



**PHASE IB ARCHAEOLOGICAL
FIELD INVESTIGATION**

**100 Varick Street Project
557 Broome Street, Block 447, Lot 44
66 Watts Street, Block 447, Lot 76
New York, New York**

NYCLPC # 12BSA068M

**Phase IB Archaeological Field Investigation
100 Varick Street Project
557 Broome Street, Block 447, Lot 44
66 Watts Street, Block 447, Lot 76
New York, New York
NYCLPC # 12BSA068M**

Prepared For:
Shalimar Management
422 East 89th Street New York, NY 10128

Prepared By:
Historical Perspectives, Inc.
P.O. Box 529
Westport, CT 06881

Author: Sara F. Mascia, Ph.D., RPA

December 2012

CONTENTS

I.	INTRODUCTION	1
II.	POTENTIAL RESOURCES: RESIDENTIAL	1
III.	FIELD METHODOLOGY	2
IV.	RESULTS OF INVESTIGATIONS	3
V.	LABORATORY ANALYSIS	7
VI.	CONCLUSION	10
VII.	REFERENCES	11

FIGURES

PHOTOGRAPHS

APPENDIX A: Lithographic Stones Data

APPENDIX B: Catalog of Recovered Artifacts (Trench 3 Yard Scatter)

FIGURES

1. Project site on *Jersey City, N.J.-N.Y.* and *Brooklyn, N.Y.* 7.5 Minute Quadrangles (U.S.G.S.1981).
2. Test Trenches with the archaeologically sensitive areas on 2007 survey map..
3. Feature B, Truncated Cistern in Trench 1.

I. INTRODUCTION

100 Varick Realty, LLC proposes to construct a new residential building on Block 447, Lots 35, 42, 44, and 76, located at the western end of the block bounded by Varick Street, Broome Street, Watts Street, and Avenue of the Americas, in the Borough of Manhattan, New York County, New York (Figure 1). The proposed residential building, which is slated to cover the entire project site and will be known as 100 Varick Street, will have 14 stories and a cellar, for a total height of 169 feet.

As part of the proposed project, sponsors submitted project materials to the New York City Landmarks Preservation Commission (LPC) for an initial archaeological review in accordance with CEQR regulations and procedures. The LPC recommended an Archaeological Documentary Study for Lots 44 and 76, considered the Area of Potential Effect (APE) for this report, to clarify its initial findings and provide the threshold for the next level of review. A Phase 1A Archaeological Documentary Study was prepared by Historical Perspectives, Inc. (HPI) in April 2012. The Documentary Study, which analyzed the two lots within the project site, identified residences built on the lots in 1822 (Lot 44, Broome Street) and 1818 (Lot 76, Watts Street). HPI determined that the two lots were sensitive for mid-nineteenth century residential yard features and recommended archaeological testing within these restricted former rear yard areas. LPC concurred with HPI's conclusions and recommendations (4/30/12).

As per LPC *Guidelines* (2002), archaeological testing in New York City must be based on a detailed protocol established specifically for the sensitive land parcel and approved by LPC. HPI prepared and submitted the protocol to LPC for review and approval.

II. POTENTIAL RESOURCES: RESIDENTIAL

Two lots within the project site were identified as potentially sensitive for historical residential features (e.g., cisterns, wells and privies) dating to the early 19th century. Back lots of dwellings have the potential to contain a myriad of buried cultural resources, and in most cases it is the location of shaft features (wells, cisterns, privies) used by the residents prior to the advent of public utilities. These resources are easily identified and often the receptacle of household refuse, especially when they were no longer needed. The shafts were usually filled and capped providing stratified deposits within the feature. If discovered, assemblages of artifacts within these features can provide a wealth of data on the behavior and daily lives of past site occupants. Because of the unique depth of these resources, the lowest levels are often found undisturbed even if the feature becomes truncated by subsequent historical activity.

The Documentary Study noted that from ca. 1818-1842, before the introduction of fresh piped city water, residents of Lots 44 and 76 would have relied on rear yard shaft features, such as wells and cisterns. Privies and cesspools would also have been used by site occupants until the introduction of municipal sewers, which for Broome Street was 1853 and for Watts Street was 1868. Therefore, the occupants of the APE had to rely on wells and cisterns for approximately 24 years, and on privies for at least 35 years.

III. FIELD METHODOLOGY

The first level of fieldwork, often referred to as Phase IB, is conducted in accordance with the applicable archaeological guidelines (LPC 2002). The subsurface testing for archaeological resources is limited to the portions of the project site identified as sensitive that will be impacted by the proposed development. It is not, however, a full-scale data recovery excavation.

A visual inspection of the project APE found that the majority of the ground surface was covered by disturbed soils and a significant layer of modern architectural demolition debris and trash. According to the CEQR guidelines for cultural resources (2010), the determination of potential significance of a project site is directly related to whether the identified resource type “is likely to contribute to current knowledge of the history of the period in question” (Section 321.2 Determine Significance of Past Uses that May Remain). The determination of significance is largely dependent on the research issues that have been identified.

In order to achieve the goals of fieldwork, a number of procedures were undertaken at the site, which were originally established by the field protocol and standard archaeological practices. They are as follows:

- 1) The identification of the areas of potential sensitivity on the ground within the project site. These were selected based on the information derived from the Archaeological Documentary Study data within the current APE (4/12);
- 2) Four machine-excavated test trenches were planned for the project site (field investigations were restricted to the location identified as sensitive for possible archaeological resources). The number and size of each proposed trench was established in the approved protocol;
- 3) The excavation protocol called for the HPI archaeologists to begin the trench examinations with the careful mechanical removal of the surface overburden and underlying fill, in order to determine if there were subtle changes in soil that might indicate the presence of truncated shaft features. For this process a backhoe with a flat bucket was requested. Soils within each of the trenches were removed by the backhoe under the direction of the archaeologists;
- 4) Following the careful removal of the surface layers, each trench was to be scrutinized for any evidence of historic features and/or a historic living surface.
- 5) Any features exposed during testing would be explored by both mechanical and hand excavations;
- 6) All features were recorded using the metric system;
- 7) All appropriate notes and photographs were completed;
- 8) Soils were screened with ¼ inch mesh; and,
- 9) Any artifacts collected during the field investigation would be packaged for removal to the laboratory.

In order to complete the Phase 1B study of the project site a number of laboratory procedures were also planned by the archaeology team. They included:

- 1) Any recovered cultural material would be cleaned, stabilized, and inventoried;
- 2) Identification and dating of diagnostic artifacts would be completed based on

- comparative collections and archaeological literature; and,
- 3) An artifact catalog, recording the location and type of each recovered artifact, would be prepared for inclusion in the final report.

IV. RESULTS OF INVESTIGATIONS

On Friday November 16, 2012 the archaeological field investigation at 100 Varick Street, Block 447, Lots 44 and 76 in Manhattan, was completed in compliance with the New York City environmental review procedures. The objective of field testing portions of the two historic lots was to (1) ascertain the presence/absence of historical archaeological deposits and possible buried backyard features dating from the early 19th century occupation of the project site; and (2) determine the potential significance of recovered resources. Over a period of three days, a team of three archaeologists conducted the fieldwork phase of the project, as per the protocol approved by the LPC.

In order to facilitate the examination of the site, a combination of machine-aided and hand excavation techniques were utilized. A backhoe was used to remove the surface overburden and fill layers containing 20th -century construction/demolition debris. This process was conducted in order to expose potential buried historical strata and/or features within the back yards of the former homelots that were determined to be archaeologically sensitive.

Two features that were not part of the foundations of the former dwellings were identified during the field investigation (see Figure 2).

Feature A – a wall constructed out of lithography stones

Feature B – Mid-19th century brick cistern

Below are the results of the field investigation within the project APE.

Lot 76, Trench 1

Prior to the excavation of Trench 1, the archaeological team completed a limited surface reconnaissance. A limestone lithography stone was noted and collected. The thick stone was square with remnants of printers' ink still on the exterior. No other unusual materials or surface anomalies were observed.

Trench 1 was ca. 6 x 4.6 meters (20 x 15 feet) in size, running east-west within Lot 76 (Figure 2). Following the removal of the surface overburden, excavation began in the easternmost section of the trench utilizing the backhoe under the supervision of the HPI archaeologists. Significant surface debris was noted prior to the excavation (Photograph 1). The team encountered an extremely thick architectural demolition/fill stratum adjacent to the rear foundation of the former dwelling. The majority of the debris was likely remnants of the former late 19th century-early 20th century brick addition as well as nearby structures on the site. Of the numerous bricks containing marks that were identified within in Lot 76, all were made in the Hudson River Valley with marks dating from the late 19th through 20th centuries. They included:

NICHOLSON (Nicholson Brothers in Dutchess Junction, NY)

TERRY (Terry Brick Company founded ca. 1850 in Kingston, NY)
 BROCKWAY (Brockway Brock Company founded ca. 1899 in Fishkill Landing, NY)
 SSBCO (Sutton & Suderly Brick Company founded in 1885 in Coeymans, NY)
 DF&S (Denton Fowler & Sons after 1903 in Haverstraw, NY)
 DPB (Dennings Point Brick Company after 1881 in Dennings Point, NY)
 UFW&CO (Uriah F. Washburn & Company founded in 1890 in Haverstraw, NY)
www.columbia.edu/itc/barnard/envsci/.../edit/brickworks/index.html,
brickcollecting.com/HUDSON.html).

The backhoe exposed the rear foundation wall of the dwelling and excavation continued to the north of the former structure. In the northeast corner of the trench, to the east of the 20th century rear addition to the house, a limestone foundation wall (Feature A) was uncovered (Figure 2; Photograph 2). The top of the wall was found approximately 65 centimeters below the surface (cmbs), or just over 2 feet deep. Examination of the wall revealed that it was constructed of numerous stacked and mortared early 20th century lithography stones (see Photographs 16-20). The team exposed approximately 1.5 meters (4.92 feet) of the wall. Examination found that the wall was eight courses in depth, approximately 65 cmbs (2.13 feet), and ca. 35 cm (1.15 feet) wide.

Many of the stones still had legible markings. Appendix A contains a list of the legible company names identified on the stones. All of the stones had the remnants of printers ink on the surface. Once exposed, the ink dried quickly and faded. In some cases, the ink came off completely when the stones were moved. HPI collected a handful of stones for laboratory examination and several others were left on the surface of the site as requested by the developers' representative¹. The trench was expanded slightly to maintain the integrity of the sidewalls, which were comprised of unconsolidated fill. Excavation on the western side of the trench halted when sterile sand was encountered (Table 1).

Table 1. Stratigraphy of East Half of Trench 1

Level	Depths	Description
1	0-25 cm	Surface debris mixed with dark grayish brown 10YR 3/2 gravelly sand
2	25-160 cm	Architectural demolition fill (surrounding dwelling foundation and Feature A)
3	160-170 cm	Very dark grayish brown (10YR 3/2) sand
4	170-260 cm	Dark reddish brown (2.5YR 3/4) very coarse sand

On the western side of the trench, the team encountered the filled basement within the 20th century addition to the dwelling. Along the north wall of the addition, the team observed the edge of a truncated cistern (Feature B). The trench was expanded slightly to the north in order to expose the Feature. The brick lined cistern had been previously bisected during the construction of the 20th century addition, leaving only a small portion of the northern half intact (Figure 3; Photographs 3 and 4). The foundation wall for the addition was built through the cistern and the southern half of the feature was removed during construction.

¹ Once excavation of the trench was complete a large portion of the wall was left in the trench.

The top of the feature was encountered approximately 76 cmbs (2.49 feet). The team slowly excavated the remaining interior of the cistern and found that it had been filled with clean sand (Photographs 5 and 6). The base of the stone foundation wall was 167 cmbs (5.48 feet) and the brick base of the cistern was 222 cmbs (7.28 feet). Sterile sand was noted beneath the cistern floor (Photographs 6 and 7). Only a handful of bricks and unidentified metal fragments from the original cistern wall were noted within the sand. No markings were noted on the bricks. Excavation continued until sterile sand was encountered throughout the entire trench to ensure that no additional features were present (Table 2).

Table 2. Stratigraphy of West Half of Trench 1

Level	Depths	Description
1	0--20 cm	Surface debris mixed with dark grayish brown 10YR 3/2 gravelly sand
2	20-76 cm	Architectural demolition fill (surrounding dwelling foundation and above Feature B)
3	76-222 cm	Architectural demolition fill mixed with yellowish brown 10YR 5/6 silty sand (surrounding Feature B)
	76-222 cm	Brown (7.5 YR 4/4) coarse sand fill (interior of Feature B)
4	22-250 cm	Dark reddish brown (2.5YR 3/4) very coarse sterile sand

Lot 76, Trench 2

Trench 2 was another east-west trench located at the northern end of Lot 76 (Figure 2). It was approximately 5 x 4.25 meters (16 x 14 feet) in size. Similar to Trench 1, the upper layers contained a significant amount of architectural demolition debris in a mixed fill context. An adjacent concrete foundation wall bordered the northern edge of the trench. During excavation, a large ceramic utility pipe and pipe trench (running north-south) was discovered at the eastern end of the trench (Photographs 8 and 9). Within the center of the trench, a buried modern concrete platform was encountered (Photograph 10). Along the western edge of the trench, the concrete foundation for the building in the lot to the west was exposed. Throughout the trench, the mixed fill strata extended down to sterile sand (Table 3).

Table 3. Stratigraphy of Trench 2

Level	Depths	Description
1	0--18 cm	Surface debris mixed with dark brown 10YR 3/3 gravelly sand
2	18-150 cm	Architectural demolition fill mixed with very dark yellowish brown (10YR 5/4) silty sand
	30-150 cm	Very dark grayish brown (10YR 3/2) gravelly sand utility trench fill
4	150-240 cm	Dark reddish brown (2.5YR 3/4) very coarse sterile sand

Lot 44, Trench 3

Trench 3 was located in the southern portion, or back yard, of Lot 44 (Figure 2). The east-west trench measured ca. 6 x 4.6 meters (20 x 15 feet) in size. After removing the surface overburden, excavation revealed a thick stratum of fill containing architectural demolition debris. Similar to Lot 76, numerous bricks were noted in the debris. The majority of the debris was again, likely the remnants of the former late 19th century-early 20th century brick structures and/or additions on the site. Of the numerous brick marks noted, all were made in the Hudson River Valley with marks dating from the 19th through 20th centuries including:

ARCHER (Archer Brick Company pre 1897 in Haverstraw, NY)

DF&S (Denton Fowler & Sons after 1903 in Haverstraw, NY)

BRIGHAM (Brigham Brick Company – prior to 1922 in East Kingston, NY)

DPBW (Dennings Point Brick Works was constructed in 1925 in Dennings Point, NY)

(www.columbia.edu/itc/barnard/envsci/.../edit/brickworks/index.html,

brickcollecting.com/hudson.html).

At the northern edge of the trench, a thick concrete floor (35 cm/14 inches) for the basement addition of the dwelling on Lot 44 was encountered at a depth of 125 cmbs (4 feet) below the surface (Photograph 11). To the south of the addition, near the southwestern corner of the trench, a mixed stratum of coarse brown silty sand and redeposited sterile sand was noted (Photograph 12). This stratum contained a mix of modern and historical artifacts as well as architectural remnants. A sample of the historical scatter of artifacts was collected for laboratory analysis, but does not represent a discrete, intact feature (Appendix B). It is possible that the scatter was the remains of a former yard surface or displaced artifacts from a former feature. During excavation, the team noted that the reddish brown (2.5 YR 3/4) sterile sand stratum was encountered at a deeper elevation on the east side of the trench (Tables 4 and 5). Sterile sand was encountered across the trench, indicating that no yard features were present.

Table 4. Stratigraphy of Trench 3 East Side

Level	Depths	Description
1	0--25 cm	Surface debris mixed with dark brown 10YR 3/3 gravelly sand
2	25-310 cm	Architectural demolition fill mixed with very dark yellowish brown (10YR 3/2) silty sand and yellowish brown (10YR 3/4) sand
3	310-325 cm	Dark reddish brown (2.5YR 3/4) very coarse sterile sand

Table 5. Stratigraphy of Trench 3 West Side

Level	Depths	Description
1	0--25 cm	Surface debris mixed with dark brown 10YR 3/3 gravelly sand
2	25-155 cm	Architectural demolition fill mixed with very dark yellowish brown (10YR 3/2) silty sand and yellowish brown (10YR 3/4) sand
3	155-300 cm	Dark reddish brown (2.5YR 3/4) very coarse sterile sand

Lot 44, Trench 4

Trench 4 was the final east-west trench placed within Lot 44 in the location of the original rear foundation wall of the former dwelling in the lot (Figure 2). It was approximately 5 x 4.6 meters (16 x 15 feet) in size. The majority of the trench contained a deep stratum of fill with architectural demolition material. A modern basement floor was encountered at a depth of 1.6 meters (5.25 feet) below the surface (Photographs 13 and 14). The 15cm (6 inch) thick concrete floor was covered with a layer of small blue ceramic tiles. The floor was removed and a series of white PVC pipes and a steel sewer/gray water pipe were noted (Photograph 15). Beneath the modern pipes, sterile sand was encountered. At the western edge of the trench, two foundation walls were encountered as well as a portion of the paved concrete alleyway. The concrete pavement was removed and excavation halted when sterile sand was encountered.

Table 6. Stratigraphy of Trench 4

Level	Depths	Description
1	0--20 cm	Surface debris mixed with dark brown 10YR 3/3 gravelly sand
2	20-260 cm	Architectural demolition fill mixed with brown (7.5YR 4/3) coarse silty sand; basement floor at 160 cmbs
3	260-330 cm	Dark reddish brown (2.5YR 3/4) very coarse sterile sand

V. LABORATORY ANALYSIS

The Phase IB field investigation identified two distinct features and a small collection of yard scatter. The individual lithographic stones used in the limestone wall date from ca. 1890s-1930s; the construction and location of Feature B indicate a mid 19th century construction date and a early 20th century fill date; and, the collection of yard scatter noted in Trench 3 appears to date from the mid 19th century.

Feature A

The lithography stones that were utilized to build a small wall near the rear of the dwelling in Lot 76 represent a method of printing that was prevalent from the mid 19th century to the 1930s (Photographs 16-20). The word *lithography* literally translates to “writing with stone.” The actual process of using limestone to print images was invented in 1796 in Germany when a large limestone quarry was discovered. Printing with the soft stone took the place of engraving in the production of most commercial maps and documents by the mid 19th century. The process required a specific type of soft limestone that is particularly fine-grained, homogeneous and defect free. Only a handful of sites were available to quarry this type of stone in Europe. In the United States, the first company that was able to quarry this stone was the American Lithographic Stone Company, which opened quarries in Tennessee in 1868. By 1900, the most important and prolific limestone quarry in the United States was opened in Brandenburg Kentucky (Kübel 1901:869-873).

In traditional lithography, the printer creates an image with grease-based (or wax) material placed on the limestone surface. The printer wets the image and applies printing ink, which adheres only to the grease but not to the clean stone. When the image is covered with ink, the stone and paper are run through a press which applies even pressure over the surface, transferring the ink to the paper and off the stone. Repeating the inking process enables the printer to make multiple copies of the same image. When finished, the stone can be reused for a different project by abrading it to create a clean surface. Multiple images can also be placed on a single stone and then the paper cut to reflect the correct size of the document. The process described above is the basis of today's offset commercial printing, although flexible aluminum plates have replaced the heavy stones (<http://en.wikipedia.org/wiki/Lithography>).

An examination of the stones identified at the project site found that many still had the remnants of the last images that were printed on them. Several of the stones had multiple images. Most appear to be for formal documents including stationary, bank checks, dividend certificates, business forms and advertising material. At present, the identity of the company that used the stones is unknown, although at least two of the stones advertised Manhattan printers (J. Meyers Stationer & Printing Co. and Steinberg Press Inc.).

It appears that the wall was constructed after ca. 1930, as many of the stones had images with dates from the 1920s. The function of the wall is not known at this time. The location would suggest that it was a decorative wall in a back garden. However, the depth of the wall indicates that a significant part of the wall would have been buried under the surface. It is possible that it was used as an outer wall of a crude bulkhead entry into the basement. The demolition of the building would have displaced the entry stairs and door. A listing of some of the businesses that were depicted on the stones is presented in Appendix A.

Feature B

The cistern identified adjacent to the rear foundation wall of the 20th century addition to the dwelling in Lot 76 had been bisected by the construction of the addition. The cistern was eight feet in diameter and constructed with unmarked bricks. The outer wall was two bricks thick and the interior was lined with mortar. It is likely that the cistern was initially ten feet deep, but the top and surface cap were no longer *in situ* and had likely been removed when the cistern was bisected and filled. No remnants of the piping system were present as they were likely on the south side of the feature, which had been demolished when the addition was constructed in the early 20th century.

The exact construction date of the cistern is unknown, but it was likely installed in the mid-19th century. Although, municipal water was introduced to the neighborhood in 1842, individual homeowners might have still utilized backyard cisterns as a source of water until the second half of the 19th century. The strata around the exterior of the cistern did not contain artifacts that would provide clues to the construction date. Similarly, the interior soils did not provide any artifactual evidence of the date that the feature was filled.

Trench 3, Yard Scatter

During the excavation of Trench 3, a small assemblage of artifacts was collected from a stratum that might be a remnant of the former yard surface. The artifacts collected appear to be yard scatter that dates from the mid to late 19th century.

The following summary table presents a synopsis of the types of artifacts recovered in the southwestern corner of Trench 3. The artifacts were divided into five classes: architectural, food-related, food remains, personal and unaffiliated.

Table 7. Artifacts by Class and Type from Yard Scatter

Class	Type	Quantity
Architectural	tiles	3
Food Related	glass vessel	10
	ceramic	69
Food Remains	bone	1
	shell	1
Personal	chamberpot	15
	bone for button making	7
Unaffiliated	flower pot	1

The most prevalent class of artifacts recovered from the yard scatter was food related fragments, which were either from ceramic vessels or glass bottles. While a handful of the ceramic fragments date to the early 19th century (e.g., Mochaware, Chinese export porcelain, hand painted whiteware), the majority of the recovered ceramics were imported decorated whiteware dating from the mid 19th century and later (Appendix B). Almost all of the whiteware fragments were blue transferprint.

The stoneware recovered appears to be from two different bottle types. During the mid to late 19th century stoneware was utilized to bottle beer (ale) and mineral water. Often, because of the durability of the stoneware, the bottles were repeatedly used for holding a variety of household beverages. A few glass bottle fragments were also recovered from three individual bottles. The shape and style of the bottles indicate a mid nineteenth century date.

The personal items recovered included 15 chamberpot fragments and seven bone fragments used for making bone buttons. The bone fragments were flat and four had circular cut marks in the shape of small buttons. Although fragile, bone buttons could be easily manufactured out of food remains.

VI. CONCLUSION

Field testing identified remnants of the former structures that once stood on two lots within the project site. The archaeology team also identified and two distinct historical features within Lot 76 and a small collection of mid 19th century yard scatter in Lot 44. Excavation found that the majority of each of the project lots was disturbed during the twentieth century construction of building additions, the installation of utilities, and the demolition of the buildings.

Feature A was a stone wall constructed out of lithographic limestone found in Trench 1. A brief review of the site history did not indicate the presence of a lithographer or printing house within, or around, the project APE. It is likely that the wall was constructed during the 1930s when documentary research indicates that the house was occupied by the Peter Puequet family (prior to 1939) (HPI 2012). The Puequet family was also responsible for the large brick addition that was built on the rear of the house in the early 20th century, and therefore the bisection and filling of the cistern (Feature B).

The small collection of yard scatter from Lot 44 offers a limited glimpse of 19th century material culture. Because only a small assemblage was recovered, no definitive conclusions about consumer choice or household behavior can be made.

No evidence of the presence of historic privies was noted during the investigation of the project site. Often remnants of these historic features in the form of dark soils and artifacts mixed in the fill are noted. It is possible that these features were completely removed when the additions were constructed on the rear of the dwellings. Another possibility is that there was a communal facility that was located in a central location within the block or on an adjacent lot.

The extensive degree of construction and demolition activity within the project site has clearly obliterated most of the former rear yards and any additional potential features within Lots 44 and 76. Therefore, no further archaeological consideration is recommended for Lots 44 and 76.

VII. REFERENCES

City Environmental Quality Review (CEQR)

2010 *City Environmental Quality Review Technical Manual*. City of New York, Mayor's Office of Environmental Coordination.

Historical Perspectives, Inc.

2012 Phase IA Archaeological Documentary Study, 100 Varick Street Project, 557 Broome Street, Block 447, Lot 44, 66 Watts Street, Block 447, Lot 76 New York, New York.

S. J. Kübel,

1901 Mineral Resources of the United States, United States Geological Survey.

Landmarks Preservation Commission (LPC)

2002 *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City*.

New York Archaeological Council (NYAC)

1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections*. New York Archaeological Council.

U.S.G.S.

1981 *Brooklyn, New York 7.5 Minute Quadrangle*.

1981 *Jersey City, New Jersey-New York 7.5 Minute Quadrangle*.

Internet Resources

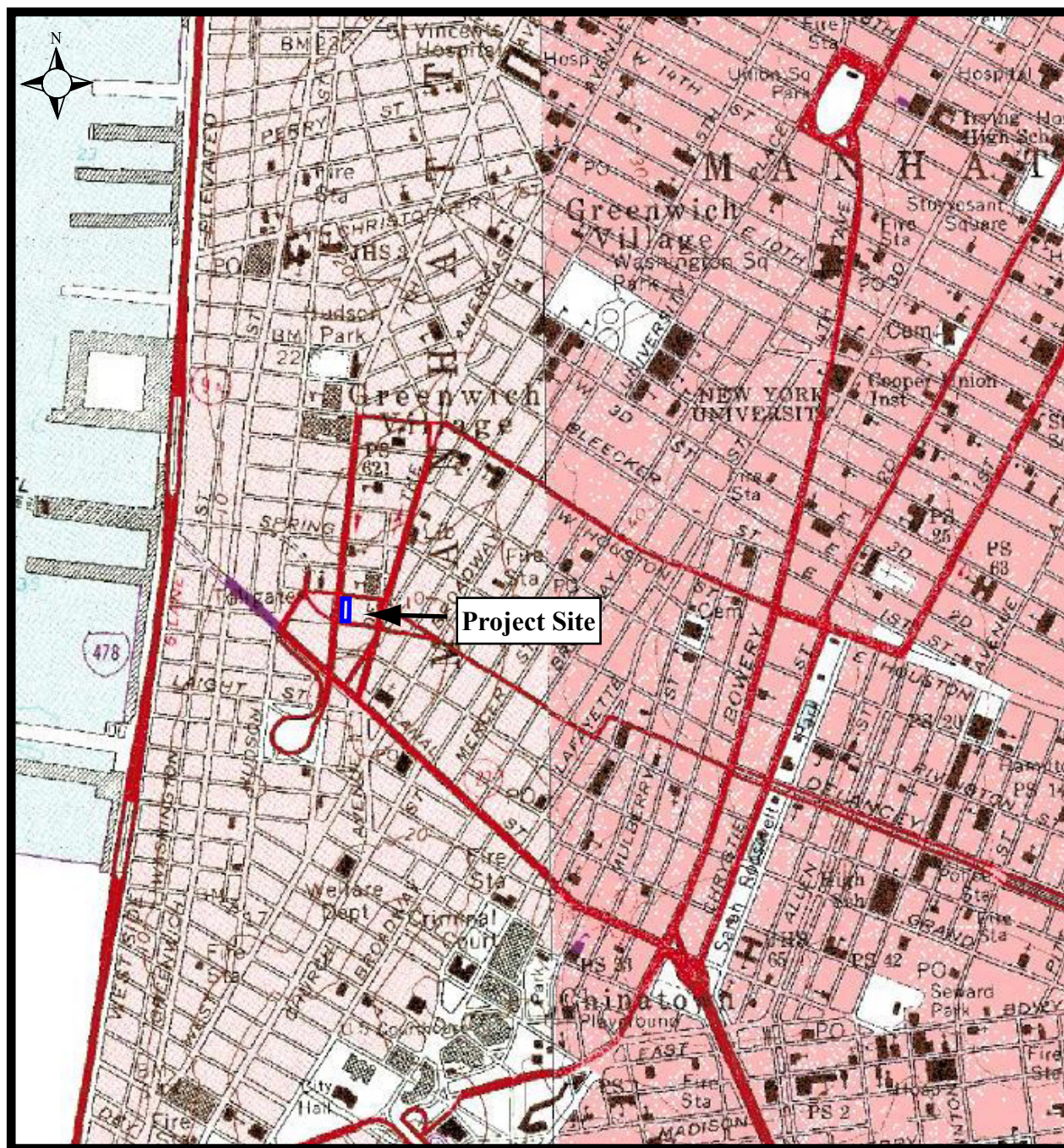
www.columbia.edu/itc/barnard/envsci/.../edit/brickworks/index.html

www.brickcollecting.com/hudson.html

www.lithographicstones.com

http://en.wikipedia.org/wiki/Lithographic_limestone

<http://en.wikipedia.org/wiki/Lithography>

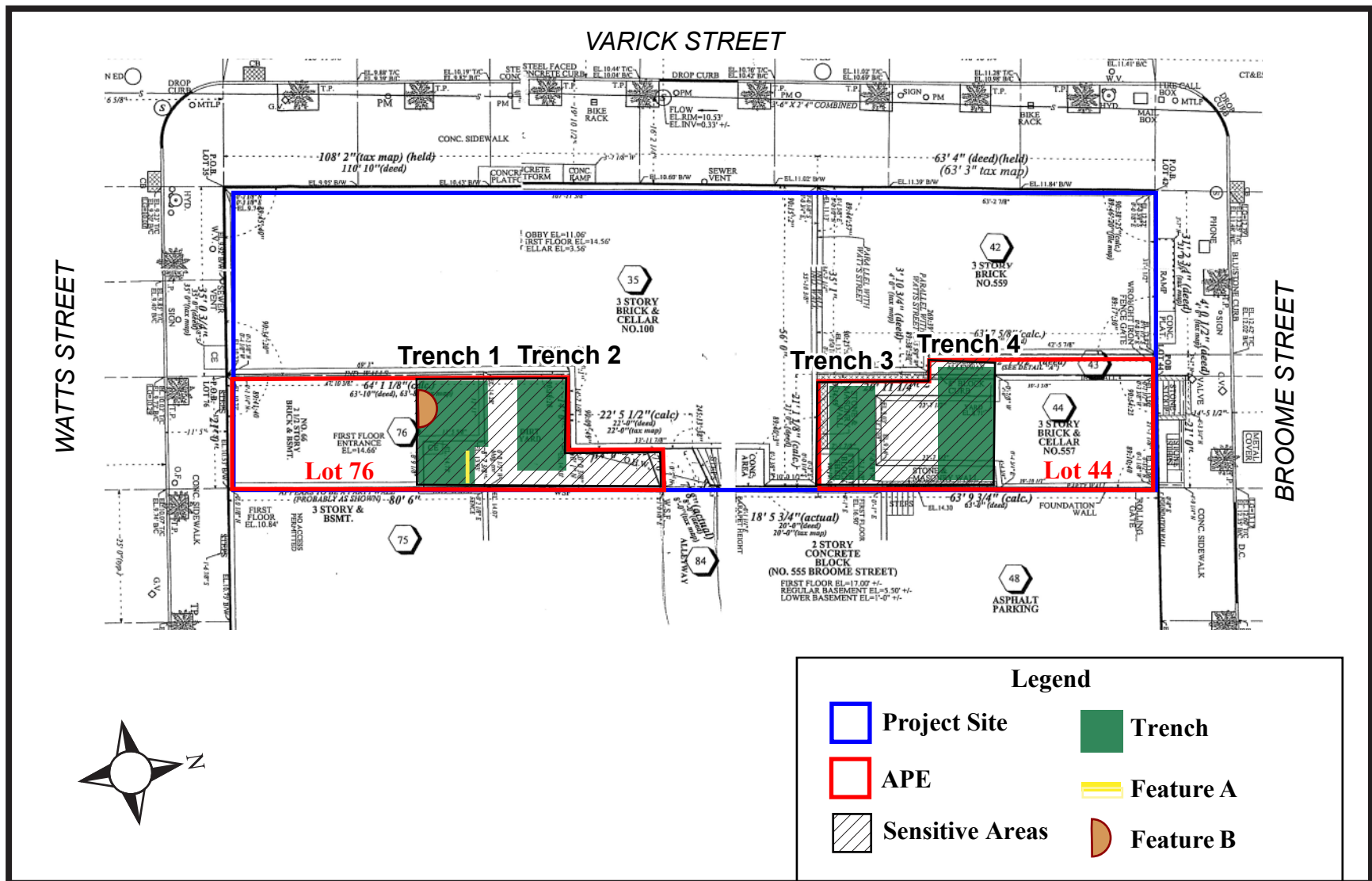


Phase IB Archaeological Field Investigation, 100 Varick Street Property
557 Broome Street, Block 477, Lot 44
66 Watts Street, Block 477, Lot 76
New York, New York



Figure 1: Project site on *Jersey City, N.J.-N.Y.* and *Brooklyn, N.Y.* 7.5 Minute Quadrangles (U.S.G.S. 1881).

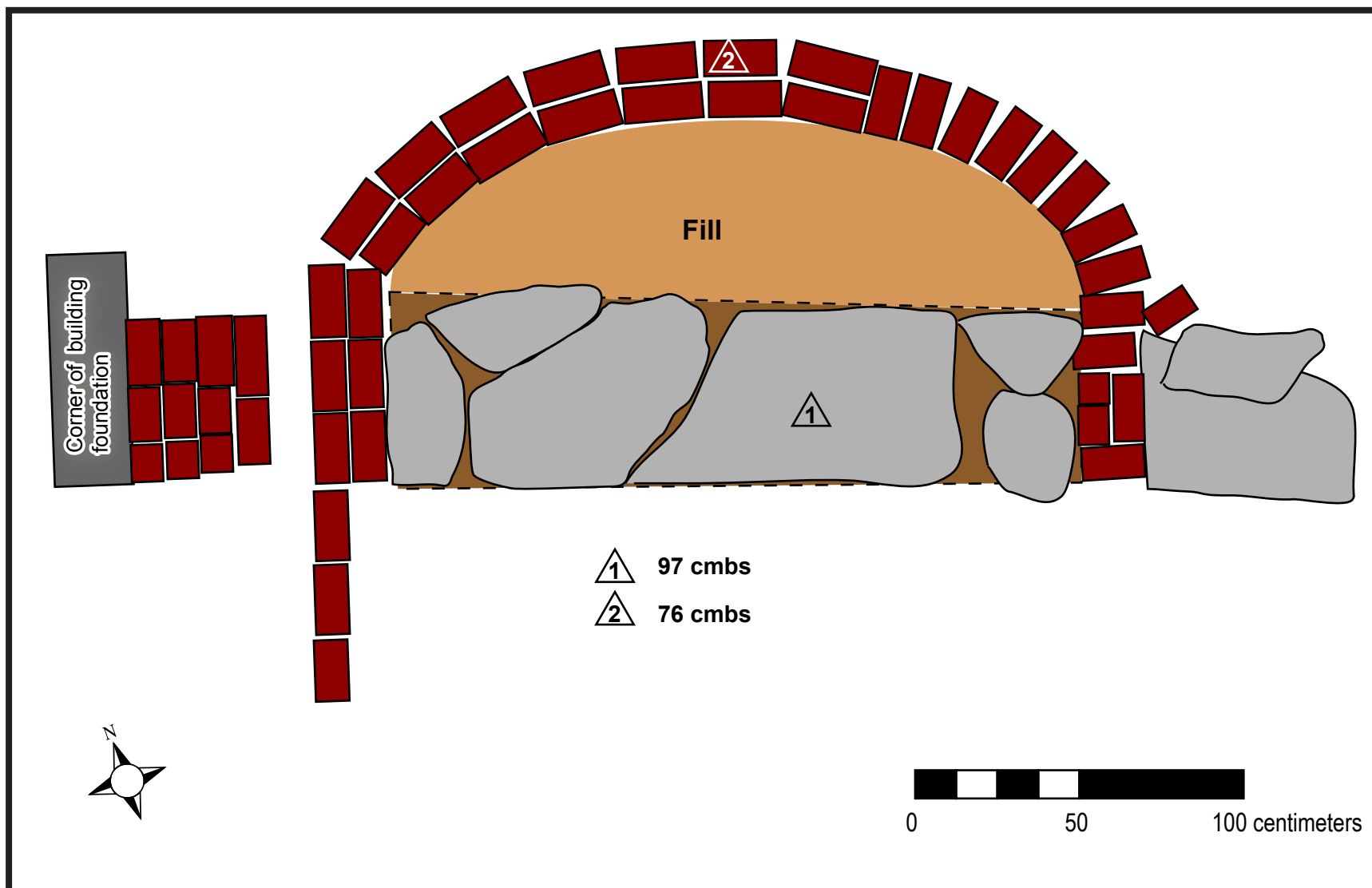
0 1000 2000 3000 4000 5000 FEET



Phase IB Archaeological Field Investigation, 100 Varick Street Property
 557 Broome Street, Block 477, Lot 44
 66 Watts Street, Block 477, Lot 76
 New York, New York



Figure 2: Test Trenches with the archaeologically sensitive areas on 2007 survey map.
 Base map: Fehring Surveying, P.C. 2007



Phase IB Archaeological Field Investigation, 100 Varick Street Property
 557 Broome Street, Block 477, Lot 44
 66 Watts Street, Block 477, Lot 76
 New York, New York



Figure 3: Feature B, cistern, in Lot 76, Trench 1.

PHOTOGRAPHS



1. Area of Trench 1 before excavation, looking south.



2. Feature A in Trench 1, wall composed of lithographic limestone, looking east.



3. Feature B in Trench 1, looking north. Stone wall in center is original rear foundation wall.



4. Feature B in Trench 1, looking west.



5. Feature B in Trench 1 after excavation of south side, looking northwest.



6. Feature B in Trench 1 during excavation of north side, looking northeast.



7. Feature B in Trench 1 after excavation of interior, looking northeast.



8. Pipe trench in northeast corner of Trench 2, looking northeast.



9. East end of Trench 2 at 245cmbs, looking east.



10. Trench 2, looking west.



11. Trench 3 looking north, showing building floor with natural subsoil underneath.



12. Trench 3 looking south, at a final depth of 325cmbs.



13. Trench 4 looking west, at final depth of 330cmbs, with brick foundation wall at rear.



14. Trench 4, showing concrete basement floor with utilities underneath.



15. Close-up of glass-tiled concrete floor in Trench 4.



16. Lithographic Stone.



17. Lithographic Stone.



18. Lithographic Stone.



19. Lithographic Stone.



20. Lithographic Stone.

Company	Location	Dates	Description
A. Schulman Inc.	Akron, Ohio		Founded by Alex Schulman in 1928; Crude Rubber
Abex Realty			?
Allied Asphalt & Mineral Corporation	211 Broadway, NY, NY		
American Aniline	50 Union Square, NY, NY		Chemicals
American Leaf Tobacco Company	147 Water Street, NY, NY	1890-ca.1938	Morris Shorin, founder - later became Topps, manufacturers of chewing gum and collectible cards
Asher & Boretz Inc.	900 Broadway		Textiles, 1937 advertisement
Atlantic County Trust	New Jersey		?
Bernhard Schrag & Co.	W18th Street		earliest advert for 18th Street in 1931; maufacturers uniforms
Bush Terminal Company	Brooklyn	1890	Irving Bush, founder
C. R. Gibson & Co.	118-120 E 16th St		
Center Union Trust Company	80 Broadway, NY, NY		Former Chicago Bank
Charles Weisbecker	Broadway; 265-270 W 125th St		Meat Market
Citizens & Southern Bank			?
Columbia County National Bank			?
D. M. Bare Paper Co.	Roaring Spring, PA	1865	Daniel Mathias (D. M.) Bare founder - also founder of Roaring Spring, PA
Dannemiller Coffee Co.	104 Front St., NY, NY and Brooklyn	1900-	Coffee Plant at the Bush Terminal
Diesal Power	Lexington Avenue, NY, NY		
Ezekiel Page			
Fred F. French Security Co.		1902-1966	Frederick Fillmore French (1883-1936) Real Estate Developer who owned the Fred F. French Construction Co. Built Tudor City and Knickerbocker Village (site where NYC rent control laws founded)
Freeport Sulphur <i>Transportation</i> (<i>Exploration?</i>) Co.	Broadway, NY, NY	1912-	
General Pencil Co.		1889	Founded by Edward Weissenborn; Kimberly Quality Leads

Company	Location	Dates	Description
Goldman Sachs		1869	Founded by Marcus Goldman; 1906 becomes involved in IPO business
Greenpoint Savings Bank	New York	1868-1995	
Gregory Coal & Lumber Co.		1899-	Clarence Gregory - Great Neck
Gulf Refining Company	21 State Street	1901	Founded in 1901, Opened sales office in NY by 1910 on state street by 1919
H.B. Rosenweis & Co.			?
Hartwell & Lester Inc.			Coal
Holly & Co.			Insurance
Hotel Croydan	12 East 86th St. NY, NY	Built in 1923	Still present - now an apartment bldg
Hudson Trust Co.	New Jersey	1866?	
Isolantic Inc.	Cortlandt St., Belleville, NJ		?
J. Meyers Stationer & Printing Co.	Broadway, NY, NY		Founded 1878 (6?) - Had a baseball team in 1922
James Lovatelli & Co.	NY		
Jewish Daily Forward	Cleveland, NY	1897-	Jewish-American Newspaper published in NYC
L. Lippmann & Son	1182 Broadway		Novelty Candy
L.K. Lankin & Co.			
Lanman & Kemp Barclay & Co.	NY		Founded 1808
Lederle Sales Corp			
Lethbridge & Co.	75 Maiden Lane, NY, NY		Insurance
Marsh & McLennan	80 Maiden La		Insurance
Mills & Honness	75 Maiden Lane, NY, NY	ca. 1915	successors to the firm of Withers & Mills
Murrays Bierer Ins.	81-83 Fulton		?
Northern Textile Co. Inc.			?
O.W. Farr & Co.			
Oaks Manufacturing			
Old Overholt Whiskey		1810	named for Abraham Overholt, a farmer and distiller
Otto Stahrs			Ready to Eat Meats
Owens & Phillips Inc.			Insurance
Par Holding Co.	16 Court St. Brooklyn		

Company	Location	Dates	Description
Peabody McKenna & Co.			
Peabody Slosson & Smith	91 William		Insurance
Pinkertons National Detective Agency		1850	Founded by Allan Pinkerton
Schumer & Friedman Inc.			Yarn Converting Company; Joseph Schumer Founder; when Schumer retired - he gave the company to his employees
St. Lawrence Life Assoc.	9 Park Place		
Steinberg Press Inc.	400-415 Pearl St.		"Running Day and Night"
The Buckeye Pipe Line Co		1911	One of the "Baby Standards" after the break up of Standard Oil in 1911
The Cord Meyer Co.			
The First National Corporation			numerous founded
The German American Bank			numerous founded in late 19th century all over the United States
The Hannis Distilling Co.		1872	Makers of Mount Vernon Pure Rye Whiskey
The Mackay Company		1884	John William Mackay founder; telegraph cable company
The Presbyterian Hospital		1868-1998	Merged with The New York Hospital
The Security Trust Co.	Pottstown, PA	pre-1923	still present in 1966
The Trenton B..... Co.			?
The Weiss & Klau Co.	NY	1898	Ignatz Weiss and Nathan & Samuel Klau founded and Weiss and Klau Bors. in 1887, distributor of oil cloth, plastic coated fabric, window shades, etc. Name changed in 1898 to Weiss & Klau Co.
Towers Warehouses	541 W. State Street		Former Sign on Building near the High Line in Manhattan
Tuco Products Corp			?
Valle & Co. Inc.	425 4th Ave, NY, NY		?
Voss & Stern	East 15th St., NY		
W. R. Craig & Co,	60 Beaver St. NY, NY	pre 1913-	Commodities Brokers
Rubel Coal & Ice Corp	Glenmore & Junius Ave. Brooklyn		Samuel Rubel, Founder (1881-1949)

Quantity	Functional Group	Class	Material	Type	Object	Part	Description
2	Architectural	Ceramic	Earthenware		Tile	Fragment	White
1	Architectural	Ceramic	Stoneware		Tile	Fragment	Brown
1	Food Related	Ceramic	Earthenware	Redware	Plate	Fragment	Rim
2	Food Related	Ceramic	Earthenware	Buff Body	Bowl	Fragment	Dendritic Mocha design
1	Food Related	Ceramic	Earthenware	Mocha	Bowl	Fragment	Brown Marble Design
1	Food Related	Ceramic	Earthenware	Mocha	Vessel	Fragment	Brown and Green Lines and dendritic design
2	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Blue and Green hand painted polychrome floral design
2	Food Related	Ceramic	Earthenware	Whiteware	Bowl	Fragment	Green Shell Edge
1	Food Related	Ceramic	Earthenware	Whiteware	Bowl	Fragment	Blue Shell Edge
1	Food Related	Ceramic	Earthenware	Whiteware	Bowl	Fragment	Blue Shell Design on body
22	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Blue Transferprint
4	Food Related	Ceramic	Earthenware	Whiteware	Cup	Fragment	Blue Transferprint
9	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Blue Transferprint with Molded Body
1	Food Related	Ceramic	Earthenware	Whiteware	Bowl	Fragment	Black Transferprint
4	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Undecorated
1	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Undecorated Ironstone
1	Food Related	Ceramic	Earthenware	Whiteware	Vessel	Fragment	Blue Transferprint Ironstone
3	Food Related	Ceramic	Earthenware	Whiteware	Jar	Fragment	Undecorated
1	Food Related	Ceramic	Earthenware	Yellowware	Bowl	Fragment	
1	Food Related	Ceramic	Earthenware	Unidentified	Plate	Fragment	Burned, possibly Tin Glazed
1	Food Related	Ceramic	Stoneware	Buff Body	Vessel	Fragment	Gray/Brown Rim
1	Food Related	Ceramic	Stoneware	Buff Body	Bottle	Fragment	Brown interior/exterior
2	Food Related	Ceramic	Stoneware	Gray Body	Bottle	Fragment	Light Brown Exterior; Dark Brown Interior
1	Food Related	Ceramic	Stoneware	Buff Body	Crock	Fragment	Base; Light Gray Exterior; Dark Brown Interior
6	Food Related	Ceramic	Porcelain	Hard Paste	Cup	Fragment	Handpainted Blue Design
1	Food Related	Glass	Milk		Vessel	Fragment	Undecorated with partial handle
1	Food Related	Glass	Dark Green	Mold Made	Bottle	Base	Large with high kick
5	Food Related	Glass	Green	Mold Made	Bottle	Fragment	Round; Flat Lip
1	Food Related	Glass	Colorless	Unidentified	Bottle	Fragment	Round flat base
1	Food Related	Glass	Colorless		Lid	Fragment	Crock
1	Food Related	Glass	Colorless	Pressed	Vessel	Fragment	
1	Food Remain	Organic	Shell	Clam	Shell	Fragment	
1	Food Remain	Organic	Bone	Mammal	Bone	Fragment	

Quantity	Functional Group	Class	Material	Type	Object	Part	Description
15	Personal	Ceramic	Earthenware	Cream Colored	Chamberpot	Fragment	
4	Personal	Organic	Bone	Cut	Bone	Fragment	With Circular Marks for Button Blanks
3	Personal	Organic	Bone	Cut	Bone	Fragment	For making Buttons
1	Unaffiliated	Ceramic	Earthenware	Redware	Flower pot	Fragment	