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PHASE IA SENSITIVITY ASSESSMENT/LITERATURE SEARCH
AND
PHASE IB ARCHAEOLOGICAL FIELD INVESTIGATION
HAMILTON GRANGE NATIONAL MEMORIAL SITE
AND ST. NICHOLAS PARK

New York, New York

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509

TECHNICAL REPORT

**PHASE IA SENSITIVITY ASSESSMENT/LITERATURE SEARCH
AND
PHASE IB ARCHAEOLOGICAL FIELD INVESTIGATION
HAMILTON GRANGE NATIONAL MEMORIAL SITE
AND ST. NICHOLAS PARK**

New York, New York

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MANAGEMENT ABSTRACT

PAL conducted a Phase IA sensitivity assessment/literature search and Phase IB field investigation for the Hamilton Grange National Memorial project area in the borough of Manhattan, New York, New York. Hamilton Grange (ca. 1802) was built as a country retreat for Alexander Hamilton, first Secretary of the United States Treasury. The property currently is under the stewardship of the National Park Service, which is proposing its relocation from a highly urban setting at 287 Convent Avenue to a more appropriate, non-congested setting in St. Nicholas Park on 141st Street and St. Nicholas Avenue. Background research conducted for both impact areas concluded that the project area contained low prehistoric archaeological sensitivity and moderate historic archaeological sensitivity. Possible historic period resources identified within the project area include a mill house associated with Hamilton's tenure at the house, an outbuilding depicted on an 1885 map of the Hamilton Heights district, and a pathway incorporated as part of the original landscape design for the park.

Forty-one 50-x-50-centimeter test pits were excavated within the current and proposed relocation sites of the Hamilton Grange project area. The Convent Avenue parcel was tested using one transect (Transect A) and three judgmental test pits (JTPs 1-3), and the proposed St. Nicholas Park parcel was tested using a coordinate grid system. High levels of soil disturbance were documented within both impact areas. The disturbance in the Convent Avenue parcel is associated with the relocation of the Grange to that location in 1889. The disturbance in the St. Nicholas Park parcel is attributable to several different factors including: the installation of water, sewer, and power lines; the construction of an asphalt walkway, ca. 1903; and grading and filling episodes used to create level terraces across the park. No stratified cultural materials or features were identified in either impact area.

Based on the results of the Phase IB archeological survey, neither the Convent Avenue nor the St. Nicholas Park impact areas contain sufficient stratigraphic integrity, cultural materials, or cultural features to make substantive research contributions to the prehistory or history of the Hamilton Grange project area. **No additional documentary or archeological work is recommended for the current site of Hamilton Grange National Memorial at 287 Convent Avenue or for the proposed relocation site in St. Nicholas Park.**

MANAGEMENT SUMMARY

Hamilton Grange National Memorial is the former home of Alexander Hamilton, one the United States' founding fathers and its first Secretary of the Treasury. The Grange was established as a national memorial in 1962, and is currently located at 287 Convent Avenue in the Hamilton Heights Historic District in the borough of Manhattan, New York, New York. The house was moved roughly 350 feet southeast from its original location in 1889, and presently is located in a highly urban setting with an apartment building attached to its northeast side and a portico from St. Luke's Episcopal church partially blocking its western elevation. The current setting meets neither the visitors' expectations of viewing the house in a non-congested setting, nor Congress' intention of providing the Grange an appropriate setting in its present-day community.

In order to better fulfill its stewardship responsibilities, the National Park Service (NPS) is proposing to move the Grange to a site in St. Nicholas Park adjacent to 141st Street. As an undertaking of the federal government, the project falls under the purview of Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). William A. Griswold of the Northeast Region's Archaeology Program in Lowell, Massachusetts, acting as the Contracting Officer's Technical Representative (COTR) for Manhattan Sites, a unit of the National Park Service, requested that a Phase IA literature search and sensitivity assessment and a Phase IB archaeological field investigation be conducted in advance of the proposed relocation. The investigations were conducted for both the current Grange site at 287 Convent Avenue and the proposed 0.91-acre relocation site in St. Nicholas Park.

The current location of the Grange is an approximately 25-x-50-foot grassy lot wedged tightly between St. Luke's Episcopal Church to the south and an apartment complex to the north; the apartment building actually makes contact with the Grange at its northwestern corner. The front of the house consists of a landscaped yard bisected by a brick walkway. The rear yard comprises a largely undisturbed expanse of grass bounded by a chain-link fence, retaining wall, and apartment building to the north, St. Luke's Church to the south, and a wrought iron fence to the east.

The proposed relocation site at the northern tip of St. Nicholas Park consists of a canopy of mature deciduous trees, large expanses of exposed bedrock, and minimal ground cover of burdock and violets. The entire parcel slopes generally to the east with more dramatic contours at the eastern and western corners of the project area. The proposed relocation site for the Grange lies on a relatively flat section of land between these two points

The goal of the Phase IA assessment was to gather information about the environmental, physical, and prehistoric and historic cultural contexts of the current Hamilton Grange site and the proposed St. Nicholas Park relocation site. The results of the research were then used to develop an archaeological sensitivity assessment and Phase IB subsurface testing strategy.

A Phase IA sensitivity assessment and literature search was conducted at the Hamilton Grange project area in August 2003. The tasks associated with this phase of work included detailed prehistoric and historical background research for the current site of the Grange at 287 Convent Avenue and the proposed relocation site in St. Nicholas Park, as well as a walkover survey of both parcels.

Both the Convent Avenue and St. Nicholas Park impact areas were assessed with low prehistoric archaeological sensitivity. The relocation of Hamilton Grange to its current lot on Convent Avenue, ca. 1889, required site clearing, blasting, excavation and grading that preclude the stratigraphic integrity of any prehistoric resources in that area. Furthermore, while the construction of St. Nicholas Park was generally sensitive to the topographic integrity of the original landscape, the bedrock outcrops, steep terrain, and minimal water resources mitigate against a prehistoric presence in that portion of the project area.

The Convent Avenue impact area was assessed with low historic archaeological sensitivity for resources pre-dating 1889, and high archaeological sensitivity for resources post-dating the relocation of the Grange, ca. 1889. Based on a review of historic maps dating from 1639–1890, no historic period resources could be identified in this portion of the project area. In addition, blasting, excavation, and grading within the lot during the construction of the house foundation, circa (ca.) 1889, compromised the stratigraphic integrity of the soils in that location and, by extension, any pre-1889 historic resources that they may have contained. Features post-dating the relocation of the house to Convent Avenue, ca. 1889, however, may exist within the impact area. These features might include refuse deposits and the remains of small outbuildings. The installation of indoor plumbing in the house in the mid-nineteenth century and the re-establishment of that system after its move preclude the presence of privy or well features.

The St. Nicholas Park impact area was assessed with moderate historic archaeological sensitivity. The use of Harlem Heights as a base of operations area during the Revolutionary War and, moreover, the engagement of the Battle of Harlem Heights between 130th and 155th streets, suggests the possibility of the presence of military cultural material and features within the relocation site. Other potential resources include: the remains of Alexander Hamilton's mill house, ca. 1800–1802, as suggested by the 1874 Viele map of Manhattan; the remains of portions of the Mott farm as depicted on the 1811 Commissioners Plan of Manhattan; an outbuilding depicted on the 1885 Robinson map of the area; and landscape elements associated with Parsons' original Picturesque-style layout of the park (e.g., footpaths, relict ornamental plantings).

Management recommendations based on the results of the Phase IA survey included the excavation of approximately 46, 50-x-50-centimeter (cm) test units within the project area. Six test units were recommended for the Convent Avenue impact area, with three test pits placed in the front of the house and three in the rear. Forty test units were recommended for the St. Nicholas Park impact area, excavated within a coordinate grid system and as judgmental test pits in areas identified as potentially containing specific historical resources

Forty-one 50-x-50-cm test pits was excavated during the Phase IB survey within the current and proposed relocation sites of the Hamilton Grange project area (Figure 6-1). The survey was conducted in December 2003. The Convent Avenue parcel was tested using one transect (Transect A) and three judgmental test pits (JTPs 1–3), and the proposed St. Nicholas Park parcel was tested using a coordinate grid system.

The Convent Avenue impact area has been heavily disturbed by blasting and grading activities associated with the relocation of the Grange in 1889, and by subsequent construction associated with the apartment building to the north and St. Luke's Episcopal Church to the south. Test pits excavated in the front and rear yards document multiple deep fill levels containing an assemblage of 251 pieces of unstratified late nineteenth and twentieth-century domestic debris (brick, whiteware, yellow ware, bottle glass,

machine-cut nails). The presence of eighteenth-century cultural material (creamware, redware, dark green bottle glass) hints at the possible presence of an earlier occupation of the property. The recovery of these materials from deep fill deposits, however, suggests that they, and any associated features, were blasted out during the cellar excavation and re-graded across the property. No cultural features or stratified cultural material deposits associated with the post-1889 occupation of the house were identified.

The levels of inferred and observed soil disturbance across the St. Nicholas Park impact area have effectively destroyed any subsurface evidence of prehistoric and historic resources predating the construction of the park. The installation of water, sewer, and electrical lines, blasting and filling episodes undertaken to create level terraces and less steeply pitched slopes, and the construction of an asphalt walkway, ca. 1903, have effectively compromised the stratigraphic integrity of the park landscape.

No structural or artifactual data relating to Hamilton's ownership of the property were recovered, nor was there any clear indication of subsequent domestic occupations dating to the early nineteenth century. The recovered assemblage speaks to late-nineteenth- to twentieth-century utilization of the park, mostly in the form of miscellaneous and non-stratified domestic trash deposits (plastic, whiteware, ironstone, bottle glass) and architectural debris (brick, nails, mortar) associated with the construction and demolition of adjacent buildings.

The identification of several pieces of mid- to late-eighteenth-century cultural material, including a ball clay pipe stem and dark green bottle glass, suggests the possible use/occupation of the park impact area during the Revolution. The recovery of those materials from disturbed/fill deposits and the lack of any associated stratified cultural features dating to that period render this interpretation speculative at best, and preclude the integrity and interpretive potential of the artifacts.

The possible wetland stratum identified in test pit N60E20 may be a remnant of the relict stream depicted in that location during the early nineteenth century and discussed as the possible power source for Hamilton's mill during his tenure on the property (see Chapters 5 and 6). Adjacent test pits, however, lacked additional stratigraphic evidence for the stream or any structural remains of the mill.

The identification of the remains of the original park footpath, ca. 1903, does not represent a significant cultural resource finding. The walkway is well documented through historic maps and construction plans (see Chapter 5) and does not contribute any new or substantive information about the park's history.

Based on the results of the Phase IB archaeological survey, neither the Convent Avenue nor the St. Nicholas Park impact areas contain sufficient stratigraphic integrity, cultural materials, or cultural features to make substantive research contributions to the prehistory or history of the Hamilton Grange project area. **No additional documentary or archaeological work is recommended for the current site of Hamilton Grange National Memorial at 287 Convent Avenue or for the proposed relocation site in St. Nicholas Park.**

ACKNOWLEDGEMENTS

The long history of Hamilton Grange, as set within the even longer history of New York, required the casting of a long research net both within and without Manhattan. PAL would like to thank William Griswold, the contracting officer's technical representative at the National Park Service's Cultural Resource Center in Lowell, Massachusetts, for his time and direction in providing resource links for the project. PAL also would like to thank Amanda Sutphin, R.P.A., director of archaeology for The City of New York Landmarks Preservation Commission, for providing copious documentary and archaeological information about Hamilton Grange and the Hamilton Heights Historic District. C. Steven Laise, compliance coordinator and chief of interpretation for Manhattan sites, and Christopher E. Keenan, law enforcement specialist and historic weapons interpreter for Manhattan sites, also graciously provided access to and anecdotal information about the Grange. Finally, PAL would like to thank the staff of the Map Division of the New York Public Library and the staff of the New York City Hall Municipal Archives for their invaluable research assistance.

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CHAPTER ONE

INTRODUCTION

Hamilton Grange National Memorial is the former home of Alexander Hamilton, one the United States' founding fathers and its first Secretary of the Treasury. The Grange, located at 287 Convent Avenue in the Hamilton Heights Historic District in the borough of Manhattan, New York, New York, was established as a national memorial in 1962 (Figure 1-1). The house was moved roughly 350 feet southeast from its original location in 1889, and presently is located in a highly urban setting with an apartment building attached to its northeast side and a portico from St. Luke's Episcopal church partially blocking its western elevation. The current setting meets neither the visitors' expectations of viewing the house in a non-congested setting, nor Congress' intention of providing the Grange an appropriate setting in its present-day community.

Project Scope and Authority

In order to better fulfill its stewardship responsibilities, the National Park Service (NPS) is proposing to move the Grange to a site in St. Nicholas Park adjacent to 141st Street (Figure 1-2). As an undertaking of the federal government, the project falls under the purview of Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). William A. Griswold of the Northeast Region Archaeology Program (NRAP) in Lowell, Massachusetts, acting as the Contracting Officer's Technical Representative (COTR) for Manhattan Sites, a unit of the National Park Service, requested that a Phase IA literature search and sensitivity assessment and a Phase IB archaeological field investigation be conducted in advance of the proposed relocation. The investigations were conducted for both the current Grange site at 287 Convent Avenue and the proposed 0.91-acre relocation site in St. Nicholas Park.

Project Personnel

PAL conducted the Phase IA literature search and sensitivity assessment for the Hamilton Grange National Memorial in August 2003. Phase IB field investigations were conducted in December 2003. PAL staff involved in the background research and fieldwork included Deborah Cox (project manager), Kristen Heitert (principal investigator and project archaeologist), Jennifer Macpherson (project archaeologist), and Alytheia Laughlin and Erin Flynn (project assistants).

Disposition of Project Materials

Cataloged artifacts and associated project documentation will be temporarily curated at the PAL offices at 210 Lonsdale Avenue, Pawtucket, Rhode Island, according to Archaeological Collections Management (ACMP) guidelines. The cataloged artifacts will be returned to NPS with the submission of the final report.

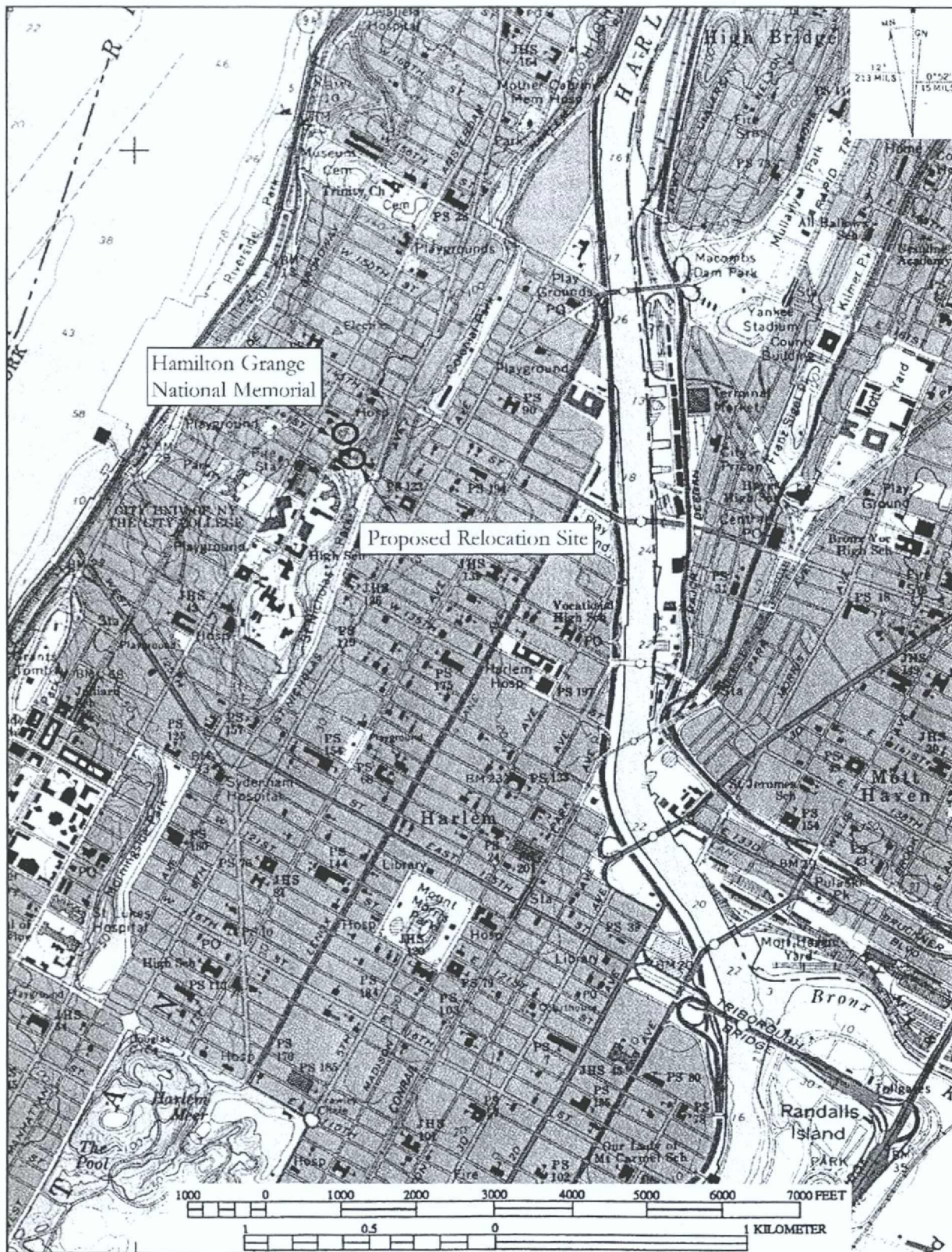


Figure 1-1. Locations of Hamilton Grange National Memorial and proposed relocation site, Hamilton Grange project area, Manhattan, New York, NY, Central Park USGS topographic quadrangle, 7.5 minute series.

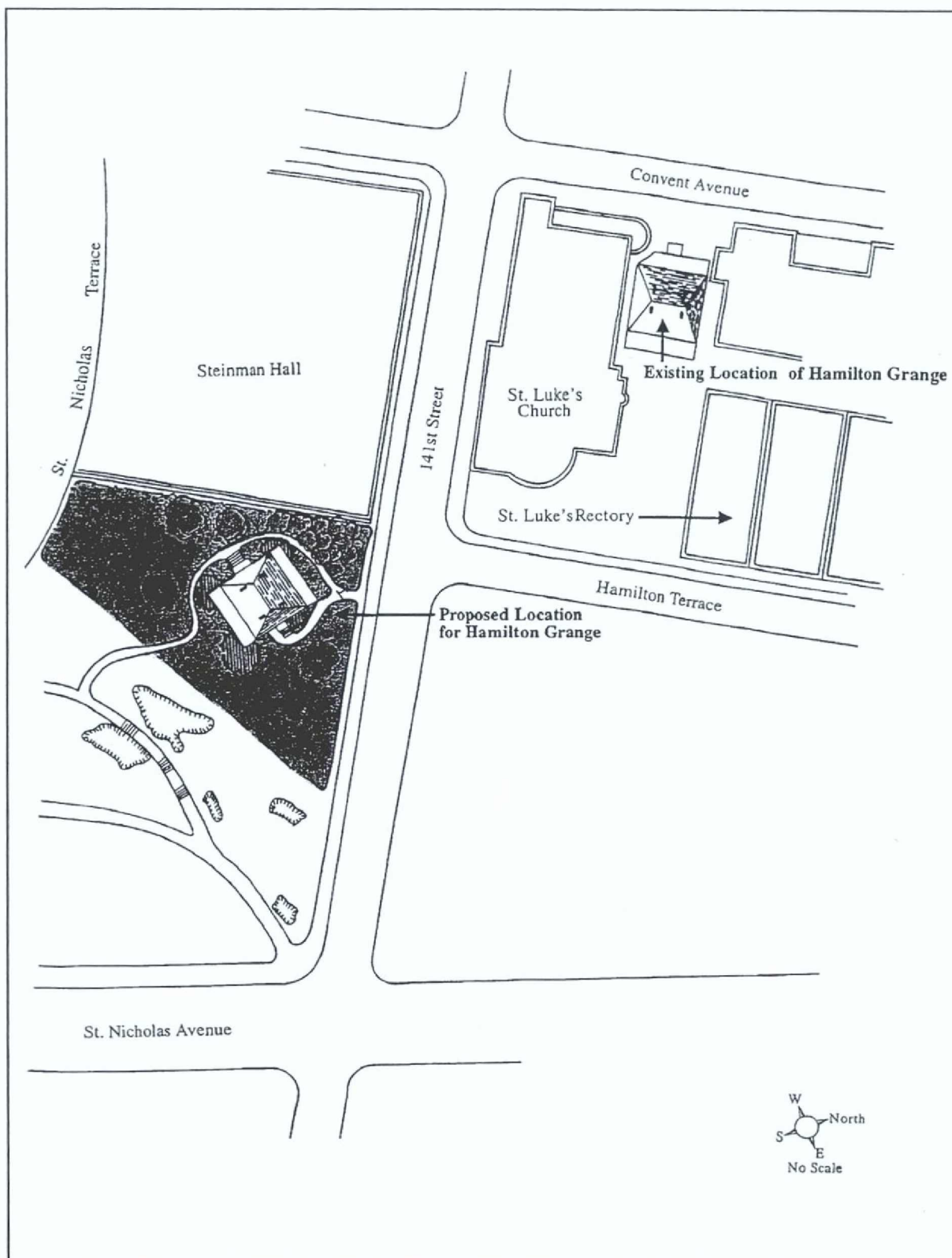


Figure 1-2. Detail map showing the existing location and the proposed relocation site of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY.

CHAPTER TWO

METHODS AND PROCEDURES

Two separate but interrelated fieldwork methodologies were employed at the Hamilton Grange National Memorial project area. The goal of the Phase IA assessment was to gather information about the environmental, physical, and prehistoric and historic cultural contexts of the current Hamilton Grange site and the proposed St. Nicholas Park relocation site. The results of the research were used to develop an archaeological sensitivity assessment and subsurface testing strategy. Phase IB archaeological field investigations then were conducted to locate and identify any potentially significant prehistoric or historic cultural resources that might be impacted by project construction activities. To accomplish these objectives, three research strategies were used:

- archival research, including a review of literature and maps, and local informant interviews;
- field investigations, consisting of a walkover and subsurface testing; and
- laboratory processing and analyses of cultural materials.

The archival research and walkover survey provided the information needed to stratify the project area into zones of expected archaeological sensitivity. Archaeological sensitivity is defined as the likelihood for prehistoric and historic period resources to be present and is based on various categories of information. These categories include:

- known locational, functional, and temporal characteristics of identified prehistoric and historic sites in the project area or vicinity; and
- project-specific, local and regional environmental data in conjunction with project-area conditions observed during the walkover.

Subsurface testing at the Hamilton Grange National Memorial project area was conducted in those areas assessed with moderate and high prehistoric and/or historic archaeological sensitivity and in those locations where construction impacts are slated to occur. All recovered cultural materials were processed in the laboratory and analyzed to interpret the nature of past human activities they represent. This interpretation enabled an evaluation of the potential significance of the recovered cultural resources and their eligibility for listing in the National Register of Historic Places (NRHP).

Archaeological Significance and Historic Contexts

The different phases of archaeological investigation (Phase IA sensitivity assessment, Phase IB field investigations, Phase II site evaluation, Phase III data recovery) reflect preservation planning standards

for the identification, evaluation, registration, and treatment of cultural resources (National Park Service [NPS] 1983). This planning structure pivots around the eligibility of cultural resources for inclusion in the National Register of Historic Places (NRHP). The National Register is the official federal list of properties studied and found worthy of preservation. The results of an intensive (locational) survey and site examination are used to make recommendations about the significance and eligibility of any resource.

The standards for determining the significance of cultural resources, a task required of federal agencies, are the guidelines provided by the NPS (36 CFR 60): the National Register Criteria for Evaluation. The following four criteria are given for determining if the "quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association" (36 CFR 60):

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important to prehistory or history.

Most archaeological sites listed in the NRHP have been determined eligible under criterion A or D. For eligibility under these criteria, a number of issues must be addressed, including the kind of data contained in the site, the relative importance of research topics suggested by the data, whether these data are unique or redundant, and the current state of knowledge relating to the research topic(s) (McManamon 1990:14–15). A defensible argument must establish that a site "has important legitimate associations and/or information value based upon existing knowledge and interpretations that have been made, evaluated, and accepted" (McManamon 1990:15).

The criteria used to evaluate the significance of cultural resources are applied in relation to the historical contexts of the resources. A historical context is defined as follows:

At minimum, a historical context is a body of information about past events and historic processes organized by theme, place, and time. In a broader sense, an historic context is a unit of organized information about our prehistory and history according to the stages of development occurring at various times and places (NPS 1985).

Historical contexts provide an organizational format that groups information about related historical properties based on a theme, geographic limits, and chronological periods. A historical context may be developed for Native American, historic, and/or modern cultural resources. Each historical context is related to the developmental history of an area, region, or theme (e.g., agriculture, transportation, waterpower), and identifies the significant patterns that particular resource can represent.

Historical contexts are developed by:

- identifying the concept, time period, and geographic limits for the context;
- collecting and assessing existing information about these limits;
- identifying locational patterns and current conditions of the associated property types;
- synthesizing the information in a written narrative; and
- identifying information needs.

“Property types” are groupings of individual sites or properties based on common physical and associative characteristics. They serve to link the concepts presented in the historical contexts with properties illustrating those ideas (NPS 1983:44719).

A summary of an area’s history can be developed by a set of historical contexts. This formulation of contexts is a logical first step in the design of any archaeological survey. It is also crucial to the evaluation of individual properties in the absence of a comprehensive survey of a region (NPS 1983:9). The result is an approach that structures information collection and analyses. This approach further ties work tasks to the types and levels of information required to identify and evaluate potentially important cultural resources.

The following research contexts have been developed to organize the data relating to the Native American and Euro-American cultural resources identified within the proposed project area:

1. Native American land use and settlement in the Harlem River drainage, circa (ca.) 12,500 to 300 years before present (B.P.); and
2. historic land use and settlement patterns of the borough of Manhattan, New York, ca. A.D. 1650 to present.

These contexts, along with expected property types locational patterns, and archaeological sensitivity assessments are discussed in detail in Chapters 4 and 5. The potential research value of the known and expected prehistoric and historic archaeological resources identified within the Hamilton Grange project area is evaluated in terms of these historical contexts. This evaluation, along with management recommendations, is presented in Chapter 7.

Background Research

Finding the information necessary to develop a historical context and assess the potential for archaeological resources begins with the examination of primary and secondary documentary sources. These sources include written and cartographic documents relating both to past and present environmental conditions and to prehistoric and historic period resources in or close to the project area. This background information assists in the formulation of predictive models or statements about the project area. Variables

within each category of background data are used to define the overall archaeological and historical context of the project area.

The following sources were reviewed as part of the background research for the Hamilton Grange project area:

State Site Files

Archaeological site files maintained by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) were reviewed for information regarding prehistoric or historic resources in or close to the project area. These inventories include cultural resources listed or eligible for listing in the NRHP.

Cultural Resource Management Reports

Cultural resource management (CRM) reports conducted in the project vicinity were reviewed to provide information about previously identified prehistoric and historic cultural resources in the immediate project area as well as general contextual information. Referenced reports include *Archaeological and Historical Sensitivity Evaluation of the Dance Theatre of Harlem Expansion Project, 474-476 West 152nd Street, Manhattan, New York*, CEQR #90-140m (Roberts 1991); *East Harlem Triangle Site, Block 1791, Part of Lot 1; Block 1792, Blocks 5, 9, 10*, CEQR #89-106M (Rubinson and Winter 1991); and, *Phase IV Upgrade of the High Voltage Electrical Service and Distribution System, United States Coast Guard Support Center, Governors Island, New York* (LBA 1995).

Histories and Maps

Secondary documentary histories of New York were consulted to provide a general context for the development of Manhattan. *Gotham: A History of New York City to 1898* provided a synthetic and thematic overview of the city as well as detailed information about the settlement, growth, and evolution of Harlem (Burrows and Wallace 1999). *Unearthing Gotham: The Archaeology of New York City* provided a current and comprehensive look at the prehistoric and historical archaeology of the island (Cantwell and diZerega Wall 2001). The National Register nomination for the Hamilton Heights Historic District was consulted for information concerning the architectural and narrative history of the Grange, as well as the development of the surrounding community. A historical summary of the Grange and a designation report for the Hamilton Heights Historic District Extension (Postal 2000) also were reviewed for additional information about the property.

Historical and contemporary cartographic data provided critical information for evaluating changes in land use over time, and assessing the potential for prehistoric and historic cultural resources within the project area. *Manhattan in Maps* (Cohen and Augustyn 1997) provided a valuable narrative overview of the cartographic depiction of Manhattan, including information about the relative strengths and weaknesses of various maps over time. Primary source material specific to the Hamilton Grange project area, including Bromley, Hyde, Perris, and Randel maps, was obtained from the Map Library at the New York Public Library and the Municipal Archives at City Hall. Samuel Parsons' original plans for

St. Nicholas Park also were reviewed on microfiche at the Municipal Archives to provide information about the original layout and design of the proposed relocation site.

In addition to a standard paper review of the cartographic materials, 12 of the historic maps dating from 1782–1975 also were geo-referenced as overlay maps using geographic information system (GIS) software (Appendix B). Geo-referencing is the “the process of defining how raster data is situated in map coordinates. Geo-referencing raster data allows it to be viewed, queried, and analyzed with other geographic data” (Minami 2000:507).

A georeferenced map is a map that has been transformed or “rubbersheeted” using the spatial calculation abilities of a GIS to achieve the best fit between two geographic representations. In order to geo-reference an historic map, identifiable landmarks on the historic map are matched to a modern map (base map) or orthophotograph (corrected aerial photograph) and the historic map is stretched, shrunk, enlarged, reoriented, or otherwise altered to achieve a good fit with the modern map. The transformation used to geo-reference the historic maps was a first-order (affine) transformation. First-order transformations are the most common geo-referencing transformations and are appropriate for geo-referencing two maps that represent the same geographic space (Minami 2000:404–405). Because of differing cartographic technology, methods, and standards in the past, geo-referenced historic maps do not provide a perfect correlation with modern maps, but they are one of the most accurate and efficient means currently available to compare the historic features of modern locations. In many instances it is necessary to visually compare the geo-referenced map and the base map; if two features appear nearly identical and are parallel, but do not exactly geographically correspond it is very likely that they are the same feature. Geo-referencing achieves the best fit between two maps, it cannot account for all of the variance.

In the case of the Hamilton Grange maps, the USGS Central Park, New York 7.5 minute topographic quadrangle map was used as the base map. Consequently, the spatial accuracy (the variance between a feature on a map and the real world location of that feature) of the geo-referenced maps can be no better than the accuracy of the base map. USGS 7.5 minute series maps have a horizontal accuracy of approximately 40 feet (USGS 1999). The spatial accuracy of the historic maps is unknown. The spatial accuracy of the geo-referenced historic maps can be assumed to be at best 40 feet, but will vary greatly from map to map depending on the quality of the historic map.

Environmental Studies

Bedrock and surficial geological studies provide information about the region’s physical structure and about geological resources near the project area. The 1902 USGS New York City Folio supplied information about the bedrock and surficial geology of the project area. Viele’s topographical atlas of the original watercourses and made land of Manhattan also was reviewed (Viele 1874).

Walkover Survey

A walkover survey was conducted to collect environmental information and to examine the current physical condition of the project area. Environmental information noted the presence, types, and extent of fresh water; drainage characteristics; presence of bedrock outcrops and level terraces; and the steepness

of slopes. The current physical condition of the project area is largely defined by the presence, absence, and degree of previous disturbance to the natural landscape.

The information collected during the walkover was recorded on project maps and was instrumental in formulating the Phase IB subsurface testing methodology.

Archaeological Sensitivity Assessment

Information collected during the background research and walkover survey was used to develop a predictive model to assess the potential for the presence of Native American and Euro-American resources, the types of sites that might be found, and their cultural and temporal affiliation. The development of predictive models for locating cultural resources has become an increasingly important aspect of CRM and planning.

The predictive sensitivity model used criteria to rank the potential for the project area to contain Native American or Euro-American sites. The criteria used to assess the Hamilton Grange project area were proximity of documented cultural resources, local land use patterns, environmental characteristics, and the area's physical condition.

Native American Archaeological Sensitivity

Sets of key environmental variables used to predict the location of Native American sites have been compiled from research conducted by professional archaeologists. These studies have demonstrated that certain environmental and topographical settings are strongly associated with the presence of Native American sites. The most productive studies have been of large areas with a variety of environmental settings that were field tested to determine the validity of the predictive model. For example, analysis of several hundred sites in southeastern New England (Thorbahn et al. 1980) found that the highest density and greatest clustering of prehistoric sites occurred within 300 meters (m) of low-ranking streams and large wetlands. The distribution of sites found along a 14-mile I-495 highway corridor in the same area confirmed this observation (Thorbahn 1982).

Other studies have found that site locations are strongly associated with modern wetland densities (Mulholland 1984). Wetlands provide both a home and breeding habitat for a diverse set of animals, support foods, and other vegetation. Prehistoric Native Americans sought the most productive wetlands, including those with a wide variety of resources and those with consistent and reliable resource availability (Hasenstab 1991; Nicholas 1991; Thorbahn 1982; Thorbahn et al. 1980).

Geologic data provides information about lithic resources and about current and past environmental settings and climates. Bedrock geology helps to identify where raw materials for stone tools were obtained by prehistoric groups and gives indications of how far from their origin lithic materials may have been transported or traded. The variety and amount of available natural resources are dependent on soil composition and drainage, which also play a significant role in determining wildlife habitats, and forest and plant communities.

Geomorphology assists in reconstructing the paleoenvironment of an area and is particularly useful for early Holocene (PaleoIndian and Early Archaic period) sites in areas that are different physically from 10,000 years ago (Simon 1991). Recent landscape changes such as drainage impoundments for highways and railroads, the creation of artificial wetlands to replace wetlands impacted by construction, or wetlands drained for agricultural use, can make it difficult to assess an area's original configuration and current archaeological potential (Hasenstab 1991:57).

Beyond predicting where sites are located, archaeologists attempt to associate cultural and temporal groups with changes in the environmental settings of sites. Changes in the way prehistoric groups used the landscape can be investigated through formal multivariates such as site location, intensity of land use, and specificity of land use (Nicholas 1991:76). However, distinguishing the difference between repeated short-term, roughly contemporaneous occupations and long-term settlements is difficult and can make interpreting land use patterns and their evolution problematic (Nicholas 1991:86).

Euro-American Archaeological Sensitivity

The landscape of a project area is used to predict the types of Euro-American sites likely to be present. Major locational attributes differ according to site type. Domestic and agrarian sites (houses and farms) characteristically contain water sources and are located near arable lands and transportation networks. Industrial sites (e.g., mills, tanneries, forges, and blacksmith shops) predating the late nineteenth century are typically located close to waterpower sources and transportation networks. Commercial and public or institutional sites (e.g., stores, taverns, inns, schools, and churches) are usually situated near settlement concentrations with access to local and regional road systems (Ritchie et al. 1988).

Written and cartographic documents aid in determining Euro-American archaeological sensitivity. Historic maps are particularly useful for locating sites in a given area, determining a period of occupation, establishing the names of past owners, and providing indications of past use(s) of the property. Town histories provide information about important sites including previous functions, ownership, local socioeconomic conditions, and political development. These details assist in placing the Euro-American site within its historical context, facilitating assessments of the potential importance of a particular site.

Background research alone, however, is not sufficient to locate underdocumented historic period archaeological sites. A large-scale archaeological study by King (1988) showed that in rural areas only 63 percent of the sites discovered were identifiable through documentary research. This suggests that approximately one-third of New England's rural Euro-American archaeological sites may not appear on historical maps or in town and regional histories. Walkover inspections and subsurface testing are required to locate and identify underdocumented historic sites.

Archaeological Sensitivity Ranking

The project area was ranked according to the potential for the presence of cultural resources based on information collected during the background research and walkover survey. Subsurface testing was planned for areas assigned high and moderate sensitivity rankings and where project impacts will occur. Table 2-1 is a summary of the different factors used to develop the archaeological rankings.

Table 2-1. Factors Used in Archaeological Sensitivity Ranking.

FACTORS								RANKING
PRESENCE OF SITES		PROXIMITY TO FAVORABLE CULTURAL/ ENVIRONMENTAL CHARACTERISTICS			DEGREE OF DISTURBANCE			
Known	Unknown	≤ 150 m	150-500 m	> 500 m	None/ Minimal	Moderate	Extensive	Sensitivity
.		.			.			High
.		.				.		High
.		.					.	Low
.			.		.			High
.			.			.		High
.			.				.	Low
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	.	.			.			High
	.	.				.		High
	.	.					.	Low
	.		.		.			High
	.		.			.		Moderate
	.		.				.	Low
	.			.	.			Moderate
	.			.		.		Low
	.			.			.	Low

Subsurface Testing

Subsurface testing was conducted at the Hamilton Grange National Memorial project area in those locations exhibiting high and moderate archaeological sensitivity. This testing was conducted to locate and identify any potentially important archaeological resources that might be impacted by project construction-related activities. Forty-one 50-x-50-centimeter (cm) test pits were excavated within the current and proposed relocation sites of the Hamilton Grange National Memorial. The Convent Avenue parcel was tested using one transect comprising three test pits (Transect A) and three judgmental test pits (JTP 1-3), and the proposed St. Nicholas Park parcel was tested using a coordinate grid system (Figure 2-1).

All test pits were excavated by shovel in arbitrary 10-cm levels to sterile subsoil. Excavated soil was hand-screened through ¼-inch hardware cloth, and all cultural materials remaining in the screen were bagged and tagged by level within each unit. The count and type of all recovered cultural material were noted. Soil profiles, including depths of soil horizons, colors, and textures, were recorded for each test pit on standard PAL test pit

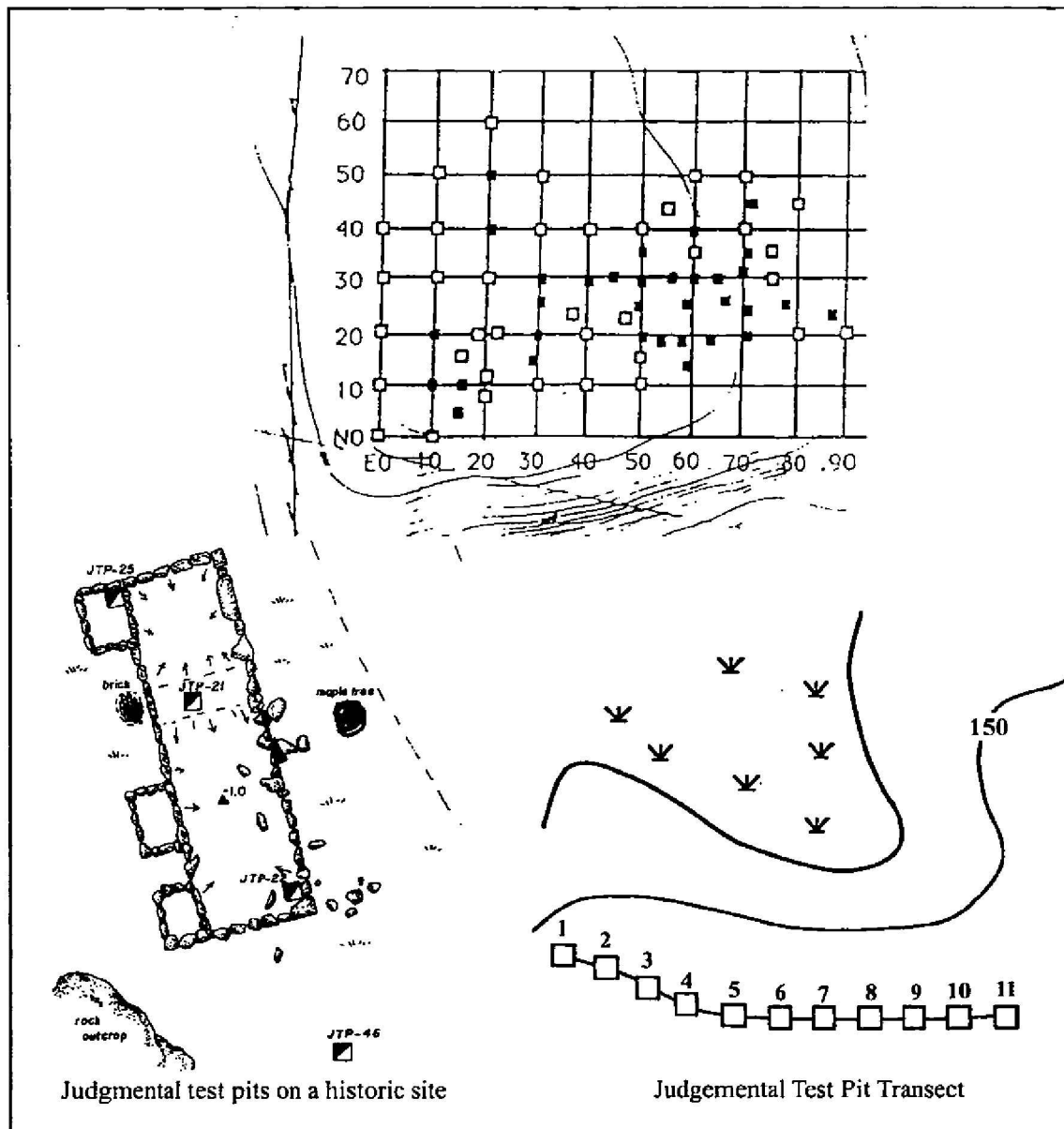


Figure 2-1. Generalized examples of subsurface testing strategies employed during the Phase IB field investigations, Hamilton Grange National Memorial project area, Manhattan, New York, NY.

profile forms. All test pits were filled and the ground surface was restored to its original contour following excavation. Color slides were taken of the general project area.

Laboratory Processing and Analyses

Processing

All cultural materials recovered from the Hamilton Grange National Memorial project area were organized by site and provenience, and recorded and logged in on a daily basis. Cultural materials were

sorted by type and either dry brushed or cleaned with tap water depending on the material or artifact type and condition.

Cataloging and Analyses

All cultural materials were cataloged using the Automated National Cataloging System+ (ANCS+) and the 2003 version of the *ANCS+ Starter's Guide*, furnished by NRAP. This program consists of a core of databases relationally linked to multiple material-type-specific databases that allow for in-depth analysis of cultural materials. Materials that display similar attributes such as material type, functional and typological classes, size range, color, etc. were grouped and cataloged by lots. These lots were stored in 2-milliliter thick polyethylene resealable bags with acid-free tags containing provenience identification information.

Historic cultural materials were cataloged according to material (e.g., ceramic, glass, coal, synthetic) and functional (e.g., plate, bowl, bottle, building material) categories. Temporally sensitive historic artifacts, such as ceramics, were also identified in terms of type (e.g., redware, pearlware, whiteware) when possible. In addition, ceramic sherds and bottle glass were examined for distinguishing attributes that provide more precise date ranges of manufacture and use. These included maker's marks, decorative patterns, and embossed or raised lettering. Tentative dating of historic archaeological resources was performed using ceramic indices according to Hume (1969), Miller (1990, 1991), Miller and Hurry (1983), and South (1977). An analysis of the different nail and bottle types was used to refine the date ranges of historic occupation generated by the ceramic assemblages.

Curation

Following the laboratory processing and cataloging activities, all recovered cultural materials were stored in acid-free Hollinger boxes with box content lists and labels printed on acid-free paper. Cataloged artifacts and associated project documentation will be temporarily curated at the PAL offices at 210 Lonsdale Avenue, Pawtucket, Rhode Island, according to Archaeological Collections Management (ACMP) guidelines. The cataloged artifacts will be returned to NPS with the submission of the final report.

CHAPTER THREE

ENVIRONMENTAL CONTEXT

Natural resources available within a given area are largely the result of its postglacial development. The availability of these resources, in turn, plays a significant role in determining the type and density of human activity within an area. This chapter presents an overview of the environmental history of Manhattan, with specific reference to the northern portion of the island. This overview will focus on local physical geography, soils, and hydrology of the area, before concluding with a brief description of the project area's current environmental conditions.

Geology and Geomorphology

Manhattan lies at the boundary of the Atlantic Coastal Lowland and the New England Upland physiographic provinces; from a geologic standpoint, it is more properly grouped with the latter than the former (Figure 3-1). The New England Upland is further split into three subdivisions, including the Manhattan Hills, of which Manhattan Island and Westchester County are a part. This area is low in elevation and was formed on a complex of ancient rocks.

On a macro-scale, the underlying bedrock of Manhattan Island is composed of igneous and metamorphic rocks and resistant sandstone, a composition that allowed these formations to withstand glacial scouring following the retreat of the Wisconsin glaciation. The Hamilton Grange project area is underlain by Hudson schist (Silurian), a mica-schist consisting of biotite and quartz, with garnet, staurolite, fibrolite and cyanite (USGS 1902). The surviving glacial till is generally reddish and so thin as to constitute a discontinuous mantle that barely masks the surface of the underlying bedrock (USGS 1902).

The project area lies in a particularly hilly section of the island with prominent bedrock outcrops. This topographic profile combined with its distance from the primary shipping ports to the south resulted in the gradual and relatively late incorporation of the area into the urban core of New York.

Soils

Manhattan generally comprises shallow and acidic soils on glacial till spread over steep terrain (Thompson 1977). No detailed soil survey maps currently are available for New York City or the Hamilton Grange project area. The New York City Soil and Water Conservation District is in the process of developing a study of urban soils, spanning a citywide reconnaissance soil map, a series of intensive soil surveys, and special research projects.

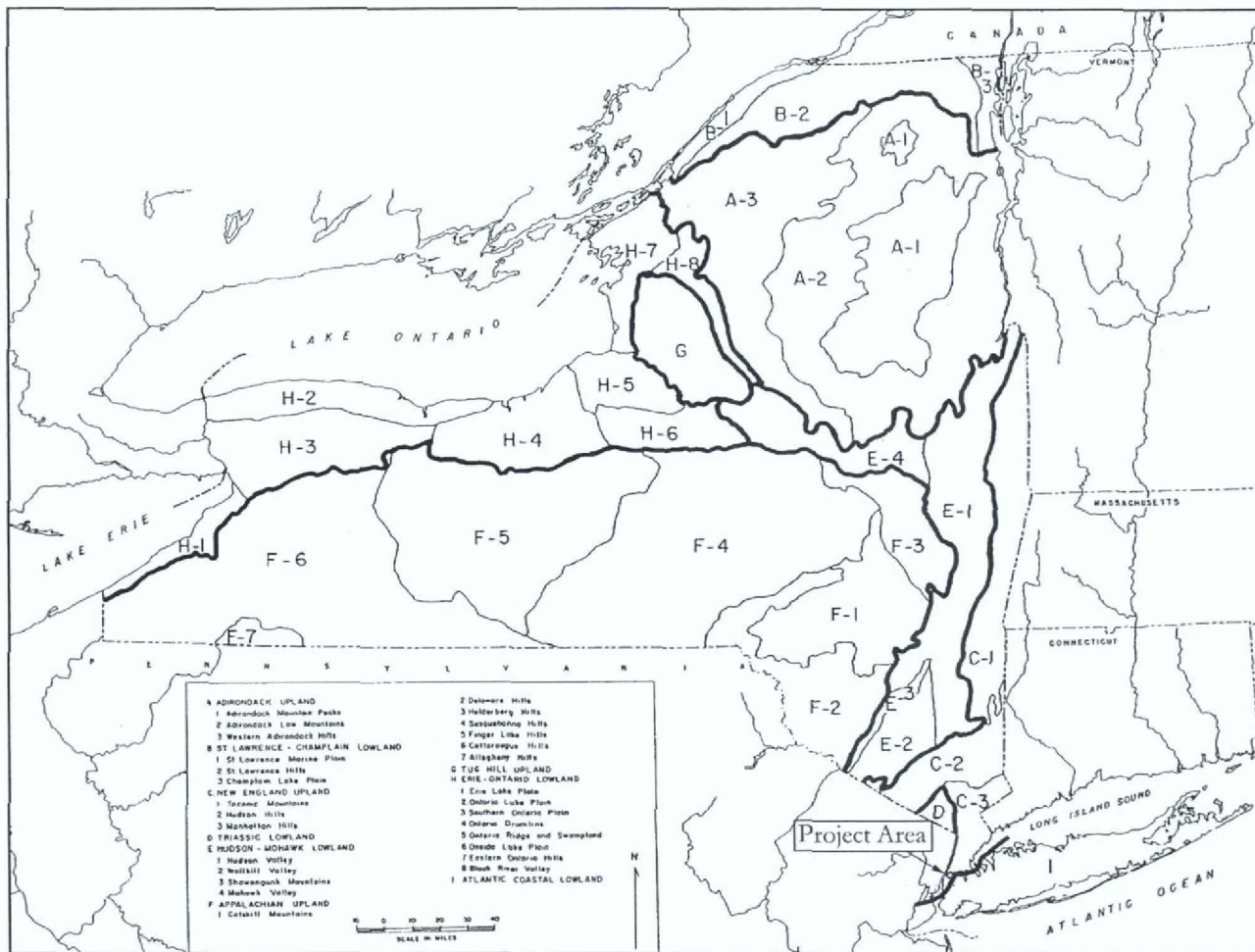


Figure 3-1. Map of the physiographic regions of New York showing the location of the Hamilton Grange project area (source: Thompson 1977).

Hydrology

The Harlem River, separating Manhattan from the Bronx and connecting the Hudson and East rivers, lies immediately northeast of Hamilton Grange and serves as the primary drainage for the project area. The river is a navigable tidal channel, roughly 8 miles long, and has long served as a shipping shortcut between Long Island Sound and river ports north of New York City. Several railroad and many street bridges span the river.

Viele's 1874 map of the original topography of Manhattan depicts the Harlem River as substantially broader than its current configuration with a network of smaller streams and drainages along its western shoreline (Figure 3-2). The increasing urbanization of the northern portion of the island during the later nineteenth century and the need to "improve" the channel as part of larger shipping routes resulted in massive infilling that has narrowed and straightened the river.

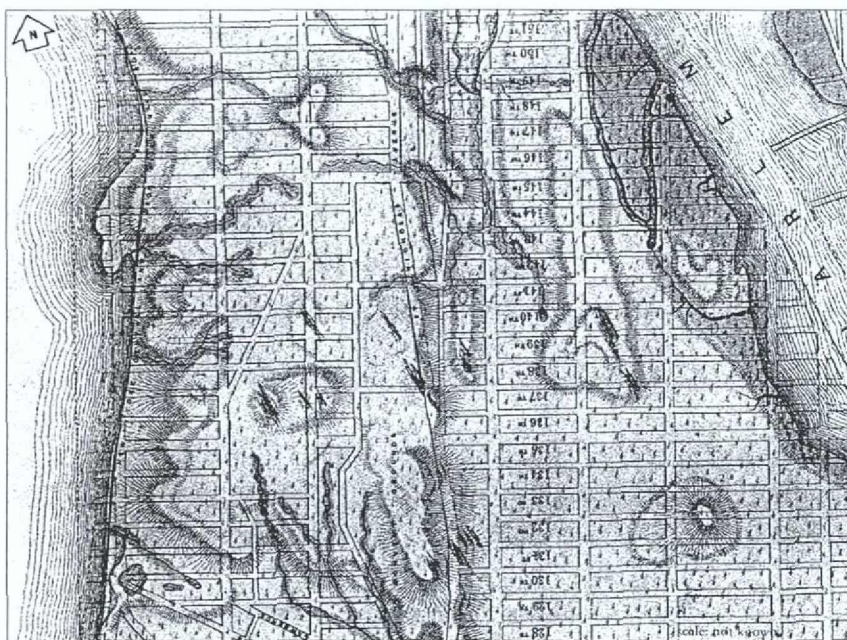


Figure 3-2. 1874 map showing the original watercourses and made land within Manhattan (source: Viele 1874).

Existing Project Area Conditions

The Hamilton Grange project area consists of two separate parcels: the current site of the Grange at 287 Convent Avenue; and, the proposed relocation site for the Grange, situated in St. Nicholas Park, directly across 141st Street from Hamilton Terrace and abutting Steinman Hall to the south (Figure 3-3). The intensive development around the building has left very little open, undisturbed space.

The current location of the Grange is an approximately 25-x-50-ft grassy lot wedged tightly

between St. Luke's Episcopal Church to the south and an apartment complex to the north; the apartment building actually makes contact with the Grange at its northwestern corner (see Figure 3-3). The front of the house consists of a landscaped yard bisected by a brick walkway. The portion of the yard south of the walkway is occupied nearly completely by a bronze memorial statue of Hamilton, as well as by part of the portico of the neighboring church. The yard north of the walkway consists of a manicured lawn and flowerbeds, a flagpole, and a National Park Service property sign (Figure 3-4). A wrought iron fence separates the front yard from the sidewalk and Convent Avenue.

The rear yard comprises a largely undisturbed expanse of grass bounded by a chain-link fence, retaining wall, and apartment building to the north, St. Luke's Church to the south, and a wrought iron fence to the east (Figures 3-5, 3-6). Hibiscus and maple line the edges of the yard and a shallow erosional channel created by the church drainage pipe cuts down and across the southern boundary.

The proposed relocation site at the northern tip of St. Nicholas Park consists of a canopy of mature deciduous trees, large expanses of exposed bedrock, and minimal ground cover of burdock and violets. A series of electrified light posts along the edge of the proposed relocation area closest to St. Nicholas Terrace suggests minimal subsurface disturbance in that location, as does the presence of concrete flagpole footing (Figure 3-7). The entire parcel slopes generally to the east with more dramatic contours at the eastern and western corners of the project area; the proposed relocation site for the Grange lies on a relatively flat section of land between these two points (Figures 3-8, 3-9). With the exception of scattered modern refuse and several informal footpaths, the St. Nicholas site appears fairly undisturbed.

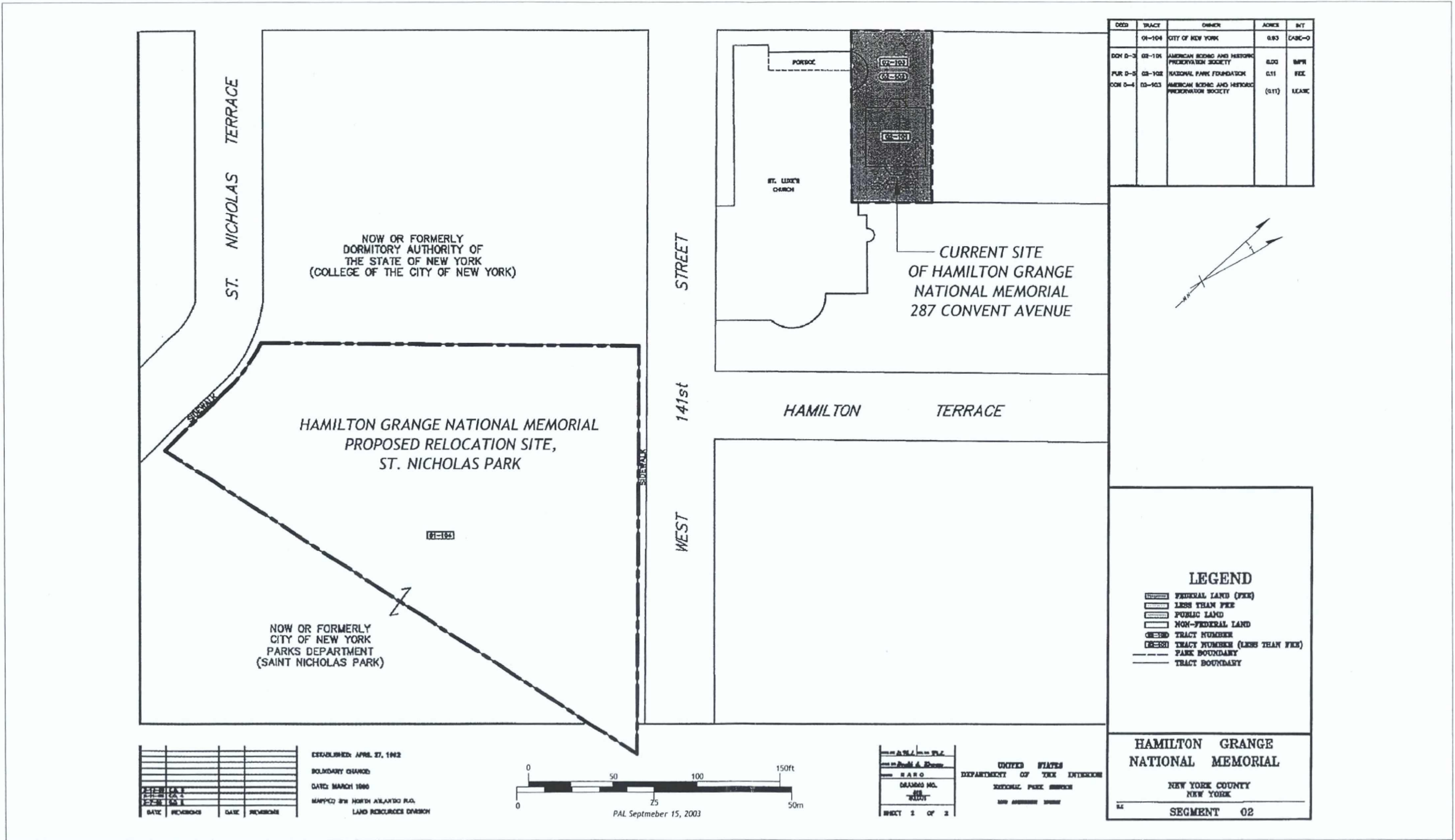


Figure 3-3. Map showing the current and proposed sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY.

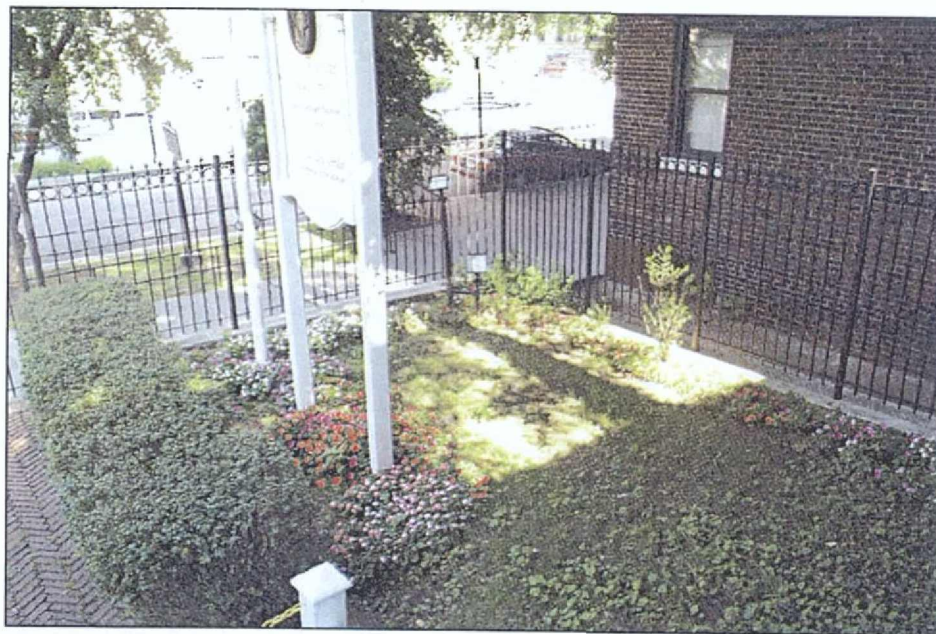


Figure 3-4. Photograph of the front yard space at the current site of the Hamilton Grange National Memorial, view northwest, Hamilton Grange project area, Manhattan, New York, NY.

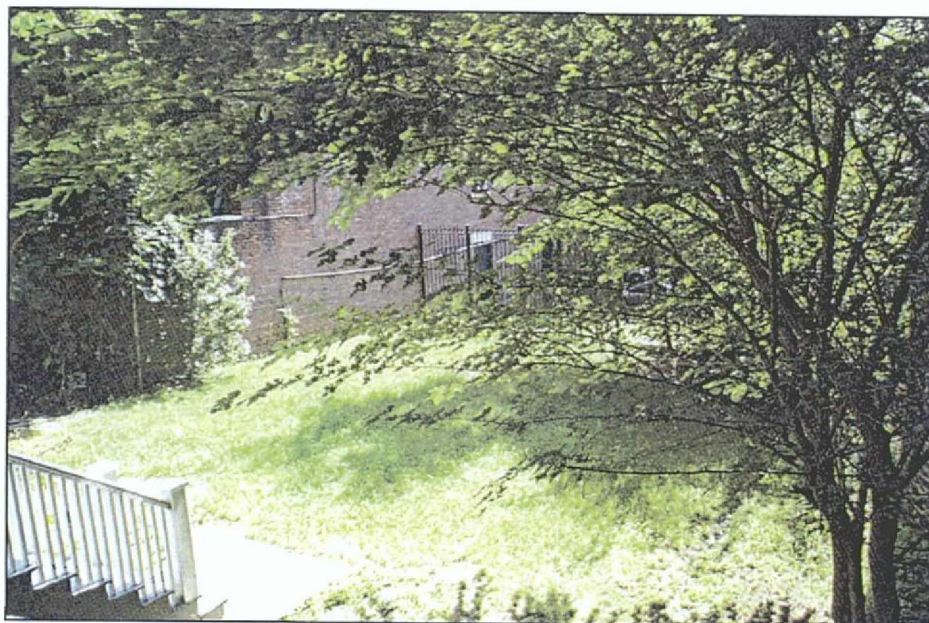


Figure 3-5. Photograph of the back yard space at the current site of the Hamilton Grange National Memorial, view east, Hamilton Grange project area, Manhattan, New York, NY.



Figure 3-6. Photograph of the backyard space at the current site of the Hamilton Grange National Memorial, view southeast, Hamilton Grange project area, Manhattan, New York, NY.



Figure 3-7. Photograph of the proposed relocation site for the Hamilton Grange National Memorial, view west, Hamilton Grange project area, Manhattan, New York, NY (note electrified lampposts in the background).



Figure 3-8. Photograph of the proposed relocation site for the Hamilton Grange National Memorial, view north, Hamilton Grange project area, Manhattan, New York, NY (note large bedrock outcrop in foreground).



Figure 3-9. Photograph of the proposed relocation site for the Hamilton Grange National Memorial, view northeast, Hamilton Grange project area, Manhattan, New York, NY.

CHAPTER FOUR

PREHISTORIC CONTEXT

This chapter provides regional and local information regarding the known cultural patterns of Native American groups who lived on Manhattan and the adjacent Harbor Islands before European contact. This information was compiled as part of the Phase IA sensitivity assessment/literature search for the project area conducted in August 2003 (Heitert 2003), and comprises data from professional CRM surveys, avocational archaeological research, and synthetic cultural histories and archaeological overviews of the region.

Native American Occupation of Manhattan Island

PaleoIndian Period (12,500–10,000 B.P.)

The earliest archaeological evidence for human occupation in the Northeast dates to the PaleoIndian Period, a time of dramatic environmental change in the region. The retreat of the Laurentide ice sheet resulted in glacio-isostatic rebound, a process by which landmasses formerly compressed by the weight of the glacial overburden “rebound” to a state of equilibrium with the crustal surface. This phenomenon, in combination with the release of glacial meltwater, resulted in the inundation of previously dry land on what is now the continental shelf. This dynamic environment simultaneously created and eradicated major and minor watercourses, lakes, wetlands, and other landforms such as terraces, kettle holes, moraines, and outwash plains (Ritter et al. 1995).

Climatic shifts precipitated by the retreat of the massive Pleistocene ice sheets also can be correlated, through palynological evidence, with shifts in the vegetative profile of the region. Changes in vegetation may be associated with changes in the range and diversity of animal populations dependent on those plant resources that, in turn, correlate with changes in the subsistence strategies of human populations dependent on both.

Following the retreat of the last glacier during the **Early PaleoIndian Period** (12,500–12,000 B.P.), the environment underwent a transition from tundra to open spruce woodland, dominated by scrub birch and alder (Funk 1972). Small, highly mobile bands of hunter-gatherers moved into the Northeast at this time, roaming large territories and exploiting a wide range of food resources. These food resources included Pleistocene megafauna as well as smaller game, marine resources, and seasonally available wild plant food (Dragoo 1976).

The **Middle PaleoIndian Period** (12,000–11,000 B.P.) saw the return of colder conditions, a climatic shift known as the Younger Dryas, which created an Arctic-like landscape in eastern Maine and the Canadian Maritimes. Areas to the south, however, maintained more moderate conditions capable of

supporting a mixed forest of spruce, pine, birch, and alder, as well as a sizable caribou population. These herds of caribou are believed to have been an important food resource for Middle PaleoIndian populations, who followed the animals' movements from summer calving grounds in the north to wintering grounds in the south.

The **Late PaleoIndian Period** (11,000–10,000 B.P.) saw a return to warmer conditions and the development of an environmental and resource profile similar to that which exists today. Mast forests developed that were able to support large deer populations as well as moose and black bear. Smaller species such as bobcat, wild turkey, grouse, and a diversity of fish, reptiles, and amphibians also were exploited, while the moderate climate encouraged the growth and collection of a broad range of seasonal plant foods (Bradley 1998).

Regardless of the specific period, the PaleoIndian Period as a whole is distinguished by distinctive fluted projectile points and flaked stone tool assemblages containing scrapers, graters, and drills. The sparse vegetative profile of the Early and Middle PaleoIndian encouraged a subsistence strategy primarily focused on megafauna such as mastodon, caribou, and elk. This megafauna orientation likewise affected settlement choices. The earliest inhabitants in the lower Hudson River drainage appear to have strongly preferred elevated, well-drained ground adjacent to streams or woodlands offering vantage points for observing game. This settlement profile, however, may represent somewhat of a biased sample in that many PaleoIndian sites were likely situated on what are now the drowned shorelines across the Harbor Region of New York (Thieme 2000:3).

While no PaleoIndian sites have been identified to date in Manhattan, a small PaleoIndian site on nearby Staten Island, the Port Mobile site, indicates that the earliest groups to arrive in the Northeast utilized the harbor islands (Cantwell and diZerega Wall 2001; LBA 1995; Ritchie 1980; Robinson and Winter 1991). The site is situated on what once would have been a high terrace before the rise in sea levels during the early Holocene, and contained a restricted tool assemblage, suggesting a short-term hunting camp (LBA 1995). Additional areas of PaleoIndian site sensitivity have been identified in the Collect Pond area in lower Manhattan and the Washington Heights area to the north (Robinson and Winter 1991).

Archaic Period (10,000–1000 B.P.)

The Archaic Period saw a rapidly warming environment in the Northeast with an attendant rise in the diversity of plant and animal species. This increased diversity and temperate climate encouraged widespread population migrations throughout the region and more broad-based subsistence strategies.

The lithic technology of the **Early Archaic** (10,000–8000 B.P.) reflects this shift from a primary reliance on big game hunting to a more diversified subsistence strategy, although the adaptation is not as pronounced or critical as it would become in the subsequent periods. Corner-notched (Palmer), stemmed, and bifurcate-based points serve as the diagnostic artifact class for the period but, in general, biface dominated assemblages are rare. A predominance of expedient tools and the nearly exclusive use of local lithic sources also is characteristic of assemblages dating to this time.

The small estimated population during the Early Archaic likely created much larger hunting and collecting territories that, in turn, created a “wandering” settlement pattern. Ritchie has outlined two variations on this theme including: “restricted wandering,” defined as the seasonal movement of small residential groups from one well-defined resource locus to another; and, “central-based wandering,” interpreted as a large band of individuals, perhaps as many as several hundred, spending an extended period of time in a single location to which they may or may not return at a later date (Ritchie 1980). Wandering/settlement preferences appear to mimic those of the Late PaleoIndian with the addition of newly exposed lowland areas, and lake and wetland margins. Coastal sites in New York also were sporadically occupied during the Early Archaic.

Several Early Archaic sites have been unearthed on Staten Island including Ward’s Point, Richmond Hill, H.F. Hollowell, and Old Place. The deeply buried remains at Ward’s Point provided the clearest picture of life on the Harbor Islands during the Early Archaic, yielding many cooking and tool preparation hearths, celts, grinding stones, and evidence for hide preparation in the form of a suite of scraping tools (Cantwell and diZerega Wall 2001:51–54).

No Early Archaic sites have been identified in the vicinity of the Hamilton Grange project area.

The **Middle Archaic** (8000–6000 B.P.) saw the emergence of an ever-moderating environment, although not one directly comparable to modern climatic conditions. Ecological and subsistence niches continued to expand during this period, an expansion that is reflected in a more diverse tool kit including ground-stone axes, milling stones and other plant-processing equipment, netsinkers, and various flake and bifacial tools (Ritchie and Funk 1973). Hypothesized settlement patterns also reflect the comparatively diversified environment. The current Middle Archaic database suggests two major site types: large base camps situated on major floodplains, river terraces, and marshy or estuarine locations; and small task-specific camps settled in both prime and marginal environments (LBA 1995). Diagnostic cultural material dating to this period includes bifurcate-base projectile points (LeCroy, St. Albans, Kanawh) and stemmed points (Stanly and Morrow).

Despite what appears to be a Middle Archaic population increase in New England as correlated to an increase in the number of identified sites, the same cannot be said of the New York City area, where sites dating to this period are rare (Rubinson and Winter 1991:3). One notable exception to this pattern were the highly visible shell heaps that once dotted the shores of the Hudson and Fresh Water, or Collect, Pond in lower Manhattan. While likely not exclusively associated with Middle Archaic settlement, the earliest (6900–4400 B.P.) and most intensively studied midden feature comes from Dogan Point, roughly 8 miles north of the city border (Cantwell and diZerega Wall 2001:55).

No Middle Archaic sites have been identified in the vicinity of the Hamilton Grange project area.

During the **Late and Transitional Archaic** periods (6000–1000 B.P.) environmental conditions were marked by a climatic shift to drier and slightly warmer conditions with a significant decrease in precipitation. During this period, oak, pine, and beech reached their full extent, while hemlock became much scarcer in response to the increasing dryness. Wetlands also became more abundant along river margins. Animal communities remained essentially the same as the preceding period, but it is likely that deer became even more plentiful with the full maturity of the mast forest, and that wetland/estuarine

resources became an even greater subsistence resource. Sites are located in higher frequencies along littoral, or coastal, areas as well as along major inland waterways such as the Hudson River (Rubinson and Winter 1991).

Perhaps in response to an increasingly resource-rich natural environment, Late and Transitional Archaic populations underwent a substantial growth spurt relative to previous periods. With this expanding population and stable environment, sites were occupied repeatedly and for extended periods of time, allowing for a stratigraphic and cultural differentiation of three traditions. The oldest of these traditions, the Laurentian, is identifiable on the basis of broad side-notched points with ground bases as well as ground slate blades, celts, gouges, plummets, and ulus (Ritchie 1980). The Narrow Point tradition is distinguished by the presence of relatively long and narrow bladed projectile points, with generally weak shoulders and straight, expanding and side- or corner-notched stems. These points tend to be made from locally available materials, often quartz.

The latest tradition of the Late Archaic, The Susquehanna, also is referred to as the "Broadspear" or "Transitional/Terminal" Archaic. Diagnostic projectile points include large, broad-bladed stemmed points (Atlantic, Snook Kill, Perkiomen, Genesee, and Susquehanna Broad) as well as smaller "fishtail" points with expanding stems (Orient Fishtail). Flat-bottomed, lug-handled soapstone vessels also appear during this period, often in association with Susquehanna Broad and Orient points, and evidence suggests that some of the earliest fired ceramics may date to this time as well. The Orient Phase of the Transitional Archaic represents a local focus on New York Harbor, and sites dating to this period have been found at many locations. Associated artifacts and features include Orient Fishtail projectile points, knives and drills, ground-stone tools and ornaments, soapstone vessels, ceremonial grave goods, and shell middens.

Two sites located immediately north of the project area in the Washington Heights section of the city provide some of the most detailed evidence for life during the Late Archaic, although isolated artifacts dating to that time are ubiquitous. The Tubby Hook and Inwood sites both lie on the shores of the Hudson and contained stratified shell middens, bannerstones, axes, and all manner of projectile points and debitage (Cantwell and diZerega 2001:57-58).

There is no evidence, however, for Late or Transitional Archaic occupation of the current project area.

Woodland Period (3000-400 B.P.)

The Woodland Period marks a major shift in subsistence and habitation strategies for Native peoples and is associated with the florescence of clay ceramic vessels and horticulture. On a general level, groups began to operate in more sedentary rounds, with large base camps forming the focal point. Coastal resources were fully exploited, and shellfish and marine species made up a large amount of the diet. Specific tool and ceramic types can be defined for local regions on the basis of style and decoration. It is on the basis of these regional cultural material variations that the Woodland is divided into three typological and cultural subperiods.

The **Early Woodland** (3000-2400 B.P.) is characterized by settlement patterns roughly analogous to those of the Late/Transitional Archaic, but with a higher degree of sedentism. Two possible settlement models are posited for this period. The first emphasizes the establishment of large base camps near

zones of maximum resource availability, with smaller camps calving off within the same major ecological zone. The second model suggests a constant splintering and re-formation of smaller bands at specialized procurement and processing sites. This process would occur on a seasonal basis and be designed to maximize labor during periods of resource abundance, such as at anadromous fish runs during the spring. The diagnostic Early Woodland cultural phase of the New York coastal region and along the East River is the North Beach Focus of the Windsor Aspect, identifiable by a predominance of grit-tempered ceramics and a broad range of projectile points (Smith 1980).

The **Middle Woodland** Period (2400–1100 B.P.) in coastal New York is grouped within the Clear View Focus and is distinguished by the introduction of the Abbott Complex (Smith 1980). This complex exhibits pottery shapes and decorative styles similar to the North Beach Focus, with the addition of Fox Creek stemmed and lanceolate projectile points. Settlement patterns are generally similar to those of the preceding period with a subsistence emphasis on deer, shellfish, and tortoise (as extrapolated from the archaeological record).

The adoption of horticulture is undoubtedly the most significant cultural adaptation during the **Late Woodland** Period (1100–400 B.P.), and had serious, identifiable repercussions for nearly every other aspect of Native American life during that time. Settlement patterns became markedly more sedentary in response to the labor intensive and surplus-generating practice of maize cultivation, and large continuously occupied village sites become common. While some argue that this shift in settlement systems was a response to European contact and the subsequent fur and wampum trade frenzy that ensued (Ceci 1982), sites throughout northern and southern New England suggest that this pattern was well established before the disrupting effect of European influences were widely felt (Bendremer et al. 1991; Heckenberger et al. 1992; Lavin 1988; Thomas 1980).

Late Woodland sites tend to cluster on the margins of bays and tidal streams (Smith 1980), in proximity to a dependable spring, and sheltered from the prevailing winter winds (Bolton 1922). On Manhattan Island, this environmental preference would have resulted in a preponderance of sites on the eastern side of hills, or along a southern exposure; the early Dutch explorer Adriaen Block described seeing “large wigwams of the tribe of Castle Hill” in the Bronx. Diagnostic cultural material from this period tends to reflect its horticultural emphasis and includes triangular points, an elaboration of ceramic forms and decoration, and a variety of chipped and pecked ground-stone tools.

At least four Woodland villages and associated planting fields have been identified in northern Manhattan along the shores of the Hudson and Harlem rivers, all of which were reported by the archaeologist Arthur C. Parker during the 1920s, as well as several other unaffiliated prehistoric sites. NYSM# 4067, situated on the eastern shore of the Hudson River at Fort Washington Point, is the most extensive of these settlements, with a collection of shell middens, charcoal, and projectile points.

One of Parker’s Woodland villages, NYSM# 4065, lies within 1 mile of the current project area in the vicinity of 155th Street on the Harlem River, as well as a smaller, unaffiliated site, NYSM# 7249, also on the Harlem River at 145th Street. A Native American trail also is hypothesized to have run north to south along the island along the general alignment of what is now St. Nicholas Avenue (Bolton 1922)

(Figure 4-1). This trail would have brought Indian populations through the current project area, although it is likely that the area now comprised by the Hamilton Heights district was used strictly as a pass through on the way to more fertile grounds to the northwest and southeast.

Contact Period

The **Contact Period** represents an era of cataclysmic socioeconomic, political, and cultural change in the face of Native American and European interaction. The Harbor Islands were often a point of communication and trade for local indigenous groups and European sailors exploring the coastline. There is some speculation that Governors Island was home for a short time to a Native/Dutch trading post (Stokes 1928). The 1610 Velasco map used the name Manahata to describe the native people occupying both banks of the lower Hudson River (Grumet 1981, 1995). In 1628, Isaak de Rasieres reported the presence of 200–300 “old Manhatazen” men and women in the northern portion of the island, a group later ethnically identified as a subgroup of the Wiechquaesgeck (Bolton 1922; Grumet 1981).

Unlike the groups to the north, the Manhattan lacked the furs necessary to become valuable trading partners with the Dutch. The Dutch policy of supplying the Mahican and Mohawk with firearms while denying the same goods to the groups along the lower Hudson, however, made the Manhattan vulnerable to attack. In response to European aggression and increasing intratribal hostilities over trade privileges, palisaded villages began to emerge along the New York coast. A series of major and minor skirmishes among the various competing interests eventually led to the Manhattans and Wiechquaesgecks suing the Dutch for peace in 1644. Despite this accommodation, friction persisted between the Dutch and Manhattans culminating in two more major armed conflicts over the next 20 years.

The incessant violence coupled with “virgin soil” epidemics effectively decimated the Manhattan groups living in the New York City area. The fragmented populations were forced to merge in order to maintain viable communities, all of which had vacated the island for the mainland Wiechquaesgeck population centers by 1628 (Grumet 1995).

No Contact period sites have been identified within the project area. Planting fields in an area known as Schorrakin, however, have been identified in East Harlem in the vicinity of East 135th to East 150th Streets (see Figure 4-1).

Prehistoric Archaeological Sensitivity of the Hamilton Grange Project Area

A review of the site files for Manhattan identified no prehistoric sites within a 1-mile radius of the project area. Based on the extant archaeological record for northern Manhattan, it appears that prehistoric occupation tended to cluster along the Harlem River on the fertile flatlands formerly known as Muscoota (HPI 2002). The steep and rocky topography and relative distance from these major watercourses would have made the Hamilton Grange project area a comparatively undesirable settlement option.

The intensive and expansive urban development of the Harlem Heights district during the late nineteenth and twentieth centuries has seriously compromised the integrity of the soils in the project area. The relocation of Hamilton Grange to its current lot on Convent Avenue, ca. 1889, required site clearing,

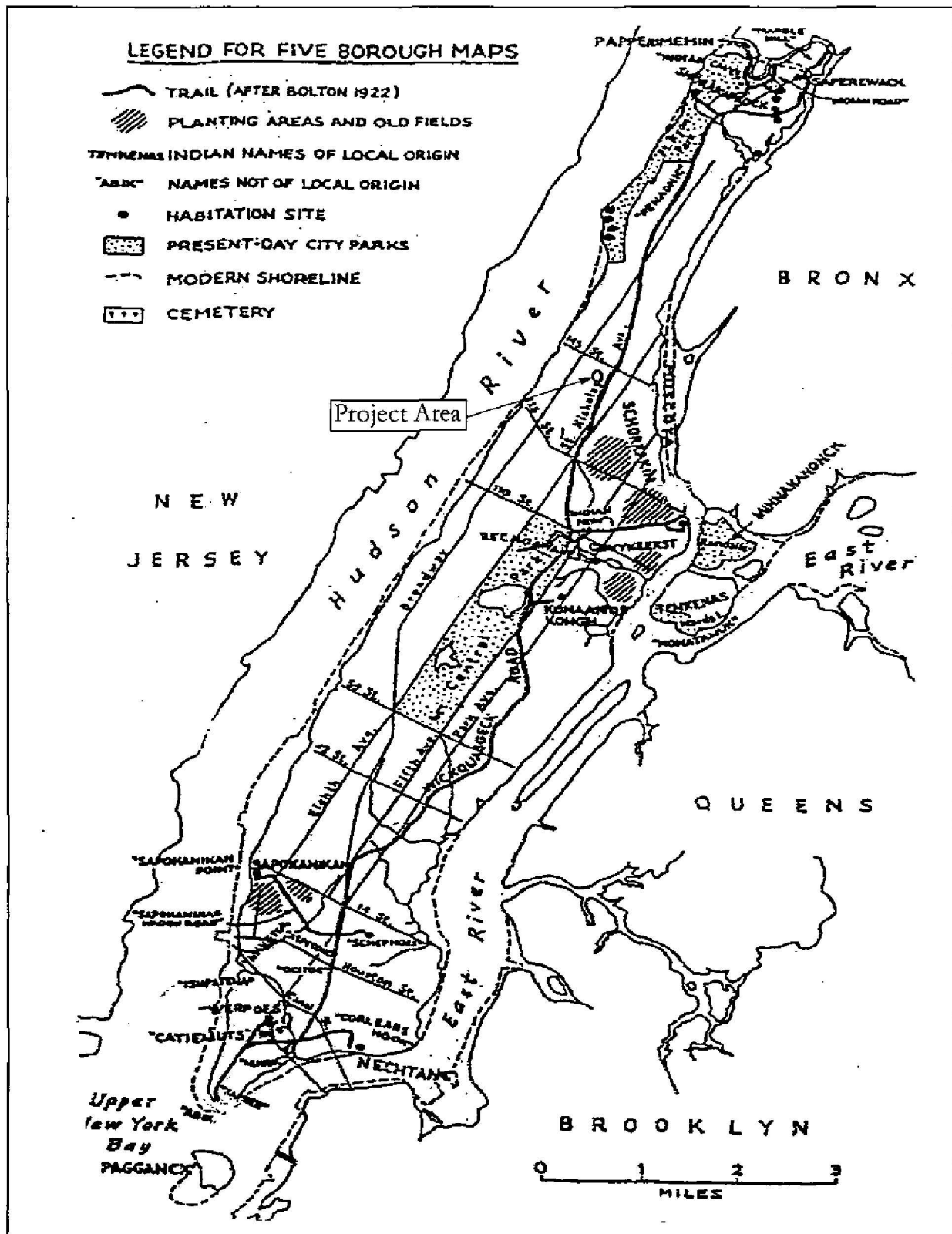


Figure 4-1. Map showing the Native American place names in New York City and the location of the Hamilton Grange project area (source: Grumet 1981).

blasting, excavation and grading that would preclude the stratigraphic integrity of any prehistoric resources in that area. While the construction of St. Nicholas Park was generally sensitive to the topographic integrity of the original landscape, the bedrock outcrops, steep terrain, and minimal water resources mitigate against a prehistoric presence in that portion of the project area.

The Convent Avenue and St. Nicholas Park impact areas possess low archaeological sensitivity for prehistoric cultural resources (Figure 4-2).

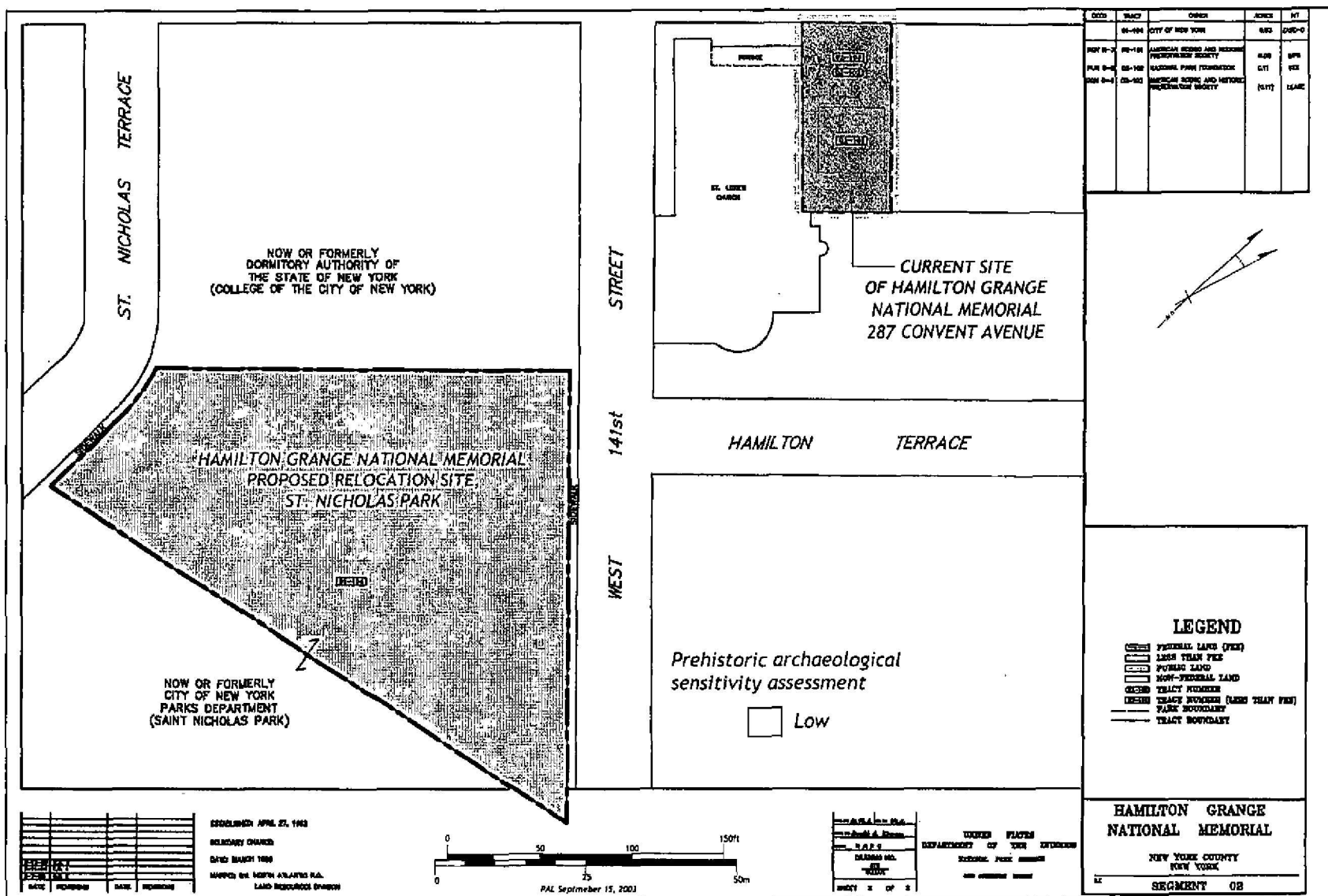


Figure 4-2. Prehistoric archeological sensitivity map, Hamilton Grange project area, Manhattan, New York, NY.

CHAPTER FIVE

HISTORIC CONTEXT FOR HAMILTON GRANGE

The northern portion of Manhattan was sparsely occupied throughout the seventeenth and eighteenth centuries, in large part because of its isolation from the urban core to the south and the lethal threat of Indian attack. Those individuals that did venture to the area tended to congregate to the east of the Manhattan Hills along the shores of the Harlem River. During the mid- to late- eighteenth century, however, Harlem Heights saw increased use as a summer retreat for the wealthiest of New Yorkers and as a base of operations for Washington's army during the Revolutionary War. The nineteenth century saw large-scale residential development of the area and the expansion of the gridiron into the newly created Hamilton Heights district.

The following chapter provides a historical overview of Manhattan Island with specific reference to the development of Harlem and the Hamilton Grange project area. This context was compiled as part of the Phase IA sensitivity assessment/literature search for the project area conducted in August 2003 (Heitert 2003).

The Dutch Occupation of Manhattan Island

Beginning with Henry Hudson's "discovery" of the island in 1609, Manhattan and the Harbor Islands attracted acute European interest. Described as a "terrestrial Canaan where the land floweth with milk and honey" (Burrows and Wallace 1999:3), foreign travelers to Manhattan Island described a land of lush and vast meadows, enormous stands of hard- and softwoods, and abundant game. So inexhaustible did these resources initially appear that a Dutch trader was prompted to comment, "There are some persons who imagine that the animals of the country will be destroyed in time, but this is an unnecessary anxiety (Burrows and Wallace 1999:4).

This exuberant praise, however, was not as great an impetus to Dutch colonization of the island as it was hoped it would be by colonial financiers in Amsterdam. It wasn't until 15 years after Hudson's original voyage that settlement on the southern tip of the island began with the arrival of 30 Walloon families. This settlement strategy, part of a hastily organized land grab on the part of Dutch West India Company in response to French and English claims to the island, effectively marked the beginning of New Netherland (Rink 1986). Under the direction of Peter Minuit, Manhattan was famously "purchased" from the local Lenapes, and soon after boasted 30 log houses, a fort, and a solid stone countinghouse, the last of which spoke volumes about the explicitly commercial orientation of the new colony (Rink 1986:87).

The fledgling community comprised a disparate mix of French-speaking Walloons, Dutch-speaking families from Amsterdam, and a loose confederation of young, single merchants concerned solely with

profiting from the lucrative fur trade up and down the Hudson. This lack of cultural cohesion and common purpose threatened to undermine the stability of the colony. In response to the situation, the Amsterdam chamber proposed a settlement strategy of patroonships. This system called for the transfer of large portions of New Netherland to wealthy patroons, or patrons, in exchange for a promise on the part of the patron to fund the colonization efforts of at least 50 settlers. Despite best intentions, the patroon system led to rampant speculation and very little in the way of colonial settlement.

The colony continued to flounder until the firm hand of Petrus Stuyvesant took the administrative reins in 1647. Under Stuyvesant's direction, New Amsterdam underwent a civic and territorial reorganization, beginning with the appointment of three surveyors to establish reliable property lines and lay out a regular and orderly network of streets (Burrows and Wallace 1999). Building, hygienic, and livestock control measures followed soon after, until lower Manhattan began to take on the shape of the orderly, Old World Dutch townships after which it was modeled.

The first attempt to settle the northern portion of Manhattan began in 1637, a decade before Stuyvesant's tenure (Riker 1904). Henry and Isaac DeForest were the first to venture into the rich flats at Muscoota along the Great Kill, or Haarlem, River, followed by the LaMontagne, Van Curler, Van Tienhoven, and Kuyter families (Riker 1904:125–136). Captain Jochem Pietersen Kuyter, a Dane by origin, owned 400 acres in this frontier environment, stretching from what is now 122nd Street on the East River to 145th Street on the Hudson River, and incorporating the current project area (Postal 2000). Hostile Munsee Indians killed both Kuyter and his wife in the mid 1650s and claimed all of their land north of 130th Street to Spuyten Duyvel.

The vast tracts of arable farmland along the Great Kill held out the promise of a bright future for these first settlers of northern Manhattan. High mortality rates, the lack of a suitable labor pool, erratic assistance from the colonial seat in New Amsterdam, and violent Indian attacks, however, combined to defeat the small enclave before it ever had the opportunity to expand over “Jochem Pietersen's Hills” to the west. The Manatus Map of 1639 shows only three farmsteads strung out along the northeastern shore of the island, and the current Hamilton Grange project area as an unoccupied spine of hills and forest (Figure 5-1).

Stuyvesant's nearly martial imposition of order on the island allowed for a second, more successful settlement of Nieuw Haarlem in 1658. The village comprised a series of house lots (*erven*) and garden lots (*tuyen*) linked to larger parcels of farmland (*bouwland*) along the river. Tobacco was the primary cash crop of the newly settled region, but eventually was supplanted by subsistence crops such as wheat, maize, rye, buckwheat, peas, and flax; cattle raising; and, salt hay harvests from the swampy margins around the Flats (Riker 1904:181).

The Succession of British Rule

Dutch control of Manhattan had been tenuous from the beginning and, despite Stuyvesant's strong leadership, was made all the more precarious in the face of escalating British aggression. While England and Holland were at peace in 1664, the two countries were engaged in a political battle that extended throughout the Old World and the New. At stake was hegemony over the high seas; a prize that England saw within its grasp and believed was being threatened by Dutch commercial interests (Deak 2000).

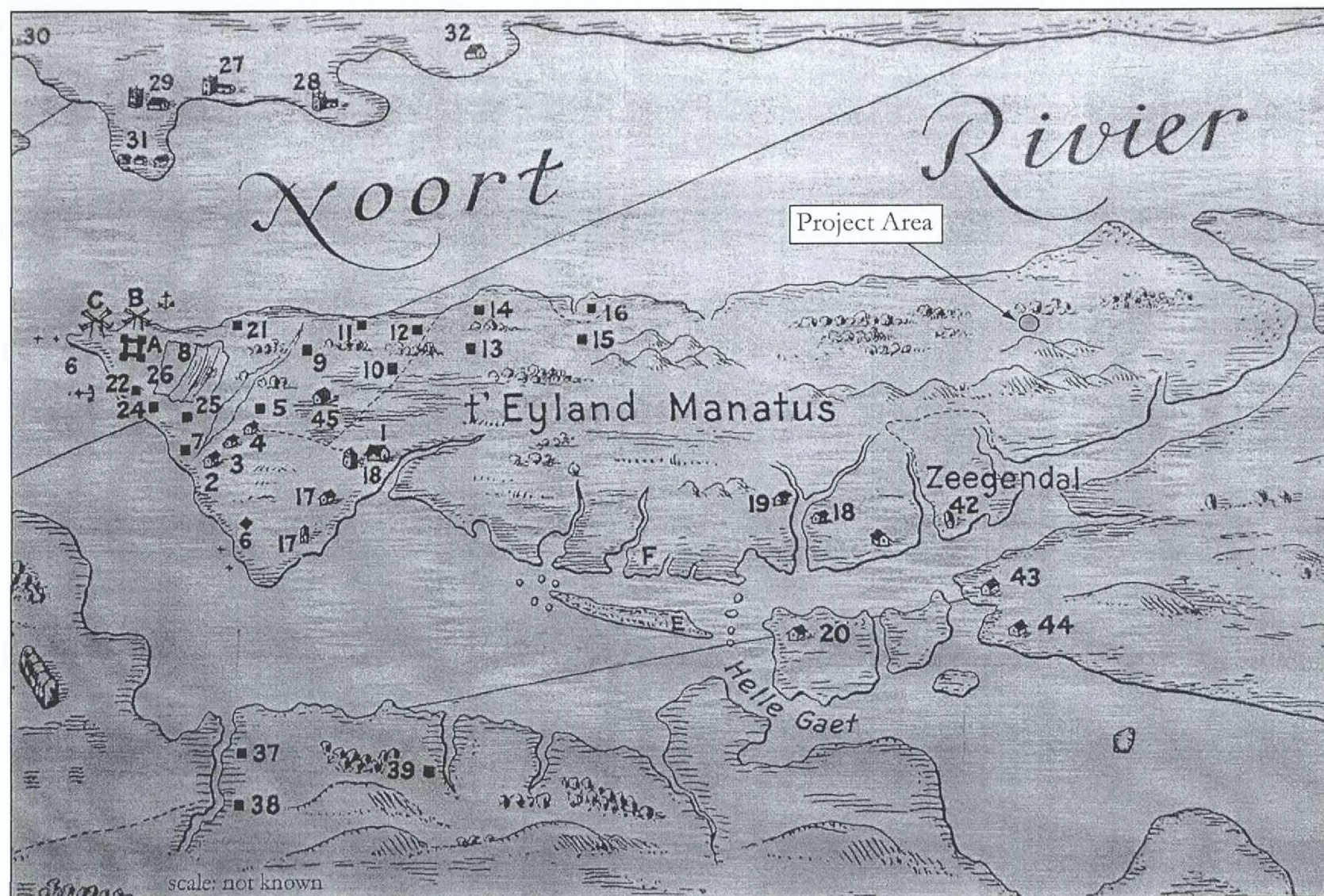


Figure 5-1. 1639 Manatus Map showing the location of the Hamilton Grange project area, Manhattan, New York, NY (source: Anon. 1665).

Monopolistic practices by the Dutch West India Company and its deadly competition with the Royal African Company over slaving rights in West Africa infuriated King Charles II (Rink 1986:262). In an attempt to thwart any further challenges, Charles declared the Dutch to be usurpers in the New World, and ordered four warships across the Atlantic to seize control of Manhattan Island in the summer of 1664 (Deak 2000:13)

The English gambit worked; New Amsterdam was seized without a shot being fired. The ease with which the English overpowered the Dutch colony is attributable to several different factors, not the least of which were poor defenses, a food shortage, and a policy of benign neglect on the part of the governing body in Amsterdam. Stuyvesant, watching his colony about to be unceremoniously wrenched from his grasp, attempted to hold out, proclaiming that "I had much rather be carried out dead!" (Deak 2000:14). The Dutch governor eventually bowed to the greater interests of a peaceful resolution and signed the articles of surrender on August 27, 1664.

Colonel Richard Nichols was installed as the first royal governor of the rechristened New York, followed by Colonel Richard Lovelace. Lovelace's absence from the island in the summer of 1673 allowed the Dutch to briefly reclaim their former colony, only to be restored to English rule nine months later under the control Sir Edmund Andros. By the 1690s, New York was home to approximately 3,000 families,

whereof almost one halfe are naturally Dutch a great part English and the rest French . . . few of them intelligent & sincere but the most part ignorant & conceited, fickle & regardless." (Deak 2000:21)

English settlement of Manhattan proceeded at a much faster pace than had similar Dutch efforts, but was marked by rebellion, overcrowding, and the imposition of crippling trade restrictions by an English crown ever watchful of its mercantile interests. In spite of poor trade policy, it was during the early eighteenth century that New York emerged as a major seaport on par with Boston, Philadelphia, and Charleston. With the development of this seaport and the wealth attendant to that development, New York, like the 12 other colonies up and down the Atlantic seaboard, began to chafe at what it perceived as tyrannical English domination.

The succession of British rule in New York did little to spur development in the northern portion of Manhattan. A fixed boundary was established between Harlem and New York in 1666, extending from what is now East 74th Street on the East River to West 129th Street on the Hudson. The Munsee land claim to Kuyter's 400-acre parcel eventually was settled in 1713, when a special tax was raised by the freeholders of Harlem to purchase the land outright. The steep topography above Harlem's central plain led to the area being referred to as Harlem Heights, a name that would endure well into the eighteenth century. Concentrated settlement continued to focus on the southern tip of the island, close to the bustling seaport.

By the mid-eighteenth century, Harlem Heights had become a favorite summer retreat for wealthy British families. Rich soil, cool breezes, and acres of undeveloped land provided a welcome respite from the always cramped and frequently plague-ridden urban center to the south. Roughly 2 miles north of the current Grange site, Roger Morris, a lieutenant colonel in the British Army, established a country retreat in 1765. The Georgian mansion, now known as the Morris-Jumel Mansion, once stood

at the center of 130 acres of meadowland. No structures or features dating to this period, however, are documented within the current or proposed Hamilton Grange sites.

Revolution

The relationship between the British crown and its fractious colonies was in a long and irreversible decline by the mid-eighteenth century. In 1776, New York somewhat reluctantly agreed to join its colonial counterparts in what would become a prolonged battle for independence from the British crown. New York's seaport made the city a natural target for attack by the British and, therefore, a natural base of operations for American troops. By the summer of 1776, more than 10,000 American soldiers were stationed in the city, requisitioning town houses and country estates, ripping down trees and fences to construct barricades, and cramming every piece of open ground with tents, huts, shacks, wagons, and supplies (Burrows and Wallace 1999:229).

After a resounding defeat at the Battle of Brooklyn, Washington was forced to abandon and surrender all but the northern portion of Manhattan to General Howe's forces. The American general repositioned his headquarters in Harlem Heights at the Morris-Jumel Mansion on what is now 162nd Street (see above), and watched as the city fell back under British control. Just six days after the reassertion of British authority, a massive fire engulfed the already brutalized city. Believed to have been ignited in a bordello at Whitehall slip on the southern tip of the island, the fire spread rapidly northeast across the most densely populated portion of the city (Cohen and Augustyn 1997:82). Over a quarter of New York was destroyed during the conflagration.

British occupation of New York proved to be a difficult task as squatters camps, food shortages, epidemics, and rampant violence plagued loyalists and rebels alike (Burrows and Wallace 1999:245–261). While New York may have been firmly within royal control during this period, the war raged on throughout the colonies, much to the advantage of the Americans. With the capitulation of General Cornwallis to combined American and French troops in Yorktown in 1782, New York returned permanently to American control.

The Harlem Heights area of Manhattan housed several redoubts and breastworks during the Revolution, located north of the current Hamilton Grange project area. A line of redoubts flanked Amsterdam Avenue and Broadway between 145th and 149th Streets, and were linked by a network of breastworks stretching from the Hudson River to St. Nicholas Avenue, just north of 146th Street. As well as serving as the American headquarters following the Battle of Brooklyn, Harlem Heights was also the scene of a small but important military skirmish. The Battle of Harlem Heights, fought in 1776 between 130th and 155th Streets, saw the defeat of a column of redcoats by a small reconnaissance party of Connecticut rangers. While not important from a tactical perspective, this victory was the first time that Washington's troops had defeated the British in a head-on fight, and served to lift deflated American morale (Burrows and Wallace 1999:241; Postal 2000:6–7).

The British Headquarters Map of 1782 provides not only one of the clearest pictures of the military defenses that characterized the Harlem Heights area during the Revolution, but also provides an excellent illustration of the original topography of the island (Cohen and Augustyn 1997:84–87) (Figure 5-2). The map shows a dramatic landscape of broad plains, steep and rugged hills, and a vast network of



Figure 5-2. 1782 British Headquarters Map showing the location of the Hamilton Grange project area, Manhattan, New York, NY (source: Anon. 1782).

rivers, streams, wetlands, and marshes, nearly all of which have been filled, graded, or blasted out of existence. The Hamilton Grange project area lies in the heart of the Manhattan Hills, adjacent to a series of roads leading north to the American military fortifications and Washington's headquarters at the Morris-Jumel Mansion. The landscape surrounding the project area is crisscrossed with a network of small rivers and wetlands feeding into the Hudson to the west and the Harlem River to the east. No structures, military or civilian, are depicted within the project area.

Alexander Hamilton and the Re-Gentrification of Harlem Heights

The cessation of hostilities and the return of New York to American hands did little to change the character of the Harlem Heights area of northern Manhattan. Military fortifications were dismantled and the land essentially returned to its quiet, rural, pre-Revolution status. It was still favored as a country retreat by wealthy New Yorkers, but rather than the return of British families, Harlem Heights saw the arrival of powerful and influential Americans.

One of the most famous of these Americans was Alexander Hamilton, newly appointed Secretary of the Treasury. Born to a less than illustrious family in the British West Indies, Hamilton immigrated to America in 1773 to attend King's College (now Columbia University), but was waylaid in his studies by the outbreak of the Revolution. He rose to fame during the war as a captain, and then lieutenant colonel, serving as one of Washington's closest confidantes and aide-de-camp. Hamilton possessed a natural genius for economics and finance and, at the close of the war, founded the Bank of New York.

A vocal proponent of a strong federal constitution, he was a primary author of the *Federalist Papers* in which he advocated the primacy of the federal government over the interests of individual states. This ideological stance caused a great deal of tension between Hamilton and one of the other great thinkers of the period, Thomas Jefferson. The power struggle that ensued between the two men defined the shape of the Constitution and Hamilton's eventual role, from 1789–1795, as first Secretary of the United States Treasury. In that position, he was able to create and implement his vision of a centralized monetary policy that survives to this day.

After his retirement from the Treasury, Hamilton returned to his law practice and founded *The New York Evening Post*. To escape the congestion and occasional contagion of city life, Hamilton purchased 32 acres of land in Harlem Heights. The original configuration of the property extended from what is now Hamilton Place on the west, to Hamilton Terrace on the east, and from West 140th Street to West 147th Street. This configuration roughly matches the current boundaries of the Hamilton Heights Historic District and Hamilton Heights Historic District Extension (Postal 2000:7) (Figure 5-3).

Hamilton commissioned John McComb, Jr., one of New York's most prominent architects, to design his new home in an elegant but understated style. The resulting structure, built between 1800 and 1803, was a 12-room Federal-style mansion situated in the vicinity of what is now 143rd Street (Figure 5-4). Hamilton named his home the Grange after his grandfather's estate in Ayrshire, Scotland. Describing the place as "a sweet asylum from care and pain" (Postal 2000:8), Hamilton oversaw the estate groundskeeping and had a large barn, mill house, henhouse, root house, and icehouse on the property.

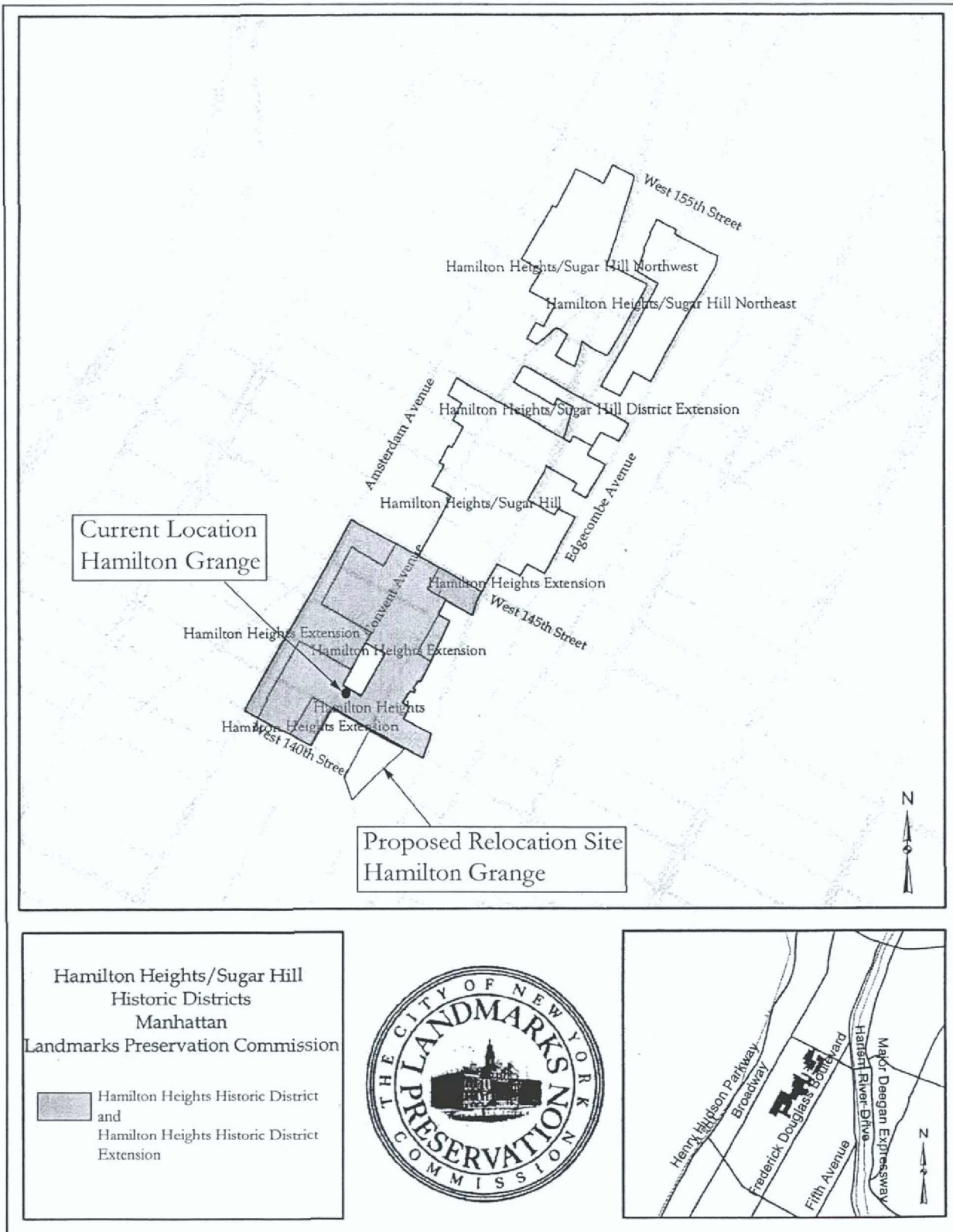


Figure 5-3. Map of the Hamilton Heights District in Harlem, showing the current location and the proposed relocation site of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY.



Figure 5-4. Perspective drawing of the south and east sides of Hamilton Grange, date unknown (source: LOC 2003a).

Hamilton's happy stay at the Grange was short-lived. A vicious political battle with Aaron Burr, gubernatorial candidate for the State of New York, resulted in an arcane duel in which Hamilton lost his life. The Grange, as well as a mountain of debt, was left to Hamilton's wife, Elizabeth. With assistance from many prominent families throughout the city, including the Astors and Pierponts, Elizabeth was able to save the house, although it eventually was put up for sale.

The 1811 Commissioner's Plan, drafted by noted cartographer John Randel, depicts the original location of Hamilton Grange (Figure 5-5). This plan is interesting in that it depicts the proposed extension of the gridiron into the northern reaches of Manhattan at a time when the area was still almost entirely rural (Cohen and Augustyn 1997:100–105). Randel took no note of the prevailing topography when laying out the rectilinear street system, a strategy criticized by many. Clement Clark Moore complained of Randels' plan that "The natural inequities of the ground are destroyed, and the existing watercourses disregarded. . . . These are men . . . who would have cut down the seven hills of Rome." (Cohen and Augustyn 1997:103).

Despite the fact that the landscape appears to be devoid of any of the natural features depicted on the 1782 British Headquarters Map, it is assumed that the original configuration of rivers, wetlands, and

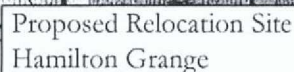


Figure 5-5. 1811 Commissioners Plan Map, showing the original location of Hamilton Grange, and the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Randel 1811).

hills that defined the area survived into the early nineteenth century. Hamilton's construction of a mill house on the property, a structure that would have required a reliable source of water, provides corroboration for this idea. The current site of the Grange as depicted on the map does not appear to contain any structures, but the area is shown as lying atop a bedrock ridge (see Figure 5-5). The 1811 map also depicts the Mott family farm complex and associated farm road immediately north of the proposed Grange relocation site in St. Nicholas Park.

A Series of Sales and Speculations

Hamilton Grange was purchased in 1833 for \$25,000 by a pair of speculators, Theodore Davis and Isaac Pearson. In 1845, a New York financier by the name of William G. Ward purchased the estate as a summer retreat. Ward is believed to have installed the first indoor plumbing in the house, a nod to his considerable wealth and status. The Panic of 1873, however, devastated many of the wealthiest families in New York, including Ward, who lost the house through foreclosure to the Emigrant Savings Bank. Emigrant Savings in turn sold the house in 1879 to Anthony Mowbray for \$312,000. Mowbray owned the property for less than a month before selling it to William H. DeForest, a silk importer and the last private individual to occupy the house.

The 1867 Dripps Map of New York depicts Hamilton Grange in its original location as owned by William Ward, and overlaid by the proposed gridiron (Figure 5-6). The current location of St. Nicholas Park appears to lie directly within its path because 9th Avenue never was constructed as far as 141st Street. Neither the current nor proposed sites for Hamilton Grange are depicted as containing any structural remains or features.

The 1880s saw the rapid expansion of elevated railroads throughout the city. A cable car railway was installed on 10th (now Amsterdam) Avenue by the end of the decade, and provided a transportation link between Harlem Heights and the downtown commercial districts (Postal 2000:9). Improved transportation and increasing population pressures on the East Side led to the subdivision and sale of many of the large estates in Harlem Heights, including the Morris-Jumel Mansion. Farmland gave way to tracts of single-family townhouses and French-flats buildings. By this period, the area north of 138th Street was commonly referred to as Washington Heights, with the blocks within the lower portion of that area comprising the former Hamilton estate assuming the moniker Hamilton Grange.

William DeForest saw the financial opportunity before him and subdivided the 32-acre Grange parcel into 300 individual building lots sometime between his purchase of the house in 1879 and his sale of the property in 1889. Maps dating to 1879 and 1885 show this division, although once again much of the depicted gridiron is speculative, as demonstrated by the fact that 143rd Street was not constructed until after 1889 (Postal 2000:9) (Figures 5-7, 5-8). Block numbers, however, have been assigned on both maps, with the current Grange location lying in Block 1068 and the proposed relocation site in Block 1067. The 1879 Bromley map shows no obvious structural or landscape features in either the current or proposed Grange site, but the 1885 Robinson map shows an outbuilding within the footprint of the proposed relocation site (see Figure 5-8).

DeForest scheduled a public real estate auction in late 1887 in the hopes of selling off the lots. Evidently, DeForest's idea of what constituted a reasonable profit margin was not shared by the buyers, who

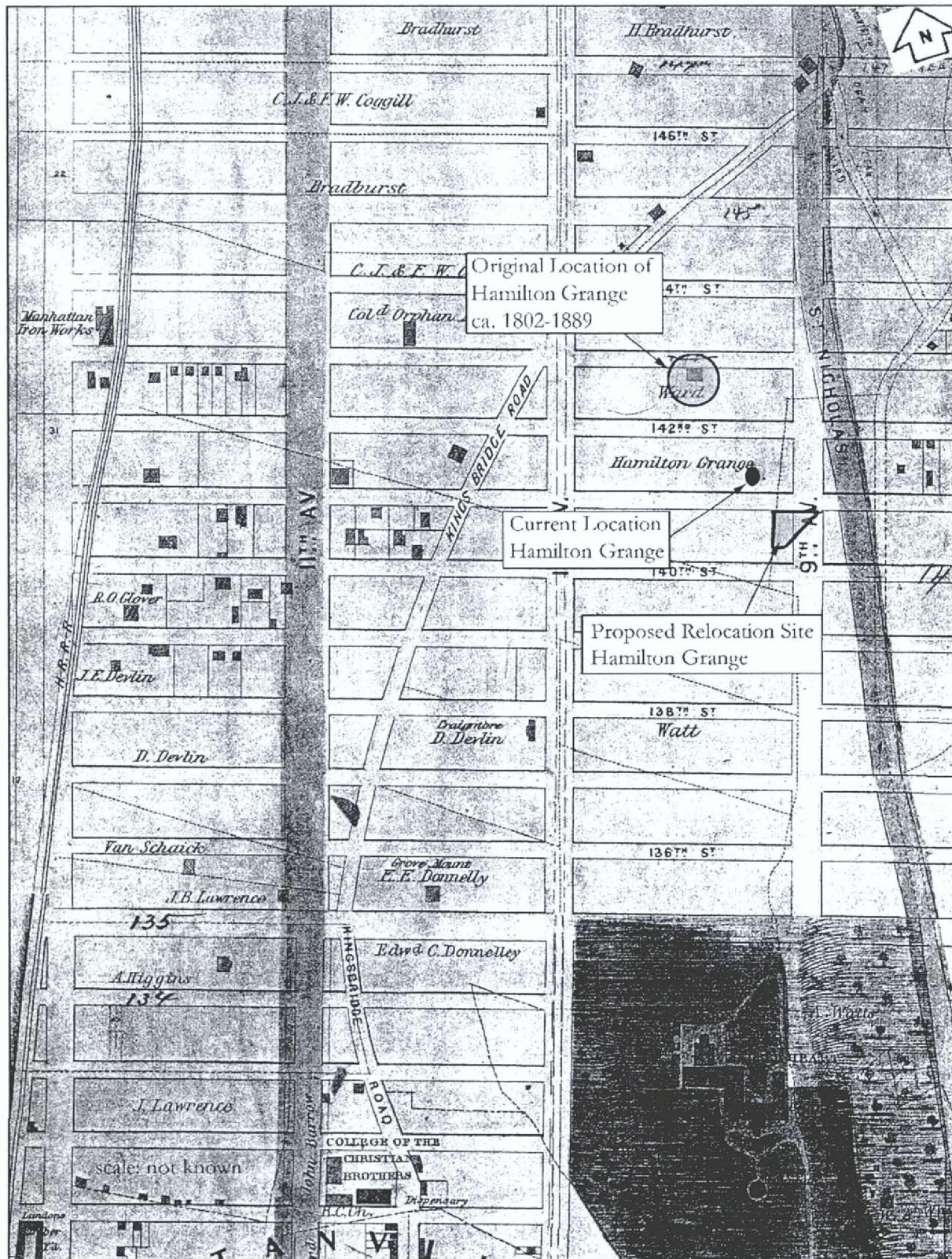


Figure 5-6. 1867 map of New York and vicinity showing the original location of Hamilton Grange, and the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Dripps 1867).

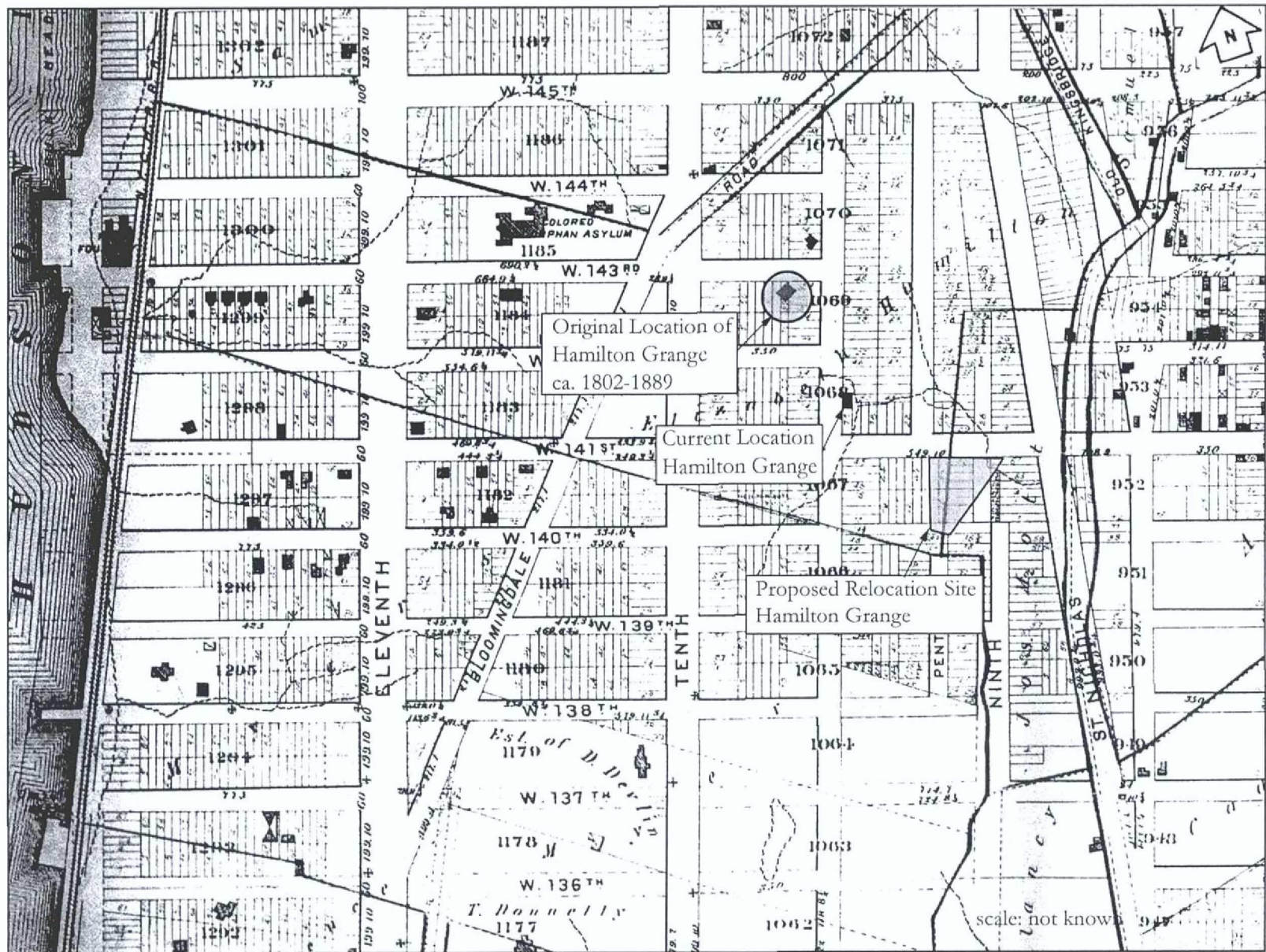


Figure 5-7. 1879 map showing the original location of Hamilton Grange, and the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Bromley and Bromley 1879).

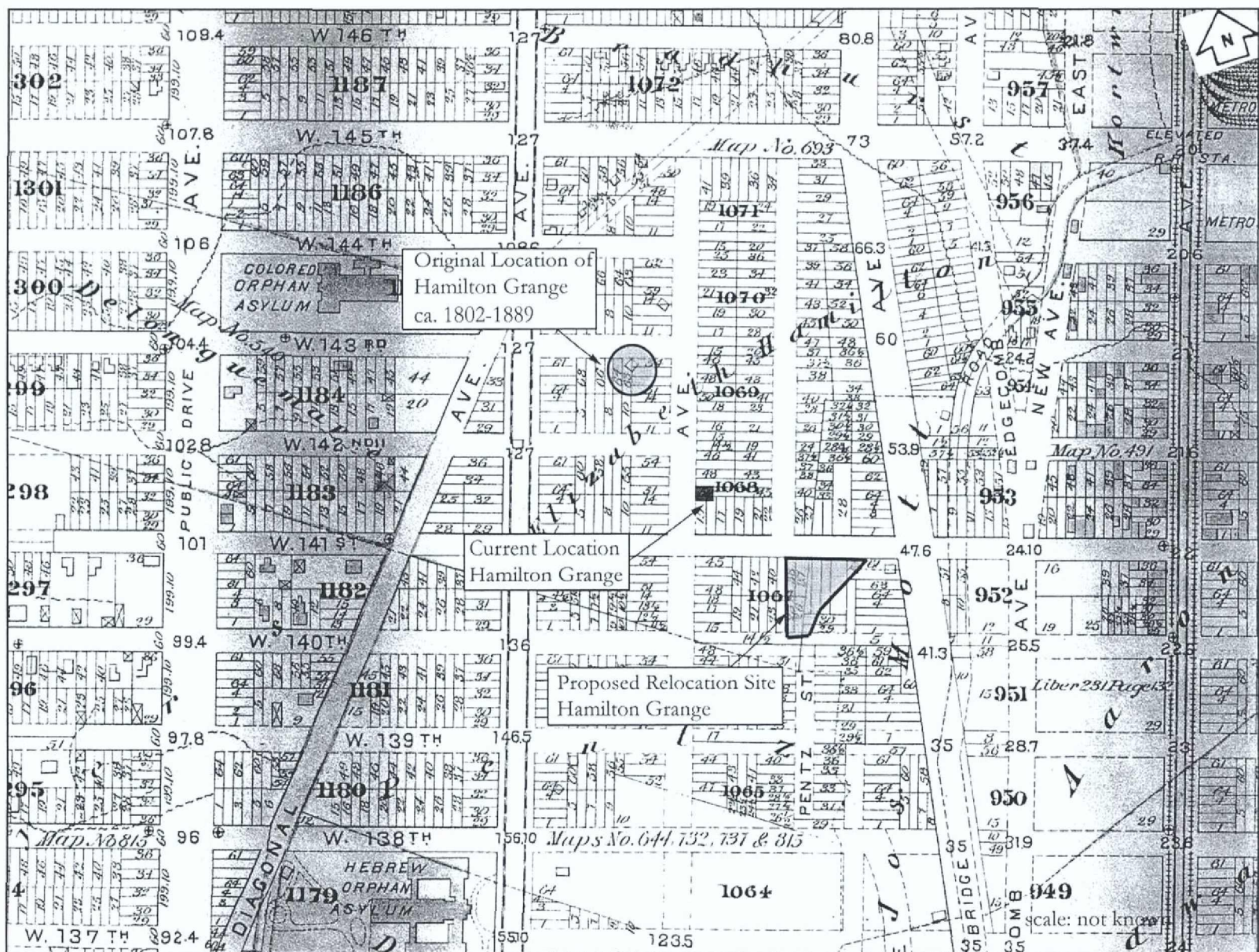


Figure 5-8. 1885 map showing the original location of Hamilton Grange, and the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (note the possible location of an outbuilding within the footprint of the proposed relocation site) (source: Robinson 1885).

balked at the exorbitant prices. Sales were disappointing, and DeForest was forced to auction off many of the parcels at a loss.

Two years later, DeForest sold the Grange and its now much reduced lot to Amos Cotting, a shrewd and wealthy New York banker. Population growth had expanded dramatically in the area, necessitating the imposition of the gridiron over the entire Hamilton Grange district. The rectangular grid pattern, however, often could not accommodate private land ownership boundaries, including the diagonal orientation of the Grange. Threatened with destruction in the face of aggressive residential development, the Grange was rescued by its relocation 350 feet southeast to its current site on Convent Avenue (Figure 5-9). Cotting brokered this deal with St. Luke's Episcopal Church with the understanding that the church would use the building as an interim chapel until a new edifice was constructed.

The relocation of the Grange to its current site on Convent Avenue was a massive undertaking, and had deleterious effects on the architectural integrity of the house (Figure 5-10). Despite the fact the new site comprised undeveloped land, the lots were too small to accommodate the original orientation of the house. This situation required that the building be rotated 90 degrees so that the original front door faced south, and that the flanking porches be removed. The original front door was then relocated to the southwest corner of the house, facing Convent Street (Figure 5-11). A basement and partial sub-basement also were constructed to provide more support and storage. By 1892, construction on St. Luke's Church was complete, and the use of the Grange shifted from that of interim chapel to a rectory and school.

The Development of Hamilton Heights and the Creation of St. Nicholas Park

The 20-year period of 1886–1906 saw the rapid, but controlled development of a residential neighborhood in what would come to be called the Hamilton Heights district of northern Manhattan. DeForest's subdivision and sale of the original Grange estate included the conditions that all future construction be limited to "brick or stone dwelling houses at least two stories in height" (Postal 2000:10), a stipulation that would shape the genteel and elegant appearance of the neighborhood.

During this period, the modern gridiron took shape, a process that required massive landscape manipulations in the form of blasting, grading, and filling the natural contours of the landscape. 10th Avenue was renamed Amsterdam Avenue, and a series of multiple-unit dwellings, including one dubbed Hamilton Grange, were constructed along its eastern boundary. The City College of New York also decided, in 1897, to relocate from Gramercy Park to West 140th Street, and establish a 35-acre campus in the area. This move effectively insulated the Hamilton Heights from unrestricted development to the south and provided a steady stream of tenants (Postal 2000:11). This first incarnation of the neighborhood attracted a mix of middle- to upper-class white professionals, largely from Protestant stock, with a smaller infusion of Irish, Italian, and German immigrants.

The 1906 and 1921 maps of Hamilton Heights depict this earliest configuration of the neighborhood (Figures 5-12, 5-13). Both maps show Hamilton Grange in its current location adjacent to St. Luke's Church, and in use as a school. Amsterdam and St. Nicholas avenues, Convent Street, and Hamilton Terrace are in place, and the retaining wall that defines St. Nicholas Terrace has been constructed to support the main building of the City College of New York.

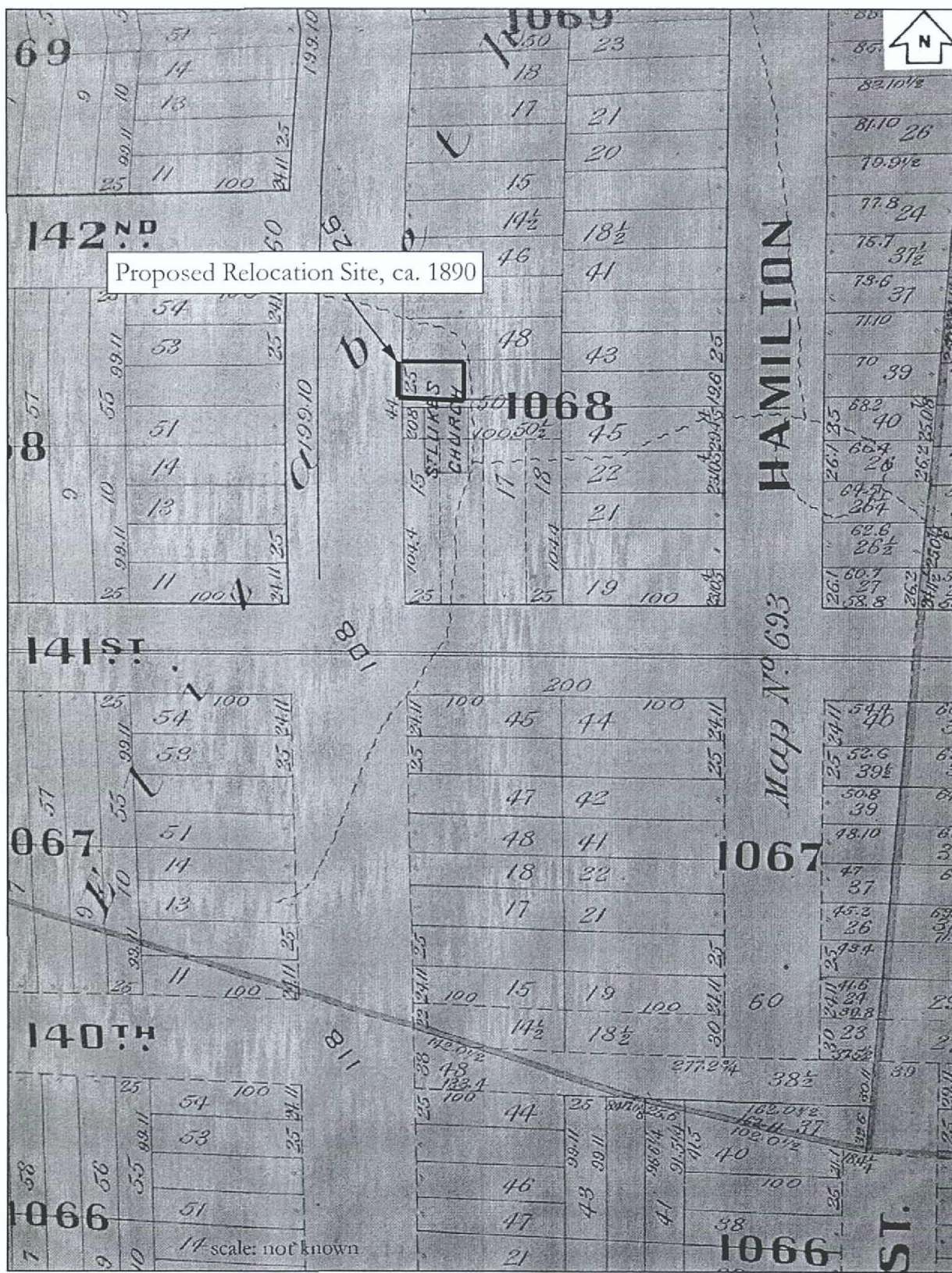


Figure 5-9. 1890 map showing the first relocation site of Hamilton Grange adjacent to St. Luke's Church on Convent Avenue (source: Robinson and Pidgeon 1890).



Figure 5-10. Photograph of Hamilton Grange during its relocation, view north, ca. 1889 (source: LOC 2003b).



Figure 5-11. Photograph of Hamilton Grange at its current location on Convent Avenue, ca. 1890, view east (source: LOC 2003c).

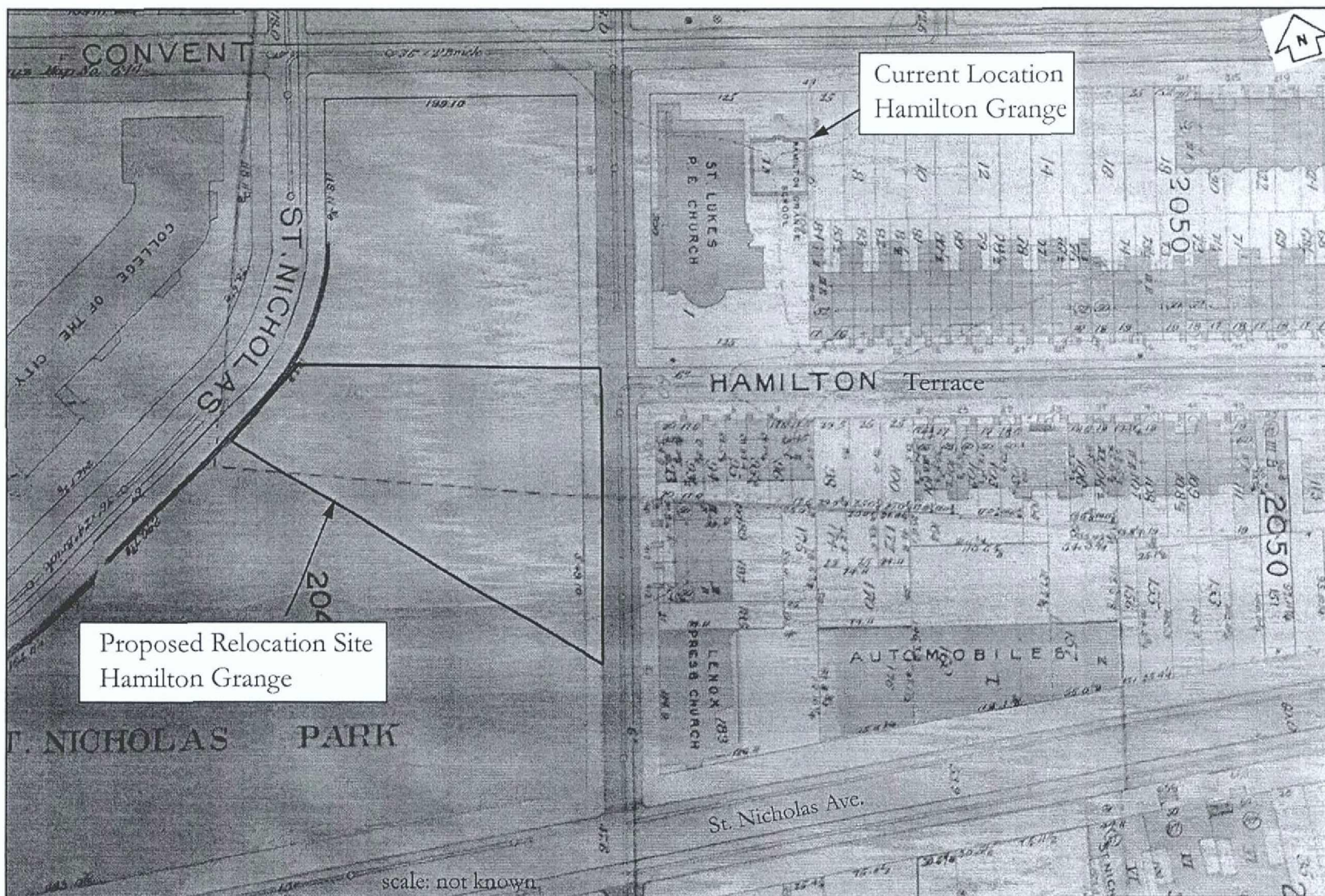


Figure 5-12. 1906 map of the Hamilton Heights neighborhood, showing the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Hyde 1906).

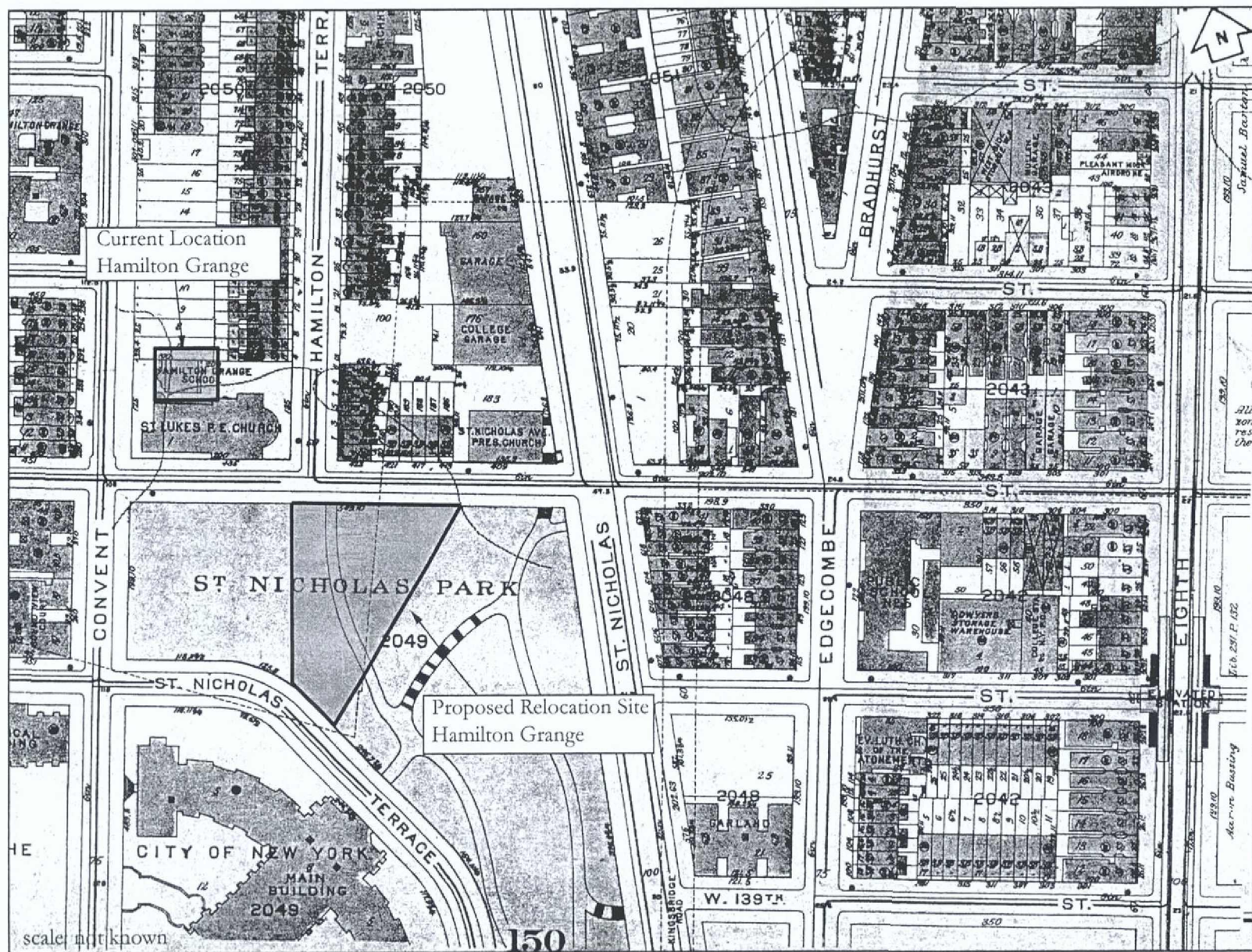


Figure 5-13. 1921 map of the Hamilton Heights neighborhood, showing the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Bromley 1921).

St. Nicholas Park makes its first appearance on the 1906 map of Hamilton Heights (see Figure 5-12). Designed by Samuel Parsons, Jr. in 1903, the park lies on the same topographical ridge as Central Park and Morningside and Jackie Robinson parks. This bony, steep spine that defines the western side of the island hampered the development of many parcels into residential or commercial properties. As part of a larger landscape program during the first decade of the twentieth century, the vacant lots that compose St. Nicholas Park were converted into recreational space.

The park was designed in the Picturesque style, a style that stressed the preservation of natural topographic features and the enhancement, rather than subjugation, of the aesthetic environment using naturalistic and complementary planting schemes. Parsons respected the bedrock outcrops that defined the parcel, but did blast out and fill some areas to create level areas for lawns and paths. Water and sewer lines also were laid in during construction, several of which run through the proposed Grange relocation site (Figure 5-14).

Over time, several elements not included in the original Parsons design were incorporated into the park including playgrounds, wading pools, and ball courts. The City College of New York library appears at the northwest corner of the park (adjacent to the relocation site) beginning in 1937 (Figure 5-15), to be joined by an R.O.T.C. Armory in 1955 (Figure 5-16). In the 1960s, the College replaced the Armory and library with the nine-story Steinman Hall, which continues to occupy that location (Figure 5-17).

Hamilton Grange in the Twentieth Century

The year 1907 marked a demographic shift in Harlem, from the predominantly white population toward a predominantly African American community. This shift was precipitated by the financial panic of 1907 that left many newly constructed residences vacant and available to the residents of San Juan Hill in the West 50s. The Hamilton Heights district of Harlem began to experience a similar shift in the early 1930s as affluent black families began to move into the neighborhood, and by the 1950s the area was solidly African American.

The condition of the Grange was in sharp decline by the first decade of the twentieth century. Reverend Isaac Henry Tuttle of St. Luke's had mustered enough funds to make some repairs to the building in the late 1890s, after which the house was used as a day school until 1909 (see Figure 5-12).

Development in Hamilton Heights continued to impinge on the landscape integrity of the Grange, most notably the construction of an apartment building in 1921 that actually touched the northern side of the house. Sensing that the historical continuity and integrity of the property had been seriously compromised, several different organizations and individuals proposed the preservation of the building as a memorial to Alexander Hamilton. These proposals, however, never expanded beyond a conceptual phase and were often thwarted by larger concerns, such as the onset of World War I.

In 1924, the house finally was deeded to the American Scenic and Historic Preservation Society (ASHPS). The society presented the first solid set of relocation strategies for the Grange in 1954, none of which were implemented. One small victory for ASHPS was the erection of the commemorative statue of Hamilton in the front yard of the house in 1936. In 1962, Hamilton Grange became part of the national

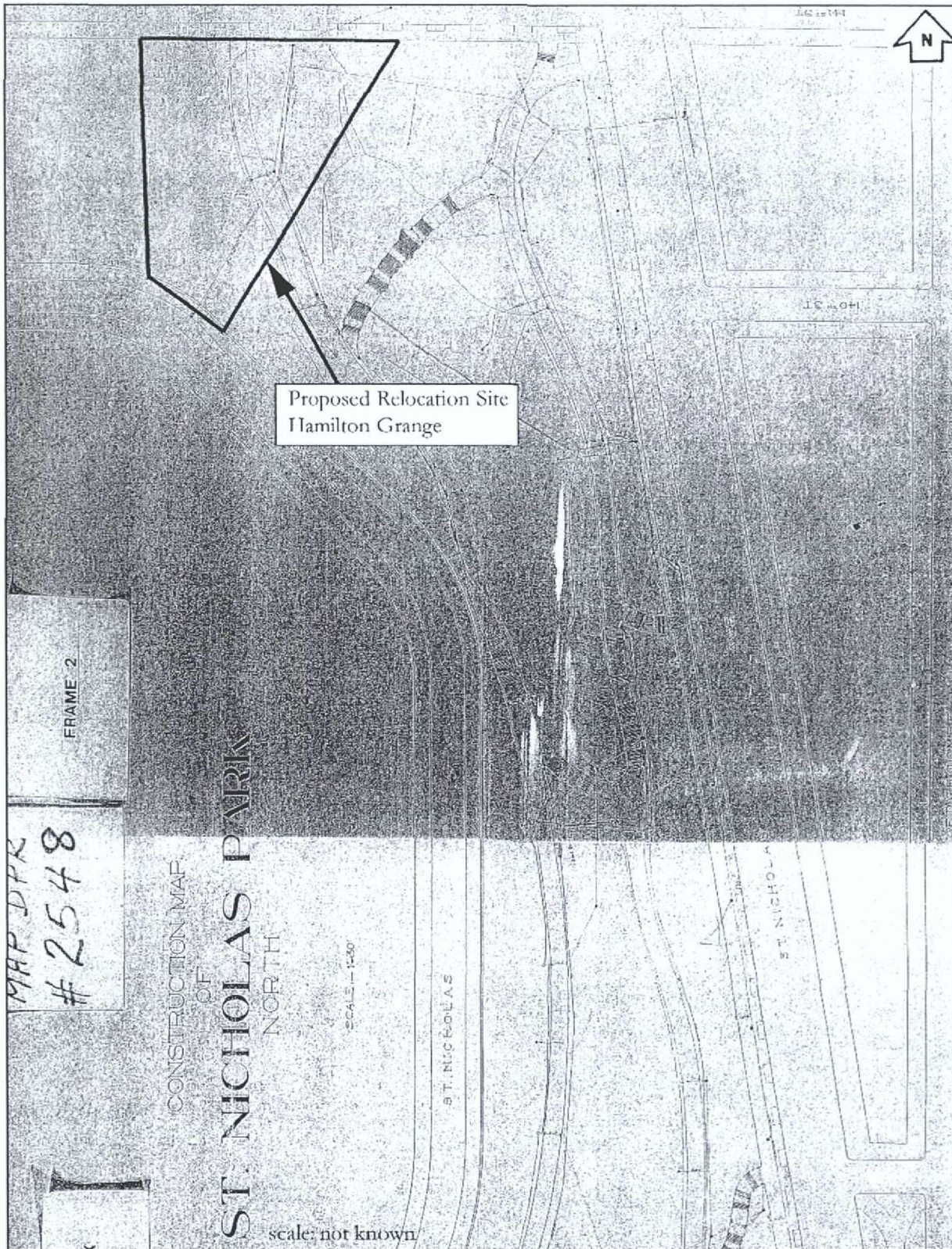
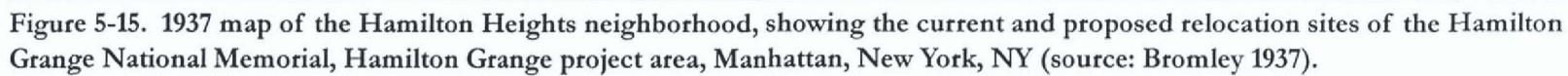


Figure 5-14. Construction map of St. Nicholas Park, North, showing the location of water and sewer pipes and the proposed relocation site of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Gregory 1903).



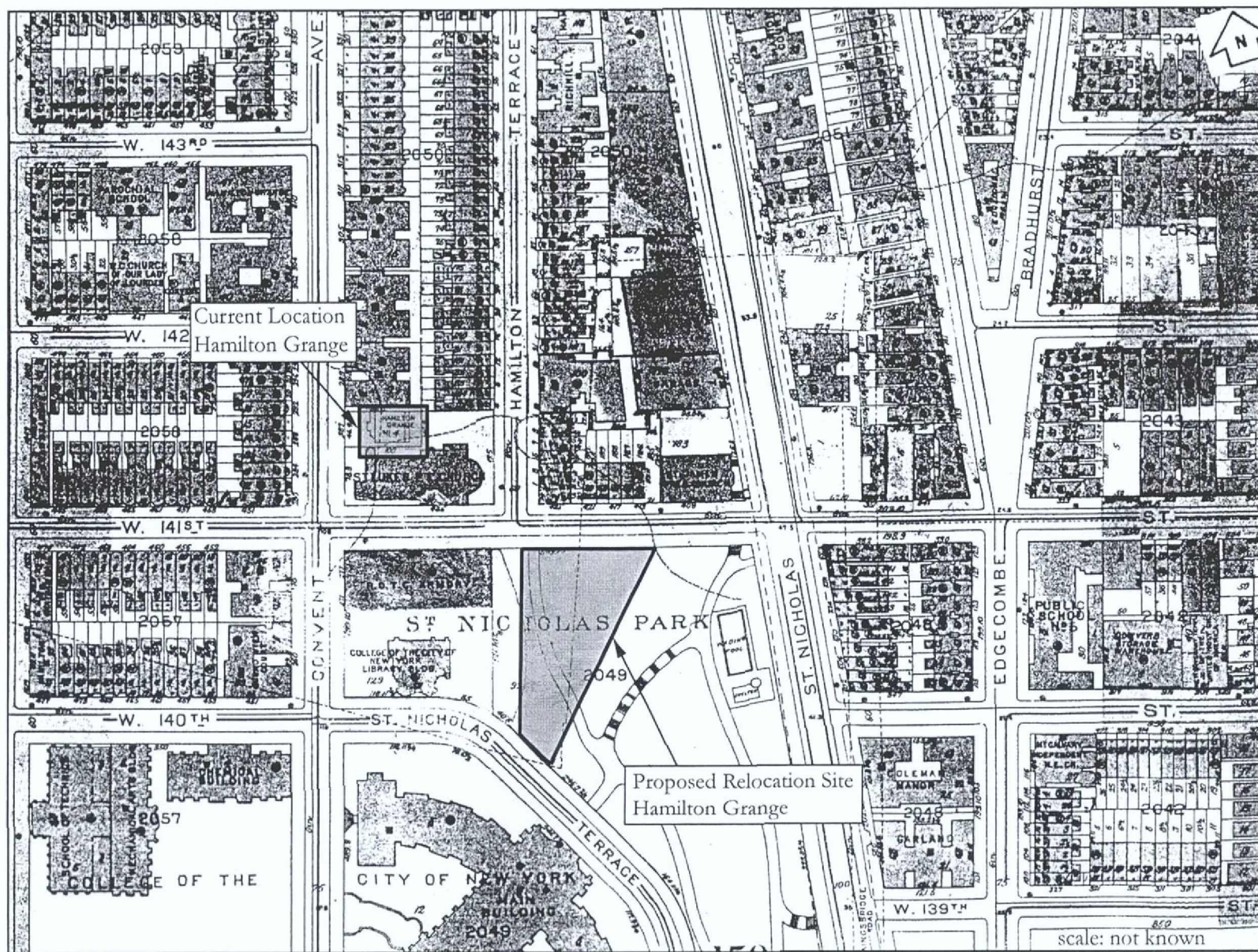


Figure 5-16. 1955 map of the Hamilton Heights neighborhood, showing the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Bromley 1955).

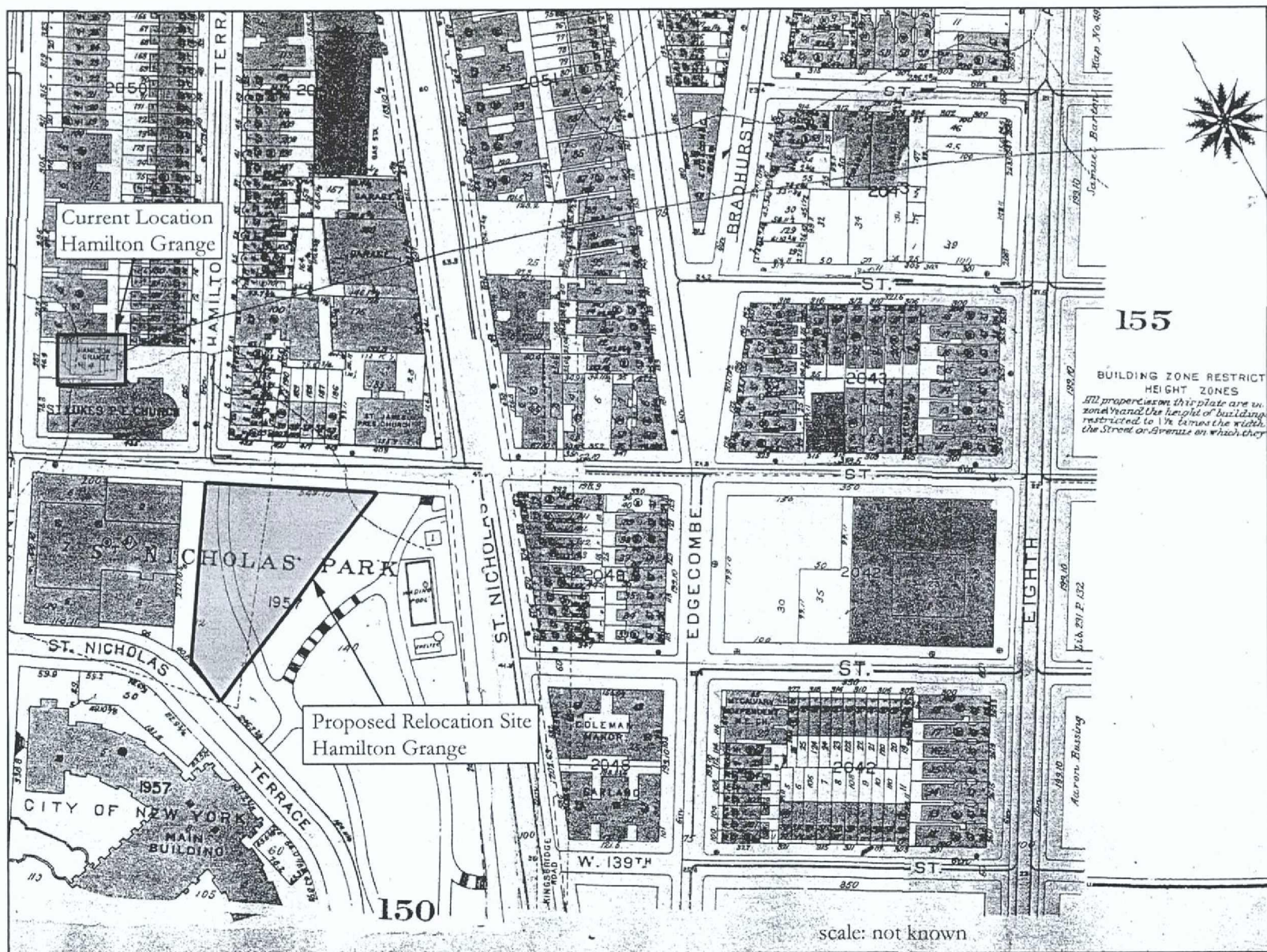


Figure 5-17. 1975 map of the Hamilton Heights neighborhood, showing the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (source: Bromley 1975).

park system under the jurisdiction of the NPS. The NPS currently maintains the property as a National Historic Landmark under the direction of the Manhattan Sites office in New York.

Historic Archaeological Sensitivity of the Hamilton Grange Project Area

The following section provides the historic archaeological sensitivity assessment for the Hamilton Grange project area. For ease of review, the project area has been broken down into two sections: the Convent Avenue impact area, the current location of the Grange; and the St. Nicholas Park impact area, the proposed relocation site for the Grange.

Convent Avenue Impact Area

A review of historic maps dating from 1639–1890 indicates no historic period resources within the proposed Convent Avenue impact area (see Figures 5-1, 5-2, 5-5, 5-6, 5-7, 5-8). Blasting, excavation, and grading within the lot during the construction of the house foundation, ca. 1889, compromised the stratigraphic integrity of the soils in that area and, by extension, any pre-1889 historic resources contained within those soils.

Features post-dating the relocation of the house to Convent Avenue, ca. 1889, may exist within the impact area. These features may include refuse deposits and the remains of small outbuildings. The installation of indoor plumbing in the house in the mid-nineteenth century and the re-establishment of that system after its move preclude the presence of privy or well features.

The Convent Avenue impact area possesses low historic archaeological sensitivity for resources pre-dating 1889, and high archaeological sensitivity for resources post-dating the relocation of the Grange, ca. 1889 (Figure 5-18).

St. Nicholas Park Impact Area

Several historic period resources may survive within the proposed St. Nicholas impact area. While the construction of the park did include some degree of blasting and filling, the fact that it was designed in the generally “low-impact” Picturesque style (see above) suggests that some of these resources, or portions of these resources, may survive within this part of the project area.

The use of Harlem Heights as a base of operations area during the Revolutionary War and, moreover, the engagement of the Battle of Harlem Heights between 130th and 155th streets, suggests the possibility of the presence of military cultural material and features within the relocation site. Resources associated with this period may include portable personal effects such as buttons, buckles, pipes, and bottle glass; ammunition; and hearth features related to temporary camps.

Another potential resource is the remains of Alexander Hamilton’s mill house, ca. 1800–1802, as suggested by the 1874 Viele map of Manhattan (Figure 5-19). While the first cartographic evidence of the Grange on the 1811 Commissioners Plan provides an anticipatory view of the landscape after the construction of the gridiron, the Viele map depicts the original watercourses and made land on the island. Based on this map, Hamilton would have had access to several different small streams and

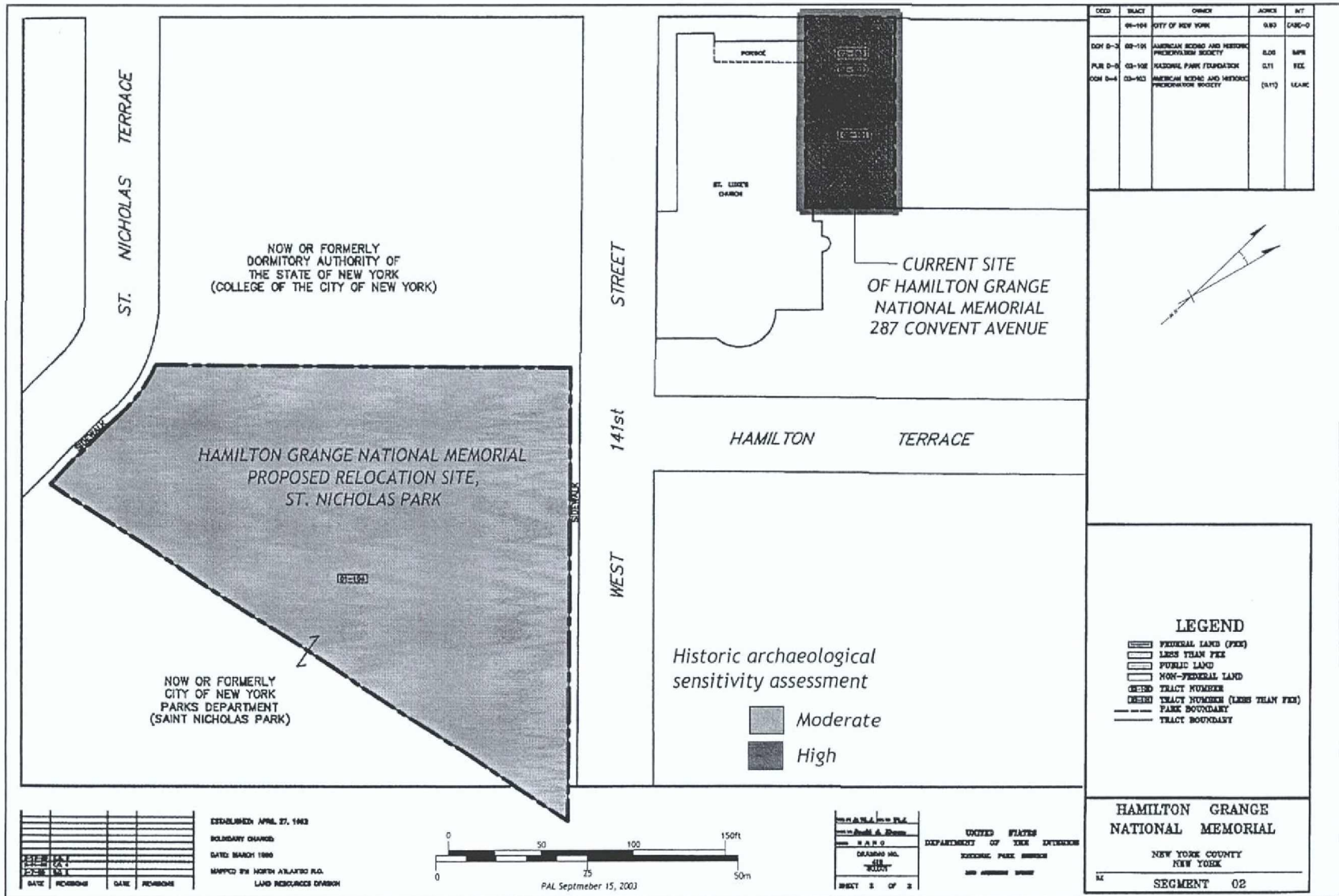


Figure 5-18. Historic archaeological sensitivity map, Hamilton Grange project area, Manhattan, New York, NY.



Figure 5-19. 1874 Viele map showing the current and proposed relocation sites of the Hamilton Grange National Memorial, Hamilton Grange project area, Manhattan, New York, NY (note the identification of a possible mill feature, ca. 1800).

rivers across his property, including a small stream in what is now the northwestern portion of St. Nicholas Park. Hamilton may have utilized this stream for his mill house, and portions of the mill including foundation remains, may survive in the proposed relocation site for the Grange.

A second possible resource includes the remains of portions of the Mott farm as depicted on the 1811 Commissioners Plan of Manhattan (see Figure 5-5). The farm itself is depicted as lying outside of the relocation site boundaries, but it is possible that outbuildings and yard features (e.g., privies, trash heaps, stone walls, outbuildings, wells) may survive within those boundaries.

The 1885 Robinson map depicts an outbuilding at the northeastern corner of the park and within the boundaries of the proposed relocation site (see Figure 5-8). This outbuilding appears to be associated with a residence situated west of the historic alignment of King's Bridge Road, what is now the corner of St. Nicholas Avenue and 141st Street. The building is gone by 1921, likely razed during the construction of the park, but elements of it may survive below the modern ground surface.

Other possible historic period resources within the relocation site may include subsurface evidence of Parsons' original layout of the park. The design plans for the park and subsequent land maps dating to 1975 depict a walkway cutting through the St. Nicholas portion of the project area (see Figures 5-14, 5-15, 5-16, 5-17). This path no longer exists as a formal design feature, but a well-trod footpath follows what was likely its original alignment. Portions of the original path may survive, including any formal landscaping elements associated with it.

In light of the number of potential resources identified within this portion of the project area and the degree of disturbance caused by park construction and improvements, the St. Nicholas Park impact area possesses moderate archaeological sensitivity for resources dating from the mid-eighteenth to early twentieth centuries (see Figure 5-18).

RESULTS OF FIELDWORK

Summary of Previous Archaeological Work

A Phase IA sensitivity assessment and literature search was conducted at the Hamilton Grange project area in August 2003 (Heitert 2003). The tasks associated with this phase of work included detailed prehistoric and historical background research for the current site of the Grange at 287 Convent Avenue and the proposed relocation site in St. Nicholas Park, as well as a walkover survey of both parcels.

Both the Convent Avenue and St. Nicholas Park impact areas were assessed with low prehistoric archaeological sensitivity (see Figure 4-2). The relocation of Hamilton Grange to its current lot on Convent Avenue, ca. 1889, required site clearing, blasting, excavation and grading that preclude the stratigraphic integrity of any prehistoric resources in that area. Furthermore, while the construction of St. Nicholas Park was generally sensitive to the topographic integrity of the original landscape (see Chapter 5), the bedrock outcrops, steep terrain, and minimal water resources mitigate against a prehistoric presence in that portion of the project area.

The Convent Avenue impact area was assessed with low historic archaeological sensitivity for resources pre-dating 1889, and high archaeological sensitivity for resources post-dating the relocation of the Grange, ca. 1889 (see Figure 5-18). Based on a review of historic maps dating from 1639–1890, no historic period resources could be identified in this portion of the project area. In addition, blasting, excavation, and grading within the lot during the construction of the house foundation, ca. 1889, compromised the stratigraphic integrity of the soils in that location and, by extension, any pre-1889 historic resources that they may have contained. Features post-dating the relocation of the house to Convent Avenue, ca. 1889, however, may exist within the impact area. These features might include refuse deposits and the remains of small outbuildings. The installation of indoor plumbing in the house in the mid-nineteenth century and the re-establishment of that system after its move preclude the presence of privy or well features.

The St. Nicholas Park impact area was assessed with moderate historic archaeological sensitivity (see Figure 5-18). The use of Harlem Heights as a base of operations area during the Revolutionary War and, moreover, the engagement of the Battle of Harlem Heights between 130th and 155th streets, suggests the possibility of the presence of military cultural material and features within the relocation site. Other potential resources include: the remains of Alexander Hamilton's mill house, ca. 1800–1802, as suggested by the 1874 Viele map of Manhattan (see Figure 5-19); the remains of portions of the Mott farm as depicted on the 1811 Commissioners Plan of Manhattan (see Figure 5-5); an outbuilding depicted on the 1885 Robinson map of the area (see Figure 5-8), and; landscape elements associated with Parsons' original Picturesque-style layout of the park (e.g., footpaths, relict ornamental plantings).

Management recommendations based on the results of the Phase IA survey included the excavation of approximately 46, 50-x-50-cm test units within the project area. Six test units were recommended for the Convent Avenue impact area, with three test pits placed in the front of the house and three in the rear. Forty test units were recommended for the St. Nicholas Park impact area, excavated within a coordinate grid system and as judgmental test pits in areas identified as potentially containing specific historical resources.

Results of the Phase IB Field Investigations

Forty-one 50-x-50-cm test pits were excavated within the current and proposed relocation sites of the Hamilton Grange project area (Figure 6-1). The Convent Avenue parcel was tested using one transect (Transect A) and three judgmental test pits (JTP 1-3), and the proposed St. Nicholas Park parcel was tested using a coordinate grid system (see Figure 6-1). For ease of review, the fieldwork results have been organized according to their respective locations.

287 Convent Avenue

Six test pits were excavated at the current Grange location on Convent Avenue (see Figures 3-4, 6-1). The front yard area was investigated using three judgmental test pits, all of which opened with a sandy-silt landscaped topsoil layer ranging from 9-12 cm deep, underlain by several historic fill strata (Figure 6-2). The fill soils comprised silty sands and sands and varied in color from grayish brown to yellowish brown; the deeper fill deposits were considerably more compact than those higher in the stratigraphic sequence. This degree of compaction, combined with the inclusion of late nineteenth-century cultural material and architectural debris as illustrated in Fill 3 (Appendix A), suggests a construction work surface, likely dating to the relocation and reconstruction of the Grange in 1898.

The fill layers underlying this trample zone are the mottled remains of the cellar ejecta excavated during that period, and those above the work zone are subsequent landscaping efforts designed to create a level yard area. With the exception of the construction trample zone, no stratified cultural materials or features were identified in the front yard area of the current Grange site. JTP-1-JTP-3 terminated at an average depth of 85 cmbs.

Transect A, comprising three test pits, was excavated at a roughly east-west orientation in the rear yard area of the current Grange location (see Figure 6-1; Figure 6-3). Like the test pits excavated in the front of the house, these test pits contained multiple, stratified fill deposits of silty sand containing a range of late nineteenth to twentieth-century cultural material (see Figure 6-2 and below).

The soils in this portion of the parcel, however, were considerably wetter and darker than those excavated in the front yard area, ranging in color from very dark grayish brown to olive-brown. Christopher Keenan indicated that this condition is probably the result of a small stream that formerly crosscut the property and was filled during the relocation of the house, ca. 1889 (Christopher Keenan, personal communication 2003).

Historic cartographic data does not show this stream as it likely was too small to record relative to the broad resolution used for the maps, but the existence of a drywell in the Grange basement attests to its



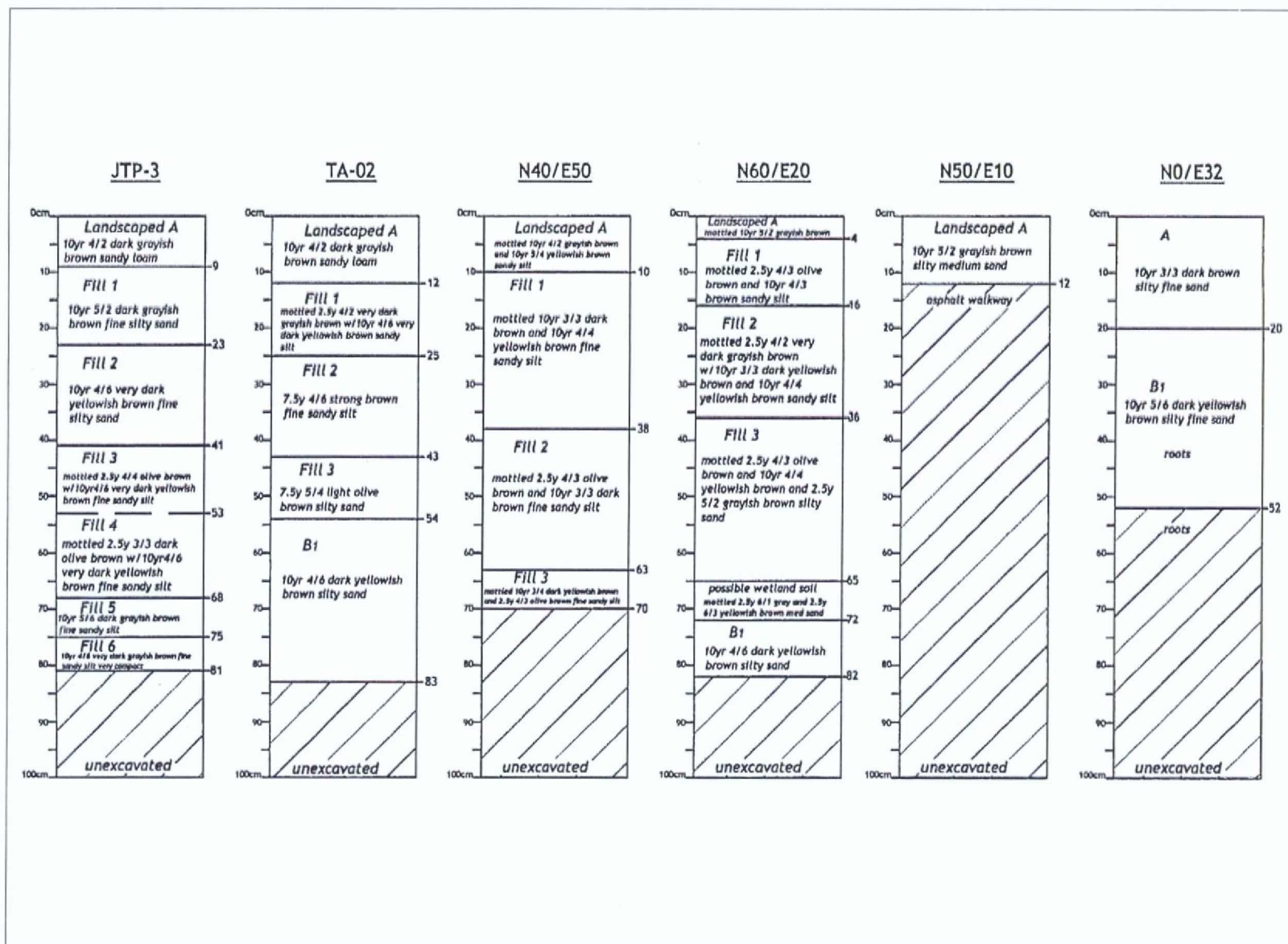


Figure 6-2. Representative test pit profiles, Hamilton Grange project area, Manhattan, New York, NY.



Figure 6-3. Photograph of the excavation of TA-3, view south, Hamilton Grange project area, Manhattan, New York, NY.

continued influence on the property (Christopher Keenan, personal communication 2003). While intact B₁ subsoils were encountered at an average depth of 61 cmbs in this portion of the project area, no indications of the stream were identified in any of the test pits, nor were any intact or stratified cultural materials or features identified.

A total of 251 pieces of historic cultural material was recovered from the Convent Avenue impact area, with 107 artifacts collected from the front yard, and 144 artifacts collected from the rear yard (see Appendix A). The majority of the assemblage comprised bottle and window glass (31 percent), followed

by hand-cut and machine-made nails and nail fragments (23 percent), and brick fragments (19 percent). A small mix of ceramic sherds also was recovered, dominated by redware (14 sherds), two pieces of creamware and whiteware, four pieces of porcelain, and a single sherd of yellow ware. Several vessel forms could be identified within the assemblage, including a glass tumbler, and two earthenware dishes. All of the materials were recovered from landscaped topsoil or fill horizons and, as such, retain no stratigraphic integrity.

This lack of stratigraphic integrity and predominance of architectural debris is directly attributable to the relocation of the Grange, ca. 1889. Blasting, grading, and construction activities associated with the move effectively preclude the survival of original topsoils; while intact B₁ subsoils were identified along Transect A, they contained no cultural deposits. The presence of eighteenth-century cultural material (creamware, redware, dark green bottle glass) hints at the possible presence of an earlier occupation of the property (see Appendix A). The recovery of these materials from deep fill deposits, however, suggests that they, and any associated features, were blasted out during the cellar excavation and re-graded across the property.

St. Nicholas Park

Thirty-five test pits were excavated within the proposed St. Nicholas Park relocation site using a coordinate grid (see Figure 6-1; Figure 6-4). Soils in the park comprised a landscaped topsoil horizon underlain by successive fill strata; test pits in the St. Nicholas Park impact area terminated at an average depth of 62 cmbs.



Figure 6-4. Photograph of the St. Nicholas Park impact area, view east, Hamilton Grange project area, Manhattan, New York, NY.

N40E50 provides a representative soil profile for the park, opening with 10-cm thick landscaped topsoil horizon followed by three mottled fill deposits to a termination depth of 70 cmbs (see Figure 6-2). The uniformly yellowish to olive-brown coloration and silty sand composition of the “fill” strata throughout the park suggest that the soils are a mix of redeposited subsoil, likely generated during the installation of water and sewer lines, pathways, and electrical lines.

Eleven test pits (31 percent), including N60E20, contained what appeared to be intact B and/or C subsoils beneath the fill layers (see Figure 6-2). These test pits were clustered in the north-central and northeastern portion of the impact area in the possible location of Hamilton’s mill house and a later nineteenth-century outbuilding. The millhouse was predicted for this area based on the presence of a stream running through that location as depicted on the 1874 Viele map (see Figure 5-19). While no evidence of either structure was identified in any of these test pits, N60E20 did contain a possible “wetland” stratum at 65–72 cmbs (see Figure 6-2). Comparison of the testing map with the 1874 map shows complementarity between the location of the test pit and the former location of the stream, suggesting that the identified wetland horizon may be part of the relict streambed (see Figures 5-19, 6-1). No additional stratigraphic evidence of the stream was identified in adjacent test pits, however, nor were any structural remains encountered.

Asphalt paving was identified at roughly 13 cmbs in three test pits (N30E10, N50E10, N60E10) along the informal footpath cutting north through the park (see Figures 6-1, 6-2; Figure 6-5). These pavers are part of the original park walkway as designed by Parsons, ca. 1903. Engineering specifications for the walkway indicate that the walkway material is “rock asphalt mastic” (Gregory 1903; see Appendix A). This earlier form of modern asphalt contained natural rock asphalt, a naturally occurring limestone rock impregnated with bitumen and found in geological formations mainly in France, Switzerland, Italy, and Germany (Anon. 2003).

N0E32, located at the very edge of the bedrock outcrop at the southern extent of the parcel, contained the only intact soil profile within the project area (see Figures 6-1, 6-3). The test pit opened with a 20-cm thick dark brown silty fine sand topsoil horizon followed by a very dark yellowish brown silty fine sand B₁ subsoil to a termination depth of 52 cmbs. Four pieces of late-nineteenth- to twentieth-century cultural material, including whiteware, brick, glass, and a bisque doll fragment, was recovered in the topsoil stratum; no cultural material was recovered from the subsoil (see Appendix A). The integrity of the soils in this test pit are attributable to its relatively



Figure 6-5. Photograph of informal walking path, view southwest, St. Nicholas Park impact area, Hamilton Grange project area, Manhattan, New York, NY.

protected location near an enormous bedrock outcrop that has shielded it from the excavation and earth-moving activities that typify the balance of the parcel.

A total of 567 pieces of cultural material was recovered from the St. Nicholas Park impact area (see Appendix A). Late-nineteenth- and twentieth-century bottle and window glass was by far the single largest artifact category, comprising 63 percent of the total assemblage. Ceramic sherds, including a predominance of whiteware and ironstone, made up the second largest class of material, followed by brick.

Several artifacts potentially dating to the eighteenth-century also were collected from the park, including a redware pipe bowl fragment (N55E25), an unmarked ball clay pipe stem (N50E50), and several pieces of dark green bottle glass (N50E0, N50E40, N55E45) (see Appendix A). These materials were collected in the same general area identified as the potential location of Hamilton's millhouse (see Figure 6-1) and would be roughly contemporaneous with that structure. Despite their disturbed context and the lack of any associated eighteenth-century features, the artifacts may be scattered and redeposited remnants of an occupation dating from the late 1700s, possibly associated with the Hamilton tenure on the property.

Like the Convent Avenue impact area, all of the cultural material from the park was recovered from landscaped topsoil or fill deposits (with the exception of N0E32) (see Appendix A). The undifferentiated mix of primarily nineteenth- and twentieth-century domestic and architectural material derives from several different processes. First, Parson's landscaping activities, including cutting and grading for terraces and the installation of utility lines and walkways, removed and redeposited soils throughout the impact area. The late-nineteenth- and twentieth-century domestic debris (whiteware, bottle glass) recovered from fill episodes throughout the impact area also is likely associated with worker debris discarded during the creation of the park.

Second, building and razing episodes at the northwestern corner of the park (e.g., ROTC building and Steinman Hall) required massive amounts of blasting, grading, and re-contouring. These activities further disturbed the landscape and introduced a mix of twentieth-century architectural debris into the archaeological record (e.g., brick, mortar, window glass, machine cut nails) (see Appendix A). Finally, the recreational use of St. Nicholas Park over the past century has resulted in the accumulation of modern trash within the landscaped topsoil levels.

CHAPTER SEVEN

INTERPRETATIONS AND MANAGEMENT RECOMMENDATIONS

Interpretations

287 Convent Avenue

The Convent Avenue impact area has been heavily disturbed by blasting and grading activities associated with the relocation of the Grange in 1889, and by subsequent construction associated with the apartment building to the north and St. Luke's Episcopal Church to the south. Test pits excavated in the front and rear yards document multiple deep fill levels containing unstratified late-nineteenth- and twentieth-century domestic debris. The presence of eighteenth-century cultural material (creamware, redware, dark green bottle glass) hints at the possible presence of an earlier occupation of the property. The recovery of these materials from deep fill deposits, however, suggests that they, and any associated features, were blasted out during the cellar excavation and re-graded across the property.

No cultural features or stratified cultural material deposits associated with the post-1889 occupation of the house were identified.

St. Nicholas Park

The levels of inferred and observed soil disturbance across the park impact area have effectively destroyed any subsurface evidence of prehistoric and historic resources pre-dating the construction of the park. No structural or artifactual data relating to Hamilton's ownership of the property were recovered, nor was there any clear indication of subsequent domestic occupations dating to the early nineteenth century. The recovered assemblage speaks to late-nineteenth- to twentieth-century utilization of the park, mostly in the form of miscellaneous and non-stratified domestic trash deposits (ceramics, bottle glass) and architectural debris (see Appendix A).

Much of the disturbance in the northwest corner of the park impact area may be attributed to sequential building construction episodes in that location beginning in the early twentieth century (e.g., ROTC Armory, Steinman Hall). The steep slope abutting St. Nicholas Terrace at the eastern edge of the parcel appears to be an artificial feature created during the construction of the terrace, and it is not unreasonable to assume that a significant portion of the fill soils used in its creation were borrowed from the immediate surroundings. Plans of the park construction as designed by Parson's also illustrate the installation of water and sewage lines (see Figure 5-14), a process that required extensive cutting and filling.

The identification of several pieces of mid- to late-eighteenth-century cultural material, including a ball clay pipe stem and dark green bottle glass, suggests the possible use/occupation of the park impact area

during the Revolution (see Appendix A). The recovery of those materials from disturbed/fill deposits and the lack of any associated stratified cultural features dating to that period render this interpretation speculative at best, and preclude the integrity and interpretive potential of the artifacts.

The possible wetland stratum identified in N60E20 (see Figure 6-2) may be a remnant of the relict stream depicted in that location during the early nineteenth century and discussed as the possible power source for Hamilton's mill during his tenure on the property (see Chapters 5 and 6). Adjacent test pits, however, lacked additional stratigraphic evidence for the stream or any structural remains of the mill.

The identification of the remains of the original park footpath, ca. 1903, does not represent a significant cultural resource finding. The walkway is well documented through historic maps and construction plans (see Chapter 5) and does not contribute any new or substantive information about the park's history.

While the lack of stratigraphic integrity across the St. Nicholas Park portion of the project area precluded the identification of stratified cultural deposits or features, it does, paradoxically, provide some insights into the received wisdom concerning Parson's approach to park construction. The degree of observed soil disturbance indicates that Parsons design footprint, at least in this specific portion of St. Nicholas Park, was rather heavy as a result of the installation of water and sewer lines, the creation of level terraces on an otherwise precipitously sloped hillside, and the construction of the formal asphalt pathway.

In addition, the landscape on which Parson's conceived his design vision for the park likely had already undergone a substantial level of modification well before he was able to implement it. The extension of the gridiron and the creation of the Hamilton Heights neighborhood in the 1880s and 1890s precipitated a residential building boom in the area and required a massive amount of soil cutting, filling, and soil borrowing to grade and level the neighborhood and streets surrounding the park location. By 1903, Parsons likely was looking at a largely urbanized and modified environmental context, and that his pursuit of a "naturalistic" aesthetic came at the price of a decidedly unnatural level of earthmoving and landscape manipulation.

Recommendations

Based on the results of the Phase IB archeological survey, neither the Convent Avenue nor the St. Nicholas Park impact areas contain sufficient stratigraphic integrity, cultural materials, or cultural features to make substantive research contributions to the prehistory or history of the Hamilton Grange project area. **No additional documentary or archaeological work is recommended for the current site of the Hamilton Grange National Memorial at 287 Convent Avenue or for the proposed relocation site in St. Nicholas Park.**

REFERENCES

- Anonymous (Anon.)
1665 *Manatus Gelegen op de Noot Rivier, 1639*. On file, New York Public Library, Map Division, New York, NY.
- 1782 *The British Headquarters Map*. On file, New York Public Library, Map Division, New York, NY.
- 2003 *Mastic Asphalt*. Retrieved January 7, 2003 from the World Wide Web: <http://www.ruberoid.ie/ruberoid37.htm>.
- Bendremer, Jeffrey C.M., Elizabeth A. Kellogg, and Tonya Baroody Largy
1991 A Grass-Lined Maize Storage Pit and Early Maize Horticulture in Central Connecticut. *North American Archaeologist* 12(4):325-349.
- Bolton, Reginald Pelham
1922 *Indian Paths in the Great Metropolis*. Indian Notes and Monographs, Miscellaneous series #23. Museum of the American Indian Heye Foundation, New York, NY.
- Bradley, James
1998 *Origins and Ancestors, Investigating New England's PaleoIndians*. Robert S. Peabody Museum of Archaeology. Phillips Academy, Andover, MA.
- Bromley, George W., and Walter S. Bromley
1879 *Atlas of the Entire City of New York: Complete in One Volume; from Actual Surveys and Official Records*. On file, New York Public Library, Map Division, New York, NY.
- Bromley, George W.
1921 *Atlas of the Borough of Manhattan*. G.W. Bromley and Company, New York. On file, New York City Municipal Archives, New York, NY.
- 1937 *City of New York*. G.W. Bromley and Company, New York. On file, New York City Municipal Archives, New York, NY.
- 1955 *City of New York*. G.W. Bromley and Company, New York. On file, New York City Municipal Archives, New York, NY.
- 1975 *City of New York*. G.W. Bromley and Company, New York. On file, New York City Municipal Archives, New York, NY.
- Burrows, Edwin G., and Mike Wallace
1999 *Gotham: A History of New York City to 1898*. Oxford University Press, Inc. New York, NY.
- Cantwell, Anne-Marie, and Diana diZerega Wall
2001 *Unearthing Gotham: The Archaeology of New York City*. Yale University Press, New Haven, CT.
- Ceci, Lynn
1982 Method and Theory in Coastal New York Archaeology: Paradigms of Settlement Pattern. *North American Archaeologist* 3(1):5-36.
- Cohen, Paul E., and Robert T. Augustyn
1997 *Manhattan in Maps, 1527-1995*. Rizzoli International Publications, Inc., New York, NY.
- Deak, Gloria
2000 *Picturing New York: The City from its Beginnings to the Present*. Columbia University Press, New York, NY.
- Dragoo, Don W.
1976 Some Aspects of Eastern North American Prehistory: A Review 1975. *American Antiquity* 41:3-27.
- Dripps, Matthew
1867 *Map of New York and Vicinity*. On file, New York Public Library, Map Division, New York, NY.
- Funk, Robert E.
1972 Early Man in the Northeast and the Late Glacial Environment. *Man in the Northeast* 4:7-39.
- Gregory, E.C.
1903 *Construction Map of St. Nicholas Park - North. Layout of the park showing water & sewer pipes*. On file, New York City Municipal Archives, New York, NY.
- Grumet, Robert Steven
1981 *Native American Place Names in New York City*. On file, Museum of the City of New York, New York, NY.
- 1995 *Historic Contact: Indian People and Colonists in Today's Northeastern United States in the Sixteenth through Eighteenth Centuries*. University of Oklahoma Press: Norman, OK.

References

- Hasenstab, Robert
1991 Wetlands as a Critical Variable in Predictive Modelling of Prehistoric Site Locations: A Case Study from the Passaic Basin. *Man in the Northeast* 42:39–61.
- Heckenberger, M.J., James B. Petersen, and Nancy Asch Sidell
1992 Early Evidence of Maize Agriculture in the Connecticut River Valley of Vermont. In *Archaeology of Eastern North America* 20:125–150.
- Heitert, Kristen
2003 *Phase IA Sensitivity Assessment/Literature Search, Hamilton Grange National Memorial and St. Nicholas Park, New York, New York*. PAL Report No. 1546. Submitted to National Park Service – Denver Service Center, Denver, CO.
- Historical Perspectives, Inc. (HPI)
2002 *Second Avenue Subway Phase IA Archaeological Assessment*. Prepared by Historical Perspectives, Inc., Westport, CT. Prepared for Allee King Rosen and Fleming, Inc., New York, NY.
- Hume, Ivor Noel
1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York, NY.
- Hyde, E. Belcher
1906 *Atlas of the Borough of Manhattan, City of New York, Vol. 4, from 125th Street to Spuyten Duyvil*. E. Belcher Hyde Map Company, Inc., New York. On file, New York Public Library, Map Division, New York, NY.
- King, Marsha
1988 Historic Site Location in Large Project Areas. Paper presented at the 28th Annual Meeting of the Northeastern Anthropological Association, Albany, NY.
- Lavin, Lucianne
1988 Coastal Adaptation in Southern New England and Southern New York. *Archaeology of Eastern North America* 16:101–120.
- Library of Congress [LOC]
2003a *Photocopy of perspective drawing, Hamilton Grange*. Photographed by OH. D. Langmann, date unknown. On file at the Library of Congress, Historic American Buildings Survey/Historic American Engineering Record Collection, HABS, NY,31-NEYO,170-3. Retrieved September 9, 2003 from the World Wide Web: <http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/ny/ny1700/ny1721NEYO,170-3&displayProfile=0>
- 2003b *Photocopy of photograph, Perspective view of South (Front) and East Side During Move Showing House Raised, Hamilton Grange, ca. 1889*. Photographer unknown. On file at the Library of Congress, Historic American Buildings Survey/Historic American Engineering Record Collection, HABS, NY,31-NEYO,170-6. Retrieved September 9, 2003 from the World Wide Web: <http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/ny/ny1700/ny1721-NEYO,170-6&displayProfile=0>
- 2003c *Photocopy of photograph, Perspective View of West (Front) and South Side as Located and Altered at Present Site, Hamilton Grange, c. 1890*. Thomas G. Pratt, Photographer. On file at the Library of Congress, Historic American Buildings Survey/Historic American Engineering Record Collection, HABS, NY,31-NEYO,170-9. Retrieved September 9, 2003 from the World Wide Web: <http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/ny/ny1700/ny1721/NEYO,170-9&displayProfile=0>
- Louis Berger & Associates, Inc. (LBA)
1995 *Phase IV Upgrade of the High Voltage Electrical Service and Distribution System, United States Coast Guard Support Center, Governors Island, New York*. Prepared for Miller-Stephenson & Associates, P.C., Eaton Electric, and U.S. Coast Guard Support Center.
- McManamon, Francis P.
1990 A Regional Perspective on Assessing the Significance of Historic Period Sites. *Historical Archaeology* 24(2):14–22.
- Miller, George L.
1990 Classification and Economic Scaling of Nineteenth Century Ceramics. *Historical Archaeology* 14(1):1–40.
1991 A Revised Set of CC-Index Values for English Ceramics. *Historical Archaeology* 25(1):1–25.
- Miller, George L., and Silas D. Hurry
1983 Ceramic Supply in an Economically Isolated Frontier Community: Portage County of the Western Ohio Reserve, 1800–1825. *Historical Archaeology* 17(2):80–92.
- Minami, Michael
2000 *Using ArcMap*. Environmental Systems Research Institute, Inc., Redlands, CA.
- Mulholland, Mitchell T.
1984 *Patterns of Change in Prehistoric Southern New England: A Regional Approach*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Massachusetts, Amherst, MA.

- National Park Service
1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. *Federal Register* 48(190). National Park Service, Department of the Interior, Washington, D.C.
- 1985 Guidelines for Local Surveys: A Basis for Preservation Planning. *National Register Bulletin* 24. National Park Service, Department of the Interior, Washington, D.C.
- Nicholas, George P.
1991 Places and Spaces: Changing Patterns in Wetland Use in Southern New England. *Man in the Northeast* 42:75-98.
- Postal, Matthew A.
2000 *Hamilton Heights Historic District Extension, Borough of Manhattan, Designation Report*. Prepared for the New York City Landmarks Preservation Commission, New York, NY. On file, New York City Landmarks Preservation Commission, New York, NY.
- Randel, John Jr.
1811 The Commissioner's Plan. On file, New York Public Library, Map Division, New York, NY.
- Riker, James
1904 *Harlem: Its Origins and Early Annals*. Literature House/Gregg Press, Upper Saddle River, NJ.
- Rink, Oliver A.
1986 *Holland on the Hudson: An Economic and Social History of Dutch New York*. Cornell University Press, Ithaca, NY.
- Ritchie, Duncan, Marsha K. King, and Martha Lance
1988 *Archaeological Survey of Westville Dam and Reservoir in Southbridge and Sturbridge, Massachusetts*. The Public Archaeology Laboratory, Inc. Report No. 158-2. Submitted to IEP, Inc., Northborough, MA and the Army Corps of Engineers, New England Division, Waltham, MA.
- Ritchie, William A.
1980 *The Archaeology of New York State*. Harbor Hills Books, Harrison, NY.
- Ritchie, William A., and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum and Science Service Memoir 20, Albany, NY.
- Ritter, Dale F., R. Craig Kochel, and Jerry R. Miller
1995 *Process Geomorphology*, 3rd Edition. William C. Brown Publishers, Dubuque, IA.
- Roberts, William I., IV
1991 *Archaeological and Historical Sensitivity Evaluation of the Dance Theatre of Harlem Expansion Project, 474-476 West 152nd Street, Manhattan, New York, CEQR #90-140*. Prepared for Jack Freeman Associates, Inc., New York, NY.
- Robinson, Edward
1885 *Atlas of New York City*. On file, New York Public Library, Map Division, New York, NY.
- Robinson, E., and R.H. Pidgeon
1890 *Atlas of the City of New York, Vol. 2, Embracing the 12th Ward*. On file, New York Public Library, Map Division, New York, NY.
- Rubinson, Karen S., and Frederick A. Winter
1991 *East Harlem Triangle Site, Block 1791, Part of Lot 1; Block 1792, Blocks 5, 9, 10, CEQR #89-106M*. Prepared for the New York City Department of Housing and Development, New York, NY.
- Simon, Brona G.
1991 Prehistoric Land Use and Changing Paleoecological Conditions at Titicut Swamp in Southeastern Massachusetts. *Man in the Northeast* 42:63-74.
- Smith, C.S.
1980 An Outline of the Archaeology of Coastal New York. *Bulletin of the Archaeological Society of Connecticut* 43:47-56.
- South, Stanley A.
1977 *Method and Theory in Historical Archaeology*. Academic Press, New York, NY.
- Stokes, I.N. Phelps
1928 *The Iconography of Manhattan Island*. Vol. VI. Robert Dodd, New York, NY.
- Thieme, Donald M.
2000 *Paleoenvironmental and Archaeological Contexts in the New York and New Jersey Harbor Region*. Paper presented at the Annual Meeting of the Society for American Archaeology, Philadelphia, PA.
- Thomas, Peter
1980 The Riverside District, the WMECO Site, and Suggestions for Archaeological Modeling. In *Early and Middle Archaic Cultures in the Northeast*, edited by David R. Starbuck and Charles Bolian, pp. 73-96. Occasional Publications in Northeastern Anthropology, No. 7. Department of Anthropology, Franklin Pierce College, Rindge, NH.
- Thompson, John H. (editor)
1977 *Geography of New York State*. Syracuse University Press, Syracuse, NY.

References

Thorbahn, Peter F.

- 1982 *The Prehistoric Settlement Systems of Southern New England: Final Report of The Interstate 495 Archaeological Data Recovery Program*, vol. 1. Public Archaeology Laboratory, Department of Anthropology, Brown University Report. Submitted to the Massachusetts Department of Public Works, Boston, MA.

Thorbahn, Peter, F., Leonard Lopato, Deborah Cox, and Brona Simon

- 1980 *Prehistoric Settlement Processes in Southern New England: A Unified Approach to Cultural Resource Management and Archaeological Research*. Public Archaeology Laboratory, Department of Anthropology, Brown University Report. Report on file, Massachusetts Historical Commission, Office of the Secretary of State, Boston, MA.

United States Geological Survey (USGS)

- 1902 *New York City Folio, Harlem Quad*. On file, New York Public Library, Map Division, New York, NY.
- 1999 Map Accuracy Standards: Fact Sheet FS-171-99. USGS. Retrieved January 16, 2004 from the World Wide Web: <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs17199.html>.

Viele, Egbert L.

- 1874 *Topographical Atlas of New York City showing the Original Water Courses and Made Land*. On file, New York Public Library, New York, NY.

Appendix A

CATALOG OF CULTURAL MATERIAL

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count	
Convent Avenue	JTP-01	Landscape A/Fill 1	00-23	Bone	Bird Bone Unidentified	Food Remains	1	
				Coal	Coal, Unburned	Heating/Cooking	1	
				Composite	Unclassifiable Artifacts	Miscellaneous Object	1	
				Earthenware	Brick	Structural Material	5	
					Sherd	Dish	1	
					Ferrous	Nail	Wire Nail	4
				Glass	Bottle		3	
					Bulb, Light	Lighting Fixture	1	
					Glass Fragment	Indeterminate Glass Object	2	
					Tumbler		1	
				Lead	Unclassifiable Artifacts	Indeterminate Metal Object	1	
				Porcelain	Insulator	Electrical Hardware	1	
				Whiteware	Sherd	Dish	1	
		Fill 2	23-34	Copper Alloy	Unclassifiable Artifacts	Indeterminate Metal Object	1	
				Earthenware	Brick	Structural Material	2	
				Ferrous	Nail	Machine Cut Nail	6	
				Mortar	Mortar	Structural Material	1	
		Fill 3	34-61	Coal	Coal, Unburned	Heating/Cooking	1	
				Earthenware	Brick	Structural Material	6	
				Ferrous	Nail	Machine Cut Nail	1	
						Wire Nail	6	
				Mortar	Mortar	Structural Material	2	
				Wood	Charcoal	Heating/Cooking	1	
		Redeposited B		61-84	Earthenware	Brick	Structural Material	1
					Ferrous	Nail	Machine Cut Nail	4
			JTP-02		Landscape A/Fill 1	00-28	Coal	Coal, Unburned
		Copper Alloy		Unclassifiable Artifacts			Miscellaneous Hardware	1
				Tack			Decorative Object	1
		Earthenware		Brick			Structural Material	1
		Glass		Bottle				1
		Plastic		Marker			Horticultural/Agricultural Object	1
				Plastic Fragment			Indeterminate Synthetic Object	1
		Silver Alloy		Currency			Coin	1
		Unidentified		Unclassifiable Artifacts			Clinker	1
		JTP-02	Fill 2	28-54	Composite	Crown Cap	Bottle Closure	2
	Earthenware				Brick	Structural Material	7	
	Ferrous				Nail	Wire Nail	3	
	Glass				Bottle		4	
						Beer	2	
					Windowpane		3	

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	1
		Fill 3	54-89	Earthenware	Brick	Structural Material	2
				Ferrous	Nail	Unidentified Nail	1
				Redware	Unclassifiable Artifacts	Indeterminate Ceramic Object	1
JTP-03	Landscape A/Fill 1		00-23	Copper Alloy	Currency	Coin	1
				Earthenware	Sherd	Dish	1
				Glass	Bottle		1
				Redware	Sherd		1
	Fill 2		23-41	Earthenware	Brick	Structural Material	1
					Tile, Roof	Structural Material	2
				Ferrous	Nail	Machine Cut Nail	2
				Glass	Windowpane		1
				Redware	Flowerpot		1
	Fill 3		41-53	Earthenware	Tile, Roof	Structural Material	1
				Redware	Flowerpot		1
	Fill 5		68-75	Ferrous	Nail	Machine Cut Nail	1
						Wire Nail	1
				Redware	Sherd		1
TA-01	Landscape A		00-21	Earthenware	Sherd	Dish	2
				Ferrous	Nail	Wire Nail	5
					Screw	Hardware	1
				Glass	Bottle		5
					Jar		1
					Windowpane		3
				Redware	Flowerpot		6
				Stoneware	Sherd		1
	Fill 1		21-70	Earthenware	Brick	Structural Material	5
					Sherd	Dish	1
				Glass	Bottle		5
					Glass Fragment	Indeterminate Glass Object	1
					Windowpane		4
				Ferrous	Nail	Machine Cut Nail	4
						Wire Nail	3
				Porcelain	Sherd	Lid/Cover	1
TA-02	Landscape A		00-12	Earthenware	Sherd	Dish	1
				Ferrous	Pulley	Hardware	1
				Glass	Bottle		4
				Redware	Sherd		1
	Fill 1		12-25	Ferrous	Nail	Machine Cut Nail	2
				Glass	Bottle		3

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
					Windowpane		1
		Fill 3/4	25-54	Bone	Mammal Bone Unidentified	Food Remains	1
				Earthenware	Brick	Structural Material	3
					Sherd	Dish	2
				Ferrous	Nail	Unidentified Nail	4
					Wire	Hardware	2
				Glass	Bottle		4
					Container		1
					Windowpane		3
	TA-03	Fill 1	06-13	Earthenware	Sherd	Dish	1
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Bottle		8
				Plastic	Comb	Toiletry	1
				Porcelain	Saucer	Dish	1
				Redware	Flowerpot		1
					Sherd		1
		Fill 2	13-32	Earthenware	Handle		1
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Glass Fragment	Indeterminate Glass Object	2
				Porcelain	Sherd	Dish	1
		Fill 3	32-42	Bone	Mammal Bone Unidentified	Food Remains	1
				Ferrous	Nail	Unidentified Nail	3
						Wire Nail	2
				Glass	Windowpane		5
					Container		1
				Shell	Oyster	Specimen, Unworked	10
				Whiteware	Sherd	Dish	1
				Yellowware	Sherd	Dish	1
	Apz/Buried A	42-61	Coal	Coal, Burnt		Heating/Cooking	2
				Creamware	Sherd	Dish	2
				Earthenware	Brick	Structural Material	1
					Sherd	Dish	2
				Ferrous	Nail	Machine Cut Nail	2
						Unidentified Nail	4
				Glass	Bottle		3
					Bulb, Light	Lighting Fixture	1
					Mirror	Furniture	1
					Windowpane		2

subtotal

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Site Name	Unit	Stratum	Depth	Material	Revised Nomenclature	Object	Count		
St. Nicholas Park	N00-E32	A1	00-20	Bisque	Doll	Toy	1		
				Earthenware	Brick	Structural Material	1		
				Glass	Glass Fragment	Indeterminate Glass Object	1		
				Whiteware	Sherd	Dish	1		
	N10-E30	Landscape A	00-18	Earthenware	Brick	Structural Material	2		
				Ferrous	Nail	Wire Nail	1		
				Glass	Bottle		2		
	N20-E20	Landscape A/Fill 1	00-39	Earthenware	Brick	Structural Material	1		
					Tile	Structural Material	2		
				Glass	Bottle		4		
				Ironstone	Sherd	Dish	1		
				Metal	Screw Cap	Bottle Closure	1		
				Plastic	Button	Button	1		
			Fill 2	39-54	Copper Alloy	Currency	Coin	1	
					Ferrous	Nail	Machine Cut Nail	1	
					Glass	Bottle		3	
					Whiteware	Sherd	Dish	1	
			N20-E30	Landscape A	00-21	Bone	Mammal Bone Unidentified	Food Remains	2
						Earthenware	Brick	Structural Material	5
						Glass	Bottle		5
							Glass Fragment	Indeterminate Glass Object	1
					Jar	Kitchenware	1		
		Porcelain			Sherd	Dish	1		
		Whiteware			Sherd	Dish	1		
	Fill 2	21-43			Earthenware	Brick	Structural Material	2	
					Ferrous	Nail	Unidentified Nail	1	
					Stoneware	Sherd		1	
	N20-E40	Fill 1	00-38	Glass	Bottle		9		
				Plastic	Die	Recreational Object	1		
					Unclassifiable Artifacts	Indeterminate Synthetic Object	1		
				Whiteware	Sherd	Dish	1		
	Fill 2	38-57	Glass	Bottle		2			
Porcelain			Unclassifiable Artifacts	Indeterminate Ceramic Object	1				
N30-E10			Landscape A/Fill 1	00-34	Earthenware	Tile	Structural Material	1	
					Glass	Bottle		3	
				Glass Fragment	Indeterminate Glass Object	2			
	N30-E30	Fill 1		00-32	Ironstone	Sherd	Dish	1	
	Fill 2	32-64	Glass	Bottle		1			

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
	N40-E00	Landscape A	00-17	Ferrous	Bit, Twist	Hardware	1
				Glass	Bottle		1
					Windowpane		2
		Fill 1		Stoneware	Unclassifiable Artifacts	Structural Material	1
			17-36	Coal	Coal, Unburned	Heating/Cooking	1
				Earthenware	Brick	Structural Material	1
				Glass	Glass Fragment	Indeterminate Glass Object	1
	N40-E10	Landscape A/Fill 1	00-34	Earthenware	Tile	Structural Material	1
				Glass	Bottle		8
					Glass Fragment	Indeterminate Glass Object	1
					Windowpane		4
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	3
					Knife	Utensil	1
				Stoneware	Unclassifiable Artifacts	Structural Material	1
		Fill 2		Whiteware	Sherd	Dish	3
			34-60	Glass	Bottle		2
					Windowpane		1
	N40-E20	Landscape A	00-17	Glass	Bottle		4
					Glass Fragment	Indeterminate Glass Object	1
					Windowpane		1
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	3
		Fill 2	17-72	Earthenware	Sherd	Indeterminate Ceramic Object	1
				Glass	Bottle		5
					Windowpane		1
				Whiteware	Sherd	Body Sherd	1
		Fill 2	72-80	Coal	Coal, Unburned	Heating/Cooking	1
				Earthenware	Brick	Structural Material	4
				Ferrous	Nail	Unidentified Nail	2
				Glass	Bottle		2
					Windowpane		1
				Redware	Sherd		1
	N40-E30	Landscape A/Fill 1	00-48	Earthenware	Brick	Structural Material	2
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Bottle		2
					Glass Fragment	Indeterminate Glass Object	1
					Windowpane		1
	N40-E40	Landscape A/Slopewash	00-40	Glass	Bottle		1
		Fill 1	40-90	Earthenware	Tile	Structural Material	1
				Glass	Bottle		13
					Glass Fragment	Decorative Object	1

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	1
					Reflector	Transportation Object	1
	N40-E50	Fill 1	10-38	Composite	Cap, Bottle	Bottle Closure	1
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Bottle		6
				Porcelain	Sherd	Dish	1
				Whiteware	Sherd	Dish	2
		Fill 2	38-63	Glass	Bottle		3
				Whiteware	Sherd	Dish	1
	N45-E25	Fill 1	14-58	Earthenware	Brick	Structural Material	3
				Ferrous	Nail	Wire Nail	2
				Glass	Bottle		1
					Windowpane		4
				Shell	Quahog	Specimen, Unworked	1
				Whiteware	Sherd	Dish	1
	N45-E45	Landscape A	00-16	Earthenware	Brick	Structural Material	1
				Glass	Bottle		8
		Fill 1	16-42	Glass	Bottle		3
					Windowpane		5
				Porcelain	Stopper, Bottle	Bottle Closure	1
				Stoneware	Sherd	Dish	1
				Whiteware	Sherd	Dish	2
	N50-E00	Landscape A	00-27	Bone	Mammal Bone Unidentified	Food Remains	1
				Earthenware	Brick	Structural Material	4
				Glass	Bottle		11
					Glass Fragment	Decorative Object	4
					Windowpane		4
					Windowpane	Decorative Object	7
				Shell	Bivalve	Specimen, Unworked	1
				Slate	Tile, Roof	Structural Material	1
				Stoneware	Tile	Structural Material	4
				Whiteware	Bowl	Dish	1
					Sherd	Dish	2
		Fill 1/Redeposited B	27-38	Glass	Bottle		1
					Glass Fragment	Decorative Object	3
					Windowpane		3
	N50-E10	Landscape A	00-12	Asphalt	Pavement		1
				Glass	Bottle		1
	N50-E20	Landscape A	00-14	Earthenware	Brick	Structural Material	1
				Glass	Bottle		11

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
					Windowpane		4
				Plastic	Cap, Bottle	Bottle Closure	1
					Plastic Fragment	Indeterminate Synthetic Object	1
		Fill 1/Redeposited B	14-41	Earthenware	Brick	Structural Material	1
				Ferrous	Nail	Machine Cut Nail	3
				Glass	Bottle		4
					Windowpane		6
				Porcelain	Sherd	Dish	1
N50-E30	Landscape A		00-17	Ferrous	Spike	Hardware	1
				Glass	Bottle		5
					Windowpane		1
		Fill 1	17-30	Copper Alloy	Currency	Coin	1
				Glass	Bottle		2
					Windowpane		1
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	1
N50-E40	Landscape A		00-14	Composite	Sparkplug	Transportation Object	1
				Earthenware	Brick	Structural Material	1
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Bottle		21
				Metal	Cap, Bottle	Bottle Closure	1
				Whiteware	Sherd	Dish	1
		Fill 1/Redeposited B	14-55	Earthenware	Sherd	Dish	1
				Ferrous	Nail	Machine Cut Nail	1
				Glass	Bottle		3
					Lamp	Lighting Fixture	1
					Windowpane		3
N50-E50	Landscape A		00-18	Glass	Bottle		1
		Fill 1	18-43	Earthenware	Pipe, Tobacco	Tobacco Pipe Stem	1
				Glass	Bottle		1
					Glass Fragment	Indeterminate Glass Object	1
					Windowpane		1
				Porcelain	Unclassifiable Artifacts	Indeterminate Ceramic Object	1
				Whiteware	Sherd	Dish	1
		Fill 2	43-62	Glass	Windowpane		2
				Ironstone	Sherd	Dish	1
N50-E60	Fill 1		14-28	Earthenware	Brick	Structural Material	1
				Glass	Windowpane		1
				Pearlware	Sherd	Dish	1
				Porcelain	Sherd	Dish	1
				Redware	Flowerpot		1

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
				Whiteware	Sherd	Dish	1
		Fill 2	28-38	Glass	Stopper, Bottle	Bottle Closure	1
				Shell	Oyster	Food Remains	1
	N55-E25	Landscape A	00-13	Coal	Coal, Unburned	Heating/Cooking	1
				Glass	Bottle		5
		Fill 1	13-37	Earthenware	Brick	Structural Material	1
					Pipe, Tobacco	Tobacco Pipe Bowl	1
				Ferrous	Nail	Machine Cut Nail	3
				Glass	Windowpane		1
	N55-E35	Landscape A/Fill 1	00-37	Earthenware	Brick	Structural Material	1
				Glass	Bottle		1
					Windowpane		4
				Whiteware	Sherd	Dish	1
	N55-E45	Fill 1	00-19	Aluminum	Foil	Indeterminate Metal Object	1
				Glass	Bottle		22
					Lamp Shade	Lighting Fixture	1
					Windowpane		1
				Porcelain	Sherd	Dish	1
				Redware	Sherd		1
				Whiteware	Sherd	Dish	2
		Fill 2	19-58	Glass	Bottle		6
					Lamp Shade	Lighting Fixture	3
					Windowpane		4
				Metal	Unclassifiable Artifacts	Indeterminate Metal Object	1
				Porcelain	Sherd	Dish	1
				Yellowware	Sherd	Dish	1
		Fill 2/B	58-68	Glass	Bottle		2
	N55-E55	Landscape A	00-16	Glass	Bottle		1
		Fill 1	16-66	Earthenware	Brick	Structural Material	1
				Ferrous	Nail	Machine Cut Nail	2
				Glass	Bottle		1
	N60-E00	Landscape A	00-17	Earthenware	Tile	Structural Material	1
				Glass	Bottle		1
				Porcelain	Sherd	Dish	1
		Fill 1	17-37	Earthenware	Tile	Structural Material	1
					Unclassifiable Artifacts	Structural Material	1
				Ferrous	Nail	Wire Nail	1
				Glass	Bottle		2
					Windowpane		1
						Decorative Object	1

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
	N60-E10	Landscape A	00-13	Earthenware	Brick	Structural Material	1
				Glass	Bottle		7
					Windowpane		1
				Porcelain	Unclassifiable Artifacts	Body Sherd	1
	N60-E20	Fill 1	04-16	Earthenware	Sherd	Dish	1
				Glass	Bottle		1
		Fill 2	16-36	Earthenware	Brick	Structural Material	1
				Glass	Windowpane		2
		Fill 3	36-65	Metal	Key	Household Accessory	1
	N60-E30	Landscape A	00-16	Copper Alloy	Unclassifiable Artifacts	Indeterminate Metal Object	1
				Earthenware	Brick	Structural Material	3
				Ferrous	Valve	Plumbing Hardware	1
				Glass	Bottle		13
					Container		1
					Glass	Decorative Object	1
					Windowpane		1
				Mortar	Mortar	Structural Material	1
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	1
				Redware	Sherd		1
		Redeposited B	16-72	Earthenware	Brick	Structural Material	6
				Ferrous	Nail	Unidentified Nail	1
				Glass	Bottle		5
					Windowpane		2
				Ironstone	Sherd	Dish	1
				Redware	Sherd		1
				Whiteware	Sherd	Dish	4
	N60-E40	Fill 2	05-16	Aluminum	Can	Pull Tab	1
				Bone	Bird Humerus	Food Remains	1
				Glass	Bottle		7
					Vial		1
					Windowpane		1
				Metal	Unclassifiable Artifacts	Miscellaneous Hardware	1
				Plastic	Cap, Bottle	Bottle Closure	1
					Plastic Fragment	Indeterminate Synthetic Object	1
				Porcelain	Sherd	Dish	1
				Stoneware	Unclassifiable Artifacts	Indeterminate Ceramic Object	1
		Fill 3	16-24	Earthenware	Brick	Structural Material	1
				Glass	Bottle		3
				Plastic	Plastic Fragment	Miscellaneous Object	2
				Whiteware	Sherd	Dish	1

Site Name	Unit	Stratum	Depth	Material	Revised Nomen	Object	Count
		Fill 4	24-39	Glass	Bottle		1
					Windowpane	Decorative Object	1
				Redware	Sherd		1
	N60-E50	Landscape A	00-17	Earthenware	Brick	Structural Material	1
				Glass	Bottle		19
					Glass Fragment	Indeterminate Glass Object	1
				Ironstone	Sherd	Dish	1
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	3
				Whiteware	Sherd	Dish	1
		Fill 1	17-68	Copper Alloy	Currency	Coin	1
				Glass	Bottle		5
				Metal	Spoon	Utensil	1
				Redware	Sherd		2
				Stoneware	Sherd		1
				Whiteware	Sherd	Dish	1
	N60-E60	Landscape A	00-16	Glass	Bottle		6
				Metal	Tag, Identification	Domestic Animal Gear	1
				Metal --Plastic	Cap, Bottle	Bottle Closure	1
				Plastic	Plastic Fragment	Indeterminate Synthetic Object	4
		Fill 1	16-73	Glass	Windowpane		1
				Redware	Flowerpot		1
subtotal							567
Grand Total							818

Appendix B

DIGITAL DATA-REPORT AND GEO-REFERENCED HISTORIC MAPS



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