The Richard Cornell Cemetery Archaeological Testing Project

Final Report Appendix:
1998 Subsurface Probing and Excavation Findings

(LP-0741)

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Introduction

As part of the long-term restoration and preservation plan for the landmarked Richard Cornell Cemetery a final phase of archaeological field work was conducted at the site in the summer of 1998. The goal of this work was the recovery of material remains--primarily lost burial markers--from the early history of the site. This Appendix to the Final Report (1996) provides the results from this last attempt to recover material remains through archaeological methods.

The Cornell Cemetery Corporation, the not-for-profit restoration organization funding all contracted archaeological work at the site has emphasized the completion of all subsurface work as soon as possible to keep pace with its schedule for finishing all restoration work at the cemetery for a millennial celebration. Whether this schedule is met or not, with the completion of all archaeological work the permanent sealing of the site can go forward and a long-term a site maintenance plan for the site can be put into effect. Final restoration work at the site will most likely include surface planting, the development and installation of a site diagram and information center, the restoration of the wrought-iron perimeter fence, and the installation of a new retaining wall along the northern boundary of the cemetery.

Overview of Archaeological Work Completed in 1998

Adhering closely to the scope of work submitted on June 4, 1998 upon which the New York City Landmarks Preservation Commission granted a permit for this final phase of archaeological work, the following field work was conducted in the southwest and northeast quadrants on the site: minimally-intrusive subsurface probing at 1 foot intervals using hafted metal rod to a maximum depth of 1.5' below the current surface level, focussed surface-scraping, the excavation of one 1'x1.5'x2.5' shovel test in the northeast quadrant, one 1'x1.5'x2.5' test in southwest quadrant of the site and the excavation of two 3'x3'x2' study units in the southwest quadrant, one focussed on a midden of building debris and one focussed on the shallow burial vault wall of John Coming Ball, Esq. (1758-1792) to identify its exact location.

The original scope of work for this final field season called for all excavations to be conducted at locations where subsurface probing indicated the possible presence of archaeologically significant material remains. Although one of the planned 3'x3'x2' unit excavations was to be conducted in the Northwest quadrant of the site, actual probing results did not isolate significant subsurface remains sufficient to warrant doing so. For this reason the second 3'x3' excavation was relocated to the location of the discovery of the inscribed vault lid to the burial of John Coming Ball, Esq. to test for the presence of a burial vault wall.

Soil excavated from each test was screened through 1/4" hardware mesh and all significant artifacts from all tests were collected, bagged and labelled by provenience and have been catalogued and summarized here. Artifacts have been
returned to the Cornell Cemetery Corporation to be combined with the existing collection for curation. Tests and test results are discussed separately below.

NOTE: All tests are shown on Figure 1, the comprehensive archaeological site map. Each stratum or level within a stratum, excavated at the cemetery site over the duration of the archaeological project (1993-98) has been provided a sequential numerical *provenience designation* (PD). This method continues here beginning with PD 57. All elevations given below are measurements from the contemporary ground level at the location of the test. Contemporary ground elevations associated with particular tests and relative to the site datum (Elev. 100.00') can be drawn from the composite archaeological site map where elevations are shown across the full extent of the site. This does not apply in the northeast quadrant of the site, though, since that area has been regraded following the recording of elevations shown on the map for this area. Current ground elevations in this area now reflect a simple continuation of surrounding elevations with the site sloping gradually upward towards the north.

The Northeast Quadrant

For a full description of physical features in this quadrant of the site see *Final Report* (1996).

Deep sand and sandy loam deposits (2.5'-4') in this quadrant of the site had made previous probing and testing efforts difficult. With the removal of this overburden in the summer of 1997--by landscaped contractors arranged for by the Cornell Cemetery Corporation--this quadrant was regraded to match the rest of the site at approximately one foot above the original cemetery surface. Regrading made productive probing in this area possible for the first time.

With the primary goal of locating historic burial markers, archaeological probing at one foot intervals was planned and conducted in this quadrant of the site. This led to the excavation of a single 1'x1.5' shovel test, 98NE/ST1, (N126.50, E105.70), where a substantial object was encountered during probing (Figure 1).

SPECIAL NOTE: As documented in the *Final Report*, an existing retaining wall along the northern boundary of the site extends only from the northwest corner to approximately the middle of the north side of the site, from that point on the retaining wall has been removed (Figures 1 and 3), that is to say, there is presently no retaining wall from the middle of northern side of the cemetery to the northeast corner of the site. This is significant because north of the site the contiguous property continues at an elevation approximately 3-4' above the current elevation of the cemetery. With the removal of the deposits in northeast corner of the site, where no retaining wall exists, the property line has been, in effect, destabilized. The shear 4' high soil cut face along this portion of the cemetery boundary resulting from the removal of the deep deposits up to the property line has begun to erode, already partially undermining a chain link fence which separates the two properties. It is evident that a solution will have to found to shore-up this portion of the
cemetery property line. As discussed hypothetically in a preliminary and the final report, the actual removal of the deep deposits in the northeast corner of the site in 1997 now necessitates rehabilitating or replacing the northern retaining wall. The Cornell Cemetery Corporation is currently considering several options to this end.

**Shovel Test 1**
98NE/ST1
N126.50, E105.70
1'x1.5'x.6'

Stratum 1 (0'-.6') PD 57, very sandy loam. This deposit consists of the remaining portion of the deep deposit removed in the summer of 1997 to regrade this quadrant of the site. This stratum terminated at the top of the object located during probing, a large concrete slab. The concrete slab was recorded at .6' below the newly regraded surface level and with this the test was documented and called off. Screening the soil yielded minimal quantities of historic glass and burned coal fragments which were not saved or inventoried.

As stated above, failure to identify additional subsurface objects through probing in this quadrant of the site led to the relocation of a planned 3'x3' excavation study unit to the southwest quadrant.

**The Southwest Quadrant**

This quadrant of the cemetery is characterized by an extensive 1'-2' deep midden of building material debris, designated as Feature 5, mainly large concrete fragments, extending from the southwest corner of the site northward along the western side of the cemetery fence. Probing and excavations in this quadrant during 1994-6 field seasons resulted in the recovery of the burial marker of John Coming Ball, Esq. in Area 8 (see Figure 1). Probing was once again conducted at one foot intervals in this quadrant. The extensive dumping in this quadrant resulted in many probe attempts being impeded at shallow elevations, sometimes just below the contemporary cemetery surface. Extensive surface scraping in the area of the midden continually revealed only the presence of large concrete fragments, building material debris. Based on probing results, one 1'x1.5'x2.7' shovel test, 98SW/ST2 (N80.50, E71.50) and one 3'x3'x2' unit, 98SW/U1 (N66.90, E70.00) were excavated in the area of the midden and penetrated through this debris (Figures 4, 5 and 6). An additional 3'x3'x2.5' unit, 98SW/U2 (N65.30, E84.80), originally planned for the northeast quadrant was relocated to the southwest quadrant and excavated to locate the burial John Coming Ball, Esq., designated as Feature 6 (Figure 7 and cover photo).
Shovel Test 2
98SW/ST2
N80.50, E71.50
1'x1.5'x2.7'

The test, which penetrated the midden mentioned above, revealed three distinct strata.

Stratum 1 (PD 58), 0'-.4' below the contemporary surface, is a very sandy loam deposit. No significant artifacts were collected.

Stratum 2 (PD 59), .4'-1.6', is a sandy loam deposit. This provenience penetrates the body of the midden lens resting on the original cemetery surface and included large poured concrete fragments, historic glass and ceramics.

Artifacts collected:
- 1 white ceramic tile (L20c.)
- 1 white ceramic bowl base fragment (20c.)
- 1 whiteware fragment. (20c.)
- 1 fragments of melted blown glass
- 2 fragments of clear historic glass (20c.)
- 1 ceramic fragment, blue glaze (20c.)
- 1 metal water valve (20c.)
- 10+ burned coal fragments

Stratum 3 (PD 60), 1.6'-2.7', is a leached sandy loam deposit beginning at the original cemetery surface and terminating at 1.1' below the original cemetery surface and 2.7' below the contemporary surface.

Artifacts collected:
- 5 burned coal fragments
- 2 worn red brick fragments

Excavation Unit 1
98SW/U1
N66.90, E70.00
3'x3'x2.0'

This unit was located near the southwest corner of the site in the area of the midden of building debris discussed above. The 3'x3' unit penetrated through the midden and again confirmed that the midden is primarily comprised of large poured concrete fragments (Figures 5 and 6, north and east coordinates were inadvertently reversed on the descriptive photo plate). This test is basically a larger version of Shovel Test 2 discussed above. Three distinct strata were identified.

Stratum 1, (PD 61), 0'-.4', is a very sandy loam extending from and including the contemporary cemetery surface and terminating at the beginning of the midden deposit at .4'. No significant artifacts were collected from this provenience.
Stratum 2, (PD 62), 4'-1.9', is a sandy loam deposit. This provenience penetrates the body of the midden lens resting on the original cemetery surface and included large number of poured concrete fragments, historic glass and ceramics.

Artifacts collected:
2 fragments decorated ceramic ware, blue on white glaze (?)
1 ceramic vessel stopper with side marking: "No58602" (?)
1 fragment salt glaze white ware (?)
4 fragment whiteware (20c.?)
1 whiteware cup base fragment, embossed w/"...PHARTLY" and lighthouse image(?)
1 whole white glaze tile 1 1/4' square (20c.)
1 fragment chinaware with tree branch motif possibly hand-painted (?)
1 blue molded glass bottle base (80%), embossed: "BOLEY MFG CO N.Y." (bottom) and "...STERED" (side) (20c.?)
1 molded glass bottle rim (100%) (20c.)
11 fragments of flat clear glass (20c.)
1 fragment of safety glass (20c.)
13 fragments of curved clear glass (20c.)
2 fragments of brown bottle glass (20c.)
2 fragments of green bottle glass (20c.)
1 metal sheet fragment, highly corroded
1 metal fastener (nail), highly corroded
3 white shell fragments
18 burned coal fragments

Stratum 3 (PD 63), 1.9'-2.0', is a sandy loam deposit at the bottom of the test unit. It includes the interface of the original cemetery surface and mixed deposits resting on it and original landform soil.

Artifacts collected:
2 fragments clear bottle glass (20c.)
5 fragments of burned coal

Excavation Unit 2
98SW/U1
N65.30, E84.80
3'x3'x2.1'

This test was relocated from the northeast quadrant of the site to the burial place of John Coming Ball, Esq. (1758-1792) located in the southwest quadrant of the site in Area 8 (see map, Figure 1). (This is the location where in the summer of 1996 the inscribed lid to the burial was uncovered. In turn, this discovery led members of the Cornell Cemetery Corporation to conduct a review of historic
documents concerning the identity of John Ball who travelled to Far Rockaway from South Carolina in ill health and died there on October 31st, 1792 in the home of Abigail Cornell. (see Appendix 6, Final Report (1996)). The test unit was excavated primarily to determine the exact location of the burial for the final location of the inscribed marble lid and in part to examine and describe the construction of the burial. Results revealed that the burial marker rested on a shallow coursed brick wall (three courses were exposed during excavation and probing determined at least 2 more). There was no evidence for the use of mortar in the construction of the burial vault walls. The excavation proceeded to a maximum depth of .51' along the sides of the burial matrix. Vertical excavation then ceased and the unit was leveled off for final documentation. Attention was given to avoiding human remains and no human remains were encountered.

Stratum 1 (PD 64), 0'-.4', is a very sandy loam deposit beginning at the contemporary surface and terminating at the beginning of a mixed deposit. Artifacts recovered but not collected included small quantities of historic glass, plastic and brick fragments.

Stratum 2 (PD 65), .4'-1.1', is a mixed sandy loam deposit terminating at the top of the stacked-brick vault wall.

Artifacts collected:

1 fragment white glaze stoneware (20c.)
1 fragment white ceramic tile (20c.)
4 fragments curved clear glass (20c)
1 fragments red ceramic water pipe fragment (e20c.)
1 fragment red sandstone fragment (?)
1 fragment of redware (?)
2 fragments red brick (?)
2 metal fastener fragments, highly corroded (?)
3 fragments partially burned coal fragments
2 fragments burned coal

Stratum 3 (PD 66), 1.1'-1.9', is a sandy loam deposit that begins at the top of the stacked-brick vault wall and was terminated at a maximum depth of 5.1' inside the burial matrix, along the sides of the vault wall. No significant artifacts were collected from this provenience.
Conclusion

This 1998 Appendix to the Final Report (1996) presents the results of the a final probing and excavation effort at the cemetery to recover historical burial markers and gather information which may be helpful in completing the restoration of the cemetery. Although no new markers were located with the probing-excavation method used here, the extent of a midden along the west side of the cemetery has been documented and an historic burial, that of John Coming Ball, Esq. (1758-1792) has been definitively located and examined.

As for the midden, it consists of mixed 20c. building materials, mainly large fragments of poured concrete (20-40 lbs.) which may well be the remains of a retaining wall section that has been removed along the north side of the cemetery in the northeast corner. Any future regrading of the cemetery surface, indeed the only regrading conceivable, would focus on this mixed midden area, approximately 4-5' wide, 15-20' in length and one foot deep extending along the west side of the cemetery.

Results from minimal test unit excavation of the burial of John Coming Ball, Esq. determined that the wall upon which the inscribed marker rested is very shallow at 1.5' below the contemporary surface and is constructed of stacked brick with a minimum of 5 courses. There was no evidence of mortar used in the construction of the wall.

The poured concrete retaining wall along the north side of the site has been given special attention here. A regrading effort in the northeast quadrant of the site has resulted in the replacement of a steeply graded deposit which rose to meet the property line to the north of the cemetery--where the retaining wall has been removed--with a quickly eroding shear soil cut along the property line. While the deep deposit limited the accuracy of historic restoration efforts, hence spoiling the aesthetic integration of the site, the removal of the deposit now necessitates finding a solution to the destabilization that has resulted from its removal. Clearly, the retaining wall will have to be extended to the northeast corner. Various option are under consideration for constructing a new retaining wall running the entire length of the north property line or else constructing a new section to replace the missing section in the northeast corner.

Of special interest was the recovery of a complete cast-iron perimeter fence footing (Figure 8) during the removal of soil from the northeast quadrant of the site in 1997. A footing along the southern fence line was documented earlier through the excavation a shovel test and probing (see Final Report (1996), Figure 29). Line drawings based on a combination of direct observation and probing and presented previously show the footing's size and design as very similar to the footing recovered in 1997. With recovery of the footing it becomes clear there are at least two footing types: those with a flat ground-level top (the type studied through excavation and probing and documented earlier), and those with a slanted ground-level top (the type recovered during the regrading effort in 1997).
Bibliography

Redding, Mark D.
Figure 2. Shovel Test 1 in the northeast quadrant of the site impeded by poured concrete slab: 98NE/ST1, (N126,105.70).
Shovel Test 2 in the southwest quadrant of the site, in the area of the midden: 98SW/ST2, (N80.50, E71.50).
Figure 5. Unit Excavation 1 in the southwest quadrant of the site, in the area of the midden: 98SW/U1, (N66.90, E70.00).

Figure 6. Wide-angle photo showing Unit Excavation 1 in the southwest quadrant of the site, in the area of the midden, showing concrete fragments recovered from test: 98SW/U1, (N66.90, E70.00).
Figure 7. Unit Excavation 2, minimal excavation of the burial of John Coming Ball, Esq. (1758-1792): 98SW/U2, (N65.30, E84.80).
Figure 8. Cast-iron fence footing recovered during 1997 cemetery surface regrading.