Report of Test Excavations
Block 2172, Lots 68 and 72
Inwood, Manhattan

for
The New York City Board of Education

Dr. Frederick A. Winter, SOPA

for

KEY PERSPECTIVES

Dr. Karen S. Robinson, Director

June 12, 1985
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FIGURES

Figure 1. Block 2172 showing development lots........1

Figure 2. Map with locations of shovel tests...........1
INTRODUCTION

The following study presents the results of archaeological trial excavations conducted by Key Perspectives in Inwood, Manhattan for the New York City Board of Education.\(^1\) The excavations and this report were designed to fulfill the requirements of the New York City Landmarks Preservation Commission for archaeological field testing within Block 2172, Lots 68 and 72. This field testing program was deemed necessary on the basis of a Stage IA documentary survey completed in April 1985 (Winter 1985).

The development lots within Block 2172 were selected for subsurface archaeological investigation because prehistoric remains had reportedly been found within the area of the block (Winter 1985: 11f.) and because a defensive barrier had been built across the block during the Battle of Washington Heights in November 1776 (Winter 1985: 17).

The subsurface archaeological investigation consisted of a limited program of field testing that was conducted to determine if more extensive excavations should be required. All of the test units excavated in this limited testing

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1. Field excavations were conducted on 1 June 1985. Frederick A. Winter was principal investigator as well as field director. Karen S. Rubinson was crew chief. Field crew were William Rosenberg and Matthew Gajewski.
phase revealed extensive modern landfills. These fills provide a relatively deep and secure cushion over any possible deposits of archaeological significance. In light of current plans to use the lots as a school playground, a usage that would not require extensive subsurface disturbance, no additional archaeological testing is recommended at this time.
FIELD TESTING STRATEGY

According to a feasibility study prepared in 1984, the New York City Board of Education plans to develop three lots within Block 2172 to hold a new Intermediate School and adjacent school playground (see Figure 1). The school is to be situated on Lot 16, which is currently occupied by the buildings of the Jewish Memorial Hospital. The cellars and foundations of the hospital are sufficiently deep so as to preclude the possibility that archaeological remains of significance are preserved within Lot 16 (Winter 1985: 25f.).

Lots 68 and 72, on the other hand, have never been developed to any notable degree. Some scattered garage buildings and a small, cellarless retail store are the only buildings known to have been constructed on these lots (Winter 1895: 23f.). Thus, subsurface archaeological investigation focused on Lots 68 and 72.

These two lots are set at different elevations. Lot 72 slopes down from 196th Street to Nagle Avenue, a drop of between 6 and 8 feet, while Lot 68 lies at a considerably lower elevation, approximately 10 feet below 196th Street and 2 to 3 feet below Nagle Avenue. The two lots provide no surface indications to reveal which, if either, marks the original Manhattan land surface.

Following a meeting on 18 April 1985 with Dr. Sherene Baugher, urban archaeologist with the New York City
Landmarks Preservation Commission, a minimal archaeological field testing strategy was developed to determine the relationship of the two lots to each other and to the original Manhattan land surface, as well as to determine the potential of the lots to hold significant archaeological remains that might be disturbed by the construction of the proposed school playground. This strategy called for the excavation of four shovel tests, two along the Nagle Avenue line of Lots 68 and 72, and two in the "rear" of the lots, closer to 196th Street.
SHOVEL TESTS

Shovel tests were conducted using hand picks, digging spades, shovels and trowels. All earth from the tests was sifted through 1/4 inch wire screens in order to aid in the recovery of artifactual and ecofactual material. All tests were excavated until either ground water or the dimensions and depth of the test unit precluded further excavation.

For the location of the test units, refer to the map (Figure 2) at the conclusion of this report.

Test 68.1: Located in the "rear" of Lot 68, approximately 57 feet, 6 inches southeast of 196th Street. The ground surface in the area of the test is paved with a macadam surface of granite chips and coal clinkers.

- Stratum 1: Surface to 0.12 m. B.S. Surface paving.
- Stratum 2: 0.12 to 0.44 m. B.S. Similar to stratum 1; paving material of granite gravel, coal clinker and cinder, and modern historic period artifacts. Water table is reached at 0.34 m. B.S. Digging terminates when a relatively large piece of wood blocks further excavation below the water table within the test unit.

Test 68.2: Located towards the "front" of Lot 68, approximately 26 feet northwest of Nagle Avenue. Ground surface as in Test 68.1.
Stratum 1: Surface to 0.15/0.20 m. B.S. Surface paving of 0.03 m. diameter granite gravel with underlying layer of ca. 0.01 m. diameter gravel, all in a dark gray soil matrix.

Stratum 2: 0.15/0.20 m. to 0.32 m. B.S. Gravel, coarse sand and coal clinker in dark soil matrix. Water table is encountered at 0.30 m. B.S.

Stratum 3: 0.32 to 0.35 m. B.S. Slightly finer gravel and black sand beneath water table.

Test 72.1: Located in the "rear" of Lot 72, approximately 80 feet south of 196th Street. Ground surface consists of unpaved earth.

Stratum 1: Surface to 0.145 m. B.S. Dark gray silty loam with one large rock (ca. 0.2 x 0.1 x 0.1 m.). Root disturbances.

Stratum 2: 0.145 to 0.25 m. B.S. Reddish brown clay. Numerous schistic rocks of size similar to the rock in stratum 1. Stratum ends at uniform level of rocks.

Stratum 3: 0.25 to 0.45 m. B.S. Rock level. Among rocks are fragments of concrete blocks.

Stratum 4: 0.45 to 0.50 m. B.S. Rocks, including concrete, in brown sandy clay matrix. Stratum contains relatively little artifactual material, but the material that is present dates from the modern historic period.
Test 72.2: Located in the "front" of Lot 72, approximately 20 feet northwest of Nagle Avenue. Ground surface consists of broken pavement.

Stratum 1: Surface to 0.08 m. B.S. Coal clinker, gravel, cinders and wooden debris.

Stratum 2: 0.08 to 0.45 m. B.S. Gritty, reddish clay-like soil. Fill material consisting of coal clinker, brick and considerable quantities of modern artifactual material.

Stratum 3: 0.45 to 1.01 m. B.S. Harder packed, grayish fill. Wood, brick and other modern artifactual materials.

Stratum 4: 1.01 to 1.10 m. B.S. Lighter colored fill soil, containing brick fragments.
ARTIFACTUAL MATERIALS

All of the test units revealed modern artifactual debris in secondary fill. The following categories of artifacts were recovered. Notable findings are indicated.

<table>
<thead>
<tr>
<th>Shovel test</th>
<th>Metal</th>
<th>Bottle glass</th>
<th>Window glass</th>
<th>Ceramic pottery</th>
<th>Other ceramic</th>
<th>Wood Brick</th>
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Notes:
1. plastic
2. White ware
3. rubber, glass, slag and coal
4. coal clinker
5. coal and coal clinker
6. porcelain floor tile
7. "bathroom" tile
8. chicken bone
9. "bathroom" tile
10. oyster shell
11. "bathroom" tile
12. concrete
13. coal
14. leather
15. terracotta water pipe, pink wall tile
16. pink and green wall tiles
17. porcelain floor tile, rubber

x indicates presence of materials from category.
Dating: Only one artifact from the shovel tests is of pre-twentieth century type, a stoneware jug fragment from 72.2.2. One other artifact is of late nineteenth to early twentieth century date, a lip fragment from a blob-top bottle found in 72.2.2. Both of these finds came from a stratum that also contained post-World War I materials. All other strata contained twentieth century materials.
CONCLUSIONS AND RECOMMENDATIONS

The shovel tests indicated that Lots 68 and 72 were covered with extensive surface deposits of fill materials and that these materials were deposited after World War I. This finding is consistent with the known development history of Block 2172 (Winter 1985: 22).

The gravel fill matrix in the lower lying Lot 68 is of a type that is ideally designed to provide drainage. Thus, while the high water table encountered in Lot 68 may have been affected by the heavy rains that fell during the night before shovel testing (31 May/1 June), it seems probable that longer term water problems exist within the lot. In this context, it is noteworthy that a water course ran along Nagle Avenue prior to the mid-nineteenth century (Winter 1985: 4 and 20).

Within Lot 72, the "rearmost" shovel test (72.1) contained relatively large quantities of rock and concrete building rubble. This material was presumably dumped on the lot during the construction of the six-story twentieth century apartment house that fills the area directly to the west of Lot 72 (Lot 4; 4572-4590 Broadway). The fill in shovel test 72.2, nearer to the Nagle Avenue frontage of Lot 72, contains a lesser proportion of "architectural" debris, which perhaps reflects the test's greater distance from the building on Lot 4.
The fill within Lot 68 extends at least 1 1/2 feet (0.44 m.) below the modern surface of the lot. It does not seem improbable that all of the ground above this level within Lots 68 and 72 consists of secondary fills. This finding would correspond to evidence from other parts of Manhattan which indicates that extensive landfilling was the rule along the inland water courses of the island. For example, late nineteenth century fills along DeVoors Mill Stream at 53rd Street and Third Avenue reached depths in excess of 12 feet (Winter 1984: 66-68), while excavations on Sullivan Street in Greenwich Village along Minetta Creek have revealed early nineteenth century fills of similar depth (Salwen, personal communication).

The fills within Lots 68 and 72 form a cushion that would protect any subsurface archaeological remains within the lots from damage in the event of limited ground disturbance and development. The construction of a school playground within the lots would seem to provide such a case of limited development, and if the Board of Education's plans for a ground-level playground go forward, no additional archaeological testing is recommended within Lots 68 and 72 of Block 2172. One the other hand, if plans change and more extensive and deeper ground disturbance is contemplated, for example, excavations for foundations of a school building, further archaeological investigations may be necessary.
Figure 1: Block 2172 showing development lots in bold outline (after Sanborn, City Atlas 1979/80).
Figure 2: Block 2172 showing location of development lots and shovel tests (scale: 1" = 80').
REFERENCES CITED

Winter, Frederick A.


1985 *Stage IA, Block 2172, Lots 16, 86 and 72, 4200 Broadway and 18 to 40 Nagle Avenue, Inwood, Manhattan for the New York City Board of Education*. New York: Key Perspectives
I reviewed the field testing report for the Inwood Hill project. I agree with the recommendations made by Fred Winter and Karen Rubinson that no further fieldwork is required. I recommend that we accept this report; I have enclosed the copy for the Municipal Archives.
June 19, 1985

Dr. Sherene Baugher
Urban Archaeologist
New York City Landmarks Preservation Commission
20 Vesey Street
New York, N.Y. 10007

Dear Sherene:

Enclosed are two copies of the report of the test excavations of Block 2172, lots 68 and 72 which Key Perspectives did for the New York City Board of Education. I have told the Board of Education people that I am sending you your two copies directly.

Please let me know if you have any questions.

Sincerely yours,

Karen S. Rubinson, Ph.D.
Director

KSR/acf
Encl.