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Loorya et.al.

2007

Wall Street Water Mains Project - New York, New York -
Monitoring and Limited Phase IA Documentary Report -
Project Number: MED-583A



Prepared for:

City of New York - Landmarks Preservation Commission
New York, New York

Submitted to:

Manuel Elken Consulting Engineers
419 Park Avenue South
New York, New York 10016

and

City of New York - Department of Design and Construction
New York, New York

Prepared by:

Alyssa Loorya, M.A., R.P.A., Principal Investigator
and Christopher Ricciardi, Ph.D., R.P.A.
for: Chrysalis Archaeological Consultants, Incorporated

FINAL REPORT - May 2007

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PEP

MANAGEMENT SUMMARY

In August 2006, Chrysalis Archaeological Consultants, Inc., (CAC) was contacted by Manuel Elken Consulting Engineers (ME) to undertake archaeological monitoring for a portion of the Wall Street Water Mains Project (WSWM). Alyssa Loorya, M.A., M.Phil, R.P.A. served as the Principal Investigator and Christopher Ricciardi, Ph.D., R.P.A. served as the field director and general assistant.

The WSWM is a long term project that is repairing and replacing various utilities in and around the lower Manhattan area. This portion of the WSWM focused on a segment of the South Street Seaport Historic District Area, along Beekman Street between Front Street, to the east, Pearl Street, to the west, and intersecting Water Street.

ME was contracted by the City of New York Department of Design and Construction (DDC) to manage this phase of the project. In turn, Judlau Contracting, Inc. (Judlau) was retained to undertake the excavation and installation tasks. CAC was contacted and retained after the WSWM was underway. During excavation, east of the corner of Pearl Street, along the southern side of Beekman Street, a section of a nineteenth century wooden water main was uncovered. The New York City Landmarks Preservation Commission (LPC) was contacted and they requested that a Cultural Resource Management firm be brought on board to undertake monitoring of further excavations and, eventually, a limited documentary study, of the project area.

CAC was retained to monitor all remaining excavations for this portion of the overall WSWM, manage the removal of the water main pipe, recovered material remains from within the excavation trenches, perform necessary laboratory analysis of the recovered material remains, undertook a limited Phase IA Documentary Study for this specific portion of the WSWM and produced a written report of the overall findings. Although not part of the contract, ME and DDC requested that CAC provide public press information throughout the course of the WSWM, including: text and images as well as recommendations for further public outreach and long term storage and care of the archaeological materials.

Two wooden water mains were uncovered near the intersection of Pearl Street and Beekman Street. Both had an iron collars attached to join to additional sections. The two sections of water mains were excavated and documented. They were then turned over to the City of New York - Department of Environmental Protection for conservation and, hopefully, future display.

Several nineteenth century brick barrel vaults were uncovered along Beekman Street between Water Street and Pearl Street. All were disturbed and void of any artifacts.

The remains of a foundation wall, most likely a cellar storeroom was uncovered near the corner of Beekman Street and Pearl Street. Over three thousand artifacts were recovered, dating mostly to the eighteenth century, with some from the first quarter of the nineteenth century. Ceramics, glass, shell, smoking pipes and faunal remains comprised the collection. Two significant artifacts were a bone syringe with intact plunger and a mother-of-pearl inlay that underwent conservation.

Several distinct pockets of artifacts were recovered throughout Beekman Street. Artifacts included coral, from the Caribbean and likely used as ship's ballast, kiln furniture, likely discarded in this area prior to the formalization of Beekman Street, flint and oyster and clam shells.

Finally, the remains of the original wharf/pier were uncovered in the intersection of Beekman Street and Water Street. These dense logs were installed in the mid to late eighteenth century and remained until Beekman Street was formally laid in the nineteenth century.

Over five thousand artifacts were recovered from both *in situ* and disturbed contexts. The collection may enable continued research into the development of the waterfront of New York in the eighteenth to early nineteenth century; the everyday lifeways of the merchant class residents of the late eighteenth and early nineteenth century South Street Seaport area; and exemplifies how although lower Manhattan has been subject to many episodes of grading, filling, excavation for modern utility lines, etc., significant *in situ* and secondary archaeological deposits continue to exist and therefore the need for monitoring remains imperative.

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** NOTE: All images were taken by CAC unless otherwise noted

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We would like to thank for their assistance Gary McGowan and Mary Alice Landis from CPR for their efforts with regard to the conservation of the bone syringe and the mother-of-pearl inlay.

Dr. Sophia Perdikaris for, once again, providing support with regard to the faunal remains.

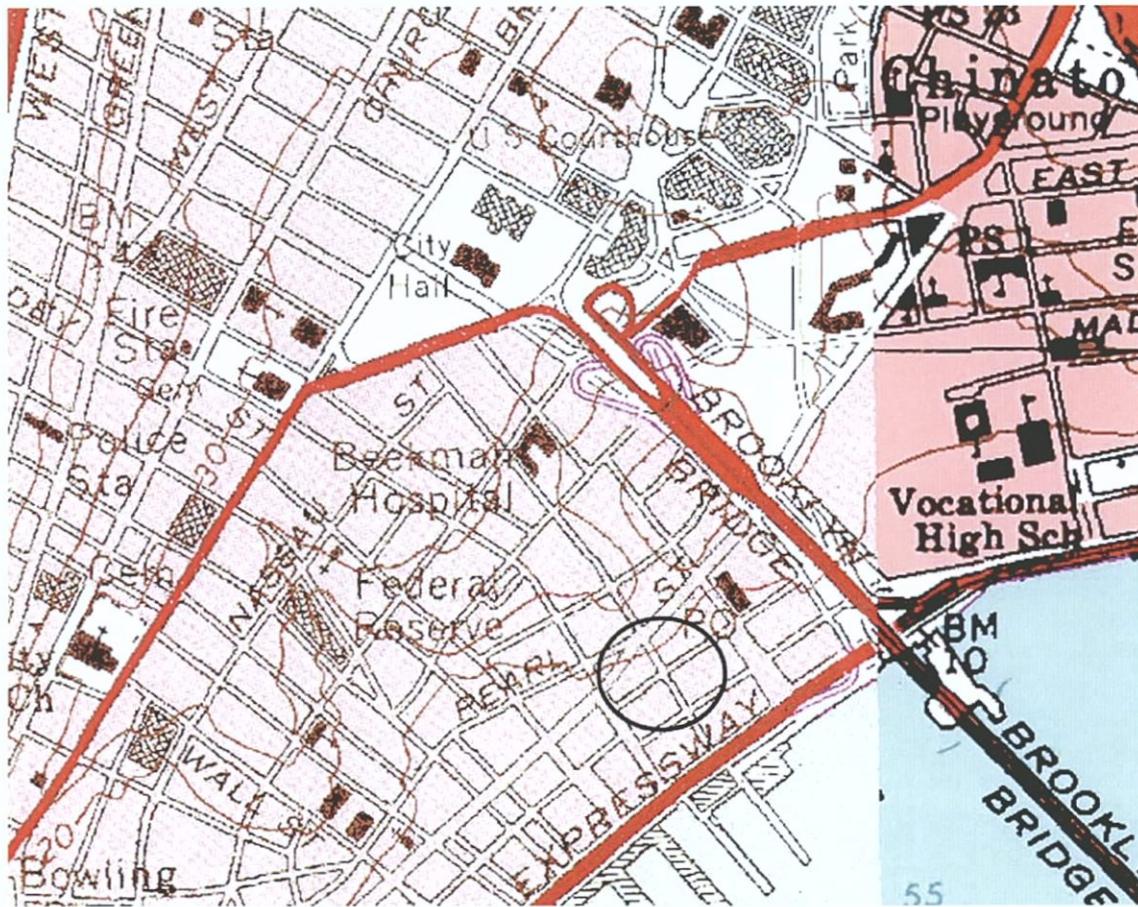
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Finally, thanks to Amanda Sutphin from the New York City Landmarks Preservation Commission. She continues to be the strongest supporter of New York's archaeological history and has done whatever she can to insure that that history is not lost.

Section I: INTRODUCTION

In August 2006, Chrysalis Archaeological Consultants, Inc., (CAC) was contacted by Manuel Elken Consulting Engineers (ME) to undertake archaeological monitoring for a portion of the Wall Street Water Mains Project (WSWM). Alyssa Loorya, M.A., M.Phil, R.P.A. served as the Principal Investigator and Christopher Ricciardi, Ph.D., R.P.A. served as the field director and research assistant.

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Map 01: USGS (1979): Map of the Project Area

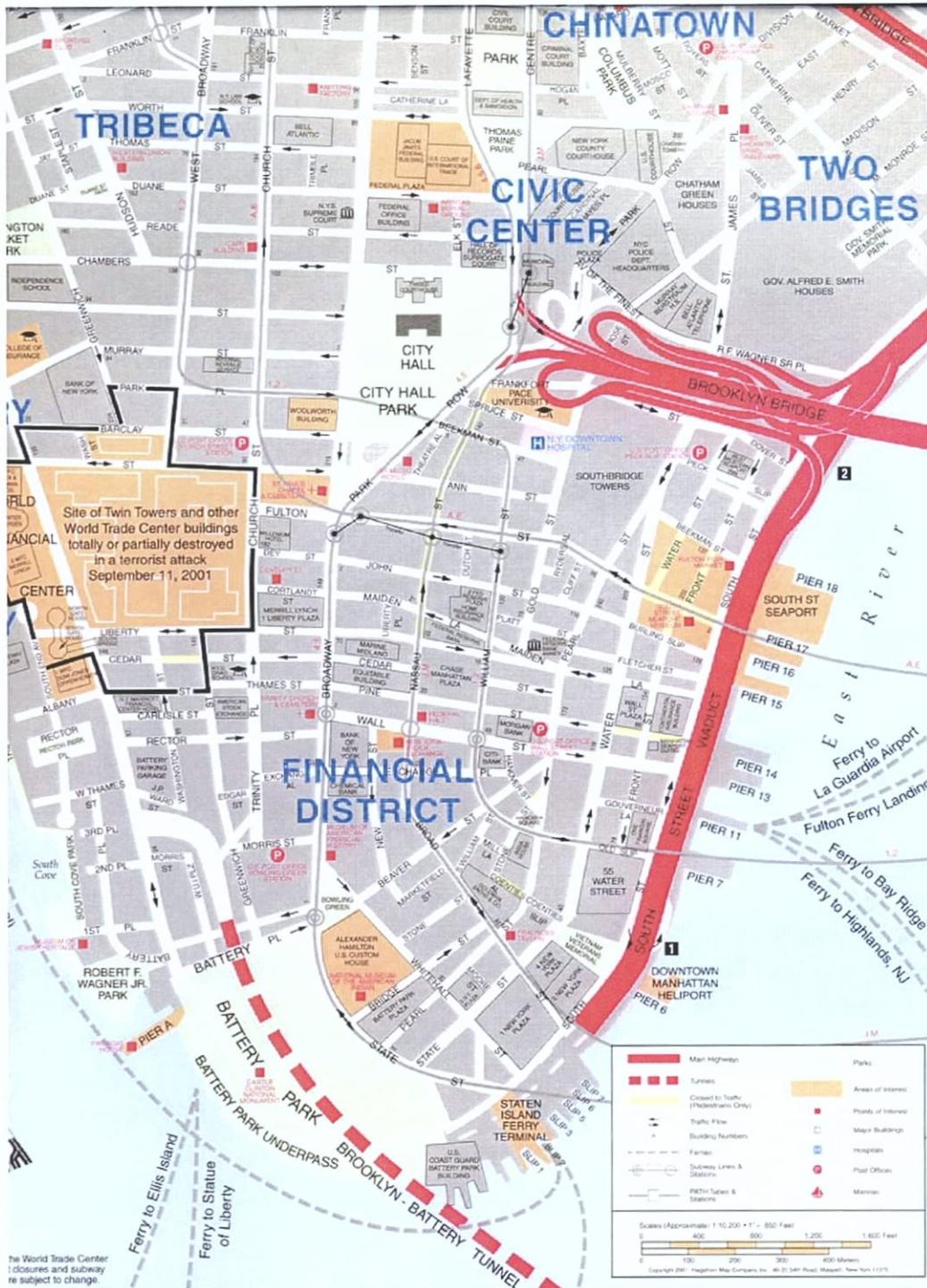
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CAC was retained to monitor all remaining excavations for this portion of the overall WSWM, manage the removal of the water main pipe, recover any material remains from within the excavation trenches that may be uncovered, perform necessary laboratory analysis of any recovered material remains, undertake a limited Phase IA Documentary Study for this specific portion of the WSWM and produce a written report of the overall findings. Although not part of the contract, ME and DDC requested that CAC provide public press information throughout the course of the WSWM, including: text and images as well as recommendations for further public outreach and long term storage and care of the archaeological materials.

Section II: GENERAL PROJECT AREA HISTORY

At the request of the LPC, a limited Phase IA Documentary Report was undertaken for this part of the WSWM. This limited study began after the wooden water main was uncovered along Beekman Street. The study was guided by the excavation and ensuing finds. This section provides a brief and general history of the relevant project area. Detailed historic information, relevant to specific areas of excavation, is provided in Section IV.

The project area is located at Beekman Street between Pearl and Front Streets and is situated adjacent to the East River in lower Manhattan, New York City. Historically the area is part of the earliest settlement of the City within Montgomerie Ward (Ward 2). Today it is part of the South Street Seaport Historic District. The Seaport area houses some of the oldest extant architectural examples in the City including nineteenth century mercantile buildings, sailing ships and the Fulton Fish Market (Map 02).



Map 02: Current Project Area location map (Hagstrom 2002)

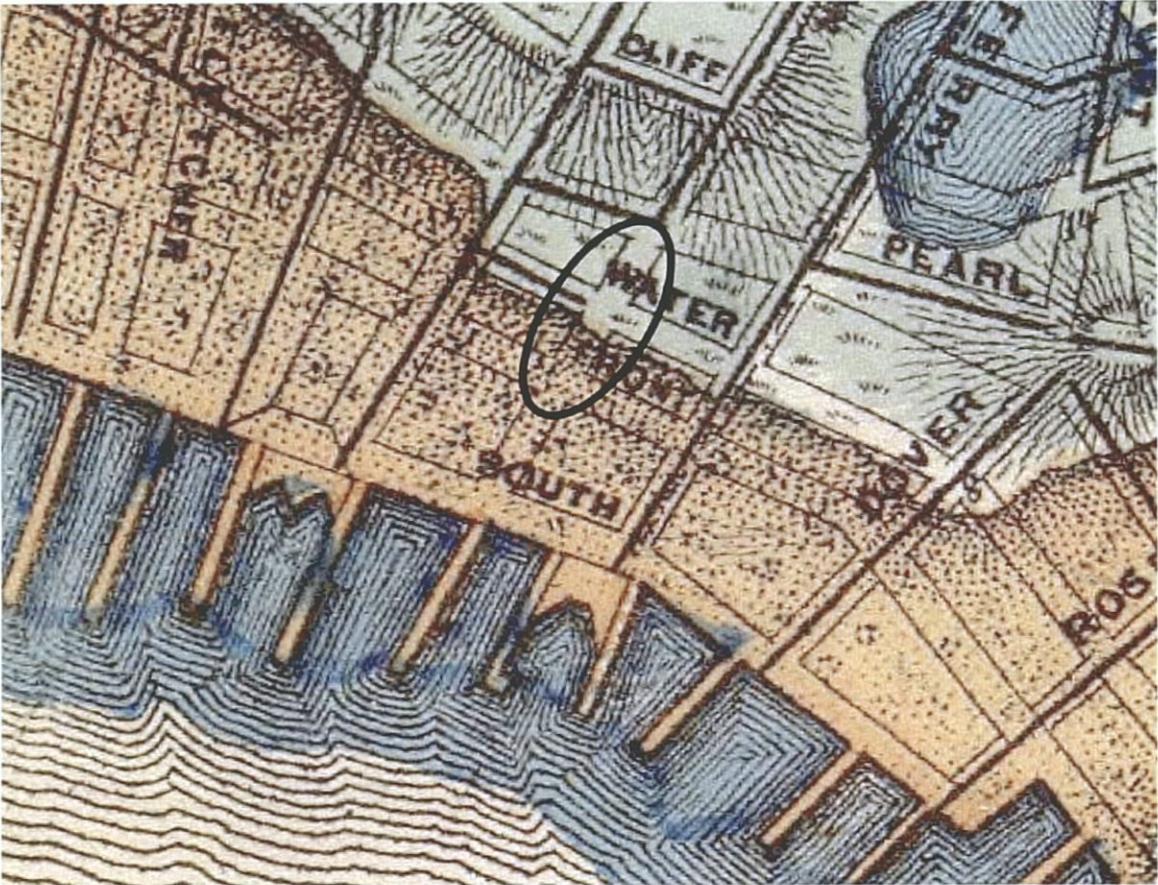
Geographic Setting:

The island of Manhattan was formed, in part, during the last glacial period, approximately twelve thousand years ago, and is comprised mostly of medium to high grade mica schist metamorphic rock that is covered with glacial till. The southern tip of the island consisted manly of swamp and marsh land connected by streams that fed into the Noort (Hudson) and East Rivers (Schuberth 1968:9, 65-66, 80-81; Isachsen et. al. 2000:47-48; Burrows and Wallace 1999:359). Early maps of the area confirm this marshy landscape (see Maps 03, 04, 05 and Appendix C for additional historic maps).



Map 03: Carwitham, circa 1740

The area of lower Manhattan was somewhat hilly, which is consistent with the action of the retreating ice shelf. During the historic period most of the hills within this area appear to have been leveled. The 1865 Viele map of original landscape features provides an excellent orientation to the original landscape in relation to the modern-day street grid (Map 04 and 05). The Viele map depicts the project area as containing meadow and shows the shoreline at Water Street. A pond is depicted just northwest of the project area between Pearl and Gold Streets, west of Peck Slip. The modifications that would occur to create the modern landscape, landfilling along the shoreline, to construct additional streets, as well as areas of marsh and standing bodies of water occurred between the late eighteenth through early nineteenth centuries (Homberger 1994: 51; Cohen and Augustyn 1997: 28, 94-95, 121, 136-138 and Figures 3-5, 9; Burrows and Wallace 1999:359). Prior to the intense density of population and settlement that would occur the area supported substantial oyster beds as well as a wide range of fish, bird and mammal species (Burrows and Wallace 1999).



Map 04 – E. Viele 1865 - close up of project area

The Prehistoric Period:

Archaeological evidence of Native American settlement and activity within what is today the City of New York extends back to the Paleo-Indian period (c. 10,000 B.C. – 8,000 B.C.). However few sites have been excavated and/or recorded by modern archaeologists (Cantwell and Wall 2001:40; Baugher and Bluefeld 1980). Native American occupation of the immediate New York City area is, in general, poorly researched, reported on and understood. Due, in part, to the obvious changes in cultural occupation and landscape development since the turn of the seventeenth century, much of the Native American history has been. Several factors have helped to reduce the degree of documented history and research potential with regard to Native Americans. First, it would appear that permanent settlements by Native Americans did not occur until fairly late, post 1400. These villages were made of wood and were compromised due to radical landscape modifications by European settlers. Second, with the arrival of Europeans, Native American settlement and influence in the area quickly diminished. Third, the early European settlers in the area did not establish or maintain amicable relations with the local Native American groups and therefore did not portray them well in recorded history. Finally, the majority of uncovered Native American sites within the area were either located on the highly disturbed fringes of the City or were excavated by amateurs and pot-hunters/looters at the turn of the twentieth century, thus destroying the Native American history, of the area, without proper documentation (Lenik 1992; Cantwell and Wall 2001; Bolton 1920, 1922, 1934; Burrows and Wallace 1999).

The local Native American group that inhabited the project area was the Manhattas, whose name inspired the Europeans in naming Manhattan Island (Armbruster 1918), part of the Algonquian speaking Lenape (Delaware) tribe (Bolton 1922). It has been determined that the early Native American inhabitants of the area systematically exploited the local coastal resources. This is largely based on the fact that many of the Native American remains or sites found within the City of New York were in the form of shell middens (Kraft 1986).

Available evidence suggests that subsistence and occupation among Native American groups in the area was seasonal and that they practiced a hunting and gathering economy that utilized the abundance of water resources in the area (Ceci 1977, 1982). During summer months, groups would aggregate in large base camps that spilt during the other seasons to occupy smaller hunting, fishing, or plant procurement locations. Agriculture became predominant during the Late Woodland period (1,000 A.D. – European Contact) (Ceci 1979-1980). By the time of European settlement in the early seventeenth century, the Native Americans kept fields in which they grew a triad of corn, beans, and squash, along with some other domesticated plants (Truex 1982).

Contact Period:

At the time of European contact as many as fifteen thousand Native Americans inhabited the New York City area (Burrows and Wallace 1999:5). A Native American campsite was reportedly located just north of the Fresh Water Pond (i.e. Collect Pond) along the north-south foot trail that lay a short distance from the project area (Lenik 1992; Burrows and Wallace 1999). This trail traversed the Island, extending from Battery Park to Inwood (Bolton 1920: 79, map; Burrows and Wallace 1999: 6-7; Parker 1922:630, plate 192). Soon after the arrival of the Europeans a majority of the Native American population was decimated by a combination of war and disease (Burrows and Wallace 1999:8; Ritchie 1958; Levin 1980).

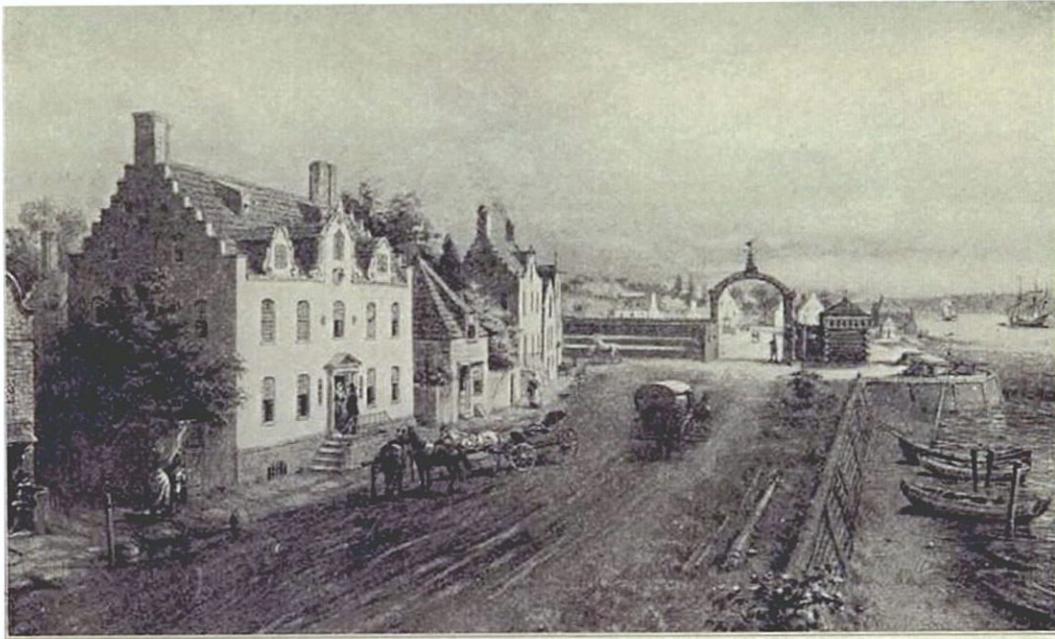
The Historic Period:

The Dutch settled New Amsterdam in 1624 with the arrival of thirty families to New Netherland (Burrows and Wallace 1999:36). Soon after their arrival then Governor Peter Minuit “purchased” Manhattan Island for what was determined to be twenty-four dollars worth of material goods (O’Callaghan 1864; Homberger 1994). The colony was established as part of the Dutch West India Company, which provided many incentives to encourage settlement in the New World (Homberger 1994; Burrows and Wallace 1999:94).

By 1664, the Dutch had surrendered control of New Amsterdam to the English who renamed the colony New York. Within a short period of time the Great Dock was built along the East River, between Whitehall and Coenties Slips, firmly establishing the city’s position as a base for commercial and capital activity in the New World. By 1680, the City of New York, at this time solely Manhattan Island¹, contained approximately 400 buildings (Image 01). Many of the houses were built in the Dutch style and the Stadt Huys building, the original Dutch City Hall, continued to serve in that function. Toward the end of the seventeenth century the City’s population reached approximately three thousand. Although immigration from the Netherlands had steeply declined the number of English settlers increased (Burrows and Wallace 1999; Cantwell and Wall 2001; Rothschild 1990; Brodhead 1871; Jameson 1909).

The City of New York continued to grow during the first half of the eighteenth century. However, the majority of that growth was confined to the southern tip of the island. Manhattan Island remained sparsely populated above present day Canal Street. Between 1747 and 1767 the number of sea faring vessels owned by City residents rose over 400% and the number of employed seamen grew from 775 to 3,552. Mercantilism, consumerism and agrarian ways of life were the norm until the Revolutionary period when New York became an occupied city (Burrows and Wallace 1999; Cantwell and Wall 2001; Rothschild 1990; Brodhead 1871; Jameson 1909).

¹ The incorporation of the outer boroughs, The Bronx, Kings (Brooklyn), Queens and Richmond (Staten Island), which would form the greater City of New York, did not occur until 1898.



PEARL STREET IN THE SEVENTEENTH CENTURY

Image 01: Pearl Street in the seventeenth century (Courtesy of the New York Public Library - Online Historic New York Image Collection)



Map 06: Hooker, circa 1817

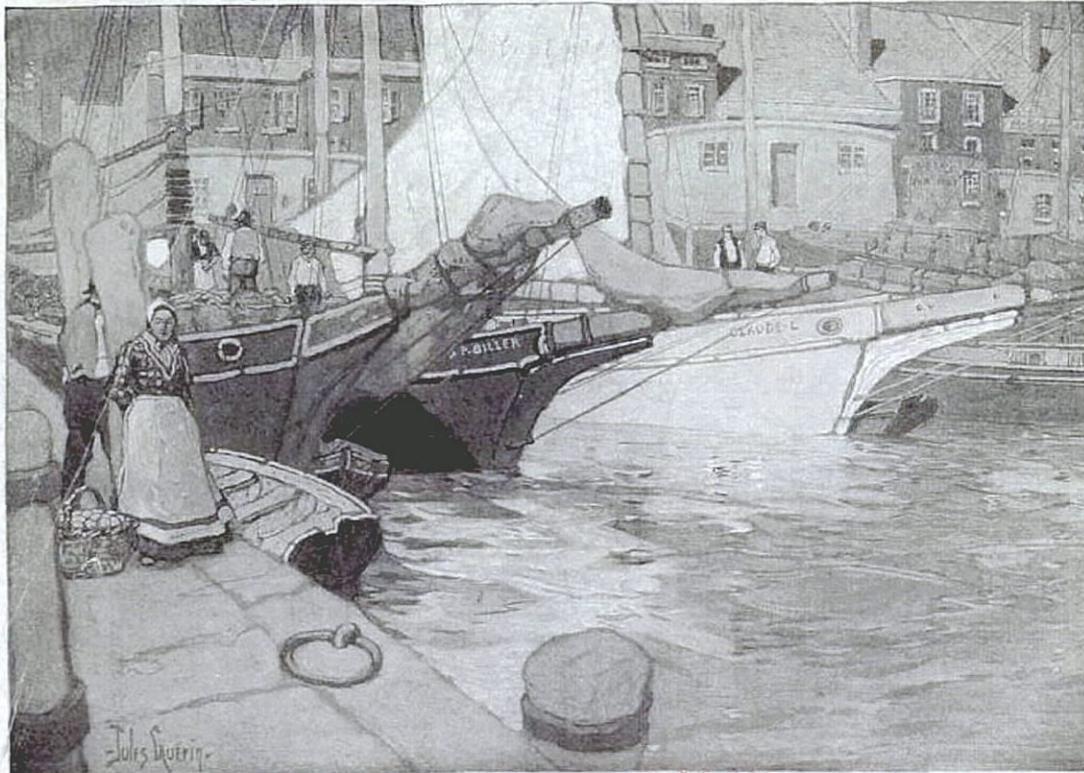
Following the Revolutionary War, New York was named the Nation's first capital and experienced yet another dramatic growth in population, settlement and business. This expansion, which encompassed the development of the Industrial Revolution, would continue throughout the nineteenth century and into the first half of the twentieth century (Map 06) (Burrows and Wallace 1999).

The Seaport:

The Seaport district dates back to the 1600s and it played a vital role in the City's development into a successful center of commerce. Over a 300 year period it served as one of the City's most important commercial centers and as the international gateway to New York. Both grew steadily throughout the seventeenth and eighteenth centuries. In 1719 Gerardus Beekman received the first water lot grant in the area east of Queen Street (present day Pearl Street), between Fulton and Beekman Streets. By end eighteenth century the eastern shoreline, along the Seaport area, was extended as slips were landfilled (Image 02). The first of these newly created streets, Water Street between Coenties Slip and Peck Slip, were formally paved in 1789 (Map 07) (Minutes of the Common Council 1675-1776).



Map 07: "The Great Metropolis" Map circa 1804



For the little scenes . . . quaint and lovable, one goes down along the South Street waterfront.—Page 397.
Smacks and oyster-boats near Fulton Market. (At the foot of Beekman Street, East River.)

Image 02: Foot of Beekman Street, circa nineteenth century (Courtesy of the New York Public Library - Online Historic New York Image Collection)

In 1793 Peter Schermerhorn, a local merchant, consolidated his Beekman Slip lots, the area between present day Fulton Street and Schermerhorn Row, with the intent of undertaking a large scale construction project to complement the expansion of the seaport area. By 1797 New York surpassed Philadelphia's import and export volume becoming the leading American port. By the start of the nineteenth century, the port, located along South Street, had begun a period of intense growth and activity (Burrows and Wallace 1999).

Enterprising merchants continued to create new waterfront land for hastily built warehouses and counting-houses to handle the wealth of goods coming in and out of the city by ship. Peter Schermerhorn's Schermerhorn Row was built as a speculative venture between 1810 and 1812, extending along Fulton Street from Front to South Streets. Schermerhorn Row was situated on landfill extending approximately two hundred meters (200m) (six hundred fifty-six feet (656')) beyond the original shoreline. The complex contained six counting houses which were designed to serve the modest sailing ship trade and small business economy of the early nineteenth century. Counting houses were, in the early nineteenth century, commercial buildings that were a precursor of the New York office building. Built along the water's edge, these buildings were an adaptation of residential row houses to commercial purposes, serving New York's active port. They functioned as stores, storerooms and accounting offices for merchants (Map 08) (South Street Seaport Museum 2007).



Map 08: Dripps, 1851 - Map of the project area



Image 03: Fulton Street and Market, 1828 (Courtesy of the New York Public Library - Online Historic New York Image Collection)

The district received further boosts from the establishment of Fulton's ferry service from Brooklyn in 1814 and the Fulton Market, which opened in 1822 (Map 09 and Image 03). The Market occupied an entire block, located between Front Street and South Street from Fulton Street to Beekman Street (Maps 10 and 11). Butchers were the principal tenants of the market at its start, and were joined by fish sellers, sausage stands, fruit and vegetable dealers, and vendors of daily goods. There were also oyster stands, bookstalls, and coffee-and-cake stands in the old markets, and by 1883 there was a museum of maritime curiosities in one of the turrets (South Street Seaport Museum 2007).

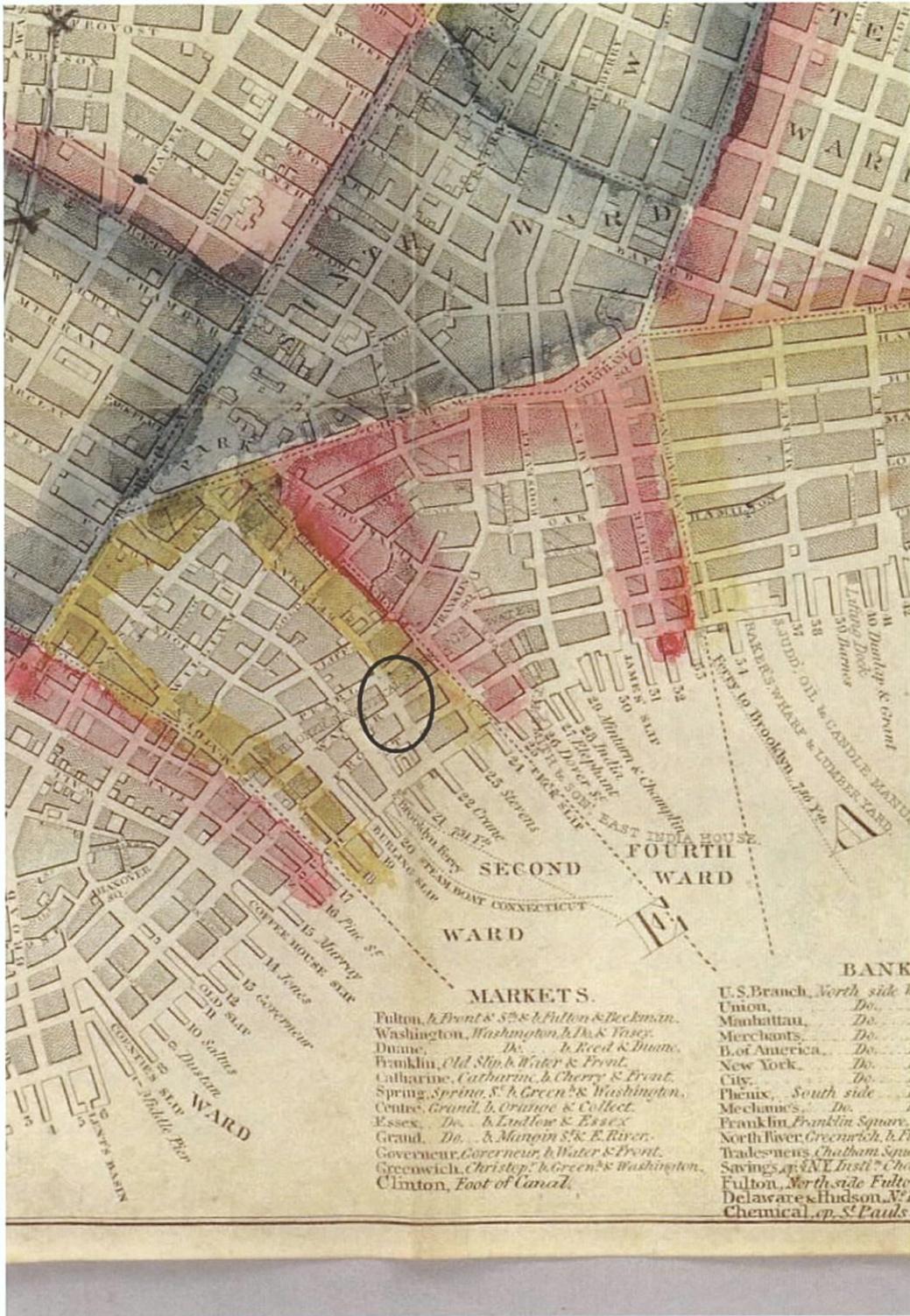
With the opening of the Erie Canal in 1825, produce and goods from the country's mid-west poured into the harbor. The port was booming, and South Street became known as the "Street of Ships." China clippers, trans-Atlantic packets, coastal and Caribbean schooners, grain barges, fishing smacks, and Long Island Sound steamboats crowded the teeming wharves (Burrows and Wallace 1999).

In 1835, a fire destroyed much of what is today lower Manhattan. It began at Pearl Street and Hanover Street and quickly spread, destroying portions of the South Street Seaport area (Augustyn and Cohen 1997; Burrows and Wallace 1999). By this time Beekman Street had been opened along with the Fulton Market and nineteenth century row housing replaced the previous eighteenth century structures along Queen Street and Crane's Wharf.



Map 09: Goodrich, circa 1827

After the 1860s South Street began to decline, as New York and technology outgrew the East River port. The maritime industry shifted from sail to steam, and deep-water piers drew ships across town to the Hudson River. The Port's activity moved to New York's west side, to Brooklyn and New Jersey. As a result, the City's first seaport was transformed into a food supply center with the Fulton Fish Market, opened in 1835, as the main source of activity. From the late nineteenth century through the mid twentieth century, the area was largely abandoned; surviving only as a wholesale fish district and yachting dock (South Street Seaport Museum 2007).



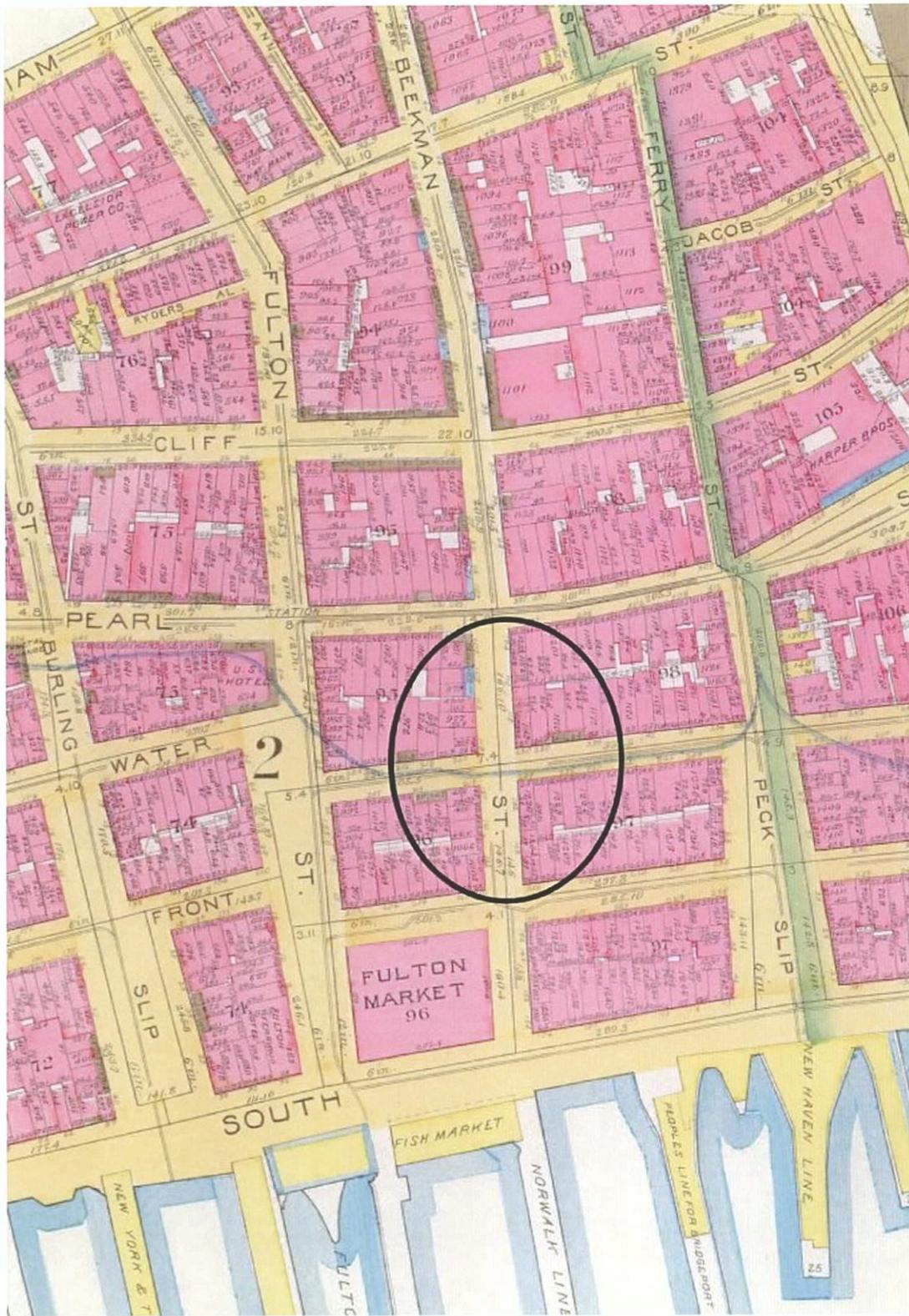
Map 10: Hooker Map, circa 1829

One century passed before attention again focused on the Seaport district. In the 1960s an ambitious restoration and redevelopment program began. The continuing expansion of the Wall Street business district fueled a rediscovery of lower Manhattan as a residential community, and the shops and restaurants of the Seaport area have resulted in the renaissance of the neighborhood (South Street Seaport Museum 2007).

As part of this redevelopment, the streets that run through the Seaport were closed to traffic and repaved with cobblestones. The South Street Seaport Museum was founded in 1967 and remains an integral part of the Seaport community (Map 12). In 1978, the South Street Seaport area was recognized by the LPC as a historic district (City of New York - Landmarks Designation Report 1978).



Map 11: Kemble, circa 1848 - showing the Fulton Fish Market



Map 12: Bromley 1891 - showing current streetscape

Section III: PREVIOUS CULTURAL RESOURCE STUDIES

The area of lower Manhattan has been the subject of several Cultural Resource Management studies since the late 1970s and the passing of the New York City Environmental Quality Review Act, as amended. This brief review of previous work focuses on those projects that were either in the immediate vicinity of the project area or had some direct relevance to the WSWM project.

175 Water Street

The 175 Water Street Project provided a wealth of information on landfilling techniques and construction materials in lower Manhattan. A detailed account of the history of landfilling, through the records of the Minutes of the Common Council of the City of New York, documented sources, map studies and the archaeologically recovered material and stratigraphic record provides of sequence of events that led to the landfilling of the majority of this area. Links between local residents and the materials recovered were not attainable, but the types of materials, their usages and economic values were discussed (Geismar 1983).

The Phase 1B led to the discovery of a submerged English sailing ship. It was determined that the ship was deliberately sunk to help create cribbing for further refuse deposit. This combination of the ship (cribbing) and refuse material, created the landfill that would eventually make up the current streetscape (Geismar 1983).

55 Water Street

At 55 Water Street, a Stage 1A assessment was conducted. Following the lead of Geismar's 1983 work, the report outlined how the potential to uncover mid to late eighteenth century landfill and wharf remains could exist below two meters (2m) (six feet (6')) from present-day grade. A Stage 1B Field Test was recommended, but never undertaken (Historical Perspectives 2001).

Front Street

In 2002, an archaeological assessment of several lots along Front Street, located within the South Street Seaport Historic District, was undertaken. The report did not call for further testing within Block 97, Lots 18, 32, 37 and 58 (Bergoffen 2002).

New York Stock Exchange

The New York Stock Exchange and vicinity report outlines the potential for further historic resource studies within lower Manhattan. As part of the assessment limited testing revealed several sections of wooden water mains, one with a stop-cock still in place. Geismar, and others, suggest that other similar finds are likely to remain under the streets of lower Manhattan. She notes the finding of a wooden water main at Front Street and Water Street in 1955. A description of the Manhattan (Water) Company which constructed the system is provided (Geismar 2003).

Coenties Slip

In 2005, Geismar reported on several pieces of wooden water mains along Coenties Slip that were uncovered and removed. Some of the log remains contained fittings. The report briefly outlines attempts at conservation on the remains (Geismar 2005).

Fulton Street Redevelopment

An overall assessment was undertaken for the proposed Fulton Street Redevelopment Project - particularly at Burling Slip in 2006. This report was completed after the discovery of the water main as part of the WSWM. Due, in part, to this discovery, the report calls for field monitoring for any area that may be impacted beyond one meter (1m) (three feet (3')) below ground surface (Historical Perspectives 2006).

Section IV: ARCHAEOLOGY

This section is subdivided into five sites. This subdivision is based upon location to allow for an easier presentation of the data. Each section is further subdivided into: a) general introduction, b) history of the area, c) archaeological monitoring of the area and, d) material remains².

For the purposes of archaeological monitoring, and this report, Beekman Street was subdivided into the following areas (See site map for visual representation of this breakdown - Map 13):

- 1) Beekman Street South between Water Street and Pearl Street - Water Mains
- 2) Beekman Street Southwest between Water Street and Pearl Streets - Foundation
- 3) Beekman Street North between Front Street and Water Street
- 4) Intersection of Beekman Street and Water Street
- 5) Beekman Street South between Pearl Street and Water Street - Barrel Vaults

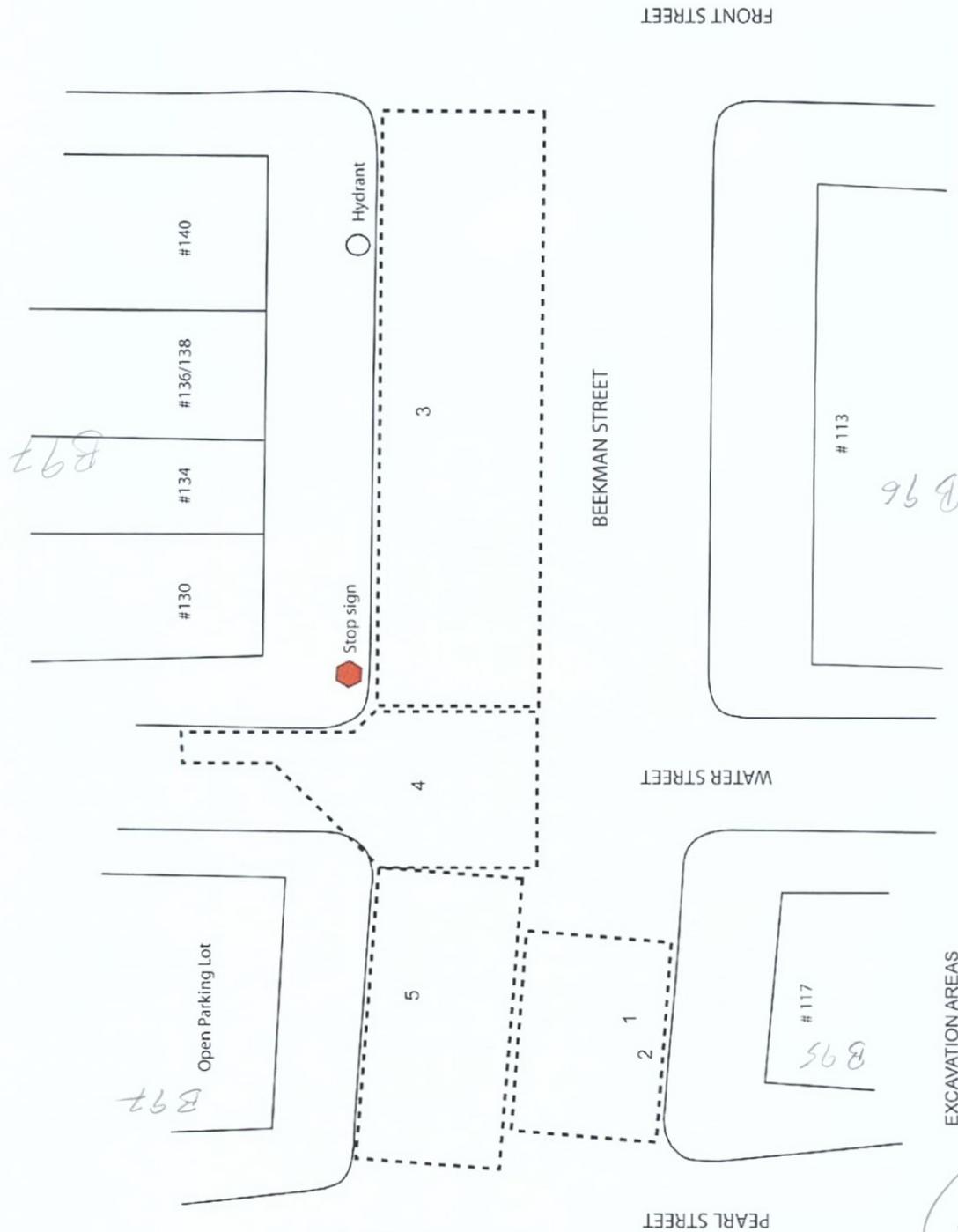
Due to the abundance and density of pre-existing utility lines running beneath Beekman Street, all excavations by Judlau were conducted manually (Image 04).

All material remains recovered were removed to the laboratory facility that CAC utilized for this project, the Brooklyn College Archaeological Research Center. Artifacts were washed, recorded and boxed in archival safe materials. See Appendix E - for a catalog of the material remains.

All faunal remains were analyzed by CAC's faunal expert, Dr. Sophia Perdikaris (Brooklyn College, CUNY). Dr. Perdikaris' analysis is presented in Appendix G.

Two specific artifacts, a bone syringe and a mother-of-pearl inlay, recovered from an *in situ* context were recommended for preservation. CAC presented this request to ME and DDC, with the supported from the LPC. With the approval of DDC, the firm of Cultural Preservation and Restoration was contracted to undertake an initial assessment and conservation of the artifacts. CPR's assessment and conservation report is presented in Appendix H.

² Although images are incorporated into the text, additional images are included in Appendix D and F).

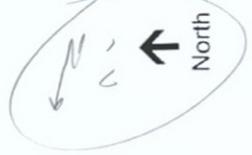


Map 13: Site Map showing the five archaeological areas

EXCAVATION AREAS

1. Beekman St. South - Wooden Water Mains
2. Beekman St. Southeast - Foundation Wall
3. Beekman St. North between Front & Water Streets
4. Beekman St & Water St. - Intersection
5. Beekman St. between Water & Pearl Streets

This map is representative and not to scale



Wall Street Water Mains Project
 Beekman Street & Water Street
 Archaeological Monitoring Project
 August 2006 - January 2007
 Chrysalis Archaeological Consultants



Image 04: Current site conditions

Area 1 - Beekman Street South between Water Street and Pearl Street - Water Mains

Introduction

As previously stated, CAC was contracted after the excavation work by Judlau had begun and the remains of a wooden water pipe were uncovered just east of the intersection of Beekman Street and Pearl Street along the southern side of Beekman Street (Maps 01, 02, 13 and Image 05). Archaeological monitoring began in August 2006 by which time half the length of the southern end of Beekman Street, between Water Street and Pearl Street, had already been excavated and work was near completion (Image 06).

The remaining section to be monitored included the previously exposed length of wooden water pipe and the remaining ten meters (10m) (approximately thirty-three feet (33')). Construction in this area called for utility replacement requiring excavation to a depth of one and a quarter meters (1.25m) (approximately four feet (4')). One portion, at the western end of Beekman Street would require excavation to a depth of approximately three meters (3m) (approximately ten feet (10')) for the installation of a Consolidated Edison Company (ConEd)³ access unit.

³ Consolidated Edison Company (ConEd) was working with the DDC on this portion of the overall WSWMP. DDC was the lead agency.



Image 05: Wooden Water Main upon the beginning of archaeological monitoring

Although potentially significant, the exposure of the wooden water main did not stop or significantly delay the overall excavation of this area. The pipe was left *in situ* until all excavations in the area were completed and proper arrangement for its removal could be made.

Upon discovery of the wooden water main (Image 05), LPC contacted the DDC to inquire as to when an archaeologist would be brought onto the project to supervise the removal and recordation of the newly discovered water main. LPC also contacted the City of New York Department of Environmental Protection (DEP) since they had been involved in another project in the area in which wooden water mains were recovered (see Section III: Previous Cultural Resource Undertakings).

DEP expressed interest to the LPC and DDC in taking ownership of the wooden water main upon its removal. In a verbal agreement between DDC and DEP, DDC agreed to allow DEP to take possession of the wooden water main following removal and documentation by CAC.



Image 06: Beekman Street at the start of archaeological monitoring in August 2006

History

Within Lower Manhattan, wooden water mains were commonly used in the late eighteenth through early nineteenth centuries as a means of delivering water to local residences and other establishments. Obtaining fresh drinking water in lower Manhattan had been a concern since the earliest days of the colony. Fresh water ponds such as the Collect Pond and shallow wells were used by local residents to obtain water. However due to nearby industry the water in the local fresh water ponds soon became polluted and the well water near the shore was brackish (Map 14) (Geismar 1983, 2005; Koeppl 2000).



Map 14: Ratzler Map, circa 1767

The City of New York established a network of public wells beginning with the well established by the English Governor, Nicolls, in 1658. A second public well was opened in 1671. The public well system was expanded under the tenure of Mayor Stephanus Van Cortlandt (1677-1678 and 1686-1888) who identified neighborhoods to be served by a designated well within their area. A local resident was named to oversee the maintenance of the well within each neighborhood (Koeppel 2000).

Despite expansion, the well system was hard pressed to meet the demands for water as the population continued to grow. Beginning in the last quarter of the eighteenth century several proposals were made to establish a city-wide water works.⁴ The Manhattan (Water) Company, established by Aaron Burr and Joseph Browne, proposed a system of obtaining water from the Bronx River and other various local streams (Koeppel 2000). In 1789 the New York State Assembly, headed by Burr, granted the Manhattan Company a charter to construct a city-wide system (Geismar 1983 and 2005).

The Manhattan Company, today known as JP Morgan Chase and Company, was incorporated as a private water works (with banking privileges) that promised to deliver 'pure and wholesome' water to city residents. Instead it used the charter as a means to further its financial and banking interests within the City of New York and its efforts to establish an adequately functioning city-wide water system were deficient. As part of the plan a large well, twenty-five feet in diameter, was sunk at the corner of present day Reade Street and Center Street (Geismar 1983:41). Water from the well was distributed to customers via a system of hollowed out wooden logs from a poplar species known as yellow pine (Koeppel 2000).

As a matter of policy, the Manhattan Company only provided enough water service to maintain the franchise (Duffy 1968:201). Though the company's efforts to develop and expand the water system occurred at an exceptionally slow pace, they had laid enough pipes to begin water delivery in 1801 at a cost of five dollars per year for a private house with fewer than five fireplaces. It was also in 1801 that the Chambers Street reservoir was completed and filled (Koeppel 2000).

Despite this initial progress the system proved unreliable. Some customers endured days or weeks without the running water they were paying for and were once again forced to use the local street pumps (Image 07). Based on research, it would appear that no customer was regularly supplied with either clean or a proper amount of water (Koeppel 2000). The wooden water pipes were prone to leaks and disturbance at the joints from tree roots. The Manhattan Company, in an effort to conserve capital for its banking business, had chosen wooden pipes over cast-iron and used an antiquated pumping system that was powered, in part, by horses (Koeppel 2000).

The system was insufficient to meet the demands of a growing population and complaints about the water system were frequent. Among the complaints were objections to the quality of the water. Though the initial proposal called for bringing water from the Bronx, "some wells have been dug in the filthiest corners of the town; a small quantity of water has been conveyed in wretched wooden pipes, now almost worn out, for family use; and in a manner scarcely, if at all, preferable to the former method of supplying water by the carts" (*New York Evening Post*, 26 January 1808). Some even blamed the frequency of stomach ailments in Manhattan on the poor quality of the water (Koeppel 2000). Among the few benefits of the system was the relatively easy access to water in the event of fire. The pipes were laid at a relatively shallow depth and were provided with a means to immediately connect fire hoses if necessary (Koeppel 2000).

⁴ For a more detailed history see Geismar 1983 and *Water for Gotham* (Koeppel 2000).



PUMP ON GREENWICH STREET, BELOW CANAL

Image 07: Drawing of water pump (Courtesy of the New York Public Library - Online Historic New York Image Collection)

By 1827 the company began replacing its wooden pipes with cast-iron. However, they continued using the horse-powered pumping system drawing water from local wells and, inevitably, the then-highly polluted Collect Pond (Koeppel 2000).

Though its water business was not as successful as its banking ventures, the Manhattan Company was the main supplier of water to the residents of Manhattan throughout the first four decades of the nineteenth century. The Company persisted in the water business until 1842 when the Croton Aqueduct Water System was established (Koeppel 2000).

Presently, the records of the Manhattan (Water) Company are located in the archives of JP Morgan Chase and Company. Records are only accessible to employees of JP Morgan Chase and Company and through special request. They are not readily unavailable for public review. As a result of this policy it was not possible to determine when water service from The Manhattan (Water) Company became available to the project area.

Archaeology

The segment of wooden water pipe located along the southern side of Beekman Street was carefully excavated by the Judlau crew (see Map 13 - site map). The area surrounding the pipe was excavated, but the soil beneath the pipe was left intact, as a support, until the entire length of the pipe was exposed. The pipe was uncovered at one and a quarter meters (1.25m) (approximately four (4')) below surface. Once completely excavated the entire section of pipe was lifted out, with the assistance of a back-hoe serving as a crane (Image 08), and moved to another area of the site for documentation (Image 09). Representatives from ME, DDC, DEP and the LPC were on hand for the removal of the pipe.



Image 08: Judlau Foreman Joe and crew moving transferring the wooden water pipe

The pipe, which was cut at the eastern end, measured three meters sixty centimeters (3.60m) (approximately twelve feet (12')) length and was an average of twenty-two centimeters (22cm) (approximately nine inches (9')) wide. The interior opening of the pipe was fifteen centimeters (15cm) (six inches (6')). Overall the pipe was relatively dry and an iron collar, which was in a deteriorated condition, was attached to the western end of the pipe. This served as a connector to another segment of pipe (Images 10).



Image 09: Wooden water pipe

As per the verbal agreement between DDC and DEP⁵, once documentation was completed, the wooden pipe and metal collar were lightly draped in protective plastic and removed by flat-bed truck to the Judla's construction and staging yard. DEP took possession shortly thereafter. Krishna Manikarnika was the Point of Contact for the DDC and Samar Qandil was the Point of Contact for the DEP.

After this section of pipe had been removed it became apparent that the water main continued with a second section of pipe. The procedure for the excavation of this second section proceeded as it had with the previous section (Image 11). As with the removal of the first pipe, representatives from ME, DDC, DEP and LPC were present when this pipe was removed.

⁵ DDC agreed to provide DEP with any additional wooden water pipes that may have been recovered as part of this project. Although CAC was not part of the verbal agreement, it was reported that DEP would undertake an assessment of the cost for conservation of the pipe. The assessment was to be undertaken by CPR, who was contracted separately by CAC to undertake conservation on select material remains recovered from the site. DEP did not provide CAC with the assessment report, although it was reported that DEP determined the costs to excessive to conserve the water mains at this time. CAC has not been informed as to what will become of the two wooden water mains recovered from Beekman Street south. It is presumed that they are still in the possession of the DEP at their storage facility.



Image 10: The conically shaped end of the water pipe. This allowed it to be fitted into another section of pipe.

Once excavated and removed the pipe was brought to another section of the site for documentation. This second length of pipe was similar to the first in that it was located at one and a quarter meters (1.25m) (approximately four feet (4')) below surface and of comparable size. The key difference was that this was a complete section of pipe and the western end of the pipe still had its metal collar firmly attached (Image 12). The pipe had a conically shaped eastern end which allowed it to be fitted into the opening of the previous section of pipe.



Image 11: Removal of second wooden water main



Image 12: The opening of the wooden pipe showing the iron joining ring/collar

The length of pipe measured four meters twenty centimeters (4.20m) (approximately fourteen feet (14')) in length and was an average of twenty four centimeters (24cm) (approximately nine and a half inches (9.5')) wide. The interior opening of the pipe was fifteen centimeters (15cm) (approximately six inches (6')) (Image 13).

As with the first wooden water pipe recovered, after the initial documentation was completed, the pipe, including the attached iron connector ring, was lightly wrapped in plastic and moved to Judlau's construction and staging yard. The DEP then took possession of the artifact.



Image 13: Recording the second water main pipe

Monitoring occurred in all areas along Beekman Street South that had not been excavated prior to CAC joining the WSWM. No stratigraphic layers were uncovered within the excavation trench and the wooden water mains. This area exhibits a high level of repeated modern disturbance resulting from several episodes of excavation and installation of various utilities within two meters (2m) (six feet and a half feet (6.5')) of the surface (Image 14). The wooden water mains represented the only *in situ* artifacts uncovered in this area.



Image 14: Beekman Street south - after water mains removed

Artifacts

Within the general vicinity of the wooden water pipes, although not directly associated with them, two hundred twenty-six (226) artifacts were recovered. All artifacts were collected with the exception of shell fragments (see Appendix E for the artifact catalog). Only a representative shell sample was collected and included in the assemblage. All of the artifacts recovered from within Beekman Street South were scattered throughout the excavation trench and therefore out of context.

Of the 226 artifacts, 155 were ceramic shards. Several types are represented including North American salt-glazed stoneware, decorated redwares (eighteenth century) and transfer-printed pearlwares (1795-1840). The stoneware represented typical storage vessels such as containers of various size and decoration. The redware types included, but were not limited to, a black glazed teapot and slipwares. The pearlwares presented a mix of consumption and serving forms including plates, cups, bowls and serving pieces (Image 15).



Image 15: Pearlware remains

Other artifacts including clam and oyster shell remains, liquor bottle shards, faunal and pipe stems, dating from 1700-1800.

Based on the manufacture type and color, the bottle shards were examples from liquor bottles. They were dark green in color, consisting of both blown and two-piece molded. These bottles were common throughout the last three quarters of the eighteenth century and into the first quarter of the nineteenth century (Image 16).

Pipe stems are common artifacts from eighteenth and nineteenth century sites. The majority of the clay pipes from this site measured 4/64th (bore dimension), dating between 1720 to 1750. Two stems measured 6/64th, dating from 1660 to 1720. There were also stems that measured 5/64th, dating between 1750 to 1800. The pipe stems contained no markings that would allow for further identification or analysis (Image 17).



Image 16: Eighteenth century blown bottle



Image 17: Pipe Stems

Due to a lack of primary context and discernible stratigraphy there is little that can be interpreted from the artifacts along this portion of Beekman Street. No connection can be made between the artifacts recovered and the wooden water mains. It is impossible to determine if some of the artifacts recovered were deposited during the installation of the water mains, although it is a possibility. It is clear that they are the result of pre-twentieth century activity. However, the installation of modern utilities destroyed any previously existing context.

Area 2 - Beekman Street Southwest between Water and Pearl Streets

Introduction

Within the trench along Beekman Street south between Pearl Street and Water Street (Maps 01, 02, 13 and Image 18), plans called for a one meter eighty centimeter (1.80m) (approximately six feet (6')) square pit be excavated to a depth of approximately three meters (3m) (approximately ten feet (10')) below surface at the west end of the Street. This access-way would be formed and filled with concrete to create an access duct for ConEd. As with the rest of the site, all excavation was undertaken by hand due to the density of pre-existing utility lines.

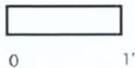
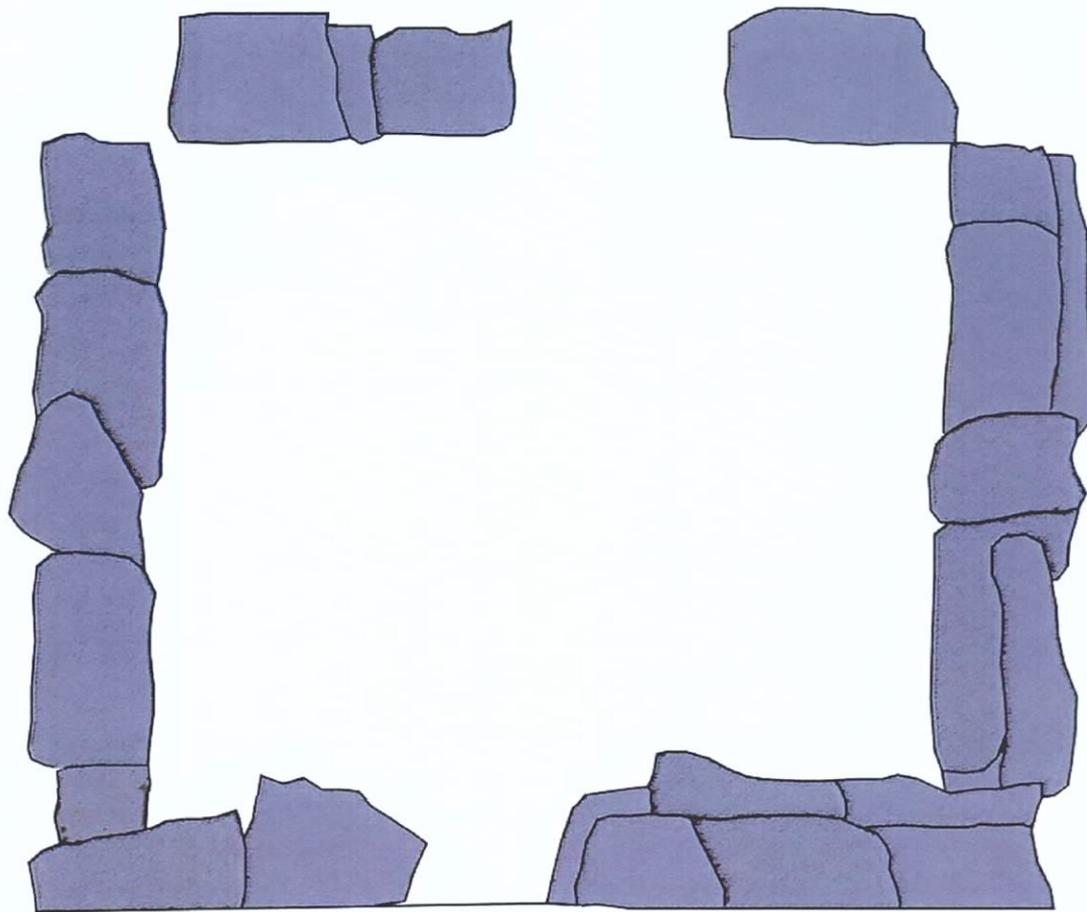


Image 18: Beginning ConEd man hole excavation pit

At approximately two meters and ten centimeters (2.10m) (approximately seven feet (7')) below surface and one half meter (0.5m) (approximately one and a half feet (1.5')) north of the present day sidewalk, cut granite stones in a regular pattern were uncovered (Image 19 and Illustration 01). Further excavation revealed these to be the remnants of a foundation wall. The Judlau crew continued to excavate the area surrounding the stone walls leaving the foundation *in situ* until it was completely excavated and documented. At no time did the archaeological requirement in this area delay the project.

Based upon the location and orientation of the stone foundation it was determined to have been associated with a structure along Queen Street, present-day Pearl Street (Map 15). Prior to 1821, Queen Street was closed at Beekman Street, between Queen (Pearl) Street and Water Street. It was part of the block bounded by Fulton Street and Peck Slip. This section of Beekman Street was not opened and paved until the opening of the Fulton Market in 1822. Prior to that time houses fronted both Queen Street and Water Street.

Beekman Street South - Foundation Wall



Wall Street Water Mains Project
Beekman Street & Water Street
Archaeological Monitoring Project
August 2006 - January 2007
Chrysalis Archaeological Consultants

Illustration 01: Drawing of Foundation Wall



Image 19: Foundation remains uncovered

Map analysis concluded that the foundation walls, sized for a basement storeroom, belonged to the structure at 52 Queen Street.

History

During the late eighteenth century the area of South Street Seaport housed commercial enterprises as well as residential structures. The house, referred to as a mansion (Spaight 1892:102-103), at 52 Queen Street was constructed and owned by Robert Crommelin (1717-1791), a well respected merchant and member of the community.

Robert Crommelin was born February 13, 1717 to a prominent Manhattan family that also maintained properties in Flushing. He was the son of Charles Crommelin, founder of the Holland Trading Company which had an extensive and lucrative business between Amsterdam and New York.

Charles Crommelin (born 1676 in France) came to New York in 1695 with his father Daniel, mother Anne and brother Isaac. Both his mother and brother died in the Yellow Fever epidemic of 1702. In 1706 Charles married Anne Sinclair a descendant of James V King of Scots and a member of the Duyckinck family, one of the earliest Dutch families to settle in North America.

Charles was involved in several business ventures including mercantile/trade with investments in sloops bringing goods from the French West Indies and mining ventures in upstate New York. In the last decade of his life his mining ventures failed and he amassed significant debt. His last years were spent as a merchant in Rye, New York. Charles Crommelin died in January 1739.

Of his nine children, three of his sons became merchants and his daughters appear to have married men with significant business interests. Daniel Crommelin relocated to Holland where he established the extremely successful Daniel Crommelin and Sons. Charles established a business on Wall Street with his brother-in-law Gulian Verplanck.

Robert Crommelin started his business sometime before 1750. According to the New York Gazette (21 May 1750), he moved his business to Smith's Fly carrying a "very good assortment of European and India goods" (NY Gazette 5-21-1750 p.383). He had married Elizabeth Ellison in January 1748 at Trinity Church where he served as a vestryman from 1750 to 1784 (New York Genealogical and Biographical Record 1888 19:147).

Crommelin obtained the property at 52 Queen Street through a water lot grant in March 1750 (Minutes of the Common Council 1675-1776 V:330). Typical to the terms of a water lot grant the owner would be responsible for the filling and development of the property (Geismar 1983, 2005). Some time after 1754, but before 1760, he had moved to Queen Street.



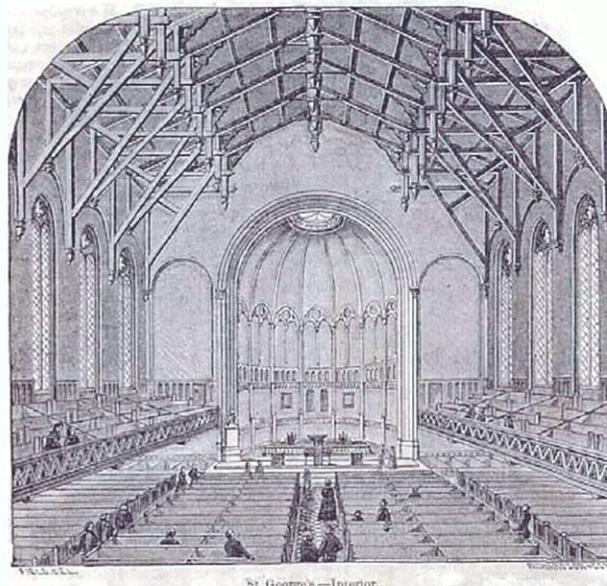
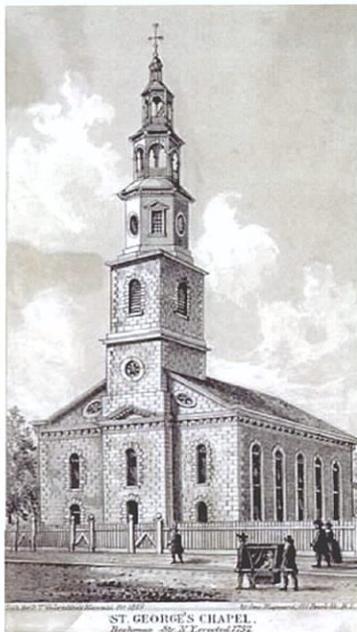
Map 15: David Grimm Map, circa 1813

In addition to maintaining the residence on Queen Street, Robert Crommelin owned a large estate in Flushing. Presumably The Queen Street property was his main residence as his business was in Manhattan. The Flushing estate was likely a weekend home and/or investment. Following his death sale notices for the Flushing property refer to it as his “country seat” (Daily Advertiser May 1791). According to the 1790 Federal Census eight slaves were part of the Flushing estate (United States - Census Records 1790). Crommelin also leased properties at Crommelin’s Wharf facing Chapel Street and on Water Street.

A notice in the New York Gazette (24 October 1785) states “died last Saturday morning Mrs. Elizabeth Crommelin, the amiable consort of Robert Crommelin, Esq.”. A genealogy by the Crommelin descendant organization notes that Robert later remarried Elizabeth Willoughby. No other information regarding this was found.

In July 1788 Robert Crommelin advertised for “700 logs of pine dock wood” to be delivered “in the month of May next” to the East River (NY Packet 7-25-1788). This coincides with a November 1787 petition, approved December 1787, to the Common Council to grant “permission to carry a pier 100 feet into the East River in front of his wharf commonly call the Crane Wharf” (MCC 1784-1831 (I):338 & 342).

Having acquired a degree of wealth through his land holdings and business dealings, Crommelin was a generous benefactor of Trinity Church and the Flushing Episcopal Church. In addition to being a merchant Robert Crommelin, Esquire is noted as being “an architect of considerable taste and skill” (Sanford and Swords 1847:82). He was responsible for the plan of St. George’s Chapel, an ancillary of the Trinity community formerly located at the corner of Beekman and Gold Streets (Sanford and Swords 1847:82) (Images 20 and 21).



Images 20 and 21: Sketches of St. George’s Chapel on Beekman Street designed by Robert Crommelin (Courtesy of the New York Public Library - Online Historic New York Image Collection)

Robert Crommelin died in Flushing on 28 April 1791. He was buried in the yard of the Flushing Episcopal Church. In his will he devised to his wife Elizabeth “my mansion in New York on Queen’s Street ... all my plate, household goods ... chariot chaise, pair of horses and as many black servants as she shall choose to wait on her for and during her natural life” (as quoted in Spaight 1892:102-103). A codicil in the will provided his wife absolute rights to all property bequeathed to her and freed all his enslaved persons. Having no children, the remainder of his estate was divided amongst nieces and nephews both in New York and Amsterdam (Spaight 1892:102-103).

Shortly after his death the business locations of 52 Queen Street was leased to Messrs Jacob LeRoy & Son. Properties at 73, 75, 150 and 151 Water Street were sold at public auction.

According to New York City Directories Elizabeth Crommelin continued to live at the house on Queen Street until 1795 (New York City Directory 1795-1796). The 1796 Directory lists her address as the corner of Garden and Broad. Whether or not she continued to live at the house she maintained ownership of the property. The Minutes of the Common Council reference attempts to purchase the “...lot and house in Pearl Street. Vested in the heirs of the late R. Crommeline, his widow having a life estate ...” (12 may 1803) (Minutes of the Common Council 1784-1831 (III):281-82).

The 1800 Federal Census does not identify individual properties by street name or number making it difficult to determine who, if anyone was living at 52 Queen Street at that time. However, Elizabeth Crommelin, along with two young women, is listed as living in the first ward. The Queen Street residence was in the second ward. Based on a survey of census records and death records (available from 1802 onward⁶) Elizabeth Crommelin died sometime after 1803 but before 1810.

Archaeology

The foundation wall remains uncovered on Beekman Street appear to have been part of a basement storeroom (see Map 13 - site map). When fully exposed the foundation had an interior measurement of two meters three centimeters (2.03m) (approximately six and a half feet (6.6’)) by one meter seventy-two centimeters (1.72m) (approximately five and a half feet (5.6’)). The foundation was comprised of five courses of stone measuring approximately one meter (1m) (approximately three feet, three inches (3.3’)) in height. Stones averaged one half meter (0.5m) (approximately one and a half feet (1.5’)) in width (Image 22).

⁶ The death records from 1802 to 1805 appear to be incomplete.



Image 22: The storeroom foundation. The flooding is due to inclement weather and is not groundwater.

No distinct stratigraphy was observed within the foundation. The soil consisted of a dark brown loam. Inclement weather, it rained throughout the excavation of this feature, precluded obtaining a more definitive soil sample or description. Only the northeastern corner of the foundation interior contained a discernible soil difference; the soil in this area was slightly darker. Excavation revealed this north-east corner to contain a concentrated artifact deposit (Image 23).



Image 23: Artifact deposit in the northeast corner of the foundation

The deposit was roughly circular in shape and appears to have been *deliberately dug* to provide an area of disposal (Image 24). There was no stratigraphy within the feature to suggest a gradual accumulation of materials. The deposit continued to the base of the foundation, approximately three meters twenty centimeters (3.2m) (approximately ten and a half feet (10.5')) below surface and was approximately one meter (1m) (approximately three feet, three inches (3.3')) in width (Image 25).



Image 24: Bottom of the artifact deposit



Image 25: Interior of feature

All artifacts were collected except for shell (Image 26). Due to the large numbers of oyster shell in the deposit only a representative sample was collected.



Image 26: Artifact remains - drying

Artifacts

The artifact assemblage presents a wide range of domestic materials that appear to have been deposited in a single episode. This likely occurred either following the vacancy or sale of the property.

The assemblage contains several types of pottery, glassware, bottles and personal items. In total three thousand two hundred twenty-six (3,226) artifacts were recovered from the foundation. Of this twenty-eight percent (28%) were glass and sixty-eight percent (68%), two thousand two hundred thirteen (2,213), or were ceramic (Image 26).

The majority of the non-faunal assemblage, seventy-seven percent (77%), consists of food related items with ceramics representing the bulk those items. The ceramic wares are varied with regard to type and style. More than half are pearlwares (1795-1840) or plain undecorated creamwares (1762-1820). The creamwares dominate with one thousand eighty (1080) shards or forty-eight percent (48%). In general, materials provide an end of the eighteenth, turn of the nineteenth century date for the assemblage. Notable among the Pearlwares is a willow patterned tankard (Image 27), several fine pearlware bowls and the lid of a large casserole dish. There were also several tea and/or demitasse cups.



Image 27: Pearlware tankard

Three stylistic themes were present among the pottery; Willow patterned wares, floral designs and patriotic. The willow pattern, a popular pattern, was found on a minimum of five dinner plates, the above mentioned tankard and serving pieces. The majority of pearlware however exhibited floral patterns, both hand painted and transferprinted (Image 28 and 29). These types, known as china-glazed, date from 1775-1820. These are mostly in the form of bowls of varying sizes and demitasse cups.



Image 28: Pearlware Transferprint Pitcher



Image 29: Pearlware Transferprint Plate

With one exception the patriotic themed pieces are porcelain and are in the form of small plates. They are of a single pattern, an eagle with the shield. The other patriotic piece is a single black transfer-printed plate. *Lady Liberty* is central to the pattern which also contains the eagle and shield motif as well as a stone or tablet that reads “sacred to the memory of Washington” (Image 30). The shield contains fifteen stars representing the number of states. The fifteenth state was Kentucky, which joined the Union in 1792. Washington died in 1799, therefore the plate is dated post 1799. This would be congruent with the overall ware type dating which gives a late eighteenth to turn of the nineteenth century date.



Image 30: Washington Plate

The creamwares in the collection are of the type referred to as “cc” ware, dating from 1762-1820 (Miller 1991). Although this type looks similar to early whitewares, it represents a “bridge” between traditional creamwares and pearlwares (Janowitz 2007). Among the creamware, or “cc” wares, pieces in the collection are a molded decorative object, mugs, serving platter and Royal style plates.

Several examples of utilitarian wares are also part of the assemblage. Objects of note include a large slat-glazed stoneware jug incised with a cobalt floral design, a thirty-eight centimeter (.38m) (approximately fifteen inches (15”)) diameter American slipware plate, a black glazed redware pot (1700-1770) (Image 31), a black basalt container (1750-1820) and a Staffordshire style slipware porringer (1675-1770). Other food related items are several examples of wine and liquor bottles, water and wine glasses. The drinking glasses include trumpet shaped. Wine glasses, paneled water glasses, cut goblet bases and faceted stems (Image 32).



Image 31: American black glazed redware pot lid

Only utensils are missing among the food related wares. Aside from this absence the assemblage contains a full range of tablewares to support dining and tea activities.

The faunal analysis demonstrates a varied and exotic diet. Food remains include leg of lamb, turkey, guinea fowl and lobster. There were few cow and no pig elements, which is atypical of when compared to other urban sites from this time period. During the eighteenth and nineteenth centuries cow and pig were dietary staples as they were readily available and affordable. While this deposit only reflects a short period of time, and cow and pig may have been part of the larger diet, it suggests a degree of wealth in the household and the access to dietary variety that comes with such wealth. The few cow elements recovered exhibited evidence of button making activities. One bone button was recovered.



Image 32: Wine glass remain

Somewhat more typical in a site of this period and location were the large number of oyster shells in evidence. A sample of two hundred forty-eight (248) was taken. Significantly fewer clam shells were in evidence and a sample of twenty-seven (27) was taken. The shells would be naturally occurring in the area and were often mixed with trash deposits to reduce odors. Oysters were also a dietary staple among the less affluent classes. In this instance they may be the refuse of household servants as well as filler for the trash deposit.

The remaining thirteen percent (13%) of the collection is comprised of personal items (9%), and building materials (2.5%). Among the personal items are chamber pots (a minimum of four vessels) and basins (a minimum of two vessels), medicinal bottles and pipe stems. The chamber pots and basins are all plain undecorated creamware. Of the thirty pipe stems recovered one-third ($\frac{1}{3}$) dated 1720-1750. The remaining two-thirds dated 1750-1800.

Two artifacts were deemed unique and significant enough for CAC to recommend to ME and the DDC that they be subjected to conservation. The LPC supported this recommendation which DDC approved, with the possibility of future displays in mind. The artifacts were professionally conserved by Gary McGowan of CPR (see Appendix H - CPR Conservation Assessment and Report). These artifacts were a bone syringe, an intact cylinder and plunger but missing the needle and a mother of pearl decorative inlay engraved with a floral pattern. The inlay was likely attached to a box or chest of some sort (Images 33 and 34).



Image 33: Bone Syringe

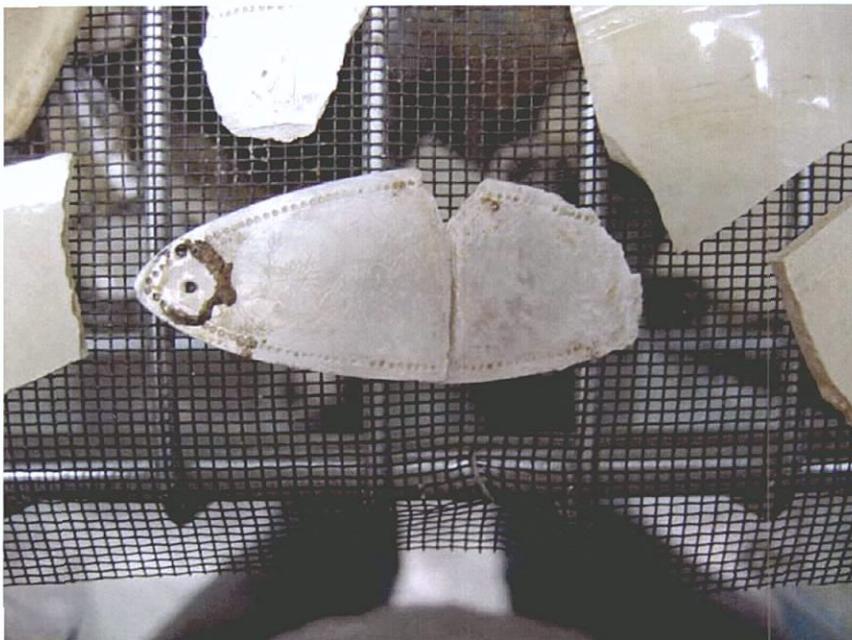


Image 34: Mother-of-pearl Inlay

Two coins were also recovered from this context. Though the approximate size of a quarter or a nineteenth century one-cent piece, they were too corroded to determine their date or value.

Initially the assemblage was thought to be associated with a tavern (Image 35). This was based upon the number of wine bottles, drinking glasses and variety of ceramic wares. However, no documentary evidence supports such a supposition. The property was owned by Robert Crommelin, and then his widow, Elizabeth, until 1821 when Beekman Street was opened from Pearl to Water Streets. However, it is not clear if Mrs. Crommelin continued to reside in the house or there was a tenant.



Image 35: Goblet

The assemblage is the result of a single dumping episode that likely occurred as the property was vacated. Based upon the material remains, the analysis of historic maps and documents, the assemblage was most likely deposited within the corner of the foundation some time between 1796 and 1820. It was during this period that Elizabeth Crommelin left the house and that Beekman Street was formally laid out. To make way with the opening of Beekman Street, the house at 52 Queen Street was demolished.

The overall assemblage exhibits a significant degree of wealth. This is evidenced by the variety within the faunal assemblage as well as ceramic wares. The tea cups are all handled, which could be afforded only by the wealthiest of households (Janowitz 2007). This is consistent with the Crommelin family's status.

Area 3 - Beekman Street North between Front Street and Water Street

Introduction

Excavation along the northern side of Beekman Street between Front Street and Water Street required a one and a quarter meter (1.25m) (approximately four foot (4')) impact depth. The excavation called for the replacement of various utility lines (Maps 01, 02, 13 and Image 36).



Image 36: Area 3 Beekman Street north between Front and Water Streets

History

During the early eighteenth century this stretch of Beekman Street did not exist. The shoreline was situated at Queen Street until mid-century. In the earliest decades of the eighteenth century, the area between Beekman Street and Peck Slips was the location of Daly's ship yard, owned and operated by John Daly, a ship's carpenter. The shipyard closed by mid century when water lot grants were given along the waterfront (Map 16).



Map 16: Lyne, circa 1730 - highlighting Daly's Shipyard

A total of thirteen grants of water lots between Beekman Street and Peck Slip were given, in 1750. The grantees were: Cornelius Beekman, George Peterson, Samuel Tingley, Charity Montaine, John Cannon, Mary Cannon, Robert Livingston, Robert Crommelin, Corn. Van Ranst, William Gilbert, John Bogert, Jr., William Beekman and Benjamin Moore (Minutes of the Common Council 1675-1776 (V):330). The new owners of these water lots were responsible for the development of their lots, which included land-filling⁷. As development continued the area of present day Beekman Street, between Fulton Street and Peck Slip, became known as Crane Wharf. Crane Wharf was bounded by the river to the east and Water Street to the west. The properties on the newly formed Water Street, paved 1789, within the project area and numbered 224 and 226, were owned by Peter Schermerhorn and Ebenezer Stevens respectively (City of New York - Tax Records (various dates) and New York city Directory 1786, 1796) (Image 37).

⁷ For additional information concerning water lot grants see Geismar 1983.



Image 37: Representation of type of house on Peck Slip, 1858 (Courtesy of the New York Public Library - Online Historic New York Image Collection)

According to the Minutes of the Common Council, Crane Wharf was formally constructed about 1790 (Minutes of the Common Council 1784-1831 IV:550). However, the 1786 New York City Directory lists two names/businesses on the Wharf, Asher Cook – Tavernkeeper and James Watson – merchant. Along the wharf several commercial properties were developed (City of New York - Directory 1796). However the earliest available tax records date to 1808 (Table 01).

No.	Owner
1	David Van Norden (Blacksmith Shop)
2	S. Smith
3	Latham Stratton
4	John Bells
6	Thomas Treeborn
10	Elisha Coil

Table 01: 1808 Tax Records

A search of historic newspapers found several advertisements for businesses on Crane Wharf. These ads are reflective of the commercial nature of the seaport area as well as its role as a port for non-local goods. James Watson was selling Bohea tea, Nantz and Coniac brandy and gin in cases, as well as molasses, best Connecticut beef and pork, Carolina indigo, rice and coffee (Daily Advertiser 1785-1790). Another merchant on the Wharf, Hicks and Son, was started by Isaac Hicks in 1796. G & RT Hicks Ship Chandlery owned several vessels and traded to the West Indies and South America (Daily Advertiser, 1785-1790).

Considerations were discussed to rebuild and fill the pier at Crane Wharf as early as 1803. In 1821, the cost for this was estimated at \$11,586, two-thirds of which would be the responsibility of the property owners along the Wharf (Minutes of the Common Council 1784-1831 (XII):79). By 1822 Crane Wharf was filled, Fulton Market was set to open and Beekman Street was extended from Pearl Street to the market at South Street (Minutes of the Common Council 1784-1831) (Image 38).



Image 38: Peck Slip, circa 1850 (Courtesy of the New York Public Library - Online Historic New York Image Collection)

Archaeology

Much of the excavated area within this portion of the WSWM was highly disturbed by twentieth century utility lines (Map 13). However, despite the degree of disturbance there were a few undisturbed areas of artifact deposits. As with the rest of the site, all excavation was conducted manually due to the presence of pre-existing utilities (Image 39).

The eastern half of this segment of Beekman Street evidenced no discernible stratigraphy. The soil excavated was almost uniformly clean sandy soil, which was most likely brought in following earlier utility line construction works. The easternmost portion of the street housed a manhole for sewer access and another for electrical utilities. These were excavated so that necessary upgrades could be made (Image 40).



Image 39: Area 3 – Beekman Street North between Front and Water Streets



Image 40: Artifacts deposit

Along the western half of this span of Beekman Street there was some residual of earlier surfaces. Just past the midpoint of the block, in front of 136 Beekman Street, an area of darker soil was uncovered beneath a distinct layer of red clayey soil. This pocket was located at one meter (1m) (approximately three feet, three inches (3.3')) below surface. This darker soil contained a notable artifact deposit and was approximately one meter (1m) (approximately three feet, three inches (3.3')) wide and extended approximately one half meter (0.5m) (one and a half feet (1.5')). The matrix of the deposit was a dark brown gritty soil with charcoal and brick inclusions mixed with artifacts (Image 40).

Other areas, that can best be described as pockets were also uncovered but stratigraphy was less discernible. One of these pockets contained stoneware kiln furniture (Image 41); a second pocket contained fossilized coral (Image 42).



Image 41: Kiln furniture



Image 42: Coral

Artifacts

The artifacts from this section of Beekman Street are from three distinct contexts and other undistinguished areas. The first is the artifact assemblage located in what appears to be a remnant of a turn of the nineteenth century stratum. The second was a pocket that contained a distinct amount of kiln furniture. The remaining pocket contained a significant amount of fossilized coral.

The pocket containing the fossilized coral was located just east of the intersection of Beekman Street and Water Street. It is likely remnant of trash deposited along Crane Wharf. Due to the abundance of the coral, only a representative sample was collected. Most of the coral was fairly uniform in both size and shape being cylindrical and measuring between four and seven centimeters (0.04m and 0.07m) (one and a half to two and a half inches (1.5" to 2.5")) (Image 43).

The coral is a non-native species called staghorn that is common to the Caribbean (Murphy 2006). According to various research sources it is a species common to the western Atlantic. The closest it is found to New York City is in Florida (National Oceanic and Atmospheric Administration, National Marine Fisheries Service Office of Protected Resources 2007). Many of the businesses in and around Crane Wharf had business dealings with the Caribbean and dealt with ships carrying cargo to and from the various Islands. One such merchant was J & J Coddington of 241 Water Street. Coddington, maintained its own vessels, which often docked at

Crane Wharf. On December 28, 1820 one of these vessels sank along with its cargo adjacent to the wharf (Evening Post December 28, 1820, Issue 5779:2). It is likely that the coral uncovered on Beekman Street was used as ships ballast during voyages.



Image 43: Coral

A total of one hundred twenty-four (124) artifacts were recovered from this context. Other artifacts found in association with the coral include stoneware tiles, a few shards of creamware and bottle glass (eighteenth century). Five pipe stems with both $4/64$ and $5/64$ diameter bore holes (dating 1720-1800) were also recovered.

The pocket of stoneware kiln furniture also contained a few shards of stoneware vessels. The kiln furniture is in the form of spools and wedges, a representative sample of which was retained (Image 44). The stoneware shards are North American salt-glazed stonewares but likely represent wasters and not materials that were in personal household use. Also recovered was one square cut nail, five shards of pearlware and Staffordshire style slipware (Image 45).



Image 44: Kiln Furniture



Image 45: American made Redware Slipware Plate

A total of forty-eight (48) artifacts were recovered. The presence of the kiln furniture and possible wasters is problematic. Research has not determined the presence of a potter in the nearby vicinity and it seems unlikely that the potters up by Pot Bakers Hill (just northwest of present day City Hall Park) would travel south to the eastern shore to deposit trash (Map 17). Even though referendums by the City of New York's Common Council requested residents to deposit their trash in the East River during the late eighteenth century, it is well established that potteries used the nearby Collect Pond as a dumping ground for refuse (Burrows and Wallace 1999; Perry, et. al, 2006).



Map 17: Josephe Mangin and Casimar Goerck Map, circa 1803

The third distinct context, the remnant nineteenth century stratum contained five hundred sixty-four (564) artifacts. These were from a similar time frame as the foundation remains, dating from the eighteenth century to the early nineteenth century. Ninety percent (90%) of the collection is ceramic, both food related and personal items.

Among the pottery there are several creamware bowls, plates and mugs dating from 1765 to 1820 (Image 46). Most prominent were pearlwares accounting for forty-four percent (44%) of all the ceramic shards. The pearlwares are mostly blue and green edgeware (1775-1840) with a minimum of eight (8) plates and one large octagonal green edgeware serving platter (Image 47). Other pearlware types include blue transfer-print (1800-1840) and banded annular ware (1810-1840). There are shards of typical North American salt-glazed stoneware, slipware plates and a glazed redware teapot (Image 48).

The few shards of glass recovered include liquor bottles, drinking glass and a medicinal bottle impressed with "NDON" (presumably London) (Image 49). Personal items in addition to the medicinal bottle include chamber pots, pipe stems and one pipe bowl. The pipe stems, have bore diameters of 4/64 and 5/64, dating from 1720-1800. The pipe bowl is marked with "TD", which likely refers to Thomas Dorni (Dallal 2001) (Image 50).

It is likely that these artifacts are the result of everyday turn of the nineteenth century garbage disposal into the East River. It is not possible to directly associate them with any occupant of Crane's Wharf.



Image 46: "cc" Creamware plate



Image 47: Pearlware Green Shell Edge plate



Image 48: Redware Tea Pot



Image 49: "NDON" Glass



Image 50: TD Pipe

The remaining ninety (90) artifacts from this section of Beekman Street are from no discernible contact and were scattered throughout the northwest end of the excavation area. The artifacts include a range of types including window glass, yellow and red brick fragments, stoneware, creamware, pearlware, slipware, pipe stems and square-cut iron nails and spikes (Image 51). This area contained a large amount of nineteenth century bricks and some earlier yellow brick fragments. They were in a disturbed context, noted and not saved as part of the overall collection.



Image 51: Nail

Area 4 - Intersection of Beekman Street and Water Street

Introduction

The intersection of Beekman Street and Water Street (Maps 01, 02, 13 and Image 52) required substantial excavation for the replacement of water mains, ConEd upgrades and work to the pre-existing sewer. The required impact was estimated to be four meters (4m) (approximately thirteen feet (13')) in depth. The delineation for this area was the eastern curb line of Water Street to the western curb line minus one meter (1m) (approximately three feet, three inches (3.3')) to the midsection of Beekman Street. All excavation occurred manually. The remnants of the eighteenth to nineteenth century wharf were uncovered in this area.

History

As stated earlier, the first water lot grants in the immediate project area were given in 1750. The lot at Beekman Street, extending from Queen Street belonged to Robert Crommelin. He and the neighboring water lot, which occupied the northern half of present-day Beekman Street, owned by Livingston, were each granted an approximate sixty-seven meters (67m) (two hundred twenty feet by thirty feet (220' x 30')) extension into the East River in 1754 (Minutes of the Common Council 1675-1776 (V):435). The water lots from Queen Street to the East River between Beekman's Slip (present day Fulton Street) to Beekman Street were owned by the Schermerhorn family having been acquired from 1726 to 1730 by Arnout Schermerhorn from his father-in-law Johannes Beekman (Schermerhorn 1914) (Image 53).

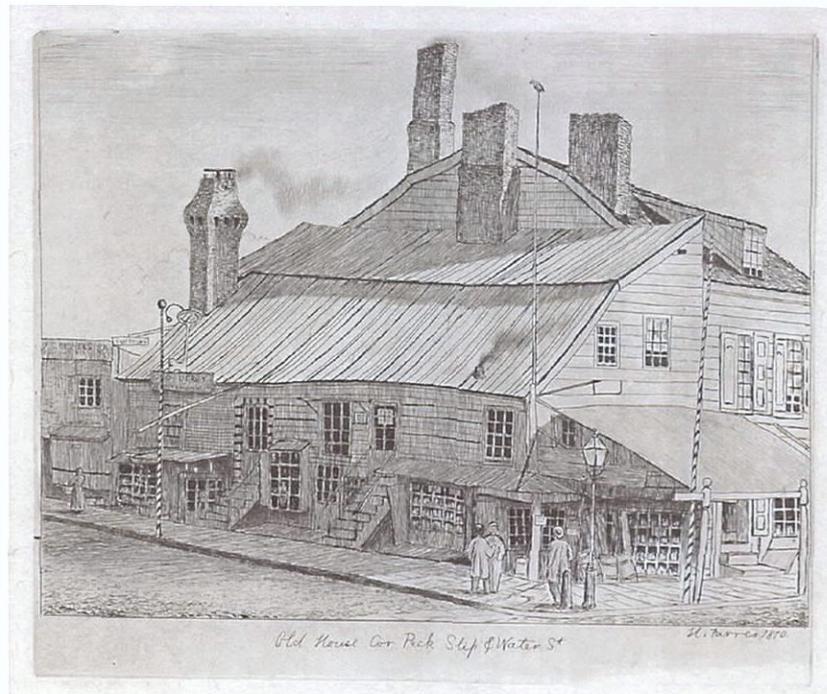


Image 52: Representation of old house at Peck Slip and Water Street (Courtesy of the New York Public Library - Online Historic New York Image Collection)

Arnout Schermerhorn constructed a wharf, denoted as Schermerhorn's Wharf on the 1728-1730 Lyne map, soon after acquisition (Map 18). This established Water Street, which was further delineated by Crommelin and Livingston. The lots that formed the intersection, in the last quarter of the eighteenth century, were owned by Peter Schermerhorn, the southern lot, and Ebenezer Stevens, the northern lot (Minutes of the Common Council 1784-1831; New York City Directories 1786, 1795, 1796, Sons of the American Revolution 1899; Schermerhorn 1914).



Map 18: Kitchin Map, circa 1767

The Schermerhorn's were a prosperous New York family who achieved their wealth through shipping and real estate. Arnout Schermerhorn, was a third generation American who traded largely in real estate, acquiring substantial holdings in the area of South Street Seaport. His grandson Peter (1749-1826) continued in the family business expanding their holdings. Peter was familiarly known as "Captain" Schermerhorn, reflective of the family shipping business (Image 46). His ships worked the trade routes between New York and Charleston, South Carolina (Schermerhorn 1914).

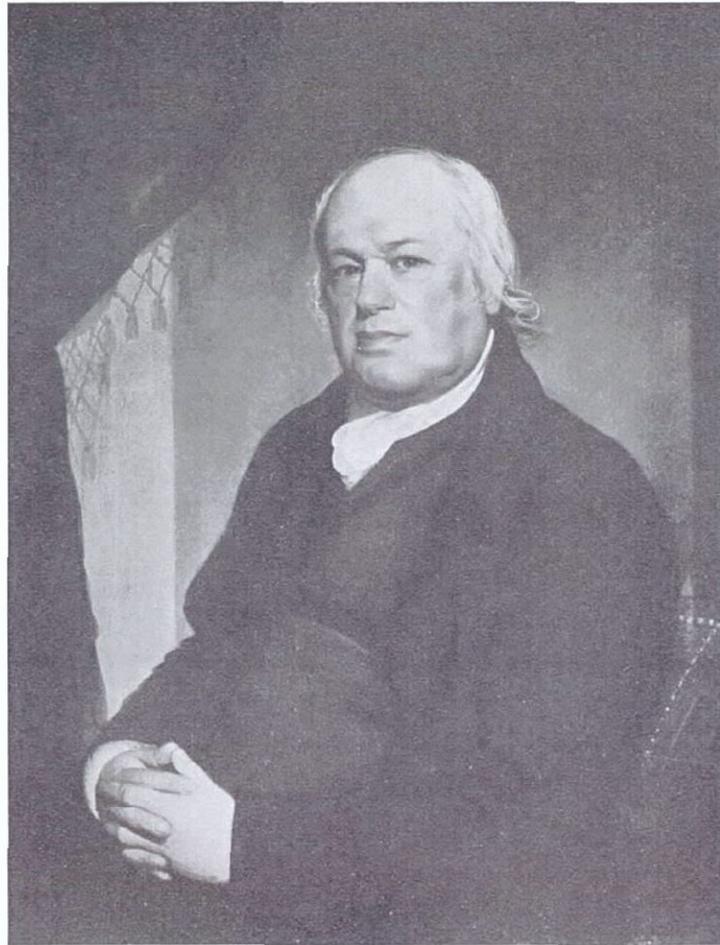
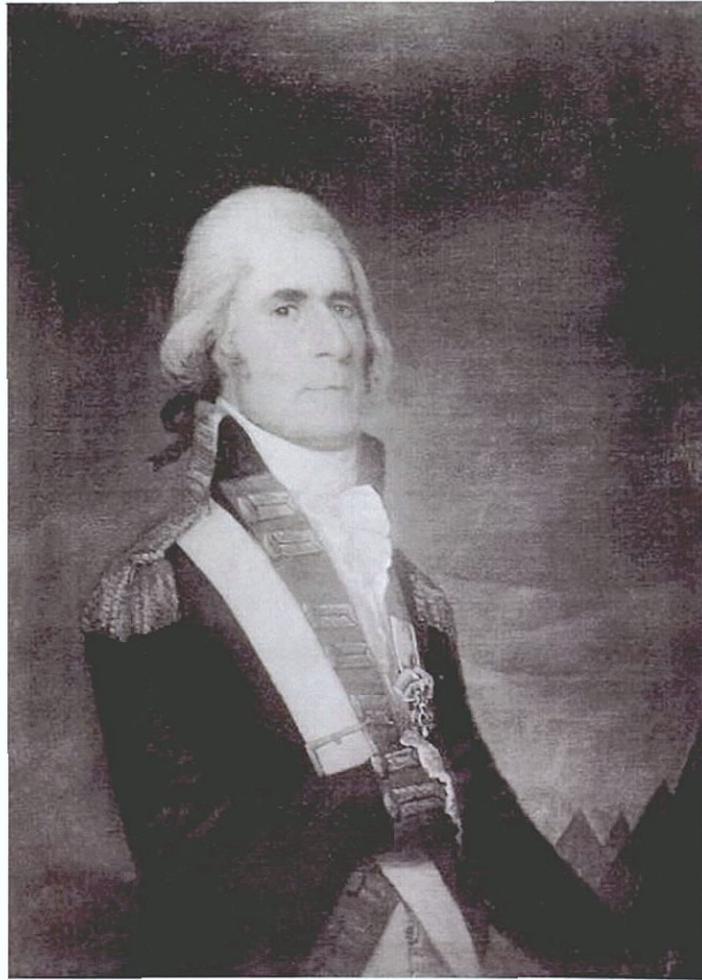


Image 53: Peter Schermerhorn (Courtesy of the New York Public Library - Online Historic New York Image Collection)

During the Revolutionary War period, Peter Schermerhorn moved his family to Hyde Park in Dutchess County, six miles north of Poughkeepsie. Part of the reason for this move was to prevent seizure of his property by the British. After the War the family returned and Peter re-established himself as a ship chandler based on Water Street. The 1791 City Directory lists his place of business and residence as 71 and 73 Water Street respectively (New York City Director 1791). In 1794 the family and the business had moved to 220 and 224 Water Street. By 1799 the Schermerhorn family had moved their residence to 68 Broadway but the business was still located at Water Street (Schermerhorn Organization 2007, United States Census Records various and City of New York Directory 1797).

Peter Schermerhorn's neighbor Ebenezer Stevens (1752-1821) was equally renowned (Image 54). Stevens, born in Boston, was an originator and participant of the Boston Tea Party (Sons of the American Revolution 1899:547). His service during the American Revolution was distinguished having commanded artillery at Ticonderoga and Stillwater. He attained the rank of Colonel and served with Lafayette at Yorktown. After the war he settled in New York City where he became a successful and respected merchant. He and his wife Lucretia had nine children, all raised at their home on Water Street (Sons of the American Revolution 1899:547).



MAJOR GEN. EBENEZER STEVENS.

Image 54: Ebenezer Stevens

Ebenezer Stevens continued his military affiliation as a Major-General of Artillery for New York State. In 1800 he superintended construction of the fortifications on Governor's Island and helped to defend the city during the War of 1812. He retired from military service in 1815 with the rank of General. His son John Austin Stevens, a Yale Graduate, took over the family business when his father retired to Andover Massachusetts (Sons of the American Revolution 1899).

In 1794 the Common Council changed the name of Queen Street to Pearl Street (Minutes of the Common Council 1784-1831 (II):65-66). Plans to open Beekman Street between Pearl Street and Water Street are first mentioned in the Minutes of the Common Council in 1803 when a petition was filed on March 14, 1803 (Minutes of the Common Council 1784-1831 (III):234). A report by the Street Commissioner one month later stated that Schermerhorn asked to be compensated £4400 for his house and lot, while Stevens asked £3000. The response of the Crommelin estate was that the widow Elizabeth was guaranteed a life estate (Minutes of the Common Council 1784-1831 (III):281-82) (Image 55).

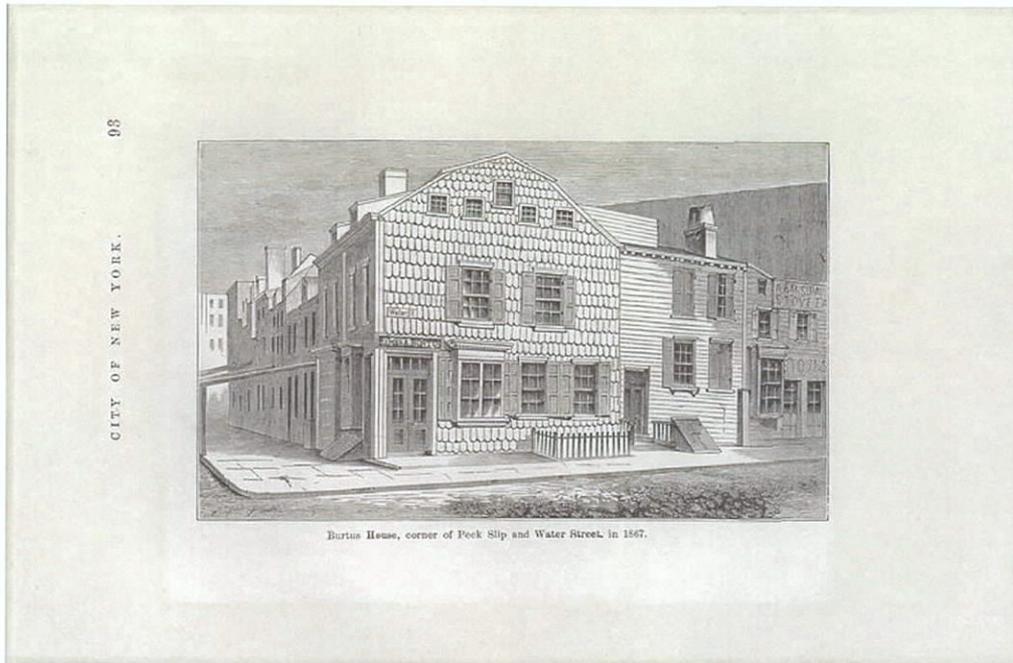


Image 55: Representation house on Peck Slip and Water Street, mid nineteenth century (Courtesy of the New York Public Library - Online Historic New York Image Collection)

The Common Council approved the opening and widening of Beekman Street on June 11, 1804 (Minutes of the Common Council 1784-1831 (III):541). However, no action to do so was taken for several years. In fact several owners of lots on and near Crane Wharf petitioned the Council to construct a new pier in April 1810. This was denied on account that the petitioners did not have the two-thirds majority needed for approval (Minutes of the Common Council 1784-1831 (VI):167-176). Work to widen and construct Beekman Street between Pearl Street and South Street would not move forward until 1820 (Minutes of the Common Council 1784-1831 (VI):175-176).

Archaeology

The excavation of the first three meters (3m) (approximately ten feet (10')) occurred largely without incident (Map 13). Throughout the intersection small out of context clusters of artifacts were recovered. There was no intact or evidence of a stratigraphic record. This area was a mass of utility lines tangled and crossing throughout the intersection. The area was completely disturbed by twentieth century utility works (Image 56).

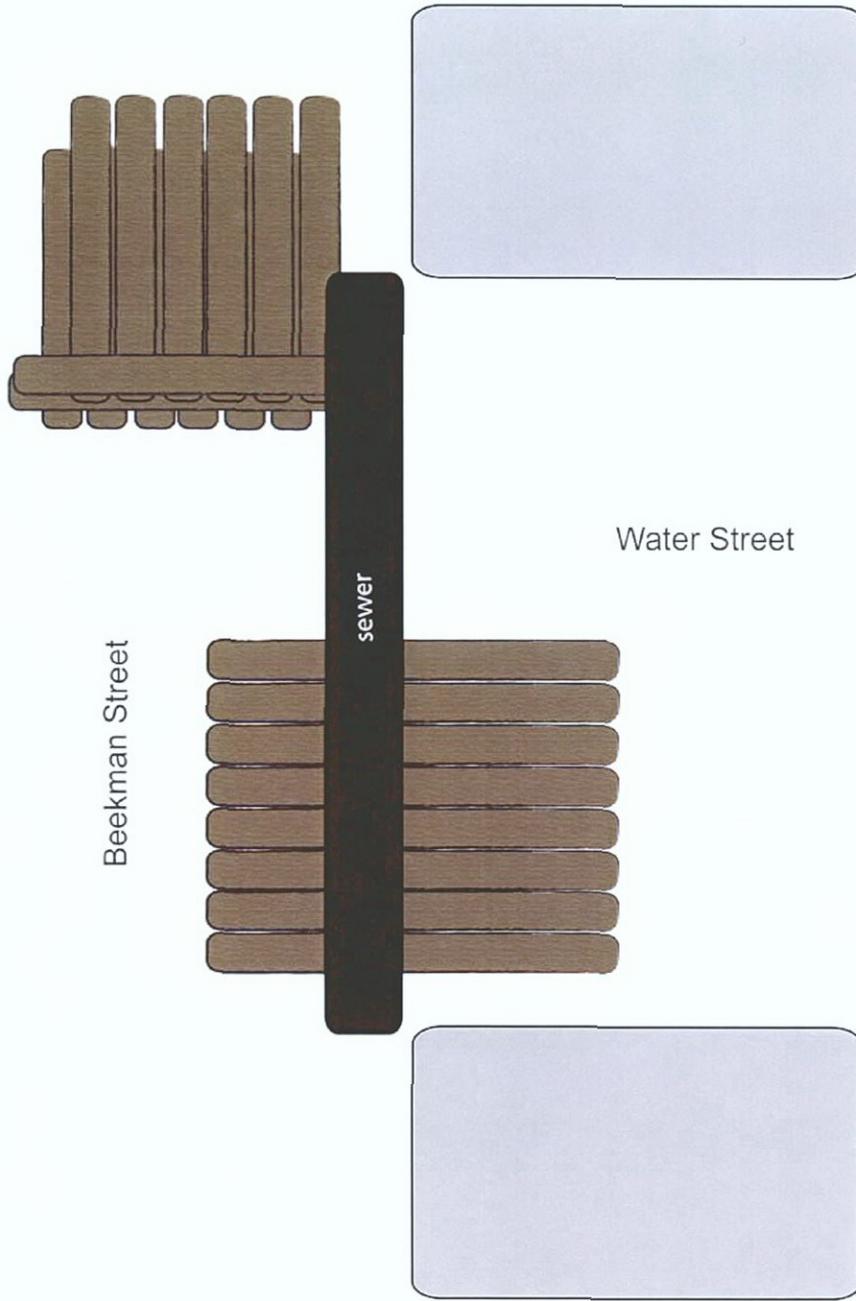


Image 56: Area 4 – the intersection of Beekman and Water Streets

As excavation continued water began seeping into the trench. At approximately three meters (3m) (approximately ten feet (10')) below surface, a series of parallel wooden timbers was uncovered (Image 57 and Illustration 02). Despite a sump pump visibility was limited by the increasing water, several rainstorms and the location of the timbers below several utility lines including the sewer line (Image 58). The Judlau's crew was asked to expose the extent of the timbers so they could be documented. Due to the constraints of the area documentation would combined several approaches including photography of targeted areas, measurements and free-hand drawing.

The timbers were laid in a crosshatched pattern, at least four timbers high extending to a depth of five meters (5m) (approximately sixteen and a half feet (16.5')) below surface. In some areas timbers were cut, broken or missing, all evidencing twentieth century disturbance during utility installations. A significant portion of the feature ran beneath the existing sewer line in an east-west orientation, the sewer line running north-south (Image 59). Timbers running north-south had been compromised and were largely absent.

Beekman Street & Water Street Intersection
Historic Wharf



Wall Street Water Mains Project
Beekman Street & Water Street
Archaeological Monitoring Project
August 2006 - January 2007
Chrysalis Archaeological Consultants



Illustration 02: Timber framing



Image 57: Uncovering of wooden timbers



Image 58: Uncovering of wooden timbers



Image 59: Wooden timbers underneath existing sewer line

Removal of the timbers was necessary for construction purposes. *In situ* measurements of the intact timbers, eight in total, were taken. The timbers measured five meters thirty centimeters (5.30m) (approximately seventeen feet (17')) in length and an average forty-five to sixty centimeters (0.45m - 0.60m) (approximately one and a half to two feet (1.5' to 2')) wide. After the first timbers were removed a significant amount of water began to enter the trench (Image 60).



Image 60: Water entering excavation trench during removal of timbers

Artifacts

Due to the heavy disturbance by twentieth century construction works no intact stratigraphic layers were uncovered. In total of ninety-four (94) artifacts were found throughout the intersection. Demonstrating the disturbance in the area a 1960s Pepsi Cola bottle was recovered adjacent to the sewer pipe and nineteenth century pottery. There was a wide range of types recovered dating to the late eighteenth through early nineteenth century (Images 61 and 62). Though clearly disturbed by twentieth century utility construction works, it is likely these are remnants of trash deposal in the area.



Image 61: Eighteenth century Salt-glazed stoneware (scratch-blue)

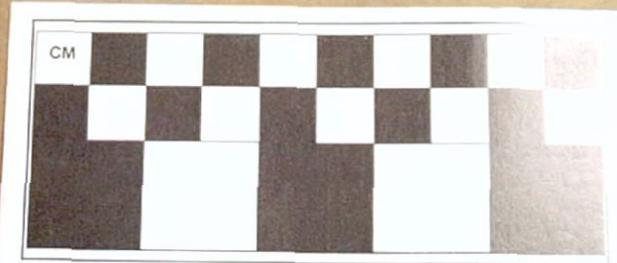


Image 62: Nineteenth century porcelain painted tea cup

The timbers uncovered were likely part of Crane's Wharf and bulkhead sunk by Peter Schermerhorn and Ebenezer Stevens in 1816 (Minutes of the Common Council 1784-1831 VIII:535). Samples for possible dating were taken (Image 63). However, upon consultation with Lamont Doherty at Columbia University it was determined that the timbers had not experienced enough growth to be suitable for dating (Wright 2007).



Image 63: Wooden pier remains

Area 5 - Beekman Street North (between Pearl Street and Water Street - Barrel Vaults)

The area along the northern half of Beekman Street between Water and Pearl Streets was slated to be excavated to a depth of approximately one and a half to two meters (1.5-2.0m) (approximately five to six and a half feet (5' – 6.5')) for utility replacement works (Maps 01, 02, 13 and Image 64). While excavation uncovered mid nineteenth century features, a significant amount of disturbance was evidenced.



Image 64: Barrel Vaults area

Archaeology:

Excavation within this area occurred manually due to the density of pre-existing utility lines (Map 13). The trench measured the length of Beekman Street from Water Street to the corner of Pearl Street and extended approximately three meters (3m) (approximately ten feet (10')) south from the curb. Along the northern edge of the trench four brick barrel vault features were uncovered (Image 65). Two of the four, those on the eastern and western ends had been demolished during previous construction episodes leaving only the northern profile. The two middle barrel vaults were intact.

Excavation occurred laterally so the barrel vaults were not exposed from the top down. As the barrel vaults were approached the Judlau crew cleared the exterior wall for documentation prior to opening the vault. Once opened each vault interior was examine and photographed and measurements taken.



Image 65: Barrel Vault

The eastern corner of this trench was excavated to a depth of a little over two meters (2m) (approximately six and a half feet (6.5')) for a catch basin. The area showed evidence of previous excavation for the installation of an adjacent manhole. That installation destroyed the nineteenth century barrel vault that appears to have stood in that location. A small amount of nineteenth century artifacts were recovered from this site, including pearlwares and whitewares ceramics.

The first intact barrel vault was located nineteen feet two inches west of the property line at the corner of Beckman and Water Streets. The second barrel vault was next to, and west of the first. The barrel vaults were of similar size and construction. Both barrel vaults were constructed of red nineteenth century bricks measuring nineteen centimeters (0.19m) long by five centimeters (0.05m) wide (approximately six inches by two inches (7.5" by 2")). The vaults were uncovered at almost one half meter (0.48m) (approximately nineteenth inches (19.0")) below the sidewalk and extended to a depth of approximately one meter seventy-five (1.75m) (approximately five feet, eight inches (5.8")) below the sidewalk. Interior measurements were approximately one meter seven centimeters (1.7m) (approximately five feet, eight inches (5.8")) and three and a half meters (3.5m) (approximately eleven and a half feet (11.5')) wide (Image 66).



Image 66: Barrel Vault

The space between the barrel vaults and on either side exhibited a brick wall measuring a little over one meter (1m) (approximately three feet, four inches (3.4’)) wide and extending to a depth of approximately one meter fifty-five centimeters (1.55m) (approximately five feet (5’)) below surface. The walls were incomplete so precise measures were not available (Illustration 03).

Both vaults contained refuse from building demolition. After each phase of documentation was completed removal of the vaults proceeded.

Aside from the barrel vaults this section of Beekman Street exhibit a significant degree of disturbance. No intact strata or artifact deposits were recovered.

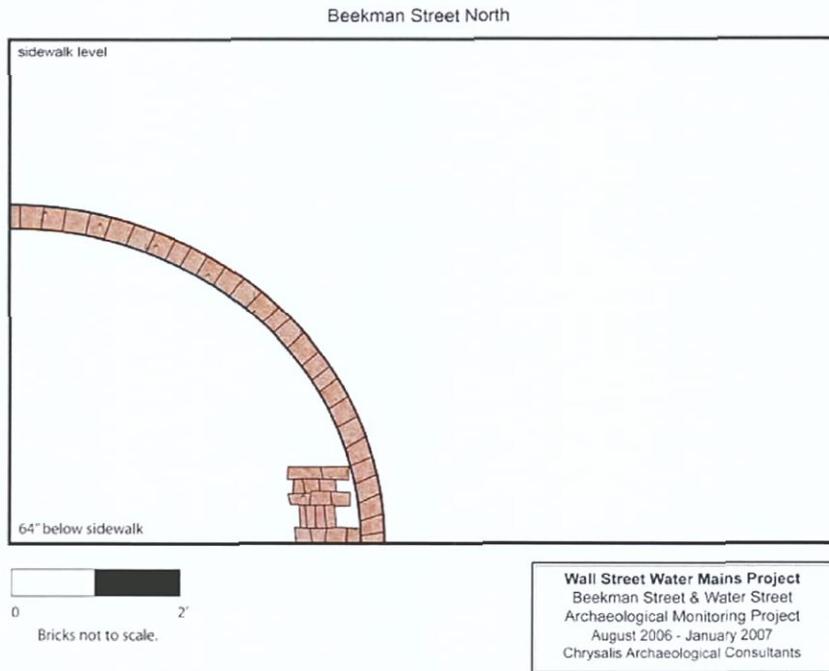
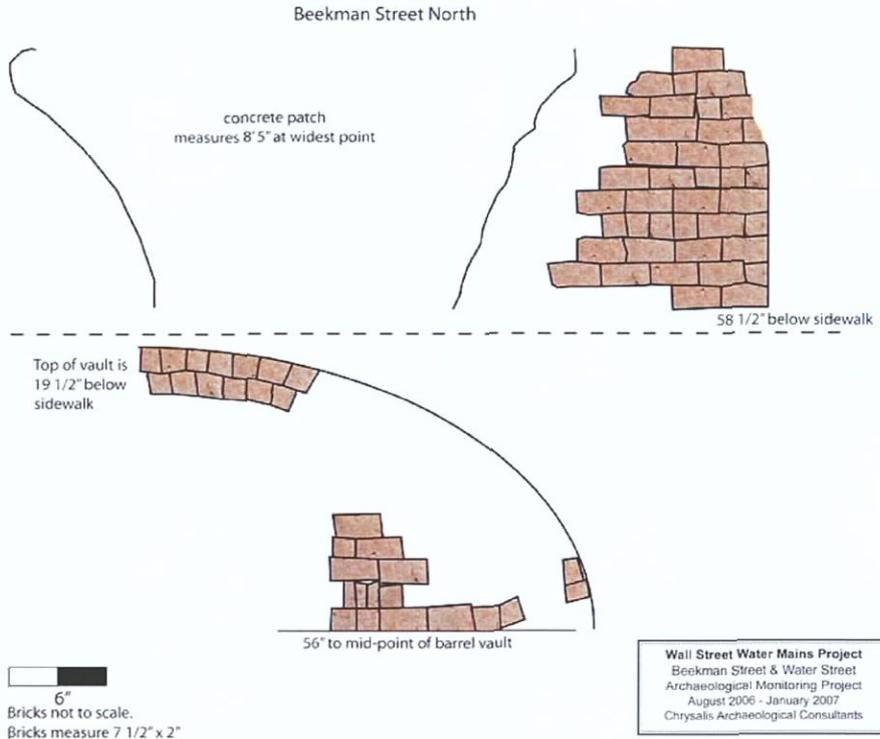


Illustration 03: Drawings of typical barrel vaults

History

During the eighteenth century this area was part of a water lot grant given to Robert Livingston. No information detailing Livingston's development of the lot was uncovered. However, it may be presumed that at a minimum the lot was filled prior to 1789, when Water Street was paved (Map 19).



Map 19: Maerschalck, circa 1755

After Beekman Street was opened at the end of 1821 this stretch of Beekman Street was available for development. A total of eight lots numbered 104 - 118, were laid out along this section of Beekman Street, by 1825 (see Tables 02 and 03). According to the 1852 Perris map these properties housed two third-class⁸ brick framed structures; one second-class⁹ brick framed structure; and five first-class¹⁰ brick framed structures. All had a commercial designation but according to census data were used as rental units as well as for business.

⁸ Examples of third-class structures are carpenters, distillers, ink makers, wool mills, soap makers and looking glass or picture frame makers.

⁹ Examples of a second-class structure are book binders, brass founders and printers.

¹⁰ Examples of first-class structures are bakers, brewers, boat builders, brush and comb makers and hat manufactories

1786 New York City Directory Listing

Address:	Name and Occupation:	Address type:
Crane Wharf	Asher Cook, tavern keeper	
	James Watson, merchant	

Table 02: 1785 New York City Directory Listing

1829 New York City Directory Listing

Address:	Name and Occupation:	Address type:
#104 Beekman	Robert Vanderpool, printer	primary
	P.W. Cole, printer	business
#106 Beekman	Oliver H. Taylor, boot and shoemaker	primary
	John M'Chesney, wire cloth manufacturer;	primary
	Alexander Ming, bookstore	business
#108 Beekman	Henry D. Ward, editor Anti-Masonic Review;	primary
	Samuel S. Searing, brush manufacturer	primary
#110 Beekman	Francis C. Treadwell, baker	primary
#111 Beekman	Joseph F. Carroll, merchant	business
#112 Beekman	C.J. Gayler, fish sauce store	business
	John Kelly, carpenter	primary
	James Ewbank, carpenter	business
#113 Beekman	Joseph F. White, merchant	primary
	Samuel Fleet, editor	primary
	George N. Middlebrook, notary & com.	primary
#114 Beekman	Moor Johnston, cedar cooper	primary
	John Rogers, tailor	business
	Stephen Brooks, tinsmith	primary
#115 Beekman	Amherst Wight, attorney	business
	F.A. Gale, merchant	primary
	Reuben Hough, sashmaker & glazier	primary
	F. D. Bonnett & Co., merchants	business
	Stephen B. Olmstead	business
#116 Beekman	John Low, liquor store;	primary
	Elizabeth Bunker (widow)	primary
#117 Beekman	Thomas Ewbank	primary
#119 Beekman	Hugh Aikman, cooper	primary
#122 Beekman	Ezra Warring, victualler	business
	P.A. Sargeant, grocer	primary
	Daniel Child	primary
	Reuben A. Clark	business
	John A. Dow, scalebeam-maker	business
	Henry Fairbairn, cooper	business
#124 Beekman	Benjamin Rogers, fishmonger	primary
	Thomas Rogers, fisherman	primary
	Runey & Thacker Hatters	primary/business
	Henry Thacker, hatter	primary
	Peleg R. Billings, fisherman	primary
#126 Beekman	Eleazer Hovey, jeweler	primary

Table 03: 1829 New York City Director Listing



Image 67: Beekman Street and Water Street - mid twentieth century (Courtesy of the New York Public Library - Online Historic New York Image Collection)

The buildings remained extant until the twentieth century when the lots of Block 98 were systematically purchased and demolished in the late 1960s. In their place stand a level public parking facility (Image 67).

Section V: CONCLUSIONS AND RECOMMENDATIONS

Although archaeological monitoring was not originally part of the WSWM project, the discovery of the wooden water main and the ensuing archaeological finds demonstrate the continued need for archaeological considerations in lower Manhattan. Even though the area had previously been subject to extensive twentieth century construction works that generally disturbed or destroyed historical surfaces and features, intact cultural resource materials remained as shallow as one meter (1m) (three feet (3')) below surface.

While hundreds of out of context artifacts were recovered from the project area there were four instances of significant *in situ* discoveries. The first, the wooden water mains, led to incorporating archaeological monitoring into the project. These have been discovered elsewhere in lower Manhattan and are by no means unique but they provide additional insight to the extent of the City's nineteenth century infrastructure.

The two water mains recovered were generously provided to the DEP by DDC. DEP stated that their intention was to preserve and display the hollowed-out logs along with other remains of the City's first underground water system. Since the water mains were no longer in the possession of the DDC, no further analysis on them could be undertaken. Therefore, only dimensional and photographic information was obtained. Unfortunately, it also appears that DEP will not undertake conservation on the logs. See Appendix I for further information.

The second *in situ* discovery was the storeroom foundation remains associated with 52 Queen Street. On its own the foundation walls are of minimal interest. However, within the foundation a significant deposit of turn of late eighteenth to the nineteenth century materials was uncovered.

Documentary analysis identified the owners and residents of 52 Queen Street as Robert and Elizabeth Crommelin. Robert Crommelin was a wealthy merchant who left the estate to his wife upon his death in 1791. Elizabeth Crommelin lived at the house until 1796 and owned it into the nineteenth century. The assemblage is the result of a single episode deposit that likely occurred upon the vacancy of the property. A definitive date beyond turn of the nineteenth century could not be determined.

The importance of this assemblage lies in its ability to reveal information about the wealthy merchant class of late eighteenth to turn of the nineteenth century New York. South Street Seaport's history is well-established with regard to shipping and mercantilism but its residential history is lesser known. Crommelin was the first land owner of this property having obtained it through a water lot grant. Water lot grants were an important aspect in the physical development of the City of New York. It was the grantee who was responsible to create land within the water lot expanding the shoreline of Manhattan.

The artifact materials contain several partially to complete reconstructible vessels that are representative of a very wealthy household. Continued lab work would allow for further and more complete reconstructions. This would enable greater identification of the various vessel forms in the collection and a better perspective on the activities of the household.

The artifacts are certainly display worthy. A more substantial reconstruction process, that includes gluing reconstructed vessels, would be necessary prior to any display. The form of such an exhibition could be fixed or traveling. It is the recommendation of this report that some form of public exhibition be given serious consideration. See Appendix I for further information and recommendations on exhibition and long term care for the collection.

The third *in situ* discovery was the remnants of the turn of the nineteenth century wharf cribbing. This was established by Peter Schermerhorn and Ebenezer Stevens. The feature had already been disturbed by prior construction activities when it was uncovered. The remaining portions of the feature were documented before being dismantled and removed during the current project. The area now houses a substantial concrete infrastructural utility unit.

Although samples of the cribbing were removed for further analysis, it was determined by the Lamont-Doherty Lab of Columbia University that analysis was not possible, due to various reasons and the condition of the logs.

The fourth major *in situ* discovery was of a series of nineteenth century barrel vault features. These are remnant of the nineteenth century stores/row housing that was erected after the opening of Beekman Street in 1822. They date to circa 1825. Census records document the transient nature of the tenants of these houses. The vaults did not contain any artifacts and were filled with demolition debris for the 1970s demolition of the buildings.

In addition to these four discoveries several undisturbed pockets of artifacts from the early nineteenth century were also recovered. Overall the project resulted in over 5000 artifacts. Many of these, particularly those from the foundation area, should be considered for some form of public exhibition that highlights the discoveries and the history of the area. See Appendix I for further information and recommendations on exhibition and long term care for the collection.

The material remains collection range from food remains (oyster and clam shells, faunal remains), personal items (smoking pipes, mother-of-pearl inlay), drinking vessels (bottles, glasses, containers, storage), food consumption (various ceramics that served both utilitarian and dinnerware functions).

These finds all occurred within two short city blocks. While to some degree it may be happenstance that so many finds were left partially undisturbed despite large scale utility works the fact that so much of Manhattan's infrastructure remains in so small an area can not be disregarded. More than anything this site demonstrates the need for a standard and regular practice of archaeological monitoring within lower Manhattan. Clearly there is no magic number above which there will be no archaeological concern. Ultimately caution must be taken and each case must be considered on a case by case basis.

The recent construction on Beekman Street significantly altered the buried landscape. The entire width of Beekman Street from Front to Pearl Streets was excavated to a minimum depth of five feet, often times deeper. The archaeological monitoring that occurred as part of this project has documented subsurface features, most of which were disturbed or removed during this construction project and recovered both in context and out of context artifact materials. As a result no further archaeological concern is warranted for this specific area. However, caution is strongly recommended against the automatic dismissal to the potential of impact upon the potentially buried archaeological remains due to early twentieth century utility work. It is highly recommended that consideration be given to a continued, and regular, requirement for archaeological monitoring in the South Street Seaport area and within lower Manhattan in general.

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Appendix A:
Request for Proposal and Scope of Work/Contract



MANUEL ELKEN CO., P.C.
CONSULTING ENGINEERS

415 PARK AVENUE SOUTH
NEW YORK, NY 10016
(212) 669-5321
FAX: (212) 666-6296

July 3, 2006

Alyssa Loorya, M.A., R.P.A.
4110 Quentin Road
Brooklyn, NY 11234-4322

38 CRANBURY ROAD
WESTPORT, CT 06880
(203) 454-7354
FAX: (203) 722-7527

9814

**Re: Archaeological Inspection Services
Construction of Water Mains Wall Street Area
Borough of Manhattan, Contract No.: MED-583A**

Dear Ms. Loorya:

This firm is under contract with NYC Department of Design and Construction for the Construction Resident Engineering Inspection of the Installation of Water mains in various streets within the Wall Street Area of Manhattan. We have encountered in the excavation of the streets, certain archaeological finds that are required to be inspected an archaeologist.

If you are capable of providing these services, we request that you submit a Fee Proposal consisting of a Daily Rate for conducting the Archeological Inspection. The Scope of Work is as stipulated by Amanda Sutphin of the Archaeological Monitoring Division of the City of New York. The Technical Requirements for the Inspector are attached as established by the NYC.

The work will extend from date of acceptance of your proposal up until December 15, 2006. The presence of your inspector is determined by actual construction activities and will be coordinated by our field Resident Engineer.

Your services will be performed under a sub-contract to this firm and all billing records are to be submitted to us. Payment will be made upon inclusion of your invoice with this firm's monthly invoices and actual monies received from the city in response to our requisition. Please be guided that a time sheet indicating the date and hours worked has to be submitted with the requisition submitted for your services. We would also request that you include in your proposal an estimate of the time required subsequent to the field inspection for preparation of the report covering the inspection findings.

If you have any questions regarding this Request for Proposal, please call the undersigned.

Very truly yours,

MANUEL ELKEN CO., P.C.

Manuel Elken, P.E., L.S.
President

ME/kp

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Chrysalis Archaeological Consultants

ARCHAEOLOGICAL-EDUCATIONAL AND HISTORIC PRESERVATION
SPECIALISTS

July 5, 2006

Manuel Elken
Manuel Elken CO., P.C. Consulting Engineers
419 Park Avenue South
New York, New York 10016
Phone: (212) 889-5321
Fax: (212) 686-8298
Web: www.manuelelken.com

Re: Archaeological Inspections Services - Construction of Water Mains Wall Street Area -
Borough of Manhattan. Contract Number: MED-583A

Dear Mr. Elken:

My name is Alyssa Loorya and I am the President of Chrysalis Archaeological Consultants (CAC). We are a fully licensed and insured, female owned, small business and are members of the Register of Professional Archaeologists (RoPA). Thank you for the opportunity to submit this proposal for the Wall Street Water Mains Project.

Based on your letter dated July 3, 2006, this project calls for Archaeological Monitoring of all excavation work in areas where previous disturbances cannot be verified. The request also states that if culturally sensitive materials are encountered that work may be halted to allow time for archaeological testing to be undertaken. Finally, a fully acceptable report to the New York City Landmarks Preservation Commission (LPC) is to be completed detailing work from the monitoring and, if necessary, field and laboratory work.

In the event that archaeological excavations must be undertaken, based upon the discovery of previously unknown site(s) and in consultation with the LPC, I may be required to bring in field crew to assist with the excavation and laboratory work. The necessity and/or amount of field crew would be determined by what is uncovered.

One of the main concerns for this project is uncovering historic wooden sewer mains, as were uncovered during excavations as part of a similar project two years ago; the LPC may require that a conservator be brought on board to assist in the conservation of these historic remains.

Time sheets for all employees will be kept and submitted as part of the final report for accounting purposes.

4110 Quentin Road
Brooklyn, New York 11234-4322
Phone/Fax: (718) 645-3962

E-mail: ChrysalisArchaeology@att.net
Cell: (347) 922-5581

To ensure as smooth a process as possible, CAC will keep in contact with the LPC to apprise them of the work on a regular basis. We have found that by coordinating regularly with LPC issues tend to be resolved more quickly and advantageously.

As per the requirements of the LPC in their standards for Cultural Resource Management, a draft and final report will be produced and submitted. You will have opportunity to review the draft report prior to submission to the LPC for official review. Upon their review changes will be made, if necessary, and at least two copies of the final report will be submitted.

Finally, I am submitting this bid proposal via fax and by mail. Included in the mail package, and not with the faxed proposal, will be a copy of my current resume and the resume of my field director, Dr. Christopher Ricciardi, also a RoPA certified archaeologist. Please note that Dr. Ricciardi would only serve as field crew director in the event that archaeological testing is required.

If you have any questions with regard to our proposal, or require additional information, please do not hesitate to contact us. We appreciate the chance to bid on this project and hope that we will be able to work together.

Sincerely,

Alyssa Loorya

Alyssa Loorya, M.A., M.Phil, R.P.A.,
President



MANUEL ELKEN CO., P.C.
CONSULTING ENGINEERS

410 PARK AVENUE SOUTH
NEW YORK, NY 10016
(212) 559-5321
FAX (212) 650-8795

35 STAMFORD ROAD
WESTPORT, CT 06580
(203) 454-7384
FAX (203) 222-7627

August 1, 2006

Alyssa Loorya, M.A., R.P.A.
4110 Quentin Road
Brooklyn, NY 11234-4322

9814

**Re: Archaeological Inspection Services
Construction of Water Mains Wall Street Area
Borough of Manhattan, Contract No.: MED-583A**

Dear Ms. Loorya:

Thank you for your proposal dated July 5, 2006, regarding performance of Archaeological Inspection Services for the captioned project. We have recommended to the Department of Design and Construction the engagement of your firm for these services. The DDC has accepted our recommendation and has authorized us to engage your staff for the Inspection Services. Hence, your proposal is hereby accepted.

Please provide to us Insurance Certificates concerning Workman's Compensation, General Liability, and Professional Errors and Omissions Coverage in the amounts that you currently maintain. Upon receipt of same you may proceed with the work starting August 7, 2006. Please contact our Field Representative, Mr. Bharat Ukani, at (212) 791-8170 for specific coordination of the start of your work in connection with the Archaeological Inspection Services. If you have any questions please contact the undersigned.

Very truly yours,

MANUEL ELKEN CO., P.C.

Manuel Elken
President

ME/kp

CC: K. Manikarnika, EIC
T. Foley, Deputy Borough Engineer
B. Ukani, Resident Engineer

Chrysalis Archaeological Consultants

August 4, 2006

Manuel Elken
Manuel Elken CO., P.C. Consulting Engineers
419 Park Avenue South
New York, New York 10016

Dear Mr. Elken:

As per your letter dated August 1, 2006 and the subsequent phone conversation between Christopher Ricciardi and Bharat Ukani on August 4, 2006, please find enclosed two signed Contract Agreements (CA) relative to the Archaeological Inspection Services - Construction of Water Mains Wall Street Area - Borough of Manhattan, Contract Number: MFD-583A Cultural Resource Monitoring Project. If this is acceptable to you, please execute both copies, with your signature, and return one to me.

There are several issues that need to be worked out before we can begin the project. Obviously, we are not available to begin work on August 7, 2006 and our current schedule does not allow us to begin work until at least August 16, 2006. In your initial request for proposal from July 3, 2006, there was no mention of an immediate start date.

We would also like to have a meeting arranged between Chrysalis, your organization, DDC, the construction contractor and the New York City Landmarks Preservation Commission. At this meeting we would like to codify what will and may happen if archaeological materials are uncovered, who is notified, and to lay down other procedural issues. Also, we would like to receive the projected schedule so that we can make arrangements accordingly. We would like this meeting to occur prior to the start of the project.

We have been made aware that the chances of finding buried cultural resource materials are high for this project. During the previous portion of the excavation, intact archaeological remains in the form of wooden sewers were uncovered. This is also the reason for our request to have a meeting with all parties so that all involved are aware of the procedural actions in the event of uncovering materials.

For your records, we have requested our insurance company send you copies of our Workman's Compensation and General Liability insurances. We do not carry Errors and Omissions Coverage as that is not a requirement for maintaining a cultural resource business. However, this contract serves as our guarantee that the work undertaken will meet the standards as set forth by the LPC.

This contract details what was requested in your Request for Proposal dated July 3, 2006. However, we have added in, as we did in our proposal, what may happen in the event that sensitive material remains are uncovered and require full scale excavation.

Thank you very much and we look forward to working with your team on this project.

Sincerely,

Alyssa Loorya, President
Chrysalis Archaeological Consultants (CAC)

4110 Quentin Road
Brooklyn, New York 11234-4322

E-mail: ChrysalisArchaeology@att.net
Phone/Fax: (718) 645-3962
Cell: (347) 922-5581

Chrysalis Archaeological Consultants

August 4, 2006

In consideration of the mutual promises made herein, Chrysalis Archaeological Consultants and Manuel Elken Company - Consulting Engineers agree as follows:

Part I - Field Monitoring, Laboratory and Report Work:

Chrysalis Archaeological Consultants, Inc., (CAC) agrees to conduct for Manuel Elken Company - Consulting Engineers (MECE) a Phase IB Archaeological Monitoring Investigation Project (PROJECT) at the Wall Street Area - Manhattan, New York (Contract Number: MED-583A). Alyssa Loorya, MA, RPA certified Archaeologist, will serve as Principal Investigator for CAC.

MECE and CAC agree that the project site is owned by the City of New York and that the New York City Landmarks Preservation Commission (LPC) has jurisdiction if any in situ archaeological remains are encountered, unearthed, or otherwise discovered during the field work portion of the PROJECT, and that the LPC, and CAC may, among other things, suspend the field work portion of the PROJECT if these remains are uncovered.

As per the Scope of Work (SOW) (attached) submitted (July 5, 2006) based upon the Request for Proposal (July 3, 2006), CAC agrees to monitor during the excavation for the new water mains in the Wall Street area.

CAC agrees to perform laboratory analysis of any artifacts that may be recovered during the monitoring portion of the PROJECT. Based on the number of finds, this analysis should be completed within thirty days of the last day of field work. CAC will notify MECE if more than thirty days will be required to complete the laboratory analysis.

CAC agrees to prepare a written draft report of the monitoring and laboratory findings. This report will include field notes, summary of work, images, list of any material remains recovered and conclusion/recommendation for the project site. CAC will submit the draft report to MECE and LPC for review and comments.

If comments are made, CAC will assess these comments, prepare and deliver a final report to MECE and LPC within two weeks of receiving all comments.

Part II - Cultural Resource (Archaeological) Excavation:

As indicated in the Request for Proposal and in the submitted Scope of Work, the possibility of uncovering in situ archaeological remains is extremely high in this project area. If any material remain(s) are uncovered, CAC will direct MECE to cease all activity until a determination of significance is made.

Depending on the significance of the find, CAC may call upon the LPC to consult with prior to making any determination as to how best to proceed. During this time, no field work can be undertaken in the area of potential effect until a determination is reached. Once a plan of action is reached and executed, work can continue.

1

4110 Quentin Road
Brooklyn, New York 11234-4322

E-mail: ChrysalisArchaeology@att.net
Phone/Fax: (718) 645-3962
Cell: (347) 922-5581

Chrysalis Archaeological Consultants

Further work conducted by a full scale archaeological team may be required based upon the material uncovered and the consultation agreement with the LPC. In this event, CAC will provide the field crew to excavate the material remains. In the event that historic wooden water mains are uncovered, assistance in removing them with mechanical equipment, that will presumably be on site, will be required.

CAC agrees to perform laboratory analysis of the artifacts recovered during the field excavation portion of the PROJECT. Based on the number of material remains, CAC will notify MECE an approximate schedule for completion of laboratory analysis. In the event that the LPC determines a special conservator is required, CAC will provide that service through a subcontractor.

CAC agrees to incorporate the information gathered during the field excavation portion of the project along with the monitoring portion of the project into a draft report.

This report will include field notes, summary of work, images, list of any material remains recovered and conclusion/recommendation for the project site. CAC will submit the draft report to MECE and LPC for review and comment.

If comments are made, CAC will assess these comments, prepare and deliver a final report to MECE and LPC within two weeks of receiving all comments.

Part III:

This constitutes the entire agreement between us and cannot be changed, modified, or terminated orally.

Chrysalis Archaeological Consultants, Inc.

By: Alyssa Loorya, President

AGREED AND ACCEPTED,

Manuel Elken Company, P.C. - Consulting Engineers

By: Manuel Elken

Enclosure:

2

4110 Quentin Road
Brooklyn, New York 11234-4322

E-mail: Chrysalis-Archaeology@att.net
Phone/Fax: (718) 645-3962
Cell: (347) 922-5581

Appendix B:
Press Coverage

The Sun

Archaeologist Finds Pottery, Wood Water Mains Downtown

By [BRADLEY HOPE](#)

Staff Reporter of The New York Sun

November 27, 2006

When construction workers peel back the pavement in lower [Manhattan](#), it's like opening a skylight into the old [New York](#) — a place where water flowed through hollowed-out logs and the streets were crowded with ship builders, pottery makers, and tavern riffraff.

More than 3,000 objects have been found under Beekman Street between Pearl and Water streets, where archaeologist [Alyssa Loorya](#) has been monitoring a city construction site for the last two years.

The largest find was four pieces of the city's old wooden water mains. These mains are hollowed-out yellow pine logs, which distributed water from a water reservoir just north of Chambers Street during the end of the 18th and early 19th centuries, a historian and author of "Water for Gotham," [Gerard Koepfel](#), said.

The pieces are wider on one end and narrower on the other so that each section could fit into another, with a metal collar binding them together. Customers of the [Manhattan Company](#), which eventually became the J.P. Morgan Chase Manhattan Bank, paid \$5 a year per household with no more than five fireplaces to tap into the water mains. Another \$1.25 was added onto the bill for each successive fireplace as a way to account for bigger households, Mr. Koepfel said.

One buried storeroom several feet below street level contained more than 2,000 objects, Ms. Loorya said. The remnants suggest a tavern once raged above in the early 19th century. Stemware from broken glasses, plates — including one that commemorated the death of [George Washington](#) — and food remains were found. There are skeletal remains of turkey, guinea fowl, leg of lamb, lobster, sheep, goat, and a lot of oysters. The absence of cow and pig remains, which were a staple throughout the area, is one aspect of the site that Ms. Loorya said she wanted to investigate.

A pocket of fossilized [Caribbean](#) coral called "stag horn" was also discovered. The coral looks like polished stones, and was often used as ballast in ships traveling the trade routes, Ms. Loorya said.

Before the 19th century, the area where the construction workers are now replacing fiber optic cables and repairing other municipal infrastructure was water. Early in the city's history modern-day [Pearl Street](#) — then known as Queen Street — was Manhattan's edge, but over time landfills created another three blocks. The [South Street Seaport](#) was the primary port for the city, so many of the buildings in the area catered to the shipping industry.

The old water mains that were found would have been buried by the Manhattan Company just a few feet below the cobbled or packed dirt streets. The system was notoriously leaky and unreliable, Mr. Koepfel said, citing letters to the editor in old newspapers complaining about the water service. The roots of the Lombardi poplar trees planted by the city starting in 1800 had a tendency to block up the mains, prompting a flurry of letters back and forth between Manhattan Company managers and municipal authorities, Mr. Koepfel said.

A pair of similar 13-foot wooden pipes was found at Coenties Slip Park in 2004, and last year workers at a [Metropolitan Transportation Authority](#) site at [Battery Park](#) discovered a 45-foot section of a wall that archaeologists believe dates back to the original Colonial settlement at the tip of Manhattan.

The construction workers at Beekman Street, who are supervised by an engineer from the Department of Design and Construction, Krishna Manikarnika, have to excavate everything by hand because of the archaeological remains. Their work is expected to finish up next spring. At about the same time, Ms. Loorya, a contractor for the city, will begin analyzing the artifacts in greater detail.

Ms. Loorya and the construction workers have also found a series of barrel vaults, a bone syringe, a decorative mother of pearl inlaid, and pieces of a kiln.

Every find brings a cautious sense that something new or unheard-of might be uncovered, she said.

"Of course, it's always exciting when you find something, but you have to hold back and see if what you have is important," she said.

A life-long New Yorker from [Marine Park](#) in [Brooklyn](#), Ms. Loorya is also finishing up a dissertation at [Brooklyn College](#) on City Hall Park, where a renovation project in 1999 led to the discovery of 250,000 archaeological remains. The cache included "a lot of alcohol bottles," which were likely drunk by the British soldiers who had their barracks there.

November 29, 2006

Downtown Holds Buried Treasure Below the Surface



In a historic district like Lower Manhattan, it doesn't come as a surprise to find hidden treasures buried just below the street surface. For this reason, many downtown construction projects have an archaeologist on site if there is a likelihood of coming across a *significant find*. In 1981, archaeologists discovered a maritime ship on Water Street that had been stripped of its fittings between 1749 and 1755, chained into position, and used to hold new landfill in place with ballast of sand and cobbles. Recently, crews working to replace water mains on Beekman Street have come across quite a few significant finds -- more than 2,000 in fact.

Remnants of the past at Beekman Street have recently been unearthed

Over the past few months, archaeologist Alyssa Loorya has spent a lot of time unearthing remnants of the past at Beekman Street, coming across items ranging from plates and bowls to a storeroom foundation. What amazes Loorya is that "no matter how many times the streets are ripped up, we still find undisturbed pockets." Wearing multiple layers of clothing and armed with a trowel and tape measure, she routinely hops down into a worksite to see what has been dug up.

On Beekman Street, the first thing Loorya and the construction crew found was an 11-foot-long section of a wooden water main dating back to the 19th century. It was joined to a second section of water main and fitted with a metal collar to prevent the joint from leaking. The New York City Department of Environmental Protection (DEP) has taken the water main sections for preservation purposes.



A section of the 19th century water main

After digging about eight feet below street level, workers came across foundation stones. Loorya began to carefully excavate the stones, discovering a five-foot-by-five-foot storeroom containing multiple artifacts, which she slowly and painstakingly unearthed, photographed, and cataloged. Piecing together a variety of clues, Loorya was able to determine that the pottery inside the storeroom is from the last years of the 18th and first years of the 19th centuries.



Archaeologist Alyssa Loorya (right)

One clue that led to this determination is a plate with the inscription "In Sacred Memory of George Washington." George Washington passed away in 1799. Another plate Loorya discovered commemorates the founding of the United States. A third plate has the image of Lady Liberty with an eagle by her side, surrounded by 15 stars. Other items Loorya unearthed include pieces of mugs and plates, a mother-of-pearl engraved inlay, and a bone syringe and plunger missing the needle.

Loorya theorizes, from old maps and knowledge of the area's history, that the structure's entrance likely sat on Pearl Street and that it was either a grocer or tavern serving the busy port. She recently came across what she believes to be old pier pilings, but she is hesitant to confirm their identity until she conducts more research.

Much of Lower Manhattan is land reclaimed from the Hudson and East Rivers that was filled in using a vast array of materials, ranging from old ships to stones to garbage. That provides a second layer of interest to archaeologists because it can tell a lot about what types of tools and materials were available at the time the land was filled in.

A major find can take time to excavate, so extra time is built into construction projects in Lower Manhattan to allow for the discovery and excavation of artifacts. Loorya's discoveries have not changed the scheduled completion date of the Beekman project. The city does not have a central repository for archaeological artifacts, and one of two large collections that were kept at the World Trade Center, the Five Points artifacts, was lost when the towers collapsed in 2001.

Because archaeologists often can only photograph and carefully document the location of artifacts, the Landmarks Preservation Commission is working to compile a master GPS map of Lower Manhattan to help identify where such treasures are buried. They are also working with the city to try to establish a central repository to store pieces of Lower Manhattan's history.



What was likely a pier piling is unearthed

The Free Library (Real Estate Weekly)

Published by Farflex:

<http://www.thefreelibrary.com/Archeologists+digging+up+past+in+preparation+for+future+boom+a0156202891>

December 6, 2006

Archeologists digging up past in preparation for future boom

At a construction site on Beekman Street downtown, workers carefully scoop up soil in five gallon buckets knowing they are as likely to hit a stray utility line as they are to dig up a skeletal hunk of 18th century guinea fowl.

The project--part of a New York City Department of Environmental Conservation/Department of Design and Construction utilities upgrade--is one of several, including the former African Burial Ground on Duane Street, and the Battery Walls at South Ferry, that gained significance as an important archeological site through the recovery of thousands of artifacts.

"It is surprising that you can still find pockets of intact resources from the 18th century within New York City street beds, but you do, and it is extraordinary," said Amanda Sutphin, director of archeology for the Landmarks Preservation Commission.

As the construction boom peaks around the city, project managers working in tandem with archeologists, will become more common, Sutphin said. Projects in landmarked areas or projects that require thorough environmental reviews, such as the MTA's 2nd Avenue Subway line currently in the pipeline, may require archeological oversight. The relationship does not have to be problematic, Sutphin said.

"A lot of times, people tend to view archeology as a big hold-up for a project, but it doesn't have to be. As long as the lines of communication remain open, work does not need to be interrupted," said Alyssa Loorya, M.A., R.P.A, principal in Chrysalis Archeological Consultants, the firm that is overseeing the Beekman site.

The Beekman Street project has actually altered the way some of the crew's members view their work. One of the most significant of the 5,000 items excavated on the site was a 14 foot long hollowed out yellow pine water pipe which altered the way Paul Critelli, utility manager for Judlau Contracting, Inc. viewed the work he had done replacing city water mains for the past seven years in Lower Manhattan.

"Now I know what it was like in the 1800's and how our ancestors actually distributed water through wooden water mains," Critelli said. "I think that, once my children come of age to actually recognize the findings, history will become more real to them. It really is important for them that we preserve the past."

The project was particularly conducive to archeological oversight because the work, which includes the upgrading of 120-year-old utilities lines and the installation of new catch basins, require curb to curb hand digging to protect delicate utility lines planted in shallow portions of the street.

Archeologists have been on the project from the get-go. That area of Beekman Street, between Pearl and Water Streets is landmarked, and city representatives looking over old maps had determined there was a significant chance that intact artifacts may remain there. The street is part of the original shoreline of Colonial New York that ran along Pearl Street. It was created out of landfill and was suspected to be one of many former water lots sold by the city where residents created "cribbing", a sort of dam that could have been built out of interlocking logs and filled to push back the water line over a period of years. Waterlogged property sales were popular for many decades in the early 1800's.

Other significant finds include foundation walls that Loorya believes may have come from a tavern. Within that area over 2500 artifacts were found including shards from fine glassware, remains of guinea fowl and lobster, and a ceramic plate commemorating the death of George Washington. The style of the materials found lead Loorya to believe that the tavern may have catered to a more elite clientele, she said.

Even the most significant finds did not hold up the work, Loorya said. The crew excavated around the foundation wall after it was found.

"If we weren't doing archeology here, they may have broken up the wall as they came across it. Instead, they worked around it. It was a slight shift in the direction of the work, but it didn't hold things up."

Workers actually pointed out dozens of pieces of Caribbean staghorn coral that stumped Suphtin who at first couldn't figure out what they were doing along the river until she deduced they were probably used as the ballast on ships. "One of the workers digging pointed it out to me. He knew it was different because they are familiar with the materials they work around. The guys are a wealth of information for me out here," Loorya said.

This kind of work could help keep neighborhoods intact. "As neighborhoods are rapidly changing, it is nice for people to learn what the character of that neighborhood was. It makes history a little more tangible, a little more real," Loorya said.

It could keep business booming for the city as well. Said Suphtin, "Of course, if you want to look at it from a business perspective, New York history brings a lot of tourism.

Tourism brings money and the money helps developers get more money. It's a nice loop."

RECONSTRUCTION NEWSLETTER

Water Main Project * Wall Street Area

OFFICE OF COMMUNITY OUTREACH & NOTIFICATION

PROJECT INFORMATION

The NYC Department of Design and Construction (DDC) is supervising the reconstruction of water mains that are 130-150 years old in the downtown area of NYC. This project has been in progress for seven years and four months. The original scope of the project was expanded to include additional streets damaged in the aftermath of September 11th. The utility companies are working in conjunction with DDC on this project.

CONSTRUCTION UPDATE

Beekman Street continues to provide a treasure trove of artifacts. These are evinced in a special 'Construction News' magazine dedicated to the findings.

Full street closures once scheduled for Beekman St. and Wall St. has been postponed. Both Beekman Street from Front to Water Sts. and Wall Street from Hanover to Pearl Sts will be closed as of January 8, 2007. Updated notices will be distributed in these areas.

The contractor will continue to work on the north side of Wall Street from Hanover St. to William St.

Reconstruction progresses on Ann Street between William and Gold Sts., the intersection of Ann and Nassau Sts., and Beekman Street.

The contractor's current work schedule includes daytime operations through 4:30 pm and weekend work at specific locations.

PROJECT STATUS - In Progress

Wall St.	Hanover to Pearl Sts.
Ann St.	Nassau to Gold St.
Beekman St.	Front to Pearl Sts.
Wall St.	William to Hanover Sts.
Intersect.	Ann & Nassau Sts.

WATER MAINS INSTALLED & ROADWAYS TEMPORARILY PAVED

Reade Street	Broadway to Church St.
--------------	------------------------



DDC officials meet with Landmarks Commission Rep., a news reporter and the on-site archaeologist at Beekman St. about artifacts featured in a special fall edition of Construction News.

PROJECT IMPACT

The community should expect the following:

- Increased levels of noise during construction work beginning 7:00 am.
- Some traffic lane changes, road closures and delays.
- Possible Street parking restrictions, and relocation of permit parking as needed. Signs will be posted in advance. Vehicles in violation may be towed.
- Signs, advisories and temporary construction barriers will be erected to guide pedestrians, traffic and promote safety.
- Some bus stops may be moved or changed during reconstruction.
- Dust, dirt and mud are typically associated with construction.
- Possible interference with telephone, cable and/or electric services may occur.

WATER SERVICE INTERRUPTIONS

During the course of this project, there will be water service interruptions in order to replace deteriorated water pipes. The existing water main must be shut off. This is accomplished by closing the existing valves to isolate the section of water main that will be replaced. Prior notice will be given for any interruptions.

When water service is restored, it may be discolored. This is not hazardous and is due to mineral sediments stirred up during the shutdown. Run cold water till it clears.

KEY PROJECT PERSONNEL

Manuel Elken Company, P.C.
Field Office

156 William St., Rm. 1101
New York, N.Y. 10038

John Barbaro, P.E. (day work)
Resident Engineer

Elizabeth Baptiste
Community Construction Liaison (CCL)
(212) 791-8170

Krishna Manikarnika
Engineer in Charge

Sybil Dodson, Director
Community Outreach & Notification
30-30 Thomson Avenue
Long Island City, N.Y. 11101

Construction Contractor
Judlau Construction Company

The Daily Construction Bulletin is available by e-mail. Subscription is free.

E-mail Address:

wallstwm@mindspring.com

NEWSLETTER DISTRIBUTION

Community Board 1, Dante Restaurant,
Alliance for Downtown NY, The
Command Center/LMDC & by e-mail

PROPERTY DAMAGE

You must inform the CCL, Resident Engineer and Contractor at the first incident of property damage you may have, and if the Contractor fails to respond within 10 days you should inform the DDC Borough Director in writing. If you intend to file a claim with the New York City Comptroller's Office, you must do so within 90 days.



Be prepared to give the following information so your call can be directed properly:

- Your Name
- Borough
- Project Number
- Address in Question
- Return Phone Number



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

COMMUNITY OUTREACH & NOTIFICATION CONSTRUCTION NEWS

FALL 2006

BEEKMAN STREET ARTIFACTS UNCOVERED HMMWTCA6A

Michael R. Bloomberg
Mayor

David J. Burney, AIA
DDC Commissioner

Eric Macfarlane, P.E.
Deputy Commissioner
Infrastructure

Richard Zetterlund, P.E.
Associate Commissioner
Infrastructure

J. Evans Doleyes, P.E.
Assistant Commissioner
Infrastructure

Sybil R. Dodson, Director
Infrastructure
Office of Community Outreach &
Notification

Manhattan
Construction Director
Thomas Wynne, P.E.

Bronx/Queens North
Construction Director
Joseph Cassidy, P.E.

Queens South
Construction Director
Donald Granger, P.E.

Brooklyn
Construction Director
Robert Yueh, P.E.

Staten Island
Construction Director
Richard W. Myhre, P.E.

Each DDC Infrastructure project has its own "personality", whether its replacing water mains, sewers, catch basins, etc. Although lower Manhattan has been historically significant in the past, no one anticipated that Beekman Street would turn into a treasure trove of unearthed 18th and 19th century artifacts.

The artifacts were uncovered during excavation by Judlau Contracting/Manuel Elken. Alyssa Loorya, MA, RPA (Archaeologist) supervised the excavation and removal of the water main. Once the artifacts were removed, Ms. Loorya documented, cleaned, measured, photographed and bagged each piece before removing them to Chrysalis Labs where they are being washed and counted.

The wooden water main sections date to the 19th century and were laid throughout lower Manhattan to transport water from the City reservoir at Chambers Street. The water main system was constructed from hollowed logs of yellow pine. The system was installed and maintained by the Manhattan Water Company, which today is known as JP Morgan Chase.

In the spirit of inter-agency cooperation, DDC offered DEP a section of the wooden water main for their archives. The preserved water mains will be used for future public display and for "Show & Tell" during DDC's "Curbside" water supply education class, offered to schools located in close proximity to Infrastructure reconstruction projects.

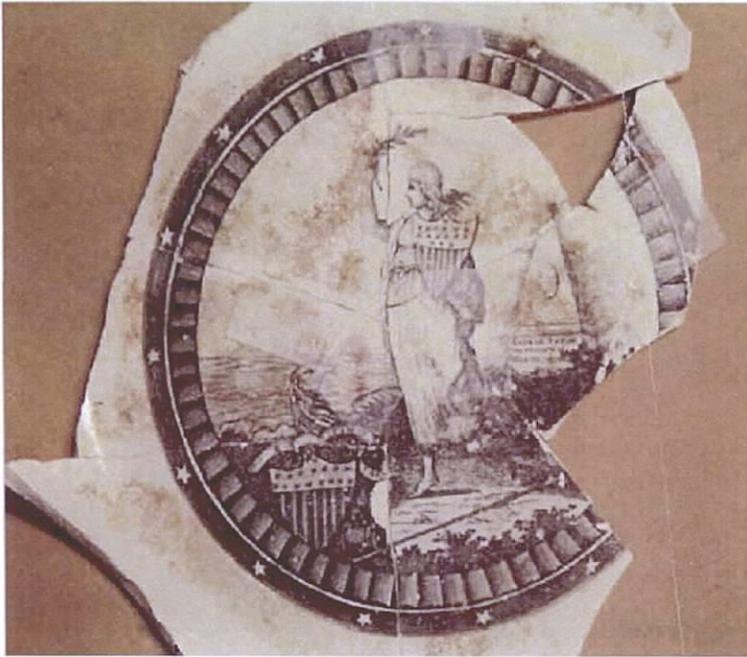


Storeroom foundation during excavation. The artifact concentration can be seen in the upper left corner of the foundation.



This is an image of an early 19th century ceramic tankard decorated with the willow pattern.

BEEKMAN STREET ARTIFACTS UNCOVERED



This is a Commemorative pearl ware transfer-printed plate that dates to the turn of the century. It depicts a lady liberty. The monument in the image reads "Sacred to the memory of George Washington".



This is a wooden ring that was part of the 19th century wooden water main system.

BEEKMAN STREET ARTIFACTS UNCOVERED



A porcelain teacup dated to the 19th century.



A locally made red ware bowl dating to the late 18th century.



This is a shard of blue edge ware which dates to the turn of the 19th century.

BEEKMAN STREET ARTIFACTS UNCOVERED



Archaeologist, Alicia Loorya cleaning a portion of excavated wood pipe.



Wooden water main sections date to the 19th century. The water main system was constructed from hollowed logs of yellow pine.



Image of foundation as excavation was nearing completion.

BEEKMAN STREET ARTIFACTS UNCOVERED



Picture of archaeologist Alicia Looyra at the excavation site.



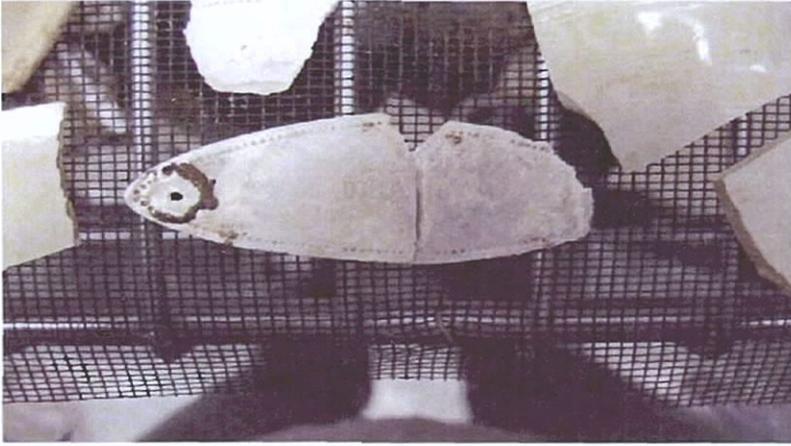
Wooden water main in situ.

In-situ: The natural undisturbed soil in place.



Close up of wooden water main with the metal collar used to connect the pipe to another section.

BEEKMAN STREET ARTIFACTS UNCOVERED



This is a mother of pearl (shell) inlay. While difficult to see on the photograph the design is an ornamental floral design. It is believed that this was part of a decorative box, believed to be from the 18th century.



This is a portion of a porcelain plate that depicts the symbol of the newly established United States of America. It dates post 1780's. The decoration on the plate is hand painted.

OUR MISSION

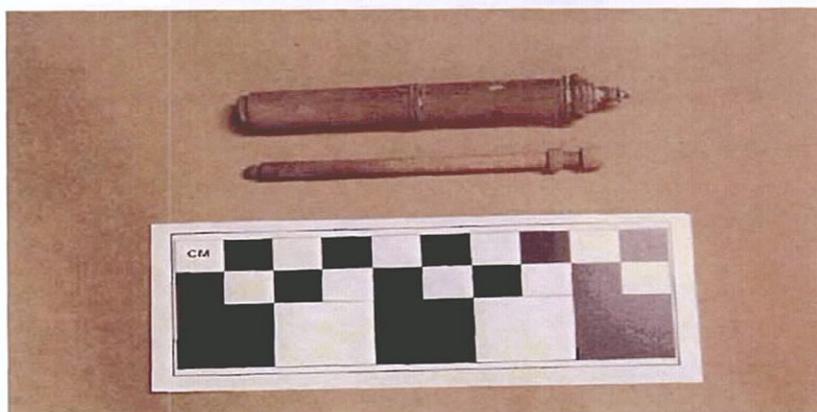
To deliver the City's construction projects in a safe, expeditious and cost effective manner while maintaining the highest degree of architectural, engineering and construction quality.

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BEEKMAN STREET ARTIFACTS UNCOVERED



An array of animal bones that were recovered from the site. Several of the bones have shown evidence of manufacture (e.g. being punched to make buttons). Among the species represented are turkeys, sheep, goat, guinea fowl and cow.



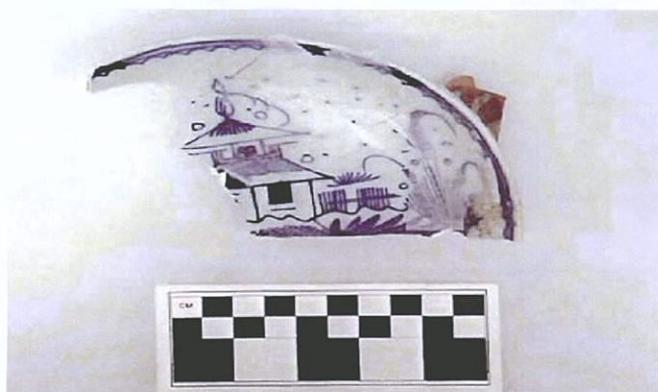
These two images show the chamber and plunger of an 18th century bone syringe. This is one of 2 artifacts undergoing conservation. It was the archaeologist's and the Landmark Preservation Commission's recommendation that this unique artifact be professionally conserved. Realizing the value of the artifacts DDC approved the recommended conservation.



BEEKMAN STREET ARTIFACTS UNCOVERED



Two pieces of a blue transfer-printed plate dating to the early 19th century.



This is a porcelain bowl imported from China.

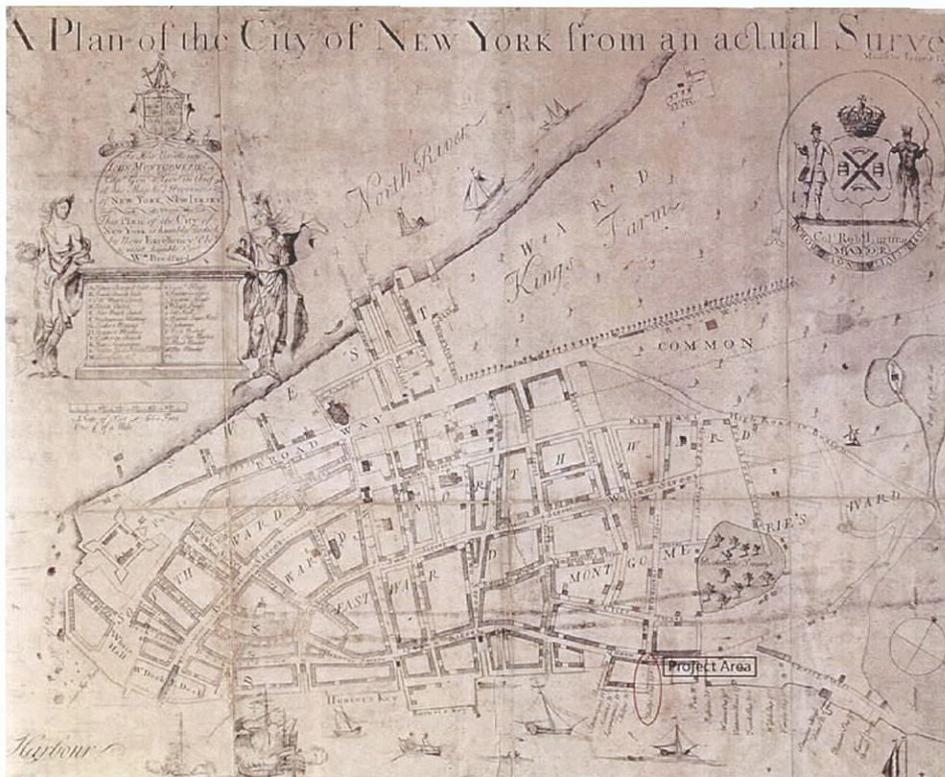


The pattern on the plate is called "Willow" and was a very popular design during the 19th century.

Appendix C:
Historic Maps



Map 20: Johnston, 1730



Map 21: Lyne, 1731



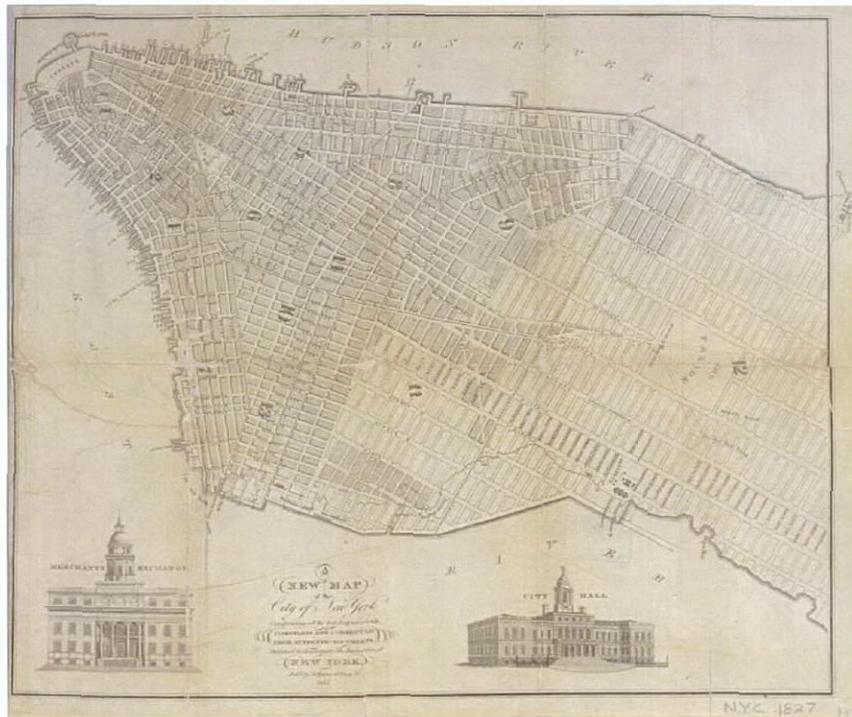
Map 22: Faden, 1776



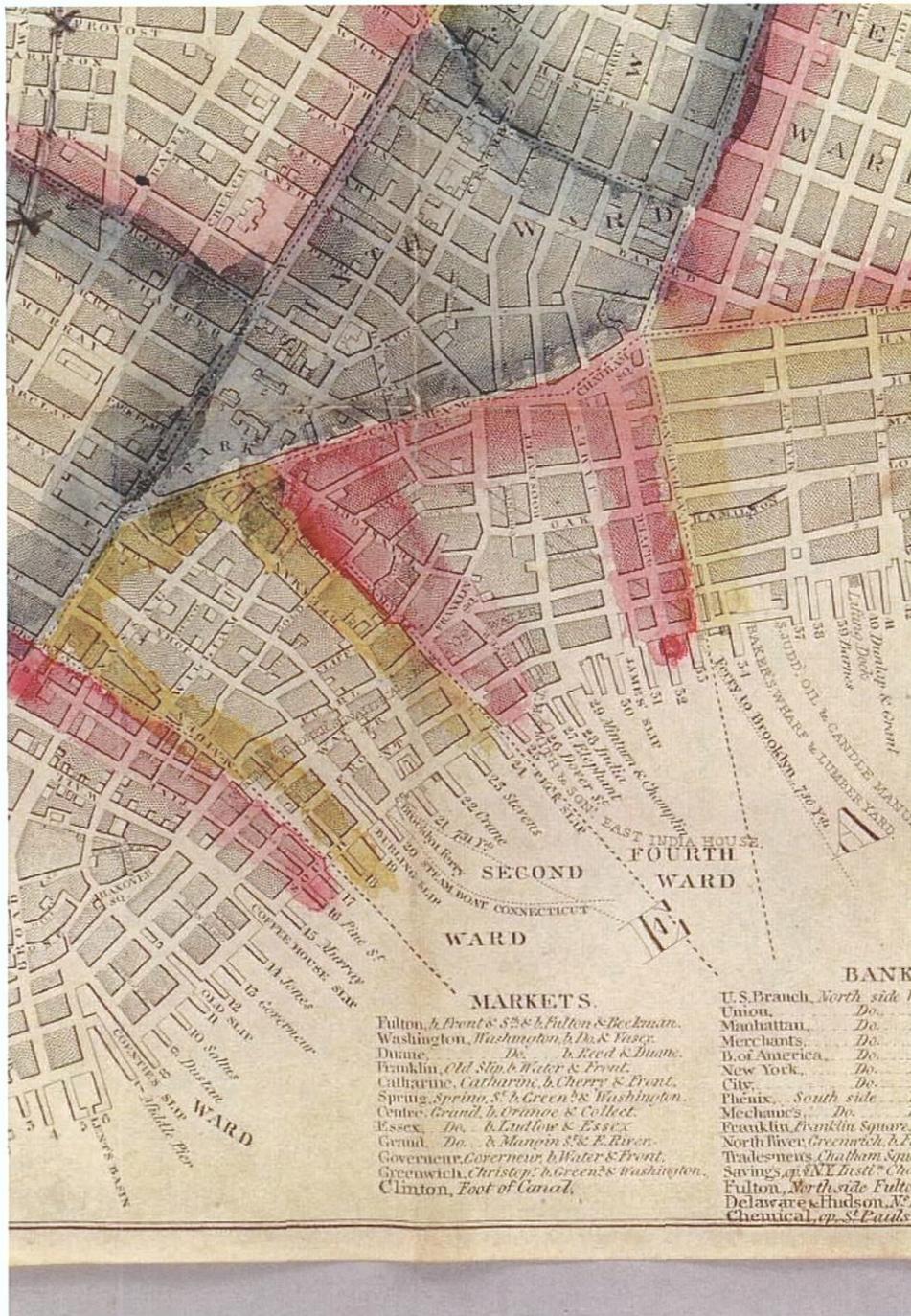
Map 23: Ratzer, 1776



Map 24: Goerck, 1803



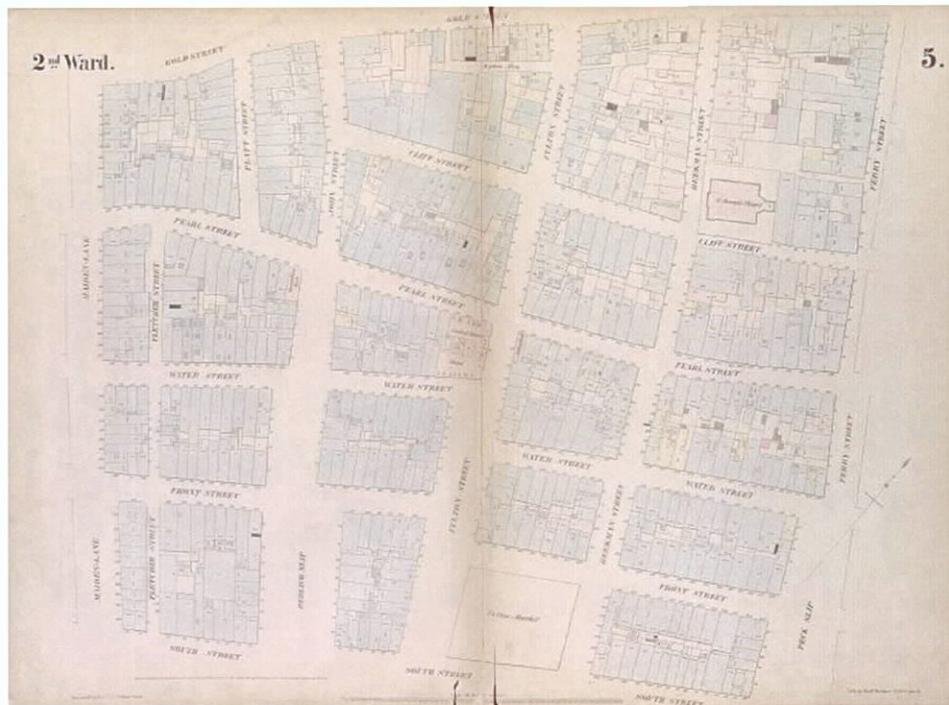
Map 25: Marks, 1827



Map 26: Hooker, 1829



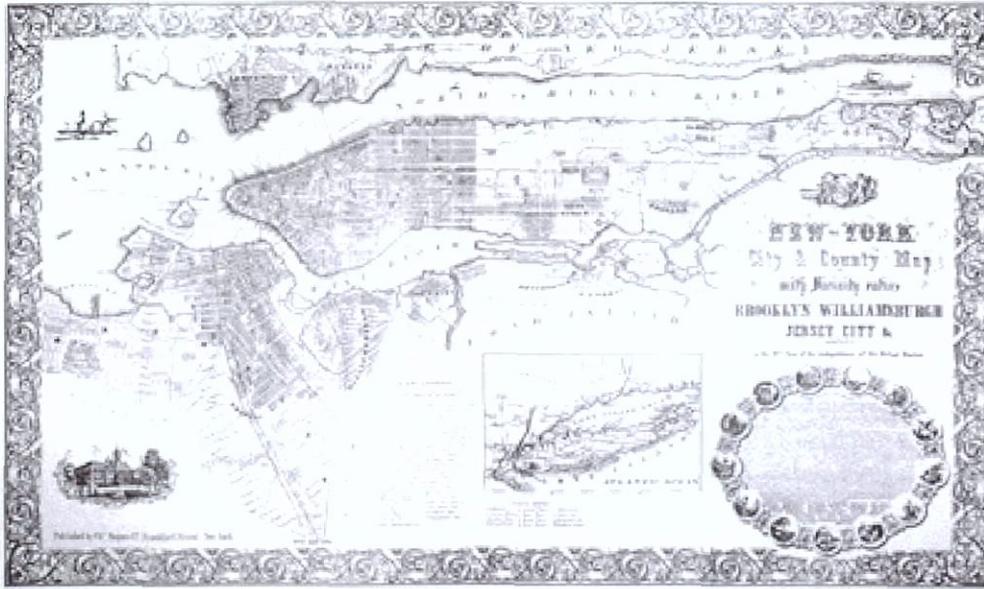
Map 29: Dripps, 1851



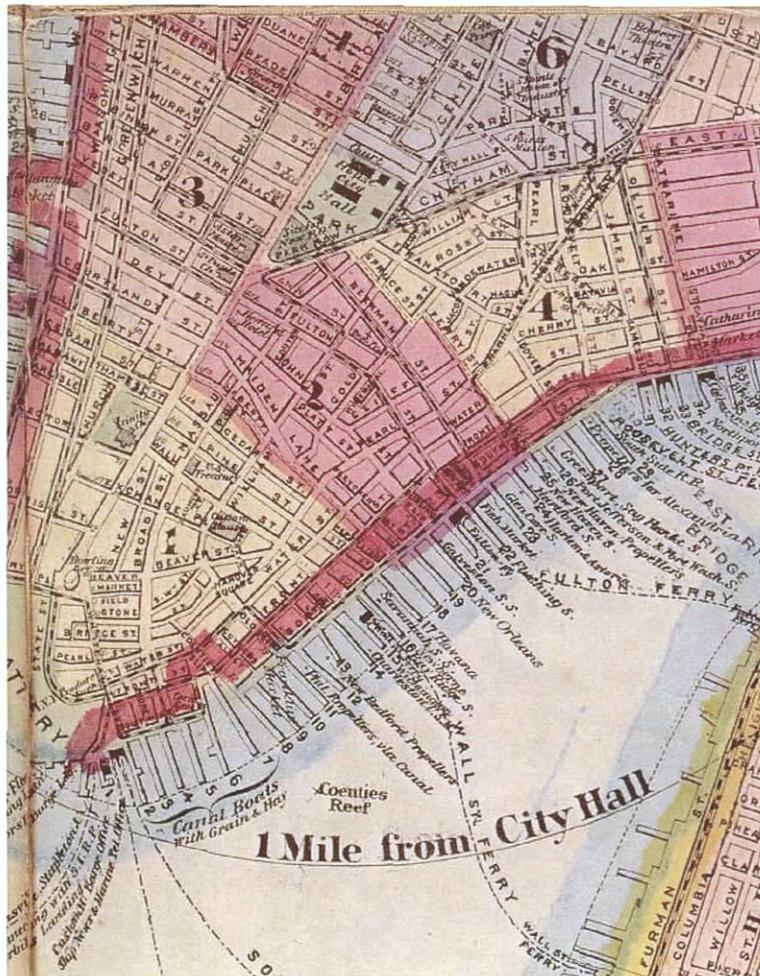
Map 30: Perris, 1852



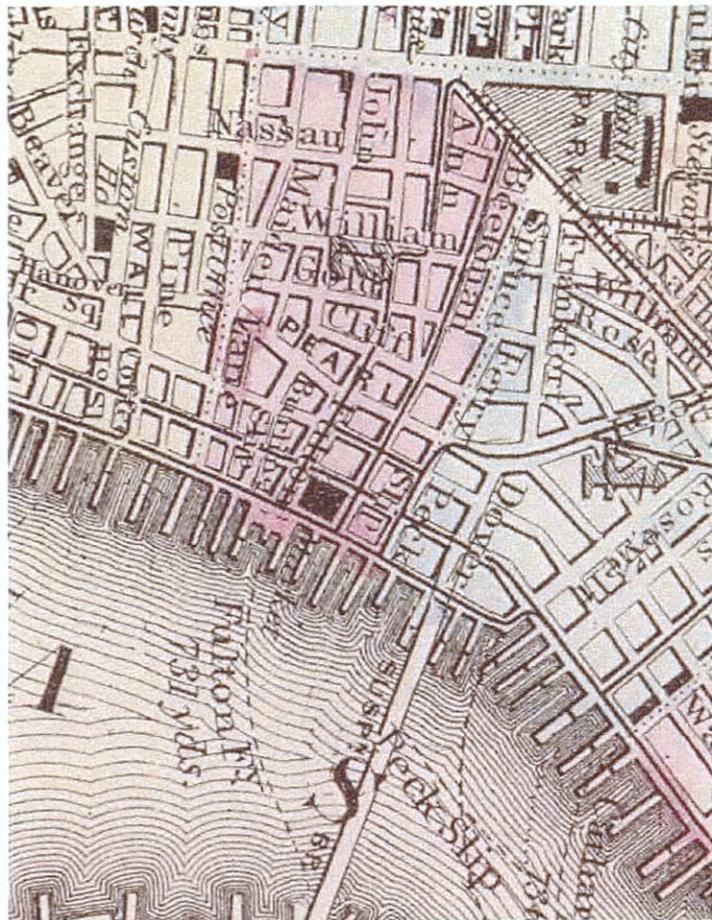
Map 31: Perris, 1852



Map 32: Magnus, 1854



Map 33: Watson, 1874

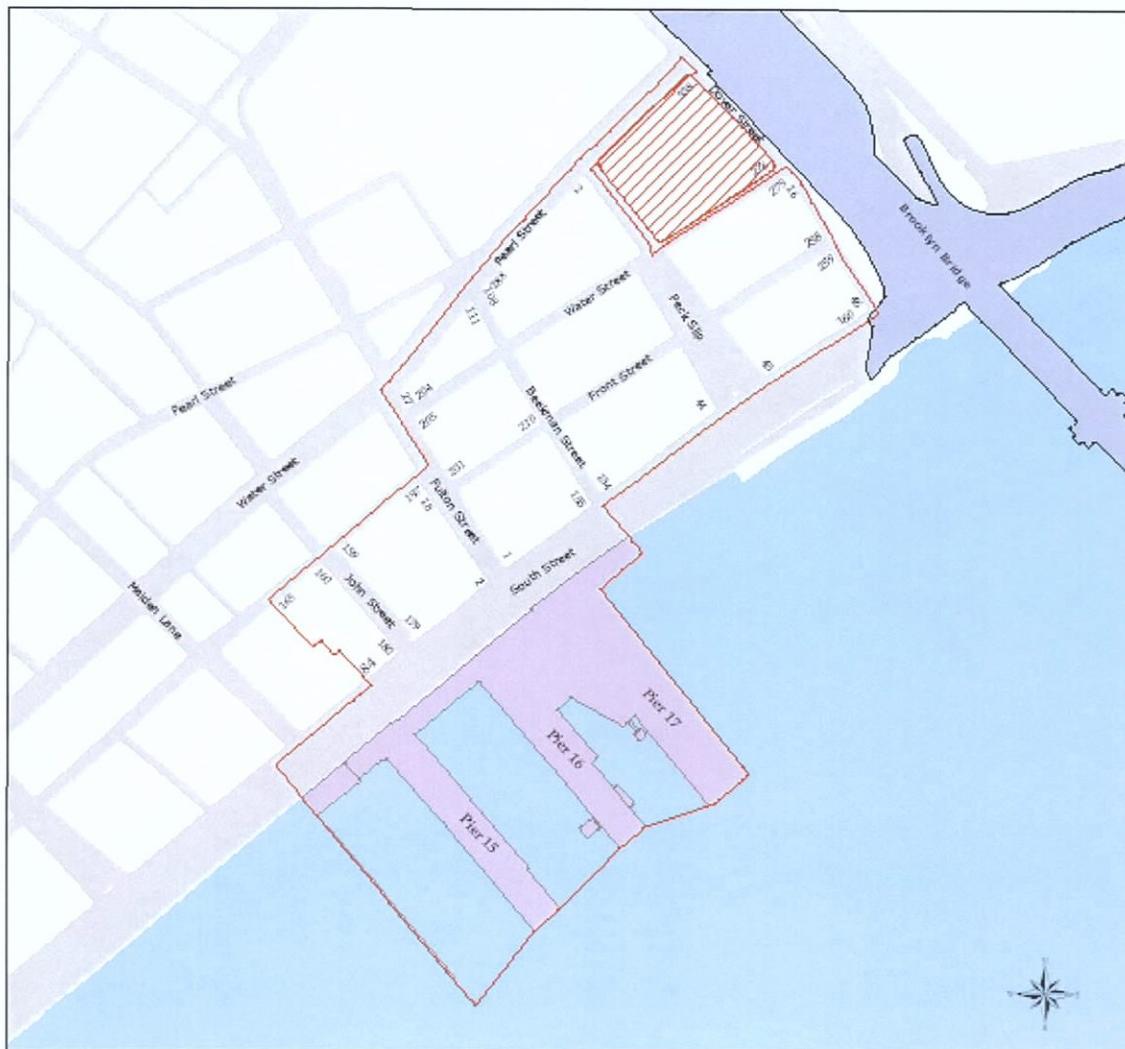


Map 34: Mitchell, 1880



Map 35: Bromley, 1916

South Street Seaport



South Street Seaport
Historic District & Extension

Original District Designated May 10, 1977

Extension Designated July 11, 1989

- Original Historic District
- Historic District Extension



Map 36: NYC LPC - South Street Seaport Designation Map, 1989

Appendix D:
Field Images - By Excavation Area

Area 1: Beekman Street South between Water Street and Pearl Street - Water Mains



Image 68: First wooden water main in situ



Image 69: First wooden water main in situ



Image 70: Removing the first wooden water main



Image 71: Removing the first wooden water main



Image 72: Recording the first wooden water main



Image 73: Iron ring from the first wooden water main



Image 74: Second wooden water main in situ



Image 75: Removing the second wooden water main



Image 76: Removing the second wooden water main



Image 77: Second wooden water main with iron ring attached



Image 78: Recording the second wooden water main



Image 79: Recording the second wooden water main

Area 2: Beekman Street Southwest between Water Street and Pearl Streets - Foundation



Image 80: Excavating within the foundation walls



Image 81: Excavating within the foundation walls



Image 82: Excavating within the foundation walls



Image 83: Excavating within the foundation walls



Image 84: Excavating within the foundation walls



Image 85: Artifacts concentration pit within the foundation walls



Image 86: The foundation trench - after rainfall and completion



Image 87: The foundation trench - after rainfall and completion



Image 88: The foundation trench - after rainfall and completion



Image 89: The foundation trench - after rainfall and completion

Area 3: Beekman Street North between Front Street and Water Street



Image 90: Pre-existing utility trench excavation work



Image 91: Pre-existing utility trench excavation work



Image 92: Pre-existing utility trench excavation work



Image 93: Pre-existing utility trench excavation work

Area 4: Intersection of Beekman Street and Water Street



Image 94: Intersection of Beekman Street and Water Street - mass of utility lines exposed



Image 95: Intersection of Beekman Street and Water Street - mass of utility lines exposed



Image 96: Initial exposure of wood wharf remains



Image 97: Initial exposure of wood wharf remains



Image 98: Wood from wharf remains



Image 99: Wood from wharf remains



Image 100: Excavating the wooden wharf remains



Image 101: Excavating the wooden wharf remains



Image 102: Excavating the wooden wharf remains



Image 103: Excavating the wooden wharf remains



Image 104: Excavating the wooden wharf remains



Image 105: Wooden wharf remains



Image 106: Wooden wharf remains

Area 5: Beekman Street South between Pearl Street and Water Street - Barrel Vaults



Image 107: Barrel Vault remains



Image 108: Barrel Vault remains



Image 109: Excavating the barrel vault remains



Image 110: Excavating the barrel vault remains



Image 111: The interior of a barrel vault



Image 112: The interior of a barrel vault



Image 113: The interior of a barrel vault



Image 114: The interior of a barrel vault



Image 115: The interior of a barrel vault



Image 116: Measuring the barrel vault



Image 117: The Field Crew, November 2006

Appendix E:
Artifact Data Base

Location	Catalog	Quantity	Category	Object	Form	MaterialWare Type	Date	Decoration	Pattern/Decorations	Notes
BSS Foundation	1-248	248	Furnish	lyster						
	248-275	27	Furnish	clim						
	278-279	3	Furnish	mother of Pearl inlay		shell		engraved floral		
	278-280	2	Architectural	yellow brick						
	281	1	Architectural	brick						
	282-291	10	Personal	pipe stem	stem	clay	1750-1800			4/84
	282-311	20	Personal	pipe stem	stem	clay	1720-1750			5/84
	312	1	Tools & Equip	coal						
	313	1	Architectural	peg		wood				
	314-317	4	Underties	Underties		wood				
	318	1	Personal	button		bone				single hole
	318	1	Personal - Medical	lyster		bone				2 pieces, canister and plunger
	320-328	7	Underties	Underties		copper				
	327-330	4	Personal	curl links		metal				
	331-332	2	Communication	can						to comoded to determine value
	333-348	16	Underties	Underties		iron				
	349-353	5	Architectural	nail						
	354-365	12	Underties	Underties		underties				
	366	1	Food Storage & Prep	cork						
	367-404	38	Food Storage & Prep	liquor bottle	base	glass				
	405-664	260	Food Storage & Prep	liquor bottle	body	glass				
	665	1	Food Storage & Prep	liquor bottle	intact	glass				
	666-667	2	Food Storage & Prep	liquor bottle	near intact	glass				
	668	1	Food Consump & Serve	hollowware	handle	glass				
	669-673	5	Underties	hollowware	body	milk glass				
	674-679	6	Food Storage & Prep	bottle	neck	glass				
	680-684	5	Personal - Medical	nail	near intact	glass				
	685-708	24	Food Storage & Prep	liquor bottle	rim	glass				v tooled down
	709	1	Food Storage & Prep	liquor bottle	rim	glass				rounded top
	710-713	4	Food Storage & Prep	liquor bottle	rim	glass				faceted down
	714	1	Food Storage & Prep	liquor bottle	rim	glass				v tooled up
	715-717	3	Food Storage & Prep	liquor bottle	rim	glass				
	718-724	7	Food Consump & Serve	wine glass	frangip shaped	glass				
	725	1	Food Consump & Serve	goblet	base	glass				cut glass
	726-739	4	Food Consump & Serve	drinking glass	base/body	glass				pannelled
	740-753	14	Food Consump & Serve	drinking glass	base/body	glass				
	754-755	2	Food Consump & Serve	stoneware	base	glass				faceted
	756	1	Food Storage & Prep	nail	near intact	glass				likely for food flavoring or coloring
	757-759	2	Personal - Medical	bottle	base - square	glass				
	759-1009	250	Underties	bottle	body	glass				
	1009-1278	270	Architectural	window		glass				
	1279-1323	45	Food Consump & Serve	hollowware	base	porcelain				
	1324-1391	68	Food Consump & Serve	hollowware	body	porcelain				
	1392-1400	9	Food Consump & Serve	hollowware	rim	porcelain				
	1401-1418	18	Food Consump & Serve	hollowware	body	porcelain				painted blue
	1417-1458	40	Food Consump & Serve	basin	rim	porcelain				painted gray overglaze
	1457-1460	4	Food Consump & Serve	basin	base	porcelain				painted gray overglaze
	1461-1463	3	Food Consump & Serve	basin	body	porcelain				painted gray overglaze
	1464-1486	23	Food Consump & Serve	plate		porcelain				painted polychrome overglaze
	1487-1489	2	Food Consump & Serve	plate		porcelain				painted gray overglaze
	1489-1500	12	Food Consump & Serve	plate		ceramware	1770-1816			transfer-print black
	1501	1	Food Consump & Serve	pitcher	body	ceramware	1770-1815			transfer-print black
	1502-1514	13	Food Consump & Serve	plate		white ware	post 1815			pastoral
	1515-1531	17	Food Consump & Serve	dish		ceramware	1762-1815			painted brown overglaze
	1532-1623	101	Food Consump & Serve	hollowware	base	pearlware	1775-1820			
	1624-1684	41	Food Consump & Serve	hollowware	body	pearlware				
	1685-1686	2	Food Consump & Serve	hollowware	rim	pearlware				
	1687-1894	28	Food Consump & Serve	hollowware	body	pearlware				transfer-print blue
	1695-1701	7	Food Consump & Serve	hollowware	body	pearlware - China glaze				painted blue
	1702-1713	12	Food Consump & Serve	plate		pearlware				flow blue
	1714-1718	5	Food Consump & Serve	hollowware	rim	pearlware				painted polychrome overglaze
	1719-1728	10	Food Consump & Serve	hollowware	body	Staffordshire style				
	1729	1	Underties	hollowware	body	stoneware				
	1730-1738	10	Food Storage & Prep	jug		stoneware				painted cobalt
	1740	1	Food Consump & Serve	hollowware	base	black basalt stoneware				incised
	1741	1	Food Storage & Prep	hollowware	base	yellowware				

1742-1757	18	Food Storage & Prep	bow		Redware		lead glazed		very large
1758-1759	18	Food Consump & Serve	pitcher		Staffordshire style		dot and pattern brown		
1760-1767	23	Food Consump & Serve	bow		pearlware	1785-1820	pearlware	1785-1820	pearlware
1783-1784	2	Food Consump & Serve	pitcher		creamware		creamware		creamware
1785	1	Food Consump & Serve	mug		pearlware		pearlware		pearlware
1788-1771	6	Food Consump & Serve	tea cup		pearlware		pearlware		pearlware
1771	1	Food Consump & Serve	pitcher		pearlware	1785-1820	pearlware	1785-1820	pearlware
1777	1	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1775-1775	3	Food Consump & Serve	bow		pearlware		pearlware		pearlware
1778-1777	2	Food Consump & Serve	bow		Annular ware		Annular ware		Annular ware
1778-1780	13	Food Consump & Serve	shadow dish		pearlware		pearlware		pearlware
1791-1792	2	Food Consump & Serve	hollowware		tin-enamelled		tin-enamelled		tin-enamelled
1793-1798	8	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1799-1802	4	Food Consump & Serve	demi-tasse cup		pearlware - china glaze		pearlware - china glaze		pearlware - china glaze
1800-1807	5	Food Consump & Serve	bow		pearlware		pearlware		pearlware
1808-1817	10	Food Consump & Serve	pitcher		pearlware		pearlware		pearlware
1818	1	Food Consump & Serve	bow		Edgeware Blue		Edgeware Blue		Edgeware Blue
1819	1	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1820-1841	22	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1842-1844	3	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1845-1848	2	Food Consump & Serve	bow		Edgeware Blue		Edgeware Blue		Edgeware Blue
1847-1848	2	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1849-1850	2	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1851-1852	2	Food Consump & Serve	shadow dish		Edgeware Blue		Edgeware Blue		Edgeware Blue
1853-1861	9	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1862-1873	12	Food Consump & Serve	shadow dish		Edgeware Blue		Edgeware Blue		Edgeware Blue
1874-1875	2	Food Consump & Serve	plate		Edgeware Blue		Edgeware Blue		Edgeware Blue
1876-1877	2	Food Consump & Serve	servng dish		Edgeware Green		Edgeware Green		Edgeware Green
1878-1887	10	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1888-1895	8	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1896-1907	12	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1908-1914	7	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1915-1918	4	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1919-1927	4	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1923-1925	3	Food Consump & Serve	plate		Edgeware Green		Edgeware Green		Edgeware Green
1926-1940	15	Food Consump & Serve	bankard		Pearlware		Pearlware		Pearlware
1941-1946	6	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1947-1953	7	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1954-958	5	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1959-1961	3	Food Consump & Serve	plate		pearlware		pearlware		pearlware
1962-1967	6	Food Consump & Serve	shadow dish		pearlware		pearlware		pearlware
1968-1969	2	Food Consump & Serve	bow		pearlware		pearlware		pearlware
1970-1997	13	Food Consump & Serve	servng dish	hd	pearlware		pearlware		pearlware
1989-2007	20	Food Consump & Serve	bow		pearlware		pearlware		pearlware
2003-2008	4	Food Consump & Serve	saucer		pearlware		pearlware		pearlware
2007-2025	19	Food Consump & Serve	bow		pearlware		pearlware		pearlware
2026	1	Food Consump & Serve	bow		pearlware		pearlware		pearlware
2027-2028	2	Food Consump & Serve	bow		pearlware		pearlware		pearlware
2029-2033	5	Food Consump & Serve	bow		pearlware		pearlware		pearlware
2034-2035	2	Food Consump & Serve	demi-tasse cup		pearlware - china glaze		pearlware - china glaze		pearlware - china glaze
2036-2040	5	Food Consump & Serve	saucer		pearlware - china glaze		pearlware - china glaze		pearlware - china glaze
2041-2045	5	Food Consump & Serve	id		porcelain		porcelain		porcelain
2053-2062	10	Food Consump & Serve	tea cup		porcelain		porcelain		porcelain
2063-2068	4	Food Consump & Serve	tea cup		porcelain		porcelain		porcelain
2067-2088	22	Food Consump & Serve	plate		creamware		creamware		creamware
2089-2102	14	Food Consump & Serve	plate		creamware		creamware		creamware
2103-2105	3	Food Consump & Serve	id		creamware		creamware		creamware
2106	1	Food Consump & Serve	id		creamware		creamware		creamware
2107-2111	5	Furnishing	derivative		creamware		creamware		creamware
2112-2113	2	Food Consump & Serve	pitcher	specul	creamware		creamware		creamware
2114-2119	6	Food Consump & Serve	pitcher		creamware		creamware		creamware
2120-2127	3	Food Consump & Serve	mug		creamware		creamware		creamware
2123-2127	6	Food Consump & Serve	mug		creamware		creamware		creamware
2128-2130	3	Food Consump & Serve	tea cup	base	creamware		creamware		creamware
2131-2134	4	Food Consump & Serve	bow		creamware		creamware		creamware
2135-2141	7	Food Consump & Serve	cup		creamware		creamware		creamware
2142-2145	4	Food Consump & Serve	tea cup		creamware		creamware		creamware

2149-2167	12	Food Consump. & Serve	tea cup		creamware		beaded nm		MNV 3
2158-2182	5	Undertiled	crack/container		creamware				MNV 3
2183-2189	6	Food Consump. & Serve	serving dish		creamware		plain nm		
2188-2178	6	Food Consump. & Serve	serving dish	base	creamware				
2177-2185	9	Food Consump. & Serve	serving dish		creamware		plain nm		
2188-2794	619	Undertiled	hollowware	body	creamware				
2705-2777	73	Food Consump. & Serve	flatware	base	creamware				
2778	1	Food Consump. & Serve	plate	base	creamware		stamped "Wedgwood"		
2778-2781	3	Food Consump. & Serve	bowl	base	creamware				
2782-2783	2	Food Consump. & Serve	dish	base	creamware				
2784-2787	4	Food Consump. & Serve	bowl	base	creamware				
2789-2789	2	Food Consump. & Serve	dish	base	creamware				
2790-2791	2	Food Consump. & Serve	dish	base	creamware		Royal pattern		MNV 2
2792-2797	6	Food Consump. & Serve	dish	base	creamware				MNV 3
2799	1	Food Consump. & Serve	serving dish	base	creamware		stamped "DD&C Castleford"		
2799-2805	7	Food Consump. & Serve	dish	base	creamware				
2808-2817	12	Food Consump. & Serve	plate	base	creamware				MNV 2
2818-2821	4	Food Consump. & Serve	shallow dish		creamware				MNV 2
2822-2850	29	Food Consump. & Serve	hollowware	base	creamware				MNV 5
2851-2852	2	Food Storage & Prep	crack/container		creamware				
2853	1	Food Consump. & Serve	lid	knob	creamware		molded		
2854-2857	4	Food Consump. & Serve	hollowware	handle	creamware		molded		MNV 4
2858-2867	10	Food Consump. & Serve	hollowware	handle	creamware				MNV 10
2869	1	Food Consump. & Serve	bowl	nm	creamware		beaded nm		
2869	1	Food Consump. & Serve	plate	nm	creamware		beaded nm	octagonal	
2870-2977	9	Food Consump. & Serve	dish	nm	pearlware		scalloped nm		
2878-2882	14	Food Consump. & Serve	plate	nm	creamware		Royal pattern		
2893-2895	3	Food Consump. & Serve	platter	nm	creamware		Royal pattern		
2898-2899	4	Food Consump. & Serve	serving dish	nm	creamware		Royal pattern		MNV 2
2893-2941	47	Food Consump. & Serve	plate		creamware		Royal pattern		MNV 5
2842-2843	3	Food Consump. & Serve	plate		creamware		Royal pattern		MNV 2
2847-2858	13	Food Consump. & Serve	plate		creamware		Royal pattern		MNV 2
2883	1	Food Consump. & Serve	bowl		creamware		Royal pattern		
2887-2884	4	Food Consump. & Serve	serving dish		creamware		Royal pattern		MNV 2
2895-2972	7	Food Consump. & Serve	hollowware	nm	creamware				
2973-3003	31	Personal	chamber pot		creamware		flanged nm		MNV 8
2973-3022	28	Personal	chamber pot		creamware		rolled rim		MNV 8
3033-3065	18	Food Consump. & Serve	bowl		creamware				MNV 2
3051-3077	27	Personal	chamber pot	base	creamware				
3078-3132	55	Personal	hollowware	base	creamware				MNV 10
3133-3140	8	Undertiled	hollowware		creamware		molded		
3141-3189	48	Food Consump. & Serve	tea ware		porcelain		painted		
3187-3218	30	Food Consump. & Serve	tea ware		porcelain		painted polychrome	floral	
3217-3220	4	Food Consump. & Serve	tea ware		porcelain		painted red overglaze		
3221-3275	53	Food Consump. & Serve	tea ware		porcelain		painted polychrome overglaze	floral	
3278-3290	13	Food Consump. & Serve	tea ware		porcelain		painted red		
3281-3286	6	Food Consump. & Serve	hollowware		creamware		transfer print brown		
3287	1	Food Consump. & Serve	flatware		tin-enamelled		painted polychrome		
3289-3322	25	Food Storage & Prep	hollowware		stoneware		saill-glazed		
3323	1	Undertiled	flatware		earthenware				
3324-3338	15	Food Consump. & Serve	tea ware		porcelain		painted blue		
3340-3357	19	Food Storage & Prep	hollowware		redware		glazed	enobled	
3358-3361	24	Food Storage & Prep	crack/container		redware		black glazed		
3382-3411	20	Food Storage & Prep	crack/container		redware		brown glazed		
3412-3413	2	Food Storage & Prep	crack/container		Nottingham				
3414-3419	5	Food Storage & Prep	plate		American Slipware		trailed		
3423-3427	3	Food Storage & Prep	hollowware		redware		Manganese Mottled		
3423-3424	2	Undertiled	hollowware		redware				
3425	1	Food Consump. & Serve	hollowware		Jackfield Brown				
3428-3427	2	Food Consump. & Serve	hollowware		redware refined				
3428	1	Furnishing	rover pot		redware				

Location	Catalog	Quantity	Category	Object	Form	Material/Ware Type	Date	Decoration I	Pattern/Decoration II	Notes
BVW Intersection	11-3	3	Architectural	tile		tile		Painted blue		
	4-10	2	Food Consump. & Serv	hollowware	body	pearlware				
	11	1	Food Consump. & Serv	hollowware		pearlware		yellow-brown speckled		
	12	1	Food Consump. & Serv	plate		Edgeware - Green				
	13	1	Food Consump. & Serv	bowl		porcelain		Painted blue		
	14	1	Food Consump. & Serv	plate		pearlware		transfer print blue		
	15	1	Food Consump. & Serv	hollowware	body	pearlware		transfer print blue		
	16	1	Food Consump. & Serv	hollowware	base	pearlware		transfer print blue		
	17	1	Architectural	leg		wood		sgreffe		
	18	1	Food Storage & Prep	wine bottle	base	glass				
	19	1	Food Storage & Prep	wine bottle	body	glass				
	20	1	Personal - Medicinal	bottle		glass				
	21-22	2	Food Storage & Prep	bottle	body	glass				
	23	1	Food Consump. & Serv	hollowware	handle	pearlware				
	24-25	2	Food Consump. & Serv	plate	rim	pearlware		transfer print blue		
	26-27	2	Food Storage & Prep	hollowware	base	redware		glazed brown		
	28	1	Food Consump. & Serv	plate	body	pearlware				
	29	1	Food Consump. & Serv	hollowware	base	Staffordshire style				
	30	1	Food Consump. & Serv	hollowware	base	creamware				
	31	1	Personal	pipe	bowl	clay		molded		Stamped "RT"
	32-33	2	Food Storage & Prep	bottle		glass				2 piece mold
	34-35	2	Food Consump. & Serv	bottle - soda		glass				Peppi bottle - 1950s
	36	1	Food Storage & Prep	bottle		glass				"Boston Beverage Co"
	37	1	Undated	undated		jaspar				
	38-47	10	Tools & Equip.	barrel		slough coral				lost/red
	48-49	2	Architectural	rod		iron				
	50	1	Personal	pipe	stem	clay				4/64
	51-53	3	Personal	pipe	stem	clay				5/64
	54	1	Food Consump. & Serv	hollowware	rim	porcelain		Painted red		
	55	1	Food Consump. & Serv	hollowware	body	porcelain				
	56-57	2	Food Consump. & Serv	flatware	base	porcelain				
	58	1	Food Consump. & Serv	flatware		pearlware				
	59	1	Food Consump. & Serv	hollowware	body	creamware				
	60-61	2	Food Storage & Prep	hollowware	rim	stoneware		scratch blue		
	62-63	2	Food Storage & Prep	hollowware	body	redware		glazed brown		
	64	1	Food Storage & Prep	hollowware	rim	redware		glazed brown		
	65-66	2	Food Storage & Prep	plate		American Slipware		traits d		
	67-68	2	Architectural	tile		stoneware				
	69	1	Food Consump. & Serv	td		creamware				
	70	1	Food Storage & Prep	hollowware	body	stoneware		salt-glazed		
	71	1	Food Storage & Prep	hollowware	body	stoneware		scratch blue		
	72	1	Food Storage & Prep	hollowware	body	stoneware		salt-glazed		brown glazed int
	73	1	Food Storage & Prep	hollowware	rim	stoneware		salt-glazed		brown glazed int
	74-75	2	Faunal	oyster						
	76	1	Food Consump. & Serv	hollowware	rim	creamware				
	77	1	Food Consump. & Serv	bowl		creamware		Painted brown/yellow		
	78	1	Food Consump. & Serv	flatware	base	porcelain		Painted blue		
	79	1	Food Storage & Prep	hollowware	rim	stoneware		Painted blue		
	80	1	Food Consump. & Serv	hollowware	base	pearlware				
	81-82	2	Food Consump. & Serv	hollowware	body	pearlware		transfer print blue		
	83-85	3	Food Consump. & Serv	plate	rim	Edgeware - Blue				
	86	1	Faunal	lightning whetk						
	87	1	Architectural	tile		slate				
	88	1	Food Consump. & Serv	hollowware	body	porcelain		Painted polychrome		
	89	1	Food Consump. & Serv	cup		porcelain		Painted blue		
	90	1	Food Consump. & Serv	plate	rim	creamware				
	91	1	Food Consump. & Serv	plate	body	creamware				
	92	1	Food Storage & Prep	bowl	rim	stoneware		glazed yellow		
	93	1	Food Storage & Prep	hollowware	base	stoneware				
	94	1	Food Consump. & Serv	bowl		pearlware		Painted polychrome		

Location	Catalog	Quantity	Category	Object	Form	Material/Ware Type	Date	Decoration I	Pattern/Decoration II	Notes
Beyman St. North IA	1		Architectural	sinks		iron				
	2-3		Personal	coyset						
	4-5		Personal	clans						
	6-7		Architectural	undecorated	circular disks	wood				
	8		Personal - Mediana	bottle	base	glass		embossed	NOON	
	9-10		Food Storage & Prep	liquor bottle	base - square	glass				
	11-14		Food Storage & Prep	liquor bottle	base	glass				
	15-16		Food Storage & Prep	liquor bottle	body	glass				
	17		Architectural	window		glass				
	18		Food Consump. & Serv	dining glass	base	glass				
	19		Food Consump. & Serv	dining glass	body	glass				
	20-21		Personal	pipe stem		clay	1750-1800			4/64
	22-26		Personal	pipe stem		clay	1750-1750			5/64
	27		Personal	pipe	bow	clay		impressed	"TD"	
	28-30		Food Storage & Prep	bottle		stoneware		salt glazed	iron oxide	
	31		Food Storage & Prep	jug	spout	stoneware		salt glazed		
	32		Food Storage & Prep	crock		stoneware		salt glazed	incised	
	33		Food Storage & Prep	jug	rim	stoneware				
	34		Food Storage & Prep	bottle		stoneware		salt glazed	iron oxide	
	35		Food Storage & Prep	hollowware	body	stoneware		red glaze		
	36		Food Storage & Prep	crock		stoneware		salt glazed	painted blue	
	37-38		Food Storage & Prep	crock		stoneware		painted blue		
	38-39		Food Consump. & Serv	shallow dish		Edgware blue				
	58-105		Food Consump. & Serv	shallow dish		Edgware green				
	106-108		Food Consump. & Serv	hollowware		Amber ware		banded polychrome		
	110-111		Food Consump. & Serv	bow		Amber ware			dendroc	
	112-114		Food Consump. & Serv	bow		pearlware		painted polychrome	floral	
	115-118		Food Consump. & Serv	bow		pearlware		painted brown	banded	
	117		Food Consump. & Serv	hollowware	rim	porcelain		black glazed ed		
	116		Food Consump. & Serv	hollowware	base	pearlware		transfer print blue		
	119		Food Consump. & Serv	plate	rim	pearlware		transfer print blue	w/flow	
	120-123		Food Consump. & Serv	plate		pearlware		transfer print blue	w/flow	
	124		Food Consump. & Serv	teacup		pearlware		painted blue	molded	
	125		Food Consump. & Serv	plate		pearlware		transfer print blue	w/flow	
	126		Food Consump. & Serv	plate		pearlware		transfer print blue		
	127-131		Food Consump. & Serv	dish	rim	pearlware - chra glaze		painted blue		
	132-133		Food Consump. & Serv	dish	base	pearlware - chra glaze		painted blue		
	134-136		Food Consump. & Serv	teacup	base	pearlware - chra glaze		painted blue		
	136-138		Food Consump. & Serv	teacup		pearlware - chra glaze		painted blue		
	140		Food Consump. & Serv	hollowware		pearlware - chra glaze		painted blue		
	141-142		Food Consump. & Serv	plate		pearlware		transfer print blue	w/flow	
	143-144		Food Consump. & Serv	plate		pearlware		transfer print blue		
	145-148		Food Consump. & Serv	dish		pearlware		transfer print blue		
	147-148		Food Consump. & Serv	teacup		pearlware		transfer print blue		
	149-153		Food Consump. & Serv	hollowware		pearlware		transfer print blue		
	154-155		Food Consump. & Serv	plate		pearlware		transfer print blue		
	156		Food Consump. & Serv	tea bowl		pearlware		transfer print blue		
	157		Food Consump. & Serv	hollowware		pearlware		flow blue transfer print		
	158		Food Consump. & Serv	id		pearlware		transfer print blue		
	159		Food Consump. & Serv	bow		pearlware		transfer print blue		
	160		Food Consump. & Serv	hollowware		pearlware		flow blue transfer print		
	161		Food Consump. & Serv	hollowware		pearlware		painted polychrome		
	162		Food Consump. & Serv	id		pearlware		painted polychrome		
	163		Food Consump. & Serv	pitcher		pearlware		transfer print blue		
	164		Food Consump. & Serv	hollowware		pearlware		painted polychrome	molded	
	165-168		undecorated	undecorated		iron				
	167		Food Consump. & Serv	plate		pearlware				
	168		Food Consump. & Serv	bow		tin-enamelled		painted blue		
	169		Food Consump. & Serv	hollowware		tin-enamelled				
	170		Food Consump. & Serv	hollowware		tin-enamelled		painted blue		
	171		Food Consump. & Serv	cup		tin-enamelled				
	172		Food Consump. & Serv	plate		white salt glazed stoneware				
	173		Food Consump. & Serv	hollowware		pearlware		painted blue		
	174		Architectural	tile		Oxft		painted blue		
	175-176		Food Consump. & Serv	plate		pearlware		transfer print blue		
	177-178		Food Consump. & Serv	hollowware		pearlware		painted blue		
	179-202		Food Consump. & Serv	hollowware		pearlware		transfer print blue		
	203-216		Food Storage & Prep	plate		American Spencers		traced		15" diameter
	217-220		Food Storage & Prep	plate		American Spencers		traced		
	221-224		Food Storage & Prep	plate		American Spencers		traced		

225-236	12	Food Storage & Prep	plate		American Signware		trailed		
237	1	undentified	hollowware		redware				
238-242	5	Food Storage & Prep	hollowware		redware		manganese mottled		
243	1	Food Storage & Prep	plate		American Signware				
244	1	Food Consump. & Serv	hollowware		redware - red		cream dip		
245	1	Food Consump. & Serv	hollowware		Jacksonfield - brown		incised		
246	1	Food Storage & Prep	hollowware		redware		manganese mottled		
247	1	Food Storage & Prep	crack		redware		black glazed		
248	1	Food Storage & Prep	lid		redware		black glazed		
249-259	11	Food Consump. & Serv	teapot		Jacksonfield - red		incised		
260	1	Food Consump. & Serv	plate		stoneware		slip-glazed		
261-314	54	undentified	hollowware		creamware				
315-336	22	undentified	flatware		creamware				
337-356	19	Food Consump. & Serv	plate	base	creamware				
358-361	6	Food Consump. & Serv	plate	nm	creamware		scalloped		
362-363	2	Food Consump. & Serv	plate	nm	creamware		rouleed		
364-372	10	Food Consump. & Serv	plate	nm	creamware				
374-376	3	Food Consump. & Serv	shallow dish		creamware				
377-382	6	Food Consump. & Serv	bcwl	nm	creamware				
383-388	4	Food Consump. & Serv	hollowware	nm	creamware				
389-390	4	Food Consump. & Serv	serving dish		creamware				
391-401	11	Food Consump. & Serv	jug		creamware		mottled		banding
402-404	3	Food Consump. & Serv	hollowware	base	creamware				
405-411	7	Personal	chamber pot		creamware				
412-414	3	Personal	chamber pot	base	creamware				
415	1	Food Consump. & Serv	bcwl		creamware				
416-417	2	Food Consump. & Serv	flatware	base	creamware				
418-421	4	Personal	chamber pot	nm	creamware				
422	1	Food Consump. & Serv	shallow dish		creamware				
423-426	4	Food Consump. & Serv	bcwl	base	creamware				
427-435	9	Food Consump. & Serv	hollowware	base	creamware				
436-437	2	Food Consump. & Serv	flatware	base	creamware				
438-453	16	Food Consump. & Serv	hollowware	base	creamware				
454	1	Food Consump. & Serv	hollowware	handle	creamware				
455	1	Food Consump. & Serv	jug		creamware		mottled		
456-466	11	Personal	chamber pot		creamware				
467-476	10	Personal	chamber pot	nm	creamware				
477	1	undentified	undentified	undentified	creamware				
478	1	Food Consump. & Serv	pot		black slip		mottled		brick patterned
479	1	Food Consump. & Serv	teacup		pearlware - china glaze		glazed blue		floral
480	1	Food Consump. & Serv	flatware		pearlware		transfer-pink blue		
481	1	Food Consump. & Serv	hollowware	base	pearlware				
482-488	7	Food Consump. & Serv	flatware	base	pearlware				
489-496	7	Food Consump. & Serv	hollowware	base	pearlware				
498-500	3	Food Consump. & Serv	teacup		porcelain				
501	1	Food Consump. & Serv	teacup		porcelain		painting polychrome overglaze		
502	1	Food Consump. & Serv	saucer		porcelain		painting red overglaze		dotted nm
503-504	2	Food Consump. & Serv	saucer		porcelain		painting blue		floral
505	1	Food Consump. & Serv	flatware		porcelain				
506	1	Food Consump. & Serv	hollowware		porcelain		painting blue		Oriental
507	1	Food Consump. & Serv	tea bowl		porcelain		painting blue		Oriental
508	1	Food Consump. & Serv	saucer		porcelain		painting blue		floral
509-510	2	Food Consump. & Serv	hollowware	nm	porcelain		painting blue		
511	1	Food Consump. & Serv	hollowware	body	porcelain		painting blue		
512	1	Food Consump. & Serv	plate		porcelain		painting blue		
513	1	Food Storage & Prep	container		porcelain				Oriental
514	1	undentified	flatware		glass		green marbled		"Ch" "En"
515-518	2	Food Consump. & Serv	flatware		creamware				
517	1	Food Consump. & Serv	plate	nm	creamware				
518-520	12	Food Consump. & Serv	hollowware		creamware				
520	1	Food Consump. & Serv	shallow dish		creamware		scalloped		
531	1	Food Consump. & Serv	cup	handle	creamware				
532	1	Archaeological	sewer pipe		red bodies		lead glazed		
534	1	Food Consump. & Serv	hollowware	body	Staffordshire stoneware		trailed & combed		
Beekman St North IB	1	Personal	pipe stem		clay				5/64
7-12	11	Archaeological	tile		stoneware				
13-14	2	Food Storage & Prep	hollowware		redware		lead glazed		
15	1	Personal	hollowware		Staffordshire style		trailed		
16	1	Food Consump. & Serv	hollowware	nm	porcelain		painting blue		
17	1	Food Consump. & Serv	hollowware	body	porcelain				

	19-19	2	Food Consump. & Serv	hollowware	base	pearlware				
	20	1	Food Consump. & Serv	hollowware	body	pearlware				
	21-24	4	Food Consump. & Serv	shallow dish	nm	creamware	scaloped			
	25-26	2	Food Consump. & Serv	bowl	base	creamware				
	27-28	2	Food Consump. & Serv	hollowware	body	creamware				
	29-30	2	Food Consump. & Serv	hollowware	body	pearlware				
	31	1	Food Storage & Prep	hollowware	body	stoneware	transfer print blue			
	32	1	Food Storage & Prep	hollowware	nm	stoneware	sat. glazed			parted blue
	33	1	Architectural	tile		stoneware	black glazed			
Beekman St. NE 1A	1-2	2	Architectural	tile		tile	parted blue			
	3-34	32	Tools & Equip	barrel		staple/corn				fossized
	35-36	2	Food Consump. & Serv	hollowware	body	pearlware	transfer print blue			
	37	1	Food Storage & Prep	hollowware	nm	stoneware	scratch blue			
	38	1	Personal	pipe	row/stem	clay				4/84
	39-41	3	Personal	pipe	stem	clay				5/84
	42	1	Personal	pipe	stem	clay				4/84
	43-44	2	Architectural	nail		iron				
	45-47	3	Undetermined	undetermined		glass				
	48-107	60	Food Storage & Prep	bottle		glass	clear			
	108-109	2	Food Storage & Prep	liquor bottle		glass				
	110	1	Architectural	tile		redware	glazed			
	111	1	Architectural	tile		stoneware				
	112	1	Architectural	tile		stoneware	glazed green			
	113	1	Architectural	tile		stoneware	glazed brown			
	114	1	Architectural	tile		stoneware	glazed white			
	115-116	1	Architectural	tile		stoneware	glazed purple/white			
	117	1	Food Storage & Prep	plate		American Slipware	traced			
	118	1	Food Storage & Prep	hollowware	body	redware	black glazed			
	119	1	Food Consump. & Serv	hollowware	nm	porcelain				
	120	1	Food Consump. & Serv	bowl		porcelain	glazed blue int			glazed brown ext
	121	1	Food Consump. & Serv	hollowware	body	pearlware	transfer print blue			
	122	1	Food Consump. & Serv	barware	base	creamware				
	123-124	2	Food Consump. & Serv	barware	nm	creamware				
Beekman St. NE 1B	1	1	Tools & Equip	knifefurniture	ring	stoneware				
	2	1	Tools & Equip	knifefurniture	stand	stoneware				
	3-8	7	Tools & Equip	knifefurniture	spool	stoneware				
	9-13	15	Tools & Equip	knifefurniture	wedge	stoneware				
	14	1	Furnish	crater						
	15	1	Architectural	nail		iron				
	16	1	Food Storage & Prep	liquor bottle		glass				
	17-30	4	Food Consump. & Serv	bowl		Staffordshire style	traced and combed			
	31	1	Food Storage & Prep	bottle	base	stoneware	iron-onde			
	32-33	2	Food Storage & Prep	bottle	base	stoneware				
	34	1	Food Storage & Prep	bottle	body	stoneware				
	35-36	2	Food Storage & Prep	hollowware	handle	stoneware	glazed brown			
	37-40	4	Food Storage & Prep	hollowware	body	stoneware	scratch blue			rch. onde
	41	1	Food Storage & Prep	bottle	neck	stoneware	scratch blue			rch. onde
	42-48	5	Food Consump. & Serv	plate		pearlware				
Beekman St. NE 1C	1	1	Furnish	clom						
	2-3	2	Architectural	soffe	square	iron				
	4	1	Architectural	brick - yellow						
	5-6	2	Architectural	brick						
	7	1	Architectural	tile		ceramic	glazed green			
	8	1	Architectural	window		glass				
	9	1	Architectural	tile		tile	parted blue			
	10	1	Food Storage & Prep	jar		stoneware	sat. glazed			
	11	1	Food Consump. & Serv	plate	nm	pearlware	graffito			
	12	1	Food Consump. & Serv	plate	plate	creamware				
	13-14	2	Food Consump. & Serv	plate		en. enameled				
	15-16	2	Food Consump. & Serv	plate		pearlware	transfer print blue			
	17	1	Food Storage & Prep	hollowware	nm	redware	glazed brown			
	18-19	2	Food Storage & Prep	jar		redware	glazed brown/yellow			
	20-21	2	Food Storage & Prep	plate		redware	glazed brown			

Location	Catalog	Quantity	Category	Object	Form	Material/Ware Type	Date	Decoration I	Decoration II	Notes
Bookman St. North2 Catch Basin	1	1	Architectural	tile		stoneware				
	2	1	Fauna!	oyster						
	3-18	16	Tools & Equipment	files		jasper				
	19-20	2	Food Storage & Prep	liquor bottle	base	glass				
	21	1	Food Storage & Prep	liquor bottle	base - square	glass				
	22	1	Food Storage & Prep	bottle	base	glass				
	23	1	undertiled	undertiled	slag	green glass				
	24	1	Food Storage & Prep	liquor bottle	neck	glass				
	25	1	Food Storage & Prep	liquor bottle	body	glass				
	26	1	Food Storage & Prep	bottle	body	glass				
	27	1	Personel	pipe stem	bow/stem	clay	1750-1800			4,64
	28-28	2	Personel	pipe stem	stem	clay	1750-1800			4,64
	30	1	Personel	pipe stem	stem	clay	1720-1750			5,64
	31-32	2	Personel	pipe stem	stem	clay				6,64
	33	1	Architectural	tile		earthenware				
	34-35	2	Architectural	tile		Delft				
	36-37	2	Food Consump & Serve	plate	body	bn-enemeled		paintd blue		
	39	1	Food Consump & Serve	mug	body	Amritar ware		black checked		
	39	1	Food Consump & Serve	cup	body	Pearlware		paintd - polychrome		
	40-41	2	undertiled	hollowware	base	cc ware				
	42	1	undertiled	hollowware	body	cc ware				
	43	1	Food Storage & Prep	hollowware	body	stoneware		self-glazed		
	44-49	6	Food Consump & Serve	hollowware	body	Staffordshire style		irated		
	50	1	Food Consump & Serve	bowl	body	Pearlware		transfer-print blue		
	51	1	Food Consump & Serve	plate	nm	Edgeware blue				
	52-53	2	Food Consump & Serve	plate	body	pearlware		transfer-print blue		
	54	1	Food Consump & Serve	bowl	base	pearlware		transfer-print blue		
Bookman St. North 2A	1-2	2	Architectural	tile		ceramic		white		
	3	1	Food Consump & Serve	bowl		pearlware		transfer-print blue	glazed nm	
	4	1	Food Consump & Serve	bowl		porcelain		paintd polychrome		
	5-8	2	Food Consump & Serve	hollowware	body	porcelain		paintd blue		
	7-11	5	Food Consump & Serve	hollowware	body	pearlware				
	12	1	Food Consump & Serve	hollowware	nm	creamware				
	13	1	Food Consump & Serve	flatware	base	creamware				
	14	1	Food Consump & Serve	flatware	nm	creamware		moldd		
	15-16	2	Architectural	spike		iron				
	17-18	2	Food Storage & Prep	bottle	neckdown	glass		noted partially		
	19	1	Food Storage & Prep	bottle		glass				
	20	1	Food Storage & Prep	hollowware	handle	stoneware		scratch blue		
	21-22	2	Food Consump & Serve	plate	nm	creamware				
	23-24	2	Food Consump & Serve	plate	base	creamware				
	25-26	2	Architectural	tile		ceramic				
	27-29	3	Food Consump & Serve	bowl		pearlware		transfer-print blue		
	30	1	Food Consump & Serve	plate		Edgeware Blue				
31-33	3	Food Consump & Serve	plate		Edgeware Green					
34-35	2	Tools & Equip	pulley (?)		wood					

Appendix F:
Artifact Images



Image 118: Kiln Furniture from Areas 3 and 4



Image 119: Coral from Areas 3 and 4

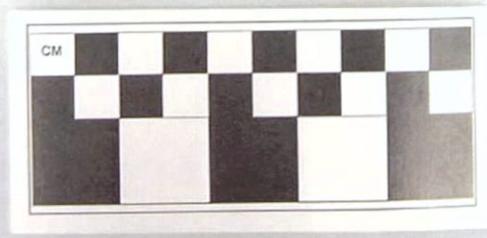


Image 120 Coral from Areas 3 and 4

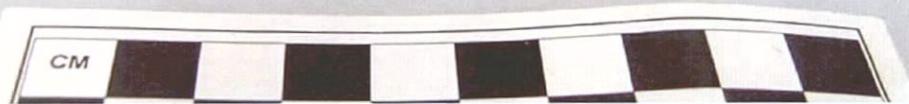


Image 121: Coral from Areas 3 and 4



Image 122: Flint from Area 4



Image 123: Flint from Area 4



Image 124: Smoking Pipe from Area 2



Image 125: Possible Wooden Tie from Area 4

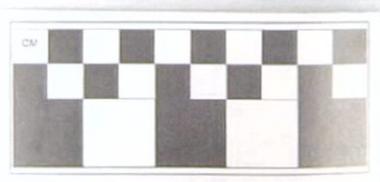


Image 126: Eighteenth century green alcohol glass bases from Area 2



Image 127: Eighteenth to nineteenth century bottle remains from Area 2



Image 128: Eighteenth century Saltglazed stoneware jug handle from Area 2



Image 129: Eighteenth century Banded and Slip Stoneware jar from Area 2



Image 130: Eighteenth century redware slip plate from Area 2



Image 131: Eighteenth century imported Chinese porcelain bowl from Area 2

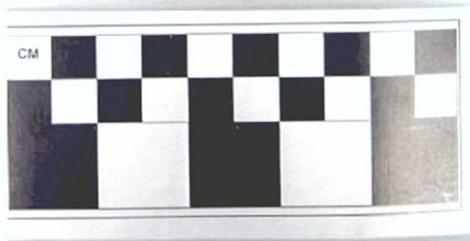


Image 132: Eighteenth century Delft fireplace tile from Area 2

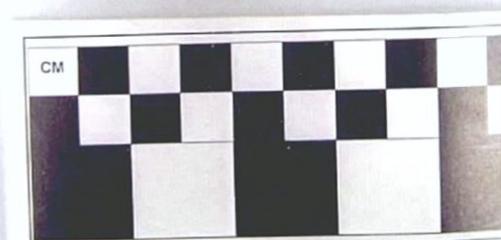


Image 133: Eighteenth century Delft fireplace tile from Area 2



Image 134: Nineteenth century Pearlware blue Shell Edged plate rim with black transferprint from Area 2



Image 135: Nineteenth century painted Pearlware bowl from Area 2



Image 136: Nineteenth century Pearlware brown transferprint lid from Area 2



Image 137: Nineteenth century Pearlware blue transferprint serving dish from Area 2



Image 138: Nineteenth century Pearlware blue transferprint serving dish from Area 2



Image 139: Nineteenth century Pearlware red transferprint American Eagle dish from Area 2



Image 140: Nineteenth century Pearlware blue painted cup from Area 2

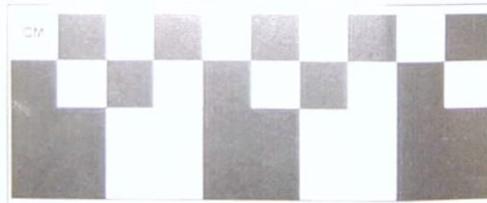


Image 141: Nineteenth century Pearlware blue transferprint plate from Area 2



Image 142: Nineteenth century Pearlware blue transferprint creamer from Area 2



Image 143: Nineteenth century Pearlware blue transferprint and gilded bowl from Area 2



Image 144: Nineteenth century Pearlware blue transferprint serving dish from Area 2



Image 145: Nineteenth century Pearlware blue transferprint serving dish from Area 2

Appendix G:
Faunal Analysis Report

Methodology

Analysis of the faunal material was conducted at the Brooklyn College and Hunter College Zooarchaeological Laboratories, CUNY, by Sophia Perdikaris, Ph.D., Department of Archaeology and Anthropology, Brooklyn College. Identification was done using the comparative collections at Brooklyn College and Hunter College, and each fragment of bone was identified and recorded using the NABONE Zooarchaeological Database Recording System, developed by the NABO Zooarchaeology Working Group Data Records Project. As this system was developed for use in the North Atlantic, small modifications were made to the system in order to accommodate data from an historical site in the Northeastern United States.

Material was identified to species and element, and any evidence of butchery, burning, or gnawing was recorded. Rib shafts and vertebral elements were not identified to species, but only to size class.

Faunal material determined to have come from domestic animals and showing signs of butchery was grouped into meat cut units based upon historical and modern butchery practices. Meat cut units were then assigned a relative cost. (following Crabtree: 1990, Lyman: 1979 and Pipes: 1995)

Minimum number of individuals (MNI) and Number of Identified Specimens (NISP) were calculated for all identified taxa. All data was recorded in an Access database.

Analysis

A total of 141 faunal specimens were analyzed from the Beekman site. Of these, 116 were identified to species or class. 25 were identified to size class (large terrestrial mammal and medium terrestrial mammal). Domestic mammals (cow, sheep, pig) represented 27% of the sample, birds 17.24% and lobster 3.45%.

Species	NISP	% NISP	MNI	% MNI
Domestic cow/ <i>Bos taurus</i>	51	43.94	3	18.75
Domestic sheep/ <i>Ovis aries</i>	33	28.45	1	6.25
Domestic pig/ <i>Sus scrofa</i>	5	4.31	1	6.25
Domestic cat/ <i>Felis catus</i>	2	1.72	1	6.25
Rodentia	1	.86	1	6.25
total	92			
Domestic Fowl/ <i>Gallus gallus</i>	10	8.60	3	18.75
Goose/ <i>Anser anser</i>	1	.86	1	6.25
Pheasant/ <i>Phasianus colchicus</i>	3	2.59	2	12.5
Turkey/ <i>Meleagris gallopavo</i>	2	1.72	1	6.25
<i>Aves species</i>	4	3.45		
total	20			
Maine Lobster/ <i>Homarus americanus</i>	4	3.45	2	12.5
total	4			
Large Terrestrial Mammal	21			
Medium Terrestrial Mammal	4			
total	25			

Table 1. Identified Species

Taphonomy

Fragmentation size was recorded for all bone fragments, and was measured using the following system: 1-below 1 cm maximum dimension, 2- from 1-2 cm, 5 from 2-5 cm, 10 from 5-10 cm, and 11-larger than 10 cm maximum dimension. 1.42% (n=2) of fragments recovered were under 1 cm, 11.35% (n=16) were under 2 cm, 71.63% (n= 101) were under 5 cm, 12.05% (n= 17) were between 5 and 10 cm, and 3.55% (n=5) were larger than 10 cm in maximum dimension.

Fragmentation	number	percent
0-1 cm	2	1.42
1-2 cm	16	11.35
2-5 cm	101	71.63
5-10 cm	17	12.05
more than 10 cm	5	3.55
totals	141	100

Table 2. Fragmentation

Overall, the sample was not very fragmented with the majority of the fragments being in the 5cm maximum dimension category.

No burning was noted on any of the bones.

Only 5 fragments exhibited dog or rodent gnawing, representing 3.55% of the total sample. 2 specimens exhibited rodent gnawing, and 3 exhibited evidence of dog gnawing.

Butchery

21 of the specimens (14.9%) exhibited butchery marks; 17 were sawn, 4 exhibited chop marks, 2 had superficial knife marks, 2 were drilled, 2 had both saw and knife marks, and 2 had both saw and chop marks. 1 sheep radius and one femur had marrow extracted. 2 sheep vertebra and 1 cow vertebra were chopped along the saggital plane. 2 specimens showed evidence of working with one being a prepared bone blank for artifact making while the other had possible buttons extracted.

Meat cut reconstruction

Pork

Shank Ham, Picnic Ham, Hock and Ribs were represented.

Species	Bone	Wholesale Cut	Retail Cut	Relative Rank	MNC
SUS	DIS HUM, RAD, ULN	SHOULDER	PICNIC HAM	MED	1
SUS	DIS FEM, TIB, FIB	HAM	SHANK HAM	MED	1
SUS	RIB	RIB	RIB	MED	2

Table 3. Reconstructed pork cuts

Beef

Rump, Shank, Chuck, Foot and Neck are represented.

Species	Bone	Wholesale Cut	Retail Cut	Relative Rank	MNC
BOS	DIS FEM, TIB, HUM, CAL	ROUND/CHUCK	SHANK	LOW	8
BOS	INN, PRO FEM	ROUND	RUMP	MED	3
BOS	SCP	CHUCK	CHUCK	MED	1
BOS	FEM, INN	FOOT	FOOT	LOW	1
BOS	ATL, AXI	NECK	NECK	LOW	4

Table 4. Reconstructed beef cuts

Mutton

Leg, butt end, shank, chuck and neck are represented.

Species	Bone	Wholesale Cut	Retail Cut	Relative Rank	MNC
OVI/OVCA	INN, FEM	LEG	BUTT END	MED	6
OVI/OVCA	DIS FEM, MTT	LEG	SHANK	LOW	2
OVI/OVCA	SCP	SHOULDER	CHUCK	MED	3
OVI/OVCA	HUM, RAD, ULN	SHOULDER	SHANK	LOW	7
OVI/OVCA	ATL, AXI	NECK	NECK	LOW	1

Table 5. Reconstructed mutton cuts

Conclusions

Domestic cow, sheep and chicken predominate in the assemblage. Both cranial and postcranial elements of cattle and sheep were identified. Based upon this evidence, it is likely that chickens and sheep were raised and butchered on the site, however, the chicken remains consist primarily of long bones and no cranial or foot elements, and likely represent the remains of meals, with butchery waste disposed of elsewhere.

Cattle was the most common domestic animal in the assemblage. Both cows and sheep appear to have come from purchased cuts of meat, with only a few meat cuts represented and no butchery waste. The meat cuts from both mutton and beef are both predominantly medium to low ranked cuts. There is presence of lobster and pheasant that are high ranked food products.

Overall, the assemblage appears to have had good preservation. There is little evidence of extensive dog or rodent gnawing, with only a trace element of rodent recovered.

Appendix H:
Artifact Assessment and Conservation Report



Cultural
Preservation
and Restoration

Conservation Assessment and Treatment Recommendations

Client: Alyssa Loorya
Chrysalis Archaeological
Consultants 4110 Quentin Road
Brooklyn, New York 11234-4322

Date: October 31, 2006

Objects: Bone syringe and mother of pearl artifact recovered from the Beekman Street archaeological project.

Introduction

Gary McGowan, President and Principal Conservator of Cultural Preservation & Restoration (CPR), performed a condition assessment on the bone syringe and mother of pearl artifact recovered from the Beekman Street Archaeological Project. Mr. McGowan is a Professional Associate within the American Institute for Conservation of Historic and Artistic Works (AIC).

The criteria for the assessment and following treatment plans is based on the tenets of the Code of Ethics, Standards and Practices set forth by the American Institute for Conservation of Historic and Artistic Works (AIC).

Assessment and Treatment Recommendations

During the assessment, Gary McGowan visually inspected each artifact in order to determine their physical and chemical stability. There are two objects recovered from Beekman Street South Foundation Wall.

The first artifact is identified as mother of pearl. This artifact is flat, oval, with a incised floral decoration and in three fragments. It is most likely some form of decorative plate or escutcheon to be mounted onto some other surface. The large fragment measures 1 ½ inches x ¾ inch at its widest point. There are two small drill holes at the point of the oval. There also appears to be a thick concretion surrounding the central drill hole. It is presumably residue of metallic salts from a metal fastening device that affixed the mother of pearl to another surface. The other two fragments measure 1 inch x 1 inch

and $\frac{3}{4}$ inch x $\frac{1}{2}$ inch respectively. These two fragments appear to loosely mend together. Although the large section with drill holes does not seem to mend to the other two fragments, it is most likely one object.

There is fine dirt and debris in some of the incised decoration. The mother of pearl is soft and embrittled. Visual inspection of the breaks reveal that the mother of pearl is showing signs of delamination and areas on the surface are visually white and chalky due to the advanced delamination.

It is recommended that the artifact be mechanically cleaned to remove dirt, debris and accretion on the surface. This should be followed by vacuum impregnation with an acrylic resin in order to halt further delamination and deterioration of the mother of pearl structure.

The second artifact is a bone syringe. This artifact measures $3\frac{1}{4}$ inches in length x $\frac{1}{4}$ inch in diameter at its widest point. The syringe housing is constructed out of one piece of animal bone that was lathed and drilled out to become a hollow tube. The syringe trigger is broken off. The screw-on tip that would receive the needle is lost. The plunger on the inside is constructed from another piece of animal bone that has been lathed. One end has a screw fitting that connects to the trigger portion of the syringe. The other end is lathed to accept a natural rubber or other material to form the gasket.

The overall condition of the bone is good. However, there is dirt and debris in the carved areas of the bone. Deep staining has occurred to the bone. There are longitudinal micro-cracks running down the length of the bone. The plunger also has dirt, debris, and staining on the surface.

It is recommended that the syringe be mechanically cleaned. After cleaning, the bone should receive three applications of a conservation microcrystalline wax to stabilize the bone and prevent further cracking. The wax will help prevent loss of moisture. Organic materials such as bone should be housed in an environment of 50% - 55% relative humidity. Not only does the wax provide a barrier coating for handling, but it will also aid in the retention of the proper moisture content of the object.



Cultural
Preservation
and Restoration

Conservation Treatment Record

Client: Alyssa Loorya
Chrysalis Archaeological Consultants
4110 Quentin Road
Brooklyn, New York 11234-4322

Date: February 7, 2007

Objects: Bone syringe recovered from the Beekman Street archaeological project.

Introduction

Gary McGowan, President and Principal Conservator of Cultural Preservation & Restoration (CPR), performed a condition assessment on the bone syringe in October, 2006. Mr. McGowan is a Professional Associate within the American Institute for Conservation of Historic and Artistic Works (AIC).

The criteria for conservation treatment is based on the tenets of the Code of Ethics, Standards and Practices set forth by the American Institute for Conservation of Historic and Artistic Works (AIC).

Conservation Treatment

The bone syringe measures 3 ¼ inches in length x ¼ inch in diameter at its widest point. The syringe housing is constructed out of one piece of animal bone that was lathed and drilled out to become a hollow tube. The syringe trigger is broken off. The screw-on tip that would receive the needle is lost. The plunger on the inside is constructed from another piece of animal bone that has been lathed. One end has a screw fitting that connects to the trigger portion of the syringe. The other end is lathed to accept a natural rubber or other material to form the gasket.

The overall condition of the bone is good. However, there is dirt and debris in the carved areas of the bone. Deep staining has occurred to the bone. There are longitudinal micro-cracks running down the length of the bone. The plunger also has dirt, debris, and staining on the surface.

The syringe was mechanically cleaned. After cleaning, the bone received three applications of a conservation microcrystalline wax to stabilize the bone and prevent further cracking. The wax will help prevent loss of moisture. Organic materials such as bone should be housed in an environment of 50% - 55% relative humidity. Not only does the wax provide a barrier coating for handling, but it will also aid in the retention of the proper moisture content of the object.

After Treatment Photo





Conservation Treatment Record

Client: Alyssa Loorya
Chrysalis Archaeological Consultants
4110 Quentin Road
Brooklyn, New York 11234-4322

Date: February 7, 2007

Objects: Mother of pearl artifact recovered from the Beekman Street archaeological project.

Introduction

Gary McGowan, President and Principal Conservator of Cultural Preservation & Restoration (CPR), performed a condition assessment of the mother of pearl artifact in October, 2006. Mr. McGowan is a Professional Associate within the American Institute for Conservation of Historic and Artistic Works (AIC).

The criteria for conservation treatment is based on the tenets of the Code of Ethics, Standards and Practices set forth by the American Institute for Conservation of Historic and Artistic Works (AIC).

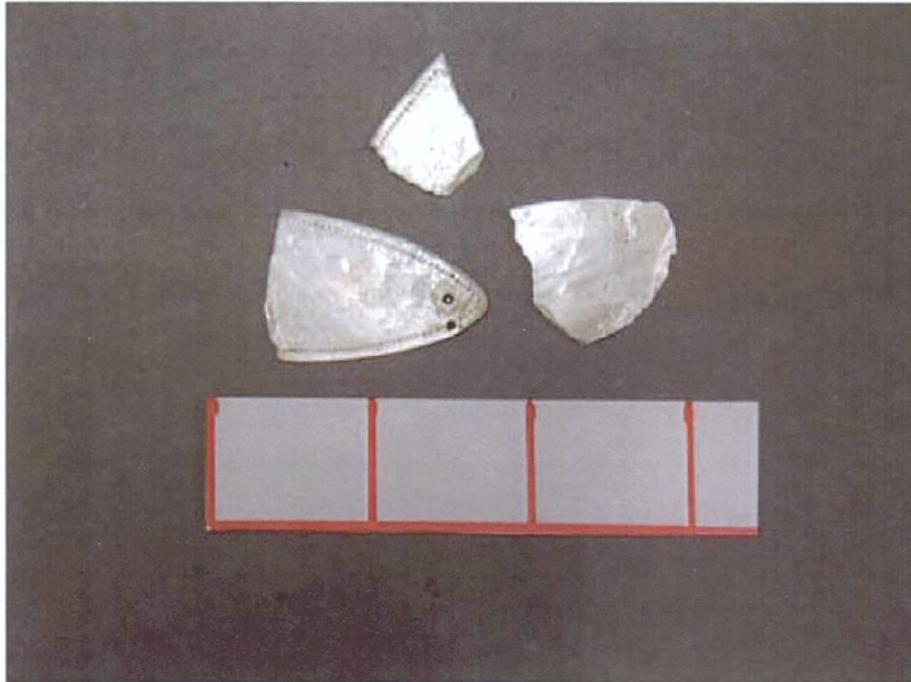
Conservation Treatment

This artifact is identified as mother of pearl. It is flat, oval, with a incised floral decoration and in three fragments. It is most likely some form of decorative plate or escutcheon to be mounted onto some other surface. The large fragment measures 1 ½ inches x ¾ inch at its widest point. There are two small drill holes at the point of the oval. There also appears to be a thick concretion surrounding the central drill hole. It is presumably residue of metallic salts from a metal fastening device that affixed the mother of pearl to another surface. The other two fragments measure 1 inch x 1 inch and ¾ inch x ½ inch respectively. These two fragments appear to loosely mend together. Although the large section with drill holes does not seem to mend to the other two fragments, it is most likely one object.

There is fine dirt and debris in some of the incised decoration. The mother of pearl is soft and embrittled. Visual inspection of the breaks reveal that the mother of pearl is showing signs of delamination and areas on the surface are visually white and chalky due to the advanced delamination.

The artifact was mechanically cleaned to remove dirt, debris and accretion on the surface. This was followed by vacuum impregnation with an acrylic resin in order to halt further delamination and deterioration of the mother of pearl structure.

After Treatment Photo



Appendix I:
Recommendation for the Material Remains

This appendix briefly outlines recommendations for further use of the archaeological collection from Beekman Street and its storage and curation.

Further Potential:

Several options exist for the continued study and use of the artifacts from Beekman Street. Consideration should be taken to further use the archaeological materials as a tool for DDC to supplement its public outreach program.

I – Public Exhibition of Materials:

A public exhibit would boost DDC's presence in the community in a positive light. While residents are aware of the ongoing construction, many are only vaguely aware of the main beneficial aspects of projects such as these: improved subsurface utilities. Construction, such as what occurred throughout Beekman Street is, generally, viewed in a negative light. However, what was uncovered provided a secondary benefit that DDC should capitalize on. Throughout the excavation several local residents expressed interest in the archaeology and would regularly visit the site for an update. Many expressed a hope that further information would be available about the archaeological finds once the project was complete.

There are several possibilities for one, or more, displays of the materials from Beekman Street. The main office of DDC is one obvious location as a means of promoting inner-agency interest and communication of public works and their associated responsibilities/outcomes. Other possibilities locations for public display that would reach a broader audience include, but are not limited to, the South Street Seaport Museum, a local library, another public facility and/or another City government office.

Developing a public display requires the following steps. Once artifacts are chosen for display they must be reconstructed with a durable medium. This would require gluing artifacts using a water soluble adhesive such as Paraloid B-72. This process can take several weeks to a few months depending on the number of artifacts selected for display. In addition to prepping the artifacts for display supporting descriptive materials need to be designed and produced.

Dependent upon the chosen venue display space and climate controlled cases must be made available and set-up. Staff, in the form of a temporary curator, would also be needed to oversee the project. Should DDC wish to develop a display at South Street Seaport, a local library or other venues, contact and negotiations must be considered as part of the overall process.

II – Public Outreach Materials:

In addition to, or as an alternative to, a public exhibition of artifacts is the creation of literature detailing the excavation and its results. Literature can be designed to be accessible to several audiences including DDC and other City agencies; local residents and businesses; libraries and schools; and the media. This could be supplemented with a web based component.

This option would incur minimal costs to DDC. Developing such materials would require some further assembly of artifacts to be photographed. Photographs and accompanying text would then need to be formatted into a flyer, booklet or some other chosen format. Finally, print production of the materials. For the web component, a small information based site would need to be developed and server space either provided or acquired.

Another possibility for public outreach materials is the development of an educational component that utilizes the materials and information learned. Such materials could be geared toward the second through fourth grades which have a focus on local community and American History. The City of New York - Department of Education's curriculum emphasizes the use of primary source materials. Archaeology is recognized as such a source material.

Developing an education packet to be provided to local schools and libraries would provide DDC with positive public relations in which the continued maintenance and reconstruction of city utilities can also lead to learning more about local history. DDC benefits the community by sharing this information with the city's youngest residents.

III – Further Research

Further research, if funded, would continue to uncover the history of the residents of this area in the second half of the eighteenth century and the turn of the nineteenth century. This would result in a more complete history surrounding the archaeological materials. As part of this continued research, further reconstruction of vessels would take place.

IV – Publication

A possibility exists that Archaeology Magazine would consider publishing an article about the site on its web page.

The Wooden Water Mains:

This project began with the discovery of part of the nineteenth century wooden water main system. As such, this incredibly significant find should be the subject of conservation and display.

Through the generosity of the DDC, the two recovered wooden water mains were transferred to the DEP. It was the stated goal of the DEP that the two mains, along with other mains recovered from other sites, would be conserved and, eventually, put on public display. Although no official statement from the DEP has been provided, Chrysalis Archaeology has recently been informed that the DEP would now not be undertaking the conservation of the water mains.

The DDC may therefore wish to reacquire the two wooden mains recovered on Beekman Street, undertake the necessary conservation, and put them on display in one of the many options previously discussed in this section. There is no doubt that these types of remains will generate the public interest in the past, but also what DDC does that brings the past to life.

The DDC has multiple considerations to pursue with regard to the archaeological remains uncovered in the WSWM project area. It is strongly recommended that DDC undertake some aspect of public outreach with regard to this collection.

Considerations for long-term storage:

DDC has been made aware through discussions with Chrysalis Archaeology and Amanda Sutphin of the LPC of the necessity of providing long term storage for the archaeological materials. Unfortunately the City of New York does not have a repository for archaeological materials; though attempts are being made to seek funding to establish one. As that is several years in the future DDC must consider its options. All archaeological materials will be delivered to DDC by Chrysalis Archaeology packed in archival safe materials. The material remains, approximately twenty file storage boxes, must be stored in a climate controlled environment.

Possible storage locations are limited. Other City agencies, as well as DDC, have made arrangements with Brooklyn College's Department of Anthropology and Archaeology for the long term storage of archaeological materials recovered from construction sites. While there is a nominal annual fee for the storage one of the benefits is that the materials remain available to researchers. One of the disadvantages however is that in time the turn over of personnel at the Department may at some point in the future require relocation of the materials.

The second option is for DDC to store the materials in one of the many facilities in their system. The benefits are obvious in terms of cost to DDC. However, this may mean that access to the collection by researchers may not be as easy then if they were in a more user-friendly environment.

Appendix J:
Curriculum Vitae

Alyssa Loorya, M.A., M.Phil., R.P.A.
4110 Quentin Road
Brooklyn, New York 11234-4322
Phone/Fax: (718) 645-3962 or Cell: (347) 922-5581
E-mail: Loorya@worldnet.att.net

EDUCATION:

*CITY UNIVERSITY OF NEW YORK GRADUATE SCHOOL AND UNIVERSITY CENTER;
New York, New York.
Ph.D. Candidate in Anthropology/Historical Archaeology,
expected graduation: Fall 2007.*

HUNTER COLLEGE; New York, New York.
M.A. in Anthropology, June 1998.

BROOKLYN COLLEGE; Brooklyn, New York.
B.A. in Anthropology, History and Education, Magne Cum Laude and Departmental Honors, January 1995.

PROFESSIONAL LICENSES:

Register of Professional Archaeologists

New York City Department of Education, Per Diem Substitute Teaching Certificate Number: 775621

Fully Insured, Incorporated as Chrysalis Archaeological Consultants, Incorporated, June 2005.

EMPLOYMENT - ARCHAEOLOGY:

BROOKLYN COLLEGE, CITY UNIVERSITY OF NEW YORK RESEARCH FOUNDATION
Laboratory Director, September 2001 to present
City Hall Park Project
Project Director and Graphic Artist, January 2004 to present
Revolutionary War Heritage Tourism Trail project.

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER

Teacher Assistant, June 2001 to present
Hendrick I. Lott House, Brooklyn, NY, New Utrecht Church, Brooklyn, NY, Van Cortlandt Park,
Bronx, NY, Marine Park, Brooklyn, NY, Erasmus High School, Brooklyn, NY, Fort Greene Park,
Brooklyn, NY.

JOBE DEVELOPMENT CORPORATION

Principal Investigator, South Jamaica Urban Renewal Project, Queens, New York, March 2007 to present

ATLAS CONCRETE

Principal Investigator, Rufus King Park Restoration Project, Queens, New York, March 2007 to present

MANUEL ELKEN CORPORATION, INC./NYC DEPARTMENT OF DESIGN AND CONSTRUCTION

Principal Investigator, Wall Street Water Main Project, New York, New York, August 2006 to present

URS CORPORATION

Site Supervisor, Dey Street, New York, New York Project, August 2006 to present
Site Supervisor, Atlantic Yards, Brooklyn, New York, February 2007 to present
Site Supervisor, Floyd Bennett Field, Brooklyn, New York, March 2007 to present

RADIN CONSULTANTING, INCORPORATED

Principal Investigator, Hunterdon, New Jersey Project, June 2006

CHAYA STERN

Principal Investigator, 102 Franklin Avenue Project, May 2006

MATHEWS/NIELSEN LANDSCAPE

Principal Investigator, Rufus King Park Project, April 2006

A. A. H. CONSTRUCTION CORPORATION

Principal Investigator, Columbus Park Restoration, September 2005 to February 2007

WILLIAM A. GROSS CONSTRUCTION

Principal Investigator, Martin's Field Phase II Project, September 2005 to August 2006

PHILIP HABIB AND ASSOCIATES

Principal Investigator, 311 Broadway Project, February 2005 to June 2005

UA CONSTRUCTION CORPORATION

Principal Investigator, Martin's Field Phase I Project, September 2004 to 2006

BAY PROPERTIES, INCORPORATED

Principal Investigator, Block 7792 Staten Island Project, December 2004 to October 2005

DELL-TECH ENTERPRISES

Principal Investigator, Pieter Claesen Wyckoff House Project, May 2004 to December 2004
Principal Investigator, Roger Morris Park Project, January 2005 to March 2005

GAMLA ENTERPRISES, N.A. INCORPORATED

Principal Investigator, 63/65 Columbia Street Project, October 2004 to February 2005

TRC ENVIRONMENTAL CORPORATION

Archaeologist, Greenpoint Project, Brooklyn, NY October 2004
Archaeologist, Consolidated Edison Project, NY May 2006

MONDOL CONSTRUCTION CORPORATION

Principal Investigator, Queens County Farm Museum Project, July 2004 to December 2004

QUIGG DEVELOPMENT CORPORATION

Principal Investigator, Wayanda Park Project, August 2003

A.J. CONTRACTING INCORPORATED

Principal Investigator, Gravesend Cemetery Project, January-March 2002

AUDUBON SOCIETY OF CONNECTICUT

Project Archaeologist and Educational Consultant, May 2001 – May 2002

SAYVILLE HISTORICAL SOCIETY

Co-Director, Edwards Homestead Archaeological Project October 2000, May 2001

CITY UNIVERSITY OF NEW YORK GRADUATE SCHOOL AND UNIVERSITY CENTER
Teacher Assistant, September 1998 to December 2001
John Bowne House, Queens, NY and Hendrick I. Lott House, Brooklyn, NY

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Assistant Site Supervisor, October 1998 to December 1998
Chambers Street Project; New York, NY

EMPLOYMENT – ARCHAEOLOGY-EDUCATION:

CITY UNIVERSITY OF NEW YORK'S – RESEARCH FOUNDATION/GOTHAM CENTER
Educational Consultant - Archaeology and Historic Preservation - City Hall Academy September 2003 – June 2004 and November 2004 to present

BROOKLYN COLLEGE AND DEPARTMENT OF EDUCATION, STAR HIGH SCHOOL
Archaeological-Education Consultant, July 2004 to present
Teaching special content classes and grant writing.

PIETER CLAESEN WYCKOFF HOUSE MUSEUM
Archaeological-Educator – Curriculum Development Consultant, 2003 to present
Responsibilities include the creation and implementation of Teacher Workshops throughout the school year.

DIG MAGAZINE
Archaeological-Education Consultant and Contributor, 2000 to present

SOUTH STREET SEAPORT MUSEUM
Archaeological Educator, September 1999 to June 2001

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE
Curriculum Developer and Archaeological Educator, September 1997 to December 1998
PS 134, New York, NY, Scarsdale Elementary School, Scarsdale, NY, Congregation Emmanuel of Harrison, NY, Temple Israel of New Rochelle, NY

EMPLOYMENT – EDUCATION-PRESERVATION-CONSULTATION:

NEW JERSEY INSTITUTE OF TECHNOLOGY
Educational Consultant, March 2001 to December 2004 and February 2007 to present
Developing special content curriculum for NYC Department of Education to meet national and state standards using primary resource historic preservation material. Teacher development and classroom teaching.

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.
Program Development, January 2005 to present
Developed the Interpretive-Educational-Curriculum Plan for the Hendrick I. Lott House.

VOLUNTEER EXPERIENCE:

NEW YORK CITY DEPARTMENT OF EDUCATION, BRONX EXPEDITIONARY HIGH SCHOOL
Educational and Curriculum Consultant, August 2004 to December 2004

NEW YORK CITY BOARD OF EDUCATION, DISTRICT 22
Grant writer and consultant, May 2002 to September 2002

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Laboratory Assistant, October 1997 to December 1997
Stone Street Historical District Project

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER - FIELD SCHOOL
Co-Director, August 1999
147 Hicks Street Cistern Excavation Project

Site Supervisor, August 1997, June 1995 and June 1996, May 1996 and October 1997
Marine Park, Brooklyn, NY; Pieter Claesen Wyckoff House, Brooklyn, NY; Timothy Knapp House,
Rye, NY

Excavator, May 1995 and June 1994
Pieter Claesen Wyckoff House, Brooklyn, NY; Timothy Knapp House, Rye, NY

BROOKLYN COLLEGE – DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY
Teacher Assistant, September 1996 to June 1998
Introduction to Archaeological Laboratory Methods

WEB & MEDIA DESIGN:

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Created press and field school promotional material and packets.
Developed and maintains web site for the Department's archaeology program.
<http://depthome.brooklyn.cuny.edu/anthro/dept>

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION
Created press and promotional material and packets. Newsletter designer and editor.
Developed and maintains web site for the organization. <http://www.lotthouse.org>

PIETER CLAESEN WYCKOFF HOUSE MUSEUM AND ASSOCIATION
Created 350th Anniversary Flyer and Conference Information.

AWARDS:

Brooklyn Borough President's Historians Award (through the Brooklyn College Archaeological Research Center) - 1998

CUNY-PSE Grant (through the Brooklyn College Archaeological Research Center) - 1998, 1999, 2000
Conference Travel Grant – CUNY Graduate Center, New York, New York 2001

PROFESSIONAL SERVICES:

1999 to present Board of Trustees – The Hendrick I. Lott House Preservation Association
2003 to present Member – Historic House Trust Educators Alliance
2002 to present Advisory Board – Pieter Claesen Wyckoff House Museum
2002 to present Advisory Board - Brooklyn Heritage Inc.
2005 to present Board of Trustees - Salt Marsh Alliance

PUBLICATION(S):

Loorya, Alyssa.

2002 The Gravesend Cemetery Project. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

1998 *Stewardship in Practice: Integrating Archaeology Into The Grade School Curriculum.* Masters Thesis on file with the Department of Anthropology; Hunter College, New York, New York.

Loorya, Alyssa and Christopher Ricciardi.

2007 Columbus Park; New York, (New York County) New York –Monitoring Report for Phase II Construction Project Number: M015-203MA NYSOPRHP Project Number: 02PR03416. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006a Martin's Field - Phase II Project; Queens, New York – Phase 1B Cultural Resource Monitoring Report Project Number: Q017-105M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006b Rufus King Manor, Rufus King Park - Tree Placement Monitoring Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006c Phase IA Archaeological Documentary Study for the proposed development of 102 Franklin Avenue, (Block 1898, Lots 45 and 46), Brooklyn (Kings County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006d Phase 1A Archaeological Documentary Study for the proposed development of the Hunterdon, New Jersey Bridge Project. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2005a Phase IA Archaeological Documentary Study for the proposed development of 63-65, Columbia Street, (Block 299, Lots 7 and 8), Brooklyn (Kings County), New York – BSA 04BSA005K. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005b Phase 1 Archaeological Report for Block 7792 – Staten Island (Richmond County), New York. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2005c Phase 1B Archaeological Monitoring of the Reconstruction of the Retaining Wall for Morris-Jumel Mansion-Robert Morris Park, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

- 2005d Phase 1A Documentary Study for the 311 West Broadway Project, Block 228, Lot 12 – New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005e Phase 1B Archaeological Monitoring of the Reconstruction of Martin's Field (Phase I) Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005f Phase 1A Documentary Study and Partial Field Monitoring of Columbus Park, New York (New York County), New York (NYSOPRHP #: 02PR03416 and NYC Parks #: M015-203MA. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.
- 2004a Queens County Farm Museum – Phase 1B Monitoring Project; Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2004b Pieter Claesen Wyckoff House – Phase 1B Monitoring Project; Brooklyn, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2003 Wayanda Park Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 1998a The PS 134 Archaeological-Education Program October 1997 through January 1998, New York, New York. Report on file with the Institute for Archaeological Education at Manhattanville College; Purchase, New York.
- 1998b Unearthing Van Cortlandt Park: The History and Material Culture of the Van Cortlandt Family; Bronx, New York. Report on file with the Brooklyn College Archaeological Research Center; Brooklyn College, Brooklyn, New York.

Bankoff, H. Arthur and Alyssa Loorya.

- 2007 City Hall Park Project – Archaeology Magazine Online
<http://www.archaeology.org/online/features/cityhallpark/>

Bankoff, H. Arthur, Christopher Ricciardi and Alyssa Loorya.

- 2004a "The Secret Room". *Seaport*, 39(1) Winter-Spring: 32-35.
- 2004b "Field Work at the Lott House" *Seaport*, 39(1) Winter-Spring:40.
- 2001 "Remember African Under The Eaves: A forgotten room in a Brooklyn farmhouse yields evidence of religious ritual among slaves." *Archaeology Magazine*, 54(3):36-40, May-June.
- 1998a Gerritsen's Creek: 1997 Archaeological Field Excavations Report on file with the Brooklyn College Archaeological Research Center, Brooklyn, New York.
- 1998b Under the Floor: Excavating the front Parlor of the Timothy Knapp House. Report on file with the Rye New York Historical Society; Rye, New York.
- 1998c "Excavating Brooklyn's Historic Past: The Archaeology of the Hendrick I. Lott Homestead" *Historic House Trust Newsletter*, 9(4):Fall.
- 1998d "Excavating Historic Brooklyn". *De Boerenwoning*, 1(1):3-6.

- 1997 The History and Archaeology of the Wyckoff Homestead. Report on file with the New York City Department of Parks and Recreation's Historic House Trust Division, New York, New York.

Ricciardi, Christopher and Alyssa Loorya.

- 2001 Report of the Public Archaeological Dig Program at The Edwards Homestead, Sayville, New York. Report on file with the Sayville Historical Society, Sayville, New York.
- 1999 "127 Hicks Street Cistern Report". Report on file with the Brooklyn College Archaeological Research Center; Brooklyn, New York.

Ricciardi, Christopher, Alyssa Loorya and Dr. H. Arthur Bankoff.

- 2002 "A forgotten story comes to light", *Footsteps Magazine*, May-June:41-45.
- 2000 "Not Your Typical New Yorkers: Uncovering Brooklyn's Historic Past at the Hendrick I. Lott House." *This Side Up Magazine*, 12(Winter):15-16.

Membership In Professional Organizations:

The Council for Northeast Historical Archaeology (CNEHA)
 New York Archaeological Council (NYAC)
 The Professional Archaeologists of New York City (PANYC)
 The Register of Professional Archaeologists (ROPA)
 The Society for Historical Archaeology (SHA)

Computer skills:

Windows 95/98/ME/XP
 MS Office, Publisher and FrontPage
 Adobe Acrobat, Illustrator, Page Maker and Photoshop
 Macromedia Dreamweaver and Fireworks
 Quark XExpress

Conference Papers/Lectures/Teacher Workshops:

- 01-09-97 Society for Historical Archaeology Conference; Corpus Christi, Texas
 "Archaeology and Education: An Example from Rye, New York"
- 03-09-97 Middle Atlantic Archaeological Conference; Ocean City, Maryland
 "Archaeology and Education: An Example from Rye, New York"
- 01-08-97 Society for Historical Archaeology Conference; Atlanta, Georgia
 "Education and Archaeology: Getting Grade Schools Involved"
- 01-27-98 The Science Activity Exchange - Dig Into Archaeology; Greenwich, Connecticut
 "Integrating Archaeology Into The Grade School"
- 06-12-98 I.S. 211; Brooklyn, New York: "Archaeology at the Lott House"
- 04-10-99 Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania
 "Excavating Brooklyn Farmsteads: Urban Archaeology Meets Rural Sites"
- 07 & 08-99 South Street Seaport - Dig Camp at the Hendrick I. Lott
- 07-19-99 92nd Street YM-YWHA Dig Day at the Hendrick I. Lott
- 07-21-99 Brooklyn Center for the Urban Environment; Brooklyn, NY: "Excavating The Lott House"
- 10-16-99 New York State Archives, New York, New York
 "Teaching Into the Millennium: Integrating Archaeology into the Curriculum"
- 11-16-99 Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House"
- 01-08-00 Society for Historical Archaeology Conference; Quebec City, Canada
 "Excavating Brooklyn, NY's Rural Past: The Hendrick I. Lott Farmstead Project"

05-23-00 I.S. 68; Brooklyn, New York: "Digging at the Lott House"

05-28-00 92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, NY

06-01-00 Millennial Stews: Food and Food Systems in the Global City, Brooklyn, NY

06-12-00 Dyker Heights Middle School: Dig Camp at the Lott House

06-13-00 I.S. 68: Dig Camp at the Lott House

07 & 08-00 South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, NY

07-10-00 Salt Marsh Environmental Center; Brooklyn, NY: "Discover Brooklyn's Cultural Landscape Through Archaeology at the Lott House and Marine Park"

08-02-00 Brooklyn Historical Society: Dig Camp at the Lott House

08-00 South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, NY

04-19-01 Society for American Archaeology Conference, New Orleans, Louisiana
"Beyond Community Involvement: The Hendrick I. Lott House Archaeological Project and its Impact in the Surrounding Community"

10-19-01 Council for Northeast Historical Archaeology Conference, Niagara, Canada
"Unearthing 19th Century Farm Life in New York: The Lott House Project"

01-17-03 Society for Historical Archaeology Conference, Providence, Rhode Island.
"The City Hall Park Project Poster Session"

04-19-03 Professional Archaeologists of New York City Conference, New York, NY
"Archaeology and Historic Preservation as Educational Learning Tools"

10-00-03 Hendrick I. Lott House; Brooklyn, New York: "Teacher Workshop-Archaeology"

01-22-04 Bartow-Pell Society: Bronx, NY: "Archaeology and Education"

09-21-04 Pieter Claesen Wyckoff House, Brooklyn, NY. "Archaeology, Historic Preservation and Education: Bringing the Past to the Present"

11-13-04 Hendrick I. Lott House; Brooklyn, New York: "Teacher Workshop - Archaeology"

11-20-04 Pieter Claesen Wyckoff House; Brooklyn, New York: "Teacher Workshop - Archaeology"

12-02-04 City Hall Academy; New York, NY: "On Being An Archaeologist"

01-12-05 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

01-13-05 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

02-20-05 Salt Marsh Nature Center; Brooklyn, NY: "Archaeology In Your Backyard"

02-28-05 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

03-03-05 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

05-23-05 Brooklyn College; Brooklyn, New York: "Archaeology and the Parks Department"

02-01-06 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

02-27-06 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

03-06-06 Salt Marsh Nature Center; Brooklyn, NY: "Dutch Brooklyn: Where Is Everyone?"

10-19-06 Landmarks Preservation Commission; New York, NY: "City Hall Academy Education"

02-07-07 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

References:

Academic:

Dr. Sean Sawyer, Executive Director
The Pieter Claesen Wyckoff House Museum
5816 Clarendon Road at Ralph Avenue
Brooklyn, New York 11203
Phone: (718) 629-5400
Fax: (718) 629-3125
Email: seansawyer@wyckoffassociation.org

Cultural Resource Management:

Oded Horodniceanu, P.E., CPSI, Deputy General Manager
UA Construction (An Urbitran Group Company)
71 West 23rd Street
New York, New York 10010
Phone: (212) 414-1708, ext. 1247
Fax: (212) 366-6214
E-mail: odedh@urbitran.com

Mark Gross
William A. Gross Construction Associates
117 South 4th Street
New Hyde Park, New York 11040
Phone: (516) 437-0909
Fax: (516) 437-7768

Igor Gerbor
A.A.H. Construction Corporation
18-55 42nd Street
Astoria, Queens, New York 11105-1025
Phone: (718) 267-1300
Fax: (718) 726-1474

Lou Dellaquila
Dell-Tech Enterprises, Inc.
One Pinnacle Court
Dix Hills, New York 11786
Phone: (631) 864-4660
Fax: (631) 864-4669

Historic Preservation:

Charles Henkels, AIA
President - Hendrick I. Lott House Preservation Association
815 Greenwich Street – Apt. 4A
New York, New York 10014-5191
Phone: (212) 255-3352
Fax: (212) 255-5172
Email: henkels.arch@verizon.net

Dr. Sean Sawyer, Executive Director
The Pieter Claesen Wyckoff House Museum
5816 Clarendon Road at Ralph Avenue
Brooklyn, New York 11203
Phone: (718) 629-5400
Fax: (718) 629-3125
Email: seansawyer@wyckoffassociation.org

Educational:

Mary Delano and Kate Ottavino
Center for Architecture and Building Science Research
New Jersey Institute of Technology
323 Dr. Martin Luther King Boulevard
Campbell Hall, Room 335
Newark, New Jersey 07102
Phone: (973) 596-3097
E-mail: mdelano@njit.edu

CHRISTOPHER RICCIARDI, Ph.D., R.P.A.
4110 Quentin Road
Brooklyn, New York 11234-4322
Phone/Fax: (718) 645-3962 or Cell: (917) 892-2033
E-mail: Ricciardi@worldnet.att.net

EDUCATION:

SYRACUSE UNIVERSITY; Syracuse, New York.
Ph.D in Anthropology/Historical Archaeology, June 2004

M.A. in Anthropology/Historical Archaeology, May 1997

BROOKLYN COLLEGE; Brooklyn, New York.
B.A. in History and Archaeology, minor Secondary Education, Cum Laude, June 1992.

EMPLOYMENT:

UNITED STATES ARMY CORPS OF ENGINEERS

Project Archaeologist, September 2001 to present

Cultural Resource Specialist, NHPA, NEPA, EA, EIS and Environmental Coordinator,
Project Manager – Mattituck Inlet Study and the Long Island Dredge Material
Management Program

Project area includes: Long Island and the Hudson Valley.

Projects include Storm Damage Reduction, Ecosystem Restoration, Navigation Control,
NY-NJ Harbor Deepening Legal Team, Independent Technical Review Lead - Louisiana
Coastal Protection and Restoration Project and Alabama Storm Damage and Restoration
Project, Environmental Coordinator on the Dredge Material Management Project

CITY UNIVERSITY OF NEW YORK - RESEARCH FOUNDATION/GOTHAM CENTER

Archaeologist, October 2004

Lecturer at the City Hall Academy on archaeology

AUDUBON SOCIETY OF CONNECTICUT

Archaeologist, May 2001

URS-GREINER WOODWARD-CLYDE

Principal Investigator, January to February 2000, February to May 2001

Stone Street, New York, NY, Bronx River Parkway Extension, New York, NY,
Westchester Creek Storage Tank Project, Bronx, NY.

ELLIS ISLAND FOUNDATION

Archaeologist, November – December 2000

Ellis Island Project, New York, NY

SAYVILLE HISTORICAL SOCIETY

Co-Director, Edwards Homestead Archaeological Project October 2000, April-May 2001

NATIONAL PARKS SERVICE

Archaeological Technician, April 2000

Liberty Island Project, New York, NY

NEW YORK COUNCIL FOR THE HUMANITIES

Lecturer - Speakers in the Humanities Program, January 2000 to December 2002, January 2006 to present

NATIONAL ENDOWMENT FOR THE HUMANITIES

Archaeological Educator, November 1999

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.

Project Director, September 1999 to September 2001

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER

Co-Director, May 1998 to August 2001

Hendrick I. Lott House Archaeology Project; Brooklyn, NY

BROOKLYN NEW SCHOOL, BROOKLYN, NEW YORK

Archaeology Educator, December 1998

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION

Site Supervisor, October 1998 to December 1998

Chambers Street Project; New York, NY

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY; FORDHAM UNIVERSITY

Adjunct Instructor (Anthropology), January 1998 to May 1998

Introduction to Archaeology

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE

Curriculum Developer and Archaeological Educator, September 1997 to December 1998

PS 134; New York, NY, Parkway School; Greenwich, CT, Congregation Emmanuel of Harrison, NY; Temple Israel of New Rochelle, NY

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION

Intern - Archaeologist, September 1997 to December 1997

Stone Street Project; New York, NY

SYRACUSE UNIVERSITY - DEPARTMENT OF ANTHROPOLOGY

Graduate Assistant, September 1995 to December 1995 and September 1996 to May 1997

WILLIAM AND MARY COLLEGE

Teacher Assistant, August to May 1993-1994

Introduction to Cultural Anthropology

RYE (NEW YORK) HISTORICAL SOCIETY

Co-Director, May 1993, 1994, 1995, 1996, 1997, June and October 1997

Timothy Knapp House; Rye, NY

ARCOPLEX/KEY PERSPECTIVES, ARCHAEOLOGICAL GROUP

Excavator, July 1990, July, August 1991

Sign Road; Staten Island, NY, Bartow-Pell Mansion; Bronx, NY, Elmhurst Park; Queens, NY

VOLUNTEER EXPERIENCE:

CHRYSLIS ARCHAEOLOGICAL CONSULTANTS, INCORPORATED

Field Director and Researcher, January 2002 to present

South Jamaica Urban Renewal Project; Queens, New York, March 2007 to present

Rufus King Park Restoration Project, Queens, New York, March 2007 to present

Wall Street Water Main Project, New York, New York, August 2006 to present

Hunterdon, New Jersey Project, June 2006

102 Franklin Avenue, Brooklyn, New York May 2006

Rufus King Park, Queens, New York, April 2006

Columbus Park, New York, New York, September 2005 to February 2007

Martin's Field Phase II Project, Queens, New York, September 2005 to August 2006

311 Broadway, New York, New York, February 2005 to June 2005

Roger Morris Park, New York, New York, January 2005 to March 2005

Page Ave - Block 7792, Staten Island, New York, December 2004 to August 2005

Martin's Field Phase I Project, Queens, New York, September 2004 to April 2006

63-65 Columbia Street, Brooklyn, New York, October to December 2004

Queens County Farm Museum; Queens, New York, July 2004 to December 2004

Pieter Claesen Wyckoff House; Brooklyn, New York, May 2004 to December 2004

Wayanda Park, Queens, New York, August 2003

Gravesend Cemetery; Brooklyn, New York, January 2002 to February 2002

CITY UNIVERSITY OF NEW YORK'S RESEARCH FOUNDATION

Archaeologist, November 2004 to present

City Hall Academy Educational Project

HUBBARD HOUSE HISTORY PROGRAM

Archaeological Director, May to June 1998

Elias Hubbard House; Brooklyn, NY

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER

Co-Director, August 1999

147 Hicks Street Cistern Excavation Project; Brooklyn, NY

Laboratory Assistant – Volunteer Instructor, June 1994 to July 1995; June 1997 to July 2001

Introduction to Archaeological Laboratory Methods

Assistant to the Director - Teacher Assistant, June 1993, 1994, 1995, 1996; August 1997;

Marine Park; Brooklyn, NY, Pieter Claesen Wyckoff House; Brooklyn, NY, Bartow-Pell

Mansion; Bronx, NY

Trench Supervisor, July-August 1994

Kamenska Chuka; Blagoevgrad, Bulgaria

SYRACUSE UNIVERSITY FALL FIELD EXCAVATION

Excavator, September-October 1995

The Erie House; Port Byron, NY

WILLIAM AND MARY FIELD SCHOOL

Surveyor, May 1994

St. Martin; Netherlands Antilles

RESEARCH EXPERIENCE:

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Intern – Archaeologist, September 1997

NEW YORK CITY DEPARTMENT OF PARKS: HISTORIC HOUSE TRUST DIVISION
Research Assistant, January 1995 to July 1996

AWARDS/GRANTS:

Brooklyn Borough President’s Historians Award (through the Brooklyn College Archaeological Research Center) - 1998
CUNY-PSE Grant (through the Brooklyn College Archaeological Research Center) - 1998, 1999, 2000
Dissertation Grant - The Holland Society, New York, New York - 1998
Conference Travel Grant - Syracuse University, Syracuse, New York – 1997 through 2001
Honorarium - Glenville School, Glenville, Connecticut - May 1997; Norwalk Connecticut Community College - October 1999; Archaeological Society of Staten Island, Staten Island, New York – 2003, 2004; Bartow-Pell Society, Bronx, New York – January 2004, Woodlawn Historic Society, Queens, New York – March 2004
Performance Awards, U.S. Army Corps of Engineers – New York District 2002, 2003, 2004
USACOE District Commander’s Award for Scholarly Research 2005
USACOE Team of the Year Award - Jamaica Bay Marsh Island Restoration Project, 2006

PROFESSIONAL ORGANIZATIONS:

The Council for Northeast Historical Archaeology (CNEHA)
The Friends of New Netherland Society (FNN)
The New York State Archaeological Association (NYSAA)
The New York Archaeological Council (NYAC)
The Professional Archaeologists of New York City (PANYC)
The Register of Professional Archaeologists (ROPA)
The Society for Historical Archaeology (SHA)

PROFESSIONAL SERVICES:

2005 to 2006	Board of Trustees - Salt Marsh Alliance
2005	CNEHA – Student Paper Judge
2004 to 2005	President – Professional Archaeologists of New York City
2003 to 2006	President – Brooklyn Heritage, Incorporated
2002	Trustee/Treasurer - Brooklyn Heritage, Incorporated
2002 to 2003	Vice President – Professional Archaeologists of New York City
2001 to present	Advisor - Pieter Claesen Wyckoff House Museum Advisory Board
2001	Advisor - Brooklyn Heritage, Incorporated
1997 to 2006	Trustee - The Hendrick I. Lott House Preservation Association
1997 to 2001	Secretary - Metropolitan Chapter–NYS Archaeological Association

REPORTS AND PUBLICATIONS:

Ricciardi, Christopher.

- 2007 Section 111 – Mattituck Inlet Feasibility Report. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

- 2005a Phase 1A Documentary Study for the Mattituck Inlet Study, Village of Mattituck, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

- 2005b Phase 1A Documentary Study for the Lake Montauk Harbor Navigation Project, Lake Montauk, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

- 2004a *Changing Through The Century: Life on the Lott Family Farm, Town of Flatlands, Kings County (Brooklyn), New York in the Nineteenth Century*. Doctoral Dissertation, Department of Anthropology, Syracuse University, Syracuse, New York.

- 2004b Phase 1A Documentary Study for the Village of Northport, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

- 2003 Phase 1A Documentary Study for Spring Creek, Kings/Queens County, New York Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

- 2001a Phase 1A Archaeological Survey and Documentary Research Study - East River CSO Facility Planning Project – P.I.N. X027.05 P.C.N. Bronx River Greenway Adjacent To I-895 Bronx, New York. Report on file with U.R.S. Corporation, Florence, New Jersey.

- 2001b Phase 1A Archaeological Survey and Documentary Research Study – Westchester Creek CSO Storage Tank Project, Bronx Psychiatric Center Campus, Bronx, New York. Report on file with U.R.S. Corporation, Florence, New Jersey

- 2001c Report of the Archaeological Monitoring of the Installation of the Electrical Trench Excavation at The Edwards Homestead in Sayville, New York. Report on file with The Sayville Historical Society, Sayville, New York.

- 1998a "Current Research: Brooklyn, New York – Hendrick I. Lott House Project" *Society for Historical Archaeology Newsletter*, 31(4):13-14, Winter.

- 1998b "Current Research: Brooklyn, New York – Hendrick I. Lott House Project" *Council for Northeast Historical Archaeology Newsletter*, 41:4-5, October.

- 1997a *From Private to Public: The Changing Landscape of Van Cortlandt Park; Bronx, New York in the Nineteenth Century*. Masters Thesis, Department of Anthropology, Syracuse University, Syracuse, New York.

- 1997b Archaeology and Education – A Report of the 1997 Field Excavation. Report on file with the Rye New York Historical Society; Rye, New York.

Ricciardi, Christopher and Alyssa Loorya.

- 2001 Report of the Public Archaeological Dig Program at The Edwards Homestead, Sayville, New York. Report on file with the Sayville Historical Society, Sayville, New York.
- 1999 "127 Hicks Street Cistern Report".
Report on file with the Brooklyn College Archaeological Research Center; Brooklyn, NY.

Ricciardi, Christopher, Alyssa Loorya and Dr. H. Arthur Bankoff.

- 2002 "A forgotten story comes to light", *Footsteps Magazine*, May-June:41-45.
- 2000 "Not Your Typical New Yorkers: Uncovering Brooklyn's Historic Past at the Hendrick I. Lott House." *This Side Up Magazine*, 12(Winter):15-16.

Bankoff, H. Arthur and Christopher Ricciardi.

- 1996 Excavations At The Timothy Knapp House; Rye, New York.
Report on file with the Rye New York Historical Society; Rye, New York.

Bankoff, H. Arthur, Christopher Ricciardi and Alyssa Loorya.

- 2004a "The Secret Room". *Seaport*, 39(1)Winter-Spring: 32-35.
- 2004b "Field Work at the Lott House" *Seaport*, 39(1)Winter-Spring:40.
- 2001 "Remember African Under The Eaves: A forgotten room in a Brooklyn farmhouse yields evidence of religious ritual among slaves." *Archaeology Magazine*, 54(3):36-40, May-June.
- 1998a Gerritsen's Creek: 1997 Archaeological Field Excavations
Report on file with the Brooklyn College Archaeological Research Center, Brooklyn, New York.
- 1998b Under the Floor: Excavating the front Parlor of the Timothy Knapp House; Rye, New York.
Report on file with the Rye New York Historical Society; Rye, New York.
- 1998c "Excavating Brooklyn's Historic Past: The Archaeology of the Hendrick I. Lott Homestead" *Historic House Trust Newsletter*, 9(4):Fall.
- 1988d "Excavating Historic Brooklyn". *De Boerenwoning*, 1(1):3-6.
- 1997 The History and Archaeology of the Wyckoff Homestead.
Report on file with the New York City Department of Parks And Recreation's Historic House Trust Division, New York, New York.

Bankoff, H. Arthur, Frederick A. Winter and Christopher Ricciardi.

- in press "The History and Archaeology of Van Cortlandt Park". in Gilbert (ed.), *The Archaeology of The Bronx*, Bronx Historical Society, Bronx, NY.
- 1998 "Digging Up Old Brooklyn". *Archaeology Magazine*, 51(5):19, September/October.

Loorya, Alyssa and Christopher Ricciardi.

- 2007 Columbus Park; New York, (New York County) New York –Monitoring Report for Phase II Construction Project Number: M015-203MA NYSOPRHP Project Number: 02PR03416. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2006a Martin's Field - Phase II Project; Queens, New York – Phase 1B Cultural Resource Monitoring Report Project Number: Q017-105M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2006b Rufus King Manor, Rufus King Park - Tree Placement Monitoring Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2006c Phase IA Archaeological Documentary Study for the proposed development of 102 Franklin Avenue, (Block 1898, Lots 45 and 46), Brooklyn (Kings County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2006d Phase 1A Archaeological Documentary Study for the proposed development of the Hunterdon, New Jersey Bridge Project. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.
- 2005a Phase IA Archaeological Documentary Study for the proposed development of 63-65, Columbia Street, (Block 299, Lots 7 and 8), Brooklyn (Kings County), New York – BSA 04BSA005K. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005b Phase 1 Archaeological Report for Block 7792 – Staten Island (Richmond County), New York. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.
- 2005c Phase 1B Archaeological Monitoring of the Reconstruction of the Retaining Wall for Morris-Jurmel Mansion-Robert Morris Park, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005d Phase 1A Documentary Study for the 311 West Broadway Project, Block 228, Lot 12 – New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005e Phase IB Archaeological Monitoring of the Reconstruction of Martin's Field (Phase I) Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 2005f Phase 1A Documentary Study and Partial Field Monitoring of Columbus Park, New York (New York County), New York (NYSOPRHP #: 02PR03416 and NYC Parks #: M015-203MA. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.
- 2004a Queens County Farm Museum – Phase 1B Monitoring Project; Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

- 2004b Pieter Claesen Wyckoff House – Phase 1B Monitoring Project; Brooklyn, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.
- 1998a The PS 134 Archaeological-Education Program October 1997 through January 1998, New York, New York. Report on file with the Institute for Archaeological Education at Manhattanville College; Purchase, New York.
- 1998b Unearthing Van Cortlandt Park: The History and Material Culture of the Van Cortlandt Family; Bronx, New York. Report on file with the Brooklyn College Archaeological Research Center; Brooklyn College, Brooklyn, New York.

MEDIA DESIGN:

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Created press and field school promotional material and packets.

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION
Created press and promotional material and packets. Project's Newsletter co-editor.

TRAINING:

- Introduction to Civil Works (U.S. Army Corps of Engineers) 2002
- Leadership Training (U.S. Army Corps of Engineers) 2002
- Introduction to Cultural Resource Management (U.S. Army Corps of Engineers) 2003
- Identification of Mid-Twentieth Century Historic Structures (N.P.I.) 2004
- Introduction to Planning, Principles and Practices (U.S. Army Corps of Engineers) 2005
- New York City Department of Parks and Recreation (Asbestos Awareness Course) 2005

CONFERENCE PAPERS/CHAIRS:

- 04-08-95 Middle Atlantic Archaeological Conference; Ocean City, Maryland
"The History And Archaeology Of Van Cortlandt Park; Bronx, NY"
- 04-22-95 New York State Archaeological Association Conference; Syracuse, New York
"The History And Archaeology Of Van Cortlandt Park; Bronx, NY"
- 10-20-96 Council for Northeast Historical Archaeology Conference; Albany, New York
"Archaeological Investigations at the Timothy Knapp House; Rye, NY"
- 01-09-97 Society For Historical Archaeology Conference; Corpus Christi, Texas
"From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"
- 01-09-97 Society For Historical Archaeology Conference; Corpus Christi, Texas
"Archaeology and Education: An Example from Rye, NY"
- 03-09-97 Middle Atlantic Archaeological Conference; Ocean City, Maryland
Chairperson: Current Perspectives In CRM Archaeology In The Middle Atlantic
- 03-09-97 Middle Atlantic Archaeological Conference; Ocean City, Maryland
"Archaeology and Education: An Example from Rye, NY"
- 05-02-97 National Council on Public History Conference; Albany, New York
"Education in Archaeology: Using local history as a tool to educate the public on issues of preservation"
- 09-27-97 Lower Hudson Valley Conference; New Paltz, New York
"From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"
- 10-18-97 Council for Northeast Historical Archaeology Conference; Altoona, Pennsylvania
"From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"

01-08-98 Society For Historical Archaeology Conference; Atlanta, Georgia
 "Education and Archaeology: Getting Grade Schools Involved"

01-09-98 Society For Historical Archaeology Conference; Atlanta, Georgia
 "Where Did The Family Farm Go? Excavating 19th Century Brooklyn, NY"

04-05-98 1998 Annual Meeting of The Holland Society; New York, New York
 "Rediscovering Brooklyn's Dutch Heritage: The Hendrick I. Lott House Project"

04-14-98 New York State Archaeological Association - Metropolitan Chapter; New York, New York
 "Excavating the 4th Largest City in America: The Hendrick I. Lott House
 Archaeological Project"

04-10-99 Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania
 Chairperson – Contributed Papers in Farmstead Archaeology Session

04-10-99 Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania
 "Excavating Brooklyn's Farmsteads: Urban Archaeology Meets Traditional Rural
 Sites"

10-12-99 New York State Archaeological Association - Metropolitan Chapter; New York, New York
 "More Questions Than Answers: The Hendrick I. Lott Archaeology Project"

10-14-99 Norwalk Community-Technical College, Norwalk, Connecticut Lecture Series
 "Historical Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

01-08-00 Society for Historical Archaeology Conference; Quebec City, Canada
 "Excavating Brooklyn, New York's Rural Past: The Hendrick I. Lott House
 Project"

04-16-00 Professional Archaeologists of New York City's Public Program, New York, New York
 "Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

06-13-00 Suffolk County Archaeological Association, Long Island, New York
 "Historical Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

06-15-00 New York History Annual Conference; Bronx, New York
 "Public Archaeology at the Hendrick I. Lott House in Brooklyn, New York"

04-19-01 Society for American Archaeology Conference, New Orleans, Louisiana
 "Beyond Community Involvement: The Hendrick I. Lott House Archaeological
 Project and its Impact in the Surrounding Community"

10-07-01 Gotham Center for New York City History Conference, New York, New York
 "Unearthing 19th Century Farm Life in New York: The Lott House Project"

10-19-01 Council for Northeast Historical Archaeology Conference, Niagara, Canada
 "Unearthing 19th Century Farm Life in New York: The Lott House Project"

11-26-01 New York University; New York, NY: "Slavery at the Lott House"

10-03-02 The Dutch In New York Conference, Brooklyn College, Brooklyn, New York
 Conference Chairman and Organizer

04-19-03 Professional Archaeologists of New York City – 23rd Annual Conference, New York, New
 York: Conference Chairman and Organizer

LECTURES TO COMMUNITY GROUPS, ORGANIZATIONS, TEACHER WORKSHOPS, GRADE/HIGH SCHOOL CLASSES:

- 04-20-93 John Dewey High School; Brooklyn, New York: "The Archaeology Of New York City"
 06-05-95 St. Luke's School; New York City, New York: "What It's Like To Be An Archaeologist"
 04-10-97 Cos Cob Elementary School; Cos Cob, Connecticut: "Archaeology in Your Backyard"
 05-20-97 Parkway School; Greenwich, Connecticut: "Archaeology and History – What it all Means"
 05-29-97 Order of Colonial Lords of Manors in America Annual Meeting; New York, New York
 "The Archaeology of Van Cortlandt Park; Bronx, NY"
 06-08-97 Glenville Elementary School; Glenville, CT: "Archaeology and History – What it Means"
 01-27-98 The Science Activity Exchange - Dig Into Archaeology; Greenwich, Connecticut
 "Integrating Archaeology Into The Grade School"
 03-12-98 John Dewey High School; Brooklyn, New York: "Archaeology in Your Backyard"
 03-17-98 James Madison High School; Brooklyn, New York: "Archaeology and the Lott Family"
 04-04-98 James Madison High School; Brooklyn, New York: "The Archaeology of Flatlands"
 09-08-98 Community Board 13; Brooklyn, New York: "Archaeology and Education in Brooklyn"
 09-15-98 Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House"
 10-25-98 Brooklyn History Day; Brooklyn, New York: "Brooklyn History from the Dirt Up"
 12-21-98 Brooklyn New School, Brooklyn, New York: "The Archaeology of Brooklyn"
 01-28-99 Brooklyn Historical Society/Saint Francis College, Brooklyn, New York:
 "Archaeology In Brooklyn – Excavations at the Hendrick I. Lott House"
 03-09-99 Historic House Trust Lecture Series; New York, New York:
 "The Archaeology of New York City's Historic Houses"
 06-09-99 Architectural Institute of America - Brooklyn Chapter; Brooklyn, New York
 "Excavating the Hendrick I. Lot House"
 07 & 08-99 South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, New York
 07-19-99 92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, New York
 07-21-99 Brooklyn Center for the Urban Environment; Hendrick I. Lott House; Brooklyn, New York
 "Excavating The Lott House"
 10-16-99 New York State Archives, New York, New York
 "Teaching Into the Millennium: Integrating Archaeology into the Curriculum"
 10-26-99 Brooklyn History Day; Brooklyn, New York: "Brooklyn History from the Dirt Up"
 11-16-99 Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House in '99"
 11-19-99 Hewlitt School; New York, New York: "Archaeology In Your Backyard"
 12-02-99 P.S. 207 Brooklyn, New York: "Archaeology In Your Backyard"
 04-28-00 Marble Hill Senior Center; Bronx, New York: "The Archaeology Of New York City"
 05-12-00 James Madison High School; Brooklyn, New York: "Archaeology at the Lott House"
 05-23-00 I.S. 68; Brooklyn, New York: "Digging at the Lott House"
 05-28-00 92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, New York
 06-01-00 Millennial Stews: Food and Food Systems in the Global City, Brooklyn, New York
 "Foodways at the Lott House"
 06-12-00 Dyker Heights Middle School: Dig Camp at the Lott House
 06-13-00 I.S. 68: Dig Camp at the Lott House
 07 & 08-00 South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, New York
 07-10-00 Salt Marsh Environmental Center; Brooklyn, New York: "Discover Brooklyn's Cultural
 Landscape Through Archaeology at the Lott House and Marine Park"
 08-13-00 The Museum at Stony Brook; Stony Brook, NY: "The Archaeology of New York City"
 08-14-00 Brooklyn Historical Society: Dig Camp at the Lott House
 09-19-00 Five Towns Senior Center; Queens, NY: "The Archaeology of New York City"
 10-11-00 Fraiser Civic Association, Brooklyn, NY: "The Lott House Archaeology Project"
 10-21-00 Richmond Hill Historical Society; Queens, NY: "The Archaeology of New York City"
 10-26-00 New York Public Library; New York, NY: "The Archaeology of New York City"
 11-11-00 Selfhelp Clearview Senior Center; Queens, NY: "The Archaeology of New York City"
 01-04-01 Roy Reuther Senior Center; Queens, NY: "The Archaeology of New York City:"
 03-25-01 Mount Vernon Museum and Garden, New York, NY: "The Archaeology of New York City"
 03-28-01 Katonah Village Library, Katonah, New York: "The Archaeology of New York City"

05-08-01 Long Beach Senior Center; Long Beach, New York: "The Archaeology of New York City"

05-30-01 Audubon Society of Connecticut; Greenwich, CT: Archaeological-Education Dig Day

06-01-01 P.S. 195; Brooklyn, New York: "Digging Up Your Backyard: Archaeology in NYC"

10-09-01 Suffren Library; Suffren, New York: "The Archaeology of New York City"

11-11-01 Brooklyn Historical Society; Brooklyn, NY: "Archaeology in Your Backyard"

11-18-01 Brooklyn Historical Society; Brooklyn, NY: "Lott House Archaeology Project"

01-06-02 Archaeological Society of Staten Island; Staten Island, NY: "The Archaeology of NYC"

03-16-02 New Images for the Widowed; New York, New York: "The Archaeology of NYC"

06-02-02 Planting Field Arboretum; Long Island, New York: "The Archaeology of New York City"

06-26-02 Woodhaven Historical Society; Queens, New York: "The Archaeology of New York City"

07-08-02 Freeport Memorial Library; Freeport, NY: "The Archaeology of the Lott House"

10-26-02 King Manor Historical Society; Queens, New York: "The Archaeology of New York City"

10-27-02 Fishkill Historical Society; Fishkill, New York: "The Archaeology of New York City"

11-08-02 Port Washington Library; Port Washington, NY: "The Archaeology of New York City"

11-20-02 Bay Ridge Historical Society; Brooklyn, New York: "Lott House Archaeology Project"

12-16-02 Curtis High School; Staten Island, New York: "Archaeology in Your Backyard"

02-05-03 Society for Old Brooklyn; Brooklyn, NY: "The Lott House Archaeology Project"

02-09-03 Archaeological Society of Staten Island; Staten Island, NY: "Lott House Archaeology"

02-28-03 Leif Erickson Society; Brooklyn, NY: "The Lott House Archaeology Project"

10-00-03 Hendrick I. Lott House; Brooklyn, New York: "Teacher Workshop-Archaeology"

01-15-04 Bartow-Pell Society; Bronx, NY: "The Lott House Archaeology Project"

01-30-04 Malloy College; Rockville Center, NY: "The Archaeology of New York City"

03-09-04 Fraunces Tavern; New York, NY: "The Archaeology of New York City"

04-13-04 Oyster Bay Historical Society; Oyster Bay, NY: "The Lott House Archaeology Project"

06-30-04 Woodhaven Historical Society; Queens, NY: "The Lott House Archaeology Project"

07-12-04 Historic District Council/Architectural Institute of America Conference; New York, NY:
"Archaeology and Preservation – Working Together"

08-29-04 Sons of the American Revolution; Brooklyn, NY: "The Revolutionary War Project"

10-22-04 City Hall Academy; New York, NY: "On Being An Archaeologist"

11-08-04 BELHS High School; Bronx, NY: "On Being An Archaeologist"

11-13-04 Hendrick I. Lott House; Brooklyn, New York: "Teacher Workshop-Archaeology"

11-20-04 The Wyckoff House; Brooklyn, NY: "Teacher Workshop – Archaeology"

12-02-04 City Hall Academy; New York, NY: "On Being An Archaeologist"

01-12-05 City Hall Academy; New York, NY: "NYC Archaeology"

01-20-05 City Hall Academy; New York, NY: "NYC in the Revolutionary War"

02-20-05 Salt Marsh Nature Center; Brooklyn, NY: "Archaeology In Your Backyard"

02-28-05 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

05-23-05 Brooklyn College; Brooklyn, New York: "Archaeology and the Parks Department"

06-11-05 Historic District Council; New York, NY: "Where Have All The Dutch Gone?"

07-27-05 Hofstra University, New York: "Slavery at the Lott House"

10-25-05 Fraunces Tavern Museum; New York, New York: "The Lott House"

02-01-06 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

02-27-06 City Hall Academy; New York, NY: "NYC Archaeology and the Revolutionary War"

03-06-06 Salt Marsh Nature Center; Brooklyn, NY: "Dutch Brooklyn: Where Is Everyone?"

05-06-06 Knickerbocker Chapter - Daughters of the American Revolution Annual Meeting;
New York, New York: "Lott House Archaeological and Restoration Project"

07-16-06 Salt Marsh Nature Center; Brooklyn, NY: "History in your backyard"

10-15-06 Brookhaven Library; Brookhaven, NY: "The Archaeology of NYC"

10-20-06 Archaeological Society of Staten Island; Staten Island, NY: "Dutch Brooklyn"

REFERENCES:

Professor Christopher DeCorse
Department of Anthropology/Archaeology
209 Maxwell Hall
Syracuse University
Syracuse, New York 13244-1090
(315) 443-4647
cdecorse@maxwell.syr.edu

Professor Allan Gilbert
Department of Sociology and Anthropology
Rose Hill Campus - Dealy Hall, Room 407
Fordham University
441 East Fordham Road
Bronx, New York 10458
(718) 817-3850
Gilbert@fordham.edu

Charles Henkels, President
Hendrick I. Lott House Preservation Association
815 Greenwich Street – Apt. 4A
New York, New York
(212) 255-3352
henkels.arch@verizon.net

Leonard Houston, Chief – Environmental Branch
U.S. Army Corps of Engineers - Planning Division
Jacob K. Javits Federal Building
26 Federal Plaza – Room 2151
New York, New York 10278-0090
(212) 264-2122
leonard.houston@usace.army.mil

Dr. Fred Winter
Office of Challenge Grants
National Endowment for the Humanities
1000 Pennsylvania Avenue, NW - Room 420
Washington, DC 20506
(202) 606-8309
fwinter@neh.gov