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Phase 1B Archaeological Examination
of the Towers Project Parcel
DCP/87-299M
Manhattan, New York

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HISTORICAL
PERSPECTIVES INC.



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**Phase 1B Archaeological Examination
of the Towers Project Parcel
DCP/87-299M
Manhattan, New York**

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INTRODUCTION

The Towers project site is located on the southwest corner of 106th Street and Central Park West (Block 1841) in Manhattan, New York (Fig. 1). The proposed redevelopment of the site has necessitated the evaluation of the potential for the presence of archaeological material. At present the project site contains several buildings associated with the former New York Cancer Hospital (later the Towers Nursing Home).

A preliminary archaeological assessment conducted by Joel Grossman during May 1986 recommended "limited subsurface archaeological tests be conducted to establish the presence or absence of historically significant archaeological remains." The report identified portions of the proposed site as having the potential to contain archaeological resources specifically associated with the late-eighteenth and early nineteenth centuries (Figure 2). The assessment and subsequent testing plan identified two distinct research periods for the site:

- 1) The Revolutionary War Period. The City of New York was intensely fortified by both the British and the Americans in the years before, during, and after the Revolutionary War. Late eighteenth century maps depict numerous forts, redoubts, and batteries along the shoreline, as well as encampments further inland. Cartographic and archival data examined during the Phase 1A assessment indicated that the area known as Great Hill, to the east of the project site, was the location of a defensive military positions and encampments. Because associated archaeological remains have been encountered on the Great Hill, now located in Central Park, the project area was determined to be potentially sensitive for the recovery of features relating to these military sites.

- 2) The War of 1812. Because defending the west side of Manhattan was of strategic importance, defenses were placed all along the shoreline. Inland, several encampments and entrenchments were established affording a significant advantage to the American military. At the Great Hill, located to the east of the present project site, a Blockhouse was constructed that became an integral part of the American defense.

If present, military features from either period could have some subsurface archaeological visibility that may have survived nineteenth century grading and construction activities. Because it is difficult to determine the degree of historical activity which took place near or within the project site, the proximity of the encampments and the Blockhouse indicated that the area might be sensitive for Revolutionary War and War of 1812 features.

However, because documentary evidence does not securely constitute "ground truth," Phase 1B archaeological testing is designed to verify or deny the conclusions of the initial

assessment by establishing the actual presence or absence of cultural resources on the property. In order to accomplish this task, field investigations were undertaken according to a testing protocol approved by the New York City Landmarks Preservation Commission. Testing was not conducted in locations where known disturbance had occurred from extensive grading or building construction.

HISTORICAL SETTING

The project area is located on the west side of Manhattan, a few blocks east of the western shore of the Hudson River (see Figure 1). Eighteenth and early nineteenth century maps indicate that the topography of the area consisted of rolling low-lying hills or ridges surrounded by waterlogged tracts and streams. These maps show the subject lot as being located on the western slope of a large ridge associated with Great Hill, one of several hills lying to the east of the project site. A narrow stream was located adjacent to the ridge line.

During the Revolutionary War and up through the first quarter of the nineteenth century, the west side of Manhattan was heavily fortified. Historical research conducted for the initial Phase IA investigation, identified several military sites within the project area, including a military campsite on the north slope of the Great Hill and a large area between the Hudson River and Park Avenue extending from 103rd to 110th streets (Grossman 1986a: 13). The Phase IA report also indicated that historic military remains were discovered on the north side of Great Hill during the 1860s (Board of Commissioners 1865: 8; Grossman 1986a: 13).

The topography of the project area changed significantly during the nineteenth century because of the creation of Central Park, to the east of the site, as well as the introduction of paved streets and buildings. Subsequent historical maps depict the rapid development of the Upper West Side during the late nineteenth through early twentieth centuries. In fact, the Phase IA report indicated that portions of the east-west bluffs in the vicinity of 8th Avenue may have been filled in order to create a uniform landscape (Grossman 1986a: 12).

Viele's Sanitary & Topographical Map of the city and island of New York, issued in 1865, depicts the project site just prior to the construction of the New York Cancer Hospital's Astor Pavillion (Fig. 3). This map indicates that the project site may have still had a significant portion of the ridge present at that date.

A detailed discussion of the acquisition of land and the development of the New York Cancer Hospital can be found in the Phase IA report. In summary, after the purchase of the property in 1884, the original building was constructed on the corner of 106th Street and Central Park West. This first structure, which was designed by Charles Coolidge Haight, opened in 1887. Because it was funded by John Jacob Astor it was named the Astor Pavillion. A large annex and chapel building were built between 1889-90. By 1891, the hospital, the first hospital in the nation devoted exclusively to the care of cancer patients, was comprised of the original building, the annex, the chapel, a boiler building and a laundry. Over the years, residential buildings were added to the complex as well as laboratory space. At the turn of the century the medical compound was renamed the General Memorial Hospital for

the Treatment of Cancer and Allied Diseases. The main hospital building, now an officially designated Landmark, is at present not in use.

A recent U.S.G.S. topographical map shows the project area as a well defined urban commercial/residential neighborhood at an elevation of approximately 10-20 feet above sea level (see Fig.1).

FIELD METHODOLOGY

The preliminary archaeological assessment of the Towers Project site identified the rear lot and one interior courtyard as potentially archaeologically sensitive (see Fig. 2). In order to more clearly identify the soil strata within the project site, the results of soil boring tests conducted at this location were examined. Based on the information from soil borings, the depth of fill and/or historical materials extended approximately 2 to 5 feet below the surface.

Prior to excavation, a site visit and informant interviews were conducted in order to supplement the data collected during the original assessment and to help narrow the focus of below ground exploration. During the site visit an open trench located adjacent to the 1889 Annex was noted and it was determined that this trench would be explored during the testing phase. A small drainage feature, located near the center of the rear lot, was also noted for future examination during the initial site visit.

The Phase 1B archaeological field examination of the Towers site was conducted by Historical Perspectives during April 1998. Testing was confined to two areas identified in the preliminary archaeological assessment as potentially sensitive and was carried out in order to determine the presence/absence and nature of buried cultural resources on the site. To achieve this goal, a number of field procedures were undertaken at the site that are briefly described as follows: 1) the test units within the site were excavated and mapped out (field investigations were restricted to those areas identified in the earlier assessment); 2) the large open trench was examined and mapped; and 3) the small drainage feature was explored. Each test pit was documented and the cultural materials recovered were analyzed in order to determine their context and integrity as well as to further ascertain whether or not resources associated with either research period listed above were extant (see Figs. 4, 5, 6, 7).

The test units were hand excavated and soil was sifted through 1/4 inch screen. Artifacts were collected and bagged in the field. All modern trash, brick, mortar, coal, and unidentified nails (and other formless metal objects) were noted in the field. The appropriate drawings and photographs were made of each of the test units, the open trench, and the exposed drainage feature. Cultural material was processed and bagged according to accepted standards.

RESULTS OF INVESTIGATIONS

On Monday April 6, 1998 field testing at the Towers project site in Manhattan commenced. A crew of two archaeologists completed the fieldwork phase of the project over a period of two days. Two sections of the site, previously determined to be potentially sensitive were examined. A total of four test units were excavated in order to recover information on soil strata and the degree of construction disturbance and determine the presence/absence of buried cultural materials and the possible survivability of these materials at the site (Fig. 4). In addition, an open excavation trench and a small drainage feature were examined and recorded.

Soil Borings

Although soil borings can sometimes indicate the depth of historical materials, the nature, type, and amount of previous disturbance is in almost all cases unknown. Six engineering soil borings were conducted in the rear yard at the Towers project site (Fig. 2). Three primary deposit layers were identified in all but one of the tests. They include, a surface deposit, a layer of decomposed rocks, and finally bedrock. Historic materials, identified in the boring logs as fill, were found to extend only 1 to 2 1/2 feet below the surface. The only unique test was B1, which had been placed in the location of the former laundry building and therefore had a significant fill layer overlying the decomposed rock (see Fig. 2).

Subsurface Testing

The first area examined was the rear yard which was accessed through a gate on 106th street. The ground surface of this location was covered with modern trash and architectural rubble, most likely from the demolition and removal of the majority of the laundry building and boiler house. Portions of the foundation walls and the large standing chimney are still present on the site. In addition, the small morgue, shown of Figure 2, had also been demolished leaving only portions of the cinder block walls and the cement flooring in place. Three test pits were excavated in this location.

Test Pit 1

The first test unit was placed in the northwest section of the open yard area. The surface at the time of excavation was covered with architectural rubble. Test Pit 1 was excavated to a depth of 36 inches below the surface (Fig. 5; Photo 1). Level 1 was a very dark brown silty coarse sand layer mixed with architectural materials and modern trash (plastic and glass bottle fragments, styrofoam). Four additional soil layers comprised of various architectural debris were encountered under level 1. No non-architectural artifacts were encountered during the excavation of these strata. The final level encountered in this location was

the decomposed rock layer. Excavation was halted after removing more than one foot of this material and encountering large rocks.

Test Pit 2

Test Pit 2 was placed in the center of the open rear yard (Fig. 4). Three distinct soil layers were encountered in Test Pit 2 (Fig. 5; Photo 2). Level 1 was the same silty coarse sand layer encountered in Test Pit 1. Artifacts noted in level 1 included bricks, wire nails, aluminum cans (Budweiser), and modern bottle glass fragments. Level 2, a dark yellowish brown mottled silty sand also contained architectural debris fragments. Although most were modern, there were two machine cut nail fragments recovered. In addition, a single piece of dark green bottle glass and a small unidentified shell fragment were recovered. Because of the limited amount of material present, it was impossible to date this deposition layer. Excavation was halted at a depth of 34 inches, after removing 1 1/2 feet of the stratum of decomposed rock (Level 3).

Test Pit 3

Test Pit 3 was placed in the eastern portion of the rear yard area approximately 10 feet west of the Astor Pavillion (Fig. 4). Excavation revealed two soil strata above bedrock which was encountered at approximately 24 inches below the surface (Fig. 6; Photo 3). The first level encountered was the same silty coarse sand as that found in Test Pits 1 and 2. This layer also contained numerous pieces of modern trash (aluminum can fragments, a plastic bottle top, a modern screw, and a few pieces of unidentified plastic). At the transition to Level 2, a large fragment of thick window glass was recovered along with a fragment of clear bottle glass and 2 pieces of unidentified green plastic. Level 2 was the decomposed rock layer. No artifacts were recovered and excavation was halted at a large bedrock obstruction, 28 inches below grade.

Drainage Feature

During the site visit conducted prior to the excavation, the archaeologists noted that a circular feature was present in the rear yard area (Fig. 4). The feature had been exposed and was filled with modern trash and traffic cones. According to the property caretaker the feature was a drain that was linked to a series of pipes across the rear yard. A cap or cover was probably inadvertently removed when the site was cleared after the demolition of the rear yard outbuildings. The presence of architectural demolition rubble across the lot indicates that efforts at clearing the site may have spread fragments of rubble across the rear yard.

During field testing, the archaeologists cleared off the cones and other modern objects in order to examine the feature

more carefully (Photo 6). The circular drain was lined with bricks and filled with approximately 3 feet of modern trash and building rubble (bricks, aluminum soda cans, plastic coffee cup lids, unidentified rubber and plastic fragments and cigarette butts). In addition, a large unconnected piece of PVC pipe (2 1/2 feet long) was removed from the interior of the drain. There were no artifacts recovered that date any earlier than the late twentieth century.

This drain was likely part of a water management system put in during the twentieth century. The initial Phase 1A report contained a portion of the 1920 Bromley Atlas showing the project area. This map depicted the placement of paths throughout the rear yard for the first time. The drain is in the location between these former paths and was probably placed there to assist with drainage in the rear lot and help avoid standing water in the location of the paths.

Large Trench

During the site visit the archaeologists also noted a large open trench adjacent to the north side of the 1889-90 Annex building (Fig. 4). As part of the Phase 1B testing, this trench was examined carefully by the archaeologists. A trench plan and a profile of the exposed stratigraphy in the west wall were completed (Fig. 7; Photo 5). The trench displayed the same three distinct levels seen elsewhere on the site and noted during the soil boring analysis. The first level shown was a very dark brown silty coarse sand layer mixed with architectural materials and modern trash (aluminum can fragments, bottle glass, unidentified plastic pieces, and wire nails). A single personal artifact was noted - an undecorated pipe stem was observed in the sidewall at the transition between levels 1 and 2. The area around this artifact was examined and excavated, but only more architectural fragments were encountered (brick, mortar). Because there is no way of determining if this artifact was *in situ* or moved into this location by the heavy equipment used when clearing the yard area or excavating the trench, little can be inferred from its discovery in this location. The presence of a single early nineteenth century artifact in context with the architectural rubble and modern trash however, corresponds with the belief that there has been a great degree of landscape manipulation in the rear yard.

Test Pit 4

The second area examined during the course of fieldwork was a small enclosed location in the southeastern portion of the project site. This enclosed area was only accessible through a basement window in the 1889-90 Annex. The area was comprised of two levels. The lower level had clearly been excavated and cut away during the construction of the Annex. This level was completely covered by modern trash and building debris (broken radios,

bottles, beer cans, window glass, clothing fragments, tar paper, wood slats).

Although there was a significant amount of debris also on the upper level, large portions of the ground surface were also exposed. The upper level, which was approximately 5 feet higher than the lower, had plants and small trees attempting to survive. Although three levels were encountered during excavation, the surface level was very different from that found in the rear yard. Level 1 was a very thin black topsoil containing a few fragments of modern glass. In the transition to Level 2, a brown silty sand, numerous artifacts were encountered including 8 unidentified nails, 2 cut nails, 2 dark green thick bottle glass, 2 brick fragments, a thin coil of iron wire, and a small newspaper fragment (no writing). No artifacts were recovered from the lower portion of this level. Level 3 was the decomposed rock layer found all over the site. Excavation was halted when several large rock obstructions were encountered at a depth of 28 inches.

CONCLUSIONS AND RECOMMENDATIONS

It is clear by the number of palisades, forts, and entrenchments depicted on historic maps that the western side of Manhattan in the vicinity of the Towers project site saw frequent troop activity. Therefore there was potential for the survival of material dating to the periods of the Revolutionary War and the War of 1812 on the site. However, if any remains of an entrenchment or outlying camp were at one time present, they were destroyed by a combination of the leveling of the ridge on which the site originally stood and/or the subsequent construction and demolition of the buildings with attendant landscaping activities.

The Phase 1A report noted building records with plans indicating that the foundation walls for the hospital structures were be laid on rock (Grossman 1986a: 18). This appears to be the case. The area was probably graded and cleared in order to create a flat ground surface prior to construction. After the removal of the ridge, the rear yard was likely landscaped. The introduction of water management facilities and ancillary buildings may have necessitated further clearing of the rear lot.

The majority of the artifacts observed during excavation relate to the construction and demolition activities at the site. In addition a large amount of twentieth century trash was noted including a variety of bottles, aluminum cans, modern wire nails, window glass, plastic, styrofoam, and architectural fragments (brick, mortar). The limited number of artifacts excavated reflect a date range from the nineteenth century (pipe stem) to the late twentieth century (modern soda bottles) within the same stratum.

No traces of the former eighteenth century ground surface were present at the Towers Project site; the construction of large buildings with basements, the introduction of utilities to the surrounding buildings, and the subsequent clearing of the rear yard and enclosed area obliterated any evidence of historic features that may have once existed. Therefore, no further archaeological consideration is necessary for the Towers project site.

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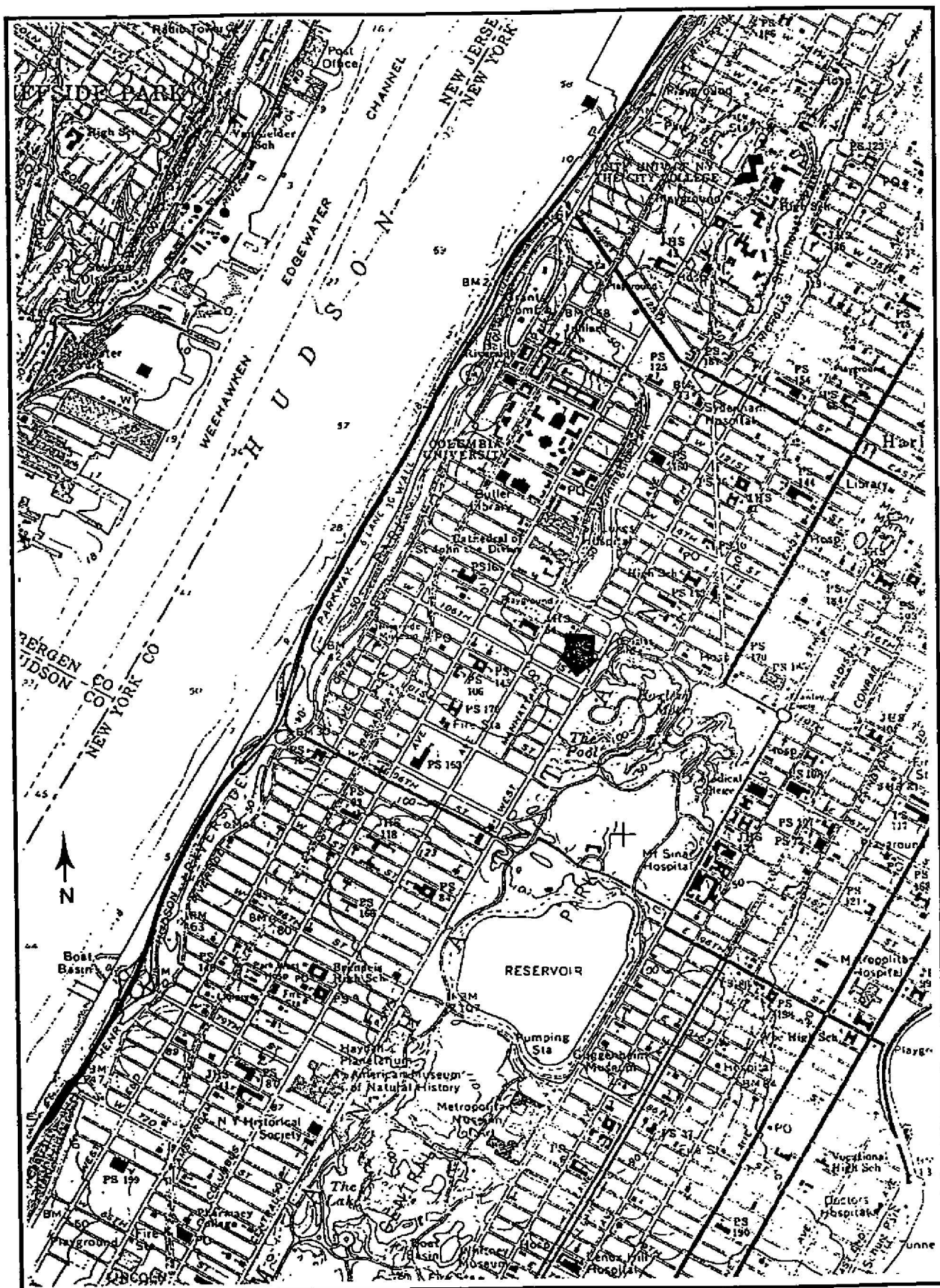


Figure 1 Current U.S.G.S. Topographic Map Central Park Quadrangle. 2,000 feet equal approx. 1 inch.

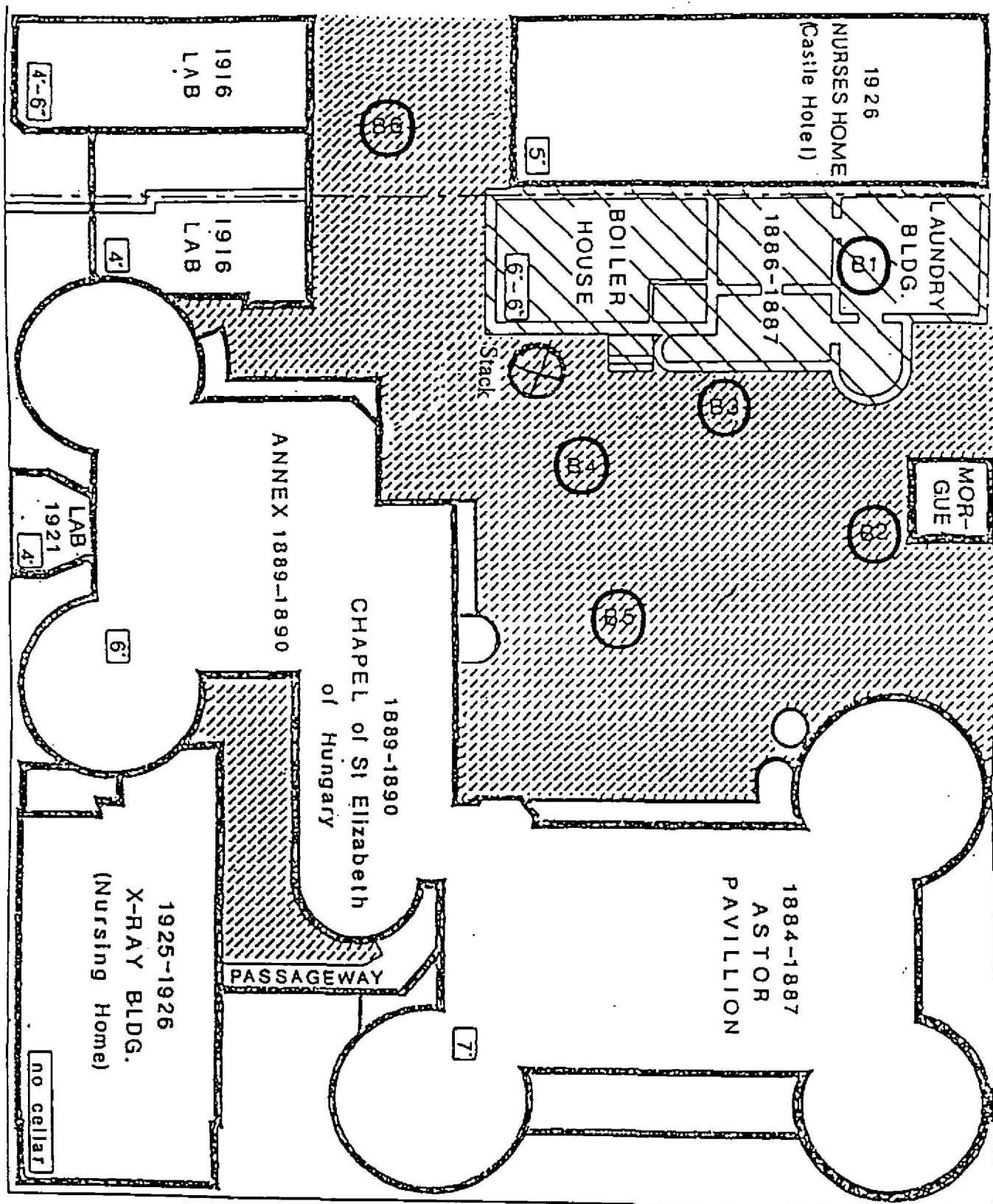


Figure 2 Towers Project site map showing archaeologically sensitive areas and soil boring locations. From Grossman 1986.

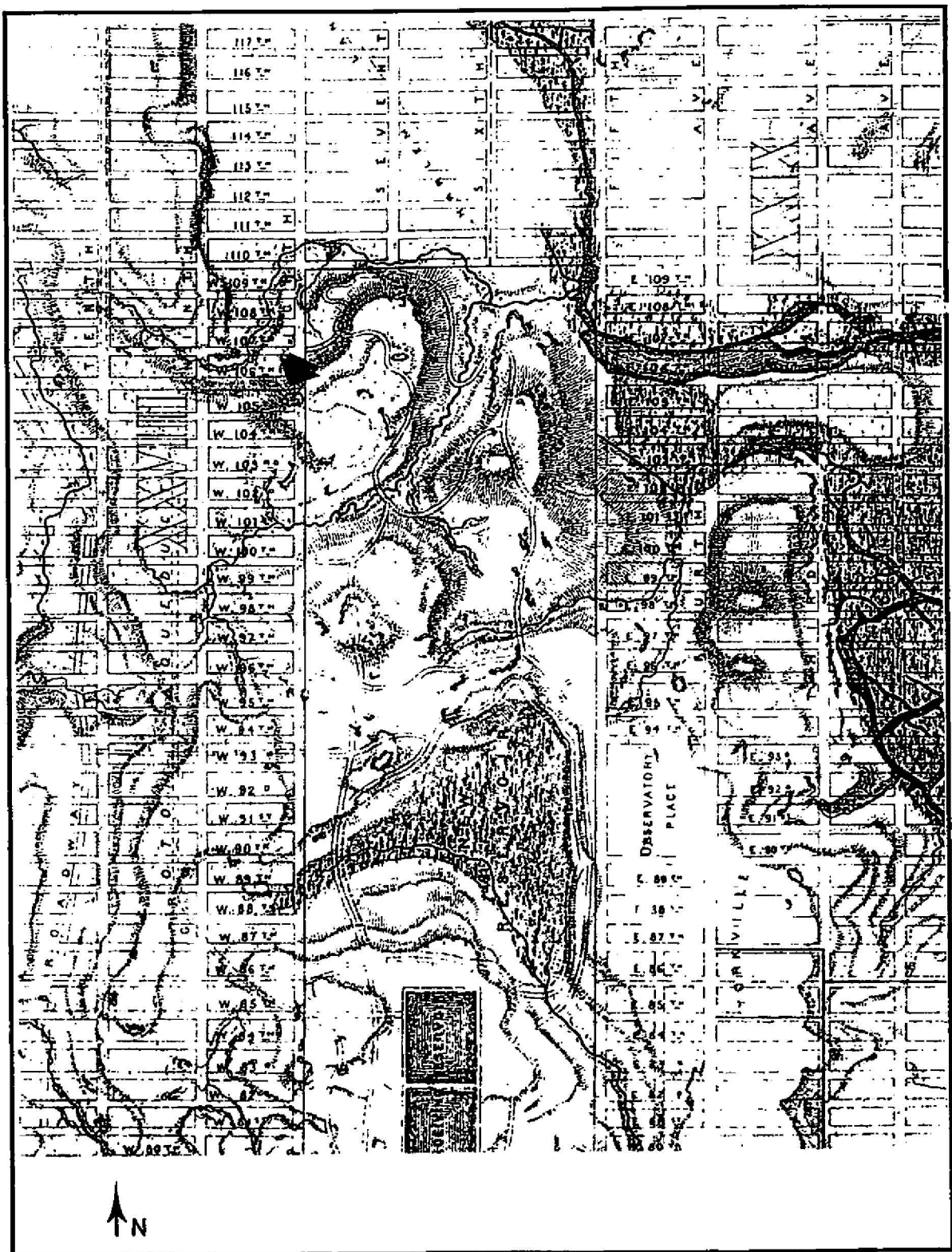


Figure 3 Viele 1865. Sanitary & Topographical Map of the city and island of New York.

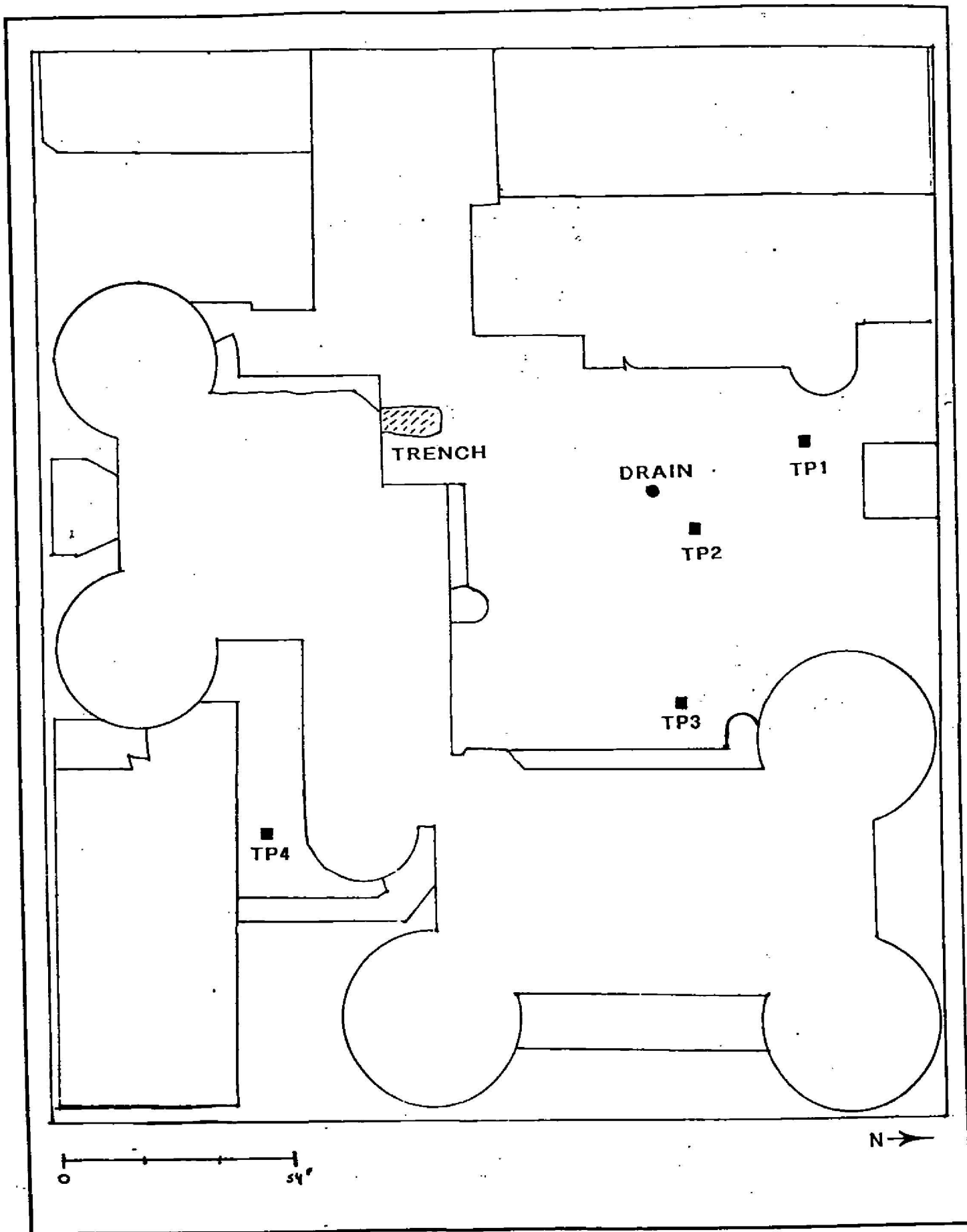
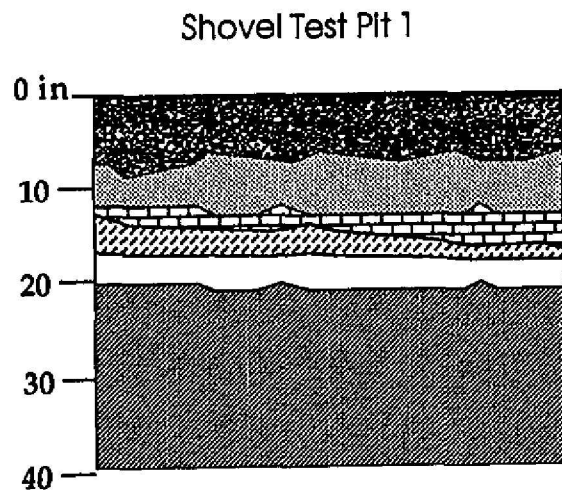






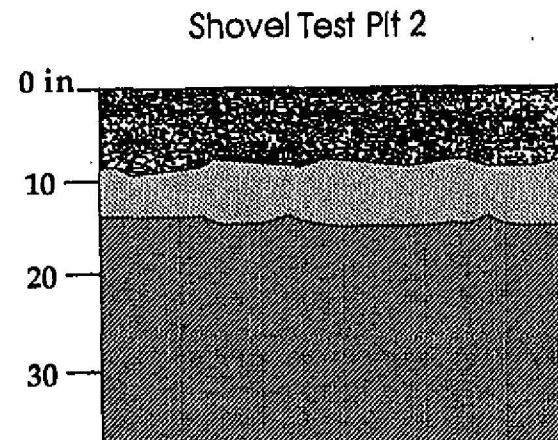


Figure 4 Location of Test Pits at the Towers Project site.



-  Level 1 10YR 3/3 very dark brown silty coarse sand w/gravel
-  Level 2 10YR 4/6 dark yellowish brown mottled silty sand
-  Level 3 brick and architectural rubble
-  Level 4 10YR 4/4 brown silty sand
-  Level 5 2.5YR 8/1 white sand
-  Level 6 10YR 5/8 yellowish brown decomposed schist



-  Level 1 10YR 3/3 very dark brown silty coarse sand w/gravel
-  Level 2 10YR 4/6 dark yellowish brown mottled silty sand
-  Level 6 10YR 5/8 yellowish brown decomposed schist

Figure 5. Test Pit Stratigraphy. Towers Site.

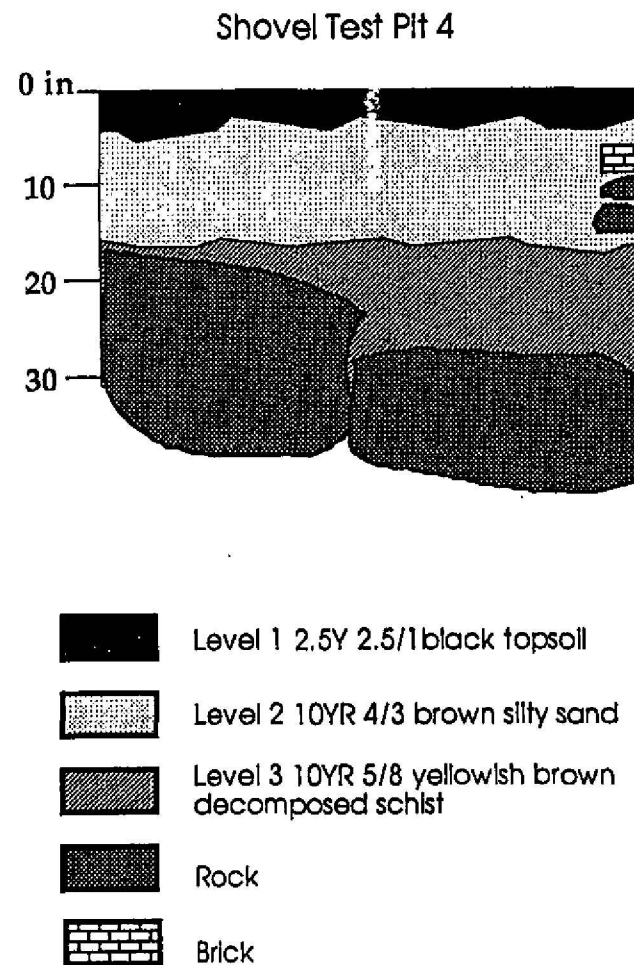
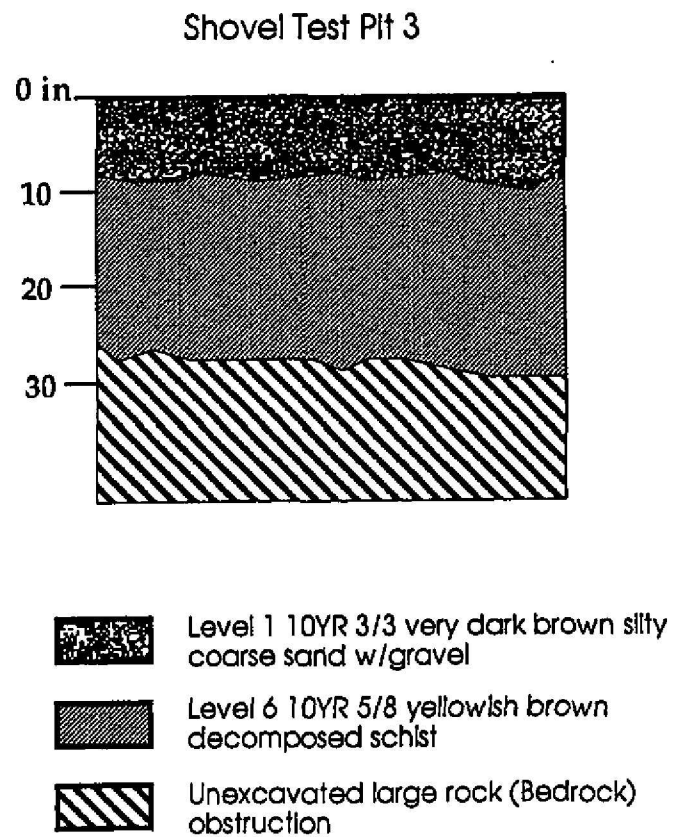
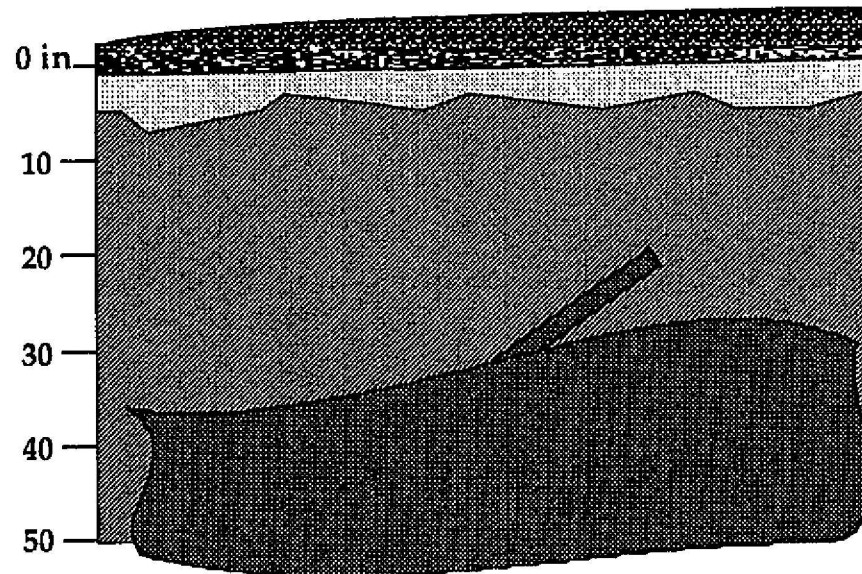


Figure 6. Test Pit Stratigraphy. Towers Site.

Open Trench







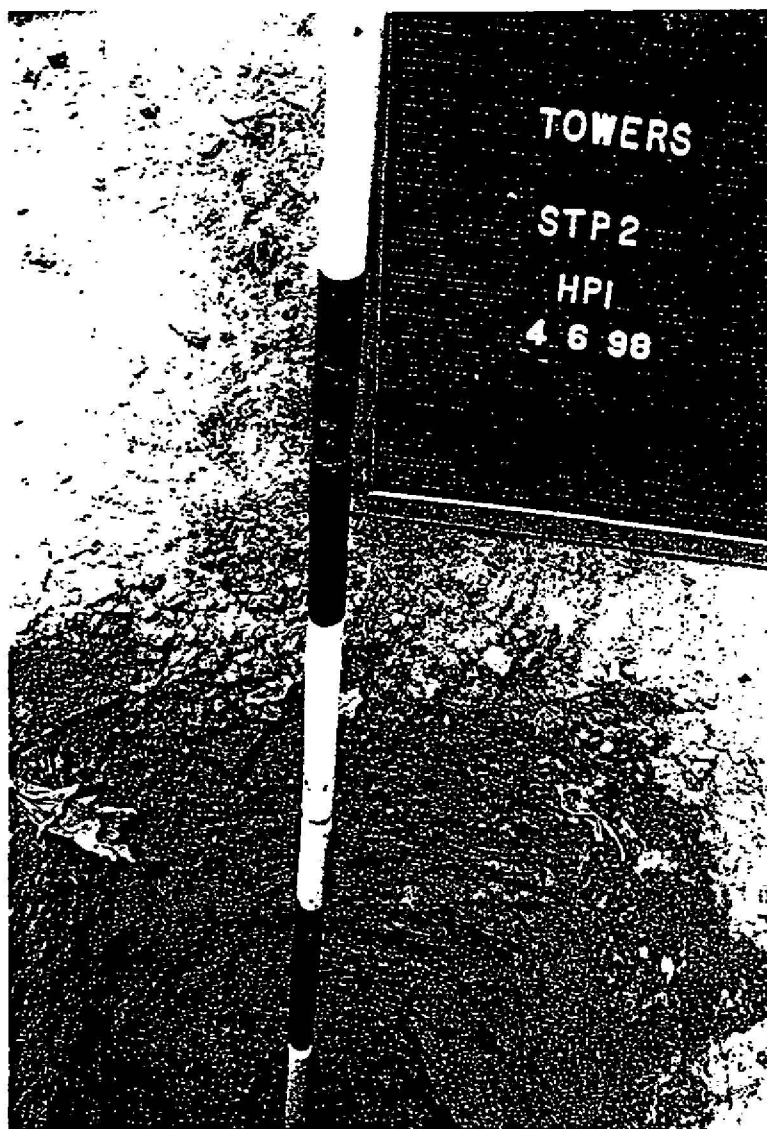
-  Level 1 10YR 3/3 very dark brown silty coarse sand w/gravel
-  Level 2 10YR 4/3 brown silty sand
-  Level 3 10YR 5/8 yellowish brown decomposed schist
-  Bedrock

Figure 7. Test Pit Stratigraphy. Towers Site.



Photograph 1. Test Pit 1. Profile of West Wall.



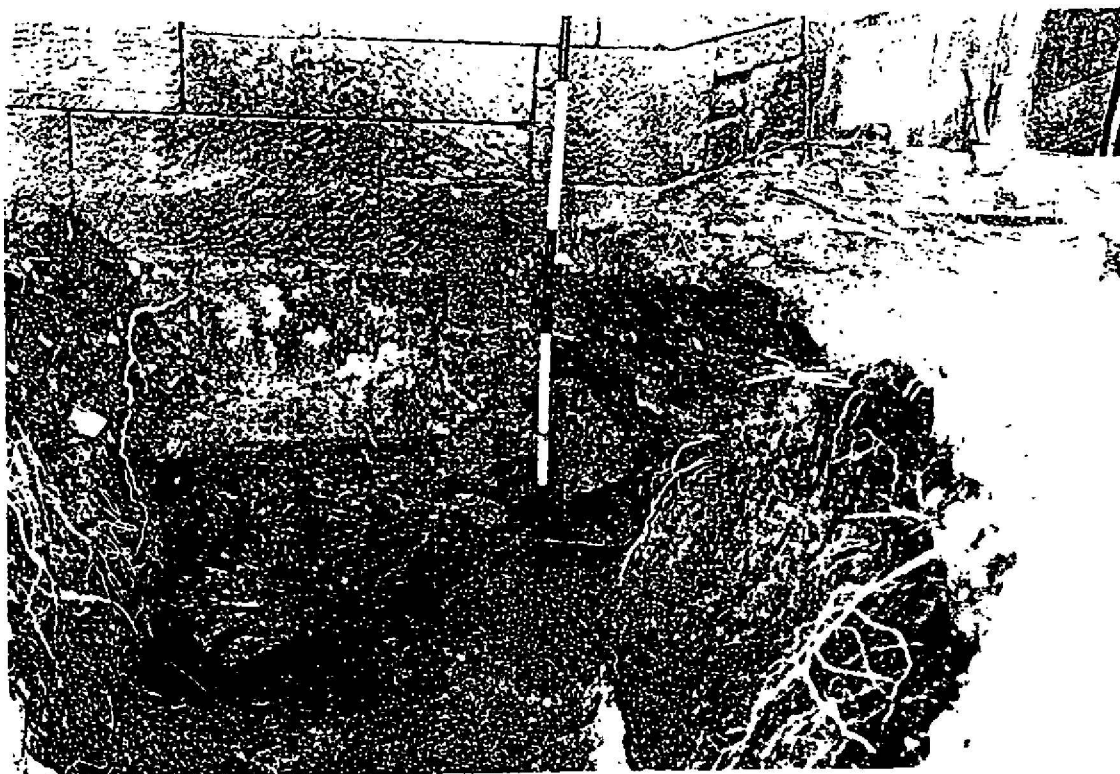
Photograph 2. Test Pit 2. Profile of West Wall.



Photograph 3. Test Pit 3. Profile of West Wall.



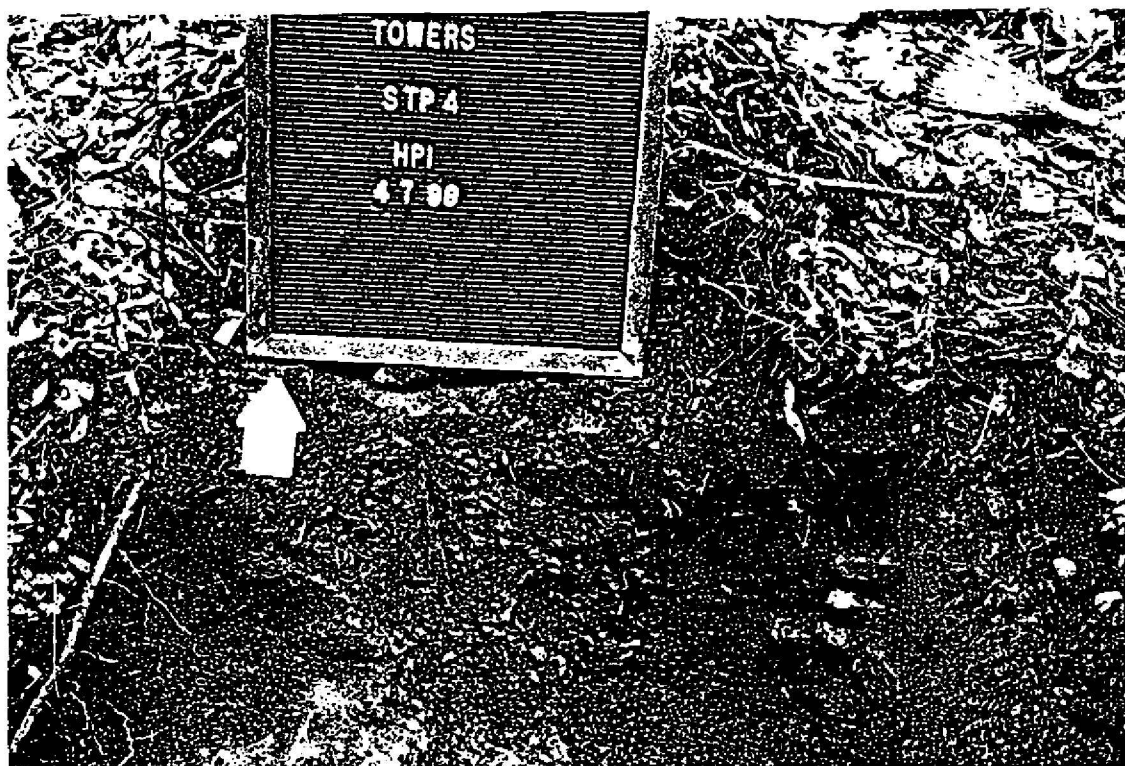
Photograph 4. Open Trench at Northwest corner of 1889-90 Annex.
Profile of west Wall.



Photograph 5. Open Trench at Northwest corner of 1889-90 Annex.
Facing south.



Photograph 6. Brick-lined drain in Rear Yard.



Photograph 7. Test Pit 4. Profile of North Wall.