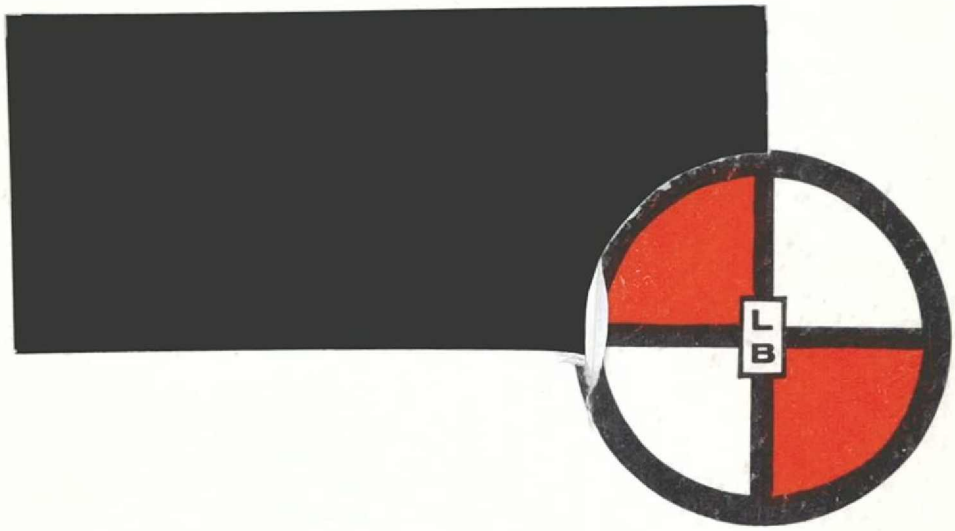

LOUIS BERGER & ASSOCIATES, INC.

100 Halsted Street
East Orange, New Jersey 07019

(3) ARCHAEOLOGICAL AND HISTORICAL INVESTIGATIONS AT THE ASSAY OFFICE SITE, BLOCK 35, NEW YORK, NEW YORK

INTERIM REPORT AND PROPOSAL

1987 83-229m

PREPARED FOR:

HRO, International, Ltd.
Tower 56, 126 East 56th Street
New York, New York

PREPARED BY:

The Cultural Resource Group
Louis Berger & Associates, Inc.

(2)
July 1987

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

This document provides an interim report of the historical research and laboratory analysis currently underway for the Financial Square Project. The Financial Square Project is located on New York City's Block 35, formerly the site of the United States Assay Office Building. In order to comply with the City's environmental quality review procedures, the Howard Ronson Organization, Ltd. (HRO), the developer of the Financial Square Project, has sponsored a series of historical investigations and archaeological excavations in consultation with the New York City Landmarks Preservation Commission (LPC). These historical and archaeological investigations were completed by Greenhouse Consultants, Inc. (GCI). Because LPC determined that the southern portion of Block 35 had been disturbed by construction of the Assay Office Building, the archaeological investigations were limited to the northern portion of the block, an area encompassing 8 of the block's original 21 lots. Greenhouse Consultants completed the fieldwork segment of the Assay Site in August 1984.

Greenhouse Consultants was unable to prepare a research design for the analysis and report segment of the project that was acceptable to the client. For this reason, the Cultural Resource Group of Louis Berger & Associates, Inc. (LBA), was retained by HRO to develop a research design, process and analyze the archaeological collections, and produce a final report for the project. LBA's research design was initially developed in a status report and proposal that was submitted in April 1986. During budget discussions, the scope of the laboratory analysis contained in the initial proposal was reduced, and subsequent budget proposals were prepared.

At a meeting in July 1986 with Dr. Sherene Baugher-Perlin of the New York City Landmarks Preservation Commission (NYCLPC), a number of points were discussed and agreed upon, thereby allowing the project to proceed:

1) A basic level sorting and tabulation is acceptable for the artifacts in landfill contexts, as proposed in LBA's letter proposal of May 5, 1986. In addition, this basic level of sorting and tabulation is acceptable for the non-feature contexts in the occupation lots, i.e., the yard deposits. However, it was recommended by NYCLPC that the ceramics from the landfill and yard deposits be sorted according to major ware types.

2) Analysis of materials from intact feature contexts must extend beyond the basic level of sorting and

analysis, however. It will be necessary to conduct preliminary analysis of all feature contexts to determine whether or not they are suitable for addressing the project's research objectives. Historical information will also be used to determine whether or not the feature deposits are suitable for interpretation. Then, detailed analysis will be carried out on selected features.

3) The research questions developed in LBA's original proposal of April 1986 should be addressed to the extent possible, using information available from historical research and the various levels of artifact analysis.

At this juncture, the basic processing of the landfill/river-bottom materials is complete, and the feature evaluation has progressed to the point where it is possible to identify deposits that warrant additional analysis, in support of the project's research design. A total of more than 445,000 individual items and 138 kg of shell have been tallied from the landfill/river-bottom, yard, and miscellaneous contexts. For the most part, processing of these materials is complete, although some additional analysis of particular contexts and artifact types will be necessary to address aspects of the project's research design that deal with landfill issues.

Materials recovered from nine closed feature contexts were evaluated to determine their suitability for more intensive analysis. Of these nine features, two have been determined to meet the criteria required for more intensive analysis. These features include the wood box on Lot 6, which can be firmly associated with the Cortland VanBeuren household, and the Lot 9 warehouse deposits, which represent the remains of the Williams and Winant Grocery. The other seven feature deposits were eliminated from further consideration because of (i) ambiguous historical association, (ii) lack of well-defined boundaries, or (iii) insufficient quantity and quality of artifacts.

Just as the preliminary artifact analyses have provided a means to narrow the requirements for additional, intensive artifact analysis, two recent meetings (June 5 and June 30) have eliminated three research topics from futher consideration. The studies that have been eliminated include (i) a study of merchandising practices and consumer behavior using a merchant's account book that is contemporaneous with the Van Beuren household and Williams and Winant Grocery, (ii) an examination and development of archaeological techniques for differentiation of residential, commercial, and industrial refuse deposits, and (iii) an evaluation of the utility of floral and faunal remains for interpretation of urban site formation processes.

The first of these would have fit neatly with the archaeological interpretation of the two features selected for intensive analysis, but as this would have required intensive documentary research, it was eliminated in favor of other studies that focus directly on the material culture aspects of the site. The second and third of the studies that have been dropped from further consideration pertained directly to the issue of urban site formation processes, one of the three principal research questions in LBA's original research design (Louis Berger & Associates, Inc. 1986). These studies were eliminated because they have been addressed to some degree in prior reports and because they would require intensive analysis of materials from a broad range of contexts (landfill/riverbottom, yard midden, and features).

This document provides an interim report of the work accomplished to date, focusing primarily on the results of the lot-specific historical research and the evaluation of the feature deposits. In addition, a work plan has been developed for completion of the project, including an outline of the proposed content of the final report. The following chapter presents the rectification of the lot histories, thereby providing the necessary information to assign the feature deposits to specific occupants, if possible. Chapter III outlines the results of the archaeological analyses, including a brief discussion of the landfill/riverbottom deposits and a more detailed discussion of the feature deposits. Using the historical information and the preliminary analysis of the artifact assemblages, each feature has been evaluated as to its suitability for more intensive analysis. Chapter IV and Appendix A discuss the proposed work plan for project completion, and the content of the final report.

II. RECTIFICATION OF LOT HISTORIES

A substantial amount of historical data relating to the history of the eight lots contained in the study area was collected by GCI. City directories, tax records, and records pertaining to water lot grants were covered, with a few gaps, for the period 1789-1850. Very little research in New York City Libers (i.e., Deed Books) had been conducted and no notes from the Federal census were provided, which suggested that this source had not been consulted. Review of this material and preliminary consultation with Diana Wall revealed that there was confusion as to the sequence of addresses along Front Street in the period prior to 1818 and that this confusion may have resulted in failure to collect all possible information from the city directories.

LBA's first objective was, therefore, to clarify the confusion over the street addresses on Front Street. On the basis of the resulting occupation histories, lots would be identified whose histories implied the presence of deposits with significant informational content. Recommendations for lots likely to contain significant deposits were based on two criteria: relative length of individual occupations (i.e., relative stability) and exclusive use as either residential or commercial function assignable to a single household or firm.

LBA focused on the deeds because these documents contain explicit locational information. The sequence of owners and references to occupants can be used to extrapolate associated data from other records, such as tax lists and census lists, believed to reflect routes. Neither tax lists nor census lists necessarily indicate empty or vacant lots, so assigning lot occupation solely on the basis of a sequence from either of these lists in the absence of corroboration from a different type of source, such as a deed, is problematic.

At the conclusion of the deed research, some additional work was conducted in the Federal census and the microfilm collections of city directories at the Library of Congress where different editions of directories from the same year are available. Use of the Federal census is usually constrained by the absence of information on street addresses prior to 1880. However, the census taker did follow a route, albeit with occasional exceptions, and the route can be extrapolated by comparing the sequence of names taken from the census, which reflects residence, with the sequence taken from the tax list, which reflects property and location, and with the addresses associated with those names as they are provided in the contemporaneous city directory. Given the high degree of transiency and absentee ownership, only the 1810 Federal census yielded any relevant

information, although this was extremely valuable as it provided a benchmark for mixed-use properties as well as for properties apparently dedicated exclusively to commercial uses.

LBA has achieved mixed results concerning the problem of street addresses for the period prior to 1799. This problem may reflect the historical reality of the waterfront in the late eighteenth century. Thus, the ambiguity can be seen as a type of historical evidence. The earliest deed found dates to 1805, although information reflecting earlier occupations was contained in the recitals that prefaced later transactions. In the next section, the results of the deed research are discussed in detail. This is followed by lot-by-lot discussions.

A. RESULTS OF DEED RESEARCH

Research conducted by GCI located a map of water lot grants in the study area (Figure 1), which was produced in the context of a late nineteenth-century lawsuit and which correlated with information contained in the late eighteenth-century water lot grants themselves. The earliest deed associated with Lot 6 (Bache to McEvers et al., 1807, NYC 76:505) indicates that this lot was in the occupation of Courtlandt VanBeuren and that it was known as 91 Front Street. VanBeuren bought this lot the following year (NYC 351:195). His presence on the property is confirmed in both the directories and in the tax lists, which indicate either the owner or the occupant in the early nineteenth century.

There were four water lot grants the widths of which historically correspond to the four lots along Front Street. Since 87 Front Street (Lot 6) was originally 91 Front Street, it might be thought that the original addresses were 91 through 97 Front Street. However, the 1807 tax list, which re-numbered the street addresses (89 Front Street corresponded to 91 Front Street, i.e., Lot 6, and so on), implied that two adjacent lots corresponding to Lots 7 and 8, were both designated 91 (formerly 93 Front Street); the corner lot was therefore formerly 95 now 93 Front Street. Comparison with city directories, however, indicates that the numbering system of the tax records between 1807 and 1818, when it was changed to the modern system, was never implemented in the city directories. Lot 7, therefore, appears to correspond to 93 Front Street, as reported in the city directories, and Lot 8 corresponds to 93 1/2 Front Street, as listed in the directories. Stephen Miller, listed in 1807 as being at one of the old 93 Front Street addresses was, in fact, listed in the city directories at 93 1/2 Front Street. No. 95 Front Street appears always to have been the corner property, which was re-numbered 93 Front Street in 1818.

This system worked consistently for all data from the 1799 tax list through 1850 and matched with data found in the city

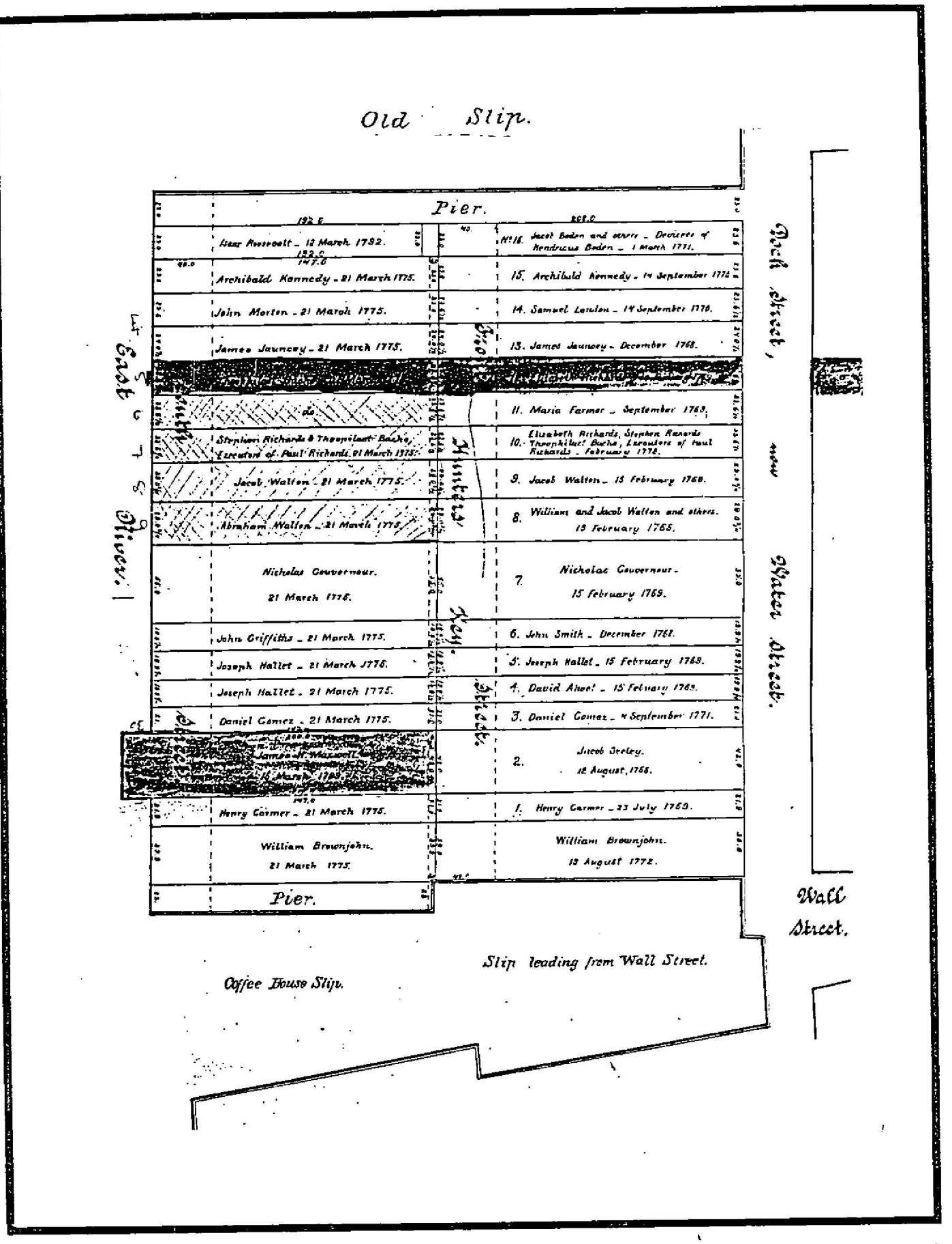

FIGURE 1: Water Lot Grants

directories. Two deeds to Lot 7 (Aymar to Whitlock et al., 1831, NYC 275:100; Whitlock et al. to McCormick, 1833, NYC 295:115) refer to this property as having been 93 Front Street. Mrs. Troup's boarding house, mentioned in one of these (Aymar to Whitlock et al., 1831, NYC 275:100) was also listed in the city directory at this address. No reference to Lot 9 as ever having been known as 97 Front Street was found, nor was there any legal evidence of double lots along Front Street, although all of the lots originally extended from Front to South Streets and were later subdivided.

Interpretation of the late eighteenth-century tax lists remains problematic. It is presently believed, however, that the sequence in the lists prior to 1799 (i.e., 1789, 1790, 1791, 1794, and 1795) reflects properties west of Front Street as well as any improvements (i.e., wharves and structures on them) east of Front Street. This is suggested by Thomas and John Ming's cooperage. The cooperage is listed between Bache's and Governeur's wharves although the earliest address for Ming's cooperage is "Front Street near Old Slip" and the second is "86 Front Street," i.e., on the west side of the street. In 1795, Ming's cooper shop was described as being "on wharf"; it is not clear whether this was Randall's or Bache's wharf. It is also likely that the shop was across the street from his residence at 86 Front Street (New York City Directory 1795:129). Bache, moreover, owned both Lots 5 and 6. Thus, "Bache's wharf" might conceivably refer to the section of wharf along Lot 6 as well as the pier that projects into the East River in the area now called Lot 5.

Governeur's wharf is believed to be under Gouverneur's Lane. The 1795 tax list also refers to "Randall's wharf," a section of wharf presumably associated with Thomas Randall, a blockmaker enumerated in the tax lists from 1789 to 1795 although he was not identified in the associated city directories. Randall is, however, mentioned in an 1805 conveyance (Coster to Coster, 1805, NYC 72:167). The wording is slightly ambiguous. The passage described a tract that measured 23 feet, 3 inches, by 399 feet and was bounded:

> Northerly by Water Street aforesaid Southerly by the said East River in Harbour Easterly by a Water Lot granted to Mr. Jacob Walton and Westwardly by another Water Lot granted to Mr. Paul Richards late in the Possession of Thomas Randall Deceased as in and by the said Indenture of Release referenced thereto . . . . (Coster to Coster, 1805, NYC 72:167).

The property conveyed is clearly Lots 8 and 43; the question is, does the phrase, "occupied by Thomas Randall," modify the adjacent lot, that owned by Paul Richards's Estate, or does this modify the lot herewith conveyed, that is, Lot 8? None of the descriptions of the adjacent properties contain reference to occupants although it was not uncommon for descriptions of

conveyed properties to refer to the occupant, particularly if the occupant differed from the owner. Thus, the structure of the deed implies that Randall was the occupant of Lot 8. A later deed to the same property of the same literary construction indicates that Mrs. Troup was the occupant, a conclusion confirmed by the information contained in the city directories.

Further confirmation of the association of Randall with Lot 8 is obtained by attempting to link the sequence of names taken from the tax lists with the lots as they are believed to have existed in the late 1790s. LBA's reconstruction of the occupations is presented in Table 1, Appendix B; the significant feature of this reconstruction is that it results in the placing of Abraham Walton's water lot at Lots 9/41 and Gouverneur's water lot under Gouverneur's Lane. This interpretation of the sequence in the tax is, therefore, consistent with both the pattern of water lot grants as discerned in the grants themselves and in the re-survey of these grants in the late nineteenth century.

South Street properties presented less of a problem. The area was open until after 1802, and the earliest information found relating to these lots dates to 1807.

Tables 1 and 2 in Appendix B summarize the Front Street and South Street occupations from the period 1799-1850.

B. LOT 6, 1799-1850

The history of Lot 6 was characterized by a long occupation by the VanBeuren family businesses (1801-1830). Courtlandt VanBeuren had occupied the property by 1801, which he used as both a residence and place of business through 1810. He died in 1820 and his son Egbert took over the family grocery business with various partners. Egbert VanBeuren is known to have lived elsewhere. The presence of two businesses at this location as reported in the directories represents a possibly conflating factor.

C. LOT 7, 1799-1850

The history of Lot 7 was characterized by several long occupations as well as one purely residential occupation. Robert McCormick resided at this address from 1817 to 1827 during which time his grocery was known to have been located at 94 Front Street. Other long occupations were associated with Brittain L. Woolley (merchant), 1837-1844; Thomas Marean (commission merchant), 1844-1850; and Ezra Wheeler (grocer), 1845-1850. The information potential associated with Robert McCormick's occupation may potentially be diminished by the simultaneous residence by Ezekiel Blair (1820-1823) as well as the mixed use in 1822 (Thomas Nevins's cooperage) and 1827 (G. P. Holmes and Company). Marean's occupation overlapped both Woolley's and

Wheeler's, again potentially impairing assigning deposits exclusively to any of them.

D. LOT 8, 1799-1850

The history of Lot 7 indicates two relatively long occupations, Thomas Delves, 1802-1808, and Condit and Richards/Condit and Scott, 1828-1843, that might have been clearly linked with archaeological deposits and/or features. Intensive use after 1846 suggests that clearly assignable deposits from this period are unlikely.

E. LOT 9, 1799-1850

This lot was characterized by a long and exclusive occupation by Anthony V. Winans' grocery from 1822 to 1835, when it was destroyed by the fire. John G. and Edward Baker's establishment was in place by 1838 and remained the sole occupant through 1850; they were wine merchants.

F. LOT 41, 1807-1850

Two long occupations, a series of firms in which John Bulkley was either a partner or the owner (1818-1829) and Joseph Foulke and Sons, Merchants (1836-1850), were associated with this lot. Possible conflating factors are the intensive use of the lot by several short-lived firms in the early 1830s and similar intensive and short-term occupations in the late 1840s. However, there were clearly fairly long periods during which the property was exclusively occupied by stable mercantile houses.

G. LOT 42, 1807-1850

Two relatively long occupations were identified on this lot prior to 1850: Thaddeus Phelps and Company, 1823-1833, and Augustin Averill and Company, 1826-1837. Unfortunately, the two overlapped. The other occupations were either relatively short or did not exclusively occupy the lot.

H. LOT 43, 1807-1850

Four rather lengthy occupations are linked to this property, although, again, there is the problem of multiple occupancy for the period after 1830. Thus, the long use of the lot by Daniel and John Aymar, ship chandlers and block-and-pumpmakers, in the period 1807-1830 appears most likely to yield assignable deposits.

I. LOT 44, 1807-1850

Two lengthy occupations (Hoyt and Tom, 1810-1827, and Smith and Hubbell, 1811-1821) were identified with this property. Unfortunately, they were concurrent, presumably confusing the assignment of deposits to either of them.

III. LABORATORY ANALYSIS AND PROCESSING

A. METHODS

Laboratory processing and analysis have been carried out according to the LBA proposal of October 1986. According to the work plan, the collection was divided into two major components: (1) materials from closed feature contexts and (2) materials from landfill/riverbottom, yard, and miscellaneous contexts.

For the landfill/riverbottom, yard, and miscellaneous contexts, a rough-sort tabulation has been carried out, using eight major artifact classes: (1) ceramics, (2) curved glass, (3) pipes, (4) other diagnostics, (5) non-diagnostics, (6) bone, (7) macro-floral, and (8) shell. In addition, a sample of the ceramics (sherds greater than 2 inches in maximum length) has been sorted and tabulated according to 13 major ware groups in order to provide a means for dating of the deposits. The following ceramic ware groups were used:

Delft	1625-1800
Creamware	1762-1820
Pearlware	1780-1840
Whiteware	1820-present
Ironstone	1840-present
Yellowware	1827-1940
White salt-glazed stoneware	1720-1805
Other stoneware	not dated
Coarse earthenware	not dated
Oriental export porcelain	not dated
Other Porcelain	not dated
Other wares	not dated
Unidentified wares	not dated

For the materials from feature contexts, a more detailed level of analysis was employed, sufficient to establish the dating, function, and integrity of the deposits.

As a result of discussions with the Landmarks Preservation Commission, it was determined that the initial processing of the materials from feature contexts would be carried out at a level sufficient to determine whether any of the features would be suitable for addressing the project research design, as set forth in the LBA proposal of April 1986. The criteria to be used for selection of features for further analysis are as follows:

1) The feature must be well defined spatially.

2) The historical research must demonstrate that a firm association between the artifact deposit and the lot occupant is possible. For example, rapidly changing

uses or occupants on a particular lot will preclude the possibility of addressing consumer behavior.

3) Based on the preliminary artifact analysis, a minimum level of deposit integrity must be demonstrated. Deposits that contain (i) a mixture of materials representative of a broad time span or (ii) a hopeless mixture of commercial and domestic refuse or (iii) that contain a limited variety of data classes or (iv) that are overwhelmingly dominated by highly fragmented vessels will not be suitable for higher level analysis.

Dating was accomplished primarily by analysis of the ceramic and curved glass, supplemented by identification of datable items in the other diagnostics group. All ceramics from feature deposits have been tabulated by ware and type, and Mean Ceramic Dates (South 1977) have been computed. Identifiable glass tablewares, bottle bases, and necks/finishes have also been tabulated for deposit dating. Dating of the features will be subject to slight change, as date ranges are refined for certain ceramic types.

In addition to tabulation by ware and group, the ceramics were tabulated according to sherd size (greater or less than 2 inches in maximum length) to provide an objective measure of vessel integrity. A sherd size index, which ranged from 0 to 1.0, was expressed as the proportion of large sherds to total sherds. This index was computed for individual contexts, test cuts, provisionally defined depositional units, and features.

The remainder of the collection (pipes, other diagnostics, non-diagnostics, bone, macro-floral, and shell) from the features was tabulated at a level sufficient to perform Artifact Pattern Analysis (South 1977). This method has been used to discriminate commercial versus domestic refuse (cf. Geismar et al. 1983). Readily datable items within these classes have been included in the dating analysis.

Using the Harris matrix method (Harris 1975, 1979), stratigraphic analysis was completed for all test cuts, in order to achieve a more clear understanding of the stratigraphy of the excavated deposits. Harris matrices have been completed not only for the features, but for all test cuts that included more than one excavation context. This method of analysis provides a two-dimensional, graphic portrayal of the chronological sequence of the deposits and architectural features that were excavated and recorded at the site. This method is particularly useful for reconstructing complex stratigraphy often found at urban sites.

Beginning with the smallest unit of excavation and recordation, the context in this case, the spatial relationship was determined by reference to excavation records, plan drawings, spot elevations, and profiles. Each context may have one of three possible

relationships with another: either (1) it is earlier than or beneath another, (2) it is later than or above another, or (3) it is equal to or contemporaneous with another. In many cases, however, the quality of the field records was not adequate to re-establish a fully accurate stratigraphic sequence.

All artifact information has been entered into a computerized database system, designed to facilitate data summaries and analytical routines. Programs have been developed for computation of Mean Ceramic Dates (MCD), Termini Post Quems (TPQ), and Artifact Pattern Analysis (APA). Reports have been generated for these analyses, presented according to individual excavation contexts, strata, test cut, and entire features.

Data analyses have also been carried out according to depositional units (DUs). Depositional units serve as a device for combining separate excavation contexts that relate to a single refuse disposal episode or event. Normally, the definition of depositional units is established by (1) similarities in soil matrices, (2) physical proximity of deposits, (3) similarities in deposit dates, (4) general similarities in artifact content, (5) artifact cross-mends between contexts, and (6) other criteria such as relative vessel completeness, etc. (Louis Berger & Associates, Inc., 1985).

At present, depositional units have been defined solely on the basis of information provided in the field records, since intensive analysis (i.e., cross-mending) is not included in the evaluation of the features. The use of provisional DUs is necessary, since the provenience information (Test Cut, Stratum, and Level) does not provide any clear indication of the stratigraphic sequence contained in a given feature. Depositional units have been designated using a tripartite identifier, consisting of (1) the lot number, (2) the deposit type, and (3) a unique identifying number within each feature. All DUs for the features utilize the abbreviation "F" to designate the association with a closed feature.

Other tasks that have been completed include processing of the soil samples and reorganization of the collection according to provenience, to facilitate retrieval for further analysis.

The soil samples have been inventoried and described according to Munsell color notation and standard USDA soil textural classes. The soil descriptions contained in the field records do not include Munsell colors or, in many cases, soil texture classifications. Many of the soil color descriptions found in the field notes describe colors such as "blue/green," "greenish gray," "orange brown," "orange," or "gray-green" that are not used in standard soil description. The use of standardized soil description information may provide a more systematic body of data for definition of depositional units.

B. TABULATION OF THE LANDFILL/RIVERBOTTOM, YARD, AND MISCELLANEOUS CONTEXTS

Tabulation of the landfill/riverbottom, yard, and miscellaneous contexts has been completed as described in the preceding section. The results of the rough-sort tabulation, summarized according to context categories, are presented in Table 4. As is apparent in the tabular summary, nearly one-half million artifacts and 139 kg of shell were inventoried from the landfill/riverbottom, yard, and miscellaneous contexts. The breakdown of large ceramics is presented in Table 5. Overall, nearly one-fifth of the ceramics were tabulated according to the major ware groups. This information will provide a very general guide to the deposit dates represented in the contexts that will not be subject to additional systematic analysis. The proportion of large ceramics within the total number of ceramics will also provide a measure of the relative integrity of particular contexts, strata, and test cuts.

Aside from simple tabulations, some preliminary remarks may be made concerning particular deposits, based on observations made while the rough-sort tabulations were in progress.

First, at least three major ceramic deposits may be identified. The largest was located in the rear of Lot 9, within the area excavated in Test Cuts J, J2, J3, J4, J5, J6, and J8. More than 40 percent of the ceramics in the entire collection, excluding the features, were recovered from this area. The sherds tabulated by major ware group are dominated by creamwares (65%) and pearlwares (29%), with a minor representation of other contemporary imported wares. Preliminary sorting of the ceramics indicates that it will be possible to reconstruct a large number of vessels. The pearlwares exhibit a wide range of polychrome decorations, as well as maker's marks and decorator's tally marks. A few maker's marks have been identified that suggest that many of the wares were manufactured at the Herculaneum Factory in Liverpool. The deposit is remarkable for the wide range of vessel forms, including: chamber pots; plates; platters; bowls; saucers; salt cellars; tureens with covers; tea canisters; handled and handleless cups; salt, pepper, mustard, oil, and vinegar shakers; and various vessels with plain and fluted body molds. The extraordinarily large number of vessels and the lack of wear suggests that the deposit represents a commercial dump, rather than domestic refuse. The deposit also includes a large amount of glass tableware, which would be expected from a china and glass shop dump.

Another major ceramic deposit was recovered from Test Cuts N, N2, N3, and N4, located in the landfill of Lot 41. Again, this assemblage is dominated by pearlware (52%) and creamware (31%), with minor representation of delftware (2%), other stoneware (4%), etc. At least three Jackfield-type teapots and various engine-turned earthenware vessels are included in the ceramic assemblage. This deposit differs from the other two in that there

TABLE 1

SUMMARY OF ROUGH-SORT TABULATION FOR
LANDFILL/RIVERBOTTOM, YARD AND
MISCELLANEOUS CONTEXTS

CATEGORY	DESCRIPTION	CERAMICS	GLASS	PIPES	OTHER DIAGNOSTICS	NON-DIAGNOSTICS	BONE	MACRO-FLORAL	SHELL (wt in gm)	TOTALS
0	Miscellaneous Contexts	4,292	7,346	219	421	32,082	1,035	405	8,741.7	45,800
1	Landfill Bulk Samples	859	1,947	143	259	1,396	1,481	2,324	6,612.6	8,409
2	Units in Landfill--Lot 9	22,242	10,510	63	776	98,398	617	511	34,092.0	133,117
3	Units in Landfill--Lot 41	11,734	3,832	122	156	173,910	609	206	17,146.0	190,569
4	Backyard Test—Lot 43	132	89	8	3	815	37	3	1,348.5	1,087
5	Units in Landfill--Lot 42	166	332	20	30	811	117	77	1,578.1	1,553
6	Units in Landfill—Lots 8 & 43	536	580	53	131	924	476	190	4,791.0	2,890
7	Backyard Test—Lot 44	65	11	25	0	41	19	7	104.5	168
8	Units within Wharves	1,429	1,653	124	455	1,503	908	1,068	3,633.8	7,140
9	Unit in Test Trench West	286	195	191	110	1,094	456	63	4,488.5	2,395
10	Unit in Test Trench East	4,552	406	65	196	1,871	419	206	10,670.0	7,715
11	Backyard Test—Lot 42	237	570	29	56	4,915	60	26	2,945.6	5,893
12	Backyard Test—Lot 8	699	273	96	56	1,276	240	115	13,951.0	2,755
13	Shovel Test--Lot 43	8	6	1	7	85	5	1	27.9	113
15	Units in Backyard--Lot 7	5,409	2,363	858	708	9,511	8,398	5,489	28,193.0	32,736
21	Late 19th Cent.--Lot 43	13	48	1	2	188	7	19	59.0	278
22	Late 19th Cent.--Lot 9	361	227	13	135	997	7	24	238.6	1,764
23	Shovel Test—Lot 8	6	62	4	60	68	5	0	73.0	205
24	Shovel Tests--Various Lots	210	90	30	92	141	66	97	254.9	726
	TOTALS	53,236	30,540	2,065	3,653	330,026	14,962	10,831	138,949.7	445,313

NOTE: Totals include all artifact classes except shell.

TABLE 2

SUMMARY OF ROUGH-SORT TABULATION FOR
LANDFILL/RIVERBOTTOM,
YARD AND MISCELLANEOUS CONTEXTS--LARGE CERAMICS

CATEGORY	DESCRIPTION	DLFT	PW	CW	WW	IS	YW	WSS	OSW	CE	OEP	OP	OW	UDW	TOTALS
0	Miscellaneous Contexts	50	384	681	9	3	3	28	153	273	73	30	50	6	1743
		3%	22%	39%	1%	0%	0%	2%	9%	16%	4%	2%	3%	0%	
1	Landfill Bulk Samples	6	11	72	0	0	0	5	16	22	5	0	4	0	141
		4%	8%	51%	0%	0%	0%	4%	11%	16%	4%	0%	3%	0%	
2	Units in Landfill—Lot 9	1	926	2,088	0	1	0	13	17	41	58	1	45	12	3203
		0%	29%	65%	0%	0%	0%	0%	1%	1%	2%	0%	1%	0%	
3	Units in Landfill—Lot 41	53	1,326	793	0	0	0	21	101	31	22	2	200	1	2550
		2%	52%	31%	0%	0%	0%	1%	4%	1%	1%	0%	8%	0%	
4	Backyard Test—Lot 43	0	2	4	0	0	0	0	1	4	0	0	2	0	13
		0%	15%	31%	0%	0%	0%	0%	8%	31%	0%	0%	15%	0%	
5	Units in Landfill—Lot 42	2	5	5	0	0	0	2	1	5	1	0	1	0	22
		9%	23%	23%	0%	0%	0%	9%	5%	23%	5%	0%	5%	0%	
6	Units in Landfill—Lots 8 & 43	8	16	9	19	0	3	0	24	19	9	0	2	5	114
		7%	14%	8%	17%	0%	3%	0%	21%	17%	8%	0%	2%	4%	
7	Backyard Test—Lot 44	0	1	1	0	0	0	0	0	1	1	0	0	0	4
		0%	25%	25%	0%	0%	0%	0%	0%	25%	25%	0%	0%	0%	
8	Units within Wharves	2	18	133	0	0	1	3	79	23	7	0	7	2	275
		1%	7%	48%	0%	0%	0%	1%	29%	8%	3%	0%	3%	1%	
9	Unit in Test Trench West	4	0	11	0	0	0	1	4	16	1	0	4	0	41
		10%	0%	27%	0%	0%	0%	2%	10%	39%	2%	0%	10%	0%	
10	Unit in Test Trench East	4	331	202	0	0	0	3	10	10	17	0	31	4	612
		1%	54%	33%	0%	0%	0%	0%	2%	2%	3%	0%	5%	1%	
11	Backyard Test—Lot 42	1	6	5	1	0	0	0	13	2	2	0	2	0	32
		3%	19%	16%	3%	0%	0%	0%	41%	6%	6%	0%	6%	0%	
12	Backyard Test—Lot 8	3	8	11	0	0	0	1	10	11	0	0	4	0	48
		6%	17%	23%	0%	0%	0%	2%	21%	23%	0%	0%	8%	0%	
13	Shovel Test—Lot 43	0	1	0	0	0	0	1	0	0	0	0	0	0	2
		0%	50%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	
15	Units in Backyard--Lot 7	43	227	234	2	0	13	36	80	192	41	4	43	2	917
		5%	25%	26%	0%	0%	1%	4%	9%	21%	4%	0%	5%	0%	
21	Late 19th Cent.--Lot 43	0	0	0	0	0	0	0	2	0	0	0	0	0	2
		0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
22	Late 19th Cent.—Lot 9	1	4	2	1	0	0	0	1	1	2	289	0	0	301
		0%	1%	1%	0%	0%	0%	0%	0%	0%	1%	96%	0%	0%	
23	Shovel Test—Lot 8	1	0	0	0	0	0	0	0	2	0	0	0	0	3
		33%	0%	0%	0%	0%	0%	0%	0%	67%	0%	0%	0%	0%	
24	Shovel Tests—Various Lots	4	4	48	0	0	0	3	15	5	2	0	0	0	81
		5%	5%	59%	0%	0%	0%	4%	19%	6%	2%	0%	0%	0%	
	TOTALS	184	3,274	4,303	32	4	20	118	530	661	242	327	396	32	10,104
	Percent of Total	2%	32%	43%	0%	0%	0%	1%	5%	7%	2%	3%	4%	0%	

ABBREVIATIONS: DLFT—Delftware; PW—Pearlware; CW—Creamware; WW—Whiteware; IS—Ironstone; WSS—White Salt Glazed Stoneware; OSW— Other Stoneware; CE—Coarse Earthenware; OEP—Oriental Export Porcelain; OP—Other Porcelain; OW—Other Wares; UDW—Unidentified Wares.

very few of the ceramics cross-mend. This suggests that the deposit represents a different refuse type than the others. Also recovered from the landfill within Lot 41 was an extremely large deposit of crown glass, from Test Cuts X and X2.

The third ceramic deposit of note was recovered from Lot 43 during the Deep Testing program. This deposit was sampled by Test Cut R and the lower strata of Test Cut G; it was dominated by pearlware (56%) and creamware (33%), with minor representation by other ware groups. This collection includes a number of hand-painted, polychrome pearlware vessels, as well as blue and green shell-edged pearlware.

Another notable deposit within the landfill is represented by Context No. 1238. This context was described as wharf clearing, at the base of the cobb wharf in Lots 6 and 7. The deposit includes Rouen faience, earthenwares from western France, locally manufactured stoneware, whole bottles, a marked pewter plate that exhibits heavy wear, and various buckles and buttons.

C. EVALUATION OF THE FEATURE DEPOSITS

1. Wood Box, Lots 6/44 (Category 18)

Clearing in the rear yard of Lot 6 exposed a wooden box-like structure, that measured ca. 8.3 x 11.3 feet in plan. The north and east walls of the box were formed by horizontally laid planks supported by interior posts, while the west and south walls were formed by the two wharves. Immediately above the box, a section of a brick wall was exposed, oriented north-south. The fill of the box was sampled during the backyard testing program, then fully excavated during mitigation, yielding one of the best preserved deposits from the site.

During the backyard testing program, the interior deposits of the box structure were sampled by Test Cuts AK and AM. Test Cut AK was a 2 x 4.8 foot unit placed in the northeast corner, while Test Cut AM was a 2.2 x 8.3 foot unit along the west wall of the box, formed by the north-south wharf. Both units were excavated approximately four feet into the interior fills, sampling three major stratigraphic units. The uppermost deposit was a shale rubble fill, equivalent to the deposit that covered the remaining rear yard area of Lot 6. Beneath the shale rubble was a deposit of ceramics and organic refuse. The lowermost deposit was a gray sand with very little cultural material. Excavation in Test Cut AK was hindered by flooding, and it was necessary to discontinue excavation before the ceramic deposit overlying the gray sand had been fully excavated.

The shale rubble deposit in Test Cut AM was much more massive than in Test Cut AK, and the ceramic/organic deposit was much more sparse. A small wood barrel, penetrated by a wood post, was exposed in the southern end of this Test Cut AM, and it was

excavated separately as Test Cut AN. The barrel fill was comprised primarily of gray/brown silts and sands, with some darker organic deposits, similar to the deposits found in the surrounding Test Cut AM. Excavation of Test Cut AM was terminated when a gray sand, similar to that found at the base of Test Cut AK, was exposed across the entire unit.

During testing, it was not clear whether or not the deposits excavated from Test Cuts AK and AM represented landfill or ocupational refuse, and additional work was undertaken during mitigation. Test Cut AV was laid out to encompass roughly the eastern third of the box, except the area already excavated as Test Cut AK. The stratigraphy in Test Cut AV was comparable to that in the adjacent Test Cut AK, including a surficial shale rubble deposit overlying a dense cultural deposit that in turn rested on gray sands.

The remainder of the box's interior fill was excavated by Test Cut BA, which occupied roughly the middle third of the box. To the west of Test Cut BA, the ceramic/organic deposit was relatively sparse in Test Cut AM, while it was quite dense in the eastern third of the box, as shown by Test Cuts AK and AV. To facilitate excavation, the surficial shale rubble deposit was removed from Test Cut BA without screening. The ceramic/organic deposit was most dense in the northern third of the unit, where it occurred in a context of black organic soils. Excavation proceeded until the gray sand was exposed across the entire floor of the unit, and Test Cut AM was integrated with BA in an attempt to fully expose the lowermost structural elements of the box.

After completion of Test Cut BA, the bottom of the lowermost plank on the north wall was within 0.3 foot of the floor of the unit. The lowermost plank along the east wall had been fully exposed by Test Cuts AV and AK. Along the north wall, the plank walls extended from approximately -2.8 to -6.5 feet msl. The interior support posts along the north and east walls extended above the uppermost intact planking, so that it was apparent that the box had been truncated by later construction. No floor to the box structure was encountered.

After testing of Feature 18, it was uncertain whether the box and its fills were associated with occupation or landfill, so the mitigation proposal outlined two approaches: if the fills were occupational, they would be excavated stratigraphically; if the fills were determined to be landfill, only a bulk sample of the fills was to be excavated.

Two bulk samples, Test Cut CC and Test Cut CM were excavated inside and around the box after the fills had been completely excavated stratigraphically. Test Cut CC, a 100-gallon sample, was taken within the box, after the overlying deposits were excavated. Test Cut CM, a 50-gallon sample, appears to have been

taken after removal of the box structure, as its provenience is described as "inside and around box." These samples have been included with the landfill, and subjected only to rough-sort tabulation. The ceramics tabulated from these contexts include creamware, pearlware, white salt-glazed stoneware, other stoneware, Oriental export porcelain, and coarse eathernware, suggesting that the box was constructed sometime after 1780.

Based on the excavation records, a total of 11 provisional depositional units have been defined for the various fills excavated from the box:

Depositional Unit	Description/Interpretation
6F11	Overburden
6F12	Gray/pink shale
6F13	Wood chips and organics
6F14	Black clay and mortar
6F15	Gray sand/organic interface
6F16	Dark brown silty sand
6F17	Gray sands
6F18	Red sands
6F19	Reddish brown silty sands
6F20	Test Cut AN--barrel and fills
6F21	Miscellaneous

A summary of the dating analyses for the feature fills is presented in Table 6. The MCDs are all tightly clustered within the period 1795-1800, and all of the provisional depositional units have ceramic TPQs that place the deposit in the first decades of the nineteenth century. A much later TPQ for the overburden deposit (6F11) is based on the presence of amethyst glass. The depositional units cannot be strictly interpreted as stratigraphic sequence, since contexts associated with various depositional units are intermingled. Cross-mend analysis will be necessary to characterize the depositional sequence of the fills.

Pattern analysis for the entire feature indicates that the deposit contains a wide variety of items, and it appears to be dominated by household refuse. The representation of major artifact groups within the deposit is as follows:

TABLE 3

DATING OF DEPOSITS, LOT 6 BOX

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
6F11--overburden	1798.4 (220)	1820	1880
6F12--gray/pink shale	1799.3 (61)	1820	-
6F13--wood/organics	1799.4 (5825)	1810	1780
6F14--black clay/mortar	1797.0 (212)	1800	1760
6F15--gray sand/organic	1795.1 (184)	1795	1780
6F16--dk. brn. silty sand	1797.3 (260)	1800	1780
6F17--gray sands	1795.9 (869)	1810	1760
6F18--red sands	1796.0 (239)	1802	1780
6F19--red brn. silty sands	1799.0 (118)	1800	1780
6F20--TCAN barrel	1797.4 (114)	1800	1800
6F21--misc.	1798.0 (120)	1800	1780

GROUP	COUNT	PERCENTAGE
Kitchen	16,731	70.7
Architecture	4,360	18.4
Furnishings	25	0.1
Arms	37	0.2
Clothing	810	3.4
Personal	631	2.6
Pipes	323	1.4
Activities	734	3.1
TOTALS	23,646	99.9

The major refuse deposits are associated with Depositional Unit 6F13; this unit accounts for roughly three-fifths of the total amount of material. Depositional Unit 6F17 accounts for roughly one-fifth of the feature's refuse. The dominance of the Kitchen and Architecture Groups is not uncommon, and the extraordinarily large representation of the Kitchen Group is suggestive of a domestic deposit. The Clothing, Personal, and Activities Groups form an unusually large proportion of the feature assemblage, as the collection includes large numbers of shoe parts, clothing fasteners, pharmaceutical items, hygiene-related items, sewing items, and non-food related ceramics.

The feature fills are quite rich in organic materials as well, as a total of 26,332 bone elements, 11.291 kg of macrofloral material, and 16.327 kg of shell were recovered during excavation. The high organic content of the deposit also suggests that the deposit represents domestic refuse. Faunal material includes large mammal, bird, and rodent species, and many of the large mammal elements exhibit butchering marks. The floral material includes cherries, apricots, peanuts, coconut, black walnut, almond, pecan, and melon. There are also eggshell and various molluscs, including oyster, clam, mussel, scallop, etc.

The ceramics from the feature include a large sample of pearlwares, creamwares, and Oriental export porcelain. The pearlware tablewares are primarily shell edged and exhibit heavy wear. The Oriental export porcelains include a pseudoarmorial set with a "CVB" monogram, thereby establishing an association with Courtlandt VanBeuren, whose family businesses occupied the lot from 1801 to 1830. Without cross-mending, it appears that there are tableware and teaware forms represented in the porcelains. There is also a large amount of redware in the ceramic assemblage, primarily food preparation, food storage, and sanitary wares.

The ceramic sherd size indices indicate that the deposit is relatively intact. Nearly one-third of the ceramics were larger than two inches in maximum length, a slightly higher proportion than the overall site collection. Sherd size indices for the various depositional units are as follows:

Depositional Unit	Size Index	Sample Size
6F11	0.48	319
6F12	0.55	110
6F13	0.34	7,404
6F14	0.58	228
6F15	0.32	237
6F16	0.26	335
6F17	0.17	1,070
6F18	0.21	280
6F19	0.16	166
6F20	0.13	158
6F21	0.28	162

The curved glass assemblage includes a variety of tablewares, wine/liquor bottles, and pharmaceutical vessels. The tablewares consist primarily of stemwares and tumblers. The stemwares include a large number, possibly representing a set, of bridge fluted drinking forms exhibiting at least two different cut and engraved decorations, several hexagonally faceted forms in a diamond pattern, and several plain drawn stemmed forms. There are also a number of undatable stemware forms.

There are a variety of tumbler forms, the most prominent being the cut, panelled forms; they appear to be of different sizes, and some are plain while others exhibit at least two elaborately cut and engraved decorations. There are also panelled and engraved and simple engraved forms as well as at least one enameled form in the Stiegel tradition; it is uncertain whether these are genuine Stiegel (American) tumblers dating from 1769 to 1774, or of European origin.

The wine/liquor bottles generally seem to fall in the 1780 to 1820 date range, although there are a number of undatable forms that seem, by their overall shape and finish, to date somewhat earlier, from 1770 to 1800. There are also a number of case bottles in the assemblage. Food bottles include flacons for storage and a number of mustard forms with a "London" embossment that dates after 1800. The pharmaceutical forms primarily include vials in a variety of shapes and sizes. Patent/proprietary medicines include small, square-sided "ESSENCE OF PEPERMINT" (sic), which have a date range from 1750 to 1880.

The historical association of the deposit with the Cortland Van Beuren household is readily apparent, not only from the dating of the deposits, but also by the recovery of "CVB" monogrammed porcelain. These sherds were recovered from a number of contexts throughout the deposit (883, 884, 1021, 1028, 1042, and 1043), which fall within Depositional Units 6F11, 6F13, and 6F14. The historical research has demonstrated that the VanBeuren household occupied Lot 6 from ca. 1801 to 1830, and there are no materials in the feature fill, with the exception of the overburden deposit, that date later than 1820. The deposits contain a wide variety of items, and the feature fill exhibits good

integrity, as measured by the ceramic size index. Ceramics, tablewares, and dietary refuse are well represented, so that the deposits are suitable for intensive analysis and interpretation of household consumer behavior.

2. Stone-lined Privy, Lot 6 (Category 27)

Removal of a deposit of crushed shale and schist in the rear yard area of Lot 6 revealed a rectangular stone structure, later determined to be a privy. This feature fill and the immediately adjacent deposits were examined by the excavation of Test Cut AC, a 2 x 10 foot unit oriented north-south. Excavation of Test Cut AC showed that the shale deposit continued inside the privy shaft as well as in the adjacent areas of the test cut. Immediately beneath the shale deposit, a layer of concrete and brick was exposed within the feature, and excavation was temporarily postponed. Test Cut AE was then placed across the unexcavated portion of the privy structure, to determine if the concrete and brick stratum had sealed the entire shaft. This unit determined that the concrete and brick stratum had sealed the entire privy, so that it was necessary to use a jackhammer to continue excavation within the privy. After removal of the concrete and brick, two Test Cuts, AC and AE, were terminated and a single unit, Test Cut AJ, was employed for provenience, rather than continuing with two separate units. The eastern half of Test Cut AJ was excavated during the testing program, and the remainder was excavated during mitigation.

In plan, the privy was rectangular in form, with maximum interior dimensions of approximately 4 x 5 feet. Within the privy shaft, the uppermost deposits consisted of shale rubble and a compact rubble or concrete, as described in the field records, that could be penetrated only with a jackhammer. Organic soils were located beneath the concrete rubble, and these in turn rested on gray sands. The lowermost deposits excavated, the gray sands, may represent underlying landfill deposits, as excavation extended well below the lower extent of the privy shaft. It is possible that a cleaning of the privy, prior to its most recent use, may have also extended below the shaft, so that some of the lower gray sands might represent refuse deposited in the privy.

Beneath the organic soils, two timber piles were exposed in the privy shaft. These features may represent the earliest construction episode on Lot 6, and their stratigraphic position certainly places them earlier than the filling of the privy. The stratigraphic relationship between the piles and the privy shaft is not clear, and it can be stated with certainty only that both features occurred after the landfill was deposited. It is likely that the piles represent either the remains of a building foundation or waterfront structure, and the former interpretation is most plausible. The top elevation of the piles was approximately four feet below mean sea level, a depth which is comparable to many of the timber piles recorded in other areas of the site. If the piles represent a waterfront structure, one

might assume that they extended above sea level when they were installed. Assuming that the two piles represent a building foundation rather than a waterfront structure, then two scenarios are possible. Either the privy was constructed after removal of a building or the privy was abandoned and filled prior to construction of a building on the rear of Lot 6. Given the overall trend toward more intensive land use, it seems more probable that a building was extended over the open yard space occupied by the privy. If one accepts this scenario, it is implied that all of the privy fills, including the organic soils, would have been disturbed to some degree by installation of the foundation system.

On the basis of the field records, five provisional depositional units may be defined for the contexts excavated in association with the privy:

Depositional Unit	Description/Interpretation
6F1	Underlying sands/landfill
6F2	Organic privy deposits
6F3	Overlying shale rubble
6F4	Privy construction
6F5	Adjacent yard deposits

Overall, the excavated assemblage is relatively small, comprising less than 1,700 quantified artifacts, although the deposits include a wide variety of items (ceramics, bottle glass, pipes, clothing, etc.) and organic refuse (bone, shell, and macrofloral items) that are suggestive of a domestic deposit.

Depositional Unit 6F2 is the major unit within the feature, comprising more than 70% of the excavated assemblage. These contexts is dominated by Kitchen Group artifacts (50%), but also include a variety of items representative of the Architecture, Arms, Clothing, Personal, Tobacco Pipes and Activitites Groups. Organic material recovered from the deposit includes 144 bone elements, 411 gm of shell and 325 gm of macrofloral material. The pattern analysis for this unit is most notable for its high representation of the Arms Group (23%), produced by the recovery of numerous lead shot from context 598.

Depositional Unit 6F1 includes the lower strata of Test Cut AJ, the sands below the privy shaft, and the organic deposit (6F2). The materials recovered from this unit, while lower in overall frequency, are quite comparable to those of the overlying organic deposit, in terms of artifact group percentages.

The shale rubble and concrete are included in Depositional Unit 6F3. Very little material was recovered from these contexts, only a few ceramic and bottle glass sherds, bone, macrofloral, building materials, and heating by-products.

Construction of the privy (Depositional Unit 6F4) is represented by the stone privy wall itself, as well as the soil excavated

between the stones while the shaft was dismantled (Context 1035). The amount of material recovered from this context seems surprisingly large and, in terms of major artifact group representation, the assemblage is quite comparable to the organic fill (6F2) and landfills (6F1).

Three contexts excavated with Test Cut AC represent the yard deposits immediately adjacent to the privy shaft (Depositional Unit 6F5). Relatively little material was recovered from these contexts, and they are of little interest since they are outside the privy shaft.

Dating of the depositional units, indicated in Table 7, is somewhat anomalous, as the underlying landfill deposit (6F1) apparently dates later, based on the Mean Ceramic Date, than the organic refuse within the privy shaft (6F2). However, it is possible that after the privy was constructed, a cleaning episode may have extended the depth of the shaft below the level of the lowermost masonry course, so that some of the deposits assigned to the landfill may represent later refuse deposits.

Still more anomalous is that the dating for construction of the privy shaft (6F4) is later than the fills within the privy. Based on the recovery of transfer-printed whiteware in Context 1035, a post-1825 construction date may be established for the privy shaft. A post-1825 construction date for the privy also implies that the privy fills, including the organic refuse deposit (6F2), were also deposited after 1825. The recovery of 19 wine bottles that post-date 1821 from contexts 598, 801, and 848 confirms that the organic refuse could not have been deposited before the third decade of the nineteenth century.

As discussed above, the organic privy fill (6F2) might have been disturbed by installation of timber piles. The relatively low integrity of the deposits, as indicated by the ceramic size index, may be a result of that construction episode. The sherd size indices for the various deposits are given below:

Depositional Unit	Size Index	Sample Size
6F1	0.17	81
6F2	0.23	221
6F3	0.0	4
6F4	0.04	67
6F5	0.0	11

Depositional Unit 6F2, the organic refuse deposit, potentially has some value for additional analysis and interpretation. This deposit may be assignable to the VanBeuren & DeForest Merchants' occupation, which ended circa 1830; however it is difficult to confidently assign the deposit to the five-year interval between 1825 and 1830. In the early 1830s, the lot was occupied by a succession of merchants, but from ca. 1837 to 1850, the Lot 6 occupation seems to have been relatively stable (see Table 2).

TABLE 4

DATING OF DEPOSITS, LOT 6 PRIVY

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
6F1--landfill	1803.0 (66)	1810	1760
6F2--organic refuse	1799.9 (181)	1800	1821
6F3--shale rubble	1797.3 (3)	1780	-
6F4--construction	1788.3 (50)	1825	-
6F5--adjacent yard	1794.3 (10)	1790	-

Given the uncertainty of the historical association and the low integrity of the deposits, intensive analysis would not be appropriate for this deposit.

3. Stone-lined Privy, Lot 7 (Category 19)

Shovel clearing in the yard area exposed square flagstone pavement in the northern portion of the rear yard, whereupon Test Cut U, a 2 x 5 foot unit, was placed along the northern lot line, covering the western portion of the flagstone pavement. Test Cut T, a 2 x 12 foot trench, was placed along the rear lot line extending to approximately one foot south of the pavement.

A portion of a circular stone wall, later determined to be a privy, was exposed beneath the pavement in Test Cut U. Test Cut V, a 3.5 x 5 foot unit, was laid out immediately to the west of Test Cut U, in order to excavate the remainder of the flagstone pavement and to test for a builder's trench associated with the privy shaft. A portion of the privy was also sampled in the northern end of Test Cut T, and as testing proceeded in Test Cuts T and U, an assemblage of domestic artifacts in an organic matrix was recovered, thereby indicating that the feature had been used as a privy.

After the identity of the privy had been established, another unit, Test Cut U2, was placed to the east of Test Cut U, to determine the horizontal extent of the feature. Test Cut U2 was excavated to the same depth as Test Cut U, but flooding temporarily prevented excavation from proceeding to the bottom of the privy shaft. When excavation was resumed, the northern section of the privy, comprised of Test Cuts U and U2, was excavated at Test Cut U3. The remainder of the privy fill, i.e., the southern section that had not been sampled by Test Cut T, was excavated during mitigation. First, the southeast quadrant was removed as Test Cut U4, then the small area remaining in the southwest quadrant was removed as Test Cut U5. Finally, the entire floor area was taken down a single level as Test Cut U6.

The privy had been somewhat disturbed by construction of a stone foundation wall, which was thought to be the foundation of an outbuilding. In plan, the privy was oval in shape, with maximum interior dimensions of approximately 5.0 x 7.5 feet. The privy shaft extended to a maximum depth of approximately 3 feet, although the field notes indicate that it was difficult to distinguish rubble fill from the actual privy wall. Reconstruction of the stratigraphy within the privy is difficult, because it was excavated in several sections. The field notes indicate that many of the excavated contexts contained large amounts of rock and brick rubble, and that there had been at least one later foundation wall that had intruded into the privy shaft. Some apparently isolated deposits of organic material were noted during excavation, and it is possible that these represent occupational deposits within a fecal matrix. Nonetheless, it appears that these possible occupational refuse deposits were

disturbed by later construction and deposition of rubble fills. While the field notes are somewhat sketchy, it does appear that excavation advanced below the lower extent of the privy shaft, into the underlying landfill deposits. Three provisional depositional units may be defined for the privy feature on Lot 7:

Depositional Unit	Description/Interpretation
7F1	Underlying landfill soils
7F2	Construction of the privy shaft
7F3	Mixed privy fills
7F9	Profile cleaning, TCU4

Two contexts, 693 and 978, are tentatively classified as landfill soils (7F1) that predate the construction and use of the privy, while construction of the privy shaft (7F2) is represented by the soils excavated from the privy walls (context 1081), while the shaft was dismantled. While both units have an identical TPQ date, comparison of the mean ceramic dates for these units (Table 8) suggests that attribution of contexts 693 and 978 to landfill is erroneous. Construction of the privy could not have occurred prior to landfilling, so that it is necessary to conclude that the contexts assigned to 7F1 represent occupational refuse.

Using the field records, it was not possible to distinguish separate deposits within the privy fills, so that the majority of the fills have been lumped into Depositional Unit 7F3. Since the feature fill was excavated within six separate test cuts, reconstruction of the stratigraphy (Figure 2) is quite complex. While the vertical relationships within test cuts are relatively clear, the stratigraphic relationship between contexts in different test cuts is, more often than not, uncertain. The profile cleaning of Test Cut U4 (context 748) was given a separate depositional unit, as it was not possible to assign these materials to any particular excavation stratum or level.

While the close correspondence in the Mean Ceramic Dates of Units 7F1 and 7F3 suggests either a single depositional event or severe post-depositional disturbance, the TPQs obtained from the ceramics and other artifacts suggest that it may be possible to distinguish some temporal differences within the privy fill (Depositional Unit 7F3). In the lowermost excavation contexts, whitewares provide a post-1820 deposition date, as there is no diagnostic glass with a beginning manufacturing date later than 1780. The MCDs for contexts in the upper portion of the privy are somewhat later than those in the lower contexts, and there are a number of tumblers and bottles that date to 1850 or later, thereby indicating that the upper fills were deposited or disturbed during the late nineteenth century.

In terms of overall artifact frequency, the Lot 7 privy deposit represents an assemblage of moderate size. The distribution of artifacts according to major artifact groups is given below:

TABLE 5

DATING OF DEPOSITS, LOT 7 PRIVY

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
7F1--landfill	1798.8 (41)	1795	1780
7F2--privy construction	1778.2 (76)	1795	1685
7F3--privy fills	1795.5 (625)	1825	1857
7F9--misc. cleanup	1823.1 (4)	1820	-

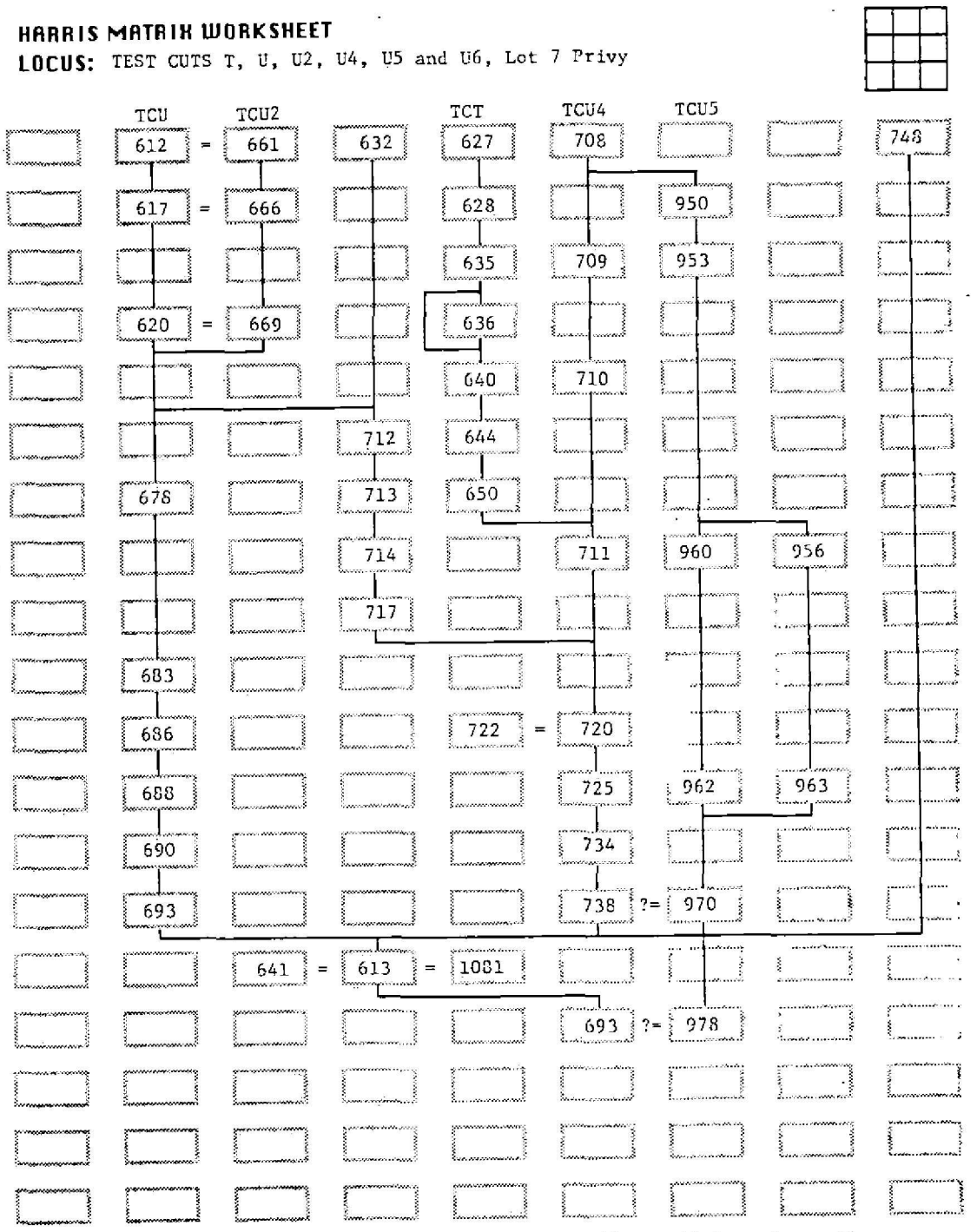

FIGURE 2: Harris Matrix, Lot 7 Privy

GROUP	COUNT	PERCENTAGE
Kitchen	1,892	37.2
Architecture	2,794	54.9
Furnishings	1	0.02
Arms	1	0.02
Clothing	43	0.8
Personal	68	1.3
Pipes	215	4.2
Activities	78	1.5
TOTALS	5,092	99.9

Domination of the Architecture Group is attributable to a large amount of rubble (wood, brick, rock, etc.) in the assemblage, and this accounts for more than one-third of the total assemblage. The kitchen group is dominated by ceramics, including various creamwares, pearlwares, redwares, Oriental export porcelain, white salt-glazed stonewares, utilitarian stonewares, delfwares, whitewares, etc. Overall, roughly one-quarter of the ceramic sherds are larger than two inches in maximum length, a slightly lower proportion than that of the aggregate feature assemblages. The size index, broken down according to the provisional depositional units, is as follows:

Depositional Unit	Size Index	Sample Size
7F1	0.11	45
7F2	0.12	104
7F3	0.26	949
7F9	0.5	4

The curved glass from the Lot 7 privy contains fewer than 700 total sherds, and the assemblage is overall quite fragmentary. Vessel forms represented in the assemblage include paneled tumblers, wine/liquor bottles, pharmaceutical bottles, and various stemware forms. The date ranges represented by the diagnostic glass are generally indicative of a mid- to late nineteenth-century deposition for the privy fills, but there are a few late eighteenth- and early nineteenth-century forms as well.

The Furniture, Arms, and Clothing Groups are only minimally represented in the assemblage, and the latter group comprises exclusively fasteners and shoes. The Personal Group principally includes ceramic and glass items related to personal hygiene and medicines. The Activities Group includes sewing and household-related items.

Dietary refuse in the deposit includes a total of 1,907 bone elements, 11.183 kg of macrofloral material, and 1.018 kg of shell.

It is difficult to link the privy fills with a particular household, given the dates derived from the preliminary analysis.

Interpretation of the stratigraphy within the privy fill cannot be reliably accomplished without ceramic cross-mending. While there is some evidence that the assemblage contains refuse deposited from the early to the late nineteenth century, the later materials may have been introduced during a late nineteenth-century construction episode. While these uncertainties might be resolved by more intensive analysis, it is also possible that additional analysis might result in a determination that the privy fills are not suitable for addressing the project's research design. Therefore, additional analysis is not recommended for this feature.

4. Wood Box, Lot 7 (Category 28)

The wooden box-like structure in the rear of Lot 7 was first exposed in Test Cut T, a 2 x 12 foot trench which was opened during the backyard testing program. Two upright planks (Context 647) were exposed at the middle of Test Cut T, and, as excavation proceeded, another set of planks (Context 673) were exposed, approximately 4.5 feet south of the first, at the end of Test Cut T. The two sets of planks appeared to define the northern and southern walls of a structure, and as a result, an additional unit, Test Cut T2, was placed to the west of Test Cut T in an attempt to determine the extent and function of the structure represented by the planks exposed in Test Cut T. During testing, limited excavation was carried out in Test Cuts T and T2, but the rear yard area of Lot 7 was extensively excavated during mitigation.

During mitigation, excavation of Test Cuts T and T2 was continued, and five additional units (Test Cuts T3, T4, T5, T6, and AS) were placed in the rear yard area south of the privy. Ultimately, a box-like structure, enclosed on three sides, was exposed in the area immediately south of Test Cut T. The northern wall of this structure was formed by the planks at the southern end of Test Cut T (Context 673), while the southern wall was formed by planks that extended from the cobb wharf. Excavation in this area was complicated by the presence of plank footer complexes and foundation walls that were removed only after excavation had proceeded well into the refuse deposits enclosed within the box. Since the more recent architectural remains were not removed at the outset of data recovery, the deposits within the box, enclosed in an area measuring approximately 4.5 x 6 feet, were excavated in several small sections and baulks. As a result, reconstruction of the stratigraphy for this deposit is extremely difficult, and the field records contain inconsistent and contradictory information.

The northern wall of the box, assigned Context Number 673, was exposed in Test Cut T2, but at a lower depth, as it had apparently been truncated by later construction. After the top of the plank wall was exposed in Test Cut T2, the unit was excavated in sections defined by the plank wall. Test Cut T5 was placed to the south of Test Cut T. After the east wall of the box was

exposed, the spread footers and foundation beams surrounding this unit were removed and the unit was expanded, but excavated in sections defined by the north-south plank wall. Test Cut AS, placed to the south of T2 and west of T5, exposed the southern wall of the plank box. The southern wall extended east from the wharf, beyond the north-south wall exposed in Test Cut T5, for a distance of nearly ten feet.

Functional interpretation of the box structure is uncertain, as it had been damaged somewhat by construction of building foundations in the rear yard of Lot 7. If the structure were built as a cofferdam, one would expect that it would have formed a complete enclosure, rather than having one side open. Remains of other plank structures were found in the rear of Lot 7, and there is some possibility that these features may represent bulkheads or cribbing used as the lot area west of the wharf was filled.

Four provisional depositional units may be defined for the deposits enclosed by the Lot 7 box:

Depositional Unit	Description/Interpretation
7F10	Basal gray sands--landfill
7F11	Organic soils
7F12	Brown sands with mortar and rubble
7F13	Light brown/yellow sands
7F14	Overburden/spread footers

The lowermost deposit (7F10), the basal gray sands, appears to represent riverbottom or landfill deposits, based on their soils' characteristics. Depositional Unit 7F11 includes the contexts immediately above the basal gray sands, and this unit accounts for nearly nine-tenths of the total feature fill. The upper three units (7F12, 7F13, and 7F14) represent deposits that appear to have been disturbed by more recent construction episodes.

While dominated by Kitchen and Architecture Group artifacts, the assemblage contains appreciable representations of Clothing, Personal, and Activities Group items as well. The abundance of shoes and clothing fasteners and pharmaceutical, hygiene-related, and sewing items in the Lot 7 box suggests similarities with the Lot 6 box, and it appears that the major difference between the two deposits is related to the large amount of window glass in the Lot 7 deposit.

GROUP	COUNT	PERCENTAGE
Kitchen	4,804	46.2
Architecture	4,744	45.6
Furnishings	17	0.2
Arms	11	0.1
Clothing	242	2.3
Personal	287	2.8
Pipes	117	1.1
Activities	184	1.8
TOTALS	10,406	100.1

Dietary refuse is quite well represented and, in fact, constitutes the bulk of the material recovered from the feature. A total of 15,056 bone elements, 2.429 kg of macrofloral material, and 6.345 kg of shell were recovered from the deposit. Dietary material in the feature fill includes a large amount of butchered mammalian species, fish bone, mollusc (oyster, clam, crab), and a variety of floral remains, including black walnut, peach pits, cherry and melon seeds, peanut shell, and coffee beans.

The ceramic assemblage is dominated by pearlwares and creamwares, but also includes stonewares, redwares, Oriental export porcelain, delft, etc. The ceramic assemblage from the Lot 7 box contains at least one sherd of the pseudoarmorial porcelain recovered from the box on Lot 6. Some of the sherds recovered from the Lot 6 box contained a "CVB" monogram, thereby establishing a firm association with the VanBeuren household that occupied that lot. While no sherds exhibiting the "CVB" monogram have been identified in the Lot 7 box assemblage, the pseudoarmorial pattern does suggest that the Lot 7 box contains refuse from the VanBeuren household. The ceramic dates for both features are quite comparable, as both exhibit a clustering of dates in the last decade of the eighteenth century. A summary of the deposit dates for the Lot 7 box is presented in Table 9.

Using the ceramic sherd size index, the fills recovered from the Lot 7 box exhibit the highest integrity of any of the excavated features. Nearly 40 percent of the ceramics from this feature were larger than two inches in maximum length. The size indices for the various depositional units are as follows:

Depositional Unit	Size Index	Sample Size
7F10	0.40	110
7F11	0.42	2,432
7F12	0.25	503
7F13	1.00	2
7F14	0.09	11

The curved glass assemblage also exhibits similarity to the Lot 6 box, by the presence of similar tableware forms. While there is a similarity in forms, the material from the Lot 7 box was, however, more fragmentary. The Lot 7 box contains, for example,

TABLE 6

DATING OF DEPOSITS, LOT 7 BOX

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
7F10--basal sands/landfill	1797.3 (102)	1800	1780
7F11--organic soils	1796.2 (2,045)	1810	1800
7F12--brn. sand/mortar/rubble	1796.2 (415)	1810	1750
7F13--lt. brn./yellow sands	1791.1 (2)	1762	-
7F14--overburden/sp.footers	1801.3 (8)	1800	1780

the bridge fluted, hexagonally faceted and plain drawn stemware, Stiegel type tumblers, "London" mustard bottles, and wine/liquor bottles dating from 1780 to 1820. Additional vessel forms represented in the Lot 7 box include a diamond patterned salt cellar, an unidentifed tableware with a gilded decoration, a milkglass finial to an unidentified tableware, and a wine bottle dating to 1670-1700.

Archaeologically, this feature stands out by virtue of its integrity, the variety of household items in the assemblage, and the excellent representation of dietary refuse. Without cross-mending, it is impossible to determine whether the deposit represents a gradual deposition or one or more major disposal episodes; however, the variety of artifacts and the large amount of dietary refuse would suggest a gradual deposition. Lacking cross-mend analysis, however, the deposit can be discussed only in terms of the provisionally defined depositional units.

Deposition of the fills after 1810 is clear from the ceramic TPQs. During the period 1811-1816, the lot was occupied by G. Sickles, a boot/shoemaker. The McCormick household occupied Lot 7 from 1817 to 1827, however, the lot was characterized by mixed use and multiple occupations during this period. During the period 1828-1832, the lot was occupied by W. Chamberlain, and the lot was vacant in 1833-1834. Given the dates from the feature fill, deposition during McCormick's or Chamberlain's occupation is most likely. Neither of these associations is particlarly sound, however, particularly in light of the recovery of the pseudoarmorial porcelain that indicates an association with the occupant of the adjacent Lot 6. Indeed, the dating of the deposits from the Lot 7 box would be consistent with the interpretation that the deposits are associated with the VanBeuren household. If the VanBeuren household occupied a double lot (corresponding to Lots 6 and 7), this could explain the presence of that household's refuse on both lots. It is known that a double lot existed along Front Street, but the results of intensive historical research indicate that the double lot corresponded to Lots 7 and 8. The question of double lots aside, it is not difficult to accept an interpretation that a particular household's refuse was discarded on an adjacent lot. Because of the ambiguous situation regarding historical household association, intensive analysis of the deposit is not recommended.

5. Stone-lined Privy, Lot 8 (Category 20)

The stone-lined privy on Lot 8 was identified during the backyard testing program, after removal of the modern pavement and demolition rubble deposits. The privy was first exposed in the northern end of Test Cut M, a narrow trench that extended from the Lot 8 yard area across the center of the privy shaft. Test Cut M was excavated partially into the privy fills, then the entire western section of the privy was excavated as Test Cut W. During mitigation, the remaining fills in the eastern half of the privy were excavated as an extension of Test Cut W. In plan, the

privy shaft was oval, with maximum interior dimensions of approximately 6 x 7 feet. The privy walls were made of dry-laid stone, and the surviving portion of the shaft appears to have measured less than 2 feet in depth. The uppermost fill deposits contained a large amount of rubble, and a timber pile related to a later building foundation had penetrated the privy fills.

Four provisional depositional units may be defined for this feature:

Depositional Unit	Description/Interpretation
8F5	Construction of the privy shaft
8F6	Lower privy fills--possible landfill
8F7	Upper privy fills
8F9	Overburden

The overall dating of the four depositional units, as indicated in Table 10, exhibits a somewhat disordered temporal sequence. Contexts associated with the actual construction of the privy (8F5) include the wall stones themselves as well as soil excavated between the stones as the shaft was dismantled. Relatively little material was recovered from this context, and the post-1762 construction date indicated by the recovery of creamware sherds is not useful, given the historically documented dates for the block's landfilling.

The lower privy deposit, 8F6, includes five contexts comprised primarily of gray to black sands. While the field records do not indicate this explicitly, it appears from the profiles and depth measurements that these contexts may represent landfill deposits beneath, and therefore earlier than, construction and use of the privy. The dating of the lower deposits does not support this interpretation, however, as ceramic TPQs from each of these five contexts place the date after 1820. The most recent TPQ (1840) for the lower privy fills is provided by an ironstone sherd recovered from the second lowest stratum. It must be concluded then that the lower fill (8F6) cannot represent "primary" landfill material exclusively, but it may contain a mixture of occupational refuse and landfill.

The upper privy fill deposits (8F7) were characterized by the presence of large amounts of rubble, and they appear to have been disturbed by construction that occurred after the privy was abandoned. Installation of the intrusive timber pile occurred during the period represented by this depositional unit. Deposition of the upper privy fill no earlier than the third decade of the nineteenth century is firmly established by the presence of shell-edged pearlware, sponged pearlware, various whitewares, yellowware, and a number of wine/liquor bottle sherds that post-date 1820/1821.

The overburden deposits (8F9) clearly post-date the privy fills, based on the mean ceramic date, and this later date is attributable to the much greater representation of whitewares.

TABLE 7

DATING OF DEPOSITS, LOT 8 PRIVY

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
8F5--shaft construction	1774.5 (7)	1762	-
8F6--lower fills (landfill?)	1790.4 (348)	1840	1745
8F7--upper fills	1821.8 (207)	1827	1821
8F7--overburden	1842.9 (84)	1835	-

A broad variety of ceramic wares were recovered from the privy fills, including creamware, pearlware, whiteware, ironstone, various coarse earthenwares, delftware, yellowware, various stonewares (white salt-glazed, brown-bodied, gray-bodied, non-salt-glazed, Rhenish, Westerwald, etc.), Oriental export porcelain, and hard-bodied porcelain. Overall, the ceramic assemblage associated with this feature is quite fragmentary, as only 15 percent of the sherds were larger than two inches in maximum length. Ceramic sherd size indices for each of the depositional units are below:

Depositional Unit	Size Index	Sample Size
8F5	0.25	8
8F6	0.07	398
8F7	0.23	271
8F9	0.25	101

The lower privy fill (8F6) is the most fragmentary, which is somewhat unexpected since the field records indicate that the upper fill (8F7) was dominated by rubble. A construction episode after abandonment of the privy, represented by the intrusive timber pile, may account for some disturbance to the lower fill, and it is tempting to speculate that the upper fill represents material that was removed from the privy when the pile was installed, then immediately redeposited with rubble. Since no ceramic cross-mending has been undertaken, there is no data to confirm or deny this speculation.

The curved glass assemblage from the Lot 8 privy is also quite fragmentary and contains few datable items. The greatest concentration of datable material was recovered from Context 1133 (Depositional Unit 8F7) which contained a few sherds datable to 1780-1820 and post-1820/21. Vessel forms represented were predominantly wine/liquor bottles and unidentified bottles. Fragments of a carboy/demijohn/bulk bottle forms, an olive oil bottle, and a vial were noted. The earliest date is exhibited by a wine/liquor bottle with a finish dating to 1745-1765, which was recovered from Context 505, within the lower fill deposit.

The contexts associated with this feature contain an unusually high representation of Kitchen Group artifacts (73%). Curiously, the overburden deposit (8F9) exhibits the highest Kitchen Group representation. The Clothing, Personal, Tobacco Pipes, and Activities are also well represented, and there is a fair representation of organic material, including 236 bone elements, 471 gm of macrofloral, and 3.931 kg of shell.

There were two relatively stable occupations on Lot 8 during the early nineteenth century: Thomas Delves (1802-1808) and Condit/Richards and Scott (1828-1843). After 1843, the lot occupation was more complex (see Table 2), and assignment of the deposits to a single occupant is difficult, if not impossible. Assignment of the privy fills to Delves is clearly out of the

question, since deposition did not occur before the 1820s. The 1840 TPQ for the lower fill is based on a single ironstone sherd, and this might be explained by installation of the timber pile. Otherwise, a post-1820 deposition for the lower fill is firmly established by a variety of ceramic types.

While one might suggest an association of the privy fills with the Condit & Scott occupation, the data will not firmly support such an argument. The uncertain historical association, together with the small size and low integrity of the deposits, indicate that the deposits have limited value for interpretation of household consumer behavior.

6. Burnt Warehouse Floor, Lot 8 (Category 25)

During the deep testing phase, the cellar floor and rear wall of a structure were exposed in Test Trench West. Burnt deposits on the floor of the structure suggested that it was a building that had burned during the 1835 fire. Rather than delay the excavation of Test Trench West, two units (Test Cuts K and P) were placed outside the trench to examine the deposits associated with the burnt warehouse. Test Cut K, a 3 x 3 foot unit, revealed a sequence of building demolition rubble directly overlying a massive wooden beam and plank floor. Test Cut P, a 2 x 5 foot unit, was placed three feet to the south of Test Cut K. Beneath the modern demolition rubble and directly above the plank floor was a thin stratum of reddish brown sand with charcoal that appeared to represent material in the warehouse at the time of the fire. Two depositional units have been defined for the deposits excavated in Test Cuts K and P:

Depositional Unit	Description/Interpretation
8F1	Rubble and overlying floors
8F2	Burnt deposits

The assemblage associated with the burning of the warehouse is quite small, a result of the fact that most of Test Cut K was occupied by architectural features. Both depositional units are dominated by architectural items, primarily flat glass and miscellaneous building materials. Kitchen Group items comprise 36 percent of the burnt deposits, somewhat greater than the overlying rubble (10%); these items include ceramics, bottle glass, and unidentified curved glass. Other items in the assemblage include two pipe fragments, a personal item, miscellaneous hardware, a writing implement, a machine part, and heating by-products. A small amount of shell (232 gm) was recovered from the two units, primarily from the burnt deposits. Also, one gram of macrofloral material was recovered from the burnt deposit.

The datable items within the assemblage consist of nine ceramic sherds. The rubble deposit included two creamware sherds, while the burnt deposits included creamware, pearlware, and gray salt-glazed stoneware. The Mean Ceramic Date for the burnt

deposit, based on seven datable sherds, is 1826. The ceramic sherd size index for the burnt deposit (8F2) is 0.31, based on a count of 59. Only two ceramic sherds were recovered from the rubble deposit; both were small.

While the burnt deposits (Depositional Unit 8F2) may be securely associated with the occupant of Lot 8 at the time of the Great Fire, the Condit & Scott Merchants, the deposits themselves are not of an appropriate quality to merit intensive analysis.

7. Burnt Warehouse Floor, Lot 9 (Category 26)

Lot 9 was one of the most intensively excavated lots within the Financial Square archaeological project, and the principal focus of the excavations on Lot 9 was the recovery of deposits associated with a grocery that had burned in the Great Fire of 1835.

During the deep testing phase of fieldwork, floor areas of two buildings that had presumably burned in 1835 were identified in the northern portion of Test Trench West. These deposits were recognized immediately as potentially significant, and, rather than delay the excavation of the deep trench, small hand-excavated units were placed outside the trench to recover a sample of the burnt deposits on Lots 8 and 9. Test Cut D, a 3 x 3 foot unit, was placed in the central portion of Lot 9 to recover a sample of the grocery floor deposits while excavation of Test Trench West proceeded. Beneath the modern pavement and demolition rubble, four principal stratigraphic units were recognized during excavation of Test Cut D. These were (1) the brick basement floor of the most recent structure on Lot 9, (2) a deposit of construction rubble that was used apparently as a substratum for the concrete basement floor, (3) burnt deposits that represented materials in the grocery at the time of the fire, and (4) a wooden floor of the structure that perished in the 1835 fire. During the mitigation phase of fieldwork, a large sample of the burnt deposits was recovered by the excavation of a number 5 x 5 foot units placed in checkerboard pattern and other selected test cuts.

The initial plan for data recovery was based on a 50 percent sample of the deposits, utilizing stratified random selection of units within a grid of 5 x 5 foot squares. Excavation of a full 50 percent sample was not feasible, however, because portions of the building had been either destroyed by Test Trench West, previously excavated by Test Cut D, or had been disturbed by backfilling of Test Trench West. Five units (Test Cuts BD, BE, BF, BG, and BH) were initially selected at random, then nine additional units (Test Cuts BI, BJ, BK, BL, BM, BN, BO, BP, and BQ) were selected to complete a checkerboard pattern. Some units were excluded from excavation because of evidence that they would contain massive column supports rather than occupational debris associated with the grocery. For this reason, Test Cut BE was the only unit excavated along the centerline of the grocery floor.

Finally, a few additional units (Test Cuts BR, BS, BT, and BU) were excavated, based on selective criteria. A two-foot southern extension of Test Cut BN, designated Test Cut BU, was made to more fully expose a wood frame object identified in Test Cuts BK and BN; the wood frame was subsequently designated Test Cut BR. After portions of a barrel were exposed in Test Cuts BD and BL, Test Cut BS was excavated to fully recover the contents of the barrel. Test Cut BI was extended 3.3 feet to the south in order to examine the construction details at the side wall of the burnt building and to more fully expose a wooden crate in the southeast corner of the unit. Test Cut BT was extended east from Test Cut BI and its southern extension in order to amplify the sample of materials from the wood crate and a barrel that was partially exposed along the east wall of Test Cut BI.

Six provisional depositional units may be defined for the Lot 9 warehouse, based on a review of the field records:

Depositional Unit	Description/Interpretation
9F1	Underlying landfill
9F2	Pre-1835 warehouse construction
9F3A	Burnt warehouse deposits--1835
9F3B	Warehouse-rubble
9F5	Post-1835 construction
9F6	1984 construction disturbance

A few of the units (Test Cuts BH, BI, and BJ) excavated within the Lot 9 warehouse were advanced through the burnt plank floor into the underlying fill deposits, and these are subsumed in Depositional Unit 9F1. Depositional Unit 9F2 includes materials that may date to an earlier (i.e., pre-1835) period of the building's use or construction. Specifically, this unit includes contexts recovered from a narrow space, between the stone foundation wall and the interior wooden wall boards. It has been suggested (Diana Wall, personal communication) that these deposits might represent a somewhat earlier deposit than the other materials within the warehouse, given their stratigraphic relationship to the architectural features. However the dates (see Table 11) do not support this interpretation, and it likely that these deposits simply represent material deposited immediately prior to reconstruction of the building.

The material that was present in the warehouse at the time of the fire is included in Depositional Unit 9F3A. This depositional unit comprises almost all of the material associated with this feature, and it includes a wide variety of bottles, pipes, consumable foodstuffs, and other items. In some test cuts, rubble deposits were above the burnt deposits and beneath the later floors; these deposits have been assigned to Depositional Unit 9F3B. Both 9F3A and 9F3B represent material in the warehouse at the time of the fire, the difference being that 9F3A appears to be a purely in situ deposit, while 9F3B, like 9F2, represents contexts that may have been disturbed or displaced during the

TABLE 8

DATING OF DEPOSITS, LOT 9 WAREHOUSE

DEPOSIT	MCD	CERAMIC TPQ	OTHER TPQ
9F1--landfill	1780.9 (26)	1780	1760
9F2--pre-1835 construction	1811.6 (100)	1827	1660
9F3A--burnt deposits	1798.4 (65)	1827	1821
9F3B--warehouse rubble	1827.5 (20)	1820	1821
9F5--post-1835 construction	1797.3 (3)	1780	-
9F6--1984 disturbance	-	-	-

destruction or reconstruction of the building. The content and dating of these units is similar, and all three may eventually be treated as a single depositional unit.

The series of brick and concrete floors above the burnt deposits (9F3A) and rubble (9F3B) are subsumed in Depositional Unit 9F5. Depositional Unit 9F6 includes a few contexts along the walls of the warehouse that had been disturbed by construction of the slurry wall. These units contain relatively little material, and they provided little dating information.

The Lot 9 warehouse deposits are relatively poor in ceramics, both in terms of overall frequency and size. The ceramic assemblage is dominated by stonewares and redwares although there were some delftware, creamware, pearlware, yellowware, and whiteware sherds as well. The ceramic sherd size index for the feature indicates a somewhat lower than average integrity, although there are significant differences between the various depositional units. Sherd size indices for the various depositional units are as follows:

Depositional Unit	Size Index	Sample Size
9F1	0.40	43
9F2	0.13	152
9F3A	0.27	153
9F3B	0.47	30
9F5	0.17	6
9F6	NA	0

The warehouse deposits contain an extraordinarily large amount of curved glass, so much that the material from only four test cuts has been tabulated for the intermediate stage of analysis. The four test cuts (BD, BL, BP, and BQ) that have been tabulated represent the northeast quadrant of the warehouse, and they contain nearly 50,000 curved glass sherds. The glass from the remaining test cuts has been scanned, and it appears that the items that have been tabulated are representative of the entire warehouse. The majority of the vessel forms fall into the wine/liquor bottle category. A few sherds representing carboy, demijohn, and bulk bottles have also been tabulated. Virtually all of the bottle glass exhibits the effect of burning, although to various degrees.

Test Cuts BD, BL, and BQ contain, for the most part, French wines. All appear to have been sealed "Leoville," but this seal has not yet been firmly dated. A few wine/liquor bottles in these three test cuts have been tentatively dated by their mold type to post-1821; these are unembossed forms similar to the genuine Ricketts bottles. Test Cut BP contained a very large number of the embossed Ricketts wine/liquor bottles. These were manufactured in England and are datable, by the Ricketts patent, to post-1821, with a possible end date of 1840/1850.

All four test cuts contain additional wine/liquor bottle forms. Many of the finishes were lipping tooled which makes them roughly datable to post-1820. It may be noted that Test Cut BH, located at the front of the warehouse, contains a number of small bottles that appear to be of the beer, ale, stout, or porter variety. Some pharmaceutical glass is also present. No forms have been identified whose earliest manufacturing date is later than the 1835 fire, but there are some anomalous types that are currently being researched.

There is an extremely large amount of floral material in the burnt deposits. Although it has not yet been subject to intensive analysis, a large amount of coffee has been identified, as well as walnuts, peach pits, grapes, etc. There are thousands of pipe fragments as well, and other items such as rattan, indigo, wicker, cotton, yard, string, burlap, etc. Dietary bone comprises a minimal proportion of the assemblage.

An association of the burnt deposits with the A. V. Williams and Winant grocery, the business that occupied Lot 9 in 1835 may be securely established. The extraordinary preservation of the deposits, as well as the quantity and variety of materials in the assemblage, provide sufficient justification for more intensive analysis of the deposits associated with this structure.

8. Barrel Cistern, Lot 42 (Category 16)

This feature was exposed during machine clearing on Lot 42. The excavated deposits include three contexts contained within a wood barrel, that, in turn rested on plank footers. The barrel itself was relatively small, slightly more than two feet in diameter, and the surviving portion from the the top of the barrel staves to the bottom measured approximately 2.8 feet. One side of the barrel had been broken outward into the surrounding landfill deposits. The contexts within the barrel contained a large amount of stone and brick rubble, although one context (143) was described in the field records as an organic deposit with decaying wood.

For the purpose of the intermediate stage feature evaluation, a single depositional unit was defined (42F1), which includes all three contexts excavated from the barrel.

Very little cultural material was recovered from the feature fill. The ceramic assemblage consists of eight sherds, including creamware, pearlware, and stoneware. The Mean Ceramic Date for the deposit is 1795.7, based on six datable sherds. No other datable items were identified in the collection. A few wine/liquor bottle and tumbler fragments, and a pipe bowl fragment were also recovered. The remainder of the assemblage includes flat glass, nails, building materials, barrel stave and lid fragments, shell (255 gm), and miscellaneous unidentified materials.

Because of its small size, the assemblage will not support intensive analysis or contribute to the project's principal research objectives.

9. Barrel Cistern, Lot 43 (Category 17)

In the central area of Lot 43, a wooden barrel was exposed as the concrete cellar floor was being stripped. During testing, a section was sampled by excavation of Test Cut AH, and the remainder of the barrel fill was excavated by extending Test Cut AH during mitigation. The barrel was quite large, measuring nearly 7 feet in diameter, and it included an intact wooden bottom. The barrel had been placed in a pit lined with clay, so that it was interpreted as a cistern. The barrel had apparently been truncated by more recent construction on the lot, so that less than 1.5 feet of fill deposits were excavated. The stratigraphy within the barrel contained a sequence of mixed fills, with a substantial amount of rubble.

Two depositional units have been defined for this feature. The first, 43F1, comprises three contexts that relate to the installation of the feature, including the barrel itself and the clay deposits immediately outside and beneath the barrel (Contexts 926 and 936). The second Depositional Unit, 43F2, includes 11 contexts comprising the barrel fill. While there was slight variation in the fills, rubble was found throughout, and the field data suggest that a single episode of filling occurred during a later construction episode.

Installation of the barrel occurred after 1820, based on a ceramic TPQ provided by two embossed pearlware sherds from Context 926. A fairly substantial number of ceramics were recovered from the barrel fill contexts, and these provide a Mean Ceramic Date of 1794.8, based on 332 datable sherds. Filling of the barrel occurred after 1835, based on the ceramic TPQ for Context 892, which rested directly on the barrel floorboards.

The barrel fills include a range of artifacts, including Kitchen (47.5%), Architecture (46.1%), Furnishings (0.1%), Arms (0.1%), Clothing (0.9%), Personal (0.6%), Pipes (3.6%), and Activities (1.2%) Group artifacts. In addition, the deposit (43F2) includes 204 bone elements, 531 gm of shell, and 280 gm of macrofloral material. Integrity of the deposits, as measured by ceramic sherd size index, was quite low. The index for the barrel fills (43F2) was 0.11, slightly lower than that of the deposits related to the installation of the barrel.

While the barrel fills include a broad range of material that is suggestive of domestic refuse, deposition occurred during a period when the lot was used exclusively for commercial purposes. The barrel fills most likely represent landfill that was redeposited during an episode of building construction. Since the deposits are characterized by low integrity and cannot be securely associated with any particular occupant, they are not suitable for additional analysis or interpretation.

IV. WORK PLAN FOR PROJECT COMPLETION

In a large measure, the work plan for completion of the project reflects attention to many of the research goals set forth in LBA's original research design. But having completed many of the preliminary tasks, it is now possible to implement a more detailed and focused approach than was previously possible. LBA's dissatisfaction with many of the research questions proposed by GCI was clearly stated in our original research design. Notwithstanding the enormous size of the artifact collections and the intensity of the excavations, many of the research questions were so broad that they could not be meaningfully addressed with the available data. In some cases, intensive analysis would have been required, but with the possibility that the results would be inconclusive.

LBA's proposed approach is to focus on a series of middle range research topics rather than one or two "global" or grand-scale research issues. While this approach represents a significant departure from the way in which previous urban archaeological projects have been conducted, the result will be a much more readable and useful document. Given the diversity of the archaeological record at the Assay Site (landfill, wharves, commercial and residential occupations, etc.), this approach will allow the many unique aspects of the project to be emphasized and highlighted rather than subordinated to one or two broad research questions.

The proposed structure of the final report will consist of four principal sections: Background (Part I), Research Results (Part II), Future Research (Part III), and Technical Appendices. The Background section will include a series of chapters that will provide an overview of the project, including a summary of the block's history, an overview of the excavations, the research design, and the analytical methodology. The second section will contain a series of chapters that present the substantive research findings. The topics addressed here will reflect the diversity of research perspectives that can be addressed with the collections and project documentation. Both the unique and important aspects of the project will be highlighted. The Future Research section will contain chapters that discuss the range of possibilities for future researchers. Clearly, it will be neither possible nor desirable to exhaust the research potential of the collections in this report, but it will be important to provide some guidance for researchers who may wish to use the collections in the future. Finally, a concluding chapter will address the issue of archaeological investigation of urban landfill sites, from both a methodological and theoretical perspective. Separately bound appendices will provide data summaries and other supporting information that will be of value for future research.

Appendix A of this document contains a detailed discussion of the final report, in the form of abstracts for each chapter, and a listing of the materials to be provided as appendices to the main body of the report. Since the report format will be structured according to the various middle-range research topics, specific work plans for each chapter are provided with the chapter abstracts in Appendix A.

Overall, the chapters reflect primary attention to aspects of the site that deal most directly with landfill issues, which were identified in the original LBA research design as one of the three principal research goals. The installation of the slurry wall system while archaeological work was in progress allowed a unique opportunity to examine the landfill, wharves, etc., without the problem of flooding that is normally associated with excavation of waterfront sites.

Urban site formation processes were identified as an important research topic in LBA's original research design. This issue will not be singled out for special treatment, partially because it has been dealt with on a number of earlier projects, and partly because the different levels of analysis for landfill, yard deposits and features will not permit a systematic treatment of this topic. Two chapter abstracts focusing on urban site formation processes had been presented to the Landmarks Preservation Commission, but both were determined to be of secondary importance and were therefore eliminated.

The third of LBA's originally proposed research questions, household consumer behavior, will be addressed with one of the feature deposits, the wood box on Lot 6. The intermediate analyses have demonstrated that most of the features are not suitable for this question; therefore, analysis will not proceed beyond what has already been accomplished. One additional study pertaining to household consumer behavior had been proposed; this chapter would have entailed a detailed analysis of the account books of John and Joseph Valentine, retailers of general merchandise. The Valentine account books span the period 1807-1824 and would have provided a counterpoint to the archaeological interpretation of the VanBeuren household deposits as well as the Williams and Winant grocery. This study was eliminated during a discusssion with the Landmarks Preservation Commission, in favor of other studies that focus directly on the archaeological interpretation of material culture.

A period of approximately 12 months will be required for completion of the project. Within this time frame, completion of the artifact analysis and draft report preparation will require a period of 10 months. After submission of the draft report, it is estimated that review of the draft report by the Landmarks Preservation Commission will require a period of one month. The final report, which will address comments of the draft, will be submitted approximately 4 weeks after receipt of comments.

V. REFERENCES CITED

Geismar, Joan, et al.
1983 The Archaeological Investigation of the 175 Water Street Block, New York City. Prepared for HRO, International, Ltd., by Soil Systems Division, Professional Service Industries, Inc.

Harris, Edward C.
1975 The Stratigraphic Sequence: A Question of Time. World Archaeology 7(1):109-121.

1979 Principles of Archaeological Stratigraphy. Academic Press, New York.

Louis Berger & Associates, Inc.
1985 Nineteenth Century Wilmington Households: The Christina Gateway Project. Prepared for the City of Wilmington, Department of Commerce, by Louis Berger & Associates, Inc., East Orange, New Jersey.

1986 Status Report and Proposal for Completion of Archaeological and Historical Investigations at the Assay Office Site, Block 35, New York, New York. Prepared for HRO, International, Ltd., by Louis Berger & Associates, Inc., East Orange, New Jersey.

South, Stanley
1977 Method and Theory in Historical Archaeology. Academic Press, New York.

APPENDIX A

FINAL REPORT CHAPTER ABSTRACTS

PART 1--BACKGROUND

Chapter 1

THE FINANCIAL SQUARE ARCHAEOLOGICAL PROJECT

This will be the introductory chapter for the report. It will review the project history, including a chronology of the major phases of historical and archaeological investigation. The chapter will conclude with a summary of the major research findings, providing an orientation for the reader to the substantive chapters and appendices.

Chapter 2

HISTORICAL BACKGROUND OF BLOCK 35

A brief synopsis of the block history compiled by Greenhouse Consultants, Inc. (GCI) will be presented with the additional, lot-specific data collected by LBA. A summary table will be included as well as concise lot histories. The information will provide a descriptive historical baseline for subsequent discussions.

Chapter 3

OVERVIEW OF THE EXCAVATIONS

This chapter will provide a description of the archaeological field excavations, beginning with the deep testing and backyard testing phases of work and culminating in a summary of the final data recovery activities. The chapter will include a discussion of the goals of each phase of work, as well as a description of the field methods and record keeping.

The excavation results will be broken down according to the two major areas of investigation: (i) resources related to the use of the site as a waterfront area and the landfilling process and (ii) resources related to the occupation of the block. The major resources related to the site's use as a waterfront area include the massive wharf complexes, various bulkheads, and cofferdam boxes. The stratigraphy and content of the landfill/riverbottom deposits will also be discussed briefly, as will any particularly notable landfill deposits. The occupational resources include architectural features (primarily foundation elements such as spread footers and timber piles) and occupational deposits, including yard midden and sealed feature contexts. These resources will be described on a lot-by-lot basis, for each of the eight lots investigated.

Chapter 4

RESEARCH DESIGN

This chapter will discuss the development of the project research design throughout the course of the project. The project's research design has been refined since the inception of the project, and this is a normal process in archaeological research, although a major reorientation of the research design was effected when the responsibility for completion of the project was turned over to LBA. The research design employed by GCI, as outlined in various proposals and interim reports, will be discussed, together with LBA's evaluation of the original GCI research goals. LBA's research design has been refined since submission of the original proposal in April of 1986. This is partially a result of funding limitations and partially a result of our increasing familiarity with the collections and available documentation. Our current thinking is that the final stage of research should focus on specific, well-defined, middle-range topics that can be directly addressed through more intensive study of carefully selected features, deposits, and artifacts excavated at the site. As such, the report would comprise a number of relatively short, independent chapters rather than attempt to address one or two broadly encompassing research questions throughout the entire body of the text. This approach will highlight the unique aspects of the site and the variety of research avenues that may be pursued with the collections and associated records.

Chapter 5

LABORATORY PROCEDURES

This chapter will describe the laboratory methods used for processing, cataloging, and analyzing the artifact collections. The discussion will begin with a statement of the primary research goals that guided the analysis, followed by a description of the various levels of cataloging that were employed for different components of the collection, eg., landfill and river-bottom contexts, yard deposits, and closed feature contexts. Other topics will include the methods employed for stratigraphic analysis, the design of the computer data management system, conservation of unstable items, and the preparation of type collections.

PART 2--RESEARCH RESULTS

Chapter 6

LATE EIGHTEENTH-CENTURY WATERFRONT TECHNOLOGY

The archaeological investigations at the Assay Site resulted in important findings regarding landfill technology that have not been observed at other sites in New York City. The use of steel sheet piling and construction of a slurry wall while the excavations were in progress facilitated the examination of deposits and structures at depths well below sea level. Because these measures mitigated the ground water problems normally associated with waterfront excavations, detailed recordation of the landfill retention and waterfront structures was achieved.

A type of wharf construction known as "block and bridge" appears to have been utilized in the construction of two of the principal wharves built on Block 35. This type of wharf consists of a series of small cobb-wharf "blocks" which are set at intervals and connected by heavy timber spans or "bridges" that are placed above the water line. This type of waterfront technology has not yet been documented archaeologically in New York, and it is relatively unknown in the United States. The technology and craftsmanship represented in these structures will be examined, with reference to comparable structures found at other sites excavated in New York and other cities.

Chapter 7

TIMBER PILE FOUNDATIONS: AN ADAPTATION TO BUILDING ON LANDFILL

This chapter will discuss the use of timber piles as an early nineteenth-century engineering technology. Excavations in the eastern portion of the site revealed large numbers of timber piles beneath the building walls of the earliest structures built on Lots 41, 42, 43, and 44. Spread footer planks, a fairly common foundation system in Lower Manhattan were sometimes placed above the timber piles, but in a number of situations, ground sills and foundation walls rested directly on the timber piles. This type of foundation technology has not yet been documented in previous archaeological excavations in Lower Manhattan, and the function of the timber piles was not clearly understood while the field excavations were in progress. Indeed, there is still some question as to whether buildings were constructed directly on timber piles before the landfilling was complete (Diana Wall, personal communication). Since the timber pile complexes supporting the row of early nineteenth-century commercial structures on South Street represent a vernacular building technology that has neither been well documented nor clearly understood, this issue represents a research area that can be addressed in the project.

Chapter 8

DOMESTIC REDWARES AND STONEWARES FROM THE ASSAY SITE

The purpose of this chapter is threefold. First, the range of forms, and their possible functions, made by local stoneware and red earthenware potters will be described. The documentary record is incomplete in this area, and museum collections are not representative of the entire range of forms. Second, the vessels which can be reconstructed will be attributed to specific potters, whenever possible, based upon information from an ongoing research project concerning local ceramic production. Finally, these new wares will be discussed as part of the ceramic assemblage which could be found within a household of the late eighteenth/early nineteenth century in respect to their functions and physical locations within the house, and the relative price of these wares compared to other types of ceramics. Requirements for this chapter are to cross-mend the stonewares and redwares from the features and to examine the non-feature contexts to check for maker's marks and/or distinctive styles of decoration or decorative motifs which can be attributed to specific potters.

Chapter 9

CAST CANNONS FROM THE ASSAY SITE

One of the more notable archaeological finds was the recovery of a number of cast iron cannons during the slurry wall construction. The cannons are presently undergoing conservation at the Florida State Museum. The cannons were observed after excavation, and they appear to have been British-made field pieces dating to the 1730s. The cannon were probably abandoned in this area, which was open until after the Revolutionary War.

Chapter 10

SMALL FINDS

This chapter will focus on the description and analysis of four artifact types, normally classified as "small finds": bale seals, buckles (personal), metal buttons, and pewter utensils. These items have often been virtually ignored in previous archaeological studies, and they have been selected for study because they can provide information regarding trade networks, at the international, domestic, and local levels. Many of the items can be dated within a specific time range, covering a period of rapidly changing trade patterns that coincide with the Assay Site's landfill and early occupation period.

The proposed work will require a more detailed analysis and description of the artifacts in these classes, to be drawn from both the occupational and landfill contexts. For all items that

contain identifiable marks, documentary research will be undertaken to determine the manufacturer, location, specific bracket dates, and other information pertaining to trade networks. The button industry is of particular interest in this regard, as it illustrates the development of local industries and changing transatlantic trade networks during the late eighteenth century. It will be important to research information pertaining to local button manufacturers, such as Cornwall & Martin who operated at Corlear's Hook in 1793 and Henry Witeman who is known to have operated at two different locations in 1750 and 1760. A number of pewter utensils also contain marks that may be attributed to American and British manufacturers.

Chapter 11

TECHNOLOGICAL INNOVATION IN THE GLASS INDUSTRY: THE WILLIAMS AND WINANT GROCERY BOTTLE ASSEMBLAGE

This chapter will focus on description and analysis of the glass bottle assemblage recovered from the burned floor on Lot 9. The stage 1 artifact analysis has determined that the burnt deposits may be securely linked to the Williams & Winant commercial establishment which occupied Lot 9 from 1822 to 1835. This period represents an important period of technological innovation and change in glass bottle production, and the assemblage reflects this change through an assortment of glass vessels that exhibit a wide range of identifiable manufacturing techniques. Most notably, the collection includes a number of genuine Ricketts embossed bottles indicating the trend toward standardization in bottle form and capacity in the production of spirits bottles. In addition, there are a variety of bottles that imitate the Ricketts concept during the period in which the patent was in force. Also present are free-blown French wines sealed "Leoville"; small, dip-molded bottles of the beer/ale/stout/porter variety; and a number of large, free-blown or possibly dip-molded carboys, etc.

The assemblage affords a unique opportunity to guage the spread of technological innovation in the glass industry, both domestically and abroad, for the period represented by the warehouse deposits. There are numerous intact vessels for most of the types represented. These will be fully described as to embossed markings, measurements, fluid ounce capacities, etc. An attempt will be made to assign origin, i.e., country or glasshouse, through comparison to similar examples in other extant collections, i.e., Parks Canada, and a search for advertisements in the newspapers of the period.

(NOTE: A description and interpretation of the burnt warehouse floor on Lot 9 will be included in Chapter 3, "Overview of the Excavations." This feature was selected for intensive excavation, since it appeared to contain well-preserved deposits associated with a grocery that burned in the Great Fire of 1835. The ware-

house contained an extremely well-preserved in situ refuse deposit, and it may provide information regarding the availability of various dietary items in the 1830s. Since the deposit is archaeologically unique, it will be important to provide a detailed description of the excavated features within the store as well as a description of the various goods (wine bottles, tobacco pipes, coffee, etc.). The emphasis will be on items found in great numbers and on unusual items which can give evidence about trading patterns. Additional analysis of the deposit will be undertaken to identify the range and quantities of the various foodstuffs within the warehouse. Also, nearly 20,000 pipes were recovered from the deposit, and these will be subject to more intensive analysis, particularly the identification of maker's marks. Bore diameters will be measured for bowls or marked stem fragments, to determine the range of variation that characterized various manufacturers. Relatively few ceramics were recovered from the warehouse deposits (approximately 350), and these will be examined to determine vessel form. Finally, the faunal assemblage, approximately 150 specimens, will be sorted according to classes (mammal, bird, fish, etc.) to provide a general characterization of foods consumed within the workplace.)

Chapter 12

AN EARLY NINETEENTH-CENTURY CHINA SHOP DUMP

This chapter will begin with a description of the stratigraphy and excavation of the Test Cut J deposits at the rear of Lot 9 and will go on to describe the ceramics themselves: their forms and decorations; the presence or absence of sets; and probable makers. The vessels will be compared with the china shop dump from the Water Street and Hanover Square sites which are of the same period. The entire assemblage will be discussed as part of the latest eighteenth/early nineteenth century ceramics trade between Great Britain and North America. In addition, it is expected that this assemblage will, due to some unusual decorations and to the relatively large numbers of maker's marks, help clarify some ambiguous points of ceramic history concerning the dates of introduction of decorative techniques and styles.

Chapter 13

THE COURTLANDT VANBEUREN DEPOSITS: A STUDY OF HOUSEHOLD CONSUMPTION

This study will focus on a description and interpretation of the refuse deposits contained in the wood box feature on Lot 6. Since this feature represents the best preserved deposit attributable to a domestic occupation, it will provide the best opportunity, within the Assay project, to address an issue of on-going interest in historic archaeology. The initial analysis of the feature deposits has demonstrated that this deposit can be

definitely linked to the VanBeuren household that occupied Lot 6 from circa 1801 to 1830; moreover, the deposits are well preserved and contain a variety of data suitable for addressing consumer behavior.

While consumer behavior is a widely used paradigm for interpretation of household refuse deposits, in both rural and urban settings, archaeologists have as yet given relatively little attention to the development of behavioral models that pertain to purchasing behavior at the household level. With a few exceptions, the models employed by most archaeologists are based on the notion that there is a simple direct correlation between the price of goods purchased and the relative economic position or different ethnic affiliation of the households. Much of the research conducted within the Berger Cultural Resource Group has addressed the weaknesses of these simplistic approaches and pointed out the need to consider factors other than economic position, status, or ethnicity.

As the number of archaeological consumer behavior studies is expanding, attempts to synthesize information from different areas have not yet been successful, as a recent SHA workshop meeting demonstrated; while this results partially from a lack of standard analytical techniques, the absence of sophisticated behavioral models may be an equally important or more important reason why we have not yet been able to move from individual site reports to broader syntheses. If we are to have any success in addressing the consumer behavior issue with archaeological data, it will be necessary to establish a solid theoretical base, so that we can develop more robust models with testable hypotheses.

While archaeologists have examined consumer behavior only in the past few years, other social scientists have studied consumer behavior at the household level for hundreds of years, and a diverse body of empirical data and theory is available. Household budget studies from the nineteenth and twentieth centuries may provide important source material not only for understanding the spending patterns, foodways, and income strategies, but they can also provide more general information on urban and rural lifeways.

While much of the primary source material pertinent to consumer behavior is not directly applicable to early nineteenth-century merchant households in lower Manhattan (e.g., Courtlandt Van Beuren), a greater familiarity with the literature is necessary for archaeologists who wish to investigate household consumer behavior through material culture. Some of the key concepts that must be incorporated into archaeological models of household consumption include: socioeconomic class or status and norms of consumption; household life cycle and composition; market structure (cash, barter, and the use of credit); purchasing patterns; access to markets; relative cost of functionally similar goods; use-life or life cycle of durable vs. consumable goods; budget allocation among various categories of goods (food,

housing, clothing, savings, investments, capital improvements, etc.); and differential rates of discard for various items.

While the Courtlandt VanBeuren deposits will not provide the opportunity to treat each of these concepts exhaustively, it is appropriate to begin to develop more sophisticated archaeological models and more explicit hypotheses than are currently available. This will require not only a greater familiarity with relevant literature, but also a careful analysis of the archaeological formation processes and more detailed analysis of the artifact assemblage.

As a middle-range research issue, household consumer behavior can and should be addressed through a variety of analytical perspectives. First, historical research will be undertaken to define the household's relative economic position. This will be accomplished by determination of the household's taxable wealth, with reference to city-wide surveys that provide decile rankings for the early nineteenth century. Research will also be undertaken to define the composition of the household and information on its life cycle. Federal census records will provide minimum information on the household, and this will be supplemented by other sources, if possible. So far, no commercial papers relating to the VanBeuren grocery have been located, either at the New York Historical Society or the New York Public Library. It is possible that the household is part of the socially and politically prominent VanBeuren family, or a part of the Van Cortland family. Secondary sources dealing with these elite families will be reviewed. Church records may also provide information on births, deaths, and marriages, thereby providing information on the household life cycle and composition.

Archaeological analyses will then focus on examination of the formation processes or refuse disposal patterns that characterize the deposit. Most important, ceramic cross-mending will be necessary to determine if the deposit accumulated gradually over time or whether it resulted from one or more discrete trash disposal or "housecleaning" episodes. However, the large amount of dietary material (bone and macrofloral) suggests that the deposit represents day-to-day accumulation of refuse.

The preliminary dating of the deposit has been carried out at the level of sherds, and it is expected that the dating and depositional interpretation will be refined by moving the analysis to the level of vessels. Cross-mending will also support Minimum Number of Vessel (MNV) counts and vessel form analysis, so that the types and frequencies of various vessels used in food preparation, storage, and consumption may be determined. Initial analysis of the deposit indicates that a variety of teawares, tablewares, and utilitarian food storage/preparation vessels are present, as well as sanitary wares. MNV determinations will also be made for the glass vessels in the assemblage, to characterize the range of bottle and tableware forms that were used and discarded by the household.

The study of foodways is one of the most productive avenues for analysis of household consumer behavior, and the deposits are quite rich in faunal and macrofloral material. Therefore, reconstruction of household diet will figure prominently in the interpretation of the VanBeuren deposits. Faunal elements will be analyzed by species, if possible, and butchering techniques and other bone modifications (burning, rodent gnawing, etc.) will also be systematically recorded for each element.

On prior projects, economic scaling of historic assemblages has relied almost exclusively on Miller's ceramic economic scaling technique, or derivative methods. The limitations of Miller's technique are well known and have been discussed in a number of LBA's previous reports. Nonetheless, this technique has become fairly standard in historic archaeology, and it will be judiciously applied in the interpretation of the VanBeuren deposits. Economic scaling of meat cuts, following the Schulz and Gust method, will also be undertaken. Since food generally accounted for a much higher proportion of the household budget than ceramics, it is thought that economic scaling based on dietary remains will provide a more sensitive reflection of household spending patterns.

Upon completion of the various historical and archaeological analyses, comparisons of the VanBeuren deposits will be made to contemporaneous deposits from other sites. There are a few deposits assignable to a specific household in New York City, and this sample will be expanded by use of sites in other cities.

PART 3--FUTURE RESEARCH

Chapter 14

RESEARCH POTENTIAL OF THE ASSAY SITE COLLECTIONS

This concluding chapter will discuss the research value of the Assay Site collections, in terms of possibilities for future research. The chapters in Part 2 of the report will demonstrate that the collection can provide a wide range of important archaeological information, drawing on material from a variety of excavation contexts. Clearly, the research potential for the collection will not have been exhausted in the present project, and the collection will remain a major resource for future scholarly studies. The chapter will present an overview of the collections, providing a descriptive orientation to the various contexts and context groups for persons who wish to pursue specialized material culture studies. The intent of the chapter will be to suggest the most promising avenues for future research; however, it should be recognized that the scope of future studies will be limited only by various scholars' creativity and interest.

Chapter 15

WHAT HAVE WE LEARNED FROM LANDFILL EXCAVATIONS?

In recent years, there have been a number of archaeological projects in Lower Manhattan that have occurred within areas of made land. These include the 64 Pearl Street, 175 Water Steet, 209 Water Street, Cruger's Wharf, 7 Hanover Square, Telco Block, Barclays Bank, and Schermerhorn Row sites. A substantial amount of information pertaining to landfill retention and waterfront structures has been gathered during these projects. Despite the number of separate studies of landfill sites, a consensus has yet to be achieved concerning the analytical utility of landfill material itself. In many cities, archaeologists have given only scant attention to landfill contexts; however, a number of archaeologists who have worked in New York have emphasized the importance of landfill as a scientific resource (cf. Salwen 1973, 1978). Geismar (1986), for example, has demonstrated that landfill content may provide information about the types of nearby industries and public attitudes toward sanitation. Huey (1984) has attempted to reconstruct patterns of early trade, based on material recovered from the vicinity of Cruger's Wharf.

Since a number of projects have been completed at landfill sites, it is now possible to assess the results of these projects and to suggest priorities for future work in landfill contexts, especially work that must be conducted within the framework of cultural resource management funding. While landfill deposits are often quite rich in terms of material culture content, there is a need for discussion of the research value of these contexts. There is also a need to examine the appropriateness of various methodological approaches. The efficacy of various field approaches needs to be examined. Monitoring of construction has recently been undertaken by LBA in lieu of archaeological data recovery at the Shearson Lehman/American Express Information Services Center Site. During foundation excavation, a number of cobb-crib wharf structures were identified and recorded archaeologically, including information concerning the joinery methods employed in the cribbing structures (Louis Berger & Associates 1985a). In this situation, monitoring of construction permitted archaeological recordation of landfill retention structures virtually throughout the entire site, rather than only in selected areas as is generally the case when archaeological data recovery is undertaken prior to construction.

APPENDICES

A number of separately bound technical appendices will be prepared to supplement the report. These will include the following data summaries:

- Harris Matrices for test cuts with more than a single context
- Soils information, listed by test cut and context number
- Summaries of the rough-sort artifact analysis
- Summaries of the intermediate stage artifact analysis
  - --artifact catalog listings by provenience
  - --dating of deposits
  - --artifact pattern analysis
- Summaries of the intensive artifact analysis
  - --floral/faunal catalog listings
  - --vessel summaries (cross-mends and MNV's)

APPENDIX B

A CHRONOLOGY OF OCCUPANTS OF THE ASSAY SITE

(1789 through 1850)

APPENDIX B

TABLE 1

OCCUPATIONS ON FRONT STREET
1789-1802

Lot 6: 91/87 Front Street

1789	Owned by T. Bache; possibly not occupied
1790	Owned by T. Bache; possibly not occupied
1791	Owned by T. Bache; possibly not occupied
1792	Cooper shop owned by T. Bache; possibly rented out since Bache, a merchant, reported his address as "38 Hanover Square."
1794	Cooper shop owned by T. Bache; possibly rented out since Bache, a merchant, reported his address as "122 Pearl Street."
1795	Bache paid taxes on a two-story building.
1799	William Bache paid taxes on a brick "store"; Bache, an attorney, was reported at 91 Front Street in the directory.
1800	Bache was listed at 91 Front Street in the directory.
1802	Courtlandt VanBeuren was listed at 91 Front Street in both the tax list and the city directory.

Lot 7: 93/89 Front Street

1789	Thomas Ming, cooper shop; the directory lists Ming as a cooper on "Front Street."
1790	Thomas Ming, cooper shop; the directory lists Ming at "22 Front Street."
1791	John Ming, cooper shop; the directory lists Ming on "Front Street."
1792	[Vacant?]
1795	Tax list reports John Ming's cooper shop "on wharf"; the directory lists John Ming as a cooper at "86 Front Street."
1799	John Elsworth taxed for a "brick store" at 93 Front Street; Elsworth listed in the city directory as maintaining a boarding house at 93 Front Street.
1802	Stephen Miller listed at 93 Front Street in the tax lists; Miller listed as a merchant at 93 Front Street in the city directories for 1802 and 1803. In 1803 and 1804, Thomas Delves appears at 93 1/2 Front while Miller is listed at 93 Front; neither of these merchants resided on Front Street.

TABLE 1

OCCUPATIONS ON FRONT STREET
1789-1802
(Continued)

Lot 8: 93 1/2 91 Front Street

1789	Thomas Randall, blockmaker; not found in the city directories
1790	Thomas Randall, blockmaker; not found in the city directories
1791	Thomas Randall, blockmaker; not found in the city directories
1802	Thomas Delves listed at 93 Front Street and taxed for a brick "store"; Delves does not appear in the city directory for 1802 but is listed in subsequent directories at 93 1/2 Front Street (see previous discussion).

Lot 9: 95/93 Front Street

1789	Abraham Walton, blacksmith
1790	Abraham Walton, blacksmith
1791	Abraham Walton, blacksmith
1792	Abraham Walton, blacksmith
1794	Estate of Jacob Walton taxed for a lot and wharf; confirmed by deeds (see Walton to Morris, 1835, NYC 318:416) although the descent of property from Abraham Walton to Jacob Walton's estate is unclear.
1799	Thomas Satterwaite taxed for a brick store at 95 Front Street with which Adam Pentz, a cooper, was also associated; Pentz was listed in the city directory at 95 Front Street (residence at 8 Roosevelt) but Satterwaite never appeared on Front Street in any of the surviving city directories.
1802	Peter A. Cammann listed at 95 Front Street in the tax lists and in the city directories for 1802, 1803, and 1804.

Sources: New York City Tax Books 1789, 1790, 1791, 1792, 1794, 1799, 1802; New York City Directories 1789-1804.

APPENDIX B

TABLE 2
FRONT STREET LOTS
1799-1850

Year	Lot 6	Lot 7	Lot 8	Lot 9
1799	William Bache	J. Elsworth Boarding House	[Missing Data]	A. Pentz Cooperage T. Satterwaite "Store" [house]
1800	William Bache Attorney	[Missing Data]	[Missing Data]	A. Pentz Cooperage
1801	C. VanBeuren Grocer	[Missing Data]	[Missing Data]	[Missing Data]
1802	C. VanBeuren Grocer	S. Miller Merchant	T. Delves Merchant	P. Cammann "Store" [house]
1803	C. VanBeuren Grocer	S. Miller Merchant	T. Delves Merchant	P. Cammann Merchant
1804	C. VanBeuren Grocer	S. Miller Merchant	T. Delves Merchant	[Missing Data]
1805	C. VanBeuren Grocer	[Missing Data]	T. Delves Merchant	Cadle & Stringham Merchants W. Hill Merchant
1806	C. VanBeuren Grocer	Mrs. Troup Boarding House	T. Delves Merchant	Cadle & Stringham Merchants W. Hill Merchant
1807	C. VanBeuren Grocer VanBeuren & Schoonmaker Merchant	Thomas Farmer	Delves & Thompson Merch'ts	Cadle & Stringham Merchants W. Hill Merchant G. Jackson Merchant
1808	C. VanBeuren Grocer D. Fisher VanBeuren & Schoonmaker Merchant	E. Wilkie Br. Pilot	T. Delves Merchant J. Hutchinson Commission Merchant	Cadle & Stringham W. Hill Merchant G. Johnson Merchant

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1809	C. VanBeuren Grocer D. Hasbrouck VanBeuren & Schoonmaker Merchant	E. Wilkie Br. Pilot Thomas Farmer	J. Hutchinson	Cadle & Stringham W. Hill Merchant G. Johnson Merchant
1810	C. VanBeuren Grocer (R)* J. Hasbrouck (R)*	G. Sickles Boot/Shoe- maker (R)* T. Hodges (R)* D. Sickles W. Nill	Store [house] owned by J. G. & H. Coster	Cadle & Stringham W. Hill Merchant G. Johnson Merchant
1811	C. VanBeuren Grocer J. Hasbrouck Merchant	G. Sickles Boot/Shoe- maker	Store [house] owned by J. G. & H. Coster	[Missing Data]
1812	C. VanBeuren** Schoonmaker & Hasbrouck	G. Sickles J. Duvall	Store [house] owned by J. G. H. Coster	[Missing Data]
1813	C. VanBeuren Schoonmaker & Hasbrouck	G. Sickles Boot/Shoe- maker	Store [house] owned by J. G. & H. Coster	[Missing Data]
1814	C. VanBeuren Grocer Schoonmaker & Hasbrouck	G. Sickles Boot/Shoe maker	Store [house] owned by J. G. & H. Coster	W. Hill Merchant
1815	C. VanBeuren M. Schoonmaker	G. Sickles Boot/Shoe- maker	Henderson & Cairns Merch'ts	G. Johnston Merchant
1816	C. VanBeuren & Son, Grocer	G. Sickles Boot/Shoe- maker	Henderson & Cairns Merch'ts	Hinton & Moore Sail/Duck Store

*(R) denotes residence known from the 1810 Federal census and cross-referenced against the city directory for that year.

**By 1812, VanBeuren had moved his residence to 22 Provost although the business still functioned at 91 Front Street.

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1817	C. VanBeuren & Son	H. Thorn R. McCormick Grocer/Home	Walsh & Gallagher	Hinton & Moore Sail/Duck Store
1818	Schoonmaker, VanBeuren & Co., Merch'ts	H. Thorne R. McCormick Grocer/Home	Walsh & Gallagher	Hinton & Moore Sail/Duck Store
1819	Schoonmaker, VanBeuren & Co., Merchants	R. McCormick Grocer/Home	Van Beuren Merchant Walsh & Gallagher	Hinton & Moore
1820	Schoonmaker, VanBeuren & Co., Merchants	R. McCormick Grocer (R) G. Blair Watchmaker E. Blair Cartman	Walsh & Gallagher Merchants	Hinton & Moore Sail/Duck Store
1821	Schoonmaker, VanBeuren & DeForest Merchants	R. McCormick Grocer (R) E. Blair Grocer	Taxes paid by Hinton & Moore	Hinton & Moore Sailmakers/ Ship Chandlers
1822	Schoonmaker, VanBeuren & DeForest Merchants	R. McCormick Grocer (R) E. Blair (R) T. Nevins Cooperage	"Vacant"	A. V. Winans Grocer
1823	VanBeuren & DeForest Merchants	R. M'Cormick [sic] Grocer (R) E. Blair Cartman (R)	"Vacant"	A. V. Winans Grocer
1824	VanBeuren & DeForest Merchant	R. McCormick Grocer	Taxes paid by Walsh & Gallagher	A. V. Winans Grocer H. Ginnel [sic] Merchant
1825	VanBeuren & DeForest Merchants	R. McCormick Grocer (R)	H. Grinnell Merchant	A. V. Winans & Co. Grocer

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1826	VanBeuren & DeForest Grocers	R. McCormick Grocer (R)	C. Green "Store in Rear"	A. V. Winans & Co.
1827	VanBeuren & DeForest Grocers	R. McCormick Grocer (R) G. P. Holmes & Co.	"Vacant" with "Store in Rear"	A. V. Winans & Co. Grocers
1828	VanBeuren & DeForest Grocers	Owned by W. Chamberlain	Condit & Richards	A. V. Winans & Co. Grocers
1829	VanBeuren & DeForest Grocers	W. Chamberlain Merchant	Condit & Richards Merchants	A. V. Winans & Co.
1830	VanBeuren & DeForest Grocers	W. Chamberlain Merchant	Condit & Richards Merchants	A. V. Winans & Co. Grocers
1831	Owned by (?) Voorhees	W. Chamberlain Merchant	Condit & Scott Merchants	A. V. Winans & Co. Grocers
1832	Owned by Conovert & Labaugh	S. McAllister Grocers	Condit & Scott Merchants	A. V. Winans & Co. Grocers
1833	Conovert & Labaugh Commission Merchants	"Vacant"	Condit & Scott Merchants	A. V. Winans & Co. Grocers
1834	Conover & Labaugh Commission Merchants	"Vacant"	Condit & Scott Merchants	A. V. Winans & Co. Grocers
1835	Smith & Rudd Grocers	Parker, Howard & Co.	Condit & Scott Merchants	A. V. Winans Grocer
1836	Owned by Bulord & Co.	Howard, Parker & Co.	Condit & Scott Merchants	Taxes paid by J. Vanbenchoten

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1837	Bulord & Caswell Merchants	Brittain C. Woolley Merchant	Condit & Scott Merchants	J. Vanbenchoten Merchant
1838	J. Caswell Merchant	Brittain C. Woolley Merchant	Condit & Scott Merchants	J. G. & E. Baker Wine Merchants
1839	J. Caswell Merchant	Brittain C. Woolley Merchant	Condit & Scott Merchants	J. G. & E. Baker Wine Merchants
1840	J. Caswell Merchant	Brittain C. Woolley & Co. Merchants	Condit & Scott Merchants	J. G. & E. Baker "Wines"
1841	J. Caswell Merchant	Brittain C. Woolley & Co. Merchants	Condit & Scott Merchants	J. G. & E. Baker "Wines"
1842	J. Caswell Teas, Imported Wines & Liquors	Brittain C. Woolley & Co. Merchants	Condit & Scott Grocers	J. G. & E. Baker Importers of Wines & Liquors
1843	J. Caswell Merchant	B. L. Wooley Merchant T. Marean	Condit & Scott Grocers T. Marean Commission Merchant	J. G. & E. Baker Importers
1844	J. Caswell Merchant S. T. Caswell Clerk	B. L. Wooley Merchant T. Marean Commission Merchant	J. H. Brower Insurance Agent	J. G. & E. Baker Importers

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1845	J. Caswell & Co., Grocers S. T. Caswell Clerk	E. Wheeler Grocer T. Marean Commission Merchant	J. Brower Insurance Agent Brower & Neilson Commission Merchants	J. G. & E. Baker Importers B. L. Woolley [sic] Merchant
1846	J. Caswell & Co., Grocers S. T. Caswell Clerk	E. Wheeler Grocer T. Marean Commission Merchant	J. H. Brower Insurance Agent Brower & Neilson Commission Merchants Gill, Gillets & Noyes Teas	J. F. & E. Baker Importers B. L. Woolley Merchant
1847	J. Caswell & Co., Grocers S. T. Caswell Clerk	E. Wheeler Grocer T. Marean Commission Merchant	Gill, Gillets & Noyes Teas	J. G. & E. Baker Importers
1848	J. Caswell & Co., Grocers S. T. Caswell Clerk	E. Wheeler & Co. Grocers T. Marean Commission Merchant	Gill, Gillets & Noyes Teas J. L. & N. L. Griswold Merchants	J. G. & E. Baker Importers
1849	J. Caswell & Co., Grocers	E. Wheeler & Co. Grocers T. Marean Commission Merchants	Gill, Gillets & Noyes Teas J. L. & N. L. Griswold Merchants	J. G. & E. Baker Importers

TABLE 2
FRONT STREET LOTS
1799-1850
(Continued)

Year	Lot 6	Lot 7	Lot 8	Lot 9
1850	J. Caswell & Co., Grocers	E. Wheeler & Co. Grocers T. Marean Commission Merchants	Gill, Gillets & Noyes Teas J. L. Griswold Merchant J. S. Hill Commission Merchant C. H. Hill Merchant	J. G. & E. Baker Importers

---

Functional affiliation presumes business only unless otherwise indicated by (R). Daniel McCormick's business was located elsewhere; his is the only exclusively residential occupation identified in the project area in this period.

Sources: New York City Tax Books 1799-1850; New York City Directories 1799-1850; New York City Libers; U.S., Bureau of Census 1810.

APPENDIX B

TABLE 3
SOUTH STREET LOTS
1807-1850

Year	Lot 41	Lot 42	Lot 43	Lot 44
1807	Vacant	A. D. Duff Merchant T. H. Merry Merchant	Melick & Burgher Merchants J. D. Aymar	Melick & Burgher A. Coffin, Jr. Merchant
1808	Marston & Osborn	A. D. Duff Merchant T. H. Merry Merchant J. Hutchinson Commission Merchant	Melick & Burgher Merchants J. D. Aymar Block & Pumpmaker*	Melick & Burgher
1809	Osborn & Willis Merchants Melick & Burgher Merchants	J. Hutchinson	J. D. Aymar Block & Pumpmaker*	Melick & Burgher Goodhue & Swett
1810	W. Osborn Merchant Hubbard & Greene Commission Merchants	Gordon & Henderson	J. D. Aymar Block & Pumpmaker*	Hoyt & Tom
1811	W. Osborn Merchant	D. L. Coit Merchant Henderson & Cairns	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Smith & Hubbell
1812	D. L. Coit Perit & Lathrop	Henderson & Cairns J. Goddard	J. D. Aymar Block & Pumpmaker	Hoyt, Tom & Co. Smith & Hubbell
1813	D. L. Coit Merchant	March & Benson Merchants	J. D. Aymar Block & Pumpmaker	Hoyt, Tom & Co. Smith & Hubbell

*Aymar was at 46 South Street and Bache's Wharf. In 1810, he was taxed for a house and wharf.

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1814	S. T. Coit Merchant	R. Benson, Jr.	J. D. Aymar Block & Pumpmaker D. Aymar Shipmaster	Hoyt, Tom & Co. Smith & Hubbell
1815	J. B. Murray Merchant	March & Benson Merchants	J. D. Aymar Block & Pumpmaker D. Aymar Shipmaster	Hoyt, Tom & Co. Smith & Hubbell Merchants
1816	Taxes paid by J. & W. Dunlap "Store"	March & Benson Merchants	J. D. Aymar Block & Pumpmaker	Hoyt, Tom & Co. Smith & Hubbell Merchants
1817	Taxes paid by Hazard & Williams "Store"	March & Benson Merchants	J. D. Aymar Block & Pumpmaker	Hoyt, Tom & Co. Smith & Hubbell Merchants
1818	J. Bulkley Ship Chandler	March & Benson Merchants	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Smith & Hubbell
1819	J. Bulkley Ship Chandler	March & Benson Merchants	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Smith & Hubbell
1820	J. Bulkley Ship Chandler	S. Robinson & Co. Merchants J. M. Robinson Merchant	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Smith & Hubbell
1821	J. Bulkley & Co. Ship Chandlers	S. Robinson & Co. Merchants	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Merchants J. Smith Merchant
1822	J. Bulkley & Co. Ship Chandlers	S. Robinson & Co. Merchants	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Merchants

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1823	J. Bulkley & Son Ship Chandlers	T. Phelps Merchant S. Robinson Merchant	J. D. Aymar Block & Pumpmaker	Hoyt & Tom Merchants
1824	J. & H. D. Bulkley Merchants	T. Phelps & Co. Merchants S. Robinson Merchant	J. D. Aymar Block & Pumpmaker*	Hoyt & Tom Merchants
1825	J. & H. D. Bulkley Merchants	T. Phelps & Co. Merchants	J. D. Aymar Block & Pumpmaker*	Hoyt & Tom Merchants
1826	J. & H. D. Bulkley Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants	J. D. Aymar Block & Pumpmaker**	Hoyt & Tom Merchants
1827	J. Bulkley & Son Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit Merchant	J. D. Aymar Block & Pumpmaker**	Hoyt & Tom Merchants
1828	J. Bulkley & Son Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit Merchant	J. D. Aymar Block & Pumpmaker**	Taxes paid G. Douglass "Store"

*Aymar listed at 46 South and 105 Water Streets.
**Aymar listed at 46 South and 91 Water Streets.

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1829	J. Bulkley & Son Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit Merchant	J. D. Aymar Block & Pumpmaker*	G. Douglass & Co. Merchants
1830	D. Tuttle & Co. Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit Merchant T. B. Richards Merchant	J. D. Aymar Block & Pumpmaker* Osborn & Young Merchants S. Whitney Merchant	G. Douglass & Co. Merchants
1831	D. Tuttle & Co. Merchants	T. Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit Merchant T. B. Richards Merchant	Osborn & Youngs Merchants W. Whitlock, Jr. Merchant	G. Douglass & Co. Merchants

*Aymar at 46 South and 91 Water Streets.

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1832	D. Tuttle & Co. Merchants	Phelps & Co. Merchants E. & H. Averill & Co. Merchants H. Coit & Co. Merchants J. Otis	Osborn & Youngs Merchants W. Whitlock, Jr. Merchant	G. Douglass & Co. Merchants H. Coits & Co. Merchants
1833	D. Tuttle & Co. Merchants H. Cheseborough Grocer	Phelps & Co. Merchants E. & H. Averill & Co. Merchants J. Otis	Osborn & Youngs Merchants W. Whitlock, Jr. Merchant	H. Coit & Co. Merchants T. B. Richards Merchants
1834	D. Tuttle Merchant H. Cheseborough Grocer	H. & A. Averill & Co. Merchants J. Otis	Osborn & Youngs Wine Merchants W. Whitlock, Jr. Merchant	H. Coit & Co. Merchants T. B. Richards Merchant
1835	H. Chesebrough [sic] Grocer	A. Averill Merchant J. Otis	Osborn & Youngs Merchants W. Whitlock, Jr. Merchant	H. Coit & Co. Merchants T. B. Richards Merchant
1836	Smith & Town Commission Merchants	A. Averill & Co. Merchants	Osborn & Youngs Merchants W. Whitlock, Jr. Merchant	C. A. & E. Hecksher Merchants J. A. Williams Merchant
1837	Smith & Town Commission Merchants	Taxes paid by T. Andrews "Store"	W. Whitlock, Jr. Merchant	C. A. & E. Hecksher Merchants

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1838	J. Foulke & Sons	T. Andrews	W. Whitlock, Jr. Merchant	Hecksher, Coster & Matfield Merchants
1839	J. Foulke & Sons	T. Andrews	W. Whitlock, Jr. Merchant	Hecker, Coster & Matfield (Banker?)
1840	J. Foulke & Sons	F. G. Thurston & Co. Thompson & Andrews Commission Merchants	W. Whitlock, Jr. Merchant	Hecksher, Coster & Matfield
1841	J. Foulke & Sons	F. G. Thurston & Co. Thompson & Andrews Commission Merchants	W. Whitlock, Jr. Merchant	Hecksher & Coster
1842	J. Foulke & Sons Merchants	Thompson & Adams Commission Merchants	W. Whitlock, Jr. Merchant	Hecksher & Coster Merchants
1843	J. Foulke & Sons Merchants	Thompson & Adams Commission Merchants	W. Whitlock, Jr. Merchant A. Averill & Co. Commission Merchants	I. C. Whitmore Merchant
1844	J. Foulke & Sons Merchants I. C. Whitmore Merchant	Thompson & Adams Commission Merchants	W. Whitlock, Jr. Merchant A. Averill & Co. Commission Merchants	Mason & Co. W. D. Thompson Merchant

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43	Lot 44
1845	J. Foulke & Sons Merchants I. C. Whitmore Merchant	J. Thompson, Jr. Merchant	W. Whitlock, Jr. Merchant A. Averill & Co. Commission Merchants	W. D. Thompson Merchant
1846	J. Foulke & Sons Merchants I. C. Whitmore Merchant	J. Thompson, Jr. Merchant	W. Whitlock, Jr. Merchant A. Averill & Co. Commission Merchants	W. D. Thompson Merchant
1847	J. Foulke & Sons Merchants D. Curtis, Jr. Commission Merchant Spofford, Tileston & Co. Commission Merchants	J. Thompson Merchant I. C. Whitmore Merchant	W. Whitlock, Jr. Merchant A. Averill & Co. Commission Merchants	W. D. Thompson Merchant Brower & Wilson Commission Merchants
1848	J. Foulke & Sons Merchants D. Curtis, Jr. Commission Merchant Spofford, Tileston & Co. Commission Merchant	J. Thompson Merchant I. C. Whitmore Merchant A. Averill & Co. Merchants	W. Whitlock, Jr. Merchant	Thompson & Adams Merchants A. Averill & Co. Commission Merchants I. C. Whitmore Merchant

TABLE 3
SOUTH STREET LOTS
1807-1850
(Continued)

Year	Lot 41	Lot 42	Lot 43 Merchants	Lot 44
1849	J. Foulke & Sons Merchants D. Curtis, Jr. Commission Merchant Spofford, Tileston & Co. Commission Merchants	Thompson & Adams Merchants A. Averill & Co. Commission Merchants	W. Whitlock, Jr. Merchant B. Richards Commission Merchants	J. H. Brower Commission Merchant, Shipping & Insurance Agent
1850	J. Foulke & Sons Merchants D. Curtis, Jr. Commission Merchants Spofford, Tileston & Co. Commission Merchants	J. Thompson Merchant A. Averill & Co. Merchants I. C. Whitmore Merchant J. Couper Lord Merchant	W. Whitlock, Jr. Merchant B. Richards Commission Merchants	J. H. Brower Commission Merchant, Shipping & Insurance Agent C. Hicksher Consul

Sources: New York City Tax Books 1807-1850; New York City Directories 1807-1850; New York City Libers.