was maintained. The backfilled soil was tamped to prevent subsequent slumping, and the sod and topsoil were replaced by City maintenance crews (Figure 11).

Description of Excavated Proveniences

Excavation of Test Pit 1 began with removal of the well maintained sod. Beneath this was Zone 1, consisting of topsoil imported to maintain the lawn of the park. This zone was excavated and discarded. Artifacts were collected by hand to establish a TPQ. Zone 1 was deposited in the mid twentieth century.

Beneath the topsoil was a midden deposit of grey-brown soil heavily flecked with crushed shell, brick and coal. The top inches of this zone were collected by hand and discarded to avoid contamination with Zone 1. When Zone 2 was present over the entire square, water screening through $\frac{1}{2}$ inch mesh was initiated. The base of Zone 2 was marked by a slightly heavier lens of crushed shell. Beneath this shell lens, the soil was slightly lighter, browner, and contained a heavier concentration of brick rubble. This was designated as Zone 3. Zones 2 and 3 contained heavy concentrations of cultural material. Whiteware and Rockingham ware provided a TPQ of 1830 and suggested a date of deposition in the 1830s.

Beneath Zone 3 several features were encountered (Figure 12). Feature 1 was initially defined as a trench of dark grey-brown sand located along the east wall of the unit. It proved to be quite shallow, and excavation revealed a line of bricks along the west side of the feature and a concentration of bricks along the east wall of the unit. These bricks along the east wall proved to be associated with Feature 7, to be discussed later.

Feature 2 was noted along the north wall of the unit and appeared to be a brick and mortar "pad". The feature intruded into the north wall and was seven bricks wide and a single brick thick. The top of these bricks was covered with a smooth layer of plaster. Finally, Feature 3 consisted of a concentration of brick and mortar, intruding into the south wall of the unit. This feature contained no soil and consisted entirely of brick, mortar, and marble chips and dust. Feature 3 has been interpreted as a pile of rubble from construction of City Hall. Likewise, Feature 2 may be associated with the construction of City Hall.



Figure 11

Removal of backdirt from screen box.

facing northeast.

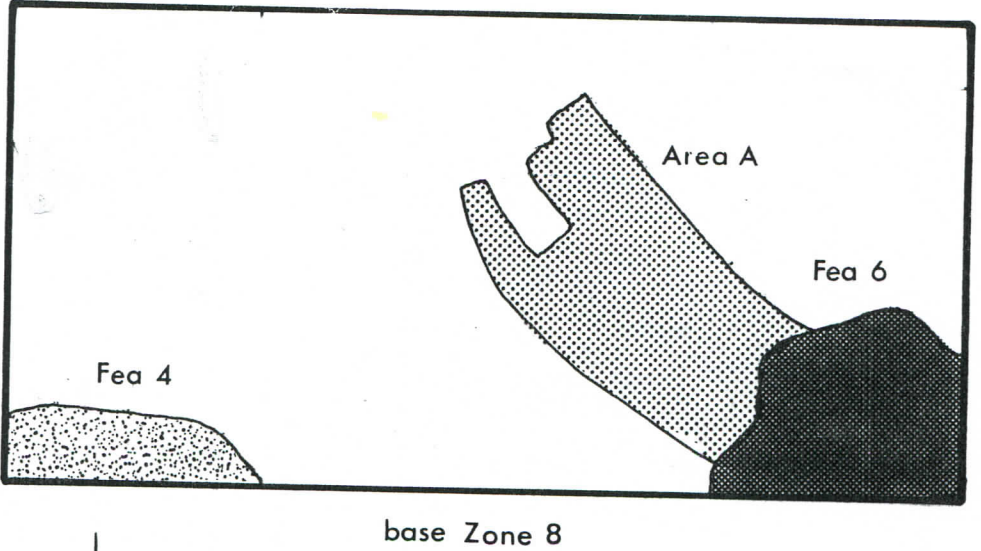
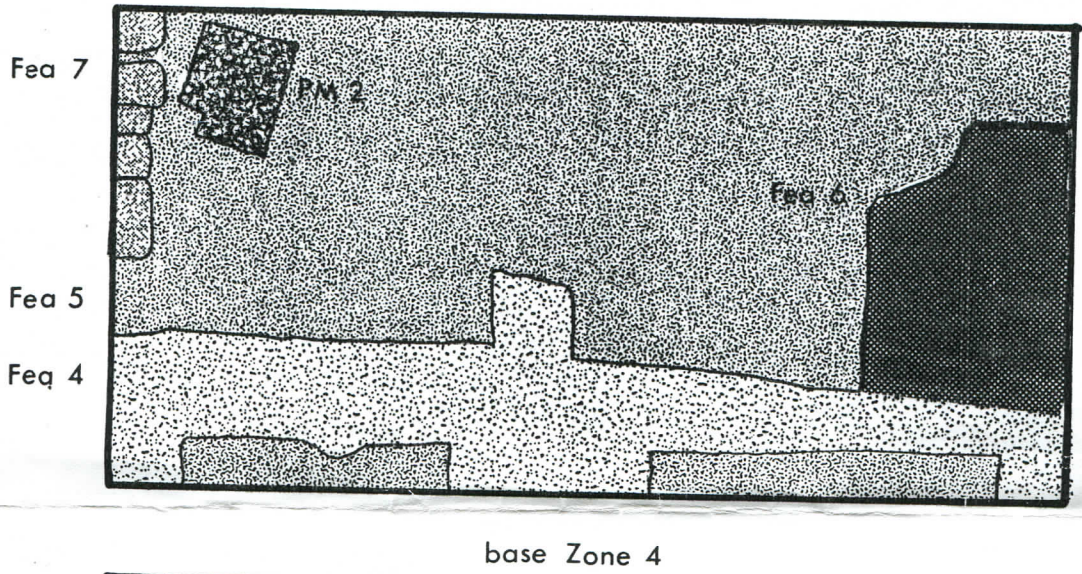
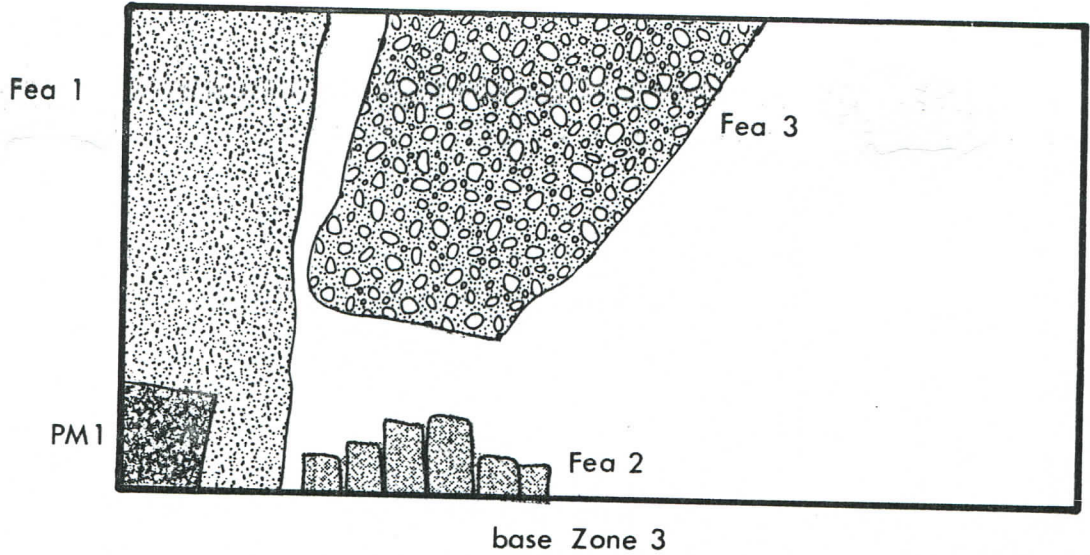
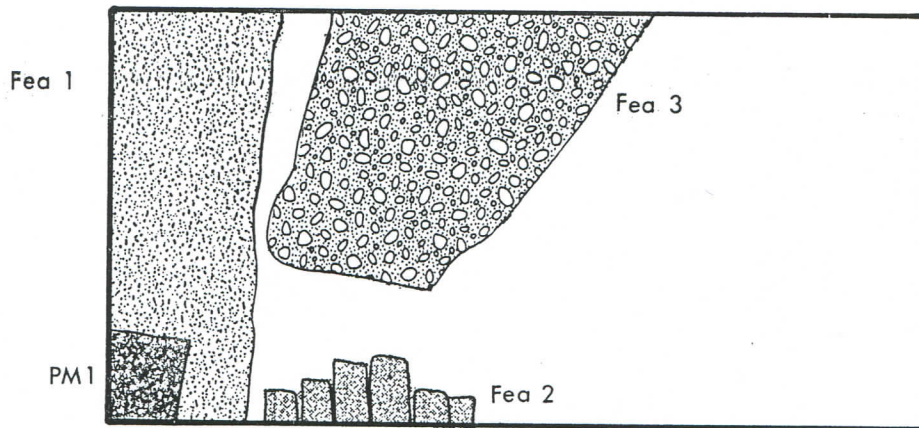
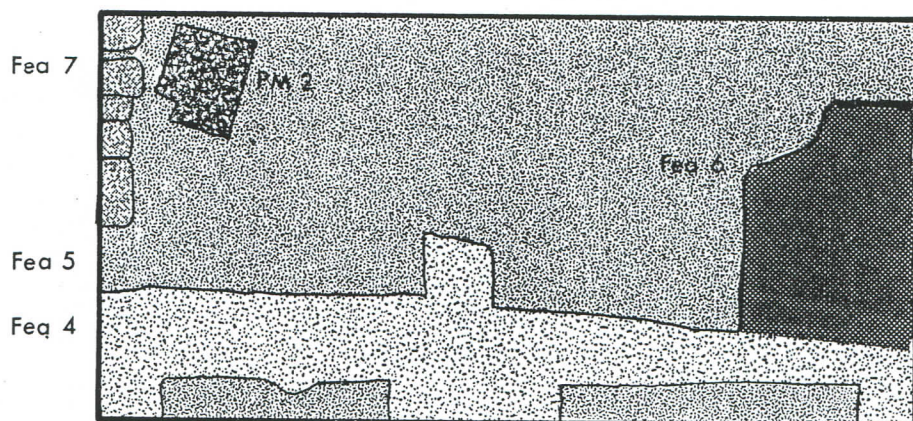


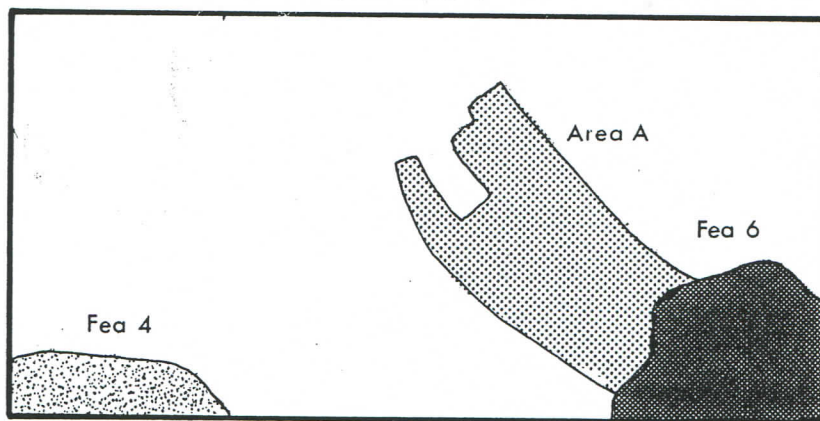
Figure 12
BEEF MARKET- TP 1
planview



base Zone 3



base Zone 4



base Zone 8



Figure 12
BEEF MARKET- TP 1
planview

The interpretation of Feature 1 is uncertain at the present time. The feature may be associated with the construction of City Hall. Alternately, it may be associated with Feature 7, the brick pier, and may represent destruction of the structure associated with that feature. Or it may represent a third building episode. In this same area, two square postmolds were encountered (Figure 12). These postmolds were deep and well defined. A TPQ of shell edged pearlware and initiation at the top of Zone 4 suggests an early nineteenth century date of deposition. It is possible that Feature 1 and Postmolds 1 and 2 suggest construction of a temporary market facility following the fire of 1796; the extensive cultural deposits in Zones 2 through 4 suggest continued occupation in the park past this date.

Where not disturbed by the above mentioned features, Zone 4 was present beneath Zone 3. This was defined as tan sandy soil with mortar, brick, shell and charcoal. The zone has a TPQ of 1815 (Rockingham ware) and dates to the first decade of the 1800s. Both Zones 3 and 4 were rather unconsolidated, suggesting fill or at least a secondary deposit. The possible sources of these materials will be discussed in Chapter 4. Zones 2 through 4, Features 1 through 3, and Postmolds 1 and 2 constitute the early nineteenth century (post market) assemblage.

Eighteenth century proveniences began with Feature 5, located beneath Zone 4. Feature 5 consisted of a hard packed earthen surface (Figure 13). The "floor" consisted of medium brown-grey sand mottled with ash, mortar, and charcoal. The feature was of similar consistency to the hard packed sand lenses encountered in Lodge Alley (Zierden et al. 1983a). The floor was .25 feet deep and was clearly separate from the zones above and beneath it, flaking away from the mottled sand underneath. Although the provenience contained quantities of ash and charcoal, these materials were not abundant enough to suggest primary evidence of the 1796 fire. The feature has been interpreted as a living floor or a road surface, both of which could have been compacted by continual trampling. Feature 5 has a TPQ of 1780 (hand painted pearlware), suggesting a late eighteenth century date of deposition.

Two large features initiated at the top of Feature 5 and intruded into the zones beneath it (Figure 12). Feature 4 consisted of a linear trench running parallel and adjacent to the north wall of the unit. This feature consisted of medium tan mottled sand; a TPQ of 1795 (Annular pearlware) suggests a late eighteenth century date of deposition. Feature 6 consisted of a large, shallow pit of dark grey-brown sand intruding into the northwest corner of the unit. Like Feature 4, a TPQ of 1795 (Transfer print pearlware) suggests a very late eighteenth century date of deposition.

Beneath Feature 5 a series of zone deposits were encountered which contained quantities of faunal and cultural materials dating to the eighteenth century. Zone 5 was a shallow deposit of yellow sand and highly fragmented bone. Beneath this was a thin zone of grey sand, ash, charcoal and mortar. Zones 5 and 6 have TPQs of 1780 (hand painted and plain pearlware), suggesting a late eighteenth century date of deposition.

Two shallow, rather ephemeral zones were encountered beneath Zone 6. Zone 7 was a medium tan sandy soil. This deposit has a TPQ of 1740 (White



Figure 13
Portions of Features 6, 5, 3,
facing north.

Saltglazed Stoneware) and was deposited in the mid-eighteenth century. Zone 8 was a rather swirled, water washed deposit of dark grey-brown soil and tan sand. Also present in this zone were patches of green-brown hard sand. Both zones contained heavy concentrations of bone. Zone 8 has a TPQ of 1740 (White Saltglaze Stoneware) and dates to the 1750s.

The final zone, Zone 9 was dark grey sandy soil and was quite deep. The zone was excavated in two arbitrary levels. Level 1 contained quantities of bone and artifacts while level 2 contained an increasingly sparse assemblage; the final three tenths of the excavation were sterile. At this point excavation was halted. The deposit designated Zone 9 level 2 was interpreted as original, sterile topsoil. Zone 9 has a TPQ of 1720 (Tortoise shell glazed earthenware) and dates to the 1730s-1740s (Figures 14, 15).

Two features were encountered within the eighteenth century deposits, and bear further discussion. The first was encountered at the base of Zone 8. This consists of a series of semi-circular ruts filled with water-washed sand. The water swirled sands suggest gradual filling, while the size and shape of the depressions suggest wheel ruts. The provenience, designated Area A, has been tentatively interpreted as wagon ruts, gradually filled by rains. Finally, a brick foundation pier, Feature 7, was encountered in the east wall of the unit; in fact, the brick was flush with the true edge of the pit. The brick structure continues into the south wall of the unit, thus making it impossible to determine either the length or width of the feature (Figure 16, 17). The top course of brick flared out to the west, and were in fact the bricks encountered in the base of Feature 1. Beneath this ledge of bricks, a portion of the builders trench was encountered, clinging to the brick. Feature 8 was excavated and screened separately; the provenience has a TPQ of 1730 (Tortoise shell glazed earthenware), suggesting a construction date of the 1730s. The configuration of Feature 7 suggests a brick pier which supported an open sided wood superstructure.

Interpretation

Excavation of Test Pit 1 resulted in the recovery of proveniences dating from the 1720s through the 1830s. These proveniences are associated with three periods of site occupation; first (early) market structure (1730-1760), second (later) market structure (1760-1796), and post market (1796-1840). No proveniences dating to the earliest period, 1680-1730, were encountered, at which time the site was a public square set aside for market activities.

A date of deposition of the 1730s for Feature 8 suggests that the brick pier may be associated with the first market structure, constructed in 1730. To date, no cartographic evidence of this structure other than the 1739 Roberts and Toms map has been encountered. Later cartographic sources indicate that the second structure is located beneath City Hall, further supporting the interpretation of Features 7 and 8 as associated with the first market stall. The quantity of faunal material in Zones 7 through 9 support the association of these features with marketing activities.

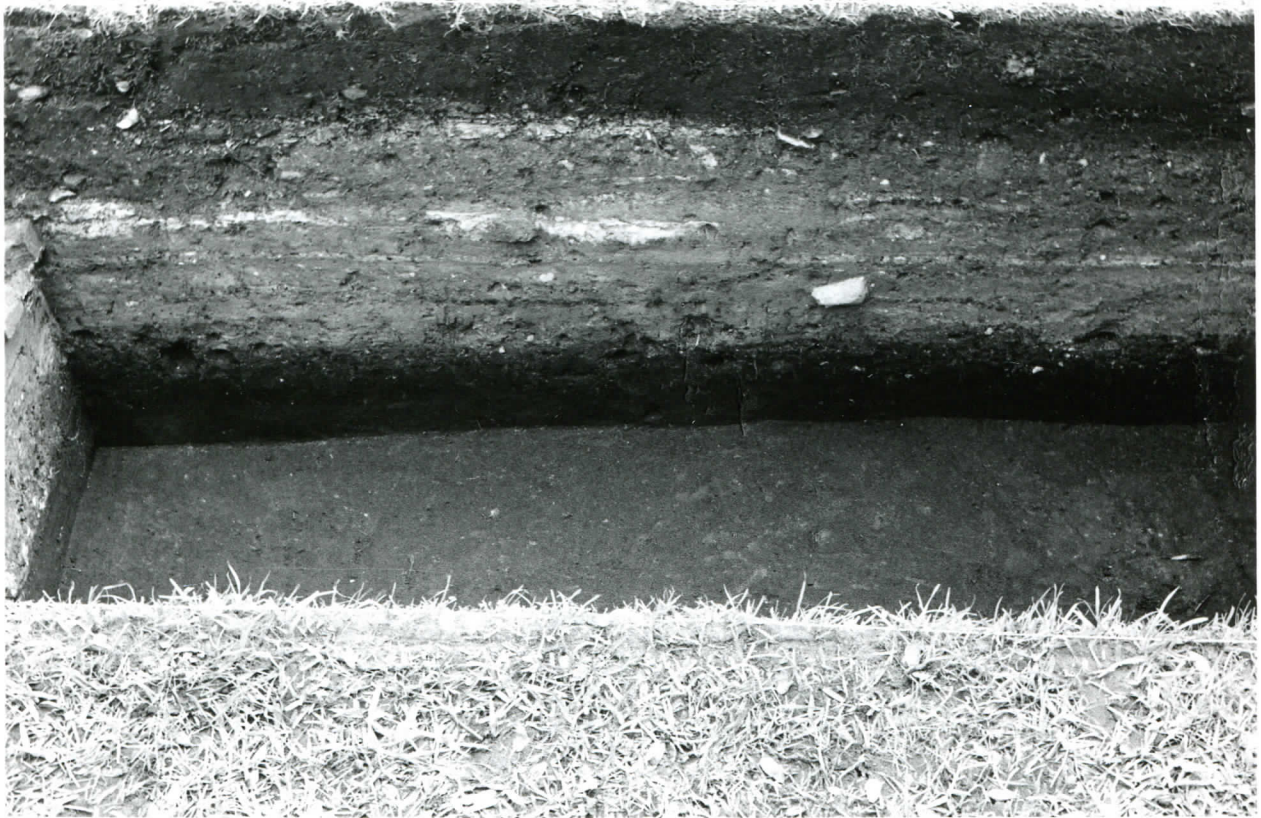
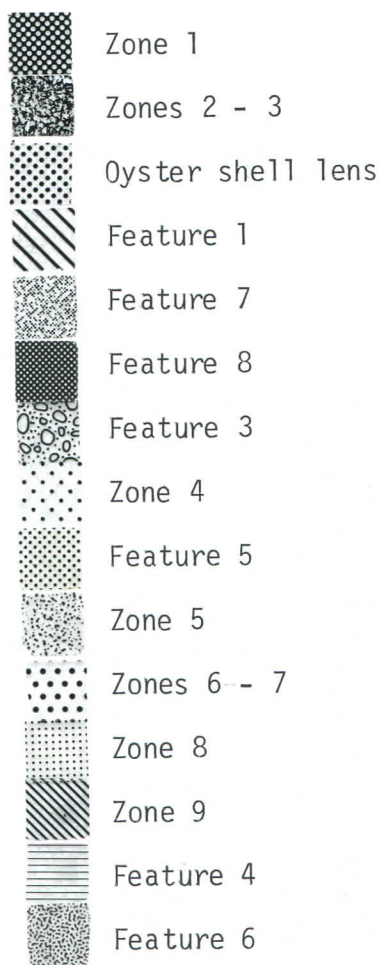


Figure 14

Photograph, south profile of Test Pit 1.

Key to Figure 15



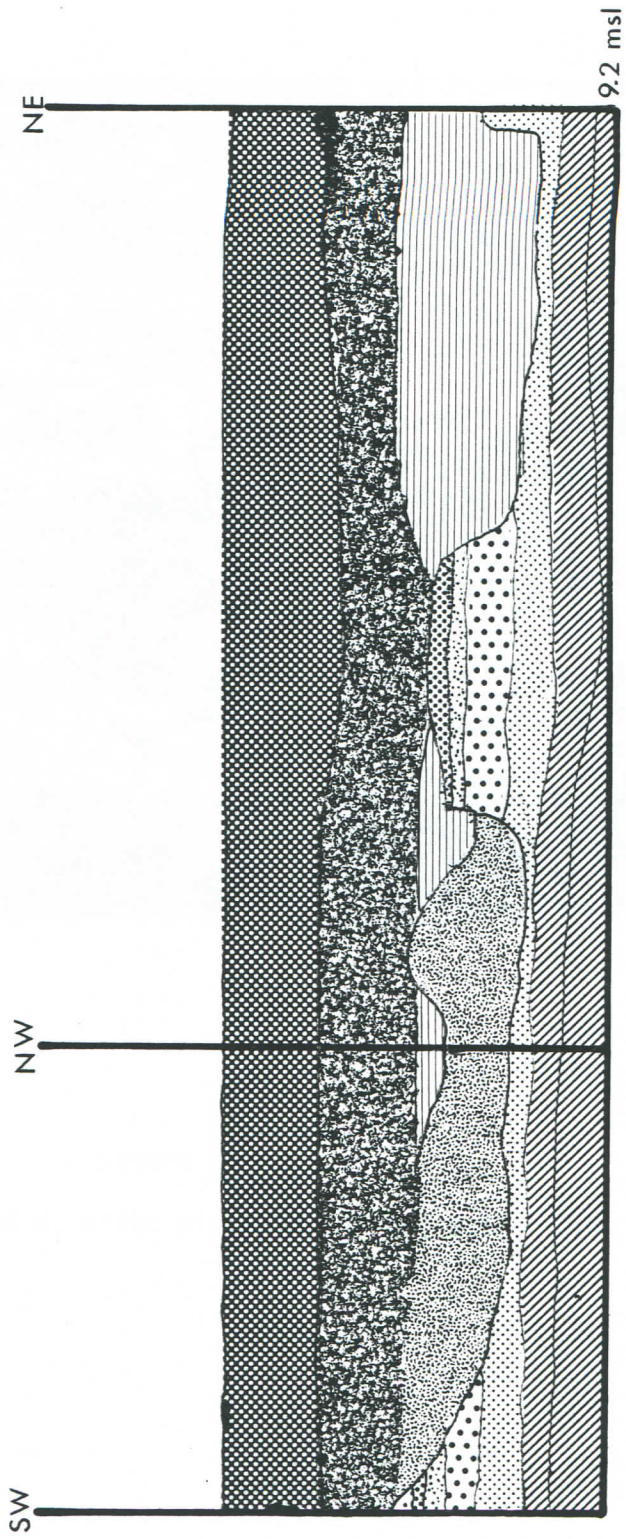
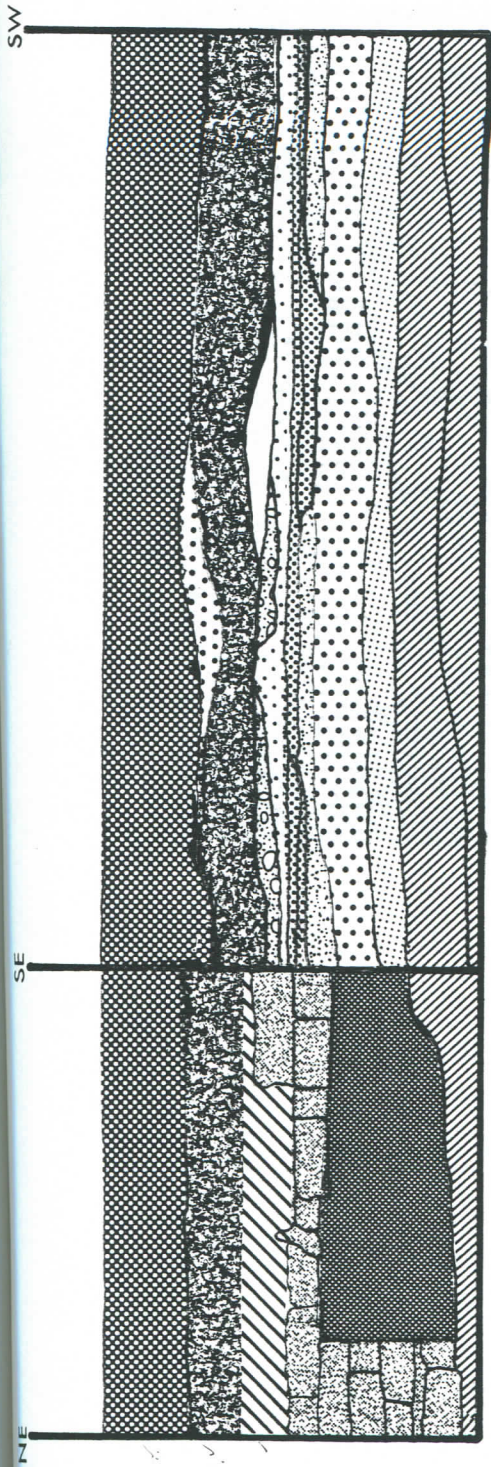


Figure 15
Stratigraphic Profiles, Test Pit 1



Figure 16

Features 7 and 8, brick pier and builder's trench.



Figure 17
Feature 7, brick pier.

Zones 5 and 6 and Features 4 through 6 are associated with the later market period. Feature 5 suggests that the unit is located in or adjacent to the second market building. Lack of primary evidence of the 1796 fire suggests that the hard parcked surface in fact represents the rubbish filled adjacent alley. The extant Lodge Alley contained quantities of bone and cultural debris (Zierden et al. 1983a). Alternately, the debris from the fire may have been cleaned up and the refuse carted away.

The extensive deposits of cultural material in Zones 2 through 4, plus the postmolds, suggest extensive activity in this area after the market burned in 1796. Perhaps the area was cleaned up and marketing activity continued here until the new market was erected in 1804. The refuse may also represent trash from City Hall or adjacent structures. These, and other, interpretive suggestions are discussed further in Chapters 4 through 6.



Chapter IV

Analysis of Cultural Materials

4

Following excavation, the materials were removed to the Charleston Museum where they were washed and sorted. The cultural materials were retained for analysis by Debi Hacker-Norton of the Charleston Museum. The first step in the analysis of the materials was the identification of the artifacts. Noel Hume (1969) and Stone (1974) were the primary sources used.

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, allowing for direct intersite comparison; all of the data from Charleston has been organized in this manner. South's categorization is an extremely useful heuristic device in that it allows complete quantification of the assemblage. In addition, this methodology emphasizes the archaeological rather than the historical record, and thus has the potential for generating general anthropological interpretations (see Honerkamp 1980:28-29).

As discussed in the previous chapter, the site assemblage was divided into three subassemblages, based on temporal association. These include early market (ca. 1730-1760), later market (1760-1796), and post market (1796-ca. 1840). Proveniences were assigned to one of these three assemblages on the basis of the date of deposition, which was determined by the stratigraphic point of initiation and Terminus Post Quem (Table 2,3). Each of these assemblages will be discussed separately. Research questions utilizing these data follow.

Early Market (1730-1760)

The early market assemblage consisted of 2601 artifacts. Kitchen artifacts comprised the majority of the artifacts, 1752 or 67.35% of the assemblage. Ceramics comprised 58.9% of the Kitchen artifacts. The ceramic assemblage consisted of a variety of late seventeenth and early eighteenth century ceramics from Europe, the Orient, and America. Tablewares comprised 32% of the ceramics, including 2.9% Oriental Porcelain and 3.0% White Saltglazed Stoneware. The remaining 68% of the ceramics were utilitarian wares, including 6.8% stonewares, 31.7% Colono/Catawba wares and 21.3% slipwares. The ceramic assemblage yielded a Mean Ceramic Date of 1733 (South 1972)(Table 4).

A ceramic of particular interest is the Colono ware. This locally made earthenware closely resembles prehistoric pottery and was traditionally believed to be historic Indian pottery, traded to the colonists. Its

Table 2
Provenience Guide - Test Pit 1

<u>FS#</u>	<u>Provenience</u>	<u>Function</u>	<u>TPQ</u>	<u>Date of Deposition</u>	<u>Association</u>
2	Zone 1-collected	topsoil	wing nut	20th Century	
3	Zone 2-collected	sheet midden	whiteware	1830s	
4	Zone 2-screened	sheet midden	transfer print whiteware	1830s	
6	Zone 3	sheet midden	whiteware	1830s	post-market
8	Feature 2	mortar pad?	-	1810s	post-market
9	Postmold 2	postmold	shell edge pearlware	1800s-1810s	post-market
10	Zone 4	zone	whiteware	1800s	post-market
11	Postmold 1	postmold	creamware	1800s	post-market
12	Feature 1	trench ?	whiteware	1800s	post-market
13	Zone, 4 disturbed	zone	whiteware	1800s	post-market
18	Zone 4, trowling	zone	pearlware	1800s	post-market
19	Postmold 2, continued	postmold	pearlware	1800s	post-market
20	Postmold 1, continued	postmold	creamware	1800s	post-market
14	Feature 4	ditch, rut ?	pearlware	1790s	later-market
15	Feature 6	pit	plain pearlware	1790s	later market
16	Feature 5	floor or road surface	hand painted pearlware	1780s-1790s	later-market
17	Zone 5	zone	plain pearlware	1780s	later-market
21	Feature 4, continued	ditch, rut ?	annular ware	1790s	later-market
22	Feature 6, continued	pit	transfer print pearlware	1790s	later-market
23	Zone 6	zone	hand painted pearlware	1770s-1780s	later-market
24	Zone 7	zone	white saltglazed stoneware	1740s	early-market
25	Zone 8	zone	white saltglazed stoneware	1740s	early-market
26	Area A	wagon ruts ?	white saltglazed stoneware	1740s	early-market
27	Zone 9 level 1	zone	whieldon ware	1730s	early-market
28	Zone 9 level 2	zone	tortoise shellglazed earthenware	1730s	early-market
29	Feature 8	builders trench	tortoise shellglazed earthenware	1730s	early-market

Table 3

Quantification of the Assemblage

<u>Artifact Type</u>	<u>Early Market</u>	<u>Later Market</u>	<u>Post-Market</u>
Kitchen-Ceramic			
Porcelain, b/w Oriental		4	2
Porcelain, o/g Oriental	1		
Porcelain, plain	27	40	64
Porcelain, British	2	1	
Porcelain, white			1
Stoneware, misc.	7	1	13
Elers ware		9	
Lead-glazed Elers ware		1	
Black Basalte			
White Saltglazed Stoneware, molded	31	26	18
White Saltglazed Stoneware, dipped	9	1	
Brown Saltglazed Stoneware	24	36	14
Westerwald Stoneware	31	23	7
Scratch blue stoneware	2	2	
Nottingham	2		11
Gray Saltglazed stoneware	7	14	4
Crouchware	3		
Ginger beer bottle			1
UD refined		1	2
Creamware, plain	1	36	212
Creamware, hand painted		1	2
Creamware, transfer print		1	
Whieldon ware	7		1
Pearlware, plain		17	228
Pearlware, blue hand painted		4	20
Pearlware, poly hand painted		2	36
Annular pearlware		1	6
Shell edged pearlware		1	40
Pearlware, transfer print		4	45
Pearlware, wormy finger painted			6
Pearlware, mocha			2
Whiteware, plain			57
Whiteware, transfer print			14
Rockingham ware			10
Buckley	1	2	
Colono/Catawba wares	328	43	18
N. Devon Gravel Tempered ware	48	13	
Tortoise shell glazed earthenware	22	24	3
Lead glazed earthenware	24	13	10
Unglazed earthenware	5	8	21
Astbury ware	2	1	
Agate ware			
Jackfield ware	1		1
Slipware	220	125	53

Table 3 - Continued

<u>Artifact Type</u>	<u>Early Market</u>	<u>Later Market</u>	<u>Post-Market</u>
Delft, bisque			2
Delft, b/w	23	3	2
Delft, poly			1
Delft, plain	215	106	59
Black leadglazed redware	4	8	9
Faience		1	
Olive Jar		1	
El Morro	1		
UD coarse earthenware	4		
Kitchen-non ceramic			
olive green glass	438	604	393
case bottle glass	138	162	251
clear bottle glass	94	72	98
pharmaceutical glass	13	1	15
tumbler	2		11
goblet	4	2	2
misc. table glass	31	1	24
brown glass		1	
milk glass			2
Architecture			
window glass	2	14	381
nail	298	332	427
tack	124	76	8
hook	1		
spike	4		3
bolt		1	
slate	20	14	83
brick	18	97	14
plaster	2	31	17
shutter pintel	1		
roofing tile			10
marble chip			15
Arms			
Percussion cap			1
shot	4		2
Gun flint			1
flint flake	2	3	
Clothing			
scissors			1
straight pin	1		1
lacing tip			1
bead	7	2	3
porcelain button			1
bone, 1 hole button		1	6

Table 3 - Continued

<u>Artifact Type</u>	<u>Early Market</u>	<u>Later Market</u>	<u>Post-Market</u>
brass button	2	1	9
bone, 5 hole button			1
paste jewel		1	1
thimble			1
cuff link		1	1
buckle	1	1	3
shell button		1	
UD medal button		1	
Personal			
slate pencil	1		1
fan slat	1	1	
key		1	
doll arm		1	
Pipe			
stem	193	170	59
bowl	85	52	11
Furniture			
brass tack	2	3	7
decorative stud	2		
escutcheon		1	
UD hardware		1	
Activities			
printers type			1
brass ring			2
slag			14
coal	2	13	27
nut			1
barrel strap	34	6	70
UD hardware			2
brass screw			1
bale seal	6	2	1
staple			1
copper wire			1
brass rivet			1
UD lead	6	12	
chert frag	27	4	17
possible mano	1		
iron ring	1		
iron hook	1		

Table 4

Mean Ceramic Date Calculations: Early Market

	<u>fi</u>	<u>xi</u>	<u>xi*fi</u>
Porcelain, b/w Oriental	27	1730	46710
Porcelain, o/g Oriental	1	1730	1730
Porcelain, British	2	1770	3540
Stoneware, misc.	7	-	-
White saltglaze, molded	31	1753	54343
White saltglaze, dipped	9	1745	15705
Brown saltflaze stoneware	24	1733	41592
Westerwald stoneware	31	1738	53878
Scratch blue stoneware	2	1760	3520
Nottingham stoneware	2	1755	3510
Grey saltglaze stoneware	7	1738	12166
Crouchware	3	1738	5214
Creamware, plain	1	1781	1781
Whieldon ware	7	1755	12285
UD coarse earthenware	4	-	-
Buckley	1	1748	1748
Colono/Catawba ware	328	-	-
Lead glazed coarse earthenware	24	-	-
N. Devon gravel tempered ware	48	1713	82224
Tortoise shell glazed earthenware	22	1750	38500
Astbury war	5	1738	8690
Jackfield	1	1760	1760
Slipware, combed & trailed	220	1733	381260
Delft, b/w	3	1730	5190
Delft, plain	215	1730	371950
El Morro	1	1700	1700
Black lead-glazed earthenware	4	-	-
			1148996

n== 663

$$y = 1733.03$$

ubiquitous presence on lowcountry plantation sites, particularly slave sites, caused researchers to rethink the Colono wares issue and to suggest that Afro-American slaves may have in fact been the makers of Colono wares (Drucker and Anthony 1979; Ferguson 1980; Lees and Kimery-Lees 1979). The ware was defined as being burnished, with a fine sandy, micaceous paste. The most common forms were shallow bowls and round jars with constricted necks. Colono ware is predominant in eighteenth century assemblages and decreases rapidly as the nineteenth century progresses. (Lees 1980). Although Colono ware was originally recovered from rural sites, it has been consistently present on urban sites, particularly in eighteenth century proveniences (Zierden et al. 1982; 1983a; 1983b).

Recently, extensive research on two eighteenth century plantation sites suggest that both Indians and slaves were the source of these wares and, further, the wares of these two groups could be distinguished on the basis of several attributes, including thickness, form, surface finish and color, decoration, and, to a lesser extent, method of manufacture (Wheaton et al. 1983:225-234). The salient sorting criteria used by these researchers are shown in Figure 18. In general the thicker, sandier type was called Colono and the thinner, more micaceous ware, Catawba, and were attributed respectively to slave and Indian groups. Interestingly, the Catawba ware very closely resembles a ware recovered by Michael Trinkley at Wachesaw Landing, an historic indian site (Trinkley et al. 1983). (Figures 18-20).

Wheaton et al.'s sorting criteria and designations were adapted for the Beef Market assemblage; in fact, all of the Charleston "Colono ware" assemblages were reexamined and divided into the two groups. The early market assemblage consisted of 44.5% Catawba ware and 55.4% Colono ware.

Glass artifacts comprised the remaining 41.1% of the Kitchen group. The most common artifact was green wine bottles, which comprised 33% of the Kitchen group. This included both round bottles and square case bottles. Clear bottles, for both food and medicinal products, comprised an additional 3.2% of the Kitchen group. Decorative table glass, including goblets, tumblers, and decanters comprised the remaining 2.1% of the Kitchen group.

Following the Kitchen group, the Architecture group comprised 18.06% of the assemblage, which indicates relatively little building activity at the site. Nails comprised the overwhelming majority of the assemblage (90%); window glass was relatively scarce (.4%).

Arms comprised .23% of the assemblage, consisting of four shot and two flint flakes. Clothing comprised .42% of the assemblage and consisted of brass buttons, straight pins, and glass beads. The Furniture group comprised .15% of the assemblage and consisted of two brass tacks and two brass studs. The Personal group comprised only .07% of the assemblage and consisted of a fragment of a fan slat and a slate pencil (Figure 21).

In contrast to these relatively small percentages, kaolin pipes comprised 10.68% of the early market assemblage. These consisted entirely of white kaolin stem and bowl fragments. Utilizing Binford's (1962) formula, where

$$Y = 1931.85 - 38.26x$$

Figure 18

Description of Colono and Catawba Wares

	COLONO	CATAWBA
Thickness	Average .725 cm thick up to very uneven on individual vessels and even single sherds.	Average \pm .5 cm thick; 1.1 cm, regular and even.
Form	Generally open incurving bowls and small flared mouth jars, lips were crudely rounded, or flattened with a finger or stick.	Generally straight sided, open, outflaring bowls, and small well made jars, lips were tapered and well finished.
Body	Wide variation in size, amount and type of non-plastics, generally various water-washed sands, oxidation was usually not complete, leaving a dark core.	Limited variety of nonplastics, generally fine particle size and completely oxidized or completely reduced.
Surface	Ranged from crudely smoothed to polished with obvious evidence of the polishing tool, generally interiors of bowls and exteriors of jars were polished, color ranged from black to dark brown to reddish orange, great variation on individual vessels and sherds.	Usually highly polished on interior and exterior of bowls and wide mouthed jars, polish marks were often evident, color ranged from black to gray to buff, little variation on individual sherds, some vessels were intentionally reduced.
Decoration	.3% had decoration on interior of bowls including pre-firing notched rims, reed punctate, thimble impressed, incised lines; post firing incision in the form of a cross in a square and a circle occurred on the interior bottoms of a few bowls (Figure 75).	3.5% of Catawba had undulating "day-glo" red painted lines on the exterior of jars and the interior of bowls applied after preliminary or final firing of the vessel; occasionally red dots were placed around the undulating line, or around small regular facets taken out of the interior lip; or both.
Method of Manufacture	Bases occasionally coil made and body was hand modelled, poor control over firing temperature and firing time, handles appeared to be attached to the surface of the vessel (Figure 76).	Evidence supports hand modelling but sample is too small for definite conclusions, firing temperature and time were well controlled, reduction when it occurs was intentional, handles had plugs on the end which were inserted in the wall and smoothed from the inside.

(from Wheaton et al. 1983:229)



Figure 19a
Colono ware from Beef Market site.



Figure 19b
Colono ware vessel from
Atlantic Wharf site.



Figure 20
Catawba ware from Beef Market site.



Figure 21
Clothing, Furniture items from
early market assemblage.

the stem fragments yielded a mean date of 1732.9. This is earlier than the historically derived mean occupation date of 1745; this suggests redeposition of earlier materials, a problem that becomes even more pronounced in the later periods.

Finally, the Activities group comprised 2.99% of the assemblage. This consisted of bale seals, barrel straps, and flint fragments. An unusually large number of bale seals - six - were recovered. A possible mano, an iron ring, and iron hook completed the assemblage.(Figure 22).

Later Market (1760-1796)

A total of 2260 artifacts were recovered from later eighteenth century proveniences. Kitchen artifacts dominated the assemblage, comprising 62.65% of the assemblage. In contrast to the early market assemblage, ceramics comprised only 40.4% of the Kitchen group. The ceramic assemblage consisted of 45.7% tablewares including 7.8% porcelain, 6.6% creamware, 4.5% White Saltglaze Stoneware, and 5.0% pearlwares. Utilitarian wares comprised the remaining 54.3% of the ceramics, including only 7.5% Colono/Catawba wares, 10% earthenwares, 12.9% utilitarian stonewares and 21.8% Slipware. The Colono wares were further divided into Colono ware, 68.4% and Catawba ware, 31.5%. The ceramic assemblage yielded a mean ceramic date of 1742.74 (South 1972)(Table 5).

Glassware comprised the remaining 59.5% of the Kitchen group. Green glass, from both round bottles and case bottles comprised 54% of the Kitchen group. The remainder of the glass group included clear bottle glass for food and medicine (5.1%) and glass tableware (.21%).

The architecture group was slightly larger than that for the preceding period, 25.0%, indicating slightly greater building activity. Once again, nails and tacks comprised the overwhelming majority (72.2%), while window glass comprised 2.4%, slightly more than the earlier period.

Arms comprised .13% of the assemblage and consisted of three flint flakes. Clothing comprised .39% of the assemblage and was limited to three buttons, a cuff link, two beads, and a paste jewel. Personal artifacts included a key, a figurine arm, and a fan slat, comprising .13% of the assemblage. Finally, Furniture comprised .22% of the assemblage and included three tacks, a piece of brass hardware, and an escutcheon(Fig 23).

The Pipe group comprised 9.9% of the assemblage, and consisted of white kaolin bowl and stem fragments. The stem fragments yielded a mean date of 1743.99, considerably earlier than the historically derived mean date of 1778. This indicates either inaccuracy in the dating formula or extensive redeposition of earlier artifacts.

The Activities group was relatively small, comprising 1.63% of the assemblage. It included coal and slag, bale seals (2) and barrel strap fragments.



Figure 22

Bale seals from early market assemblage



Figure 23
Clothing items from later market assemblage

Table 5

Mean Ceramic Date Calculations: Later Market

	<u>fi</u>	<u>xi</u>	<u>xi·fi</u>
Porcelain, b/w Oriental	4	1730	6920
Porcelain, plain	40	1730	69200
Porcelain, British	1	1770	1770
Stoneware, misc.	1	-	-
Elers ware	9	1769	15921
White Saltglazed, molded	26	1753	45578
White Saltglazed, dipped	1	1745	1745
Brown Saltglazed stoneware	36	1733	62388
Westerwald	23	1738	39974
Scratch Blue stoneware	2	1760	3520
Lead-glazed Elers ware	1	1769	1769
Crouch ware	14	1738	24332
Ud refined	1	-	-
Creamware, plain	36	1781	64116
Creamware, hand painted	1	1788	1788
Creamware, transfer print	1	1790	1790
Pearlware, plain	17	1805	30685
Pearlware, blue hand painted	4	1800	7200
Pearlware, poly hand painted	2	1805	3610
Annular pearlware	1	1805	1805
Pearlware, shelledged	1	1805	1805
Pearlware, transfer print	4	1818	7272
Buckley	2	1748	3496
Colono/Catawba ware	43	-	-
Lead glazed earthenware	13	-	-
N. Devon gravel tempered ware	13	1713	22269
Tortoise shell glazed earthenware	24	1750	42000
Unglazed earthenware	8	-	-
Astbury ware	1	1738	1738
Slipware, combed & trailed	125	1733	216625
Delft, polychrome	3	1730	5190
Delft, plain	106	1730	183380
Black lead glazed earthenware	8	-	-
Faience	1	-	-
Olive Jar	1	-	-
			867886

n = 498

y = 1742.74

Post-market (1796-1840)

The largest assemblage was collected from proveniences which post-dated the market occupation; 3002 artifacts were recovered from proveniences dating from 1800 to 1840. The Kitchen group comprised 59.76% of the assemblage, and consisted of 55.4% ceramics and 44.6% glass artifacts. Tableware comprised the overwhelming majority of the ceramics, 83.4%. These included porcelains (6.5%), creamware (21.5%) and pearlwares (44.8%). Utilitarian wares comprised the remaining 16.6% of the ceramics, including Colono and Catawba ware (1.8%), earthenwares (10.6%) and stonewares (3.9%). The colono wares included 75.0% Colono ware and 25.0% Catawba ware. The Mean Ceramic Date calculated for this assemblage is 1786, roughly 35 years earlier than the historically derived mean date of 1820. This suggests extensive redeposition of earlier material, a problems that becomes increasingly apparent through time, and is also apparent in the Later Market assemblage (Table 6). This problem is even more pronounced in the calculation of mean dates using Binford's Pipestem formula. Because South's Mean Ceramic Date Calculation has proven reliable, redeposition is seen as the contributing factor here.

Glass artifacts comprised the remaining 44.6% of the Kitchen group and consisted of dark green wine and case bottles, 80.6% (35.8% of Kitchen) and clear bottles, 12.2%. Glass tableware comprised 4.8% of the glass assemblage and 2.1% of the Kitchen group. Three fragments of iron kettle completed the Kitchen group.

Architectural artifacts comprised a relatively large percentage of the assemblage, 31.91%. This general increase in the relative percentage of architectural materials through time reflects the successive stages of building and rebuilding through time. Nails comprised 45.4% of the Architecture group while window glass comprised 39.7% of the group, a significant increase over the earlier periods.

Arms materials comprised .13% of the assemblage and consisted of a percussion cap, two shot, and a gunflint. The Furniture group consisted of seven upholstery tacks, comprising .23% of the assemblage. The Personal group comprised only .03% of the assemblage and included a single slate pencil. The Clothing group was both larger and more varied than in the earlier assemblages and comprised .93% of the assemblage. The Clothing group included a lacing tip, beads, paste jewel, straight pin, scissors fragment, thimble, buckle and cufflink, as well as a variety of buttons (Figure 24).

In contrast to the earlier assemblages, tobacco pipes comprised only 2.33% of the assemblage. The pipe stems yielded a highly inaccurate mean date, 1744.76, as opposed to 1820, supporting the earlier suggestions.

Finally, the Activities group was larger and more varied than the earlier assemblages, comprising 4.66% of the assemblage. Among other items, the group included a piece of printers type, a bale seal, a brass ring, slag and coal. Also included were pieces of copper wire and brass rivets.



Figure 24

Clothing, Personal items from the Post-
Market Assemblage.

Table 6

Mean Ceramic Date Calculations: Post-Market

	<u>fi</u>	<u>xi</u>	<u>xi · fi</u>
Porcelain, b/w Oriental	2	1730	3460
Porcelain, plain	64	1730	110720
Porcelain, white	1	1860	1860
Stoneware, misc.	13	-	-
Ginger beer bottle	1	1860	1860
White Saltglaze, molded	18	1753	31554
Westerwald	7	1738	12166
Brown Saltglaze stoneware	14	1733	24262
Nottingham stoneware	11	1755	19305
Grey Saltglazed stoneware	4	1738	6952
UD refined	2	-	-
Creamware, plain	212	1781	377572
Creamware, hand painted	2	1788	3576
Whieldon ware	1	1755	1755
Pearlware, plain	228	1805	411540
Pearlware, blue hand paint	20	1800	36000
Pearlware, poly hand paint	36	1805	64980
Pearlware, annular	6	1805	10838
Pearlware, shelledged	40	1805	72200
Pearlware, transfer print	45	1805	81225
Pearlware wormy finger paint	6	1805	10830
Pearlware, mocha	2	1805	3610
Whiteware, plain	57	1870	106590
Whiteware, transfer print	14	1870	26180
Rockingham ware	10	1860	18600
Colono/Catawba ware	18	-	-
Lead-glazed earthenware	10	-	-
Tortoise shell glazed earthenware	3	1750	5250
Unglazed earthenware	21	-	-
Jackfield ware	1	1760	1760
Slipware, combed & trailed	53	1733	91849
Delft, bisque	2	1730	3460
Delft, poly	2	1730	3460
Delft, b/w	1	1730	1730
Delft, plain	59	1730	102070
Black lead glazed earthenware	9	-	-

1647214

n = 922

y = 1786.57

Discussion

The primary goals of analysis of the cultural materials were interrelated. They were:

- 1) to determine the source of the cultural materials and thus the reason for their deposition at the Beef Market site.
- 2) to determine which, if any, of the cultural materials represented items sold in the market place.

Previous examination of assemblages from a number of residential/commercial sites (Honerkamp et al. 1982; Zierden et al. 1982; 1983a; 1983b; n.d.; Zierden and Paysinger n.d.) had provided a data base for recognizing urban domestic assemblages from this era; it was expected that the Beef Market assemblage would somehow look different from this. To this end the three market site assemblages were compared to South's Carolina Artifact Pattern and the Charleston domestic data (South 1977). The Carolina Artifact Pattern is a quantified artifact distribution which basically monitors domestic activities at British Colonial sites (see Honerkamp 1980). Although the data utilized to construct the Charleston mean are from dual function sites, research has revealed that the refuse at these sites, particularly whose commercial function was essentially retail, rather than craft oriented, was overwhelmingly domestic. Further, the majority of the sites used to construct the Carolina Artifact Pattern were essentially dual function sites (Table 7).

All of the Charleston sites were excavated using the same methodologies and all have similar temporal parameters (ca. 1730-1840). It should be noted, however, that only the Market and the First Trident sites have substantial early eighteenth century components.

Comparison of the three market assemblages to the Charleston mean revealed little difference between the two. This suggests that the majority of the cultural materials represented refuse from domestic activities, rather than goods sold in the market. The market assemblages contained a slightly lower percentage of non-kitchen domestic materials (Clothing, Personal, Furniture), .86%, than the Charleston data, 1.52%, or the Carolina Artifact Pattern, 3.4%, perhaps indicating that some, but not the entire range of, domestic activities were taking place at the market. There are several possible sources for the domestic refuse at the site:

- 1) at least some of the refuse was generated on site from domestic-type activities, such as food preparation and consumption.
- 2) the refuse was generated from domestic activity at adjacent structures and deposited as sheet midden on the open area of the market square.
- 3) the deposits are present as a result of introduced fill from another area of the city.

Table 7

Comparison of Beef Market Assemblages to Proposed Patterns (%)

	Early Market	Later Market	Post- Market	Charleston mean	Carolina Artifact Pattern	Public Interaction Pattern (urban)
Kitchen	67.35	62.65	59.76	63.10	63.10	45.4 - 52.0
Architecture	18.06	25.0	31.91	25.03	25.5	42.3 - 48.3
Arms	.23	.13	.13	.2	.5	0 - .4
Clothing	.42	.39	.93	1.18	3.0	0 - .5
Personal	.07	.13	.03	.14	.2	0 - 4.5
Furniture	.15	.22	.23	.08	.2	0 - .2
Pipes	10.68	9.8	2.33	5.97	5.8	1.0 - 4.6
Activities	2.99	1.63	4.66	4.14	1.7	.6 - 2.0

Suggestions 2 and 3 must be seriously considered, particularly in terms of the post market depositions. The market burned in 1796, City Hall was constructed in 1800, and the park was established shortly thereafter, seemingly precluding any domestic occupation at the site; yet extensive refuse deposits dating to the antebellum period were recovered. Perhaps the refuse was generated from the daily activities of employees of the bank (City Hall). Alternately, the refuse from adjacent structures may have been deposited at the site.

In general, conformance of the market data to other Charleston data and the Carolina pattern suggests that a good portion of the cultural material is domestic refuse. A relatively lower percentage of some domestic artifact classes suggest that the entire range of domestic activities did not take place at the site. Some of the domestic refuse may have been generated on site by those spending the day at the market. Or the deposits may represent domestic refuse from adjacent structures.

The relatively low percentage of architectural materials, particularly window glass, reflects the paucity of structures on the site during the early period, and the nature of the market building as open sided. The architectural debris in the later assemblages may be partially from the structures lining the alley. Certainly, a good portion of the architectural debris in the post market assemblage is related to the construction of City Hall (see Table 3).

A closer inspection of artifact types, rather than groups, revealed some differences between the market assemblages (not including the nineteenth century assemblage) and the Charleston domestic assemblages. This was done to determine which, if any, wares were sold at the market. The generally low percentages of non-Kitchen domestic refuse has been discussed above. Within the ceramic assemblage, tablewares comprised 83% of the nineteenth century ceramics but only 33% of the market ceramics. Domestic sites in Charleston range from 44% in low status colonial assemblages to 71% in high status antebellum assemblages. This suggests that, 1) food consumption at the market site did not necessarily involve the use of tableware or, 2) tablewares were not usually sold at the market.

Within the ceramic group, there was an unusually high percentage of storage or utilitarian vessels - 67% of the ceramics. This includes Colono and Catawba ware, utilitarian earthenwares and stonewares. The Charleston mean is 43.5%. This is the clearest difference between the market and other urban sites. This unusually high percentage of storage or utilitarian vessels suggests that they were being sold, or more likely, they were used to store products being sold.

Another unusual aspect of the market assemblage is the high percentage of Colono and Catawba ware: 31% to a Charleston mean of 5.7%. The only comparable percentage of these wares is 19% in the colonial assemblage at the First Trident site. This suggests that the wares were either sold or used by the market vendors, or both. The relative percentage of these wares decreases dramatically in both the later market and post market

assemblages. This is consistent with other research (Ferguson 1980; Lees 1980) which suggests that Colono wares are a predominantly eighteenth century phenomenon. Upon further analysis, it was revealed that Catawba wares comprised 44.5% of these wares in the early market assemblage, 31.5% in the later market assemblage, and 25% of the post market wares. This relative decrease through time of Catawba wares is consistent with the historical knowledge that Indian groups were either decimated or dispersed as the colonial period progressed (Crane 1981; Trinkley et al. 1983; Waddell 1980). In contrast, the local slave population remained stable or increased as the plantation economy expanded (Wood 1974). The data thus suggest that the wares made by slaves were either used or sold by them in the market. In addition, pottery made by local or neighboring Indians were sold in the market, either by them or by traders. These interpretations, however, presuppose that we are correct in our assumptions about who made these wares.

Other artifacts present in small amounts give clues to the sale of other wares at the market. Six bale seals were recovered from the early market proveniences. The most recovered previously from any Charleston site were two. This suggests that the products to which these were affixed were sold at the market. The bale seals were more common in the early market proveniences. Two sherds of hispanic earthenware were recovered. These include one Olive Jar (Goggin 1960) and one El Morro fragment (Smith 1962:68-69). While Olive Jar is found in small amounts on British Colonial sites on the east coast (see Noel Hume 1969:144), El Morro, a Spanish Caribbean ware, is more unusual (Fig 25). It was recovered along with other Caribbean wares, from the Atlantic Wharf site on Charleston's waterfront (Zierden et al. n.d.). The presence of these wares on the waterfront was attributed to privateering or the seizure of foreign vessels. There is historical evidence that it was not infrequent that foreign ships were siezed and the contraband sold at public vendue. While we do not have firm evidence that the Beef Market was the location of these sales (the waterfront was a more convenient and likely location), the presence of these wares here suggest that at least occasionally contraband wares were sold at the market.

Another relative difference between the market and other urban assemblages is a relatively large percentage of green bottle glass in the Kitchen group: 43% compared to a mean of 25%. As with the utilitarian wares, this suggests that green bottles and/or their contents were sold here. Alternately, they may reflect the use of the area as a social center. This second interpretation is strengthened if these data are considered relative to the Pipe group. The market assemblages contained 10.2% pipes, compared to a Charleston mean of 5.7%. These data suggest that the market and surrounding area occasionally served as a social center in which tobacco smoking and perhaps alcohol consumption was practiced. The only comparable percentage of pipes are from McCrady's Longroom, an eighteenth century tavern, and First Trident, a colonial tannery or leather working shop. Tobacco smoking would have been a common practice at both locations.



Figure 25
El Morro wares from
Beef Market and Atlantic Wharf sites.

As a further test, the market assemblages were compared to the Public Interaction Pattern proposed by Wise (1978) and Garrow (1982:59,64). The pattern was formulated from both urban and rural sites which served as public structures (brew house, shop, courthouse, trading posts), as well as domestic structures. For the present study, only the urban data were utilized (Table 7). The most striking feature of the Public Interaction Pattern is the nearly equal representation of Kitchen and Architecture group artifacts. This seems logical, in that most public structures would have been substantial, thus accounting for the quantity of architectural items. Further, at such sites the relative importance of domestic activities would have been reduced. This model was viewed as being potentially applicable, as all of the sites excavated in Charleston are indeed "public", i.e. commercial structures.

However, neither the market nor the Charleston data fit the Public Interaction Pattern; the Kitchen group was higher and the Architectural group was lower. Further, both the Activities and Pipe groups were higher. This is logical, given the architectural style of the market. The presumably windowless, open stall is unlikely to generate as many architectural items as a more substantial structure. In other words, the relative percentage of the Architecture group seems more dependent on the type of building rather than the function of the building (see Zierden and Calhoun 1983 for a similar discussion). Likewise, the Kitchen group most likely reflects the domestic site of life at the site rather than the public function. An additional problem with use of the proposed pattern is the range of public functions at both the Charleston sites and those used to define the pattern; they include trading posts, retail stores, craft enterprises, courthouses and markets. These sites have very different functions and are thus likely to generate very different byproducts. Finally, the range for both the Public Interaction Pattern and the revised Carolina Artifact Pattern (Garrow 1982) are quite broad. The Public Interaction Pattern represents a potentially useful methodological tool, but at present is viewed as being too general, with too many variables, to be applicable to the present research. This is reflected in the above discussion. On the general pattern level, there was little difference between the market and other Charleston data. It was only when specific artifact types were examined that differences became apparent.

In summary, there was tentative evidence of the sale of at least some products other than meat at the market. The general lack of difference between the market and other urban assemblages indicates that at least some of the cultural materials represent domestic refuse. These may have been generated on site or scattered from adjacent structures. An examination of specific artifact types provides some clues to the wares being sold at the market. A relatively large percentage of utilitarian or storage wares, including green bottle glass, stonewares, earthenwares, Colono and Catawba wares indicates that these products or their contents were being sold at the market. A large number of bale seals may indicate that fabric or other organic materials were occasionally sold here. The presence of large amounts of Colono and Catawba wares in the early proveniences may document the presence of Indian and/or slave hucksters at the market. Likewise

the Spanish ceramics may indicate the occasional sale of contraband wares. Also, the pipes and wine bottles may reflect the use of the area as a social center. Certainly, a larger data base is needed to support or refute these suggestions. Finally, a word of caution must be mentioned: Although there are significant differences in percentages between the market and the Charleston mean, the market assemblages and the First Trident colonial assemblages are much more similar (Colono ware, 33% vs. 19% of the ceramics; bottle glass 43% vs. 42% of the Kitchen group, utilitarian wares, 67% vs. 44% of the ceramics). Although there are still significant differences between these two assemblages, they are not as great. This may be due to similar functions at the site. Or it may be due to temporal affiliation. Both the market and the First Trident are the only sizable colonial assemblages from the city; further, they are comparable in size. This must be explored further in the future.



Chapter V

Analysis of Vertebrate Fauna

Introduction

Over the past several years archaeologists have been actively exploring the subsistence behavior of Charlestonians (Honerkamp et al. 1982; Zierden et al. 1982; 1983a; 1983b). In the course of this research a pattern of urban subsistence has emerged. This pattern appears to be based upon consumption of domestic animals. Principal among these were cattle, pigs, chickens, and caprines, either sheep or goats. Wild animals were consumed rarely with emphasis upon a single species, deer. Wild birds were used extensively; however, this use was almost limited to two species, Canada geese and turkeys. A wide variety of domestic fowl were consumed and they constituted the second most common taxon identified from urban sites. Chickens were the primary birds used, however. Turtles and fishes, resources which should have been abundant in the nearby harbor and river, were not as heavily used as they were at rural locations. This same pattern has also been found in deposits from Savannah, Georgia (Honerkamp et al. 1983). This "urban" pattern contrasts sharply with a "rural" pattern found on many of the neighboring plantations (Reitz 1984). On these plantations wild resources, primarily fish, constituted a major portion of the diet.

Another aspect of the historic pattern which has been surprising is the consistent prominence in the faunal assemblages of cattle instead of pig. Due to the standard interpretation of southern diets and of commercial records (Hilliard 1972), it had been assumed that pork would be the principal component of the vertebrate assemblages from these archaeological sites. In fact, the reverse was the case in 10 of the 16 cases examined from coastal collections (Reitz 1984).

One possible explanation for this was that pork and beef entered the archaeological record via different channels. Pork could have been marketed primarily as processed meat. Much of the pork sold as fat back, bellies, or bacon would have been boneless. The pork sold as hams might have contained bone weakened by the chemical processing it had endured. This bone might not have survived the passage of time. There is ample evidence from these sites that some pork bones did survive archaeologically, but these might have been from animals slaughtered on the site, or purchased fresh from local vendors. Beef, on the other hand, might have been obtained primarily from local sources. Cattle could either have been raised by the household and slaughtered on the site, or it could have been purchased as fresh meat from local vendors. This localized use of beef would explain why evidence accumulated from regional shipping records would suggest that pork was more frequently consumed than beef, when in fact pork was more frequently shipped than beef, but beef consumption was common.

While many avenues of evidence need to be explored before a final analysis is possible, documenting the location of the eighteenth century beef market in Charleston has provided an opportunity to compare some materials from a market with those from other urban sites where the primary activities were either residential or a combination of residential and commercial.

With the excavation of the Charleston Beef Market it is possible to examine the point at which some of the beef, pork, and other meats entered the system. When the faunal remains from the market are compared to those from residential/commercial deposits excavated elsewhere in the city it may be possible to identify some of the processes by which meat was distributed within the city.

Methods and Materials

Field work was initiated in March, 1984 in Washington Park. One 5 by 10 foot unit was excavated. During field work a 1/4-inch screen was used to recover artifacts. A list of the samples examined is included in Table 16.

The vertebrate fauna were examined using standard zooarchaeological methods. The materials were identified by H. Catherine Brown using the comparative skeletal collection of the Zooarchaeology Laboratory, Department of Anthropology, 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 age, sex, modifications to the bones, and the elements identified. Measurements were taken of all elements where possible, following the guidelines established by Angela von den Driesch (1976). Minimum Number of Individuals (MNI) were determined based on paired elements, age, and sex. In calculating MNI, the archaeological collection was divided into several analytical units. These reflect the temporal components of the deposits. The analytical units are: the twentieth century (Zone 1); the nineteenth century (Zones 2 and 3); the later market (Zones 4 and 5, Postmolds 1 and 2, Features 1, 3, 4, 5, 6); and the early market (Zones 6, 7, 8, 9, Feature 8, Area A).

Although MNI is the standard zooarchaeological quantification medium, the measure has several problems. MNI is an index which emphasizes small species over large ones. A faunal collection may have 10 catfish individuals and only one pig, based on MNI. It seems unlikely that the catfish contributed more meat than did the pig, however. Further, MNI is based upon the assumption that the entire animal was utilized at the site. This ignores a basic fact of human behavior: exchange or trade. This is a particularly important problem when dealing with historic samples where marketing of processed meat products was substantial, but the exact extent unknown. In addition to these problems, MNI is influenced by the manner in which the data from the archaeological proveniences are aggregated during analysis (Grayson 1973). Furthermore, some elements are simply more easily identified than others and the taxa represented by these elements may appear more significant in the species list than they were in the daily diet.

In addition to MNI, bone count, and bone weight, an estimate of biomass provides information on the quantity of meat supplied by the identified species. In some cases the original live weight or size of the animal can also be estimated. The predictions are based upon the allometric principal 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, Roe, and Lewontin 1960:397). Many biological phenomena show allometry in accordance with this law (Gould 1966, 1971). In this equation X is the skeletal weight or a linear dimension of the bone, Y is the quantity of meat or the total live weight, b is the constant of allometry (the slope of the line), and a is the Y -intercept for a log-log plot using the method of least squares regression and the best fit line (Casteel 1978; 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 a and 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 8.

Allometry is used to predict two distinct values. One of these is kilograms of meat represented by kilograms of bone where X is the 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 preserved meats or redistributed meat was consumed. On the other hand, when X is a linear measurement of a skeletal dimension such as defined by Driesch (1976) for mammals and birds, 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 linear allometric formulae are available only for some fish elements and the mammalian astragalus, so that no predictions could be made of the size of animals in the market collection.

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 epiphyseal fusion for diagnostic elements. When animals are young their bones are not fully formed. Along the area of growth the shaft and the end of the bone, or epiphyses, 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 (Watson 1978). 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 eighteen months of age and is found fused archaeologically could be from an animal which died immediately after fusion was complete or many years later. The ambiguity inherent in age grouping is reduced somewhat by recording each element under the oldest category possible. In the case of the Beef Market, it was possible to record degree of fusion for only a few bones.

In order to summarize the market data, the species list has been reduced to a summary table based upon vertebrate class and gross habitat preference. Domestic mammals include pig, cow, and caprines. The term "caprine" refers to both sheep and goats since these animals are frequently difficult to distinguish based on osteological differences. Domestic birds include only chickens and deer were the only wild terrestrial mammals. Wild birds include not only the duck, but also Canada geese and turkeys. These last two species might have been domesticated or captive animals (American Poultry Association 1874). Commensal species include the rats, as well as the dog. Many species of rodents have been consumed by human populations, however, they are also found associated with human residences and could easily be introduced into the archaeological assemblage by accident.

Results

The faunal assemblage from the market is small, containing only 78 individuals. The dominant taxon in terms of individuals in the market was beef cattle (Bos taurus), followed closely by pigs (Sus scrofa) (Tables Domestic mammals contributed 42% of the individuals and 94% of the biomass. The next most abundant group identified were wild mammals, in this case represented by a single species, deer (Odocoileus virginianus). Deer contributed 15% of the individuals although only 4% of the biomass. Fishes contributed 19% of the individuals, but less than 1% of the biomass. The taxa identified were gar (Lepisosteus spp.), hardhead catfish (Arius felis), sea bass (Centropristis spp.), drums (Cynoscion spp., Micropogonias undulatus, and Sciaenops ocellatus), mullets (Mugil spp.), and flounder (Paralichthys spp.). Domestic and wild birds were both minor elements of the assemblage, contributing equally to the number of individuals (9%) and to the biomass (0.3%). Chickens (Gallus gallus) were the only domestic bird identified while ducks (Anas spp.), Canada geese (Branta canadensis), and turkeys (Meleagris gallopavo) were the wild birds identified. Turtles were a minor portion of the assemblage. A pond turtle (Chrysemys spp.) and a sea turtle (Cheloniidae) were identified. Rats (Rattus spp., Rattus rattus) and a dog (Canine familiaris) were the only commensal species identified.

The materials were also studied for change through time. The twentieth century materials were represented by a single unidentified mammal bone weighing 12.9 grams. The nineteenth century was represented by 606 bones weighing 1404.8 grams, representing at least 11 individuals. The later market was represented by 2052 bones weighing 5077.9 grams representing at least 19 individuals. The early market deposits contained the vast majority of the materials, with 7719 bones weighing 19,886.9 grams representing 48 individuals. Zone 9 contained 129.715 grams of bone, while Zone 6 (56.356 gms), Zone 7 (26.818 gms), and Zone 8 (26.666 gms) also contained large quantities of bone. Seven of the eight caprine bones (50% of the caprine individuals); 145 of the 72 cow bones (75% of the individuals); 55 of the pig bones (67% of the individuals) but only 11 of the deer bones (42% of the individuals) were found in the early market contexts. Venison is a minor component in the early market contexts, but forms a major portion of the biomass at the turn of the century (later market), declining shortly thereafter. The other caprine was from the nineteenth century component. One interesting change is the apparent decrease in the use of fish from the early eighteenth century into the later part of the century. This could reflect a change in consumption habits of the townspeople, or it could mean that the sale of fish was moved to another location. It is also interesting that fish remains increase in the nineteenth century. When the already small sample is broken down into these components, many of the variations seen can be attributed to sample size. Nonetheless these changes warrant attention at some future date as additional samples from the early part of the eighteenth century are studied.

The elements identified are tabulated in Table II. Pigs and cows were identified from both cranial and post-cranial remains. Deer were represented primarily by post-cranial elements, principally those from hindquarters. Caprines were identified primarily from cranial fragments. The dog was identified from a single molar. There does not appear to be a difference in the distribution of elements from the 1720s into the nineteenth century.

Hacking was the most common of the modifications observed in the market collection (Table II). Hacks were deep scores in the surface of bones, perhaps caused by a cleaver or other knife. All of the domestic taxa were represented by several hacked bones. There was only slight variation in the amount of hacked bone found in each temporal component. Hack marks were found on 16% of the bones in the earliest component, 23% of the later market, and 16% of the nineteenth century. The second most common modification was burning, although relatively few bones had been burned. Given that the market itself burned in 1796, the low incidence of burned bone seems strange. It is important to realize, however, that 74% of the bones were from the early market contexts and were several feet below ground surface when the market burned. The incidence of burned bone declined from 2% of the total bone in the earliest component to less than one percent of the total bone in the later components. A few light cut marks were also identified, but cut marks were never found on more than 0.7% of the total bones identified. Cuts were smaller marks on the surface of the bone, perhaps caused while trying to debone meat prior to cooking, or to remove meat from the bone after cooking. Two sawed bones were also identified. One of these was from FS #4, a nineteenth century component, and the other was from FS #10, a later market component.

Only six bones had been gnawed by dogs and one had been gnawed by a rodent. Given the density of the bone deposits in the Zones 6 through 9 it is surprising that animals did not avail themselves of this opportunity; however, 83% of the gnawed bones were from the early market contexts.

The age data suggest that preference was given to the slaughter of young animals (Table 13). At least five of the pigs were less than eighteen months of age at death. Two of the pigs, however, were probably adults at death and the other eight were older than eighteen months, but their age at death could not be determined more precisely. Among the cattle, three were juveniles at death, seven were subadults less than three years old, three were older than three years of age. The other individuals were probably older than eighteen months at death, but the exact age could not be determined from fusion information from the elements in question. An exact age could not be determined for the caprines from the identified elements. Two of the deer were less than eighteen months old at death, one was a subadult, and three were adults at death. The remaining five deer were probably at least subadults at death, but a more precise estimate could not be made based on the identified elements. The dog's age likewise could not be determined from the molar, however, it was probably an adult. None of the birds were juveniles.

Several bones in the collection could be measured, adding to the growing data base of measurements from Charleston and surrounding areas (Table 14).

There was one indicator of sex for birds. One of the chicken tarso-metatarsii had a spur, suggesting the presence of one adult male. None of the chicken bones had medullary deposits on them.

Discussion

When the amount of bones recovered from the single excavation at this site is compared to the quantity recovered from the other excavations throughout the city, the volume of bone at the Beef Market is impressive. The combined excavations at the Charleston Convention Center, McCrady's Longroom, and Lodge Alley were more extensive. These excavations produced a total of 14,250 bones. The spatially smaller market excavation resulted in 10,378 bones. This density of bone deposits is the primary evidence to support the location of this site as a market. While it is probable that some of the bones recovered from the market represent subsistence by market vendors the bulk of the bones must be the result of commercial activities.

In some respects the faunal remains from the Charleston Beef Market appear to mirror what has been found on residential sites within the city. All of the taxa identified from the market excavation have also been identified from residential/commercial structures. When the summaries presented in Table 14 are compared to these same categories from other urban collections, the percentages for some groups are very similar (Table 15). This is especially the case for fish and wild birds. The greatest areas of difference are in the quantity of domestic individuals identified in the two different types of collections, and in the presence of deer. Domestic mammals, especially cows, are more common in the market collection than in residential/commercial deposits. Deer are also more common at the market. On the other hand, chickens are more common at residential/commercial sites.

Commensal species are also more common at residential/commercial sites. One possible explanation for the differences observed is that most of the urban residential/commercial samples date to the late eighteenth/early nineteenth century while the bulk of the market materials date to the early 1700s. The extent of this difference cannot be assessed without additional materials from both time periods.

It appears that the market, in spite of its name, was not exclusively a vendor of beef. This appears to have been the case throughout its history. Although a variety of meats were sold at the market, however, beef, pork, and venison were the primary products. Allowing for individual variations among the residential/commercial sites excavated elsewhere in the city, it appears that the proportions of these products found at these consumer sites reflects the quantities sold in the market itself. The variations probably reflect the degree of access enjoyed by residents at each of the sites to meat from the market (i.e. socioeconomic status). The differences in the number of cow, pig, and deer individuals identified in the market collection and in the collections from other urban sites may indicate that quite a large quantity of meat left the market without bone. Small animals such as domestic birds may have been raised by the individual household rather than purchased or they may have been purchased complete with bones. Fish may have been purchased at the market either with or without heads since the percentage of fish recovered from the market reflects that recovered from other sites in the city. Most of the fish were identified primarily from cranial fragments and MNI was generally determined from paired cranial fragments. The low incidence of rats may be evidence that few grains or vegetables were sold at the market.

The types of elements identified from household lots in Charleston has lead to the interpretation that some of the large livestock were slaughtered by the household at the site. This evidence has been the large quantity of teeth found at the household lots. However, the same large quantity of teeth was found at the market. It seems more likely that the teeth found at household sites reflect purchase of skulls by the household. Since a variety of dishes could be made from the heads of hogs this has always been an alternative explanation.

The differences among bone modifications at the other Charleston sites and the market are difficult to interpret. Burned bones may either reflect an accidental fire, or food preparation through roasting. Burning was the most common form of bone modification in the Charleston Convention Center deposit. Cut marks may be caused by removing flesh from bones either before or after cooking. Cut marks were the most common form of modification in the McCrady's Longroom deposits. Hacking is probably caused by cleaving the carcass into irregular cuts of meat. Hacking was the most common form of bone modification in the Lodge Alley and First Trident deposits. It seems reasonable that hacking would be the most common modification at a market also.

Summary

Excavation of the Beef Market was conducted with several goals in mind. The first of these was to ground test the documentary evidence for the location of the market. The faunal evidence suggests that the location is accurate. The second was to see if any of the carcass remains would have been discarded at the site. It was possible that all of the bones were sold either with the cuts of meat or independently. It appears that at least some bones were discarded on the market floor. The third purpose was to see if there was any correspondence between the market debris and debris from other sites in Charleston. Larger samples need to be obtained from both market and non-market contexts; however, it appears that there is a high degree of similarity. If this apparent similarity holds up with further work it may mean that most of the large vertebrate fauna consumed at the sites excavated so far in Charleston have been purchased in a market rather than being imported from elsewhere or slaughtered by the household itself.

Table 8

Charleston Beef Market: Allometric Values Used in Study

Taxon	N	Y-Intercept	Slope	r ²
Mammal	97	1.12	0.90	0.94
Bird	307	1.04	0.91	0.97
Turtle	26	0.51	0.67	0.55
Osteichthyes	393	0.90	0.81	0.80
Non-Perciformes	119	0.85	0.79	0.88
Siluriformes	36	1.15	0.95	0.87
Perciformes	274	0.93	0.83	0.76
Serranidae	18	1.51	1.08	0.85
Sciaenidae	99	0.81	0.74	0.73
Pleuronectiformes	21	1.09	0.89	0.95

Table 9

Charleston Beef Market: Species List

	CT	MNI		WT. GMS	BIOMASS	
		#	%		kgs	%
Ud Mammal	9827			18453.4	227.68	78.5
<u>Rattus</u> spp.	1			0.1	0.003	0.001
<u>Rattus rattus</u>	2	1	1.3	0.3	0.009	0.003
Black rat						
<u>Canis famliaris</u>	1	1	1.3	0.2	0.006	0.002
Dog						
Artiodactyl	32			158.4	2.9	1.0
<u>Sus scrofa</u>	76	15	19.5	324.3	5.77	2.0
Pig						
<u>Odocoileus virginianus</u>	26	12	15.6	115.2	2.46	0.9
Deer						
<u>Bos taurus</u>	172	16	20.8	3483.6	46.88	16.2
Cow						
Caprine	8	2	2.6	89.9	1.58	0.5
Sheep/Goat						
Ud Bird	94			66.7	1.088	0.4
<u>Anas</u> spp.	7	2	2.6	5.8	0.11	0.4
Duck						
<u>Branta canadensis</u>	3	3	3.9	2.3	0.014	0.005
Canada goose						
<u>Gallus gallus</u>	14	7	9.0	10.3	0.186	0.062
Chicken						
<u>Meleagris gallopavo</u>	2	2	2.6	2.1	0.043	0.02
Turkey						
Ud Turtle	53			43.8	0.5	0.2
<u>Chrysemys</u> spp.	1	1	1.3	0.2	0.01	0.003
Pond turtle						
Cheloniidae	1	1	1.3	2.5	0.06	0.02
Sea turtle						
Ud Fish	35			6.7	0.181	0.06
<u>Lepisosteus</u> spp.	1	1	1.3	0.1	0.005	0.002
Gar						
<u>Arius felis</u>	2	2	2.6	0.5	0.01	0.003
Hardhead catfish						
<u>Centropristis</u> spp.	1	1	1.3	4.0	0.08	0.03
Sea bass						
Sciaenidae	3	1	1.3	1.4	0.057	0.02
Drum family						
<u>Cynoscion</u> spp.	11	5	6.5	6.1	0.22	0.08
Seatrout						
<u>Micropogonias undulatus</u>	1	1	1.3	0.7	0.03	0.01
Croaker						
<u>Sciaenops oculatus</u>	1	1	1.3	1.1	0.04	0.01
Red drum						

Table 9

	CT	MNI		WT. GMS	BIOMASS	
		#	%		kgs	%
<u>Mugil spp.</u> Mullet	1	1	1.3	0.1	0.004	0.001
<u>Paralichthyes spp.</u> Flounder	2	2	2.6	0.2	0.006	0.002
Ud Bone						
TOTALS	10378	78		26382.5	289.95	

Table 10. Charleston Beef Market: Summary

	19th Century		18th/19th Century		1720-1750's		Combined	
	MNI	%	MNI	%	MNI	%	MNI	%
Domestic Mammals	3	27.3	7	36.8	23	48.0	33	42.3
Domestic Birds	1	9.1	1	5.3	5	10.4	7	9.0
Wild Mammals	1	9.1	6	31.6	5	10.4	12	15.4
Wild Birds			2	10.5	5	10.4	7	9.0
Aquatic Reptiles	2	18.2					2	2.6
Fishes	3	27.3	2	10.5	10	20.8	15	19.2
Commensals	1	9.1	1	5.3			2	2.6
Totals	11		19		48		78	
	<u>Biomass</u>	<u>%</u>	<u>Biomass</u>	<u>%</u>	<u>Biomass</u>	<u>%</u>	<u>Biomass</u>	<u>%</u>
Domestic Mammals	2.06	72.2	2.58	67.3	49.59	97.4	54.23	94.1
Domestic Birds	0.003	0.1	0.003	0.08	0.18	0.4	0.186	0.3
Wild Mammals	0.62	21.7	1.23	32.1	0.61	1.2	2.46	4.3
Wild Birds			0.006	0.2	0.189	0.4	0.195	0.3
Aquatic Reptiles	0.07	2.5					0.07	0.1
Fishes	0.089	3.1	0.007	0.2	0.356	0.7	0.452	0.8
Commensals	0.012	0.4	0.006	0.2			0.018	0.03
Totals	2.854		3.832		50.925		57.611	

Table 11

Charleston Beef Market: Distribution of Elements

	<u>Pig</u>	<u>Deer</u>	<u>Cow</u>	<u>Caprine</u>
Head	44	6	88	6
Vertebrae			6	
Forequarters	5	2	11	1
Forefeet	3	2	7	
Feet	12	6	11	
Hindfeet	9	7	18	1
Hindquarters	3	3	31	
TOTALS	<u>76</u>	<u>26</u>	<u>172</u>	<u>8</u>

Table 12

Charleston Beef Market: Bone Modifications

	<u>Burned</u>	<u>Cut</u>	<u>Hacked</u>	<u>Sawed</u>	<u>Gnawed</u>	<u>TOTAL</u>
Ud Mammal	122	41	1724	2	1	1890
Artiodactyl			7		3	10
Pig	2		14			16
Deer			6			6
Cow			52		1	53
Caprine			2		1	3
Ud Bird	1					1
Chicken	2		1			3
Ud Turtle	1	1				2
Ud Fish	1					1
Drums	1					1
TOTALS	<u>130</u>	<u>42</u>	<u>1806</u>	<u>2</u>	<u>6</u>	<u>1986</u>

Table 13

Charleston Beef Market: Ages of Three
Species Based on Fusion of Elements

<u>PIG</u>	
Less than 2 years old	2
At least 2 years old	5
Less than 3 years old	5
At least 3 years old	12
TOTAL	<u>12</u>

<u>DEER</u>	
Less than 1 year old	1
At least 1 year old	2
Less than 2 years old	8
At least 2 years old	11
TOTAL	<u>11</u>

<u>COW</u>	
Less than 1.5 years old	6
At least 1.5 years old	20
Less than 3 years old	11
At least 3 years old	2
TOTAL	<u>39</u>

Table 14

Charleston Beef Market: Measurements, in mm

<u>Sus scrofa</u>	Astragalus	GLm	40.0
		GLl	44.5
	1 ^o phalanx	Gl	22.5
			12.8
		Bd	6.8
			6.9
		Bp	10.0
	2 ^o phalanx		7.1
		GL	6.9
			13.5
		Bd	9.7
			7.6
	3 ^o phalanx	Bp	12.2
			7.6
		Ld	28.7
DLS		30.5	
<u>Odocoileus virginianus</u>	Radius	Bp	35.0
		Bd	28.7
	Tibia		25.2
		Dd	26.7
			20.1
	Astragalus	Gl1	31.7
		Gl1m	30.7
		Bd	20.9
		Dm	17.9
		Dl	19.7
	Calcaneus	GL	62.8
			61.8
		GB	19.9
			21.2
	Metacarpal	Bp	20.8
		1 ^o phalanx	GL
			37.6
			37.1
	Bp		13.4
			13.4
	11.8		
Bd	11.4		
	10.7		
	12.6		
<u>Bos taurus</u>	Scapula		GL
		LG	69.5
		BG	47.9

Table 14 Continued

<u>Bos taurus</u>	Humerus	BT	85.5
	Metatarsal	Bp	50.0
	Astragalus	GLl	67.7
			63.3
		GLm	68.6
			61.1
		Bd	59.1
			61.4
			42.4
			41.2
			43.2
			37.5
	Bm	37.4	
		37.7	
	Dl	35.4	
		35.1	
	1 ^o phalanx	GL	70.9
			65.6
		Bp	69.0
			35.0
		Bd	30.0
30.5			
32.9			
27.5			
2 ^o phalanx	GL	27.3	
		40.4	
	Bp	49.5	
		31.6	
	Bd	33.4	
23.7			
		30.2	
Caprine	Metatarsal	Bp	22.0
<u>Anas spp.</u>	Coracoid	BF	18.4
			16.9
	Humerus	Lm	44.3
		Bp	16.5
	Ulna	Did	15.2
		8.1	
<u>Gallus gallus</u>	Scapula	Dic	11.5
			11.5
			12.1
	Humerus	Bd	14.7
			9.8
Tibiotarsus	Dd	13.8	
	Bd	12.0	
<u>Cynoscion spp.</u>	Otolith		31.0
<u>Micropogonias undulatus</u>	Otolith		12.7

Table 15

Comparison of the Beef Market with
Other Urban Collections^a

	MARKET		RESIDENTIAL	
	MNI	%	MNI	%
Domestic Mammals	33	42.3	167	28.9
Domestic Birds	7	9.0	114	19.7
Wild Mammals	12	15.4	47	8.1
Wild Birds	7	9.0	44	7.6
Aquatic Turtles	2	2.6	32	5.5
Fish and Sharks	15	19.2	114	19.7
Commensal Species	2	2.6	60	10.4
TOTALS	78		578	

a Includes data from the Charleston Convention Center, McCrady's Longroom, First Trident, Lodge Alley, and Savannah-Telfair.

Table 16

Field Specimens

Field Specimen	Provenience	Date
2	Zone 1	20th Century topsoil
4,5,6	Zones 2 and 3	1830's-19th Century
10,13,18	Zone 4	early 19th Century
17	Zone 5	1780s
23	Zone 6	1760s
24	Zone 7	1740s
25	Zone 8	1740s
27,28	Zone 9	1720s-1730s
12	Feature 1	late 18th Century
7	Feature 3	1800-City Hall Rubble
14, 21	Feature 4	late 18th Century
16	Feature 5	1780s
15, 22	Feature 6	late 18th
29	Feature 8	1730s
11, 20	Postmold 1	early 19th Century
9, 19	Postmold 2	late 18th/early 19th Century
26	Area A	1730s



Chapter VI

Analysis of Ethnobotanical Samples

6

The primary purpose of the present work was to document the location of Charleston's eighteenth century market and to obtain information on the faunal species handled by the market. During the course of this work ethnobotanical material was collected from waterscreening and eventually from the flotation of selected samples. While the market apparently emphasized the sale of meat cuts and a number of leatherworking craftsmen located nearby, there is evidence that other items were handled at the market. Further, the 1796 fire occurred during the summer, enhancing the potential that produce might have burned and been preserved in the archaeological record. Consequently, an ethnobotanical study might reveal evidence of other activities at the market, specifically the sale of plant foods and herbs.

Excavation at the site, which is today a small park, was limited to a single 5 by 10 foot unit adjacent to City Hall. This unit was excavated in nine natural zones, with occasional subdivisions by arbitrary levels. The excavations revealed deposits ranging in age from about 1720 (Zone 9, level 2) to 1830 (Zone 2). Zones 4 through 9 relate to the operation of the market. No evidence of the 1796 fire was found in the excavations, providing additional support to the documentary evidence that the site was leveled and continued to be used as a market for several years.

Charcoal was hand picked from both the excavations and the 1/4-inch waterscreen. A series of 24 such samples were submitted for analysis. In addition, a series of 12 soil samples, ranging in size from 4 to 12 gallons in size, were collected for flotation. These samples were water floated by the Museum staff subsequent to the fieldwork. Flotation samples were submitted from zones 2-6, 8, 9, and Features 4-6.

All of the submitted hand picked samples were examined, but many of the flotation samples were quite small and contained a large proportion of trash (uncarbonized organic material such as rootlets). Consequently, only five of the 12 flotation samples are analyzed in this report. A sample of both market and post-market zones was selected from the better flotation collections. Zone 9, level 1 dates from the 1730s and should represent the early market period. The Zone 6 sample dates from the 1750s and Zone 3 dates from the 1830s, after the site was abandoned by the market, City Hall was built, and the site was a park. The flotation sample from Feature 5 dates to the 1750s and the feature appears to represent a hard packed floor of the market. Feature 4, which dates from the late eighteenth century, represents fill from probable ruts.

Procedures and Results

The five floated samples were prepared in a manner similar to that described by Yarnell (1974:113-114) and were examined under low magnification:

(7 to 30x) to identify carbonized plant foods and food remains. Remains were identified on the basis of gross morphological features and seed identification relied on U.S.D.A (1948,1971), Martin and Barkley (1961), and Montgomery (1977). Three of these flotation samples, Zones 3, 9, and Feature 5, were 8 gallons in size, while the Zone 6 sample was 12 gallons and the Feature 4 sample only 4 gallons. The results of this analysis is shown in Table 17.

Wood charcoal is the dominant component of each sample, with the incidence ranging from 82.2 to 99.0% by weight. The only food represented is a single fragmented kernel of corn (Zea mays) found in the Feature 5 float sample, collected from the hard packed floor surface. No measurements could be obtained from the kernel, which represents 0.1% of the Feature 5 sample. Seeds were represented by three specimens; one each from zones 3, 6, and Feature 5. All of the seeds were fragmented and none could be identified. Plant parts, consisting of a stem fragment and a leaf fragment, were recovered from the Zone 9, level 1 and Feature 5 samples, respectively.

The handpicked samples were also examined under low magnification (7 to 30x) with the wood charcoal identified, where possible, to the genus level, using comparative samples, Panshin and de Zeeuw (1970), and Koeler (1917). Wood charcoal samples were broken in half to expose a fresh transverse surface. The results of this analysis are shown in Table 18, which is organized by provenience.

The charcoal from the Beef Market proveniences contain seven woods identified to the genus level and one category listed simply as diffuse porous. The post-market zones and features contain only four wood types and the diffuse porous wood. Both contain unidentified woods. In general terms, the post-market proveniences contain very small quantities of charcoal.

Pine (Pinus sp.) is found in nine of the 13 market proveniences (69.2%), but is dominant in only four (30.8%). While pine is found in three of the seven post-market proveniences (42.9%), it is dominant in none. Other woods found in the market zones include (in order of frequency) hickory (Carya sp.), oak (Quercus sp.), maple (Acer sp.), elm (Ulmus sp.), and cedar (Juniperus virginiana.). Both hickory and oak are quite common, occurring in 61.5% and 69.2% of the samples, respectively. A small quantity of acorn nutshell (Quercus sp.) is found in the Zone 9 sample. Woods, other than pine, from the post-market proveniences include only oak and cedar.

Coal is found in 10 of the 13 market proveniences (76.9%), but is dominant in only five (38.5%). Within the zones 4-9 samples coal is found in all but Zone 9, level 2. It is dominant, however, in only the upper two zones (15.4%). On the other hand, coal is ubiquitous in post-market samples, and is dominant in four of the six, 67%, including zones 3 and 2 (level 1).

Discussion

The ethnobotanical samples from the Beef Market reveal only limited information. Only a single food item, corn, was found in the flotation samples and only a few badly fragmented seeds were recovered. There are very few data to support the presence and/or sale of plant foods at the market. This absence stands in stark contrast to the abundance of artifacts and faunal remains found at the site. The absence of plant remains may be related to several factors, including the small and very select sample and the failure to find evidence of the 1796 fire. Only one unit, representing a very small sample of the Beef Market, is currently available for analysis. More abundant floral remains may lie elsewhere. In addition, the single excavated unit suggests that at least a portion of the market was cleared of the 1796 fire rubble at some time prior to the 1800 City Hall construction. This clearing operation may have resulted in the removal of large quantities of ethnobotanical remains, although it is unlikely that the entire site was so carefully cleaned.

This study, however, does provide several lines of potential research at the Beef Market site. The single food item found was from Feature 5, a floor surface. If ethnobotanical remains are to be found, it is probable they will come from this feature or immediately below it. A second area of high botanical potential is Zone 6, which is a dark, ashy midden segregated during the excavations. Feature 5 and Zone 6 produced two of the three seeds recovered in the flotation samples. The present work, then, suggests that certain zones are more likely to contain significant botanical deposits than others. Future work should concentrate on obtaining samples from these identified proveniences.

Another line of significant research is the mixture of pine and hardwoods at the Beef Market site. Pine is the most abundant wood, but it is not so dominant as at First Trident (Trinkley 1983a), Campfield (Trinkley 1983b), Lodge Alley (Trinkley 1983c) or Archdale (Trinkley 1984). In fact, for the first time at a City of Charleston site, hardwoods are a strong component of the identified collection. While pine was certainly a common wood, readily available in the Charleston area (see Croker 1979:37-38), it burns very quickly and is quite smoky (Reynolds 1942:6; U.S.D.A. 1978). Oak, hickory, and maple, which burn more slowly, provide more heat, and give off less smoke, would have been preferable as fuel. Previous efforts at ascribing status to various woods have met with limited success (see Trinkley 1984), so the Beef Market site may be useful in refocusing the study of fuel woods from status to function. Future work at the Beef Market should attempt to determine if hardwoods continue to be as common and further, if their presence is related to specific activities documented from the market. It seems unlikely that the woods represent solely heating fuels, given the probability that the market was open sided. It is more likely that they were used in some cooking activity related to the sale of beef.

Finally, the presence of coal and its ratio to wood charcoal is another topic worthy of future research. At the Beef Market, coal was found

from the second earliest deposit and its presence is documented at least as early as the 1720s. Reynolds (1942) suggests that the use of coal in the early eighteenth century was sporadic and confined to the wealthy. It did not become the predominant fuel in the south until the late nineteenth century (Reynolds 1942:5). Coal, however, was being advertised in Charleston newspapers by the mid-nineteenth century (Jeanne Calhoun, personal communication) and it has been found in an area of lower class residents during the mid-eighteenth and early nineteenth centuries (Trinkley 1983c). Coal was apparently available to and used by a variety of Charlestonians from the eighteenth century onward.

The single square at the Beef Market also suggests that as coal became more common, pine and other woods became less common. The reason for this inverse relationship is not clear from the available data, although it is tempting to speculate that both wood and coal were used for the same purpose (perhaps simply as a heating fuel or more likely in some more specialized function relating to the preparation or marketing of beef) and as coal became more available in the late eighteenth century, wood use declined.

While the present ethnobotanical data from the Beef Market are ambiguous, they suggest that further research is warranted. The preliminary work has indicated zones of deposition which may be more productive in the search for plant foods and also that soil samples for flotation should be a minimum of 8 gallons in size. Specific lines of research, other than the presence of plant foods and food remains, have been suggested. To implement the wood/coal ratio study, quantitative samples of both should be obtained from a variety of units on the site. Hand picked samples should continue to be collected for the study of woods used in the market. Finally, there should be further documentary research conducted to determine the possible functions of both the woods and the coal.

Table 17

Flotation Sample Components from Test Pit 1, weight in grams

	Wood Charcoal		Bone		Coal		Plant Parts		Debris		Corn		Seeds		Total		Seeds
	wt	%	wt.	%	wt.	%	wt.	%	wt.	%	wt.	%	wt.	%	wt.	%	
Zone 3	9.86	82.2	0.07	0.6					2.05	17.1			0.01	0.1	11.9	100	1 UID
Zone 6	54.58	99.0							0.52	0.9			0.01	0.1	55.11	100	1 UID
Zone 9/1	8.05	88.0					t	-	1.10	12.0					9.15	100	
Feature 4	3.53	95.1							0.18	4.9					3.71	100	
Feature 5	21.28	97.5			0.6	0.3	t	-	0.35	1.6	0.12	0.6	t	-	21.82	100	1 UID

t = less than 0.1 g.

Table 18

Analysis of Handpicked Charcoal Samples from Test Pit 1

	<u>Pinus sp.</u>	<u>Juniperus virginiana</u>	<u>Quercus sp.</u>	<u>Quercus sp. shell</u>	<u>Carya sp.</u>	<u>Acer sp.</u>	<u>Ulmus sp.</u>	diffuse porous	UID wood	coal	slag
Zone 2, 1v.	t	t								+	
Zone 2, 1v. 2								t	t	t	
Zone 3			t							+	
Zone 4	t				t			t	t	+	
Zone 5	t		p		t				t	+	t
Zone 6	t		+		p				p	t	t
Zone 7	+	t	t		p	t			t	t	
Zone 8	t				t			t		p	
Zone 9, 1v. 1	+		t		p				t	p	
Zone 9, 1v. 2	+			t	t	t					
Area A			t				p				
PH 1					t					+	p
PH 2	t		p							t	
Feature 1										+	
Feature 3	p									+	
Feature 4	t		t			t				p	+
Feature 5			t			t			t	+	t
Feature 6			t						t	+	
Feature 8	t		t		t						

+ = abundant, p = percent, t = trace



Chapter VII

Conclusions

Summary

Historical and archaeological research was initiated at the site of Charleston's colonial Beef Market to better understand the role of the marketing system in the subsistence strategy of the urban population. Specifically, studies of the faunal remains from sites in Charleston, Fort Frederica, St. Augustine, and plantations from coastal Georgia and South Carolina have revealed differences between rural and urban sites which cross-cut socioeconomic and temporal parameters. It was expected that the degree of dependence on the local market system would be a possible explanation for these differences. Research was initiated at the Charleston Beef Market after its location was discovered during documentary research.

The northeast corner of Meeting and Broad was set aside as a "public market" when the Grand Model was established in 1680. A formal market was constructed in the 1730s and again in the 1760s. During this time an alley encircled the market to the north and east, and a number of structures fronted this alley. The market and adjacent structures burned in the major fire of 1796. City Hall was constructed on the site in 1800 and Washington Square Park was established shortly thereafter.

A single 5 by 10 foot unit was excavated in March 1984. This unit was located east of City Hall and was placed to intersect the east wall of the market or the alley surrounding the structure, based on cartographic information from the late eighteenth century. Excavation revealed extensive deposits dating from the 1730s through the 1830s, including a brick pier possibly associated with the 1730s structure.

The preliminary project was designed to investigate four issues. The first was that some evidence of the market could be found. The second was that we would find materials which would be a signature for the market. The third hypothesis was that the name "Beef Market" would correspond in some way to the materials recovered: that we would find bone refuse at the site and that this would be primarily from beef cattle. The fourth was that additional documentary evidence for marketing activities could be found. Although these hypotheses may seem elementary, it was necessary to establish that a market was in fact located at the site, and that the archaeological evidence was recoverable and amenable to analysis before pursuing extensive research.

Conclusions

The data recovered suggests that most of the original goals of the program were accomplished. Although more work is planned for the future,

the project has already provided new data for interpretation of early Atlantic coast materials. On the basis of our analysis we feel that we have located the eighteenth century Charleston Beef Market, our primary goal. The second purpose was to see if there was any correspondence between the market debris and refuse from other sites in Charleston. Larger samples need to be obtained from both market and non-market contexts; however, it appears that there is a degree of similarity as well as some interesting areas of dissimilarity in the ceramic, faunal, and floral assemblages found at the market and elsewhere. The third was to see if any of the carcass remains would have been discarded at the site. It was possible that all of the bones were sold either with cuts of meat, or independently.

The stratigraphic information suggests that we have recovered data from the periods in which formal market stalls were present. Cartographic data suggest that the second building, built in 1760, is directly beneath City Hall and our unit was located in the adjacent alley. The presence of the hard packed floor may support this suggestion. The location of the first structure is uncertain. The location of the brick pillar, the TPQ of the construction trench, and the quantity of faunal remains suggest the the unit is located within the first market. To date, we have not recovered data from the first period (1680-1730), when marketing activity was more informal and may have been more dispersed.

In addition to supporting these basic ideas, the data were useful in addressing other research areas. Specifically, the cultural material was compared to data from other Charleston sites. Generally, the materials from the market were similar to those from other urban sites, which suggests that much of the cultural materials recovered from the market represent domestic refuse, either generated on site or scattered from adjacent structures. A relatively large percentage of certain artifact types suggests what type of wares might have been sold in the market. These included utilitarian wares, such as stonewares, Colono ware, Catawba ware, earthenwares, and green glass containers. These wares themselves may have been sold, or they may have served as storage vessels whose contents were being sold. A large number of bale seals also may reflect wares sold at the market. The higher percentage of these wares is our only clue to non-food items being sold at the market. The presence of hispanic earthenwares may reflect the occasional sale of contraband items at the market. Finally, a large percentage of green bottle glass and tobacco pipes may reflect the use of the area as a social center. While historical data suggest that a variety of items would have been sold at the market, the present archaeological data only mildly support this suggestion.

The faunal evidence most strongly reflects the use of the area as a market. The density of bone deposits is the primary evidence to support the location of this site as a market. While it is probable that some of the bones recovered from the site represent subsistence by market vendors, the bulk of the bone probably is the result of commercial activities.

In some respects the faunal remains from the market appear to mirror what has been found on residential sites within the city. All of the taxa

identified from the market excavation have also been identified from residential/commercial structures. When the summary of the market data is compared to these same categories from other urban collections, the percentages for some groups are very similar. This is especially the case for fish and wild birds. The greatest areas of difference are in the quantity of domestic individuals identified in the two different types of collections, and in the presence of deer. The remains of domestic mammals, especially cows, are more common in the market collection than in residential/commercial deposits. Deer are also more common at the market. On the other hand, chickens are more common at residential/commercial sites. Commensal species are also more common at residential/commercial sites. One possible explanation for the differences observed is that most of the urban samples date to the late eighteenth to early nineteenth century while the bulk of the market materials date to the early 1700s. The extent of this difference cannot be assessed without additional materials from both time periods.

It appears that the market, in spite of its name, was not used exclusively for the sale of beef. This appears to have been the case throughout its history. Although a variety of meats were sold at the market, beef, pork, and venison were the primary products. Allowing for individual variations among the residential/commercial sites excavated elsewhere in the city, it appears that the proportions of these products found at these consumer sites reflects the quantities sold in the market itself. The variations probably reflect the degree of access enjoyed by residents at each of the sites to meat from the market (i.e. socioeconomic status). The differences in the number of cattle, pig, and deer individuals identified in the market collection and in the collections from other urban sites may indicate that quite a large quantity of meat left the market without bone. Fish may have been purchased at the market either with or without heads since the percentage of fish recovered from the market reflects that recovered from other sites in the city. Most of the fish were identified primarily from cranial fragments and MNI was generally determined from paired cranial fragments.

The types of elements identified from household lots in Charleston have led to the interpretation that some of the large livestock were slaughtered by the household. This evidence has been the large quantity of teeth found at household lots. However, the same large quantity of teeth was found at the market. It seems more likely that the teeth found at household sites reflect purchase of skulls by the household. Since a variety of dishes could be made from the heads of hogs and calves, this has always been an alternate explanation.

Unlike the faunal evidence, floral evidence from the project was initially disappointing. Historical data suggested that while the market emphasized the sale of meat cuts, other types of items also were handled at the market. Goals of the ethnobotanical study were similar to those of the faunal study; by learning what types of plant foods were marketed in Charleston, we hoped to understand better the range of plant materials recovered from urban domestic sites. Further, the 1796 fire occurred in

the summer, enhancing the potential that produce might have burned and subsequently been preserved in the archaeological record. Consequently, an ethnobotanical study might reveal evidence of other activities at the market, specifically the sale of plant foods and herbs.

Preservation and/or recovery of ethnobotanical materials from the excavated proveniences was poor. The single plant food was a corn kernal, recovered from the hard packed floor, which supports the interpretation of this feature as a road or floor surface. Unidentified seeds were recovered from the zone immediately beneath this. The dearth of material in this unit suggests that this particular portion of the site may have been cleaned for reuse following the fire, thus removing the ethnobotanical evidence. It is likely though that not all of the site was kept this clean.

Analysis of the wood charcoal suggests some differences from other Charleston sites, specifically the abundance of hardwoods, such as hickory, oak, and maple over pine. Previous efforts at ascribing status to various fuel woods have met with little success (Trinkley 1984); the market data may be useful in refocusing this study of fuel woods from status to function. It is unlikely that the woods represent solely heating fuel, given the probability that the market was open sided. It is more likely that the wood charcoal, and later coal, were used in cooking activity related to the sale of meat.

More work at the Charleston Beef Market is planned for the future; however, the work already accomplished has provided new data for interpretation of early Atlantic coast materials. Most of the original goals of the program were accomplished; we feel that we have recovered tangible evidence of the Beef Market and proven that these data are capable of providing new interpretations of urban sites. The present research led to many new questions, however, that we hope to investigate through more research.

Avenues of Future Research

The interpretations of the cultural materials are, at this point, quite tentative and require larger sample sizes to either support or refute these suggestions. Specifically, there are several issues which warrant further investigation and have ramifications greater than the study of this particular market site, or even the Charleston market system in general.

The first issue concerns site formation processes (Schiffer 1977). This issue has been investigated at other urban sites (Honerkamp et al. 1982; Zierden et al. 1983a; 1983b; n.d.; Zierden and Paysinger n.d.) and is seen as a key issue in understanding the urban archaeological record. Specifically, where did the trash at the market site come from? The preliminary data do not suggest that all of the cultural materials recovered at the site were being sold there. Instead, much of the assemblage reflects domestic behavior; this refuse may have been generated on site or introduced from other sites.

The historical data presents additional factors which may have affected the archaeological record of the site. There may be deposits dating to the seventeenth century, relating to at least one lot which was later incorporated within the square, Mary Crosse's residence. There may also be tangible evidence of the earliest use of the square as a market. During the course of the eighteenth century, the area may have been kept at least partially clean by city scavengers. The archaeological record may also contain evidence of the British occupation of the city from 1780 to 1782. Newspaper sources suggest that different types of products were available in the city during that period. Finally, such nineteenth century activities as the use of City Hall by the Union army, the use of the park as a temporary encampment following the 1886 earthquake, and repairs to City Hall may have affected the archaeological record.

The ethnobotanical data may be able to provide further evidence of the use and appearance of the site. Specifically, an abundance of weed seeds would provide evidence of a disturbed habitat; a site overgrown with weeds, and thus, in an urban setting, abandoned. The presence or absence of such data may provide clues as to the use of the site after the 1796 fire.

A related question concerns a more thorough knowledge of the businesses/residences adjacent to the market, specifically fronting the alley. This research requires a combination of archaeological and historical data. A more thorough knowledge of the surrounding area will allow us to assess the use of the area as a social center. Another aspect of this question is the relation of surrounding businesses to the market. To what extent did the market attract or repel other businesses? Specifically, a number of leather working businesses clustered near the market in the latter eighteenth century. Of the 15 butchers who advertised in the South Carolina Gazette from 1732 to 1770, only 4 gave specific street locations. Was this due to the fact that butchers were obviously located next to the Beef Market? An understanding of the relationship of these will help us better understand the interaction of Charleston merchants and the flow of the market system.

With a larger, more spatially diverse, sample, we may be able to make more definitive statements concerning the wares sold at the market. This will require further historical documentation. The market may have begun as a generalized market with individuals from the surrounding areas bringing all types of both viands and wares made by cottage industries. Auctions of various goods, such as those seized through privateering, may have occurred here. There may be evidence for the sale of plant foods. Plant foods are most likely preserved in the debris of the 1796 fire. As discussed above, if this debris was removed, there may be little archaeological evidence for the presence of plant foods.

An examination of the wood charcoal may provide further clues to the range of activities at the market. Specifically, what was the function of the fuel woods at the market? They may have been used for warmth, for cooking, or in the preparation of meats for sale. An additional aspect of this is the relation of coal to wood, and the change in frequency through time. Did coal simply replace wood, or does the increased presence of coal represent an additional activity?

A question that will be of interest to researchers throughout the lowcountry is the study of colono wares. There seem to be two different wares comprising the lowcountry assemblages (see Wheaton et al. 1983). "Colono ware" is the thicker, poorly burnished sandy type and may well be the ware actually made by the slaves. "Catawba ware" is finer, more micaceous, and closely resembles Siouan pottery of the Carolina piedmont. Given the current lack of information on historic Indian pottery (see Trinkley et al. 1983), it is possible that this ware is the product of historic Indian groups (see Trinkley's discussion of the Kimbel series). Both types are present at all Charleston sites, including the Beef Market. Further, Catawba ware decreases through time at the market in relation to Colono ware. There are historic references to slaves selling wares in Charleston and to Indians selling pots in the city. Presumably, the market was an ideal location for such activities. A study of these wares at the Beef Market may provide additional information on the source of Colono ware as well as what was being sold at the market.

The Beef Market research will also address questions of subsistence within the city. The Beef Market is a good source of information on the fauna marketed within the city of Charleston. From further analysis additional information about the foods consumed may be obtained. We suggest that the market served as a link between foodstuffs produced on plantations and products consumed in the city. By investigating this flow of products, we may also be able to explore the role of this local marketing network within larger, long distance trade networks and economic systems.

With information from the Beef Market it should be possible to explore the relative value placed on pork and beef. Several faunal collections from sites in Charleston, Savannah, and the surrounding countryside have shown that pork was not necessarily the major source of meat in this area. In particular a study of the Beef Market may provide information on the sources and avenues through which beef and pork entered the market. If in the documentary search we can also find cuts of meat discussed and prices listed for them, we will be able to add to studies of eighteenth and early nineteenth century subsistence.

An issue requiring larger samples is diachronic change in market function and activities. We hypothesize that the market gets more specialized through time, reflecting the growing sophistication of Charleston, and the addition of other specialized markets. This is inferred through the change in name. As the city matured, prospered, and expanded, did townspeople find it more difficult to raise animals for domestic use? In order to investigate this issue, we need to pinpoint features associated with the different market periods. A greater understanding of this issue will allow us to examine patterns in the growth and economic development of Charleston.

A larger issue which additional data from the Beef Market can address is the question of subsistence decisions based on ethnicity and socioeconomic status. Is subsistence sensitive to ethnicity or status? A recent review of plantation data (Reitz 1985) has found that there are very few differences between slave and planter deposits. Those differences which were observed could be attributed to problems in the samples themselves. Urban sites have different sample problems, but correlations between status or ethnicity and food are speculative in most cases. The main problem is that vital information which would enable us to address status and ethnicity in a more conclusive fashion is lacking from the archaeological literature. Instead of addressing status from the direction of household level data, it might be useful to approach it from the marketing system itself. Information is needed about the types of meats and produce sold in colonial cities, the relative value of these products, the cuts of meat sold, and the prices those cuts commanded. The archaeological data may have, in turn, been affected by the status of the individuals who used the Beef Market. Was it patronized primarily by the middle and lower classes or did its function attract the entire stratum of socioeconomic classes? Through a combination of documentary and archaeological evidence, the Beef Market project provides an opportunity to collect urban data from a known context where status based choices might have been clearly expressed. By documenting the socioeconomic status of the market customers, we may be able to correlate what meats and cuts of meats were available to individuals of various socioeconomic status. This in turn will aid in the recognition of socioeconomic status in the faunal remains from urban consumer sites.

Clearly, the present data suggest that the colonial Beef Market site is a rich data base for the examination of several issues related to urban archaeology, and to historical archaeology in general.

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APPENDIX I

Materials Subsequently Recovered from the Beef Market Site

On December 3, a local news program reported that a number of bones and a meat cleaver had been recovered by a City water crew near City Hall. At first it was believed that the bones might be human, and the meat cleaver the murder weapon, so the items were given to the County Coroner. The next morning, the site was visited by Zierden on two occasions. On the first visit, the soil was observed and the location of the specimens ascertained. Later, the crew foreman called to report that a "layer of ash" had been discovered. On the second visit a soil profile was photographed and soil samples were taken from each zone. Three zones were observed in the profile. The hole was roughly two feet deep, considerably shallower than Test Pit 1. Because of the nature of the excavation, a good portion of the stratigraphy was destroyed.

The zones consisted of a deep, ashy layer containing quantities of rubble, which may correspond to Zone 4 in Test Pit 1. Beneath this was a hard packed zone of waterwashed sand which may correspond to Feature 5; the portion this deposit which was exposed was too small to make a positive correlation. Beneath this was a dark grey-brown organic soil, which may correspond to Zone 6.

The bones recovered from the site and from the county Medical Examiner's office were covered with an ashy, char-flecked tan-grey sand, suggesting that these materials were from the "Zone 4" deposits. Approximately twenty bones, all cow, plus a small iron meat cleaver were recovered (Figure 26). Based on the date of deposition for Zone 4 in Test Pit 1, the char-flecked appearance of the soil adhering to the artifacts, and the location of the hole (Figure 27), it is possible that these deposits represent tangible evidence of the 1796 fire. This is in contrast to the lack of evidence for this event in Test Pit 1. Further excavations in this immediate vicinity should prove fruitful.



Figure 26

Meat Cleaver recovered from Meeting Street.

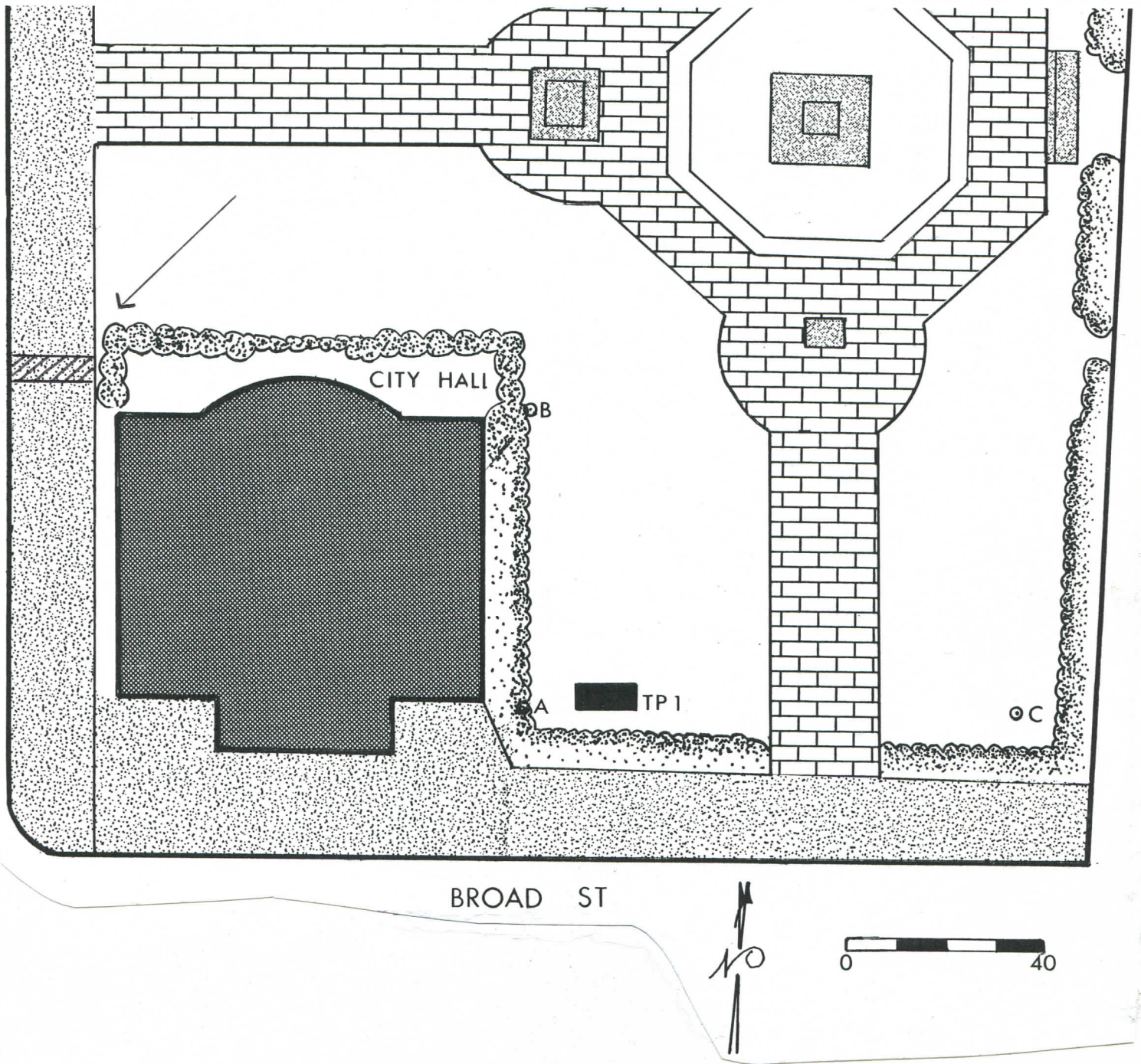


Figure 27
 Location of the Water Main Excavation in Relation
 to Test Pit 1.