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1985 MAAR

MANAGEMENT SUMMARY REPORT

Howland Hook Marine Terminal Expansion
Cultural Resources Reconnaissance

Prepared By

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Background

In the summer of 1985, MAAR Associates, Inc., a cultural resources management firm in Newark, Delaware, was contracted by Princeton Aqua Science of Edison, New Jersey, to conduct a Phase I Cultural Resource Reconnaissance of the Howland Hook Marine Terminal Expansion project area on Staten Island, New York. The study area is composed of offshore areas, tidal wetlands, and uplands (Figure 1). Sections of the project area are located north of Richmond Terrace Road, to the northwest of Western Avenue and the Goethals Bridge, and along the meanders of Old Place Creek.

Prehistoric activity in the Howland Hook area appears to have been substantial. Staten Island contains numerous sites, representing all known prehistoric periods within the Eastern United States. These include Paleo-Indian encampments as well as Late Woodland village sites. The Arlington Place, Bowman's Brook, and Old Place sites are all well known archaeological sites located in and adjacent to the project area. These sites contain evidence of Amerindian cultures from the Early Archaic through Late Woodland Periods.

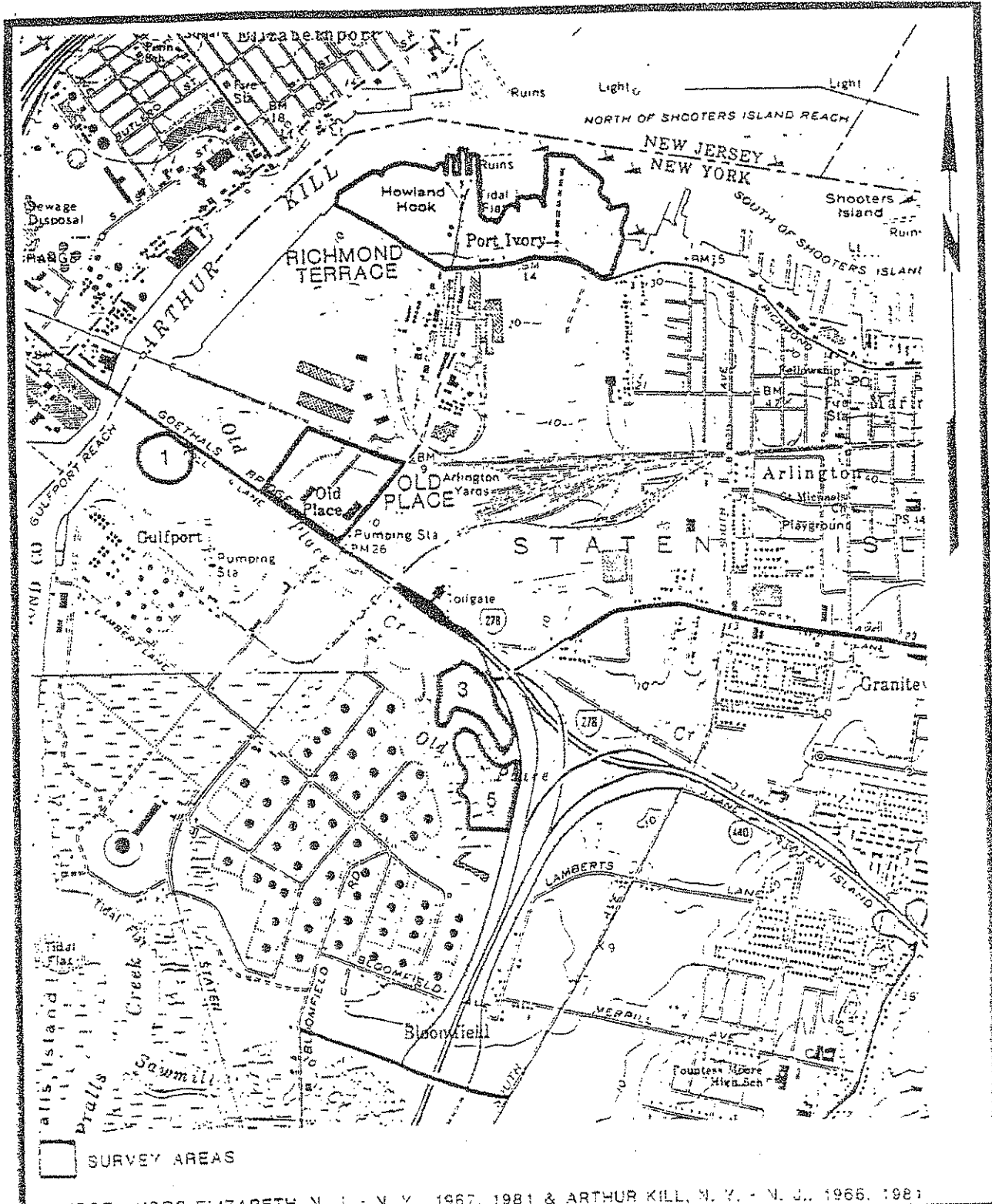
Recorded history at Howland Hook begins with the issuance of English land grants in the latter part of the 17th century. John Tunissen settled at Black Point (Tunissen's Neck), north of Old Place Creek. By the early 18th century, the DeHart farm was established on Shore Road (Richmond Terrace). With the exception of Tunissen's mill, the economy of the community centered on farming and maritime activities until the latter part of the 19th century. At this time, industrial development began and continues to the present day.

During the Revolutionary War, British and Hessian troops occupied Howland Hook. Detachments were stationed around the Tunissen homestead and mill as well as on the Post farm (near Richmond Terrace Road and Western Avenue). A pontoon bridge was constructed on floats spanning the Arthur Kill between the Schuyler Ferry landing, Staten Island and Elizabethtown Point, New Jersey. The bridge was used to speed the flow of supplies to British forces during their 1777 invasion of New Jersey.

Earlier, in 1777, American troops had attacked the British fortifications located near Tunissen's farm on elevated land south of Bridge Creek and west of Western Avenue. As a result of the battle, British and Hessian defenders suffered heavy casualties. Contemporary accounts of the battle indicate the British buried their dead on the creek side of the elevation.

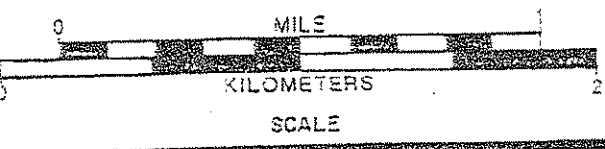
Research Procedures

The Phase I Proposal submitted by MAAR Associates, Inc. specified that the reconnoissances at the Howland Hook Marine Terminal would serve to locate all above and below ground cultural resources and to make preliminary assessments of the integrity and research potential of sites located. The research procedures employed in the course of the investigation included documentation, informant interviews and limited field testing.



□ SURVEY AREAS

SOURCE: USGS ELIZABETH, N. J. - N. Y., 1967, 1981 & ARTHUR KILL, N. Y. - N. J., 1966, 1981



MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE 1
STUDY AREA LOCATION MAP

Documentation, consisting of the review of primary and secondary historic documents, site files, and maps, was used to locate cultural resources both within the terrestrial and offshore portions of the project area. Informant interviews and reviews of the archeological literature pertaining to previous excavations in the Staten Island area were used to delineate culturally sensitive areas. Field research, consisting of surface reconnaissance and limited subsurface testing, was conducted in culturally sensitive and in low potential areas. Field research was carried out in those areas where documentation and/or informant interviews indicated a high potential for the occurrence of cultural resources and in all areas where it was practical to test without severely disrupting the ongoing operations at the marine terminal. The field research was also limited in that subsurface testing was restricted by the Scope of Work to a maximum depth of three feet.

MAAR Associates staff members initiated research during the week of September 30, 1985. Field work was conducted at five discrete survey areas and was completed on October 18, 1985. A total of 19 cultural resource loci, or sites, was identified by documentation and/or field research. The survey areas examined and resource loci discovered are outlined in Figures 2 and 3.

Locus 1: Bowman's Brook North

The investigated portion of this site, as identified by Skinner (1909:6-7), is located on the south side of Richmond Terrace outside of the project area. Both a surface survey and shovel testing were conducted on the north side of the road (Figure 2). These investigations were undertaken to determine whether the site extended into the project area. An argillite drill tip, a quartz spall with bifacial reduction, and a flint flake were recovered from a disturbed surface context on the western side of Bowman's Brook stream, now called DeHarts Creek. Shovel Test 7 was placed in the area of the surface finds to establish the presence of the site and to evaluate subsurface cultural deposits. The test produced a Late Archaic stemmed projectile point, an incomplete mesocoles triangular biface, and lithic debris. All artifacts were located in a mixed context with recent historic artifacts. Shovel Test 7 produced a quartz chip in association with recent historic artifacts. No artifacts were recovered in undisturbed context.

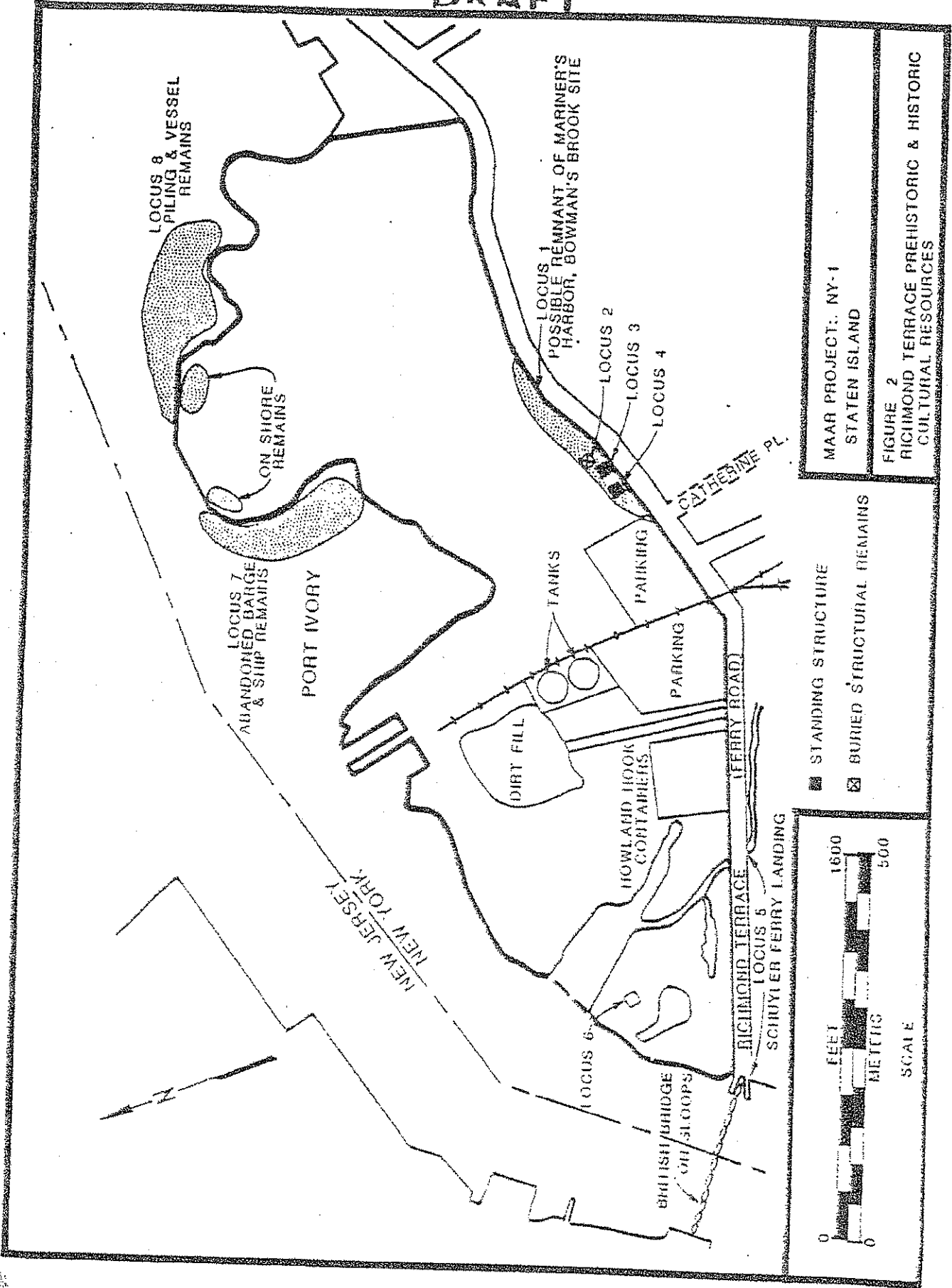
Locus 2: Richmond Terrace Historic Archeological Site

Adjoining and to the east of the residence at 3599 Richmond Terrace is a razed domestic site. An informant, who resides at 3599 Richmond Terrace, confirmed the exact location of the structure and of a retilled well in the front of the remains. Historic documentation records a building at the site prior to 1848.

Locus 3: Richmond Terrace White Structure

At 3599 Richmond Terrace is a front gabled, two story, white frame house with a relatively steeply pitched roof. Historic documentation places a structure at this location prior to 1848. The residents did not know the construction date of the building.

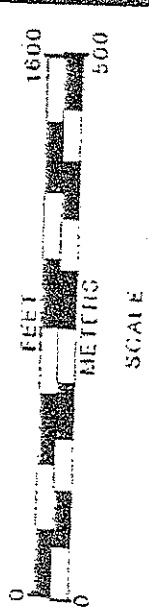
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FIGURE 2
RICHMOND TERRACE PREHISTORIC & HISTORIC
CULTURAL RESOURCES

STANDING STRUCTURE
BURIED STRUCTURAL REMAINS



Locus 4: Richmond Terrace Coffee Shop

At 3612 Richmond Terrace is a two story commercial structure with a hipped roof and dormer. The lower floor is brick with American bonding, and the second story has metal siding. A coffee shop/cafe is operated on the street level with a residence upstairs. The age of the building is unknown. A structure is recorded at this location before 1845.

Locus 5: Schuyler Ferry Landing and Access Road

At the western end of Richmond Terrace is the Schuyler Ferry landing. From 1736 until after World War II, a ferry operated from this location. During the Revolutionary War, the British anchored a pontoon bridge across Arthur Kill from this point. The landing site and access road are surfaced with several layers of asphalt. The ferry landing has been filled to the edge of the present shoreline.

This access road crosses active wetlands, and it is presently surfaced with asphalt layed over concrete. The original road surface is not visible. It may have been a corduroy road to elevate the roadway over the wet soils.

Loci 6, 7, 8: Port Ivory Waterfront Area

Locus 6: U.S. Lines moved an abandoned wooden barge to this location. The origin and age of the barge are unknown.

Loci 7 and 8: An undetermined number of wooden barge and ship remains are grounded offshore in and east of Port Ivory. These vessels are in various stages of deterioration. At least one vessel has a double planked hull. It might be a sailing lighter. Wooden vessel remains are located ashore also.

The evolution of ship abandonment began with the end of many shipbuilding establishments in New York Harbor. Such a pattern occurred at Port Ivory following the failure of the Downey Shipbuilding Yard in the 1900's depression. Harbor barges, wooden tugboats, and sailing lighters are recorded in and around the area (Brouwer 1977:10).

Mr. Norman Brouwer, in a similar survey of New York area shoreline abandoned ships, wrote that

...the day must come when the now common harbor barges and wooden hulled tug receive proper regard and documentation. . . all of these - the barges and lighters, the schooners and full rigged ships - are part of our shared sea heritage. . .
Brouwer 1977:16

No underwater archaeological sites are recorded in the project area, but these findings do not preclude their presence. Sea level rise has inundated early prehistoric sites on the East Coast.

Locus 9: Old Place Amerindian Sites

An Amerindian site, first recorded by Skinner (1909:8-9), has been the subject of many articles and citations in the archaeological literature (Anderson 1964; Jacobson 1963-64; Ritchie 1980:147; Ritchie and Funk 1971:49, 1973:38-39).

The site is multi-component with occupations dating from the Early Archaic through the Late Woodland Periods. LeCroy, Stanly Stemmed, Morrow Mountain, Rink Stemmed, and Kirk Corner Notched projectile points have been recovered. A date of 5310 B.C. \pm 140 years (I-4070 uncorrected) has been recorded for the early component (Ritchie and Funk 1973:39). Snook Kill, Bare Island, and Poplar Island projectile points have been recovered from the components representing the latter part of the Archaic Period and extending into the Transitional and Early Woodland period. Jacobson (1963-64) reports finding Vinette I pottery, an Early Woodland ceramic type. He records ceramic types from the latter part of the Woodland Period.

The only professional excavations undertaken at the site are those of Jerome Jacobson in 1963-64, conducted in part with the assistance of the Brooklyn Children's Museum. Field excavations were conducted in the areas designated by Jacobson as A, B, E, and S (Figure 3).

The boundaries for Old Place Site have not been defined either in the literature or in the work by Jacobson. The distribution of cultural components has been identified by both vertical and horizontal patterns, i.e. stratigraphic cultural chronology and spatial loci of cultural components. The cultural loci indicate Old Place may be a complex of sites as opposed to being a discrete multicomponent site. Cultural materials have been recovered from as far east as the Kinsey property (Skinner 1909:8-9; Albert Anderson, personal communication 1985). Portions of Jacobson's areas A, B, E, and S are surfaced by asphalt and/or crushed rock surface and buried under fill.

Surface examination of Jacobson's areas B and E revealed that there has been both subsurface pot burning and undetermined amounts of filling. Shovel Tests 18 and 19 in Area E recorded fill over a buried topsoil. Amerindian artifacts were recovered in the buried topsoil and subsoil to a depth of 1.0 feet below surface.

Reconnaissance and shovel testing in Old Place Creek valley areas C and D identified no cultural resources. Area C had a deep deposit of drudge and active wetland soil. Area D had deep landfill, and Area E was active wetlands (Figure 3).

Locus 10-11: Wrecker Trucking Company

Locus 10: 1970 Domestic Site: This is the general area of a house site which predates 1900. The house was a residence in the community of Old Place. In an 1878 map, it is listed as the "newlyweds house". The general area of the site is surfaced with gravel over fill.

Locus 11: Unidentified structure: This is the general area of an

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unidentified structure buried under asphalt and fill. The structure might have been associated with either Sites 10 or 12.

Locus 12 (Commercial Structure): This is the general location of a structure possibly associated with activities of the New York Terminal and Transit Company, and it probably dates to the turn of the century. The general area of the site is surfaced with asphalt and fill.

Locus 13 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On an 1878 map, it was listed as the George Bowman House. The general area of the site is surfaced with asphalt and fill.

Locus 14 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On an 1878 map, it was listed as the W. J. Halsey house.

Locus 15 (Outbuilding): A structure on this site was associated with Site 14 in the twentieth century (Robert Cotter, personal communication 1985). Its location is generally identified, and the area is surfaced with asphalt.

Locus 16 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On an 1878 map, it was listed as the M. T. Jones house.

Locus 17 (Unidentified Structure): This is the general area of a structural site which was probably associated with Locus 16. The site may be located under the asphalt surface of the Whalen Trucking Company yard.

Locus 18: Tunniessen's 1680 Domestic Site

Based on historic maps, the area just west of the Washington Avenue and Western Avenue intersection is the location of the first Old Place house site. The area is covered by asphalt roadway surfacing.

Locus 19: Reverend Kinney Property

Historic accounts (Leng and Davis 1929:44, 187¹) record a series of Revolutionary War skirmishes in November 1777. The account places the battle site at the location of the late nineteenth century Reverend James C. Kinney property. The dead were buried in a trench on the creek side of the elevation. Skinner (1909:9) unearthed graves with unidentified "relics" on the Kinney property. He describes the graves as being white. These burials may have been associated with skirmish interments.

In addition to the potential for historic resources, the site has been known to contain Amerindian artifacts (Albert Anderson, Personal Communication 1985).

The area was systematically gravel tested. Deposits of fill were found throughout most of the area. An exception was a strip of land immediately adjacent to the Bridge Creek wetlands on the north. Fill depths ran between two and three feet. No Amerindian or eighteenth

century artifacts were recovered. Human remains were not identified. The three foot excavation depth limit and the deep land fill may be responsible for the lack of data recovery, i.e., the cultural and human remains may be at a greater depth.

Cultural Resource Management Recommendations

Based on the recently completed Phase I survey of the Howland Hook marine Terminal, the incidence of cultural resources within the general project area has been documented. A total of 19 cultural resource loci, including two prehistoric archeological sites, 15 historic archeological sites, and two historic sites with standing structures, are located in the project area. The preliminary findings indicate that all of these sites have the potential of providing significant information on the prehistoric and early historic settlement of Staten Island. There are also indications that many of these resources may possess a reasonable degree of integrity in spite of the substantial industrial development which has already taken place in the project area.

Phase II surveys are mandated by several laws which are incorporated in the National Historic Preservation Act (NHPA) of 1966 which states that agencies shall:

Prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any licenses... take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (80 STAT. 919, 16 U.S.C. 470, Section 106).

The requirements of the NHPA have subsequently been defined in further detail through successive implementing regulations including Executive Order 11593 and 36CFR 800. The latter is of particular importance since it specifies the procedures by which cultural resources management is implemented and forms the basis for Phase II surveys as defined by the Office of the State Historic Preservation Officer of New York.

The objectives of the Phase II cultural resources survey will be to determine the exact physical boundaries of the resources, the significance of the resources, and to assess the impact of the proposed undertaking on those resources which are considered significant. The determination of significance is based upon the criteria for evaluating the eligibility of properties for inclusion in the National Register. These criteria are applicable to properties:

- (1) That are associated with events that have had a significant contribution to the broad patterns of our history; or
- (2) That are associated with the lives of persons significant to our past; or
- (3) 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 lack individual distinction; or
(4) That have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 800.10).

For archaeological properties, resource integrity is also an important evaluative criterion since the condition of archaeological deposits influences investigative potential (Criterion 4, above). Both investigative potential and integrity constitute the basis for evaluating the significance of most archaeological properties and are the means by which the more specific criteria (above) are applied (McGimsey and Davis 1977:32-33).

It is recommended that the following cultural resource loci be subjected to Phase II evaluations, unless it can be clearly demonstrated that the resources will not be affected by the planned expansion and restructuring of the Howland Hook Marine Terminal:

Locus 2:	Locus 1:	Bowman's Brook North,
Locus 3:	Richmond Terrace Historic Archaeological Resources,	
Locus 4:	Richmond Terrace White Frame Structure,	
Locus 5:	Richmond Road Coffee Shop,	
Loci 6, 7, 8:	Schuyler Ferry Landing and Access Road.	
Locus 9A:	Port Ivory Waterfront Area,	
Locus 9B:	Old Place Amerindian Site (Open),	
Locus 9C:	Old Place Amerindian Site (Gravel),	
Loci 10-17:	Old Place Amerindian Site (Asphalt),	
Locus 18:	Whalen Trucking Company,	
Locus 19:	Tunissen's 1660 Domestic Site,	
	Reverend Kinney Property.	

MAAR Associates, Inc. recommends that involved organizations determine what impacts will occur to the loci recommended for further investigations. If impact will occur attention should be given to scheduling Phase II investigations. Those loci which are considered significant (eligible for inclusion on the National Register) should then be considered for either of two mitigation alternatives; avoidance or data recovery. It is further recommended that a decision of the scheduling of Phase II investigations consider the harsh weather conditions which occur in the winter months in the Staten Island area.

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MANAGEMENT SUMMARY REPORT

Howland Hook Marine Terminal Expansion
Cultural Resources Reconnaissance
Area 5

Prepared By

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1277

BACKGROUND

In the summer of 1985, MAAR Associates, Inc., a cultural resources management firm in Newark, Delaware, was contracted by International Technology Corporation (formally Princeton Aqua Science) of Edison, New Jersey, to conduct a Phase I Cultural Resource Reconnaissance of the Howland Hook Marine Terminal Expansion project area on Staten Island, New York. As a continuation of the Howland Hook archaeological reconnaissance project another section of land, Area 5, was added to the project (Figure 1). Area 5 is located on the south side of Richmond Terrace Road, west of Arlington Towers and east of the Proctor and Gamble plant. This section of land has been subjected to extensive industrial development during the Twentieth century. In 1903, the Milliken Brothers' iron foundry was constructed. Following the demise of the foundry a ship yard occupied the area and finally the remains of these industrial installations demolished and leveled.

Prehistoric activity in and around Area 5 has been extensive; foremost of which was the Bowman's Brook site, the site-type for the Bowmans Brook ceramic type. Other sites include the Arlington Place, Arlington Station, and Arlington Avenue. The Bowman's Brook site was basically occupied during the Woodland period, with an earlier Archaic Period component indicated (Ritchie 1980). The site was identified by Alanson Skinner (1909) in 1903 during the building of the foundry. His work continued at intervals until 1918. Investigations identified numerous subsurface features including burials. Most cultural deposits were located within four feet of the local ground surface. Additional field investigations were carried by avocationalists Donald Sainz and Albert Anderson in the 1960's (Grossman and Roberts 1985).

Recorded history at Howland Hook begins with the issuance of English land grants in the latter part of the 17th century. John Tunissen settled at Black Poynt (Tunissen's Neck), north of Old Place Creek. By the early 18th century, the DeHart farm was established on Shore Road (Richmond Terrace), just to the east of Area 5. With the exception of Tunissen's mill, the economy of the community centered on farming and maritime activities until the latter part of the 19th century (Leng and Davis 1929). At this time, industrial development began and continues to the present day.

During the Revolutionary War, British and Hessian troops occupied Howland Hook. Detachments were stationed around the Tunissen homestead and mill, on the Post farm (near Richmond Terrace Road and Western Avenue), and on and around Gertie's Knoll adjoining DeHart's house. A pontoon bridge was constructed on sloops spanning the Arthur Kill between the Schuyler Ferry Landing, Staten Island and Elizabethtown Point, New Jersey. The bridge was used to speed the flow of supplies to British forces during their 1780 invasion of New Jersey.

Earlier, in 1777, American troops had attacked the British fortifications located near Tunissen's farm on elevated land south of Bridge Creek and west of Western Avenue. As a result of the battle, British and Hessian defenders suffered heavy casualties. Contemporary accounts of the battle indicate the British buried their dead on the creek side of the elevation.

Research Procedures

The Phase I Proposal submitted by MAAR Associates, Inc. specified that the reconnaissance at the Howland Hook Marine Terminal would serve to locate all above and below ground cultural resources and to make preliminary assessments of the integrity and research potential of sites located. The same specifications were complied with for the research in Area 5.

MAAR Associates staff members conducted field investigations during the week of April 14, 1986. Ronald A. Thomas, S.O.P.A., was the Principal Investigator and Ted M. Payne, S.O.P.A., performed the duties of Research Associate. Kevin M. Brown was the Field Supervisor.

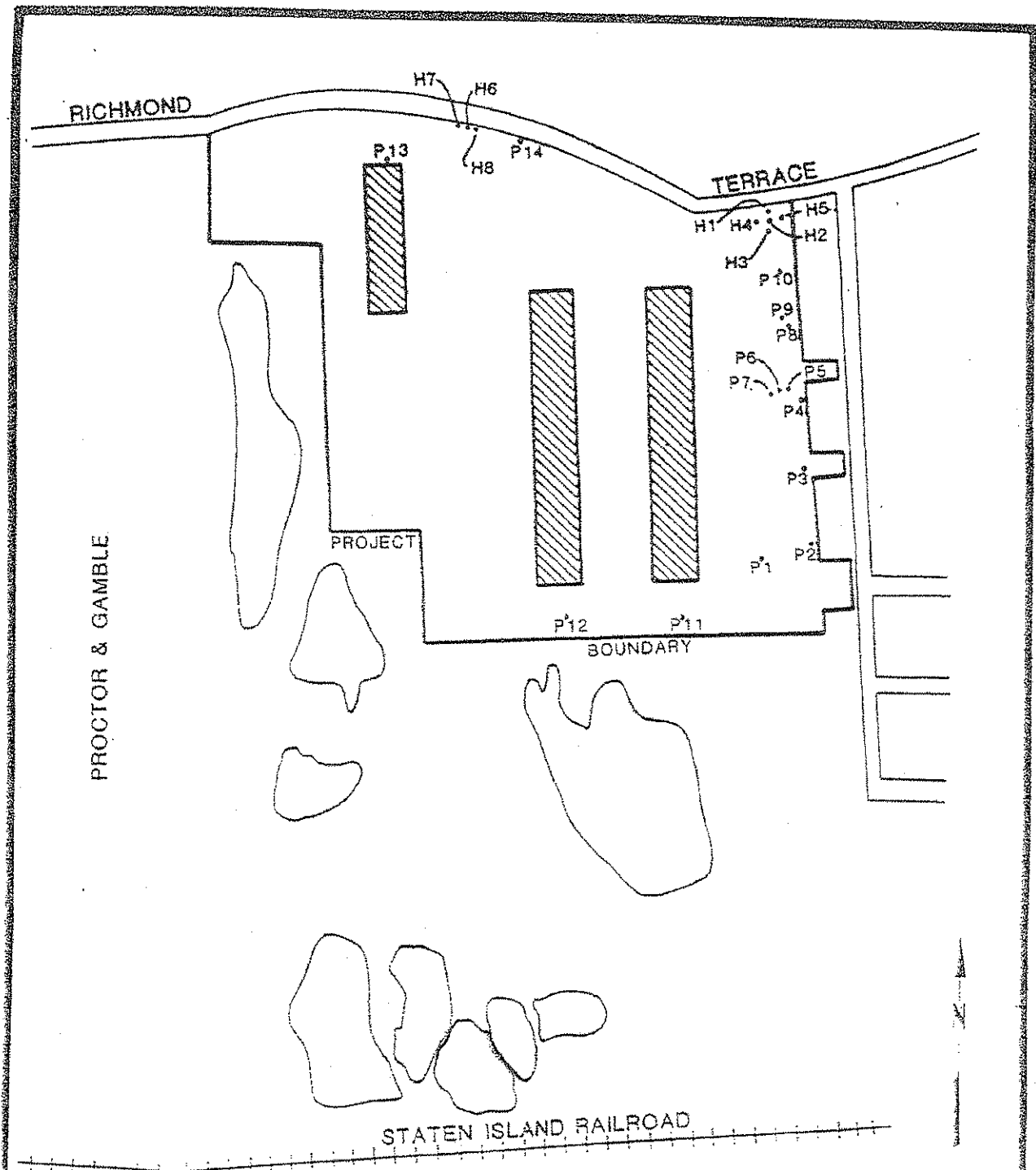
Research procedures employed in the course of the investigation included documentation, informant interviews and limited field testing. Documentation, consisting of the review of primary and secondary historic documents, site files, and maps, was used to locate cultural resources both within the project area. Informant interviews and examination of the archeological literature pertaining to previous excavations were used to delineate culturally sensitive areas. Field research, consisting of surface reconnaissance and limited subsurface testing, was conducted in culturally sensitive and in low potential areas. Subsurface testing was restricted to a maximum depth of three feet below surface, as specified in the initial Scope of Work. All excavated soils were sifted through one-quarter inch hardware cloth and recovered artifacts were bagged and labeled by their proveniences.

Research Results

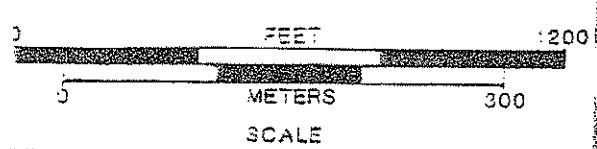
Documentary and informant research indicated that there were three areas where cultural resources were once present. First, The Bowman's Brook site extended across most of Area 5. Second, the Arlington Avenue site was located just to the east of the project. Historic loci, the Garrett Post House and the Revolutionary War British and Hessian DeHart Farm encampment, were located along the northern and northwestern sections of Area 5. Albert Anderson (personal communication 1985) stated that there was possibly one small section of Bowman's Brook site intact, but within Area 5 these sites have been destroyed by industrial development and demolition. Even DeHart's Creek which once flowed through the area is almost extinct.

Field research strategy called for a reconnaissance across Area 5 to confirm the configuration of the terrain. At this time the locations of the prehistoric and historic loci were located for examination and subsurface testing by shovel test units.

Reconnaissance indicated that Area 5 has undergone extensive land alteration. Original topography and soil deposition has been reordered. Shovel testing throughout the project area confirmed these surface observations (Figure 2). The Garrett Post House site terrain has been altered by earth moving activities, leveling and landfilling. The same condition was found along the eastern section of the project area in the vicinity of the Revolutionary War encampment and the nearby Arlington



 PROPOSED BUILDINGS
  SHOVEL TESTS



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 FIGURE 2
 AREA 5 PROJECT MAP

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Avenue prehistoric site. Demolition and terrain landfilling and leveling activities in and around the location of the foundry complex has destroyed any substantial portion of the in situ cultural record for the Bowman's Brook site. The majority of artifacts recovered dated from the Twentieth century and no prehistoric cultural materials were found. There is always the possibility of an isolated small pocket of the site remaining, but to locate such a location would require a 100 percent subsurface investigation of the project area.

SUMMARY AND RECOMMENDATIONS

Documentary and field research was conducted to identify and prepare a preliminary significance evaluation of cultural resources located within Area 5. Both prehistoric and historic loci were found to have once existed in the project area. Twentieth century industrial development and later demolition activities have extensively reordered the surface and subsurface natural configuration of the area. These activities have resulted in adverse impact to cultural resources. Documentary, informant, and field researches have confirmed the activities and the current configuration of the cultural sites.

It is recommended that all cultural loci that once existed in Area 5 have been substantially disturbed, reordering or destroying their cultural records. No additional research is recommended because of these conditions. The proposed project construction should not adversely impact cultural resources which possess cultural significance and research potential.

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CULTURAL RESOURCES RECONNAISSANCE**

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**Ronald A. Thomas
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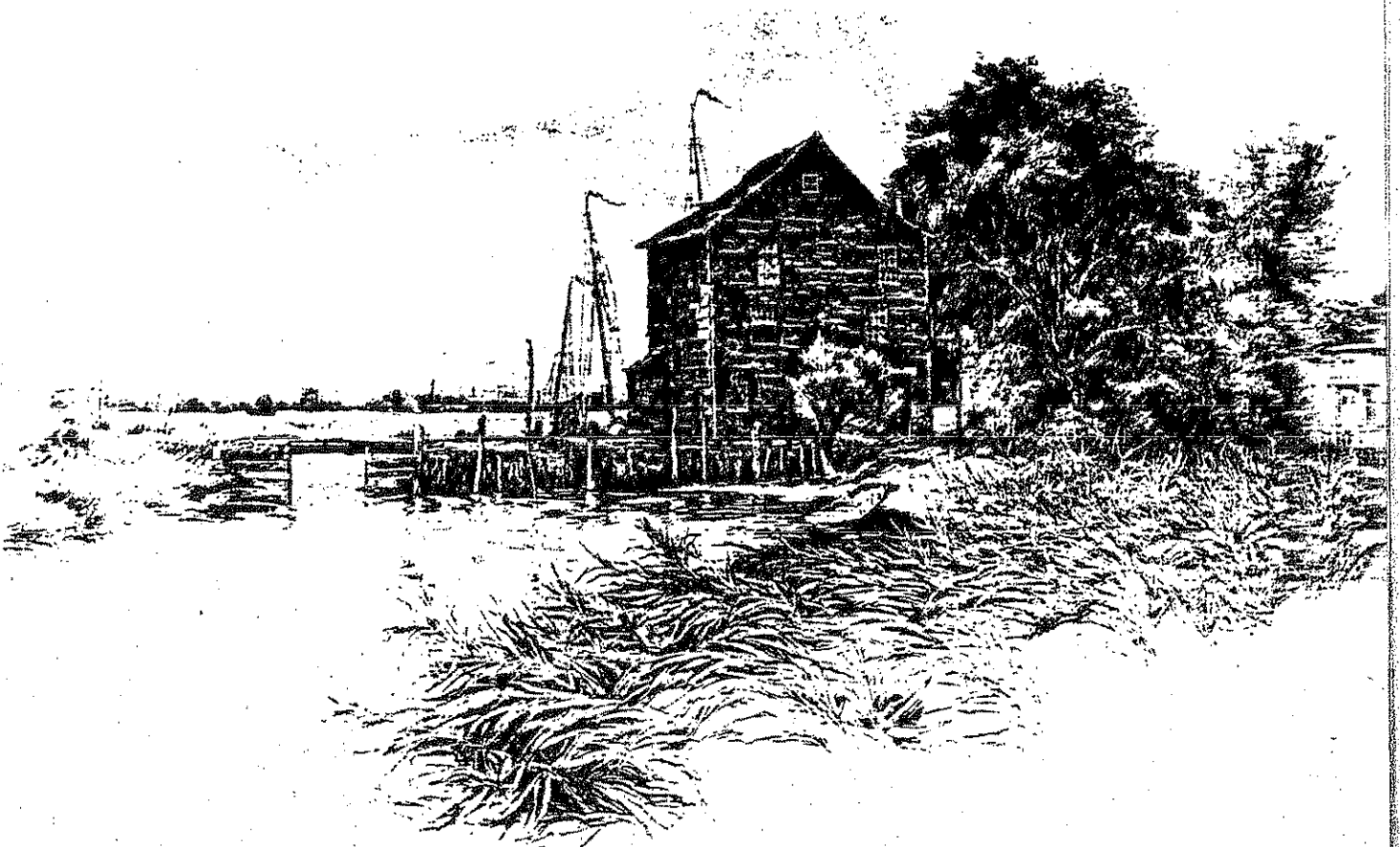
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Howland Hook Marine Terminal Expansion Cultural Resources Reconnaissance



OLD PLACE HILL

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15. Supplementary Notes

16. Abstract (Limit: 200 words)

Archaeological investigations at the Howland Hook terminal in Staten Island, NY were conducted in the summer of 1985. Further work was conducted in April, 1986 on behalf of International Technologies.

The Phase I study was required to identify and locate known and unknown prehistoric sites. Field activities included a thorough surface survey, excavation of shovel tests in high probability areas, and a detailed document study.

A total of 16 cultural resources were identified, as well as an undetermined number of abandoned wooden vessels. Cultural resources included documented historic sites, and known prehistoric sites.

The nature and extent of impact has not been determined; but the construction procedures have the potential of adversely impacting buried cultural resources. Phase II research is recommended to either evaluate cultural significance or to develop a data recovery plan.

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms

COSATI Field/Group

2. Availability Statement	19. Security Class (This Report)	21. No. of Pages
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ABSTRACT

In the summer of 1985, MAAR Associates, Inc. was contracted by International Technologies (formerly Princeton Aqua Science) to perform a Phase I Cultural Resource Survey for the Howland Hook Terminal Expansion project area on Staten Island, New York. Howland Hook is located at the northwestern end of the island. The project area was enlarged by the addition of another study area in April, 1986. Project study areas included offshore, near shore, and inland environments. The cultural resource reconnaissance was required to comply with federal, state, and municipal historic preservation regulations.

The Phase I survey required that a document search and field investigations be performed for the project area. The goals of the survey were to locate cultural resource sites and evaluate each site's potential for research and cultural significance. No field investigations were requested for offshore cultural resources. Management recommendations were to be developed for each site identified.

A total 16 cultural resource sites were identified, as well as an undetermined number of abandoned maritime wooden vessels located on the shore line and offshore at Port Ivory and north of Schuyler's Ferry. Onshore cultural resources consist of two Amerindian sites and 14 historic sites. Old Place Place site and Bowman's Brook, North site comprise the Amerindian cultural resources. Historic cultural resources include a portion of the Summerville (Old Place Town) community which dates from the late Eighteenth century, two undated standing structures where middle Nineteenth century buildings have stood, an in-ground Nineteenth century house site, a Revolutionary skirmish site where Hessian casualties were buried, and a ferry landing and terminal site which dates from the Eighteenth century and where the British forces mounted an invasion of New Jersey by a pontoon bridge during the Revolutionary War.

All cultural resources, except the maritime vessels, have been recommended to have potential research and cultural significance. The vessels require field investigations for an evaluation of research and cultural significance potentials. Phase II Surveys were recommended for all onshore sites. The recommendations were made to evaluate each site's cultural significance and eligibility for nomination to the National Register of Historic Places. A Management Summary Report with these recommendations prepared and submitted to the The New York State Office of Parks, Recreation and Historic Preservation. The Office reviewed the summary report and recommended Stage II archaeological investigations to be conducted on all identified sites which will be impacted by the project.

The nature and extent of impact on a site-specific basis has not been determined for the entire project area. However, engineering recommendations for ground preparation may involve the compaction and removal of fill and natural soil deposits to a nominal depth of four feet below present ground surface. Structural support pilings may reach depth of 15 feet. These construction procedures have the potential of adversely impacting buried cultural resources that have the potential for research and cultural significance.

DRAFT

TABLE OF CONTENTS

NTIS Form	i
ABSTRACT	ii
TABLE OF CONTENTS	iii
LIST OF ILLUSTRATIONS	iv
BACKGROUND	
Nature of the Project	I-1
Natural Environment	I-5
Prehistoric Overview	I-15
Historic Overview	I-19
Research Goals and Strategies	I-45
DATA BASE	
Data Acquisition	II-1
Data Description	II-2
SUMMARY AND RECOMMENDATIONS	
Summary of Investigations	III-1
Discussion of Results	III-1
Recommendations	III-7
REFERENCES CITED	IV-1
APPENDICES	
A. Project Documents	
B. Qualifications of Investigators	
C. Shovel Test Profiles	
D. Artifact Inventory	
E. Management Summaries	

LIST OF ILLUSTRATIONS

FIGURES

I-1	General Location Map	I-2
I-2	Project Location Map	I-3
I-3	General Geologic Chronology	I-7
I-4	Configuration of Coastline and Hudson Channel circa 12,000 B.P.	I-8
I-5	Configuration of Coastline and Hudson Channel circa 6,000 to 8,000 B.P.	I-10
I-6	Reconstruction & Present Terrace Position of the Port Mobile Site	I-11
I-7	Three Maps Showing Development of Proglacial Lakes Passaic, Hackensack, Hudson & Flushing	I-12
I-8	Colonial Land Patents Map	I-22
I-9	1780 Map of Staten Island	I-24
I-10	Clinton Revolutionary War Map	I-26
I-11	1784 Faden Map	I-28
I-12	1874 Beers Map-Howland Hook	I-30
I-13	1898 Robinson Map-Howland Hook	I-31
I-14	1907 Robinson Map-Howland Hook	I-32
I-15	1917 Bromley Map-Howland Hook	I-33
I-16	1937 Sanborn Map (corrected 1968)-Howland Hook	I-34
I-17	1874 Beers Map-Old Place	I-38
I-18	1898 Robinson Map-Old Place	I-40
I-19	1907 Robinson Map-Old Place	I-42
I-20	1917 Bromley Map-Old Place	I-43
I-21	1937 Sanborn Map (corrected 1968)-Old Place	I-44
II-1	Old Place Area 1 Map	II-3
II-2	Old Place Area 3 Map	II-4
II-3	Old Place Area 5 Map	II-5
II-4	Old Place/M & R Map	II-6
II-5	Old Place Prehistoric & Historic Cultural Resources	II-7
II-6	Old Place Shovel Test Profiles, Area E	II-10
II-7	Richmond Terrace Prehistoric & Historic Cultural Resources	II-20
II-8	Richmond Terrace West Map	II-21
II-9	Richmond Terrace East Map	II-25
II-10	Archaeological Sites Identified by Skinner and MAAR Artifact-Producing Shovel Tests	II-26
II-11	Richmond Terrace Area 5 Map	II-32
II-12	Approximate Location of Abandoned Ships	II-34

PLATES

I-1	Philip Post House	I-25
I-2	Garrett Post House	I-29
I-3	M. T. Jones House	I-37
I-4	Haughwout House	I-37
I-5	Old Place Mill	I-39
I-6	Rev. James Kinney House	I-39
II-1	Looking Southeast across Jacobson's Areas E and B from Tidal Marsh	II-9
II-2	Looking West from Location of Shovel Test 20, Old Place Site	II-9
II-3	Crushed Rock Surfaced Parking Area	II-14
II-4	M & R Building with Access Road in Foreground	II-14
II-5	Looking Northeast at Loci 6, W. J. Halsey Property in Woods	II-16
II-6	Looking West at Rev. James Kinney Property from Western Avenue	II-18
II-7	Looking South at Area of Filled Schuyler's Ferry Slips, Land Filled	II-22
II-8	Richmond Terrace Coffee Shop with Adjoining Land Strip on Left	II-24
II-9	Richmond Terrace White House	II-27
II-10	Richmond Terrace Historic Archaeological Site-Refilled Well in Foreground	II-27
II-11	Bowman's Brook Site Looking East Toward Bowman's Brook Stream Remnant in Woods	II-29
II-12	Garrett Post House Site Looking North Toward Richmond Terrace	II-31
II-13	Philip Post House Site, Looking West Along Pipe Line Right-Of-Way and Richmond Terrace	II-31
II-14	Area Near Arlington Avenue Prehistoric Site, Looking West Across Southern Part of Abandoned Millikin Property	II-33
II-15	Remains of Millikin Plant Building Supports, Looking West Southwest Across Dump Area	II-33
II-16	Abandoned Wooden Barges in Port Ivory	II-35
II-17	Remains of Possible Sailing Lighter and Pilings In Port Ivory	II-35

TABLES

I-1	Project Specific and Regional Prehistory (A General Overview)	I-16
II-1	Old Place Site, Artifact Functional Taxonomy	II-12

Background



MAAR Associates, Inc.
Cultural Resource Consultants

BACKGROUND

Nature of the Project

In the summer of 1985, International Technologies (then Princeton Aqua Science) of Edison, New Jersey contracted MAAR Associates, Inc. from Newark, Delaware, to conduct a Phase I Cultural Resources Survey for the Howland Hook Marine Terminal Expansion project area in Staten Island, New York (Figure I-1). The project area was composed of five study areas located within the region Howland Hook (Figure I-2). As a continuation of the cultural resources survey an addition was made to the project area by the addition of Howland Hook Area 5.

Purpose of Project

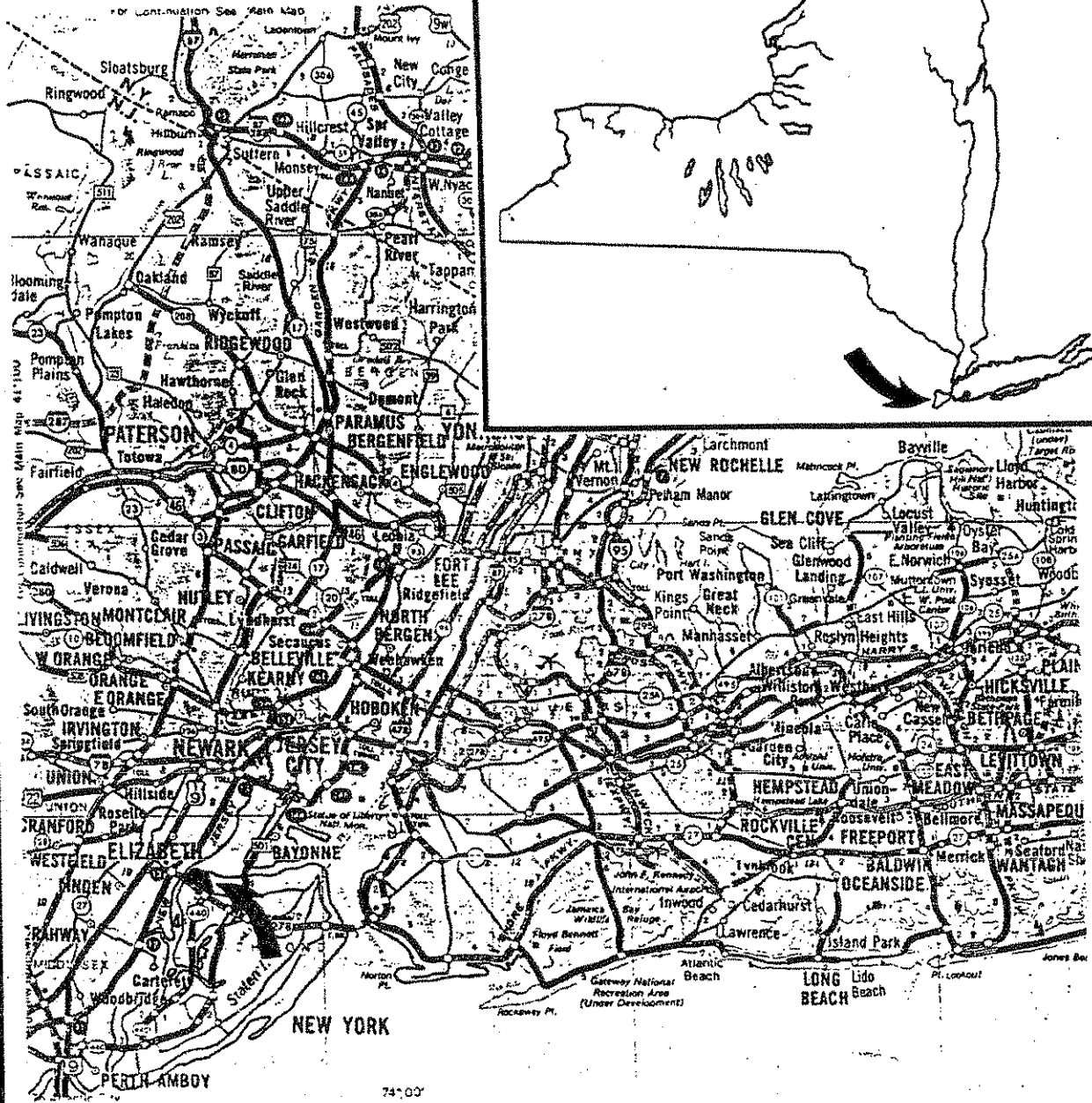
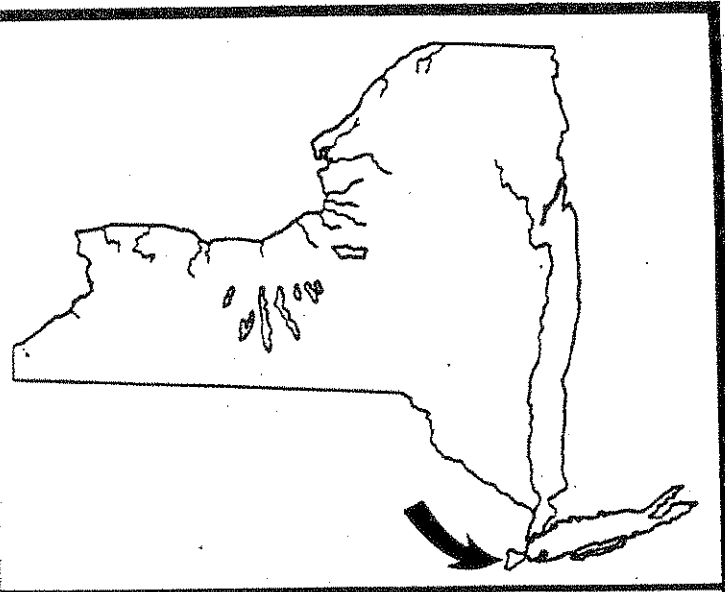
Preparatory to the undertaking Howland Hook Marine Terminal Expansion plans a Phase I Cultural Resources Survey was contracted for the project area. The survey was initiated to comply with federal, state, and municipal regulations that have been instituted to protect and preserve historic properties of national, state, and local significance. In order to identify and study cultural resources within the project area, an archeological and architectural reconnaissance was conducted.

Project Requirements and Intensity

Historic preservation regulations provide for a stratified sequence of research procedures for the identification, significance evaluation, and preservation and protection of historic properties. Initially, a survey is conducted to locate known cultural resources and identify sites not previously documented. This is the Phase I Cultural Resources Survey. After identification of the sites, each is subjected to a preliminary evaluation as its research and cultural significance qualities. At this time the cultural resource site may be considered not to possess attributes indicating the presence of these qualities and no additional action to preserve the site is recommended. If the evaluation identifies research and cultural significance potential and the cultural resource is endangered, the next level of research is requested; the Phase II Cultural Resource Survey. The survey performs a site-specific evaluation of cultural significance and makes a recommendation concerning the property's eligibility for nomination to the National Register of Historic Places. If the site is culturally significant and eligible for nomination to the National Register, cultural resource management recommendations are developed to protect and preserve the integrity of the site.

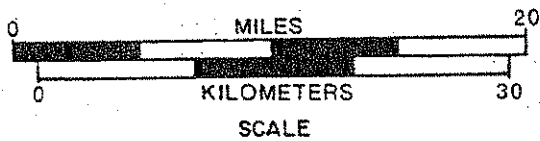
The project Scope of Work (Appendix A) required that a Phase I Cultural Resources Reconnaissance be completed for five study areas and a sixth was requested by addendum. The study areas are located in offshore and inland environments. The research tasks consisted of primary and secondary document searches, field investigations, data analysis, cultural resource management recommendations, and the preparation of a project report.

Document research entailed a search of the literature and interviews with knowledgeable informants concerning the locations of project related



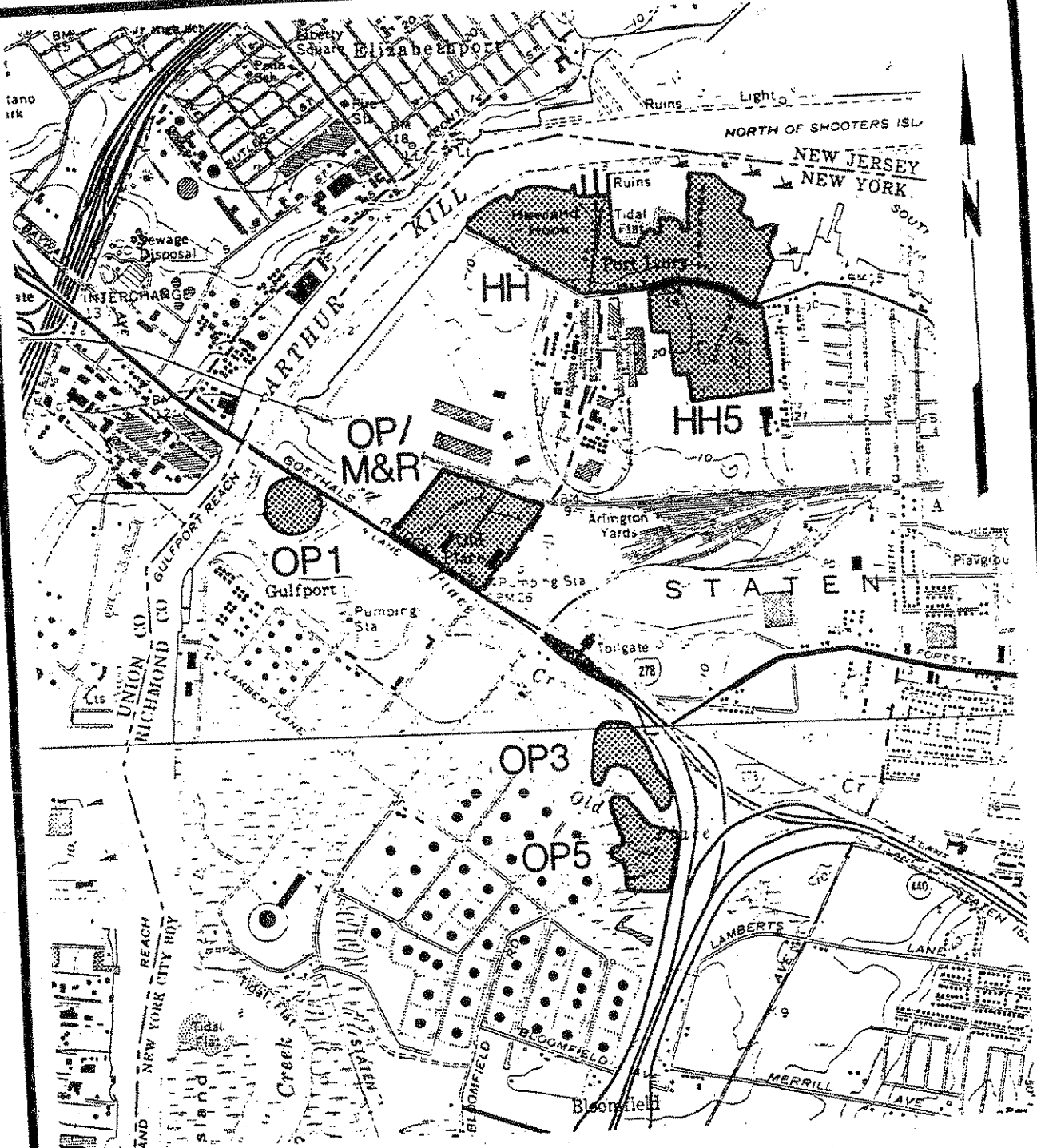
PROJECT LOCATION

SOURCE: RAND McNALLY MAP OF NEW YORK, 1977



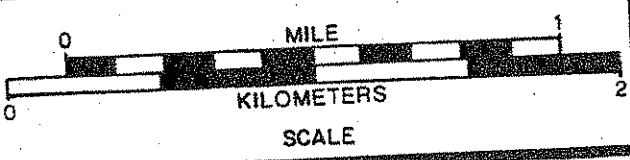
MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE I-1
GENERAL LOCATION MAP



STUDY AREAS
 OP OLD PLACE STUDY AREAS
HH HOWLAND HOOK STUDY AREAS

SOURCE: USGS ELIZABETH, N. J. - N. Y., 1967, 1981 & ARTHUR KILL, N. J. - N. Y., 1966, 1971



MAAR PROJECT: NY-1
 STATEN ISLAND
 FIGURE I-2
 PROJECT LOCATION MAP

known cultural resources, as well as information identifying areas that are considered to have a high probability for the occurrence of unrecorded sites. Research provided information concerning the history and nature of the recorded sites and where possible unrecorded sites. An environmental history was developed for the project and surrounding region to be used in the explanation of settlement patterns.

Field investigations were conducted throughout the six project study areas. The research methodology consisted of surface and subsurface investigations. A surface reconnaissance was carried over the project areas to relocate above-ground cultural resources, present land configurations, and to examine environmental zones in relationship to the documented descriptions. Offshore sites were not investigated, except by visual examination from the shore line. This restriction was specified in the Scope of Work. Subsurface testing was conducted in locations where documented buried sites were present or in areas where there was a probability for the occurrence of buried sites. Low potential areas were tested as well to act as a control in the evaluation of the predictive accuracy of the scheme.

The data base recovered for each site was analyzed and the research and cultural significance potentials were assessed and management recommendations were developed. The research methods and results, as well as the recommendations were detailed in two Management Summaries and in a project report. Two Management Summaries were prepared to explain the research conducted for the five study areas and the second summary was prepared for the Richmond Terrace Area 5 project area.

Administration, Personnel, and Schedule

The administration of the Howland Hook Terminal Expansion cultural resource surface was conducted through the MAAR Associates, Inc. main office in Newark, Delaware. The project Principal Investigator was Ronald A. Thomas, S.O.P.A. and the Research Associate was Ted M. Payne, S.O.P.A. Project Historian was Kenneth Baumgardt. Kevin M. Brown was Field Supervisor for the additional field investigations. Project Manager was Robert Hoffman and Report Coordination was performed by Catherine Shelton and Kenneth Baumgardt. Graphic arts were prepared by Richard Green. (See Appendix B for resumes of senior personnel.)

The project document research and the initial field investigations, first five study areas, was conducted from September 30, 1985 through October 18, 1985. The additional field investigations took place during the week of April 14, 1986.

Location of Project

The project area is situated within the northwestern section of Staten Island, Richmond County, New York; the southern-most of five boroughs which comprise the City of New York (Figure I-1). In total, the project area is composed of six separate study areas (Figure I-2). The southern part of the project area is bounded along Old Place Creek (three study areas). Just to the north of the creek is Tunissen's Neck (Old Place), the fourth study area. In the northern section is Howland Hook and Port Ivory, the uplands, wetlands and off-shore waters between Newark Bay and Richmond Terrace Road which constitute the fifth study area. The sixth study area is bounded by the Proctor and Gamble plant on the west, the Arlington residential development on the east and Richmond Terrace Road on the north with an arbitrary line to the south.

Current Land Use

The project areas are currently being used for five primary land use practices, industrial, residential, service business, urban/industrial abandoned, and natural. Study areas located along Old Place Creek contain lands that have been altered by urban/industrial activities as well as natural wetlands and waterways. Tunissen's Neck is industrial with transportation facilities and a petroleum pipe line bisecting the area facilities. Howland Hook is industrial with transportation and manufacturing present.

On the extreme northwest is an area which has been altered by previous urban/industrial activities and a wetland environment within which is Bridge Creek drainage. Port Ivory has been substantially changed by industrial use and is the repository for numerous abandoned water craft. The entire coast line has undergone extensive contour changes by land filling and cutting. Inland areas north of Richmond Road are primarily composed of residential structures and urban/industrial altered lands that have been abandoned. A cafe is still operating.

The inland study area south of Richmond Terrace Road between Proctor and Gamble and Arlington has been extensively altered by industrial development and demolition. The area is now abandoned, except for a transportation vehicle storage lot. An old drainage, DeHarts Creek, has been displaced by the land use practices.

Physiographic Description

Staten Island extends across three physiographic provinces, the Newark Basin, the Manhattan section of the New England Piedmont upland and the Coastal Plain (Eisenberg 1982). Bisecting the island, the fall line runs on a southwestern to northeastern direction with topography ranging from tidal wetlands to low inland hills rising above the Coastal Plain. The northwestern section of the island in which the study area lies consists of level terrain bounded by wetlands which are associated with Arthur Kill on the west and Newark Bay to the north. Elevations in the project range from sea level to 12 feet above sea level. The character of the topography has resulted from depositional and

hydrological effects of the Laurentide ice sheet and subsequent glacialiation and subsequent alterations.

Geology, Soils, and Hydrology

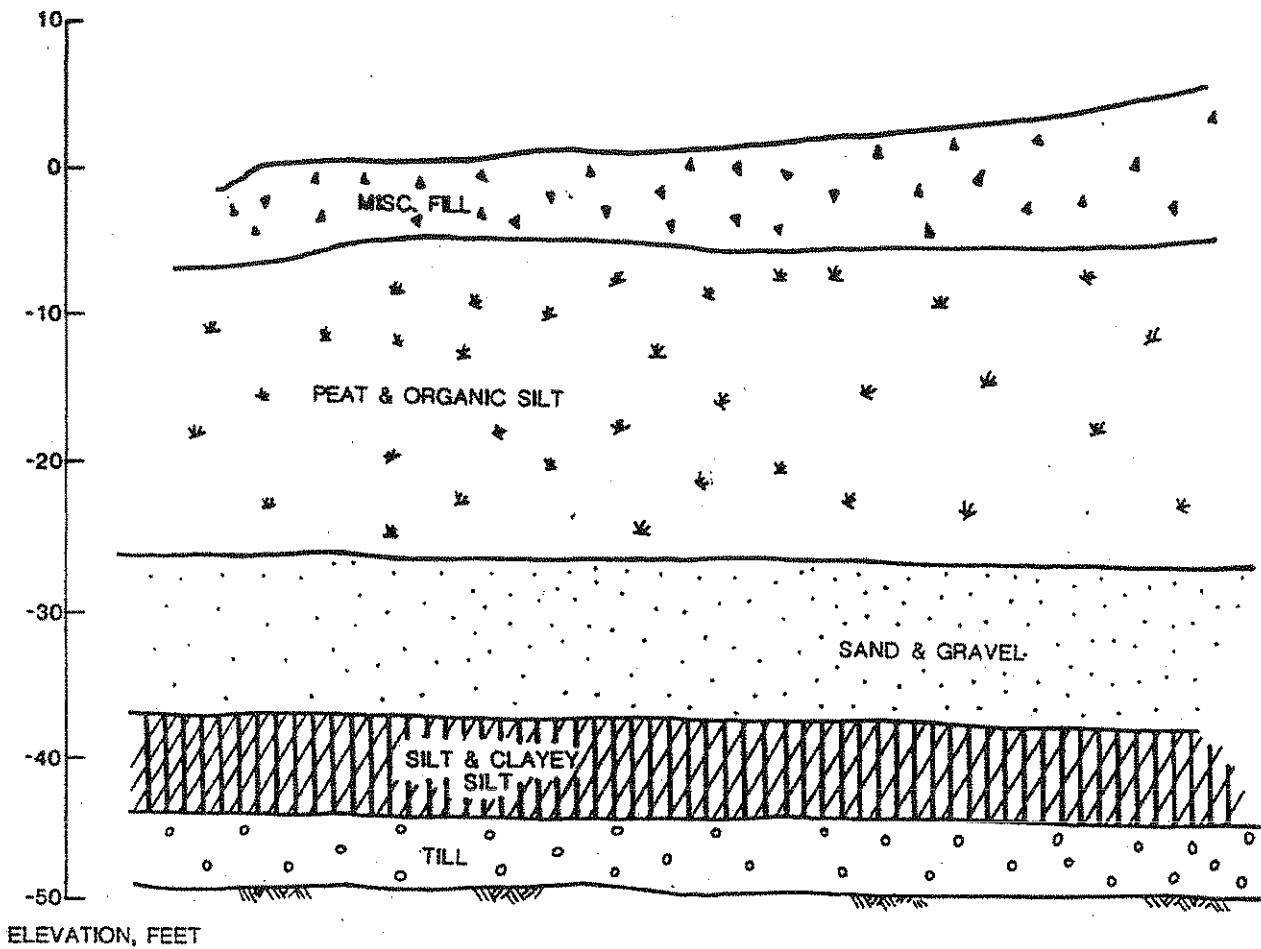
The region of the project is underlaid by shale and sandstone from the Brunswick formation (Woodward-Clyde Consultants, Inc. 1981). These substrata were formed during the Triassic period of the Mesozoic era. (Robichaud and Buell 1973). Overlying the bedrock are deposits from the last Wisconsin glacialiation in the area. The glacier covered the northern section of the island with its terminal moraine to the south and east.

As the ice sheet advanced southward over the project area, circa 18,000 B.P. (Eisenberg 1978:19), a relatively thin layer of ground moraine was deposited (Woodward-Clyde Consultants, Inc. 1981:5). The deposit was composed of sand, gravel and clay. At the terminus of the Pleistocene epoch (climatic warming) initiated glacial melting. During the early withdrawal, circa 17,000 to 15,000 B.P. (Sirkin 1967:206), the ice sheet retreated slowly depositing a ground moraine of red silt and clayey silt, probably material scoured from the red shale and sandstone bedrock. These initial deposits were followed by a more rapid retreat which produced additional outwash of sand and gravel overlying the red silts and clayey silts (Woodward-Clyde Consultants, Inc. 1981:5). Figure I-3 illustrates the general geologic chronology related to the glacial deposition as might be recorded adjoining a shoreline setting.

The soils in the region of the project are associated with the glacial ground moraine, wetland organic decomposition, and urban and industrial activities. In the nearby Goodrich Site. Because of the close proximity of the site, it can be extrapolated that aeolian soil deposits may, also be present within the project area. Leslie Eisenberg (1982:40) identified aeolian sand and silt deposited during dry climatic conditions.

Borings taken in conjunction with the engineering design for the Howland Hook terminal, recorded glacial till deposits. Soil profiles for near shore locations found peat and organic silt at depths from 4.0 to 18.5 feet below ground surface. Underlying these organics were sand, gravel, silt, and a gravelly clay till which represents glacial activity. At 40 to 52 feet was fragmented shale and sandstone. Core profiles taken from inland locations did not record the peat and organic silt deposits, instead a silty clay was found (Woodward-Clyde Consultants, Inc. 1981).

As the ice sheet melted, land-locked water was returned to the ocean created a water level rise. Estimated sea level rise has been hypothesized to be approximately three feet per 1,000 years (Salwen 1975:49). The sea level at 11,000 B.P. has been estimated to have been 100 feet below the modern water level (Salwen 1975:43). At that time, coast line and inland topography differed substantially from its present day form (Figure I-4). As illustrated, Staten Island was inland and may have adjoined the present day New Jersey mainland. The Hudson channel ran along the eastern side and the Raritan channel was located to the south. By 6,000 to 8,000 B.P. the sea level had risen to approximately 80 feet below the present day elevation level (Salwen 1975:49). Staten Island may still have been attached to the mainland on the west (Figure I-



SOURCE: WOODWARD - CLYDE CONSULTANTS, INC. 1981: FIGURE-7

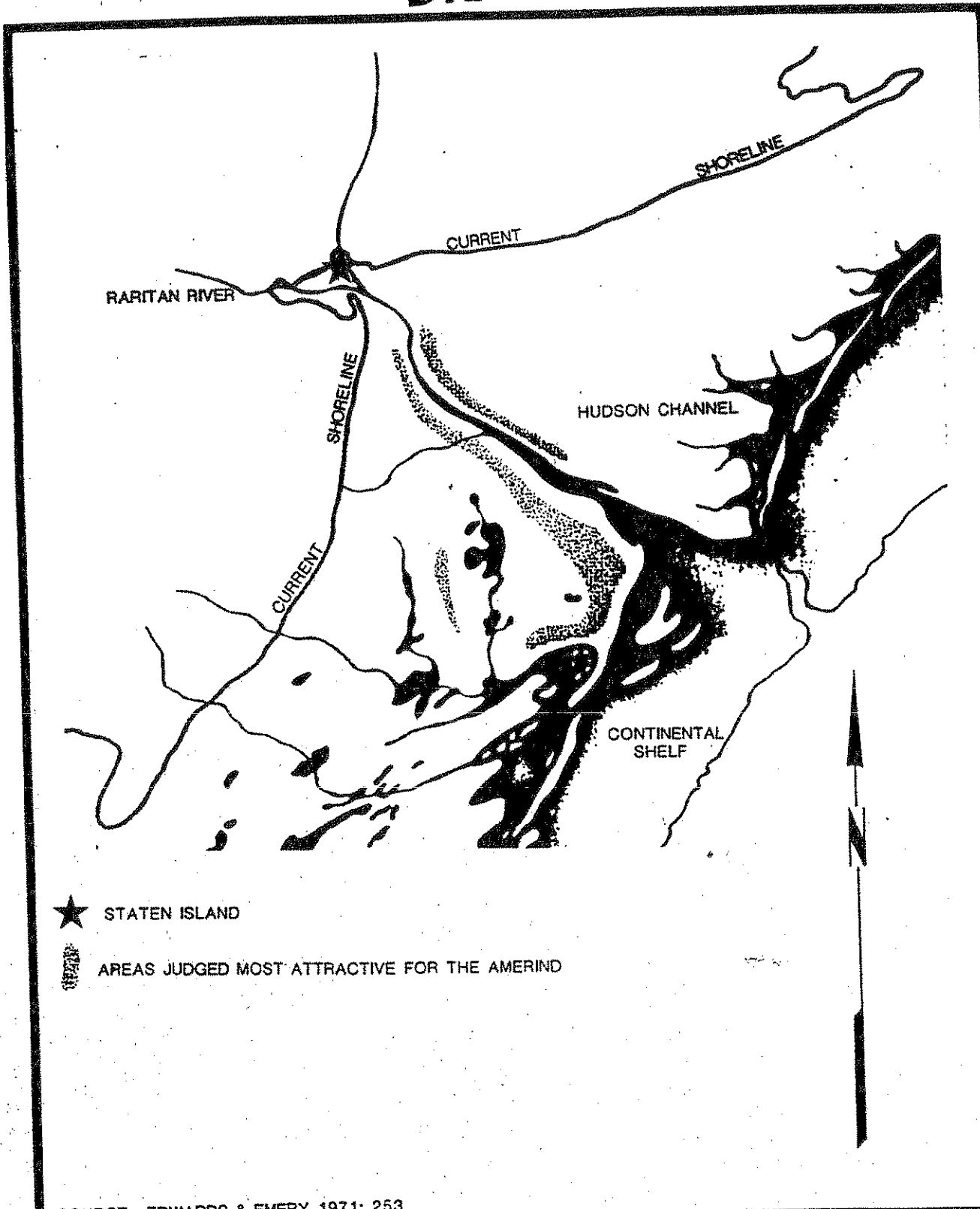
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MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE I-3
GENERAL GEOLOGIC CHRONOLOGY

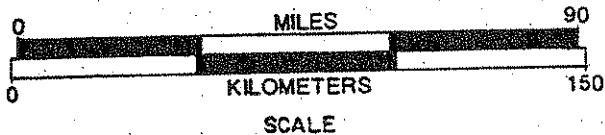
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★ STATEN ISLAND

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SOURCE: EDWARDS & EMERY 1971: 253



MAAR PROJECT: NY-1

STATEN ISLAND

FIGURE I-4 CONFIGURATION OF COASTLINE
AND HUDSON CHANNEL CIRCA 12,000 B.P.

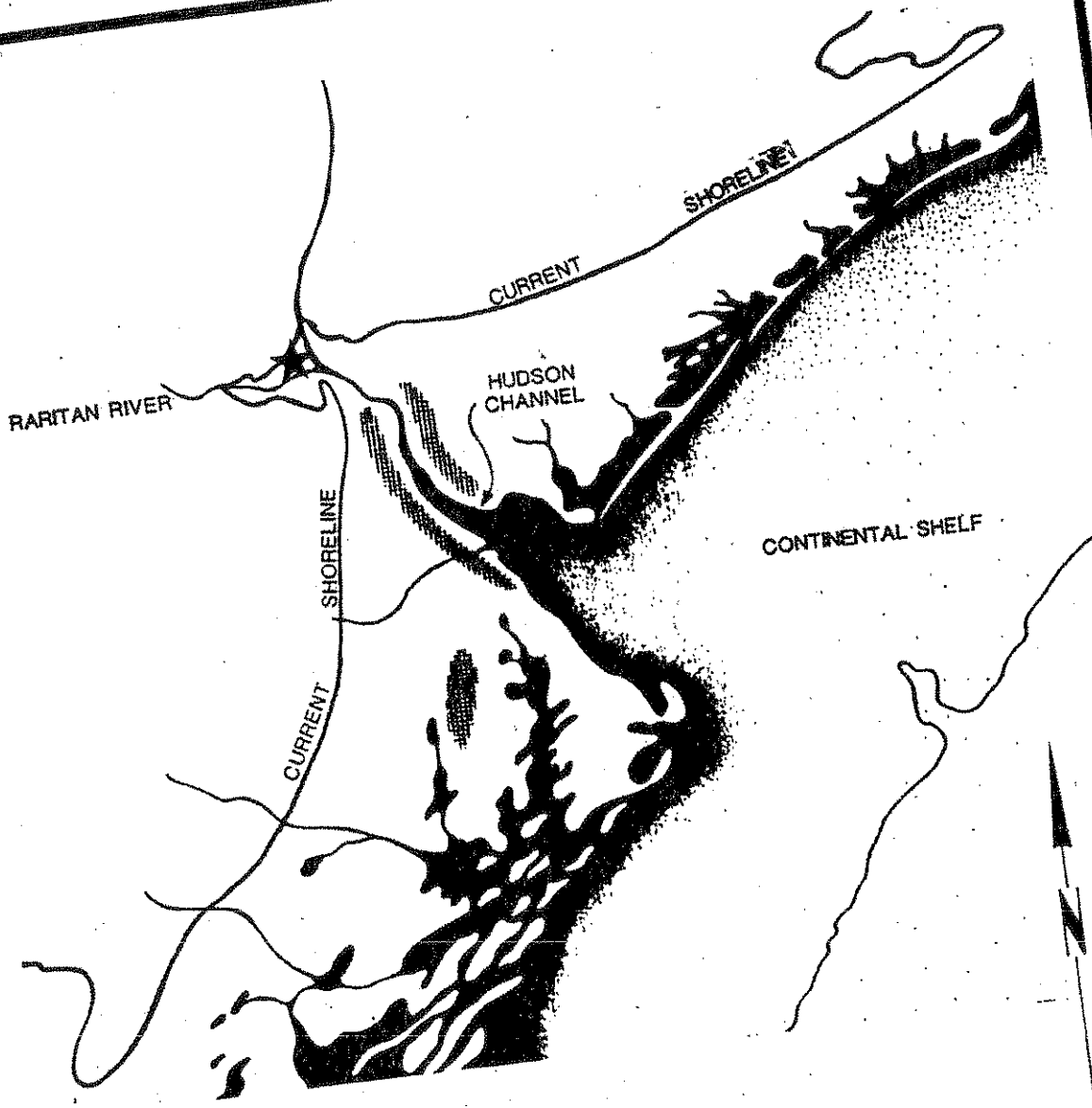
The time at which Arthur Kill developed, separating Staten Island from the mainland, has not been documented. Geological research near the Mobile Site indicates Arthur Kill was "a narrow brackish stream approximately 25 meters (83 feet) below its present (water) level by 12,000 to 10,500 B. P.", (Figure I-6) (Eisenberg 1978:123). If that, the section of Arthur Kill adjoining the Port Mobile site was separated from the mainland and possibly the entire western boundary may have been bisected by the stream. Thus, Old Place site would have drained the stream and wetlands may have developed.

Based on the presence of peat in the western part of the project area, it is possible to hypothesize a general time period for the development of Arthur Kill adjoining the project area. For this hypothesis to be valid, it is necessary to assume that the buried peat is alluvial and developed in a salt marsh environment. Present day marshes in the northwestern Staten Island and the project area, as well as in the similar environments along Arthur Kill are salt marshes (Walter Kidde Constructors Inc 1982:127 and Waksman, et. al. 1943:238).

The habitat for the formation of salt marshes and alluvial peat requires the presence of fresh water and salt water (Waksman, et. al. 1943:234). So, for the peat deposits to have formed along Staten Island's northwestern shore line, sea level must have risen sufficiently to introduce salt water into this section of the Hudson channel. At this time the saline and fresh water would have been present to permit the formation of the salt marshes and peat. If this hypothesis is valid, it is possible to state that a waterway and associated salt marsh could have been developing in the northwestern section of Staten Island as early as 12,000 B.P. The Hudson drainage was an estuary as far north as Newburgh, New York by this date (Eisenberg 1978:19). The date coincides with the time for the stream at the Port Mobil site.

Channelization for Arthur Kill could have resulted from the erosional effects of a proglacial lake being rapidly drained. A large volume of abruptly released meltwater from a Hudson channel proglacial lake could down cut a channel through the mainland to a depth below contemporary water level, creating a stream channel. Several proglacial lakes were formed in and around the Hudson channel, e.g. glacial Lake Albany which drained circa 12,000 B.P. (Figure I-7) (Sirkin 1977:212).

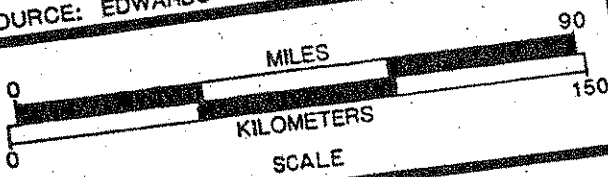
If the hypotheses are correct, then Staten Island was separated from the New Jersey mainland by 12,000 to 10,000 B.P. Whether Arthur Kill developed at this time or at an earlier or later date, there was probably a stream present in the general proximity of Tunissen's Neck by the period of cultural habitation. The presence of early Amerindian settlements, Port Mobile site at Charleston and Old Place site, and at Tunissen's Neck on Arthur Kill would indicate that a stream was probably located in the general area. Cultural/temporal classifications assigned to projectile points recovered from the Port Mobile site would indicate that Paleo-Indian occupation may have occurred as early as 9,000 to 11,000 B.P. The Old Place settlement can be dated from as early as the Early Archaic Period. A 7,310 ± 160 radio carbon years date was developed from charcoal recovered at the site, however, the accuracy of the date is held in question (Ritchie and Funk 1971:49). Today, both are



★ STATEN ISLAND

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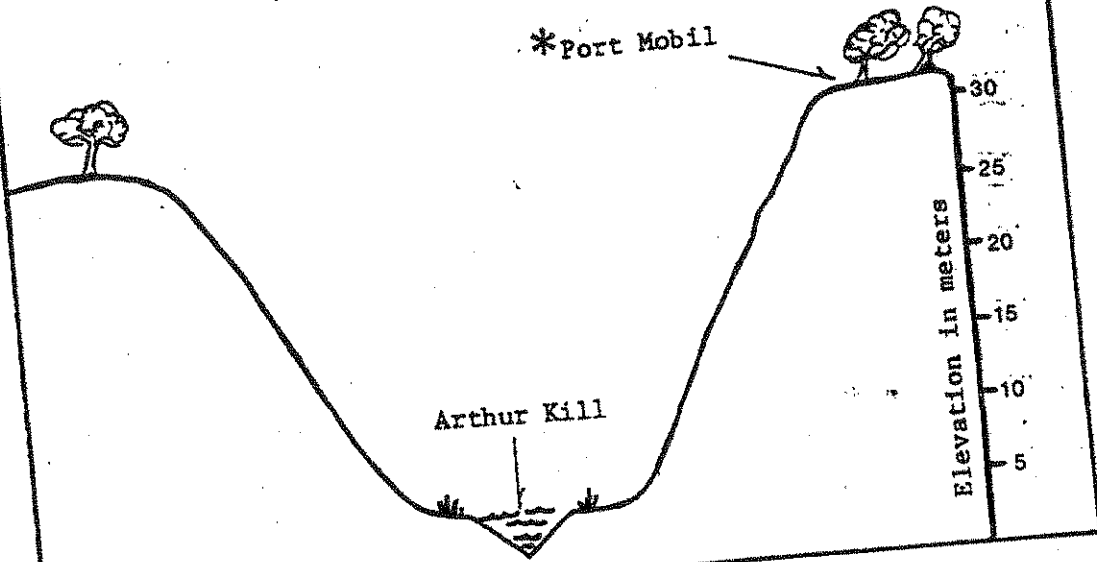
SOURCE: EDWARDS & EMERY 1971: 254



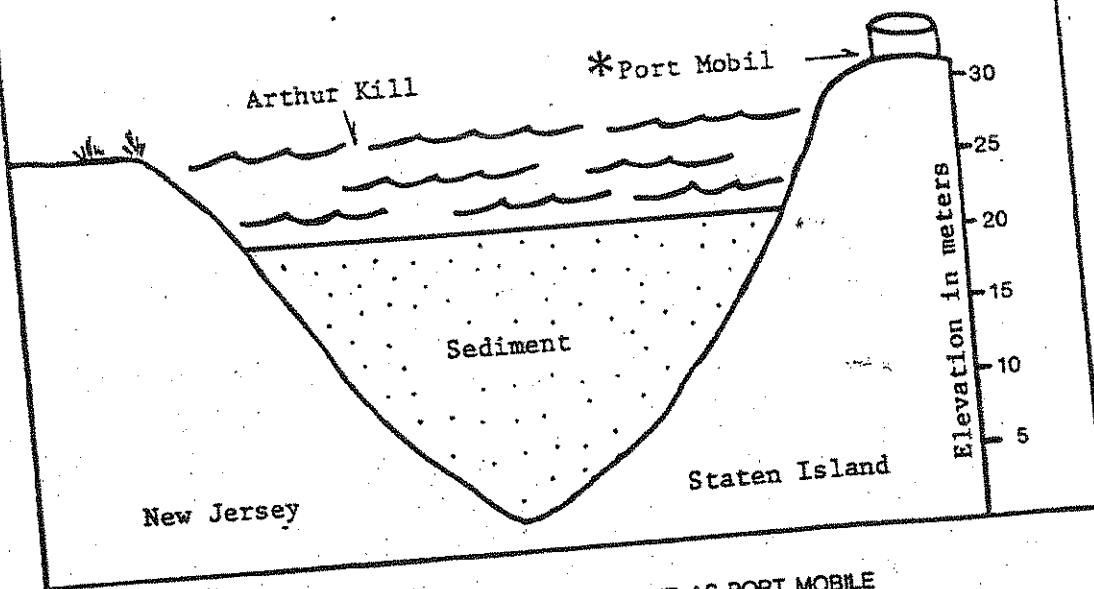
MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE I-5 CONFIGURATION OF COASTLINE
AND HUDSON CHANNEL CIRCA 6,000 TO 8,000 B.P.

Reconstructed position of
Port Mobil 12,000-10,500
years ago



Present position of Port Mobil



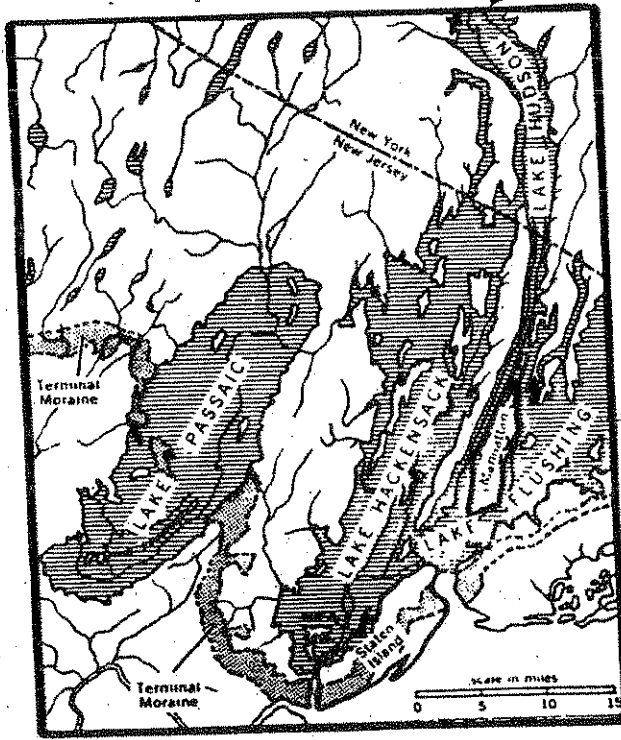
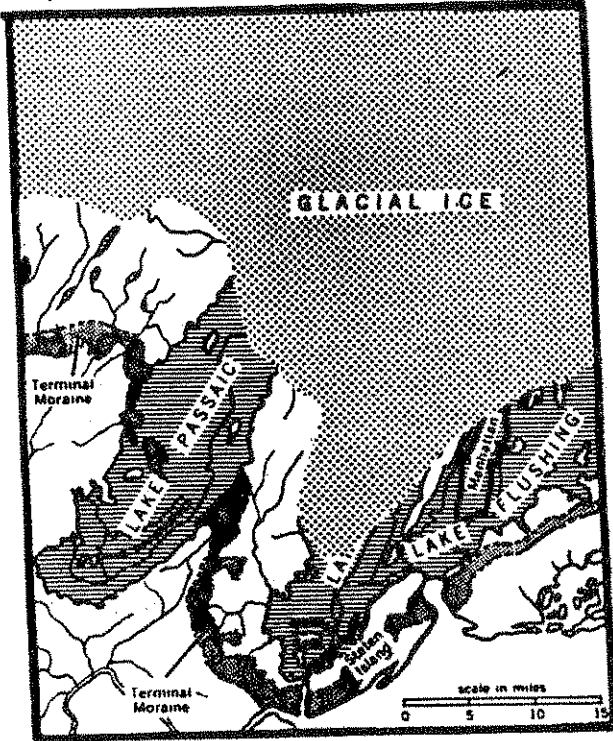
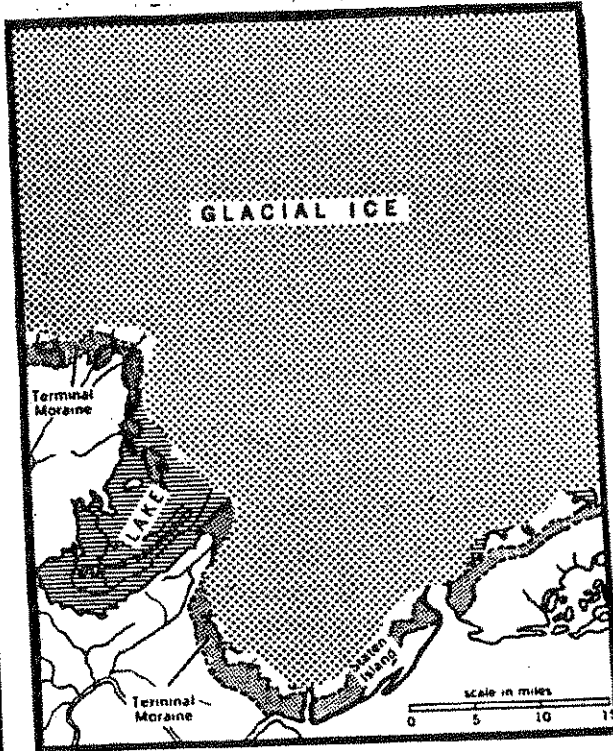
* OLD PLACE SITE ELEVATION IS APPROXIMATELY THE SAME AS PORT MOBILE
SOURCE: EISENBERG 1978: 124

NO SCALE AVAILABLE

SCALE

MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE 1-6
RECONSTRUCTION & PRESENT TERRACE POSITION
OF THE PORT MOBILE SITE



LAKE ALBANY IS LOCATED TO THE NORTH

SOURCE:
EISENBERG 1978: 21

MAAR PROJECT: NY-1
STATEN ISLAND

SEE ABOVE

SCALE

FIGURE I-7
THREE MAPS SHOWING DEVELOPMENT OF PROGLACIAL
LAKES PASSAIC, HACKENSACK, HUDSON & FLUSHING

located on terrain near sea level elevation; Old Place site adjoins expanding tidal marsh lands.

By historic times the northwestern section of Staten Island was bounded by Newark Bay on the north and Arthur Kill on the west. Inland streams consist of Old Place Creek and Bridge Creek. Bridge Creek has been realigned during the building of the Staten Island Rapid Transit Railroad north of Tunissen's Neck.

Modern Climate

The regional climate associated with Staten Island is predominantly continental with a maritime influence. The mean temperature is 54 degrees F. with extremes occurring in July, 105 degrees F., and February, -14 degrees F. The average rainfall is 42 inches per year (Walter Kidde Constructors Inc., 1982:40-42).

Floral and Faunal Resources

The current floral and faunal populations have been severely altered by urban and industrial development throughout the Twentieth century. The project area contains salt marshes, littoral zones, tidal creeks, Arthur Kill, swamps, old fields and forests (Walter Kidde Constructors Inc. 1982).

Tidal wetlands support growths of cord grass (Spartina alterniflora), salt hay (Spartina Patens), silt grass (Distichlis spicata), salt reed grass (Spartina cynosuroides). Marsh elder (Iva frutescens) is common at higher elevations in the marshes. Salt marshes provide habitats and food resources for a numerous fishes, birds, and fur-bearing mammals (Walter Kidde Constructors Inc 1982:123-142).

Coastal flats and littoral zones have been substantially altered by pollution, sedimentation and other disturbances but they still support varieties of zooplankton, algae, grass shrimp, mummichogs, and Atlantic silversides. Freshwater wetlands are found in and around Area 5 study area. The main population is reed grass (Phragmites australis). Many of these wetlands have been created by industrial disturbance (Walter Kidde Constructors Inc. 1982:142-143).

Old fields and the forested areas are found in upland terrain, some of which has been resulted from industrialization and land filling. Lands to the north and south of Richmond Terrace Road has experienced a extensive land alteration of this type. Old fields primarily support wormwood (Artemisia spp), little blue stem grass (Andropogon scoparius), switchgrass (Panicum virgatum), goldenrods (Solidago spp), and sumacs (Rhus spp) (Walter Kidde Constructors Inc 1982:155) Harwood forest includes both upland and lowland habitats. Varieties of oaks, hickories aspen, black cherry, red maple and sourgum are found (Walter Kidde Constructors Inc. 1982:155-156).

A variety of birds utilize the local habitats and the area is within the annual flyway for ducks and geese. Terrestrial faunal populations have been substantially reduced in type and number by the extensive

development. The main mammals remaining are the Norway rat and cottontail rabbit.

Aquatic populations include three species of shrimp (Crangon septemspinosus, Palaemonetes pugio, P. vulgaris), and blue crab (Callinectes sapidus) (Walter Kidde Constructors Inc. 1982:159-160). Fish populations include bay anchovy (Anchoa mitchilli), winter flounder (Pseudopleuronectes americanus), American eel (Anguilla rostrata), and summicog which seems to be the most abundant and least effected by pollution (Walter Kidde Constructors Inc. 1982:161-162). A large number of the native aquatic populations have been displaced by modern development and pollution.

Paleoenvironment

During the maximum extension of the glacier the northwestern section of Staten Island was covered by the ice sheet. Not until its retreat northward was the project area exposed. At this time the climate was undergoing an increase in temperature and the ecology was undergoing a corresponding change. The park-tundra environment that had been present in western Long Island and eastern Staten Island circa 15,000 B.P. was being replaced by pine-spruce-oak-fir forest in eastern Staten Island around 12,500 B.P. (Eisenberg 1978:24 and Sirkin 1977:212). The presence of a continental climate supported the vegetative changes; there was even a more continental climate than exists today (Eisenberg 1978:30). Oak forests may have had a dominance in dry upland with spruce favored in low wetter ecozones. Following these interpretations it is possible that stands of oak trees were present in and around upland sections of the project area, including Tunissen's Neck.

Faunal populations during the latter period of the maximum ice sheet would have included large mammalian cold weather species, such as mastodon, mammoth, and caribou with white-tailed deer and elk present in the animal assemblage (Eisenberg 1978:32). Two mastodon remains sites are reported on Staten Island (Ritchie 1969:10). With the climatic warming and the northward retreat of the ice sheet, the habitat suitable for supporting many of these species ceased to exist. Consequently, many species, e.g. mastodon, mammoth and caribou, moved north in the pursuit of suitable environmental conditions. There is limited evidence that suggests man was present in the area and exploiting these large mammalian species during this period (Funk, Fisher and Reilly 1970).

The pine-spruce-oak-fir forestation pattern is maintained until about 10,000 B.P. when the conifer populations begin to increase, however, oak is still recorded reaching upward frequencies of 20 percent of the forest population (Esinberg 1978:24). There is a substantial increase in spruce-fir-jack pine populations brought about by ecological changes that continued for approximately 4,000 years (Salwen 1975:50 and Funk 1977:326). The Hudson drainage was effected from its northern and southern sections. During this ecological period it has been hypothesized that faunal populations north of Staten Island decreased significantly in the conifer dominated forested areas, particularly mast eaters, such as deer and turkey. In association, it is hypothesized that human populations in these areas decreased due to the lack of available native food resources (Ritchie 1969 and Salwen 1975:51-53).

These Native food reduction conditions did not seem to have been dominant on Staten Island because Amerindian settlements are reported for this time period, e.g. Port Mobile site and Old Place site (Salwen 1975:50). Long Island and Staten Island maintained substantial populations of birch and oak in a Carolinian environment. Staten Island and Long Island appeared to be the southern terminus of the conifer ecozone (Salwen 1975:49, 51).

At an undetermined time a mixed forestry ecology started to displace that of the conifer. Populations of oak and other hardwoods were interspersed with the pine and hemlock. The variation in the composition of these populations was interrelated with local climate changes. The climatic succession has been interpreted to indicate warm-moist, warm-dry, and cooler-moister set of weather patterns. During this time, circa 6,000 to 4,000 B.P., hickory displaced hemlock to produce oak-hickory forests. Cooler climatic patterns began about 2,000 years ago (Salwen 1975:49).

With the forestation changes a diverse inventory of faunal species entered the area. These included deer and turkey, important to Amerindian subsistence. With the rise of sea level and the introduction of salt water up the Hudson River, a variety of aquatic species appear, including the oyster, which was popular within Amerindian diets (Salwen 1975:51-52).

With slight variations this environment continued relatively unchanged up to European contact. Sea level continued to rise at approximately three feet per 1,000 years (Salwen 1975:55) and continues today. It is not until European colonialization and industrial development that the northwestern section of Staten Island underwent its next major change, defined in the Current Land Use and Floral and Faunal Sections above.

Prehistoric Overview

Prehistory in the region of Staten Island corresponds in general to cultural chronology for the Northeast. Initially, Paleo-Indian hunters and gatherers entered the area, and from that point humans continued to exploit the natural resources following a variation of settlement/subsistence patterns throughout the Archaic and Woodland Periods. As stated in the environmental section, the southern terminus of the Hudson River, Staten Island, and Long Island have prehistories that differ from the more northern sections of New York State. This point is illustrated in the regional cultural chronology developed by William Ritchie (1980:xxx-xxxi). This chronology has been modified to provide a more project specific prehistory. The scheme developed by Ritchie (1980:xxx-xxxi) has been modified to include more definitive information from (Anderson 1964), (Eisenberg 1982), (Jacobson (n.d.)), (Ritchie and Funk 1971), (Salwen 1975), and (Wyatt 1977).

TABLE I-1

Project Specific and Regional Prehistory
(A General Overview)

Period & Phase	Geographic Location of Sites	
	Southern Subarea	Project Area
WOODLAND (1000 B.C. - A.D. 1600)		
Niantic	Finch Rock House Heicker's Cave Milo	Northern Staten Island. (Ritchie 1969:270-271)
Bowmans Brook	Bowmans Brook Wilkins Grantville B	Bowmans Brook
Sebonac	Sebonac Laqueboque Old Field A Wells	Unknown- sites reported in Long Island and north. (Ritchie 1969:266-268)
Clearview	Clearview Throgs Neck Manhasset Rock	Unknown - sites reported on Long Island and Manhattan Island. (Ritchie 1969:269)
Abbott Dentate	Old Place	Old Place
Abbott Net- Impressed	Old Place	Old Place
North Branch	North Branch Pelham Boulder Matinecock Point	Unknown.
Middlesex	Denning Point	Unknown
Vinette I	Old Place	Old Place
TRANSITIONAL (ca. 1300 - 1000 B.C.)		
Orient	Orient #1 Orient #2 (944 B.C..250) Stoney Brook 2 (944 B.C..250 974 B.C..250) Sugar Loaf Hill (1,043 B.C..300) Shoreham	

Wading River
Cusano
Old Place

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Old Place

ARCHAIC
(ca. 8,000 -
1300 B.C.)

Snook Kill

Old Place
Lake Montauk

Old Place

Wading River

Wading River
Shoreman
Cusano
Riverview
Garvie Point 2

Unknown-possibly identified
as Lamoka or Bare Island.

Bare Island

Bowmans Brook A
Arlington Place A-1
Old Place
Goodrich

Bowmans Brook A

Old Place

Poplar Island

Bowmans Brook A
Arlington Place A-1
Old Place
Goodrich

Bowmans Brook A

Old Place

Beekman

Montrose Point

Unknown

Hunterbrook

Montrose Point

Unknown

(Early Archaic types and sites where one or more of the types were
found.)

LeCroy Bifurcated,
Kanawha,
Stanly Stemmed,
MacCorkle,
Kessell,
Dalton,
Kirk Corner-
Notched
Kirk Stemmed
Hardaway Side-
Notched

Piping Rock
Montrose Point
Twombly
Old Place
Hollowell Landing
Port Mobil
Ward's Point
Richmond Hill

Old Place
(7310 B.P..160)

TALED-INDIAN
ca. 9000 -
7000 B.C.

lovis-like

Port Mobil

Old Place

It is likely that the subsistence/settlement patterns maintained by the Amerindian cultures in the region of the project area were correlated with the changing environment and the availability of native food and other material resources. These patterns ranged from the early migratory hunting and gathering of the Paleo-Indian to the sedentary Woodland cultures cultivating domestic foods.

On Staten Island Paleo-Indian sites have been recorded on locally elevated land which possessed good visual exposure to the surrounding terrain, e.g. Port Mobil site (Salwen 1975:45). The locations appear to be seasonal or transient hunting camps. However, other subsistence resources may have been exploited. Evidence recovered at the Shawnee-Minisink site on the Delaware River indicates that vegetative food resources along with fish were being procured indicating that hunting was not the only subsistence activity practiced by the cultures.

In most of New York State the earlier Archaic Period cultures appear to be of a very low frequency or located in limited numbers along major river drainages, e.g. the Susquehanna River. As stated in the Natural Environment section, a change in the environment favored the development of a conifer dominated forest which offered a limited carrying capacity for culturally desirable floral and faunal species, such as deer and turkey. Only the open riverways provided the ecotonal environment with a diverse food inventory. These restrictive conditions did not substantially develop on Staten Island, as evidenced by the presence of Early Archaic components at Old Place and others site. It has been hypothesized that the area was within the northern limits of a Carolinian environment. Substantial populations of oak trees were present indicating more of a mixed forest configuration than was present in the more northern areas (Salwen 1975:49-51). A diverse assortment of Early Archaic projectile point types have been recovered from Staten Island sites suggesting the extensive occupation of the area.

With the development of the oak-hickory forests throughout New York, circa 5000 B. P.; Archaic populations began to increase throughout New York State, however, Archaic cultures had been active on Staten Island without interruption. The seasonal availability of native foods required settlement practices that were suitable for mobile procurement patterns. Specialized procurement camps, as well as extended habitation villages were maintained. One type of favored location was terrain which adjoined either fresh or salt water marshes, such as Old Place site (Salwen 1975:53). Shell fish remains at Old Place site (Skinner 1909:8-9) attest to aquatic and littoral exploitation. At these locations permanent spring and summer settlements may have been established to exploit the diverse faunal and floral populations (Salwen 1975:53). On Staten Island, what appears to be the most common Late Archaic cultures are associated with Bare Island and Popular Island phases.

In general, the Woodland Period environment remained basically unchanged into historic time. Rising sea levels continue to erode inland topography requiring the abandonment of favorite settlement sites which had been inundated or claimed by floodplains and wetlands. Many cultures introduced domestic foods, supplementing their previous hunting and gathering practices. At the time of European contact maize, beans, and squash were being cultivated supplementing native foods sources (Salwen

1975:61). The earliest known date for horticulture is A.D. 1070.60 (Ritchie 1980:xxv). Settlements enlarged in size as they became permanent; many were fortified. Fortified villages were constructed on Western Island (Salwen 1975:58) and throughout much of the Iroquois territory. In many cultures social, political, and religious organization became complex. This development was in response to the need for village level organization, as opposed to the earlier extended family. Villages are interrelated into political confederations, e.g. the Iroquois.

Historic Overview

The Historical Overview is intended to provide a general regional and local history. Its purpose is to aid in the interpretation of the cultural resource survey's data base.

The earliest contact of Europeans with the New York City area was a short, investigatory landing by Giovanni da Verrazano in 1524 (Leng and Davis 1929:85). The first permanent settlement of Manhattan is dated to the establishment of a Dutch colony by Henry Hudson in 1609 (Schuyler 1977:1). The early attraction to the Hudson Bay area was the quantity of furbearing animals inhabiting the wetland areas (Schuyler 1977:1). The first recorded activity was the granting to the Dutch West Indian Company of a location for attaining fresh water in 1623 (Leng and Davis 1929:88).

After 1629, a system of large, landed estates, called "patroons", was initiated for the Dutch colony of New Amsterdam. This was done in an attempt to develop an agricultural community there, but Indian aggression during the Dutch period (1609-1664) caused these pioneer settlements to fail and the Greater New York area to continue as a furtrading area (Schuyler 1977:1). Staten Island was first settled under this "patroon" system in 1639 (Leng and Davis 1929:92).

During the rise of England as a world power, the British successfully captured New Amsterdam for themselves in 1664 and renamed it New York (Leng and Davis 1929:108). Following the British takeover, the economic emphasis shifted from a trading center to an agricultural community producing flour. The development of Staten Island through large, patented farms in the 1660's and onward were based upon this agricultural practice.

Because of an influx of people into the New York colony, small villages began to develop by the 1720's. The isolation of Staten Island caused this development to be less pronounced. By 1733, the only villages were Cuckold's Town, Old Town, New Town, and Castletown.

The rise of an urban society in this colony was disrupted by the troop movements of the British and was American forced during the Revolutionary War. Following victories in New England in 1775, the British occupied Staten Island in 1776. They occupied the Greater New York City area continuously until 1783 (Schuyler 1977:3). The occupation forces consisted of 32,000 soldiers, 30 warships, and 10,000 sailors (Hampton 1971:30-32). The British and Hessian troops established a number of redoubts around the island to protect their hold on Staten Island. Through this period, Staten Island was the site of numerous

skirmishes and the embarkation point for British attacks on Long Island and New Jersey.

Following the Revolutionary War, the New York City population returned to its economic pursuits. Agriculture, coupled with fishing, ferrying, and shipbuilding were the major economic industries. New York City developed between 1783 and 1860 as a redistribution center for America, supplying New England, the Middle Atlantic states, and England with products necessary for their emerging industrial activities and as a port receiving two-thirds of all imports into America (Robertson 1966:26, Schuyler 1977:4).

The invention of the steam engine in the 1860's allowed industrialism to develop in areas lacking sufficient water power resources (Schuyler 1977:4). It was during the last quarter of the nineteenth century that the Greater New York area made the transition from an urban/redistribution service center to an urban/industrial center. The construction of a railroad bridge across the Kill Von Kull in 1889 and the Outerbridge and Goethals Bridges in the 1920's further opened Staten Island to industrialism (Walker 1927:306-308, Leng and Davis 1929:380). Today Staten Island serves the dual function of an industrial center and a suburban area for Manhattan (Robertson 1966:80).

Staten Island Economic Development

Although Staten Island is situated close to Manhattan, natural factors have caused it to develop differently than its neighbors. Natural features such as the surrounding rivers, have helped to keep Staten Island isolated within the Greater Manhattan area.

The first successful settlement of Staten Island occurred in 1639. By this time, the Dutch had established their "patroon" system of landed estates based upon agriculture. Most were located farther up the Hudson but a number were located around New Amsterdam (Schuyler 1977:2). Following the establishment of a permanent Dutch settlement on Manhattan, the Dutch supported the establishment of secondary agricultural settlements. These farms initially helped only to support New Amsterdam but eventually they transformed New Amsterdam's economy. The Dutch West India Company issued patroonships in 1630 that included Staten Island and parts of New Jersey. The Staten Island "fief" changed hands and was violently destroyed three times, as open conflict occurred between the local Indians and the Dutch (Schuyler 1977:2).

Late in the 17th century, the economic base of the Greater New York area changed under the hands of the British. Fading importance of patroon agriculture and fur trading made way for wheat production. New Amsterdam became the center for bolting flour (Schuyler 1977:2), and surrounding farm areas like Staten Island began to produce flour for trade. Also important in the Staten Island economy at this time was the industries of fishing, oystering, and shipbuilding (Robertson 1966:26).

Between 1720 and 1860, New York grew tremendously as a shipping link between America and Europe. In 1860, Manhattan handles two-thirds of all imports into America. However, because of the isolation that Staten Island faced, the economic base was radically different than its

neighbor. It survived on agriculture, the production of items that could be shipped from New York, and fishing. Staten Island in this period was mostly a getaway place for New Yorkers. In the late 18th century, a home for aged sailors was established on the North shore of Staten Island (Robertson 1966:78), and a number of retired sailors built homes down Richmond Terrace in the 1840's and 1850's in what became known as "Sailor's Row." During the last half of the 19th century, New York vacationers spent their summers in cottages and hotels on the island (Robertson 1966:79).

Because of the industrial development of the areas surrounding Staten Island, the old economies of fishing and farming began to disappear. Acid fumes drifting over from plants in New Jersey made the land on the island unsuitable for agriculture. Pollution from these areas closed down the oyster and clam beds, and made fish unsafe to eat. (Robertson 1966:80).

It was not until 1889 that the isolation of Staten Island began to erode and the necessary changes for industrialism began. In that year, a railroad bridge was constructed across the Kill Van Kull, forming the first permanent link to the mainland. Steam made water power obsolete, and new factories could then be constructed on Staten Island, with the railroad bringing the items to market. The need for space near Manhattan necessitated the industrial development on Staten Island as soon as the railroad was finished.

The industrial development of Staten Island was slow, even with this addition, until the 1920's. In 1924, the Port Authority of Greater New York began plans for the construction of three bridges between Staten Island and adjacent areas (Walker 1927:386). The Outerbridge Crossing, Bayonne Bridge, and Goethals Bridge were constructed through the 1920's. These allowed free movement of supplies and products on and off Staten Island.

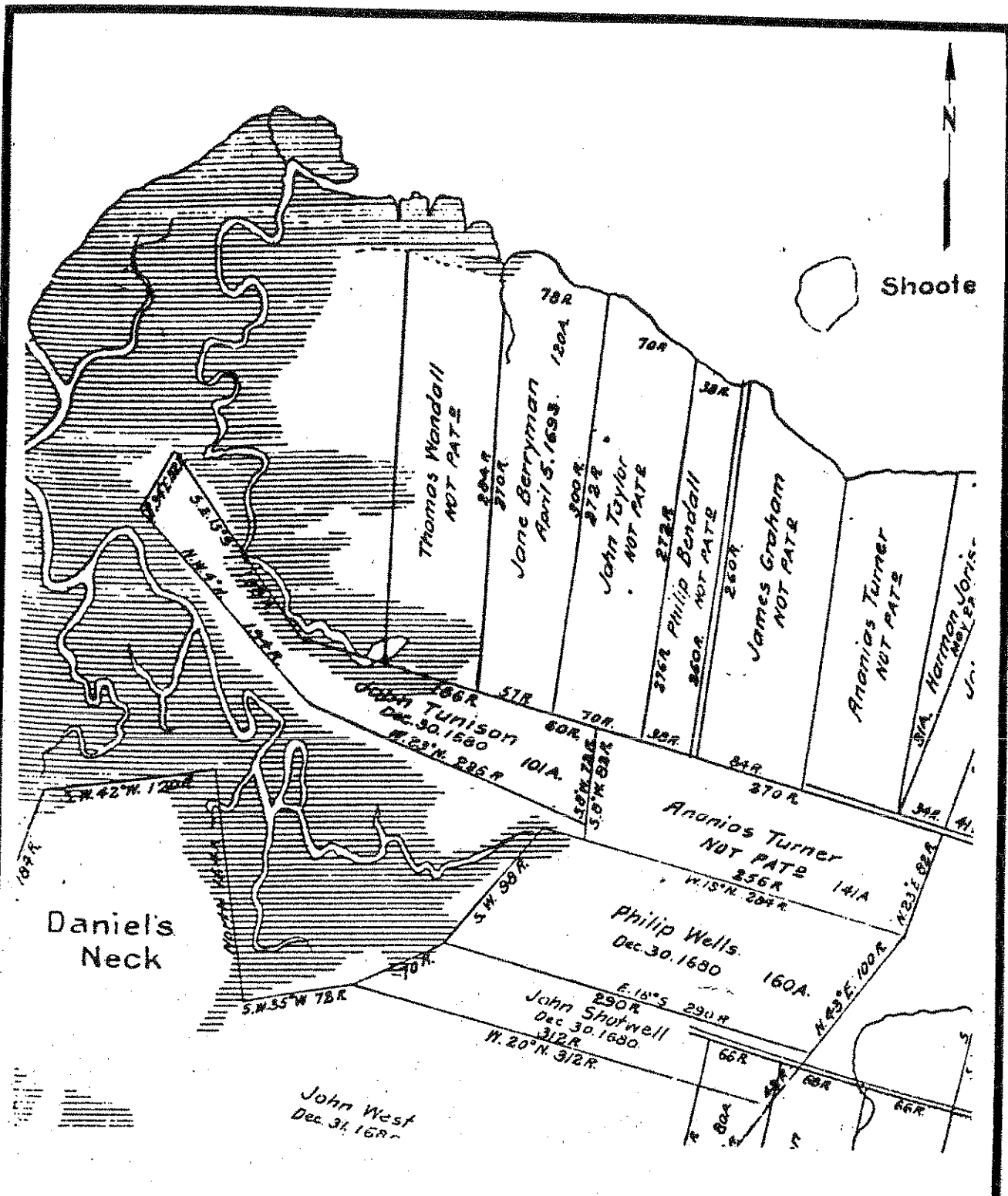
Staten Island has evolved into a suburban residential area, with most of its residents consisting of middle-aged families, living in one-family homes, and commuting to Manhattan or New Jersey for their work (Robertson 1966:80).

Historic Activity within the Holland Hook Project Area

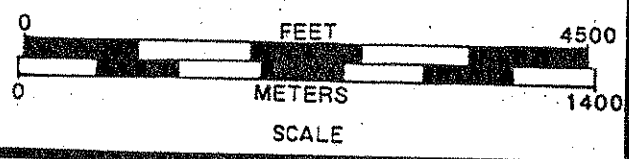
The area known as Holland Hook derives its name from Henry Holland, a prominent landowner on Staten Island (Garnice 1974:179). This name was corrupted into Hollin's Hook and Howland's Hook during the nineteenth century (Davis and Leng 1896:70). It was originally divided under the English system of land grants in the 1670's and 1680's. The Holland Hook project area was first owned by Thomas Wandall (Leng and Davis 1929:973) (Figure I-8), but there is no documentary evidence as to whether Wandall ever made any improvements on the property.

The development of Holland Hook began ca. in 1700, when Daniel JeHart constructed a residence there (Bailey 1936:125, Garnice 1974:179). A road was laid out from Richmond to Holland Hook in 1705 and named Shore Road but is presently known as Richmond Terrace (Staten Island Records 942:109). The colonial development of Holland Hook included the

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SOURCE: MAP OF STATEN ISLAND, N. Y. SHOWING COLONIAL LAND PATENTS FROM 1668 TO 1712; FREDERICK SKENE, 1907



MAAR PROJECT: NY-1
STATEN ISLAND
FIGURE 1-B
COLONIAL LAND PATENTS MAP

operation of a ferry by Adoniah Schuyler from Elizabeth Town, New Jersey, to a landing west of Holland Hook in 1736 (Leng and Davis 1929:680). Schuyler aided the improvement of Holland Hook by constructing an access road from his landing to the terminus of Shore Road (Leng and Davis 1929:680). The meeting place of the two roads was known as the "Jumping Off Place" and "Abner Decker's Point" (Davis and Leng 1896:73), and the road to the ferry was known as the "Ferry Stairs" (Davis and Leng 1896:86).

Daniel DeHart had married Catherine Tunissen, daughter of Jan Tunissen, and after 1704 moved onto a tract of land along the north shore of Staten Island. The construction of the first residence in this area apparently followed the construction of a shell laid road from the jumping off place to Port Richmond in 1705 (Hampton 1971:18-19). It is possible that he received the land from his father-in-law, who owned much land on Staten Island. Daniel lived there until his death in 1754 (Bailey 1936:125). The land then passed to his youngest son, Samuel. Samuel DeHart lived on the Holland Hook farm until his death in 1798. In his will of 1785, Samuel DeHart left his wife Abigail half of his farm and the rest was divided between his son Samuel and son-in-law Garrett Post (Bailey 1936:126). Two related Posts, Garrett and Peter, had been living on the farm for a number of years in separate dwellings on the south side of Shore Road (Figure I-9, Plate I-1).

The Revolutionary War brought much activity into Holland Hook. Its location at the northwest corner of Staten Island and its proximity to Elizabeth Town dictated Holland Hook as a vital position in the British defensive plan. An undated map illustrates the location of a picket guard south of Shore Road (Figure I-10). The accompanying text relates that this guard was under the command of Lieutenant Colonel Joseph Barton, the First Battalion commander of the New Jersey Volunteers. This was one of General Cortland Skinner's loyalist brigades (Katcher 1973:93). The text records activity around Old Place Creek (named Tunissen's Creek on the map), Bridge Creek, and Holland Hook:

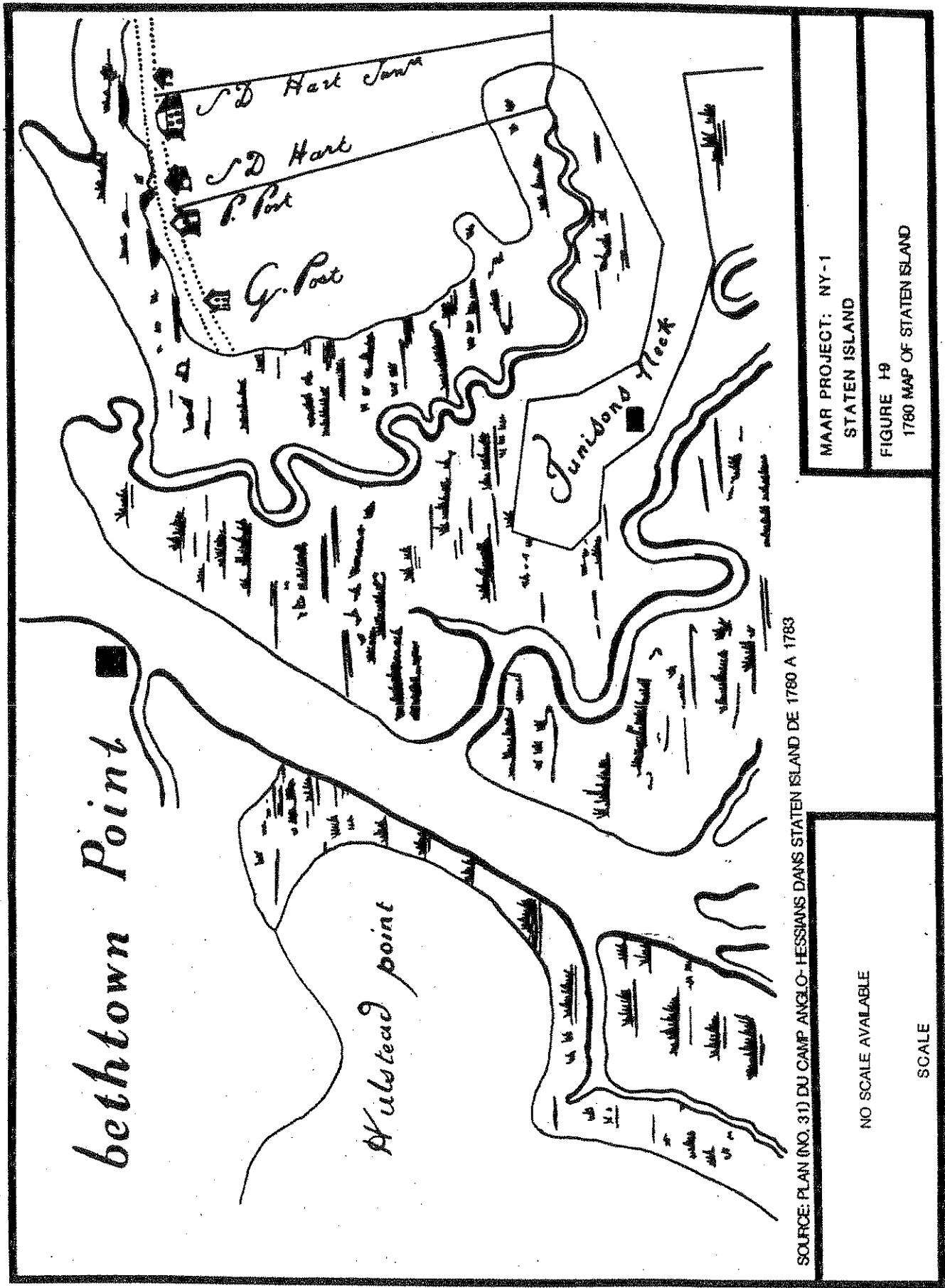
No. 15 A Chestnut tree before the rebels landed Lieut. Boorkink kept a Centry but that night it was moved to fig. 17.

No. 16 The place call'd the Burnt house where his Picket Guard was kept the Double picket line from the burnt house shews a road across the marsh over a small creek Coll. Boorkinks Alledges the tide was so high on the 22 Instant he cou'd not send the picket across and ordered it placed at fig. 17.

No. 18 Shews the place a Large Detachment of the Rebels Landed on the 22 Instant and marched to ther burnt house and from thence directly directly along the road to fig. 19.

(Text on Clinton Map 200, Figure I-10)

As an answer to British activity, colonial forces constructed a fortification at Elizabeth Town Point garrisoned by four to five hundred men, with two field pieces, and part of a company of artillery (Hatfield 1868:436). The threat of the American rebels caused British fortifications to be built at Holland Hook, the closest point to the American fortifications at Elizabeth Town, New Jersey. At the Garrett



SOURCE: PLAN (NO. 31) DU CAMP ANGLAIS-HESSEIENS DANS STATEN ISLAND DE 1780 A 1783

MAAR PROJECT: NY-1
 STATEN ISLAND
 FIGURE 19
 1780 MAP OF STATEN ISLAND

NO SCALE AVAILABLE
 SCALE

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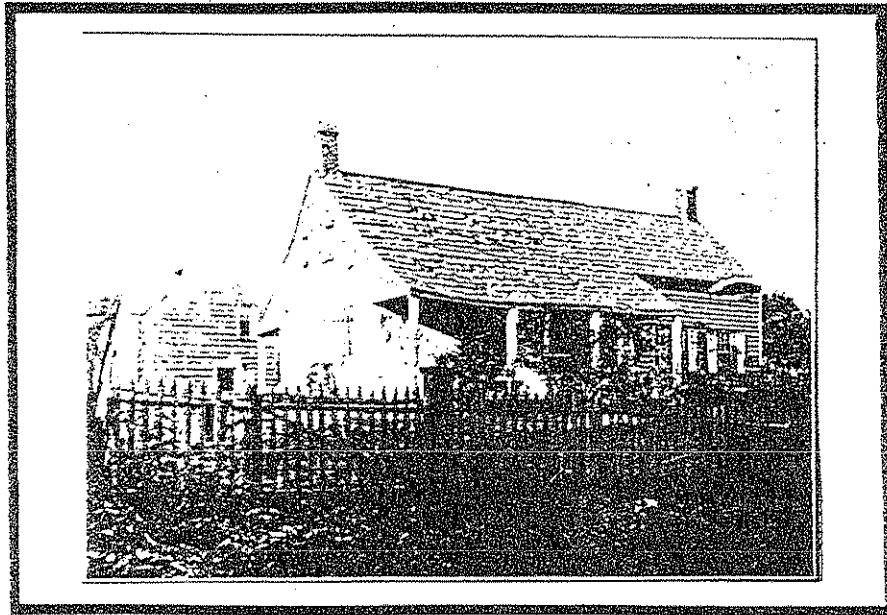
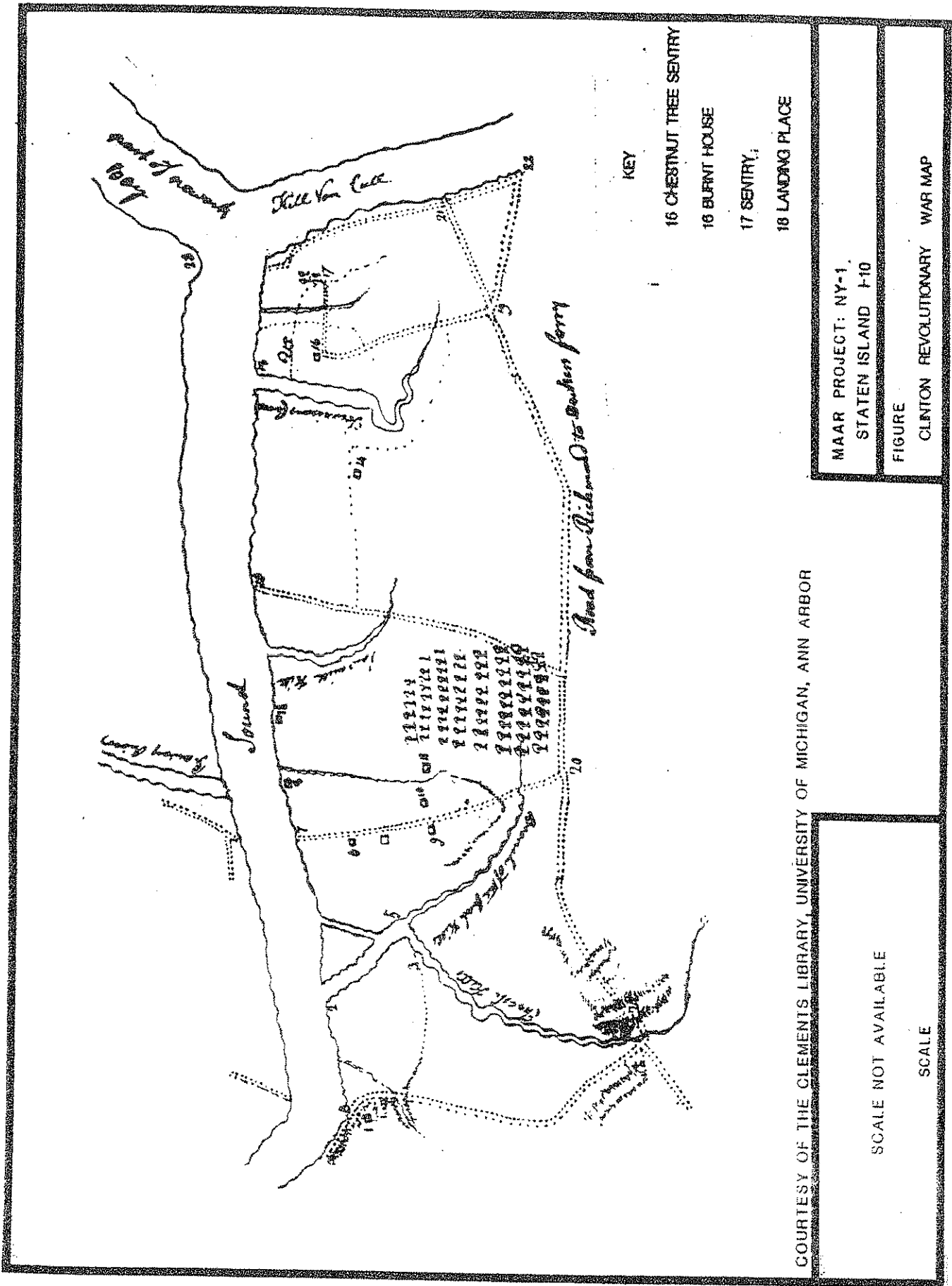


PLATE I-1: Philip Post House



KEY

16 CHESTNUT TREE SENTRY

16 BURNT HOUSE

17 SENTRY,

18 LANDING PLACE

MAAR PROJECT: NY-1,
STATEN ISLAND P-10

FIGURE
CLINTON REVOLUTIONARY WAR MAP

COURTESY OF THE CLEMENTS LIBRARY, UNIVERSITY OF MICHIGAN, ANN ARBOR

SCALE NOT AVAILABLE

SCALE

Post farm, earthworks were constructed, and the farmhouse was used as a command post (Hatfield 1868:436, Hine and Davis 1925:121-122).

The two opposing fortifications were involved in a number of small skirmishes and cannon exchanges between 1776 and 1780 (Hatfield 1868:438-480). Holland Hook was also used as a embarkation point for General Knyphausens's invasion of New Jersey in 1780 (Hatfield 1868:486, Atwood 1980:148), and a pontoon bridge was constructed from Schuyler's Ferry landing to a point on the New Jersey shore (Hatfield 1868:495, Willcox 1954:194, Atwood 1980:148) (Figure I-11).

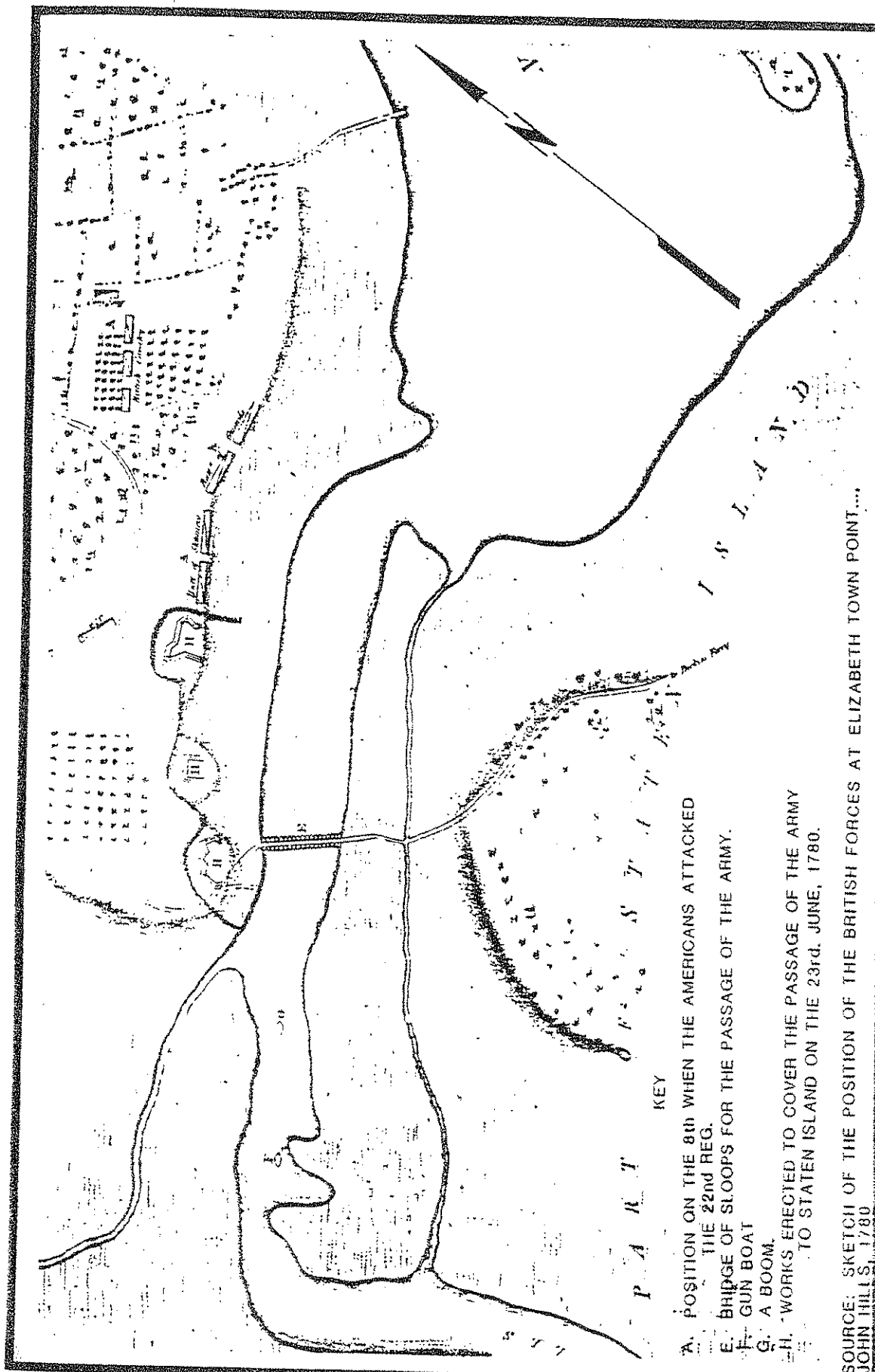
Following the Revolutionary War, Holland Hook returned to its economic pursuits of farming, fishing, and ferrying. The farmsteads were subdivided into a number of smaller lots during the nineteenth century. By 1807, the first house north of Shore Road in the Holland Hook project area was built by Abner Decker (Davis and Leng 1896:73). Holland Hook was part of the area that, during the 1840's and 1850's, was built upon by retiring sailors. An example of this type of construction is the Captain Garrett Post home (Plate I-2). In 1863, a horse drawn trolley line was constructed on Richmond Terrace, connecting the ferry terminus with the rest of Staten Island (Garnice 1974:179).

A number of other homes were built within the project area by 1874 (Figure I-12). The prominent landowner at this time was George Bowman. He was forced to sell his lands by 1887 (Hine and Davis 1925:122), which produced lands able to be developed by industrialism.

Holland Hook was substantially and industrially developed between 1898 and 1917. The 1898 Robinson Atlas (Fig I-13) recorded the transition stage between an agriculturally based community and an industrially based one. Following the death of Bowman, his lands were bought by the New York Transit and Terminal Company, Ltd. There is no indication that they used the lands, but merely owned them and other large tracts of land on Staten Island. The only alteration noted on this map was the construction of a dike and bulkhead across the small bay immediately north of Holland Hook.

The 1907 Robinson Atlas (Fig I-14) illustrates the beginning of industrial alteration at Holland Hook. The Millikin Bros. Steel Corp, opened in 1904, had bought the eastern lands at Holland Hook from the New York Transit and Terminal Company and constructed a number of factory buildings and rail lines. The Proctor and Gamble company had bought their western lands and also constructed a complex of buildings and rail industrial construction had occurred. By 1917 (Fig I-15), the Downey Shipbuilding Corporation had bought the Millikin facilities and at the ferry landing, the Long Leaf Pine Company had constructed four buildings for their operations.

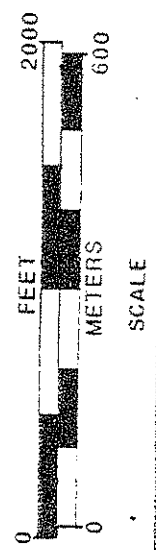
The situation was one of decay by 1968 (Fig I-16). The lands of the Millikin/Downey plants were by this time long vacated, and the land began to be used only for dumping. North of Richmond Terrace, several of the homes were replaced by a junkyard/garage and a furniture manufacturing plant.



PART I
STATEN ISLAND

- KEY
- A. POSITION ON THE 8th WHEN THE AMERICANS ATTACKED THE 22nd REG.
 - B. BRIDGE OF SLOOPS FOR THE PASSAGE OF THE ARMY.
 - C. GUN BOAT
 - D. A BOOM.
 - E. WORKS ERECTED TO COVER THE PASSAGE OF THE ARMY TO STATEN ISLAND ON THE 23rd. JUNE, 1780.

SOURCE: SKETCH OF THE POSITION OF THE BRITISH FORCES AT ELIZABETH TOWN POINT... JOHN HILLS, 1780



MAAR PROJECT: NY-1,
STATEN ISLAND

FIGURE F-11
1784 FADEN MAP

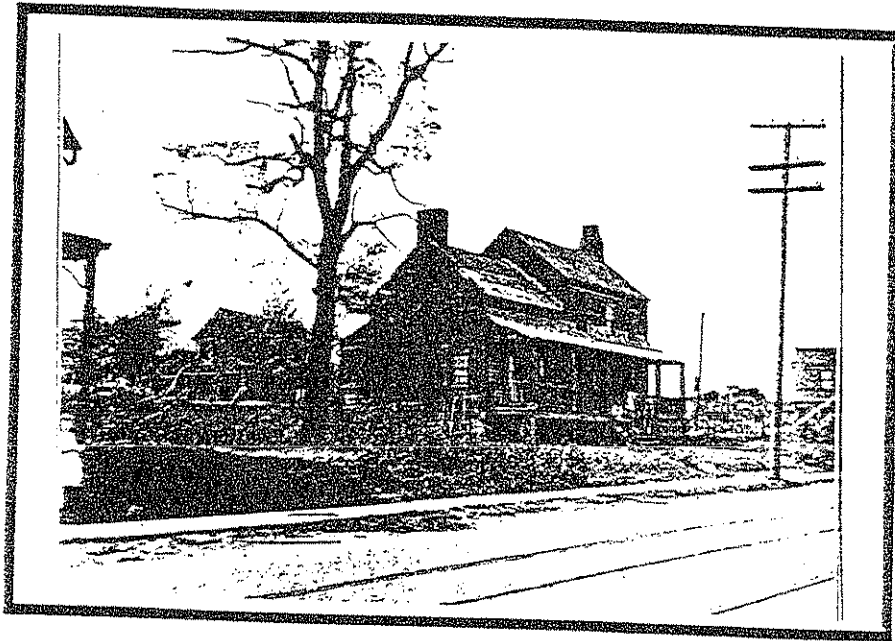
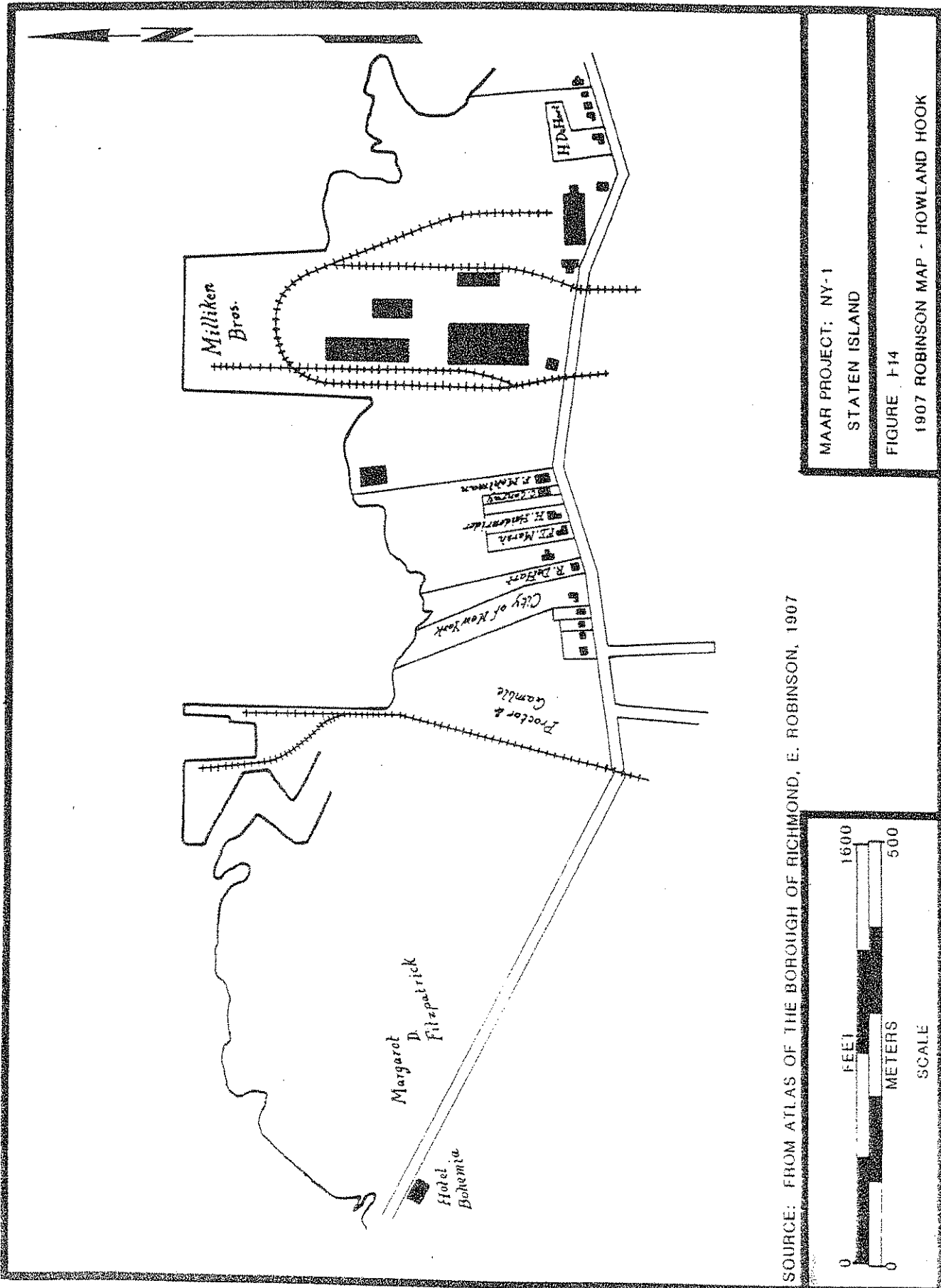


PLATE I-2: Garrett Post House

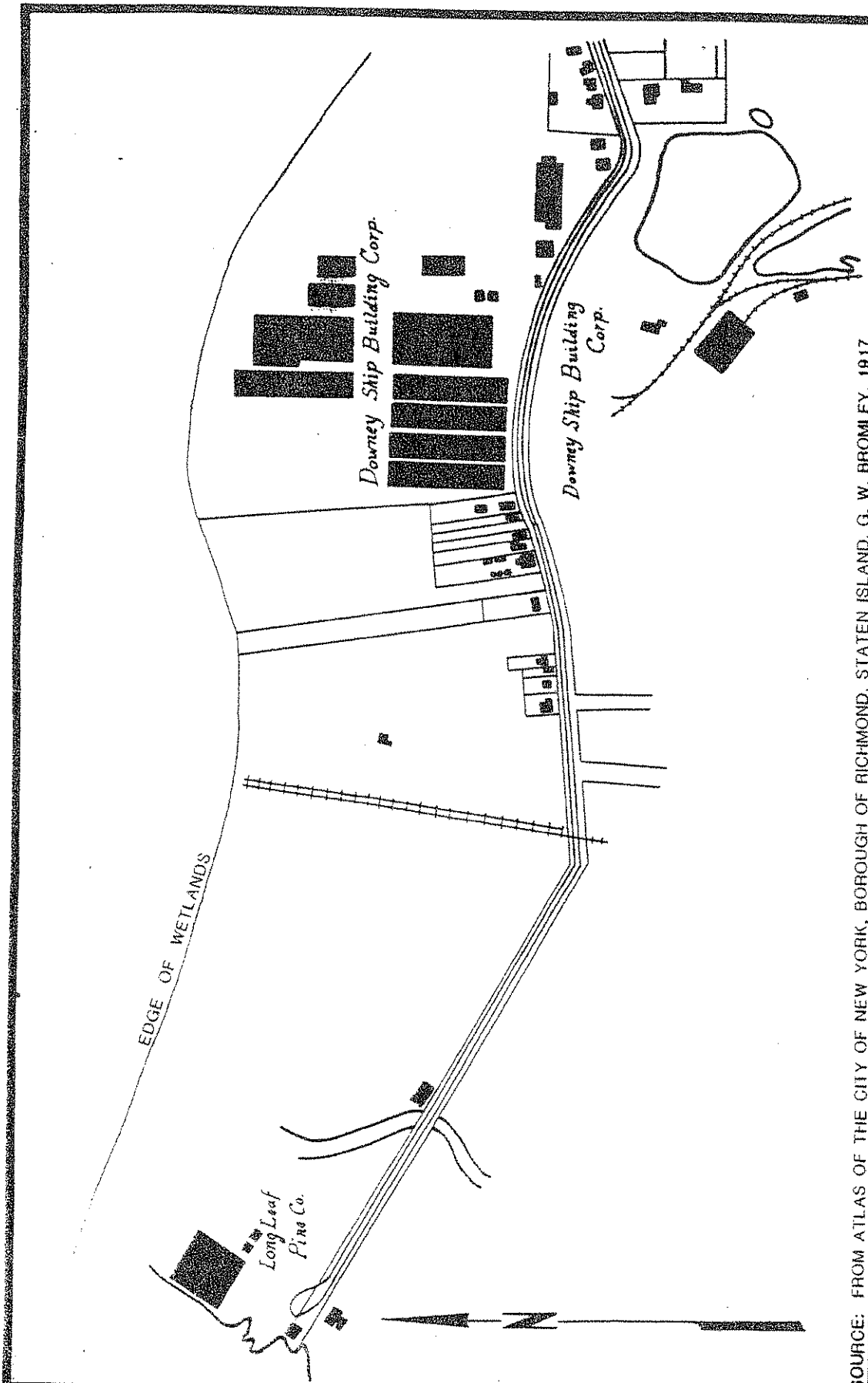


SOURCE: FROM ATLAS OF THE BOROUGH OF RICHMOND, E. ROBINSON, 1907

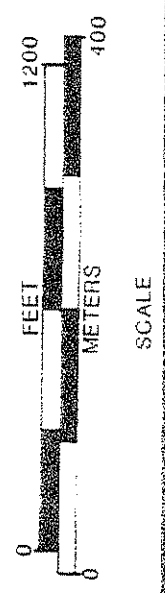
MAAR PROJECT; NY-1
 STATEN ISLAND

FIGURE F-14
 1907 ROBINSON MAP - HOWLAND HOOK





SOURCE: FROM ATLAS OF THE CITY OF NEW YORK, BOROUGH OF RICHMOND, STATEN ISLAND, G. W. BROMLEY, 1917



MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE F-15
1917 BROMLEY MAP - HOWLAND HOOK

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Several other homes were removed after 1968, and the entire area has been subjected to much bulldozing and filling (William Malwasky, personal communication 1985). The project area presently consists of two standing structures, parking lots for Proctor and Gamble, and empty, open lots. The area that once resided the Millikin Steel Plant is presently used as a place for dumping garbage and wrecked cars. The harbor once used by the Downey Shipbuilding plant is currently used as a marine graveyard for old barges and tugboats, a common practice in the Manhattan area (Brouwer 1977:10).

Historic Activity within the Old Place Project Area

The area know as Old Place developed in a similar pattern as Holland Hook. It was situated on a long peninsula of fastland surrounded by the wetlands associated with Old Place and Bridge Creeks. The earliest known name for the peninsula was Black Point (Davis and Leng 1896:88).

The original owner of Black Point was John Tunissen, a Dutch settler who received a patent for this land in 1674 (Davis and Leng 1896:88) and settled on the land circa 1680 (Figure I-8). The Tunissen home is the only residence appearing on historic maps until the post-Revolutionary War period and does not appear to have been subdivided after John Tunissen's death in the second quarter of the eighteenth century (Bailey 1936:125).

The Tunissen house apparently served the added function of a house of religious worship. The meeting house on Plank or Old Place Road was described as the "first house built upon the road, early in the last century" (Ingersol 1890:706) and "the first, and for many years, the only house built on the road by this name" (Clute 1877:234-235). The only structure fitting this description is the Tunissen home. It was used as a meeting place for a number of years. After the building became dilapidated, the meetings were moved elsewhere, only to later return to "the Old Place" (Clute 1877:234-235, Ingersol 1890:706).

The exact location of the Tunissen house is not known, but a Revolutionary War map places it in the area of the present day northwest corner of Old Place road and Western Avenue (Figure I-10). The structure is called the "Burnt House" in the accompanying text.

The only other colonial period development of Black Point (known by the Revolutionary War period as Tunissens's Neck) was the construction of a small tidal mill on the north side of Old Place Creek at the location of the nineteenth century Old Place Mill (Ingersol 1890:706).

During the Revolutionary War, the Old Place property was an area of British activity. The Clinton Map illustrates that, at the "Burnt House", Lieutenant Colonel Barton's pickets "kept the double picket line from the Burnt House across the road". The fortification at Old Place was the location of several skirmishes between November 18 and 27th, 1777 (Davis and Davis 1929:187). The British casualties were buried on the west side of the hill that they were occupying (Davis and Leng 1896:44).

Archaeological investigations in the early Twentieth century uncovered white burials, gunflints, and lead shot on the property of

Reverend James Kinney (Wissler 1909:8-9 and Skinner 1909). These artifacts, combined with local legend, agree that the hill they were occupying was that which Kinney built his home.

The British also captured the mill on Old Place Creek which was used to grind flour for General William Howe or some other Army that overran the island (Ingersol 1890:706). This was important to British activity, because it allowed the soldiers to live independently of British supplies (Bowler 1975:59).

Soon after the Revolutionary War, the Tunissen property was divided into a number of smaller farmsteads along Old Place Road. These homes were maintained throughout the nineteenth century, were photographed (Plates I-3, I-4), and described in detail in 1890 as follows:

"Look at this cottage beside us. Its roof comes down in a curve too low and far-extending eaves, and its front windows are closed with heavy solid shutters fit to resist an Indian attack . . . A few rods ahead stands another old house, its sides clothed with shingles three times the size of those upon the roof, above which the tall chimneys bent with age and ragged atop . . . One tall cotton-wood shades the kitchen (which is slightly separated from the body of the structure)" (Ingersol 1890:706).

These home sites of Mrs. Haughwout, George Bowman, M. T. Jones, and S. Halsey are all within the Old Place project area, but all except the Halsey property have been covered with twentieth century roads and buildings.

Other nineteenth century changes in Old Place consist of the operation of a mill and the construction of Western Avenue. The Old Place Mill was built in 1803 and operated until it burned in 1896. The complex included a dock and a miller's home (Ingersol 1890:706; Leng and Hine 1929:611; Hine and Davis 1925:130-131).

By 1874, the village of Old Place was called Summerville, and the mill itself was renamed the Summerville Flouring Mill (Figure I-17, Plate I-5). In the middle nineteenth century, "New Road" or Western Avenue was constructed to connect Old Place Road with Shore Road. In 1885, Reverend James Kinney built a frame structure on the west side of Western Avenue. His home was improved by 1890 with masonry walls and glass enclosed porches (Ingersol 1890:706) (Plate I-6). The house was abandoned following Kinney's death in 1900 (Hine and Davis 1925:127-129) and burned in the 1960's in a marsh fire (Robert Cotter, personal communication I-5).

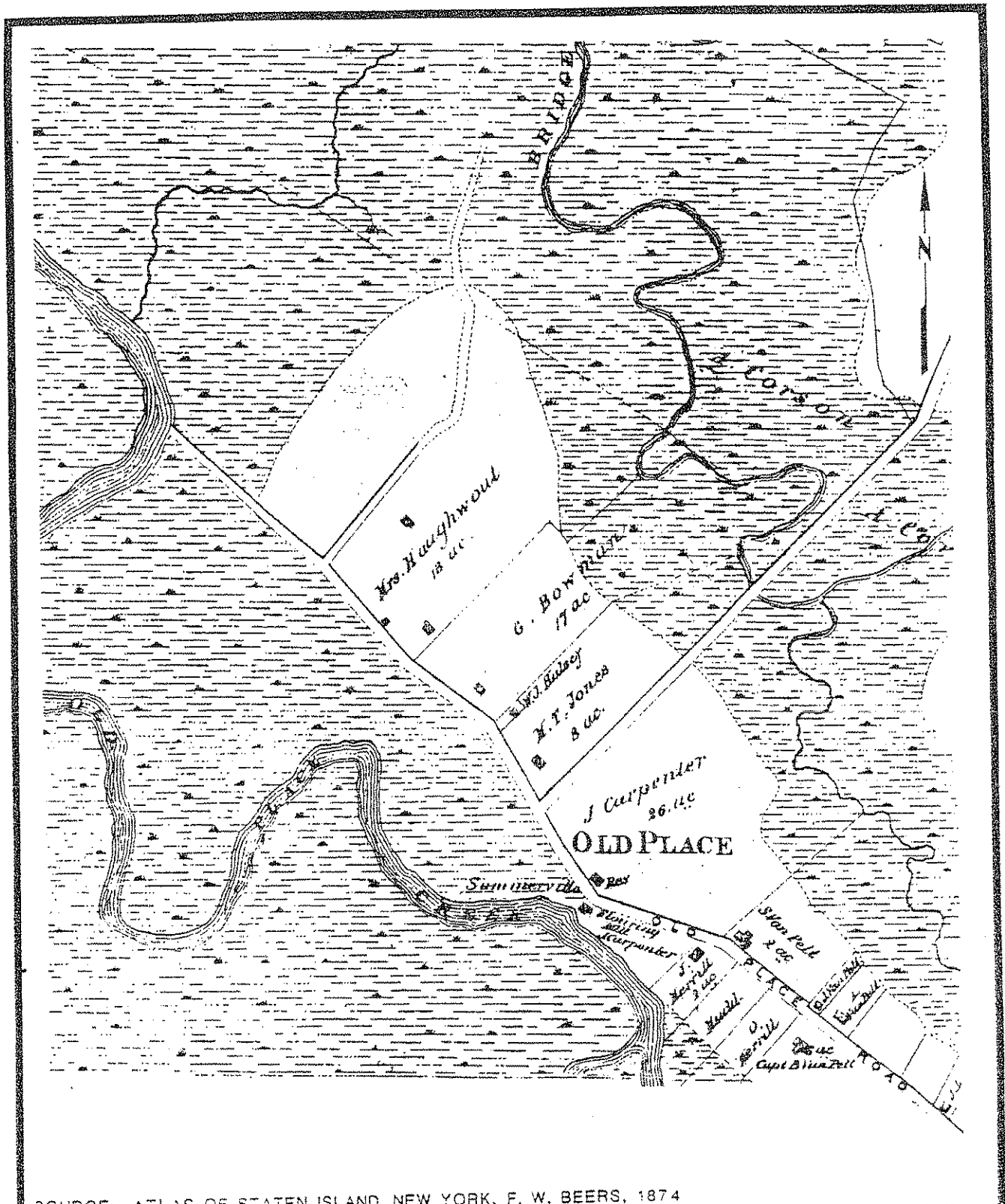
During the twentieth century, Old Place gradually disappeared as a residential community, following the same pattern of change as noted in Land Hook. The 1898 Robinson Atlas (Fig I-18) illustrates the transition phase from agriculture to industry. The New York Transit and Terminal Company had bought substantial land holdings here, but at this time Old Place continued to be predominately residential. The Old Place mill had burnt down two years earlier, but this map illustrates that the associated sluiceway was still intact.



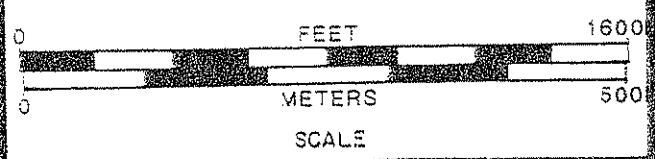
PLATE I-3: M.T. Jones House



PLATE I-4: Haughwout House



SOURCE: ATLAS OF STATEN ISLAND, NEW YORK, F. W. BEERS, 1874



MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE I-17
1874 BEERS MAP - OLD PLACE

OPLET

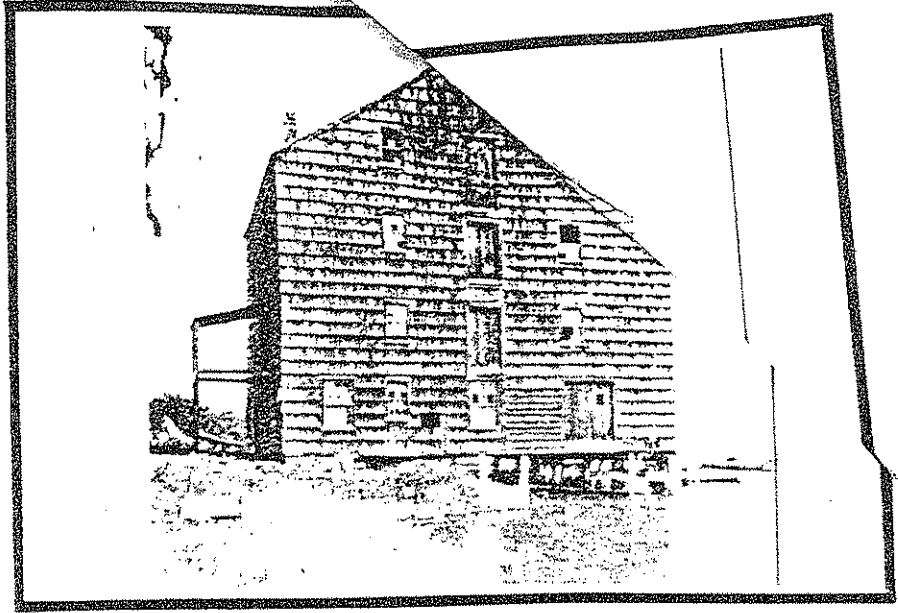


PLATE I-5: Old Place Mill

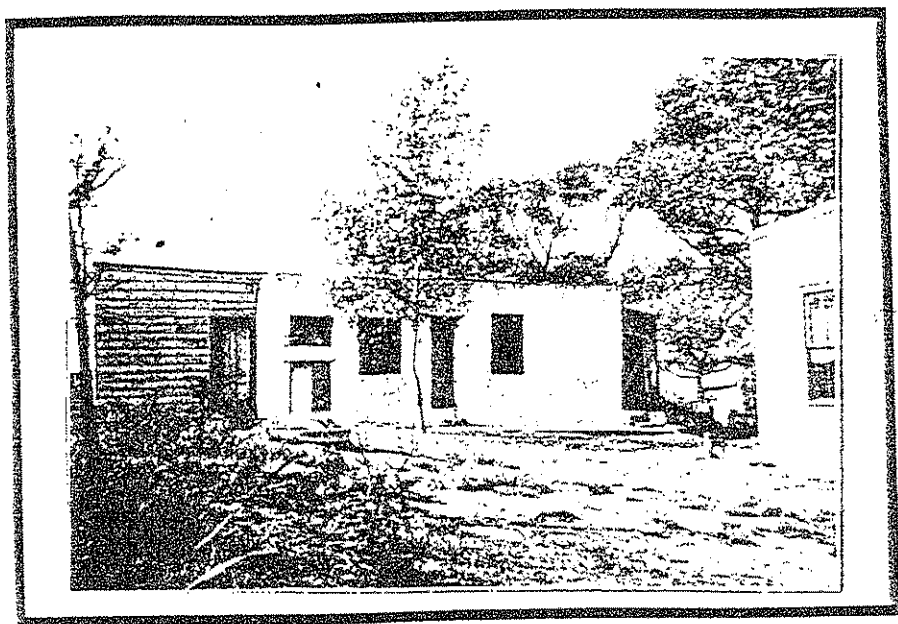
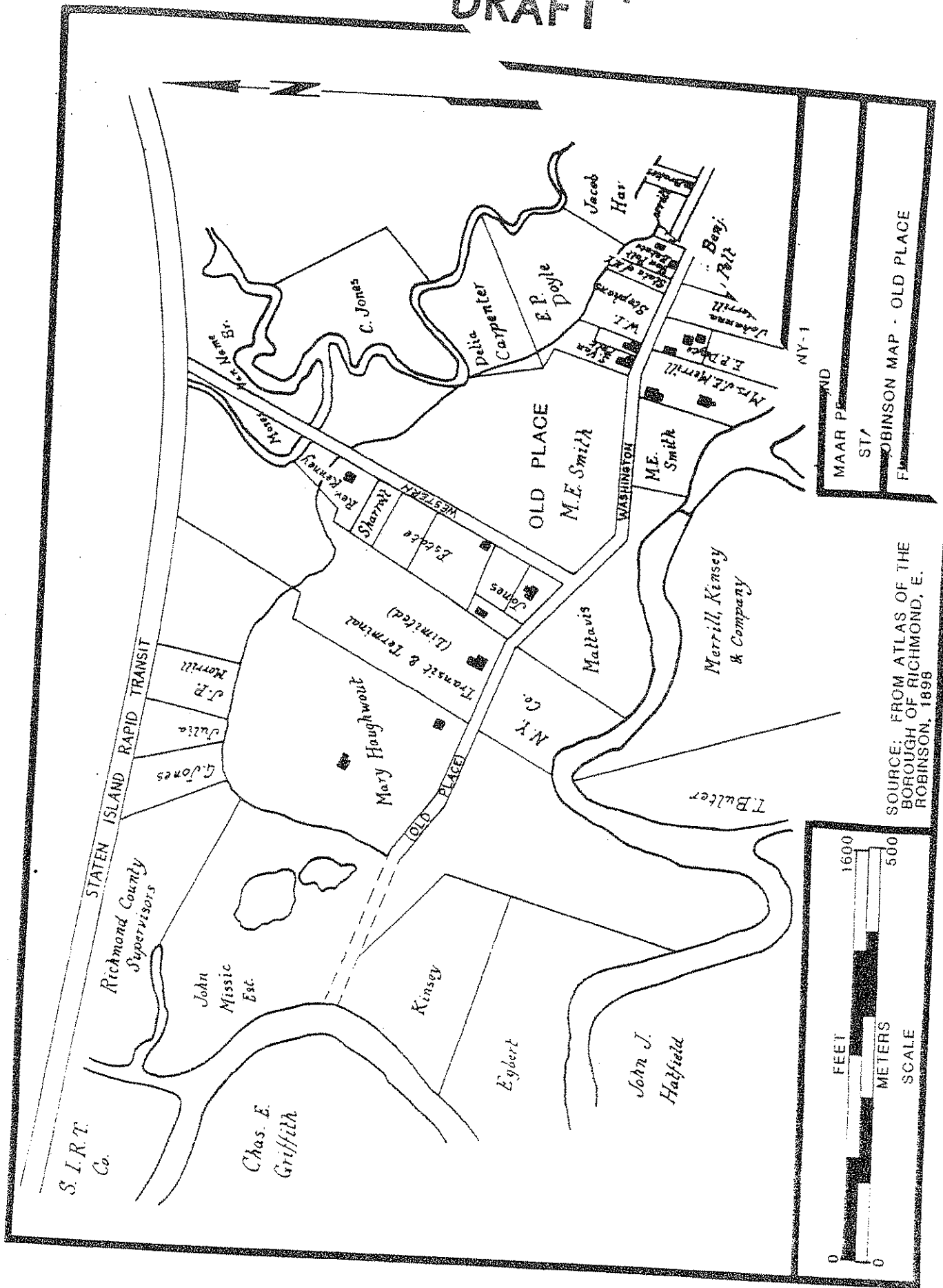


PLATE I-6: Rev James Kinney House

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The 1907 Robinson Atlas (Fig I-19) illustrates further development at Old Place. On this map, the Penn Reality Company had acquired the land formerly owned by Mary Haughwout, Alvah Sharrott bought the Jones Estate adjacent to the property he owned in 1907.

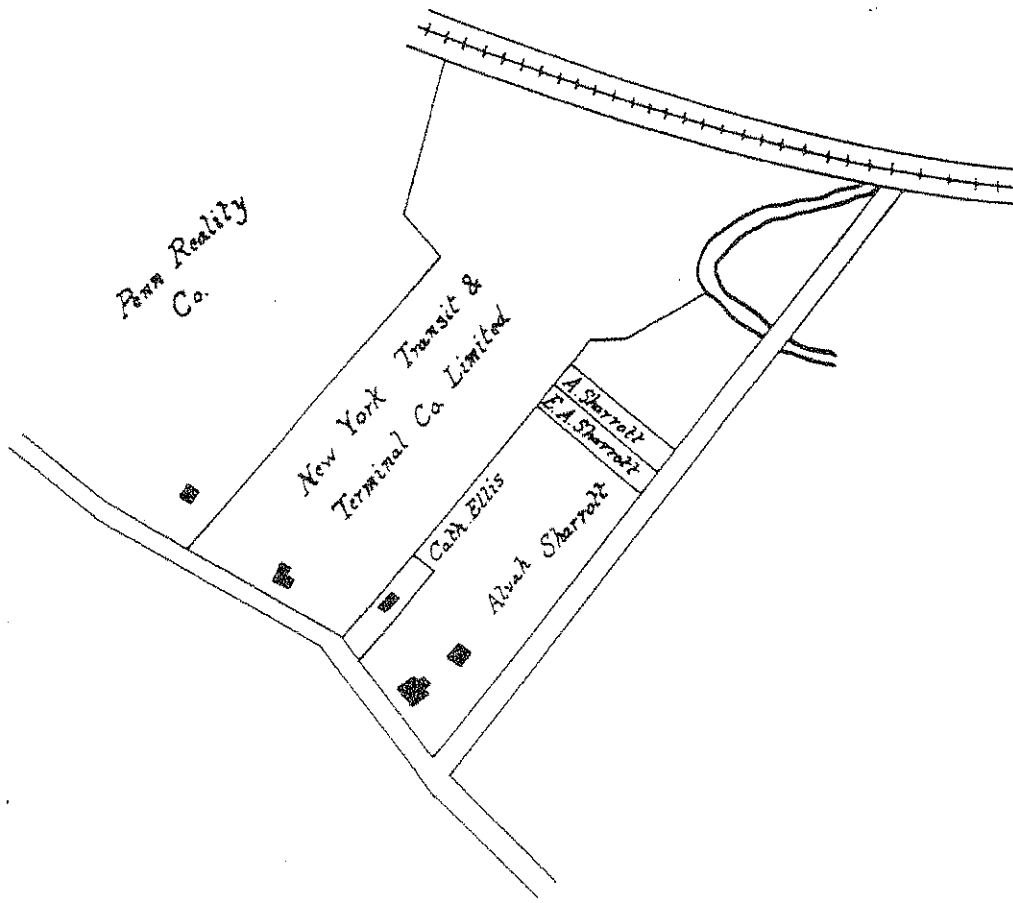
By 1917 (Fig I-20), much of Old Place was non-residential. In addition to the earlier corporate holdings, the Standard Oil Company of N.J. had acquired a tract of land from the Penn Reality Company. On this map, the surviving residences along Western Avenue were improved by the addition of an access road, Kossuth Avenue.

What was left of the former community of Old Place began to be buried in the late 1920's. It was then that a bridge was constructed between Staten Island and Elizabeth, N.J., with associated access roads (Walker 1927:367).

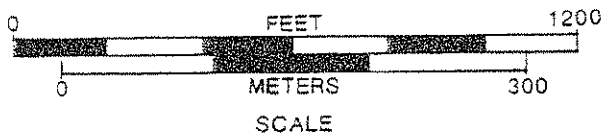
The commercial development of Old Place was complete by 1968 (Fig. I-21). By this time, the land once known as Old Place was owned by the Standard Oil Company, the Motor Freight Corp., and the rest was underneath the Goethals Bridge Road. Most of Old Place today is located under the buildings and lots owned by the Port Authority of New York and used as a shipping location.

Salt Marshes

Old Place Creek project areas #1, #3, and #5 are located within the salt meadows adjoining Old Place Creek. Salt meadows have not been heavily utilized during the historic period, the hay being useful only for bedding cattle and mulching plants (Leng and Davis 1929:22). The hay had been harvested, however, and sold, often being taken to Manhattan by barge (Stephen Barto, personal communication 1985). Historic maps show no development or construction in these areas, but they have been exposed to much filling activity (Albert Anderson, personal communication 1985).



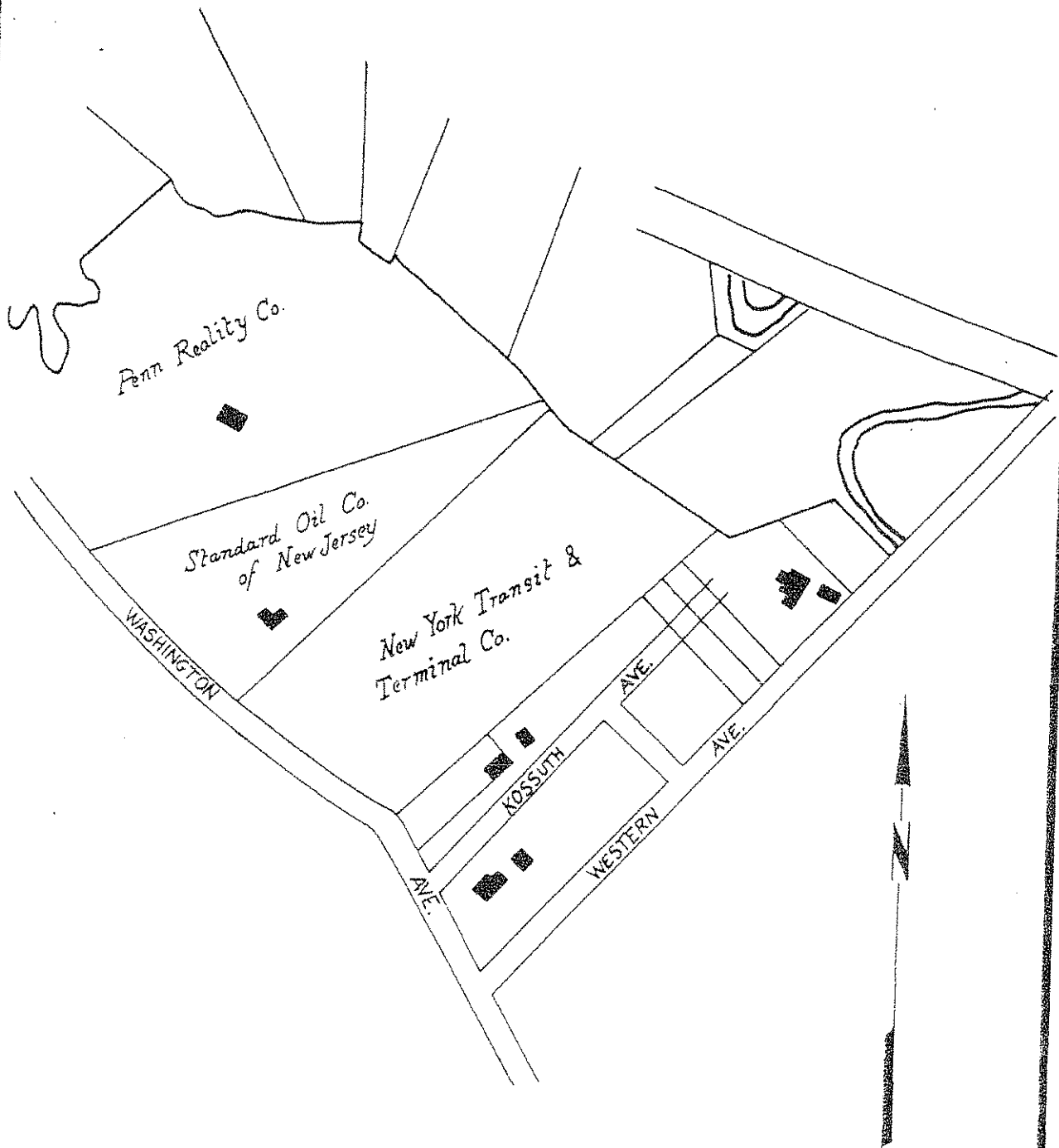
SOURCE: FROM ATLAS OF THE BOROUGH OF RICHMOND, E. ROBINSON, 1907



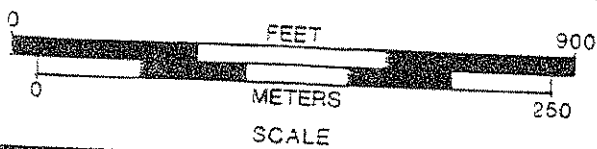
MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE I-19
1907 ROBINSON MAP - OLD PLACE

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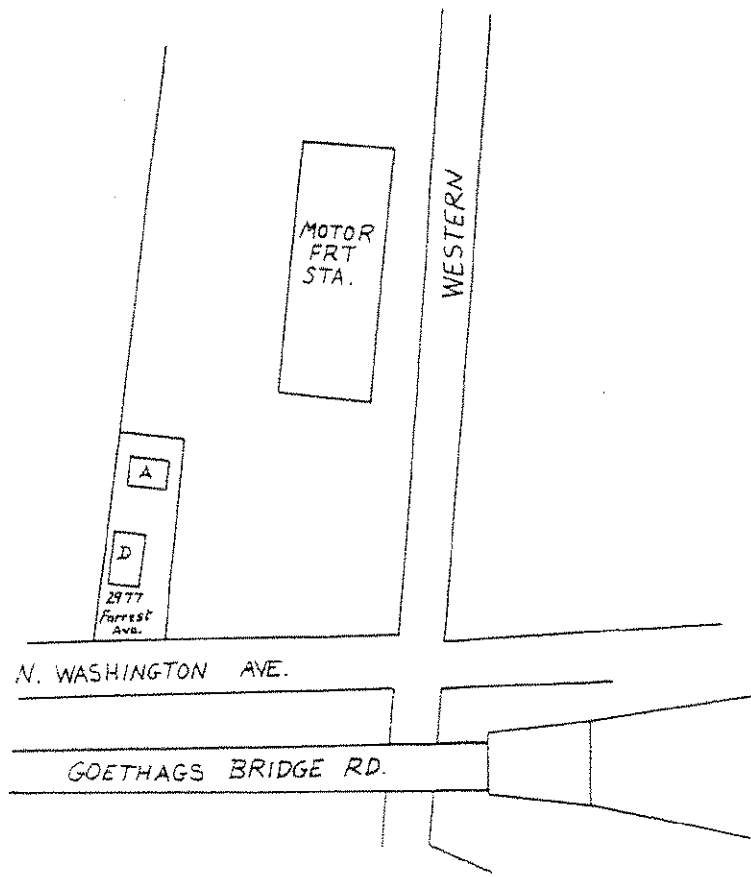
SOURCE: FROM ATLAS OF THE CITY OF NEW YORK, BOROUGH OF RICHMOND, STATEN ISLAND, G. W. BROMLEY, 1917



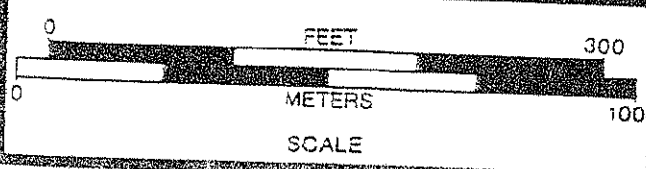
MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE: F-20

1917 BROMLEY MAP - OLD PLACE



SOURCE: FROM INSURANCE MAPS OF THE BOROUGH OF RICHMOND, NEW YORK CITY, STATEN ISLAND, SANBORN MAP COMPANY, 1937 (CORRECTED TO 1968)



MAAR PROJECT: NY-1
 STATEN ISLAND
 FIGURE I-21
 1937 SANBORN MAP (CORRECTED 1968) - OLD PLACE

Research Goals and Strategies

Previous Investigations

Since the turn of the century archaeological research and artifact collecting have taken place within the project area, principally at the Old Place and Bowmans Brook prehistoric sites. Alanson Skinner (1909) conducted the initial field investigations with work at both sites. In 1964, during bulldozing of foundry structural remains, Albert Anderson and Donald Sainz identified a remnant of the Bowmans Brook site (Bowmans Brook A) and through excavated recovered cultural materials (Ritchie 1980:146-148). A Phase I archaeological survey was conducted by Kardas and Larrabee (1982) for the Howland Hook Foreign Trade Zone Project which included Area 5. No other research has been reported at the Bowmans Brook site.

Old Place site and the adjoining Revolutionary War battle site at Bridge Creek were first investigated by Skinner (1909) at which time he excavated Amerindian and historic artifacts, as well as historic human remains. The position of the burials near the Reverend James Kinney residence indicates that the human remains may have been associated with the interment of casualties from the Revolutionary War battle. Albert Anderson (1964) and Donald Sainz collected and excavated within sections of the site over an extended period of time. During 1963-64 Jerome Jacobson, Ph.D (n.d) of the City University of New York conducted excavations at four locations, Areas A, B, E, and S. Based on a New York State Archeological Site Inventory Form submission in 1977, Louis Brennan (deceased) may have conducted research on the site in conjunction with the Ossining Collector Sewers project, but no record of a report was located in the files of the Historic Preservation Office in Albany.

Additional research and collecting may have occurred throughout any of the study areas but no records of informant information has been found.

Management Goals

The management goals correspond with the specifications of a Phase I cultural resource survey. Known cultural resource sites are to be identified and examined in the field. Abandoned vessels and ship wrecks located in Port Ivory will be identified from document sources; no subsurface investigations are to be conducted. High potential inland areas for the occurrence of additional sites will be determined as well as those areas where low potential is predicted. To confirm the accuracy of the site occurrence predictive scheme, investigations will examine both types areas. The data retrieved from field investigations will be analyzed and interpreted to determine the history and nature of each site. Initial site-specific evaluations are to be made for determining cultural significance and research potentials.

Based on the data evaluations cultural resource management recommendations will be developed concerning the possibility need for additional research. The research methods, results, and recommendations will be presented in a project report.

Research Strategies

Three primary research techniques were employed to achieve the Phase I goals.

Document and Informant Research

1. Initially, a document and informant search was conducted to identify recorded sites in the project area. The research identified the history of off-shore ship wrecks and abandoned vessels within the project boundaries of Port Ivory.
2. The prehistory and history of the region and project area were defined, including maritime activities in Port Ivory. ✓
3. Identify cultural models will be developed that are applicable for predicting high probability and low probability areas where cultural resource sites may occur in the project.
4. Determine prehistoric and historic, including maritime research concepts and models which were used to evaluate the history, nature, and research potential associated sites. ✓

Surface Field Reconnaissance

1. Based on the data developed by the document and informant search, a surface reconnaissance was conducted throughout the project area to locate the inland known sites, identify high and low probability areas for sites, and conduct surface collections in areas where ground visibility permits. Reconnaissance led to the evaluation of the occurrence and extent terrain alteration by development, demolition, and land filling. From shore line locations Port Ivory off-shore vessels were examined and classified as visual examination permits.

Subsurface Investigations

1. Shovel tests were conducted in areas of high site occurrence probability where ground visibility prohibits research. Identified sites were shovel tested to locate buried cultural materials and examine soil disturbance.
2. Areas of low site occurrence probability were also tested.

Data Base



MAAR Associates, Inc.
Cultural Resource Consultants

DATA BASE

Data Acquisition

As stated in the Research Strategies section, three primary research procedures were employed in the completion of the Phase I archaeological survey.

Historic document research was conducted at the following locations: the Morris Library, University of Delaware; the Municipal Reference and Research Center, Department of Records and Information Surrogate Court Building, Manhattan, New York; the Staten Island Institute of Arts and Science, Staten Island, New York; the South Street Seaport Museum, Manhattan, New York; the Staten Island Historical Society, Staten Island; and the Borough President's Topographical Office, Borough Hall, Staten Island, New York.

Prehistoric background research included a review of the literature for the region, both cultural history and theoretical concepts, and an examination of archaeological survey reports for projects in or near the project area. Holdings from the Staten Island Institute of Arts and Sciences, Staten Island, New York; State Archaeologist's office, New York State Museum and Science Service; New York State Office of Parks, Recreation and Historic Preservation; and Seton Hall University Archaeological Research Center. Jerome Jacobson (Archaeologist, Illinois Department of Transportation and formerly faculty, City University of New York) and Albert Anderson (principal local avocational archaeologist) were consulted. Both of these persons have detailed knowledge about Amerindian sites in the project area and region.

A Phase I field reconnaissance was conducted throughout the six study areas. Where deep standing water was present the inundated terrain was not surveyed. Inundated areas were found in Old Place 1, 3, and 5 study areas; Old Place 1 was surveyed along its perimeter, its mid-section was flooded. The area was examined from an elevated observation point on Goethals Bridge.

Terrain that had been concrete and asphalt surfaced could not be examined but their peripheries were examined in an effort to evaluate what had been covered-over. Document research was also employed in the process. The unexamined area included a large section of land at Old Place/M & R study area, as well as the parking lots and several small locations north of Old Shore Road in the Howland Hook study area. A hard surfaced truck parking lot was found in Howland Hook Area 5.

The survey method required field crew members to conduct a 100 percent walk over of the terrain, with the exceptions identified above. During the surface reconnaissance known sites were relocated and artifacts were collected and recorded by their proveniences. Based on the recovery of cultural materials unrecorded sites were identified. Areas of low site occurrence were examined to evaluate the accuracy of the site predictive concept.

The results of the document research and informant interviews combined with the surface survey, indicated locations where subsurface

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testing was necessary. Sixty-six judgementally placed shovel tests were excavated to locate buried sites and to examine the buried cultural records from sites. The units were 1.5 feet in diameter and they were excavated stratigraphically. Each test was profiled by natural soil and cultural deposits. All excavated soil was sifted through one-quarter inch hardware cloth with recovered artifacts recorded by provenience. The location of shovel tests were plotted on project maps.

The project map used was a Borough of Richmond, Topographical Survey series (1911) because it represents the earliest accurate topographical maps for the area. The information depicts the area, in part, as it existed prior to development. Residential patterns and the Millikan Brother's foundry complex is also illustrated. Use of the map maximizes the illustration of settlement patterns as they existed prior to recent deterioration processes. For a description of the Shovel Test profiles refer to Appendix C. Appendix D contains an artifact inventory.

Data Description

Old Place 1, 3, 5 Study Areas

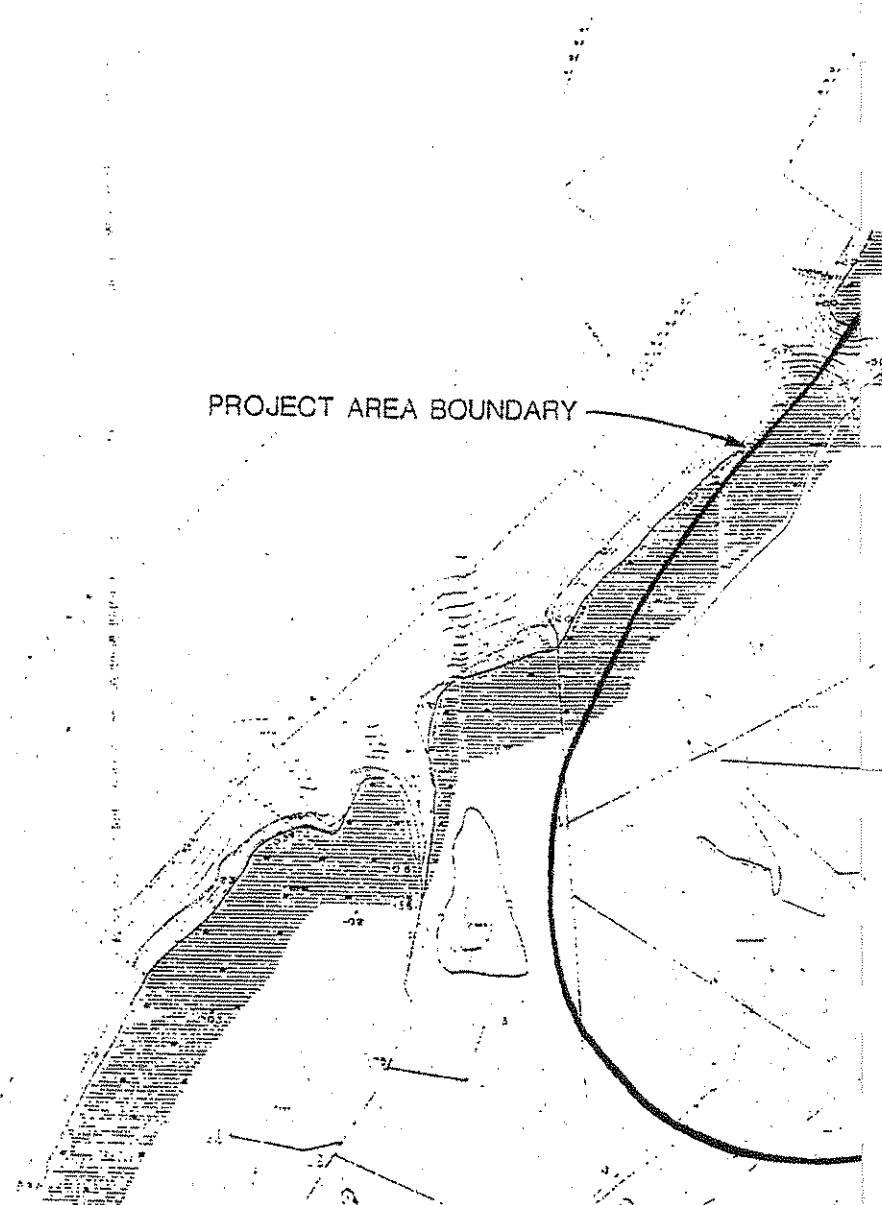
These three study areas are located within the wetlands for Old Place Creek and they were surveyed as inundated terrain permitted (Figures II-1, II-2, II-3). Several elevated loci of dry land were identified and six shovel tests were excavated in Old Place 3 and 5, shovel Tests 1-5, 21. No cultural materials were recovered. Albert Anderson (personal communication 1985) is familiar with the area and reported that the only cultural sites were located along the creek are the Old Place Tidal Mill site with Amerindian remains and Amerindian sites upstream from Old Place 5 study area. (See the cover and Plate I-5 for the Old Place Tidal Mill.)

Old Place/M&R Study Area

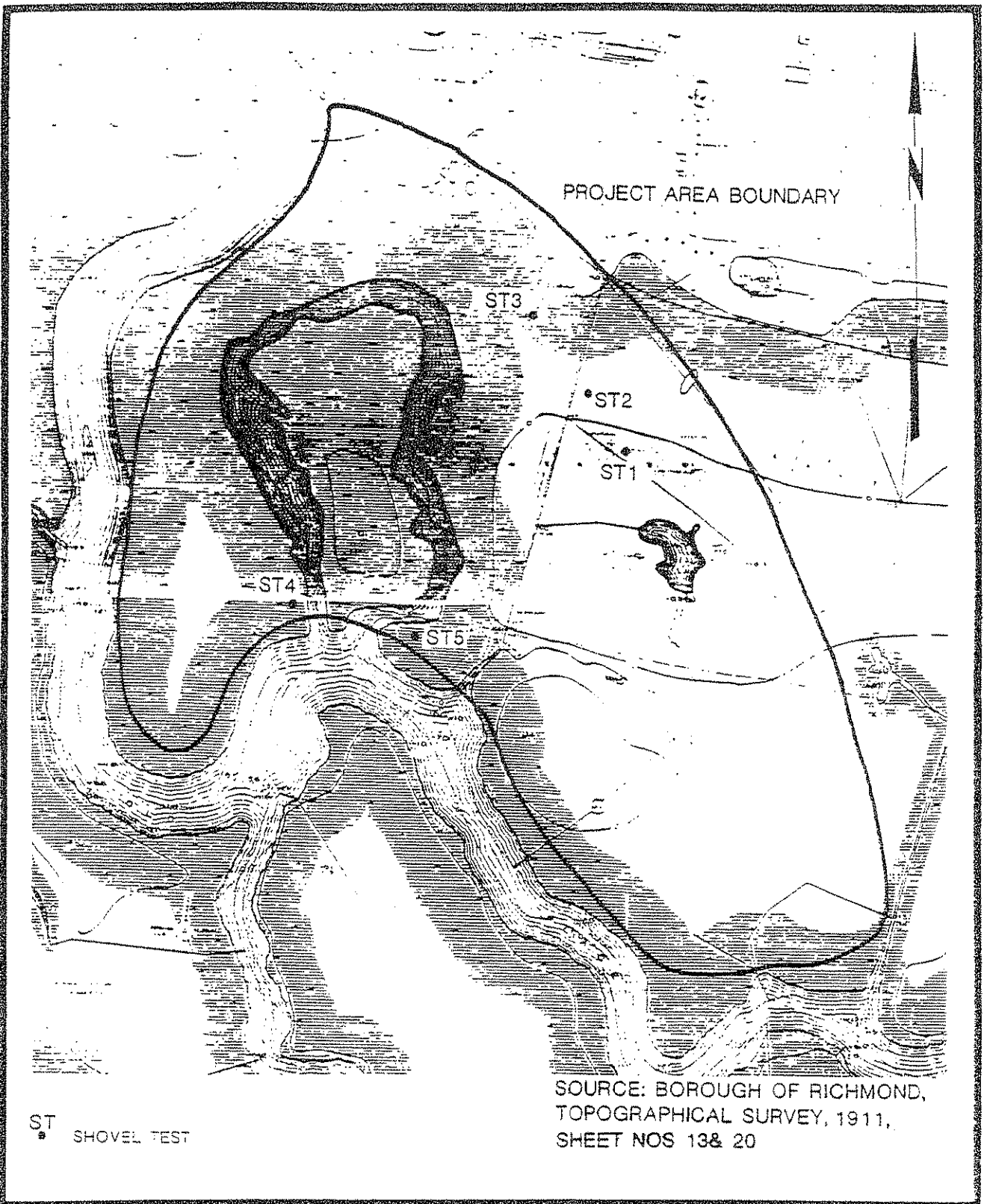
Document and informant research identified three areas within Tunissen's Neck within which cultural resources area located. These areas are the Old Place Amerindian site; 8, possibly 9, residential and building loci which were part of the Summerville (village of Old Place); and the site of a Revolutionary War battle that took place around the Reverend James Kinney house (Figure II-4).

The work of Alanson Skinner (1909), Albert Anderson (1964), and Jerome Jacobson (n.d.) have recorded a chronology of Amerindian occupations which range from the Early Archaic through the Woodland Periods to European contact. Albert Anderson has reported a date of 7310 ±160 radio carbon years (I-4070, uncorrected) for charcoal recovered during excavation (Ritchie and Funk 1971:49). A surface examination of the areas where Jacobson (n.d.) conducted his 1963-64 field work revealed that a substantial section of the site have been covered by asphalt and crushed rock surfacing, as well as two buildings. The construction of the U. S. Lines' Truck Maintenance and Repair Yard and Marine Department Storage complex resulted in covering portions of the site (Figure II-5).

PROJECT AREA BOUNDARY



SOURCE: BOROUGH OF RICHMOND, TOPOGRAPHICAL SURVEY, 1911, SHEET NO. 5 & 12



PROJECT AREA BOUNDARY

ST3

ST2

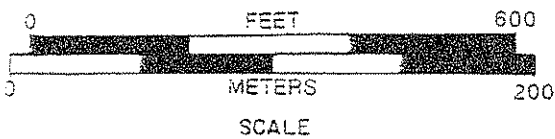
ST1

ST4

ST5

ST
• SHOVEL TEST

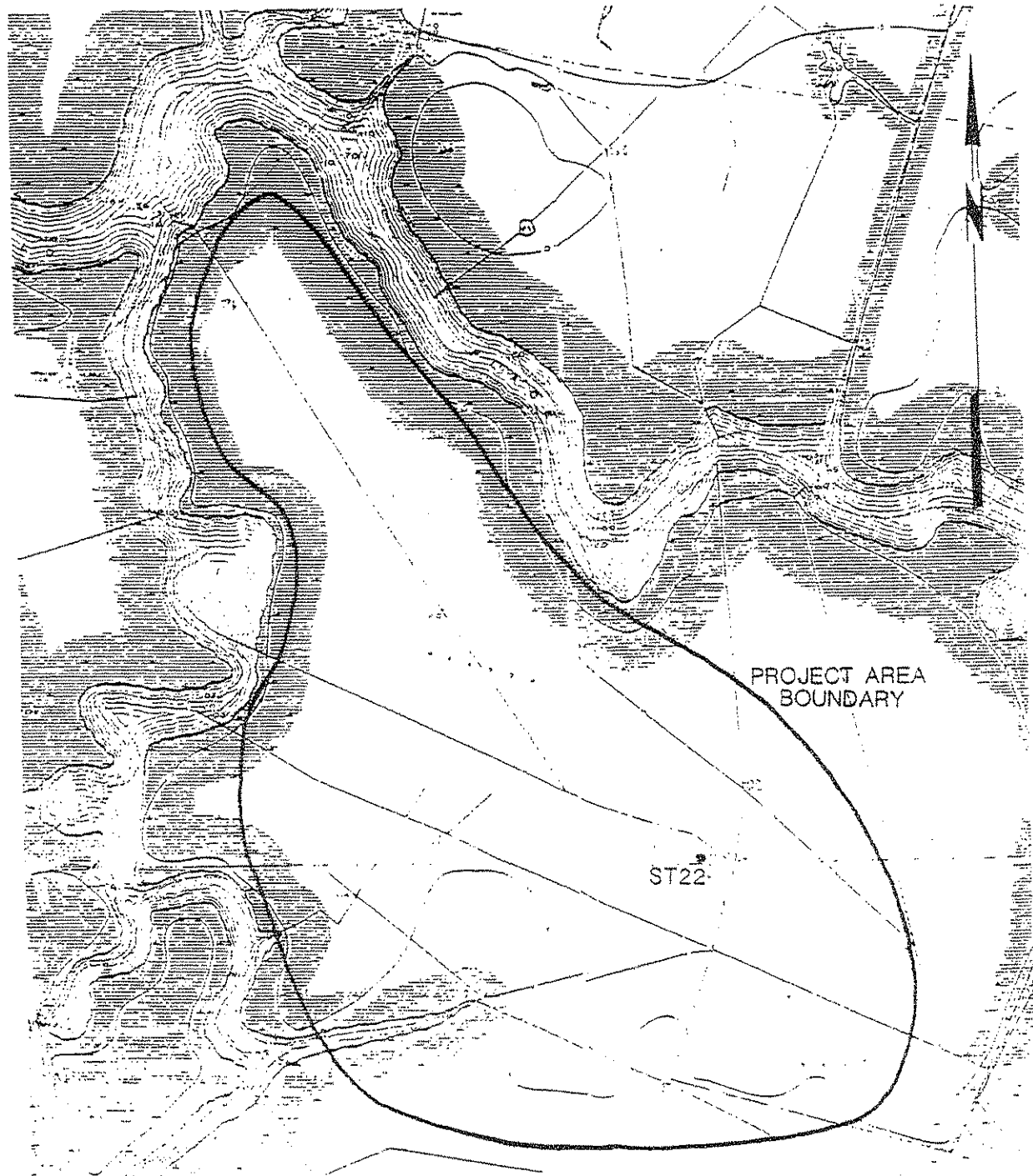
SOURCE: BOROUGH OF RICHMOND,
TOPOGRAPHICAL SURVEY, 1911,
SHEET NOS 13& 20



MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE II-2
OLD PLACE AREA 3 MAP

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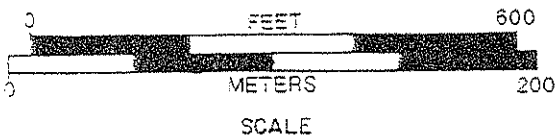


PROJECT AREA
BOUNDARY

ST22

SOURCE: BOROUGH OF RICHMOND,
TOPOGRAPHICAL SURVEY, 1911, SHEET NO 20

ST
● SHOVEL TEST



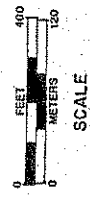
MAAR PROJECT: NY-1
STATEN ISLAND

FIGURE II-3
OLD PLACE AREA 5 MAP



SOURCE: RENDERED FROM THE BOROUGH OF RICHMOND, TOPOGRAPHICAL SURVEY,
 1911, SHEET NOS 6 & 13

★ SHOVEL TEST LOCATIONS



MAAR PROJECT: NY-1
 STATEN ISLAND

FIGURE II-4
 OLD PLACE/M & R MAP

Western sections of Jacobson's (n.d.) Areas B and E are still open land, most of which is covered by vegetation (Plate II-1). A clear section in Area E was surface collected. An end scraper, utilized flake, nutting stone fragment, six flakes (argilite, chert, quartzite), and two fragments of fire-cracked rock were recovered. Historic artifacts included ironstone, whiteware, porcelain, manganese glazed and unglazed red earthenware plate sherds, bottle glass fragments, glass goblet foot, glass lamp shade fragment which appear to date from the latter part of the Nineteenth and the Twentieth centuries. These artifacts may be associated with the nearby historic Locus 1 which dates to circa 1780; it was the Haughwout house in 1878.

Shovel Tests 18-20 were excavated in the cleared area to determine if subsurface cultural material deposits were still present, which were (Figure II-6 and Plate II-2). Shovel test 19 was located just inside the tidal marsh to provide a profile of the soils. No artifacts were recovered. Soil deposits consisted of dark grey/brown clayey silt to a depth of 0.7 feet. A 0.3 feet of decomposing organics created a black silty organic sand stratum. Below this began a medium brown silty sand which may represent buried topsoil overlain by the inland moving wetlands. Figure II-4 reveals the substantial inland movement by wetland vegetation during the Twentieth century.

Shovel Test 18 revealed two strata of fill soils to a depth of 1.0 feet. The fill overlaid a dark brown silty sand, original topsoil. A similar profile was recorded at Shovel Test 20, except that there were three strata of fill deposits over a buried topsoil. The buried topsoil corresponds with Jacobson's (n.d.) description, a dark brown to brown topsoil and ranged from 0.7-0.9 feet thick. Both shovel tests encountered an orange brown silty sand subsoil which corresponds generally to Jacobson's orange sand subsoil.

Both shovel tests recovered historic and prehistoric artifacts in the fill soils and in the buried topsoil strata. In these strata Shovel Test 18 produced 11 flakes which included flint, jasper, and Onondaga chert as well as one fragment of fire-cracked rock. Shovel Test 20 recorded one flake in the the disturbed strata. The subsoil contained only prehistoric artifacts. Shovel Test 18 had four flakes which consisted of chert, flint, and jasper and Shovel Test 19 produced two fragments of fire-cracked rock. Jacobson's excavations (n.d.) recovered prehistoric artifacts to a depth of 3.5 feet below surface and Anderson (1964) recorded the same depth during his field investigations. Shovel Tests 18 and 20 artifact recoveries correspond with the earlier findings recording artifacts to a depth of 3.0 feet when the water table restricted continued excavation.

Historic artifacts consisted of whiteware and red earthenware sherds, a nail and a fragment of window glass, and a bottle glass fragments from Shovel Test 18. Shovel Test 20 contained ironstone, whiteware, porcelain, and red earthenware plate sherds; bottle glass fragments; window glass fragments and possible roofing slate; glass drawer pull; plastic button; stoneware storage vessel fragments; and oyster and bone fragments. All of these artifacts may be associated with historic Locus 1 and represent various periods of occupation, including the Twentieth century.

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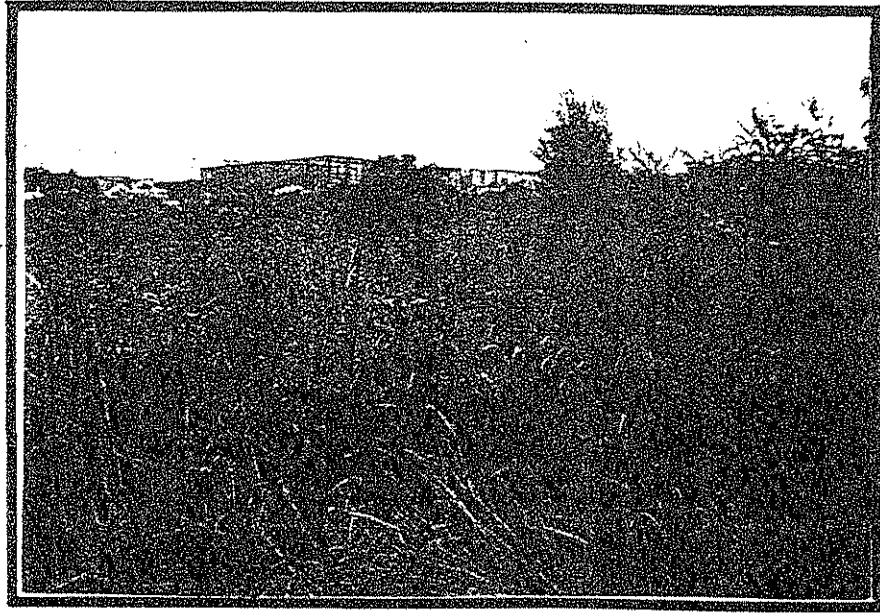
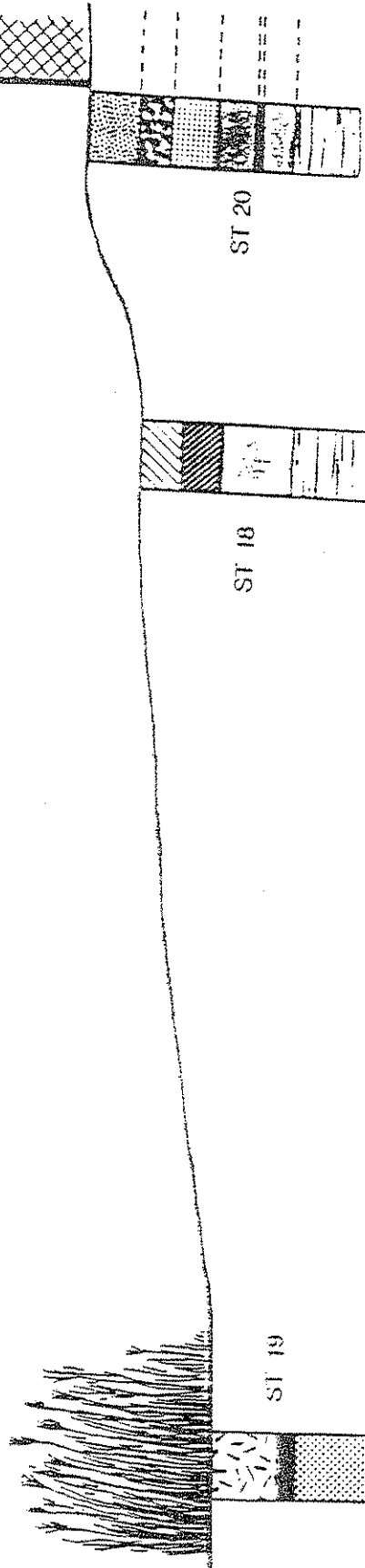


PLATE II-1: Looking Southeast Jacobson's Areas E and B from Tidal Marsh



PLATE II-2: Looking West from Location of Shovel Test 20, Old Place Site

M & F AREA















ST 20

ST 18

ST 19

WATER LEVEL

WATER LEVEL

- 
DARK GREY/BLACK CLAYEY SILT
- 
REDDEST BROWN SILTY SAND
- 
DARK BROWN MOULDED WHITE STROUG BROWN SANDS
- 
MOTTLED YELLOW & BROWN SANDY CLAY FILL
- 
LIGHT GREY & BLACK SAND FILL
- 
CHARCOAL LAYEN
- 
DARK BROWN MOULDED WHITE STROUG BROWN SANDS
- 
STRONG BROWN MOULDED WHITE DARK BROWN SANDS
- 
DARK BROWN SILTY SAND (ORIGINAL TOPSOIL)
- 
ORANGE BROWN SILTY SAND (SUBSOIL)
- 
BLACK SILTY ORGANIC SAND
- 
REDDEST BROWN SILTY SAND



MAAR PROJECT: IV-1
 STATES ISLAND
 FIGURE # 6
 OLD PLACE SHOVEL TEST PROFILES, AREA F

SILE ABOVE

SCALE

Old Place site is located in a very desirable environmental setting for the establishment of an Amerindian settlement which practiced the exploitation of native food resources. Tunissen's Neck is a sandy ridge with an upland environment. Tidal wetlands and a stream flank the ridge on the north and south with Arthur Kill and tidal wetlands to the west. The elevated, dry ridge is situated where native food procurement potential is maximized by the upland, wetland, littoral, and stream ecozones. This locale is unique to the immediate area of this part of northwestern Staten Island.

Because of its favorable environmental setting the Old Place site may in reality be a complex of settlements arrayed over Tunissen's Neck. Based on the description of the component stratification, both vertical and horizontal (Anderson 1964, Funk and Ritchie 1971, Jacobson n.d., and Ritchie 1980) it appears that occupation loci are distributed over the ridge. Alanson Skinner (1909:8-9) has provided the earliest description of the site.

"On Tuinnessen's, or Old Place Neck there is a large village site. Near the extreme point are shell pits and fireplaces, unusually far apart. Some of the refuse pits here are of considerable size and depth. Evidently this is a site, the date of which can be placed at the early historic period. Pottery occurs bearing a strong resemblance to the Iroquoian, though not so marked as that found at Bowman's Brook site. A brass arrow point, gun flints, leaden bullets, a pewter trade (?) ring, fragments of trade pipes, etc. have been found on the surface, and a tiny piece of a brass kettle, perforated (perhaps for suspension), came from a shell pit on this site."

There are several important observations reported by Skinner:

1. The site appears to have been occupied at time of European contact. The recovery of a brass kettle fragment recovered from a shell feature would support this interpretation.
2. The features are large, widely separated, and the presence of shell indicates nearby native aquatic food resources were exploited. The wide distribution of the hearth, shell, and refuse features would suggest the site's boundaries extend over the western section of the ridge.
3. Historic weapon artifacts, leaden shot and gun flints, were recovered which may pertain to the British occupation during the Revolutionary War and the battle at Reverend Kinney's House.

Skinner did not recognize the extended occupation history which was later recorded by the investigations of Anderson (1964, Funk and Ritchie 1971, Ritchie 1980). This chronology was confirmed by the research of Jerome Jacobson (n.d.) Old Place site has been occupied from the Early Archaic through the Late Woodland Periods. (Consult the chronology in the Prehistoric Overview section for an Old Place settlement history.)

The major record of the artifact data base for this site is found primarily in the research by Anderson (1964) and Jacobson (n.d.). A functional analysis of these data bases is to be prepared to examine the general nature of the prehistoric settlements that were maintained at the Old Place site during its occupation history. The analytical scheme is based on the settlement functional concept developed by Howard Winters (1969) for the Riverton culture.

Table II-1

Old Place Site
Artifact Functional Taxonomy

Functional Category	Types of Artifact Reported
General Utility	Choppers (8), Hammerstones (8), Knives (14), Scrapers (4)
Weapons	Projectile points (24+), bannerstone (1)
Ornaments	
Ceremonial	Smoking pipe (1)
Digging Implements	
Woodworking	Full-grooved axe (1+)
Fabricating or Processing	Drill (2)
Recreational	
Domestic*	Ceramics (?), Steatite (?), pestle (1)
Fire Making	

*Ceramic and steatite vessel fragments have been included because they conform to the criteria stated for the functional category.

Additional artifact types recovered include tool or weapon preforms or blanks (19), cores (12), lithic reduction debris (900+), and fire-cracked rock fragments (uncounted). The preforms or blanks, cores, and lithic reduction debris are associated with the functional categories as products or byproducts of fabricating and processing activities, i.e. making and maintaining weapons and tools. Fire-cracked rock fragments are the product of general settlement maintenance. It should be noted that the inclusion of the chopper tool in the General Utility category does not preclude the tool from being employed in domestic processes, i.e. food preparation.

No cultural designations may be applied to individual settlement patterns but the occupation history includes settlements of substantial duration. The interpretation is based on the recognition of General Utility and Fabricating and Processing activities which indicates the

settlement system was dedicated to more than domestic processes along with food procurement and processing.

In the prehistory of the Hudson River basin Bert Salwen (1975:53) suggests that "...favored locations for the larger, more permanent spring and summer [Late Archaic Period] sites were the borders of shall [shallow ?] lakes or fresh or salt water marshes, where many different plant and animal foods were procurable." Old Place site is situated in such a desirable ecotonal setting. Thus, the interpretation for the functional analysis corresponds Salwen's settlement/environmental predictions for the preferred location of larger and more permanent occupations.

Another interpretation should be noted. Jacobson (n.d.) identified a possibly fluted biface, Clovis-like, in his artifact inventory. At the time of his research the Paleo-Indian and Early Archaic cultures represented in the region were poorly understood. Jacobson may have recovered a Paleo-Indian biface; the environmental and topographic configurations for Old Place Site corresponds with the Port Mobil site for the period 12,000 to 10,500 B.P.

The historic development and urbanization in the area of Old Place site dates from the Eighteenth century to the present day. Jerome Jacobson (n.d.) mentioned the general area had suffered from early development, including the Eighteenth century residences, and the site had been disturbed by the pot hunting of collectors. The pits of pot hunters were observed in Area B during the recent reconnaissance. These excavations were numerous, appeared to be relatively shallow, and were not large in unit size. Jacobson placed some of his excavation units over the pot holes and continued the investigation.

More recently, U. S. Lines constructed an extensive support complex over portions of the site. To understand the methods employed and evaluate the land alteration in the construction of the Maintenance and Repair and Marine Storage complex, the Senior Engineer for the project was interviewed. Mr. Thomas Van Houten, Director, Terminal Engineering, U. S. Lines, Inc. (personal communication 1985) described the procedures employed. In preparation for construction the original ground surface was buried by adding two to three feet of fill soils. Prior to the land filling no grading or land alteration activities were conducted. After the filling was finished the new ground surface was leveled and prepared for the installation of an access road, parking areas, and the construction of the maintenance and marine buildings (Plate II-3 and II-4). It is Mr. Van Houten's opinion that the original soil deposits remain intact below the complex.

No boundaries were established for Old Place site by Jerome Jacobson's 1963-64 (n.d.) investigations and none have been reported prior to or since his work. The boundaries of the site may extend over most of the western section of the sand ridge, possibly to Western Avenue. This assumption is based on Skinner's (1909:9) recovery of non-European burials with grave offerings on the Kinney property which located on the west side of Western Avenue and Anderson's (personal communication 1985) recovery of flakes in the area. When questioned, Jacobson (personal communication 1986) also agreed that the distribution of cultural materials may extend over the sand ridge. Considering the

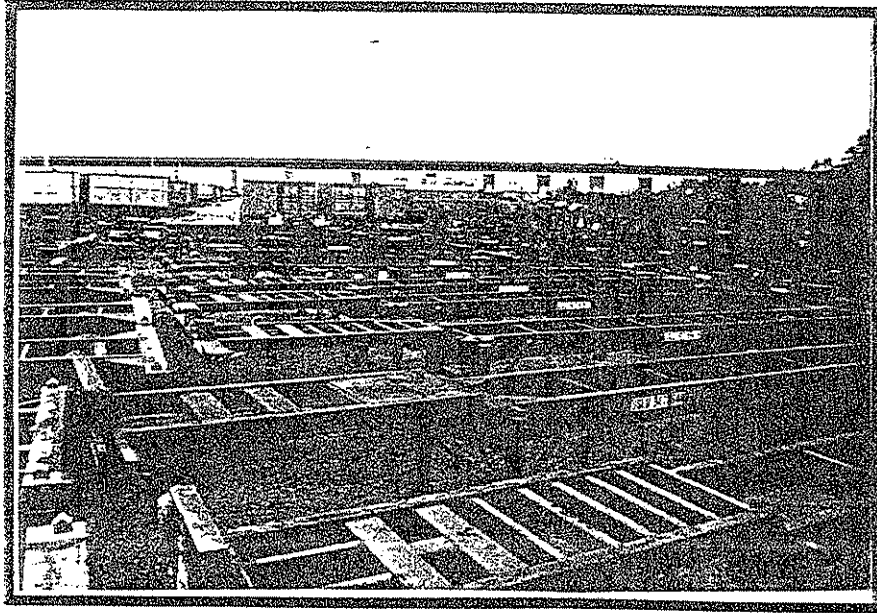


PLATE II-3: Crushed Rock Surfaced Parking Area

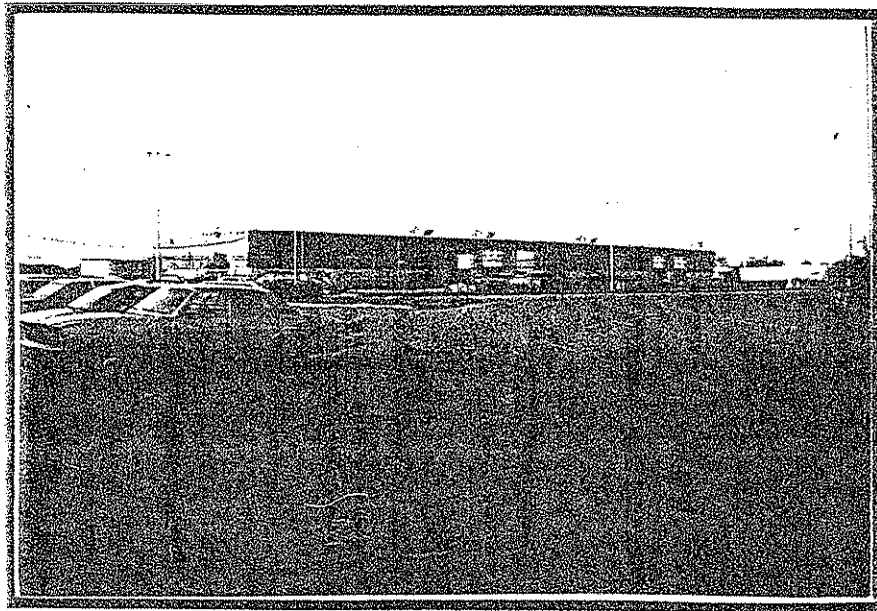


PLATE II-4: M & R Building with Access Road in foreground

potential horizontal extent of the site, it is possible to suggest that substantial portions remain in situ. Adverse impact to the site's cultural record by artifact collectors may be restricted to the more accessible and attractive portions of the site. Based on the 1911 map early development around the site is localized around residences and early industrial structures (Figure II-6). The effect of the recent U. S. Lines maintenance and maritime facilities appears to have had limited impact on the site's cultural record.

Summerville (Old Place Town) Residences

Document research indicates that there are 8 loci where historic structures were located in the study area; an additional structure, Locus 5, may have been within the project boundaries (Figure II-5). The sites are identified as loci because for the most part they have been covered by land filling and ground surfacing and their location is based on historic maps and records. Only Locus 6 is in open land. These historic loci consist of residences and buildings dating from the Seventeenth to the Twentieth centuries.

Locus 1 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On the 1878 and 1898 maps (Figures I-17, I-18), it is listed as the Haughwout house, and was not extant by 1907 (Figure I-19). The general area of the site is surfaced with asphalt over fill.

Locus 2 (Commercial Structure): This is the general location of a structure possibly associated with activities of the New York Terminal and Transit Company, and it probably dates to the turn of the century. The general area of the site is surfaced with asphalt and fill.

Locus 3 (Unidentified Structure): This is the general area of an unidentified structure buried under asphalt and fill. The structure might have been associated with either Loci 1 or 2.

Locus 4 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On the 1878 map (Figure I-17), it was listed as the George Bowman House, and is noted on the 1898 and 1907 maps as owned by the New York Transit and Terminal Company (Figures I-18, I-19). The general area of the site is surfaced with asphalt and fill.

Locus 5 (Tunissen's 1680 Domestic Site): Based on historic maps, the area just west of the Washington Avenue and Western Avenue intersection is the location of the first Summerville (Old Place Town) house (Figure I-10). The area is covered by asphalt roadway surfacing.

Locus 6 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On the 1878 map, it was listed as the W. J. Halsey house (Figure I-17, Plate II-5).

Locus 7 (1790 Domestic Site): This is the general area of a house site which predates 1800. The house was a residence in the community of Old Place. On the 1878 map, it was listed as the M. T. Jones house

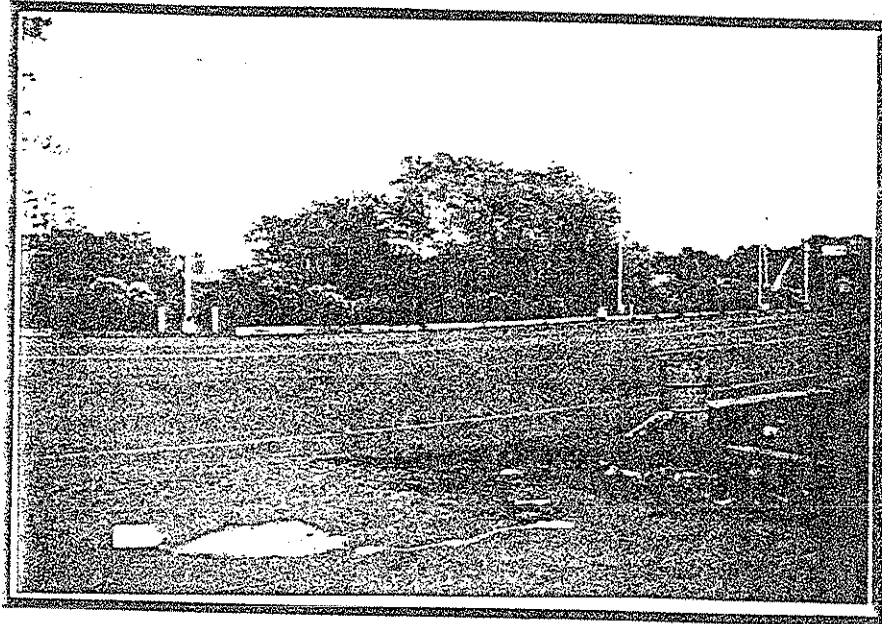


PLATE II-5: Looking Northeast at Loc 5, W.J. Halsey
Property in Woods

(Figure I-17), and was noted on the 1907 map as owned by Alvah Sharrott (Figure I-19).

Locus 8 (Unidentified Structure): This is the general area of a structural site which was probably associated with Locus 7. The site may be located under the asphalt surface of the Whalen Trucking Company yard.

Locus 9 (Outbuilding): A structure on this site was associated with Locus 6 in the Twentieth century (Robert Cotter, Manager, Whalen Trucking Company, personal communication 1985). Its location is generally identified, and the area is surfaced with asphalt.

Only Locus 6, the W. J. Halsey house, was exposed for testing. A building foundation has been partially filled and then covered by a preformed concrete slab. The work was done by U. S. Lines (Van Houten, personal communication, 1985). The area was surface collected as ground visibility permitted, which was less than a 20 percent of the area. Shovel tests 27, 28, 43 were placed on the sides and front of the foundation.

Artifacts recovered by surface survey and shovel testing consisted of kitchen and architecture types from the Nineteenth and Twentieth centuries. Ceramics consisted of whiteware, one possible floor-blue; ironstone; pearlware; slip decorated red earthenware, and porcelain. A kaolin pipe bowl fragment was found. Architectural artifacts included nails, spikes, and window glass. No functional analysis was conducted because the sampling of the site's cultural record was too limited.

Revolutionary War Battle Site

The Reverend Kinney house and building dates from the late Nineteenth century and it was burned during a marshland fire within the last twenty years (Robert Cotter, personal communication 1985). The building location is important because it is a landmark identifying the site of a Revolutionary War battle. Historic accounts (Lang and Davis 1929:44, 187) record a series of Revolutionary War skirmishes in November, 1777. The account places the battle site at the location of the late Nineteenth century Reverend James C. Kinney property. The dead were buried in a trench on the creek side of the hill. Skinner (1909:9) unearthed graves with unidentified "relics" on the Kinney property. He describes some of the human remains as being "white." These burials were probably casualties from the skirmish. As stated above gun flints and lead shot may be associated with the British occupation and battle.

The area was investigated by the excavation of Shovel Tests 29-42 (Plate II-5). Land fill deposits of depths from two to three feet were found throughout most of the Kinney property. An exception to this configuration was a strip of land immediately adjacent to the Bridge Creek wetlands on the north. No Amerindian or diagnostic Eighteenth century artifacts were recovered. Historic artifacts basically represent recent urban dumping activities and remains that might date from the late Nineteenth and Twentieth century occupation of the James Kinney property. Human remains were not identified. The contract three foot excavation depth limit and the extensive land fill may be responsible for

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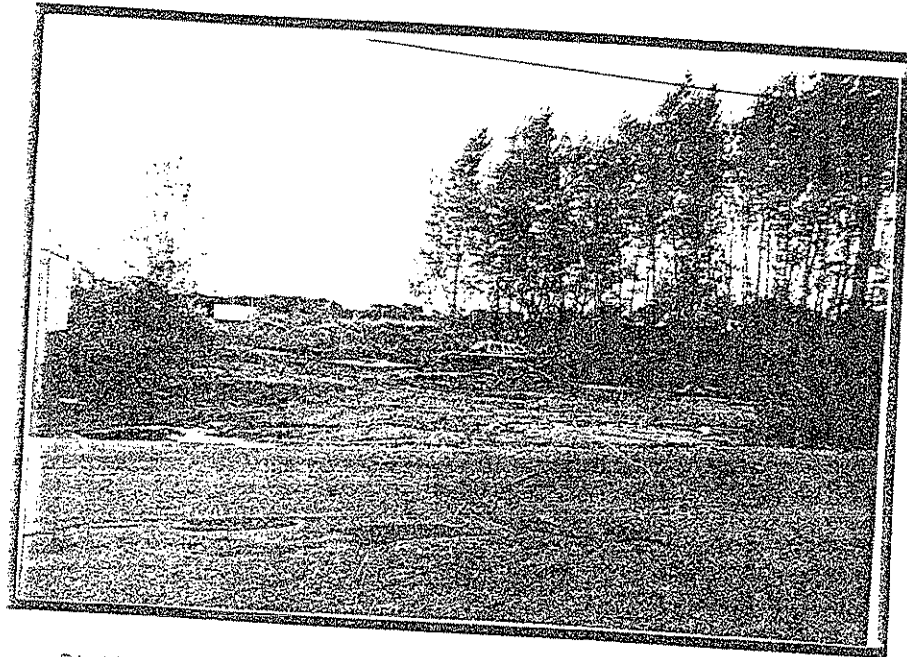


PLATE II-6: Looking West at Rev. James Kinney
Property from Western Avenue

the lack of data recovery, i.e., the cultural and human remains may be at a greater depth.

Robert Cotter (personal communication 1986) said that he had the Kinney property land filled to provide a suitable parking area for employes of the Whalen Trucking Company. Land to the west was also filled to similar depths for trucking purposes.

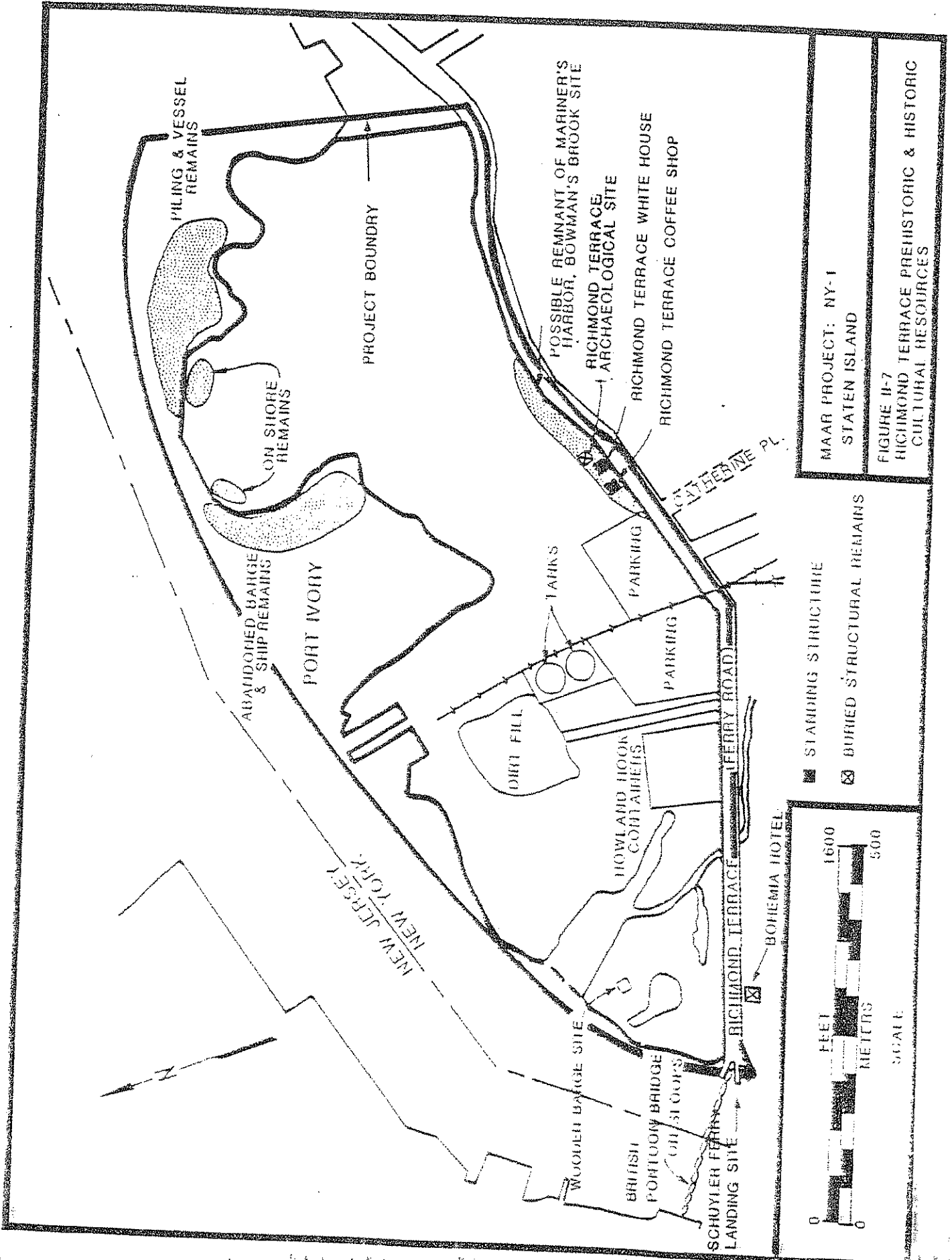
Howland Hook Study Area

The study area is located on the north side of Richmond Terrace Road, formerly Shore Road (Figure II-7). In general, the route of the road still follows its initial alignment. Originally, its western terminus was at the present day intersection with Western Avenue. Establishment of Schuyler's ferry landing on Howland Hook in 1736 required the road being extended to Arthur Kill, its current terminus. Shore Road connected with Richmond and was the main artery along the northern shore. Land north of Old Shore Road was mostly tidal wetlands with a narrow strip of uplands east of the intersection with Western Avenue (Figure I-12). As the result of industrial development the shore line configuration has undergone many changes throughout the Twentieth century; Port Ivory was a product of the Proctor and Gamble plant development. Bridge Creek, which bisects the study area's western section, has been rerouted as well.

In the western section of the study area only two cultural resources sites were identified by the document search and field reconnaissance (Figure II-7). Schuyler's ferry land has been occupied from 1736 into the Post World War II period. It was the eastern anchor for a British pontoon bridge used in General Knyphausen's invasion of New Jersey in 1780 (Hatfield 1868:486) (Figure I-11). Just south of the project boundary is the site of the early Twentieth century Bohemia Hotel, part of the ferry terminal complex. The second cultural resource is a wooden barge which has been beached near the confluence of Bridge Creek with Arthur Kill. The barge had been placed there by U.S. Lines (C. Emmett King, Facilities Engineer, personal communication 1985).

The ferry terminal area has been extensively land filled throughout its history (Albert Anderson, personal communication, 1985 and C. Emmett King, personal communication, 1985). Today, the roadway and terminal area has a sequence of asphalt surfaces overlaying concrete and probably the earlier earth and crushed shell road bed deposits. The ferry slips have been land filled and crushed rock covers the fill (Figure II-8, Plate II-7). No subsurface testing was conducted because dry lands were surfaced and adjoining terrain was either deep fill or tidal marsh. Reconnaissance of the Arthur Kill beach recorded modern cultural materials, with the exception of a glass bottle fragment which predates the Twentieth century. The origin of the barge is unknown. It is one of several that were identified in and around Port Ivory.

East of the intersection of Richmond Terrace with Western Avenue the residential, commercial and industrial development has taken place since the building of Shore Road in 1708, particularly since the turn of the century (Figure II-9). Reconnaissance of the area recorded two standing structures with the remaining terrain substantially altered by land



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 STATEN ISLAND
 FIGURE II-7
 RICHMOND TERRACE PREHISTORIC & HISTORIC CULTURAL RESOURCES



PLATE II-7: Looking South at Area of Filled Schuyler's Ferry Slips, Land filled

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filling, development, demolition, and ground leveling activities. DeHart's Creek which once flowed through the western section has been virtually destroyed with only a remnant remaining near its confluence with Port Ivory and Newark Bay.

Informant statements, surface surveying, and subsurface testing identified four cultural resource sites (Figure II-7).

Richmond Terrace Coffee Shop

At 3612 Richmond Terrace is a two story, hipped roof with dormer commercial building (Plate II-8). The lower floor is brick with American bonding, and the second story is metal sided. A coffee shop/cafe is operated on the street level with a residence upstairs. The age of the building is unknown. A structure is recorded at this location before 1845.

A narrow land strip west of the coffee shop is near the Post homestead which was located just southwest of the Western and Richmond Terrace intersection. The homestead was the location of British fortifications during the Revolutionary War. Shovel Tests 14 and 15 were excavated along the narrow land strip to determine if cultural materials from the encampment may be present (Figure II-9).

Shovel Test 14 recorded historic cultural materials in a temporally mixed context to a depth of three feet. Artifacts included kitchen related types of whiteware, lead glazed and unglazed red earthenware, over glazed porcelain, and tin glazed earthenware sherds along with bottle glass fragments. These types are temporally associated with the Eighteenth through the Twentieth centuries. Window glass and cut and wire nails were recovered which range in date approximating the ceramics. Shovel Test 15 recovered a similar artifact inventory, except that diagnostic Eighteenth century cultural materials were not identified and two flint flakes were recovered in a mixed context with historic artifacts. The Amerindian artifacts may be associated with the remnants north of Richmond Terrace from the complex around Bowman's Brook site and are part of the North Bowman's Brook site in this report (Figure II-10).

Richmond Terrace White House

At 3599 Richmond Terrace is a front gabled, two story, white frame house with a relatively steeply pitched roof (Plate II-9). Historic documentation places a structure at this location prior to 1845. The resident did not know the construction date of the building.

Richmond Terrace Historic Archaeological Site

Adjoining and to the east of the residence at 3699 Richmond Terrace is a razed domestic site. William Malwasky (personal communication 1985), who resides at 3699 Richmond Terrace, confirmed the exact location of buried ruins from a residential structure as well as a refilled well which is in the front of the remains (Plate II-10). Historic documentation records a building at the site prior to 1845. Shovel Test 25 was placed to the east of the ruins to investigate buried material culture from the house. The surface of the test area appears to have

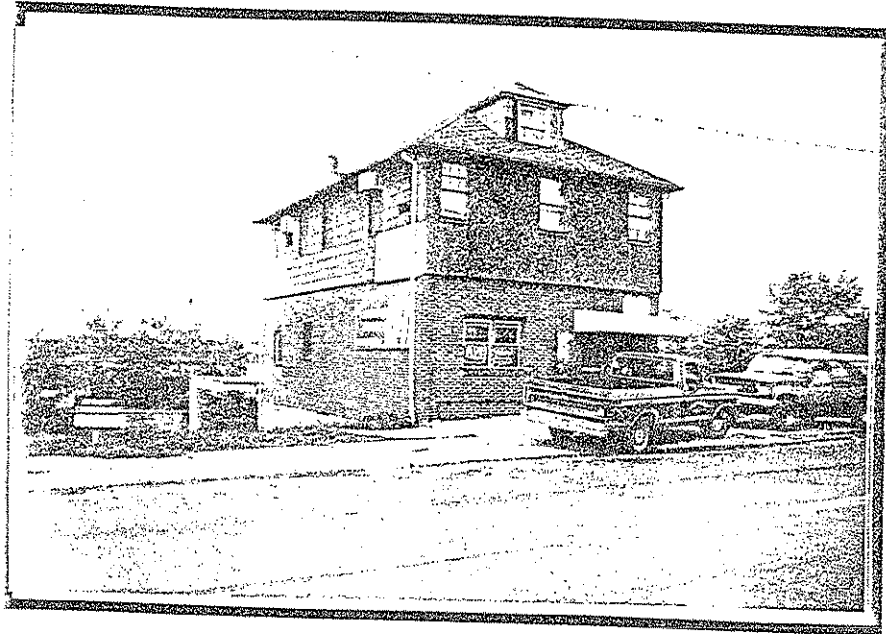
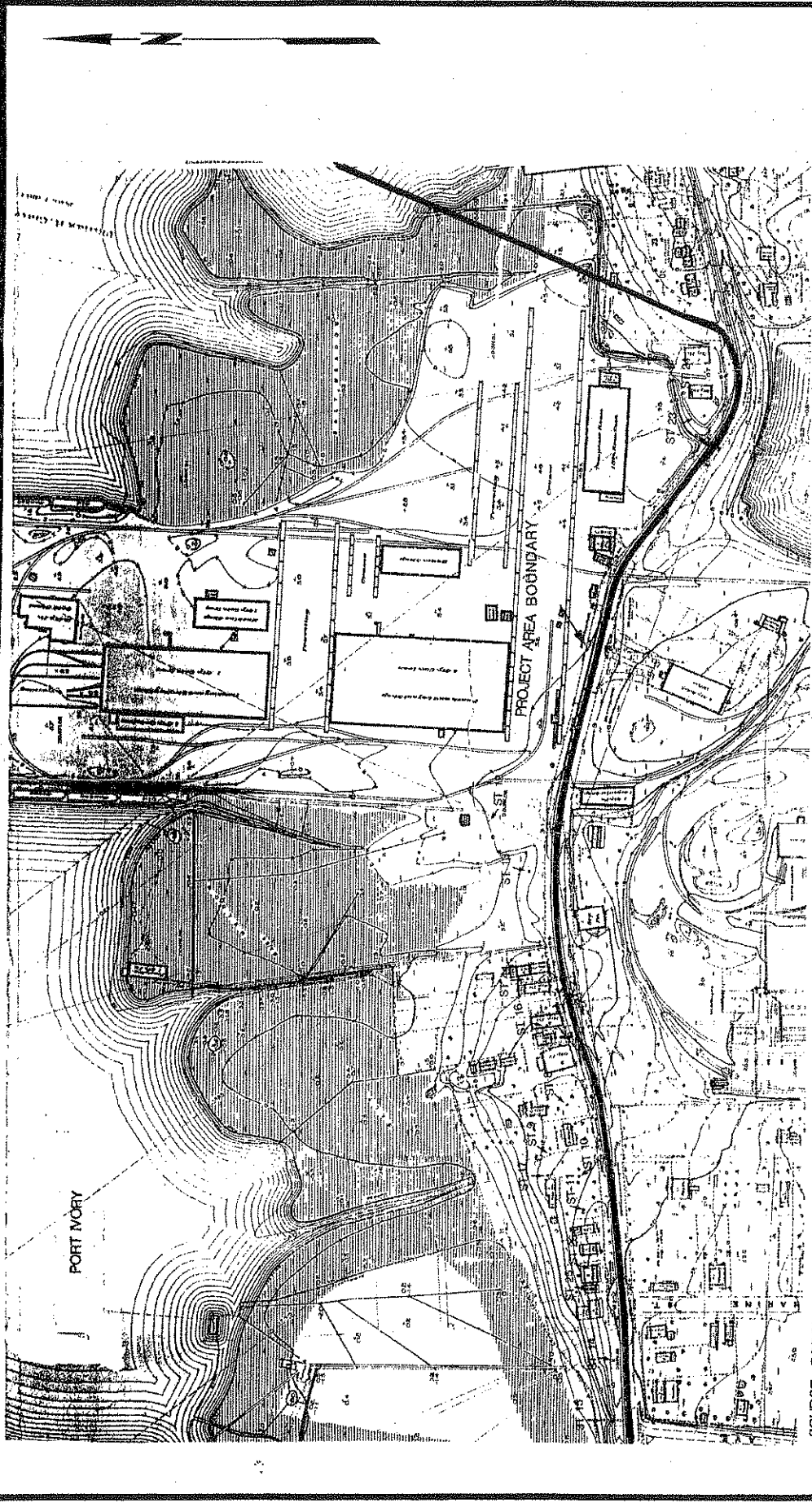


PLATE II-8: Richmond Terrace Coffee Shop with adjoining Land Strip on left

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SOURCE: BOROUGH OF RICHMOND, TOPOGRAPHICAL SURVEY, 1911, SHEET NO.8.

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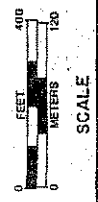
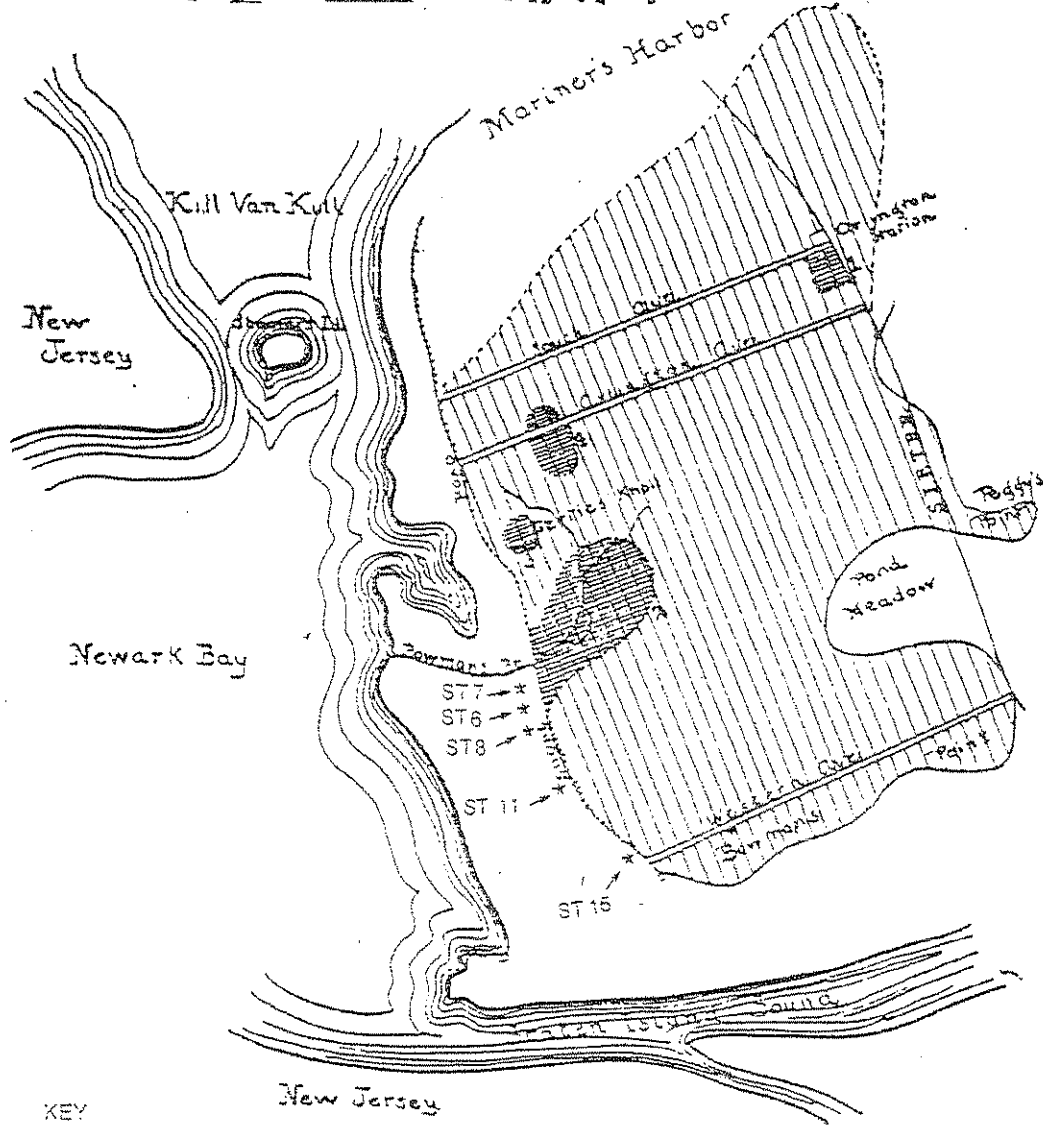
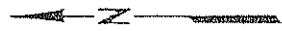


FIGURE #9
RICHMOND TERRACE EAST MAP

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KEY

- 1. ARLINGTON STATION
- 2. BOWMAN'S BROOK
- 3. GERTIE'S KNOLL
- 4. ARLINGTON AVENUE SITE

SOURCE: SKINNER 1909:6

NO SCALE AVAILABLE

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STATEN ISLAND

SCALE

FIGURE II-10 ARCHAEOLOGICAL SITES IDENTIFIED
BY SKINNER AND MAAR ARTIFACT-PRODUCING
SHOVEL TESTS.



PLATE II-9: Richmond Terrace White House

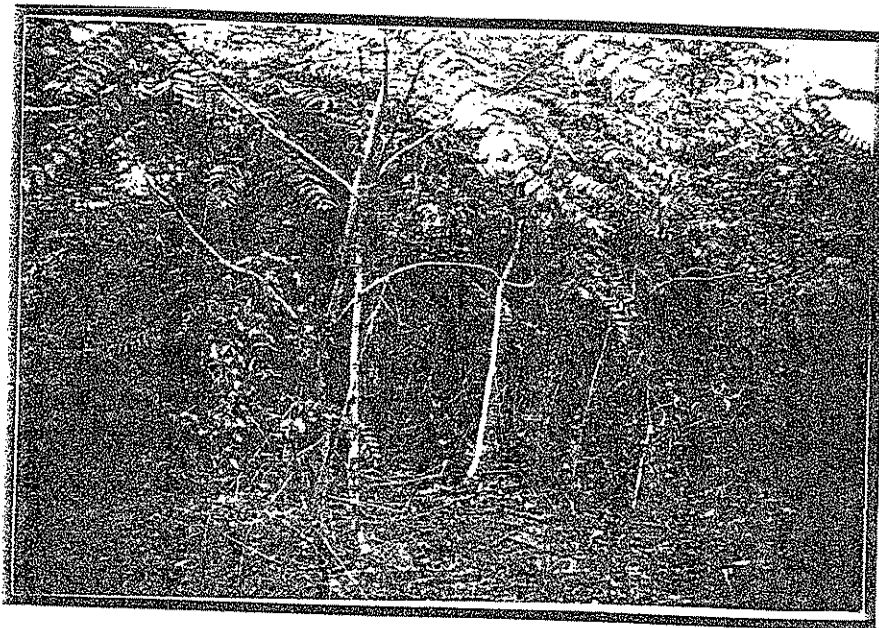


PLATE II-10: Richmond Terrace Historic Archaeological Site—Refilled Well in Foreground

been stripped and filled producing a highly compacted soil stratum to a depth of 1.1 feet. The fill deposit is underlaid by a clay subsoil. The test recovered a low frequency of artifacts from the fill deposit, mainly window glass, and no temporal diagnostics were recorded.

Bowman's Brook, North

This site, as identified by Skinner (1909:6-7) (Figure II-10), is basically located on the south side of Shore Road outside of the project area, however, his description of the boundaries as "...situated on the shore of Kill van Kull, running inland for some distance along the north shore of Bowman's Brook, ... or DeHarts Brook." (Skinner 1909:6). In an effort to locate remaining remnants of the site and adjoining settlement complex (Figure II-10), a surface reconnaissance and a series of shovel tests were excavated.

A quartzite drill tip, a bifacially reduced quartz flake, quartzite pebble core, decortication flint flake, and fire-cracked rock were recovered from a disturbed surface context in and around the vicinity of Shovel Tests 6 and 7 which is just west of Bowman's Brook, now called DeHarts Creek (Figure II-9, Plate II-11). After the surface recoveries the shovel tests were excavated to investigate the possible presence of subsurface cultural materials. Shovel Test 6 recovered a secondary quartzite flake and Shovel Test 7 recorded a Late Archaic Rare Island-like stemmed, chert projectile point, an incomplete isosceles triangular biface, and one quartzite and two jasper flakes. Shovel Tests 8 and 11 produced one flake, quartzite and flint respectively. All prehistoric cultural material were recovered in a mixed context with historic artifacts. This scatter of Amerindian artifacts extends from Bowman's Brook west to the intersection of Western Avenue and Richmond Road and corresponds with the boundaries illustrated for the Amerindian complex identified by Skinner (1909:6) (Figure II-10).

The historic artifacts recovered dated from the Nineteenth and Twentieth centuries. Artifact types were basically kitchen associated and architectural remains.

Howland Hook Area 5 Study Area

Prehistoric activity in and around Area 5 has been extensive; foremost of which was the Bowman's Brook site, the site-type for the Bowmans Brook ceramic type (Figure II-10). Other sites include the Arlington Place, Arlington Station, and Arlington Avenue. The Bowman's Brook site was basically occupied during the Woodland period, with an earlier Archaic Period component indicated (Ritchie 1980). The site was identified by Alanson Skinner (1909) in 1903 during the building of the foundry. His work continued at intervals until 1918. Investigations identified numerous subsurface features including burials. Most cultural deposits were located within four feet of the original ground surface. Additional field investigations were carried out by avocationalists Donald Sains and Albert Anderson in the 1960's (Ritchie 1980:146).

By the early Eighteenth century, the DeHart farm was established on Shore Road just to the east of Area 5. British and Hessian troops had an encampment on and around Gertie's Knoll adjoining DeHart's house which



PLATE II-11: Bowman's Brook Site Looking East Toward
Bowman's Brook Stream Remnant in Woods

was located just east of the study area. Arlington Towers is the site where Gertie's Knoll was located. The economy of the community centered on farming and maritime activities until the latter part of the Nineteenth century (Leng and Davis 1929). At this time, industrial development began with the construction of the Millikin Brothers iron foundry and continues to the present day.

Document and informant research indicated that there were four areas where cultural resources were once present. First, The Bowman's Brook site extended across most of Area 5. Second, the Arlington Avenue site was located just to the east of the project. Historic loci, the Garrett Post House and the Revolutionary War British and Hessian DeHart Farm encampment, were located along the northern and northwestern sections of Area 5. The Philip Post was located along the northern boundary. Albert Anderson (personal communication 1985) stated that there was possibly one small section of Bowman's Brook site intact, but within Area 5 these sites have been destroyed by industrial development and demolition. Even Bowman's Brook Creek which once flowed through the area is extinct.

Field research strategy called for a reconnaissance across Area 5 to confirm the configuration of the terrain (Plate II-12). At this time the locations of the prehistoric and historic loci were located for examination and subsurface testing by shovel test units.

Reconnaissance indicated that Area 5 has undergone extensive land alteration. Original topography and soil deposition has been reordered. Shovel testing throughout the project area confirmed these surface observations (Figure II-11). The Garrett Post House site terrain has been altered by earth moving activities, leveling and landfilling. The Philip Post home site had been destroyed by a gas pipe right-of-way (Plate II-13). The same condition was found along the eastern section of the project area in the vicinity of the Revolutionary War encampment and the nearby Arlington Avenue prehistoric site (Plate II-14). The terrain landfilling and leveling activities in and around the location of the foundry complex has destroyed any substantial portion of the in situ cultural record for the Bowman's Brook site (Plate II-15). The majority of artifacts recovered dated from the Twentieth century and no prehistoric cultural materials were found. There is always the possibility of an isolated small pocket of the site remaining, but to locate such a location would require a 100 percent subsurface investigation of the project area. This evaluation has also been expressed in a cultural resource survey conducted just south of the study area (Grossman and Roberts 1985).

Port Ivory Off Shore and Shore Line Marine Cultural Resources

The Scope of Work required that the literature be searched to identify ship wrecks and abandoned vessels within the limits of the project area. No on-site investigations or underwater research was contracted.

An undetermined number of wooden barge and ship remains are grounded offshore in and east of Port Ivory (Figure II-12, Plates II-16, II-17). These vessels are in various stages of deterioration. At least one



PLATE II-12: Garrett Post House Site Looking North
Toward Richmond Terrace

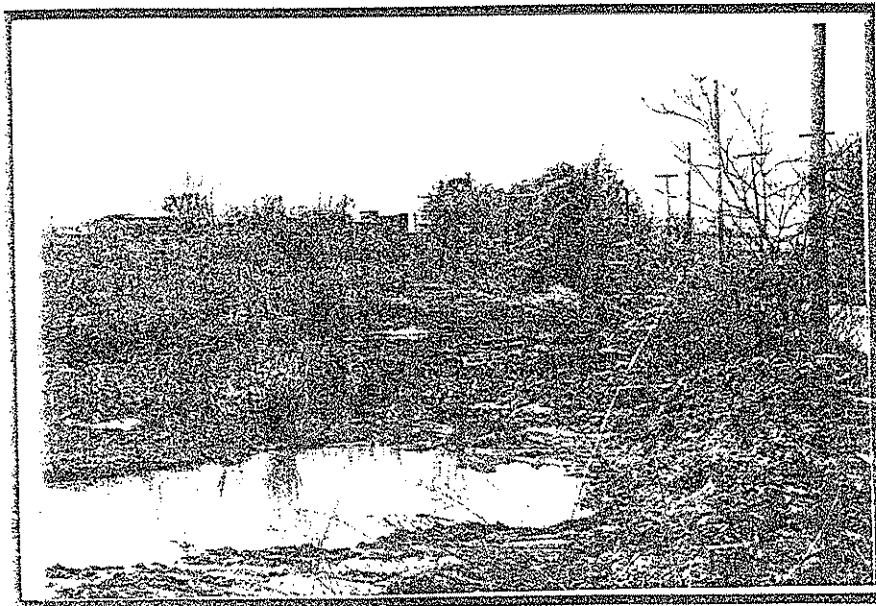
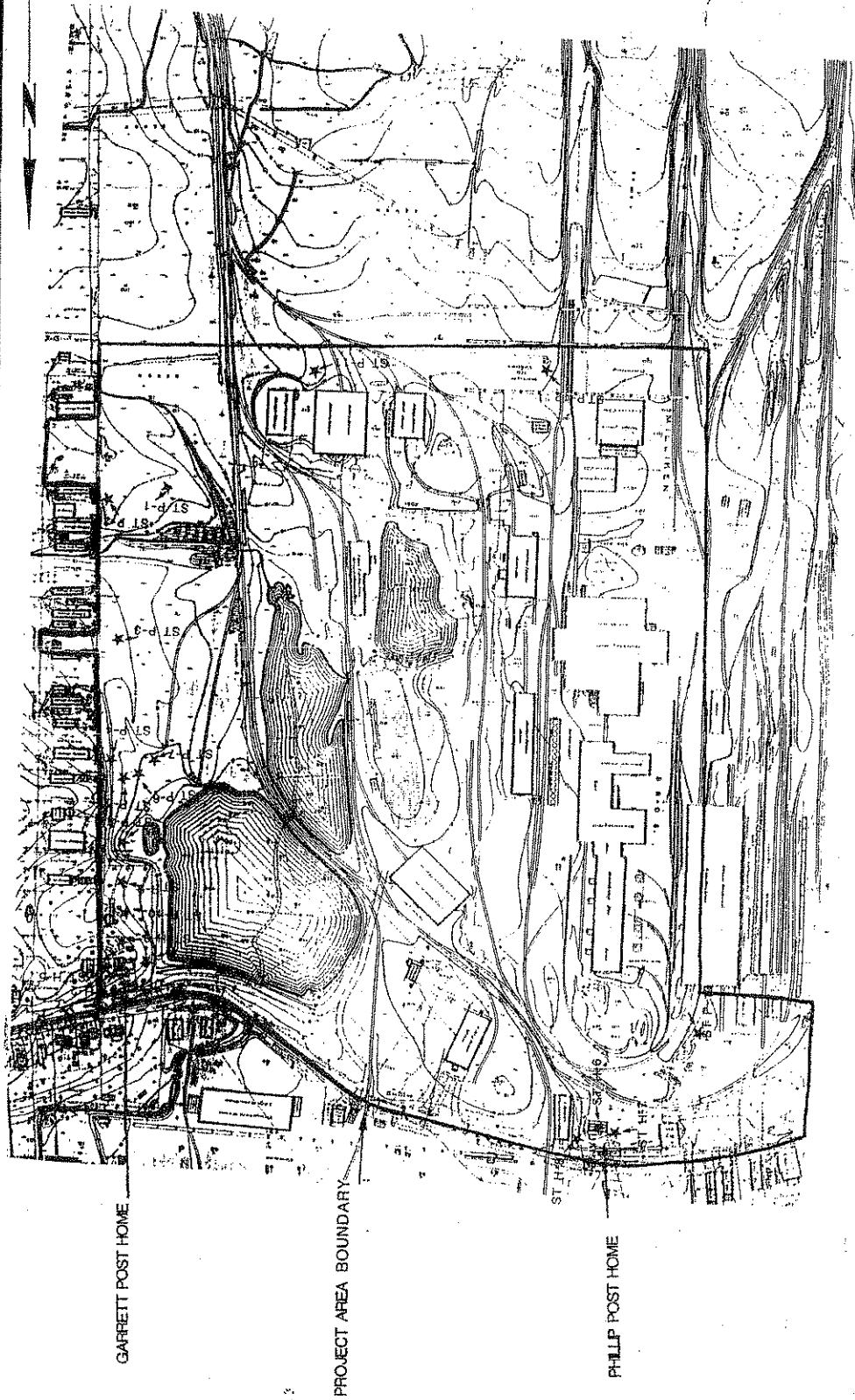
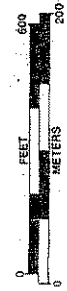


PLATE II-13: Philip Post House Site, Looking West Along
Pipe Line Right-Of-Way and Richmond
Terrace

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SOURCE: BOROUGH OF RICHMOND, TOPOGRAPHICAL SURVEY, SHEET NO 8



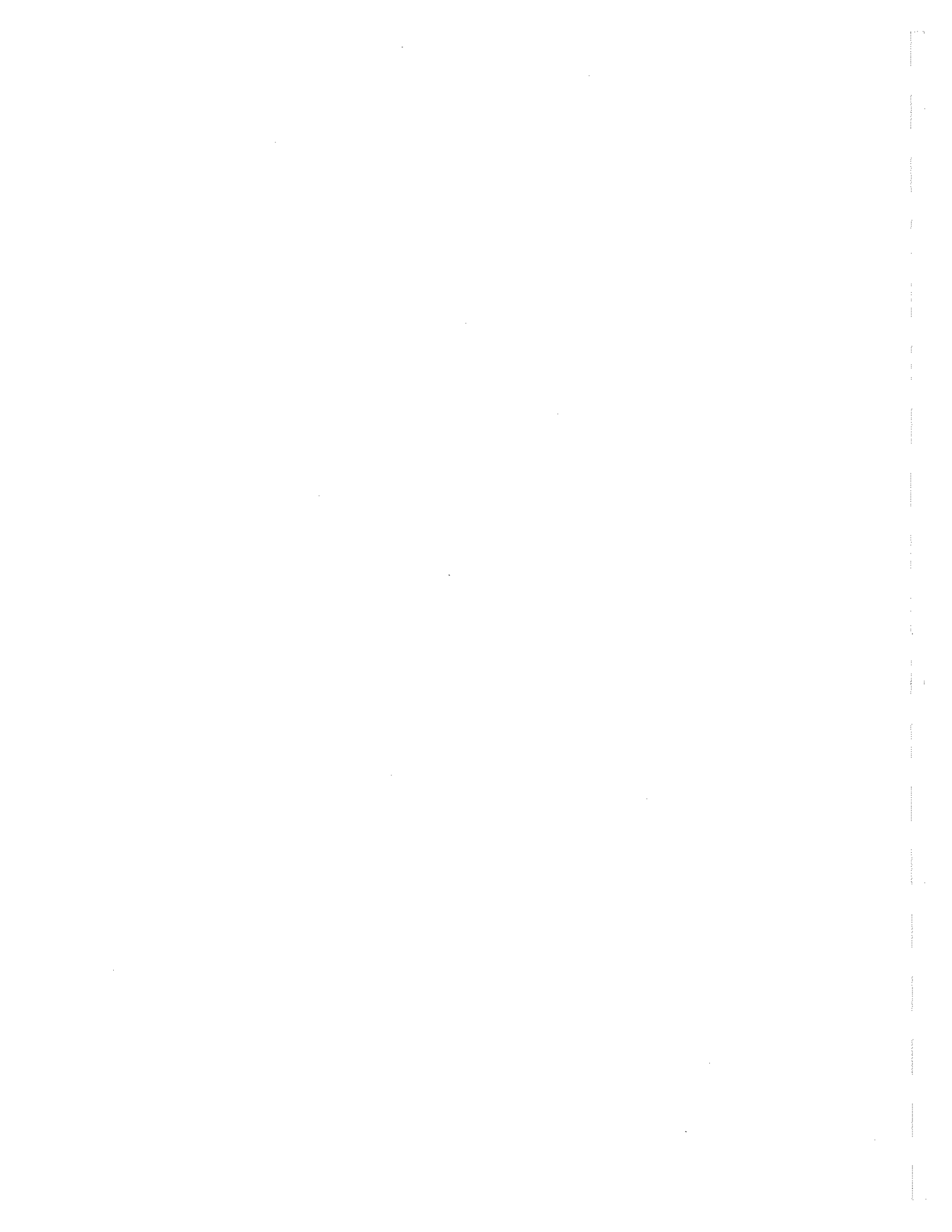
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FIGURE I-11

HOWLAND HOOK AREA 5 MAP

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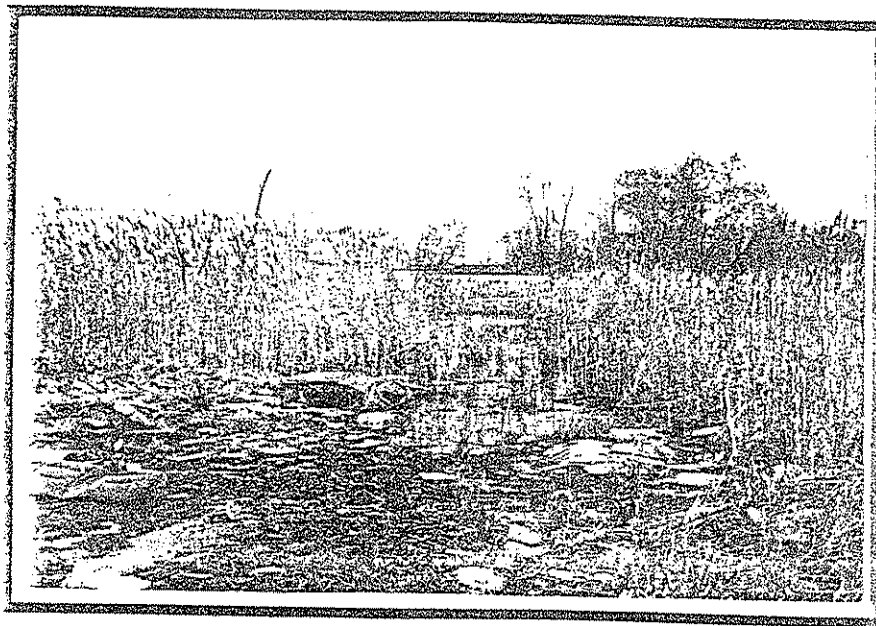


PLATE II-14: Area Near Arlington Avenue Prehistoric Site, Looking West Across Southern Part of Abandoned Millikin Property

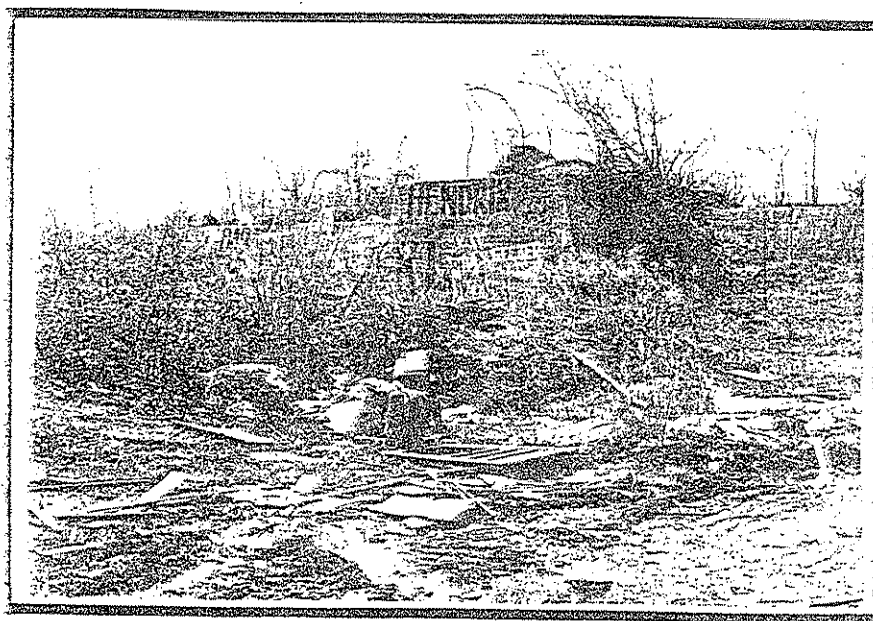
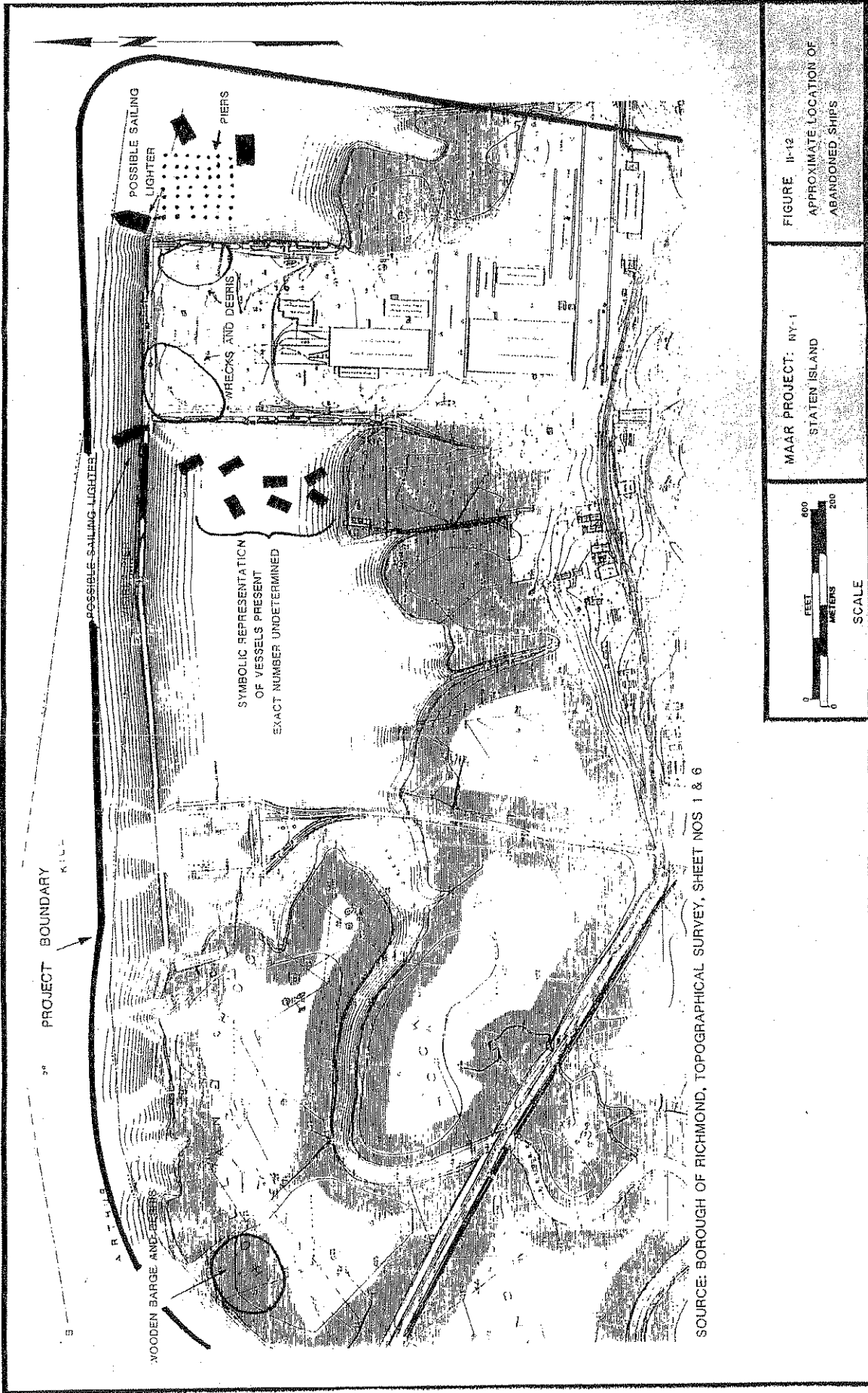


PLATE II-15: Remains of Millikin Plant Building Supports, Looking West Southwest Across Dump Area

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SOURCE: BOROUGH OF RICHMOND, TOPOGRAPHICAL SURVEY, SHEET NOS 1 & 6

II-34

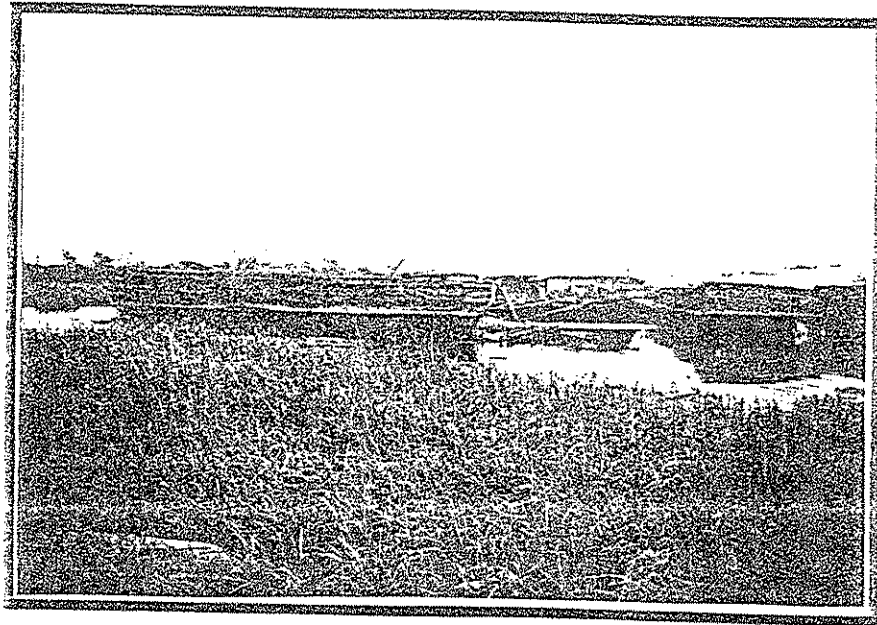


PLATE II-16: Abandoned Wooden Barges in Port Ivory

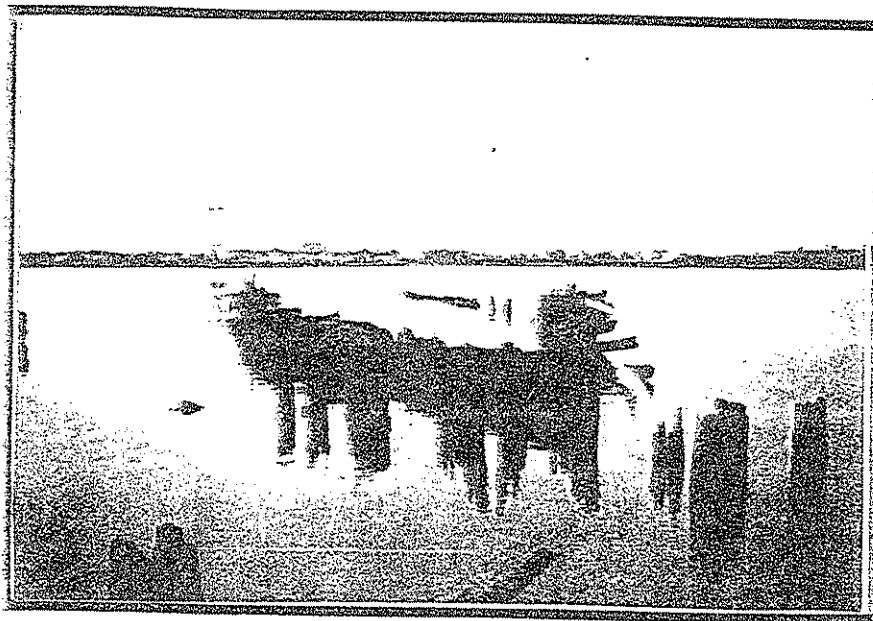


PLATE II-17: Remains of Possible Sailing Lighter and Pilings in Port Ivory

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vessel has a double planked hull, which might be a sailing lighter. Remains are located on shore, also.

The evolution of ship abandonment began with the end of many shipbuilding establishments in New York Harbor. Such a pattern occurred at Port Ivory following the failure of the Downey Shipbuilding Yard in the 1930's depression. Harbor barges, wooden tugboats, and sailing lighters are recorded in and around the area (Brouwer 1977:10).

Mr. Norman Brouwer, in a similar survey of New York area shoreline abandoned ships, wrote that

"...the day must come when the now common harbor barges and wooden hulled tugs receive proper regard and documentation. . . all of them--the barges and lighters, the schooners and full rigged ships--are part of our shared sea heritage..." (Brouwer 1977:14).

No underwater archaeological sites are recorded in the project area, but these findings do not preclude their presence. As illustrated in the Natural Environment section the topography of the area has undergone drastic change over the past 15,000 years. Once Staten Island was land locked on the west after which a small stream flowed where Arthur Kill runs, today. Sea level rise has inundated early prehistoric sites on the East Coast.

Summary & Recommendations



MAAR Associates, Inc.
Cultural Resource Consultants

Summary of Investigations

Document and informant research was conducted concerning the prehistory and history for the Howland Hook area in northwestern Staten Island. The research revealed that these lands have experienced human occupation from as early as 7,000 B.P. until the present day. The initial settlers were Amerindian and inhabited Old Place site and Bowman's Brook site until late prehistoric times; Old Place site may have been occupied during the early period of European contact. Old Place site and a possible northern section of Bowman's Brook site are within the project area.

The first European settlers were located along Shore Road and Tunissen's Neck, Old Place settlement. Several buildings from this Eighteenth century community are within the project area. The principal economy was centered in agriculture and maritime practices. By the beginning of the Twentieth century industrial and urban development was underway, severely altering the landscape and economy. Today, the area's landscape bears the scars left by these early developments throughout the terrain south of Richmond Terrace.

The Revolutionary War brought British and Hessian military forces to the island and encampments with fortifications were located along Shore Road and on Tunissen's Neck. Skirmishes ensued between these forces and the American detachments stationed across Arthur Kill in and around Elizabeth, New Jersey. One of the brief conflicts occurred on Tunissen's Neck at a location later identified as the Reverend Kinney property. The British invasion of New Jersey was launched across a pontoon bridge anchored at Schuyler's Ferry landing. The encampments, battle site on the Kinney property and the eastern anchor of the pontoon bridge are within the project area.

Six study areas were investigated by reconnaissance and subsurface testing. Old Place Study Areas 1, 3, and 5 along Old Place Creek mainly consisted of tidal wetlands and standing water. A substantial percentage of the Old Place/Maintenance and Repair Study Area has been surfaced which restricted field reconnaissance and subsurface testing. Surfacing and inundated wetlands prohibited subsurface testing in the western section of the Howland Hook Study Area. Howland Hook Area 5 was extensively disturbed by industrial activities. A total of 19 cultural resource loci were identified. These resources include two Amerindian sites, 14 historic sites, and three loci of abandoned maritime vessels.

Discussion of Results

Old Place Site

A sequence of Amerindian cultural groups have occupied the site from as early as the Early Archaic Period until the arrival of European colonialists. There is the possibility that Paleo-Indian activities may have taken place on the site. Previous professional and avocational research has developed data bases which indicate settlements maintained on the site were extensive and occupied for extensive periods of time.

possibly during the spring and summer seasons. The environmental setting favors hunting and gathering subsistence/settlement systems because it offers a diverse inventory of native foods resources which are available in a close proximity to the elevated sand ridge, Tunissen's Neck.

The distributional pattern of cultural/temporal diagnostic artifacts reveals that the site has both vertical and horizontal occupation stratification. Cultural strata have been recorded to depths of 3.5 feet. The depth of cultural materials in Jacobson's Area E was confirmed by Shovel Tests 18 and 20. The surface boundaries of the site have never been determined, however, previous field investigations have recorded buried human remains and a scatter of cultural materials on the Reverend Kinney property which adjoins Western Avenue. This suggests that the site may extend over the western portion of the sand ridge.

The cultural record contained at Old Place site has the potential to contribute important information concerning the subsistence and settlement practices for both cultures from the Archaic and Woodland Periods.

1. One area of research potential pertains the Early Archaic settlements were maintained on the site. Substantial research has been carried out in North Carolina, Tennessee, and West Virginia, in particular. It has been only in the past decade and a half that these cultures have been recognized for the northern Middle Atlantic and southern Northeastern regions. Subsistence and settlement patterns employed by these cultures is poorly understood for this region. An opportunity to study these patterns could make an important contribution to the archaeological literature.

2. Cultural groups from the Late Archaic Period, Transitional, and Early Woodland Period were encamped on at the site. Substantial numbers of artifacts affiliated with these cultures have been recovered by previous excavations. The environmental setting for Tunissen's Neck corresponds the ecological attributes desirable to support large, spring and summer villages during this general prehistory time, particularly the Late Archaic Period (Salwen 1973). The site appears to offer potential for the study of the settlement practices that were associated with these seasonally maintained villages. Such information may be used to compare these practices with similar cultural patterns in Coastal Plain river drainage environments, e.g. the Delaware and the Susquehanna Rivers.

3. Alason Skinner (1909) reported the recovery of European goods in association with an Amerindian feature. This occurrence suggests that Late Woodland cultural groups inhabiting the site were in contact with Europeans. The identification of a brass projectile point supports the assumption, also. If correct, Old Place site existed during European contact and the potential of studying cultural trait interaction and acculturation is possible. Such information could make an important contribution to history and the archaeological literature.

4. Skinner (1909) identified human remains interments with grave goods on the Reverend Kinney property. It can be assumed that the graves were Amerindian, since he identified them not to be "white." He research

at that time focused on Amerindian occupations at the site. If correct, research pertaining to human interments has the potential to provide important information concerning burial practices, social rank, and pathologies.

After an examination of the data base and the site's research potential, it is recommended that Old Place site has cultural significance potential. The evaluation is based on 36 CFR 800.10(4). The site "may be likely to yield, information important in prehistory...".

Summerville (Old Place Town) Residences

A portion of this Eighteenth century community is located within the project area and all but Locus 6, the W. J. Halsey house, is buried by land filling and surfacing. Loci 1, 4, 6-9 are affiliated with the community. Locus 2 is a commercial structure and Locus 3 is unidentified. Locus 5 is the possible general location of the 1680 Tunissen residence. At Locus 6 the Halsey house's foundation is still present and the surrounding terrain remains relative intact. Testing failed to recover cultural materials from the earlier occupation of the residence.

The buried structural loci are buried under two to three feet of land fill and are believed to be undisturbed by the development of the recent trucking facilities. No land alteration was conducted prior to the deposition of the fill soils.

This community along with the Seventeenth century Tunissen residence represent the first historic development within this region of Staten Island. These historic loci have the potential to contribute information pertaining the socio-economic practices and changes that have taken place. The community's history spans the initial settlement of the undeveloped land through a period of agriculture to urbanization and industrialization at the turn of the century. The cultural records preserved for each residence has the potential to contribute concerning social and economic patterns maintained during the historic periods. Also, comparative studies between residences may reveal information pertaining to the intra-community social and economic stratification.

Based on these factors, it is recommended that these historic loci have research potential and in turn have the potential of possessing cultural records which have cultural significance potential. The criteria for the significance evaluation is 36 CFR 800.10(4).

Reverend Kinney Property

In the area of this property a Revolutionary War battle took place and the Hessian casualties were interred there. Skinner (1909) records the excavation of "white" as well as non-white human remains were excavated. The identification of the burials corresponds with the Director's accounts of the battle and indicates that some of the Hessian dead may still remain interred at the site.

Historic records indicate that British and Hessian fortifications included earth works on the Kinney property. These earth works, possible buried military hardware, and buried human remains offer a potential to conduct research concerning the nature of the battle, the hardware employed, and the pathology of the Hessian fatalities and the units within which they served. Information obtained by the research may contribute additional information concerning the Revolutionary War and the British and Hessian occupation of the Howland Hook. No archaeological research has been conducted pertaining to Revolutionary War activities on northwestern Staten Island.

The other burials recognized by Skinner would be Amerindian which indicates that the Old Place site extends into the Kinney property. Anderson (personal communication 1985) recovered a scatter of artifacts in the area. The research and cultural significance potentials for Old Place site is discussed above.

Schuyler's Ferry Landing

A ferry landing and terminal has existed at this point from the Eighteenth century. Construction of the facilities and access required the land filling of tidal wetlands. Today, the terminal and roadway have a sequence of land fill deposits over which episodes of surfaces have been laid. The surrounding terrain is still wetlands. During the operation of the landing and terminal facilities have been constructed to house and service the operations. Once, the Bohemia Hotel stood just south of the access road outside of the project boundaries. The British used the landing to anchor their pontoon bridge for the invasion of Elizabethtown, New Jersey in the Revolutionary War.

The material culture record for the British utilization of the landing for the pontoon bridge construction and mounting the invasion of Elizabethtown may still exist. The early ferry slips and landing area have been land filled. Within this area there is the possibility of locating buried remains from the Pontoon vessels and other hardware associated with the bridge. In the landing area there is the possibility of structures that would have been constructed to support the invasion as well as identifying refuse features and privies or latrines that would have been used by the personnel stationed there.

It is recommended that there is potential for conducting research concerning the British use of the ferry landing during the Revolutionary War. Research at the landing may provide new information pertaining to the British invasion of New Jersey, i.e. the military units employed and the magnitude of the endeavor. There is the possibility of developing information concerning military engineering practices. British military material culture patterns may be studied by examination of refuse deposits developed by personnel assigned to the landing.

Based on the research evaluation, it is possible to recommend that the ferry landing and slips area has cultural resource potential using the criteria in 36 CFR 800.10(1).

Richmond Terrace Coffee Terrace

At 3612 Richmond Terrace a two story brick and metal sided coffee shop/cafe. A date for building is unknown but a structure was located on this lot by 1845. The occupation of a building on this lot occurred in the first half of the Nineteenth century. In associated refuse and shaft features there is potential for studying socio-economic patterns as they are recorded in the material culture. Municipal refuse and sewerage collection systems were not developed until the turn of the century. Behavioral patterns may be compared with those maintained at Summerville and other communities in the region. It is recommended that the site has cultural significance potential as specified in 36 CFR 800.10(4).

Richmond Terrace White House

At 3599 Richmond Terrace is a two story frame residence, date unknown. A building was located on the lot by 1845. The research and cultural significance potentials are the same as stated for the Coffee Shop lot.

Richmond Terrace Historic Archaeological Site

Adjoining 3599 Richmond Terrace is a residential archaeological site, date unknown. A building was erected on the lot by 1845. A refilled well is located in front, south, of the buried building remains. The research and cultural significance potentials are the same as stated for the Coffee Shop lot.

Bowman's Brook, North

A scatter of surface and subsurface prehistoric artifacts from disturbed contexts were recovered north of Richmond Terrace across from Bowman's Brook site. Previous research at the site has been concentrated south of the road in the general area where the Millikin Brothers' foundry was located. Skinner (1909:5,6) describes the site's boundaries as extending south from the Kill von Kull shoreline near the northern edge of Bowman's Brook (creek). Also, he depicts Amerindian cultural materials surrounding Bowman's Brook site (Figure II-10) indicating that artifacts were recovered in an area from Arlington place to Western Avenue. The boundaries corresponds to the artifact scatter north of the roadway. Thus, it appears that the northern cultural material pattern is associated with Bowman's Brook and the larger artifact pattern identified during Skinner's field investigations.

Only one cultural/temporal diagnostic artifact was identified, a rare Island-like projectile point. The recovery of a Late Archaic artifact corresponds with the date base established by Anderson in his excavation of Bowman's Brook A (Ritchie 1980). Skinner (1909) identified only Woodland period cultures, not until Anderson's 1964 excavations was a Late Archaic component recognized at the site.

No comprehensive archaeological field research was able to be conducted at Bowman's Brook site prior to the destruction of its main section. Subsequent research at Bowman's Brook A was performed by

untrained avocationalists. The research potential associated with any remaining remnant of the site is important. Not until Anderson's excavation at Bowman's Brook A was the occupation history extended back to the Late Archaic Period, thus it is evident that the site's history is probably undefined. Based on the Old Place site occupational history, it is possible to extrapolate that the Bowman's Brook site may have been occupied prior to the Late Archaic Period. There is also the potential for locating cultural materials from the later Woodland habitations and examining these resources employing the state-of-the-art techniques, not available during Skinner's time.

Although the prehistoric cultural materials were recovered from a disturbed context, their occurrence may be associated with buried strata below the level of disturbance. It is recommended that the site has the potential for cultural significance based on the research possibilities given above. The evaluation criteria are contained in 36 CFR 800.10(4).

Port Ivory Off Shore and Shore Line Marine Cultural Resources

A series of abandoned maritime vessels are located on the shore line and off shore in and east of Port Ivory. These vessels consist of wooden barges and what appears to be the remain of sailing lighters. Document information suggests that the abandonment of vessels in and around Port Ivory occurred after 1930. As stated by Norman Brouwer (1977:14) vessels of these types need to documentation. No on-site research (Stage IB) was required on this contract. Field investigations of this type is necessary to evaluate research and cultural significance potential.

Impact Assessment

All project study areas with the exception of Howland Hook Area E are located within what has been classified as "Near Shore Sites" (Woodward-Clyde Consultants, Inc. 1981:4). Borings indicated that these areas had subsurface deposits of poorly compacted strata of fill, sand, and peat overlaying more firm glacial till. The loosely compacted soils are considered to be a problem for the construction of buildings, parking lots and roadways. The management of this problem (Woodward-Clyde Consultants, Inc. 1981:15-18) has been suggested by the engineers as follows:

1. Columns and walls should be supported by pilings to depths up to 15 feet.
2. Ground floor slabs for structures require the loosely compacted terrain should be located and treated. The plan calls for the identification of these soft areas proofrolling a fully loaded 10-wheel truck over the ground surface. Proofrolling requires the repeated passage of the truck systematically over to the area at close intervals until soft areas are identified. It was estimated that soft areas constituted 10 to 40 percent of the project area. Once identified, the unconsolidated soils and fill are to be excavated and replaced by compacted granular materials. Nominal depth of the excavation is four feet.

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3. Parking lots preparation duplicates the treatment described for ground floor slabs.

4. Roadway preparation calls for the excavation of fill materials to within one foot of the groundwater table. The fill is to be replaced by compacted materials.

Since all identified cultural resource sites are located within the Near Shore sites area, it can be assumed that construction has the potential of adversely impacting these cultural sites. Even in areas where previous land filling has occurred, e.g. O P/M&R Study area, there is the potential for adverse impact to the cultural resources. Fill in the M & R area and Whalen Trucking area is estimated not to exceed three feet. Below this is buried natural soil deposits.

The construction impact potential to the off-shore abandoned vessels has not been defined, except that dredging may be conducted in selected areas.

Recommendations

It is recommended that all sites considered to have cultural significance potential receive additional archaeological research, Phase II Surveys, if there is a danger of construction adverse impact. These cultural resource management recommendations are being made to evaluate the cultural resource significance for each site and determine their qualifications for nomination to the National Register of Historic Places.

A Phase II Survey achieves several research goals in the process of evaluating the site's cultural significance. First, the boundaries of the site are established, spatially. Second, the site's cultural record is investigated to establish its history and functional purpose. During these investigations the context of the cultural record is evaluated to determine the effect of any natural or man created disturbances. The site's data base is analyzed and interpreted to evaluate its cultural significance in reference to the criteria defined in 36 CFR 800.10.

Based on determinations of the Phase II Survey, recommendations are developed for the management of culturally significant sites that have the potential of being adversely impacted by proposed construction. These management recommendations are presented for review, alteration, and implementation.

Prior to the writing of this report, two Management Summary Reports (Appendix E) was prepared and submitted for consideration. The second report pertains to the additional field investigated performed in April, 1986. Originally, the Management Summary was prepared in lieu of the writing of a Phase I project report. Recommendations presented in the summary were reviewed by the client as well state and federal agencies charged with historic preservation responsibilities. In response, the New York State Office of Parks, Recreation and Historic Preservation reviewed, revised and provided cultural resource management procedures (Appendix E). Standing structures were determined to not be cultural significant and eligible for nomination to the National Register of

Historic Places. Phase II Surveys are requested "on all identified sites which will be impacted by the project." Later considerations resulted to the preparation of a Phase I project report.

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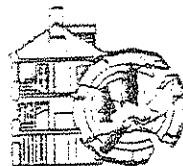
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Appendices



MAAR Associates, Inc.
Cultural Resource Consultants

APPENDIX A

Project Documents



PRINCETON AQUA SCIENCE

165 Fieldcrest Avenue • CN 7809 • Edison, New Jersey 08818-7809 • Telephone (201) 225-2000

May 3, 1985

Ronald A. Thomas
MAAR Associates, Inc.
P.O. Box 676
Newark, DE 19715

RE: Cultural Resources Reconnaissance
Howland Hook Marine Terminal Expansion Study Area
Staten Island, NY

Dear Mr. Thomas:

As discussed in our recent telephone conversation Princeton Aqua Science requests from you a proposal to prepare the Cultural Resources Reconnaissance for the Howland Hook Marine Terminal Expansion Study Area, I enclose a map showing the limits of this study area.

The Cultural Resources Reconnaissance should be performed in compliance with cultural resource regulations as required by NEPA for the preparation on an environmental impact statement and shall consist of the following:

- a. Documentary research, to ascertain the presence of, and potential for, cultural resources in the study area. Such resources might include subsurface prehistoric and historic sites, and above-ground historic sites or structures. Any offshore areas to be affected by the project should also be researched for the possibility of archaeological sites and shipwrecks. These offshore areas are contained within areas 2, 3 and 4 on the enclosed map.
- b. Field testing of the study area. This would include a walkover of the area and limited subsurface testing (e.g., shovel tests) of those portions of the study area that documentary research indicates might be sensitive for sites. Some testing should be done, if possible, in areas that are believed to be disturbed, simply to verify the disturbance.

Ronald A. Thomas
MAAR Associates, Inc.
May 3, 1985
Page 2.

- c. A report that summarizes the documentary research and the results of the field testing. Should any cultural resources be found during the reconnaissance, the report should describe them and make an assessment of their potential eligibility for the National Register of Historic Places. For any site that may be eligible for the National Register, the report should assess project impacts to the site, and ways in which these impacts might be avoided or mitigated.

Upon completion, this report will be reviewed by the U.S. Army Corps of Engineers, N.Y. District, and the staff of the New York State Historic Preservation Officer.

The New York City Landmarks Preservation Commission is well versed in the prehistory and history of Staten Island and acts as a liaison with the historical associations and the American Indian community on Staten Island. Dr. Sherene Baugher of the Landmarks Commission has indicated a willingness to coordinate with Princeton Aqua Science and our subcontractor in tracking down existing data and contacting the appropriate local authorities. Your proposal should include a meeting with Dr. Sherene Baugher, to discuss the cultural resources reconnaissance.

I enclose the following documents, which may assist you in developing your proposal:

1. Archaeological Sites - From "Preliminary EIS for the Coal Pipeline", June 1982.
2. "Archaeological Reconnaissance of the Foreign Trade Zone Project at Howland Hook, Staten Island, NY." August 1982.
3. "Report on Initial Subsurface Investigation and Preliminary Foundation Recommendations Planned Expansion Howland Hook Marine Terminal", April 1985.

Ronald A Thomas
MAAR Associates, Inc.
May 3, 1985
Page 3.

We require the report to be completed by June 15, 1985. We look forward to early receipt of your proposal.

Very truly yours,

PRINCETON AQUA SCIENCE



Amy Greene
Project Manager

AG:am

#1465

Encl.

ST. 13	0.0-0.7 0.7-3.0	Reddish brown sandy clay (A). Yellow brown silty sand.
ST. 14	0.0-0.8 0.8-1.8 1.8-2.8	Dark brown silty sand (A). Orange silty sand (A). Reddish sandy clay (A).
ST. 15	0.0-0.4 0.4-1.0 1.0-3.2	Mottled brown silty sand and red clay fill (A). Yellow brown sand (A). Fill with medium brown sand and rubble and brick (A).
ST. 16	0.0-0.7 0.7-1.5 1.5-2.0	Dark brown silty sand and trash (A). Yellow brown silty sand (A). Reddish clay with shale fragments.
ST. 17	0.0-0.3 0.3-1.0 1.0-1.1 1.1-2.5	Reddish brown sandy clay fill (A). Red clay fill (A). Yellow sand (A). Reddish brown clay (A).
ST. 18	0.0-1.0 1.0-1.7 1.7-3.4 3.4+	Mottled dark brown and strong brown sand fill (A). Dark brown sandy loam topsoil (A). Orange brown silty sand (A). Water table.
ST. 19	0.0-0.7 0.7-1.0 1.0-2.0 2.0+	Dark grey brown clayey silt. Black silty sand with organics. Medium Grey silty sand. Water table.
ST. 20	0.0-0.8 0.8-1.0 1.0-1.5 1.5-2.4 2.4-3.5	Reddish brown silty sand fill (A). Mottled yellow brown sandy clay fill (A). Light grey and black sand, possible dredge fill. Dark brown silty sand topsoil with stratum of charcoal at 2.0 feet (A). Orange and brown silty sand (A).
ST. 21	0.0-0.8 0.8-1.6 1.6+	Saturated orange silty sand. Silty sand. Water table.
ST. 22	0.0-1.2 1.2+	Light yellow sand. Water table.
ST. 23	0.0-0.9 0.9-2.9 2.9-3.1	Dark brown sand with trash fill (A). Orange brown sand. Dark brown sand with coal and rotted wood.
ST. 24	0.0-1.4	Dark brown sand with trash fill (A).
ST. 25	0.0-0.4 0.4-1.1 1.1-1.3	Red clay fill. Brown silty sand with trash fill (A). Red Clay.

ST. 26	0.0-0.4 0.4-1.2	Brown silty sand with trash (A). Red clay.
ST. 27	0.0-0.4 0.4-1.3 1.3-3.0	Dark brown silty sand. Light brown sand. Medium brown sand (A).
ST. 28	0.0-0.7 0.7-2.8	Grey brown silty sand (A). Orange sandy clay.
ST. 29	0.0-0.4 0.4-2.0 2.0+	Black sand and gravel fill (A). Orange sand. Water table.
ST. 30	0.0-0.4 0.4-3.3 3.3-3.5	Black sand and gravel fill. Orange sand. Mottled dark brown and orange sand.
ST. 31	0.0-1.8 1.8-2.2	Black sand and gravel with burned wood and possible chemical contamination. Light brown grey sand (A).
ST. 32	0.0-1.8 1.8-2.2	Dark brown sand and gravel with charcoal, fill (A). Shale lens at 0.6 feet. Grey brown sand (A).
ST. 33	0.0-1.2 1.2-1.9 1.9+	Black sand fill (A). Orange sand (A). Water table.
ST. 34	0.0-0.8 0.8-2.6 2.6 2.6-3.4	Dark brown sandy loam with trash (A). Brownish yellow sand (A). Water table. Grey sand.
ST. 35	0.0-0.3 0.3-0.7 0.7-1.2 1.2-2.2 2.2+	Dark brown humus. Yellow brown sandy loam. Dark brown silty sand (A). Orange brown sand (A). Water table.
ST. 36	0.0-1.4 1.4+	Dark brown sandy loam with trash (A). Water table.
ST. 37	0.0-0.7 0.7-1.6 1.6-2.1	Compacted clay and gravel fill (A). Grey crushed rock (A). Dark grey brown sand (A).
ST. 38	0.0-0.6 0.6-1.8	Reddish brown sandy clay (A). Grey brown silty sand with coal, fill (A).

ST. 39	0.0-0.3	Black silt and cobbles fill (A).
	0.3-0.9	Grey sand with cobbles fill.
	0.9-1.0	Crushed rock.
	1.0-2.0	Medium brown sand fill (A).
	2.0-3.0	Black silt with rotten wood, fill.
	3.0-3.5	Light brown silty sand (A).
ST. 40	0.0-0.4	Surface gravel with trash fill (A).
	0.4-0.6	Grey brown sand fill.
	0.6-1.0	Orange brown sand with rotten wood, fill (A).
	1.0-1.1	Burned layer.
	1.1-1.4	Orange brown sand fill (A).
	1.4-2.3	Black sandy and silty clay fill (A).
	2.3-2.6	Light grey brown sandy, silty clay.
	2.6+	Water table.
ST. 41	0.0-0.3	Crushed rock fill.
	0.3-4.3	Yellow brown silty sand fill with water table at 3.0 feet.
ST. 42	0.0-0.5	Brown sand with crushed stone fill (A).
	0.5-1.2	Yellow brown silty sand fill.
	1.2-2.8	Black sandy silt, dredge fill (A).
	2.8-3.1	Light brown sand.
ST. 43	0.0-0.7	Medium brown silty sand (A).
	0.7-2.0	Dark brown sand fill (A).
	2.0-3.1	Mottled brown and orange sand fill (A).
	3.1-4.4	Orange sand, wet.
ST. 44	0.0-0.4	Brown grey loam (A).
	0.4-0.8	Grey brown silty sand with red clay fill.
	0.8-1.0	Light brown and grey sand (A).
	1.0-1.8	Medium brown silty sand with red clay fill (A).
	1.8-2.8	Orange brown silty sand.

The Following Shovel Tests were excavated in Howland Hook Area 5.

ST. P1	0.0-0.5	Dark brown loam (A).
	0.5-1.3	Dark red clay (A).
ST. P2	0.0-0.4	Brown sandy loam (A).
	0.4-1.5	Orange silty sand.
ST. P3	0.0-0.5	Dark brown sand (A).
	0.5-1.5	Orange and tan sand.
ST. P4	0.0-0.1	Dark brown humus (A).
	0.1-1.1	Dark reddish brown clay.
ST. P5	0.0-0.2	Dark brown humus with ash (A).
	0.2-0.9	Grey coal ash.
ST. P6	0.0-0.9	Grey coal ash (A).
	0.9-1.5	Trash fill.

DRAFT

ST. P7	0.0-0.9	Grey coal ash and slag (A).
ST. P8	0.0-0.1 0.1-1.5	Brown humus with ash (A). Grey coal ash.
ST. P9	0.0-0.1 0.1-1.0	Dark brown loam with ash. Coal ash.
ST. P10	0.0-0.4 0.4-2.0 2.0-2.7	Orange sand (A). Medium orange sand. Light orange sand, compacted.
ST. P11	0.0-0.5 0.5-2.3 2.3-2.8	Orange sand (A). Medium orange sand. Light orange sand, compacted.
ST. P12	0.0-0.3 0.3-1.5 1.5-1.9 1.9-2.3	Dark brown sandy loam (A). Red clay (A). Dark orange sand. Red clay.
ST. P13	0.0-0.9	Red clay.
ST. P14	0.0-1.0 1.0-1.5	Dark brown sand fill. Red clay with pebbles.
ST. H1	0.0-0.5 0.5-2.1 2.1+	Dark grey silty sand. Red brown sand with cobbles and bricks (A). Red sand with water table.
ST. H2	0.0-0.5 0.5-1.0 1.0-1.5	Dark brown loam. Red brown sand with cobble and bricks (A). Red sand with water table.
ST. H3	0.0-0.2 0.2-1.2 1.2-1.9	Dark Grey sand. Grey ash and clinkers (A). Reddish brown sand with water table.
ST. H4	0.0-0.2 0.2-2.5 2.5+	Dark grey sand. Light grey ash and clinkers (A). Reddish brown sand with water table.
ST. H5	0.0-0.1 0.1-0.9 0.9-2.7	Medium brown loam. Grey sand with ash (A). Reddish brown sand with water table at 2.0 feet (A).
ST. H6	0.0-0.4 0.4-1.8 1.8-2.0	Dark brown loam. Reddish brown sand. Yellow sand.
ST. H7	0.0-0.7 0.7-0.9 0.9-1.5	Medium brown loam (A). Red clay. Light brown sand.

ST. HB	0.0-0.6	Medium brown loam.
	0.6-0.9	Red clay.
	0.9-1.6	Light brown clay.

Notes: Use of term, trash, refers to modern urban refuse dumped on site.
(A) denotes the recovery of cultural materials.

APPENDIX D

Artifact Inventory

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ARTIFACT INVENTORY

SITE: Staten Island

MAAR CODE: NY-1

RECORDER: Martha Schiek

DATE: Nov. 1985

<u>Cat.</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>		
1	ST. 6/0-.5'	1	Earthenware, blue transfer print.		
		1	Whiteware sherd.		
		1	Redware, lead glazed.		
		1	Bottle base frag., machine made.		
		2	Bottle body frag., machine made.		
		32	Bottle body frags.		
		1	Bottle lip frags., hand finished.		
		1	Bottle body frag., embossed pattern, Nehi bottle.		
		1	Glass container frag., molded pattern.		
		17	Window glass frag.		
		5	Safety glass frags.		
		1	Window glass frag., lumpy finish.		
		1	Button, plastic, four hole.		
		1	Wire nail.		
		2	Cut nails.		
		1	Iron disc frag.		
		1	Flake, secondary, quartzite.		
		2	RT/AS Surface	31	Porcelain, 1 overglazed.
				1	Whiteware, overglazed.
				11	Whiteware sherd.
5	Earthenware, painted, unglazed.				
2	Earthenware frag.				
2	Redware, unglazed.				
1	Bottle base frag., embossed.				
5	Bottle body frag.				
2	Window glass frag.				
1	Cut nail frag.				
1	Bolt frag.				
5	Porcelain plumbing fixture frag.				
1	Porcelain insulator frag.				
1	Ceramic tile.				
1	Plastic tube.				
1	Plastic container frag.				
1	Brick, machine molded.				
1	Flake, decortication, flint.				
1	Flake, quartz, bifacially worked.				
1	Fine cracked rock.				
3	RT/AS W of ST 6 Surface	1	Porcelain.		
		1	Earthenware frag.		
		5	Earthenware, painted, unglazed.		
		2	Ceramic frag.		
		1	Bottle body frag.		

		1	Glass frag.
		1	Coin, silver 1904 Liberty head dime, U.S.A.
		1	Cupreous alloy, cast part.
		1	Drill tip, ferruginous quartzite.
		1	Pebble core, quartzite.
4	ST 6/.5-.9'	3	Whiteware, blue transfer print.
		1	Whiteware, stenciled, polychrome.
		3	Whiteware sherd.
		1	Redware, partially glazed.
		2	Redware flower pot frag.
		3	Bottle body frags.
		1	Security window glass frag.
		1	Window glass frag.
		4	Unid. lumps of iron.
		10	Unid.
5	ST 6/.9-1.3'	3	Whiteware sherd.
		1	Unid. frag.
		1	Oyster shell frag.
6	ST 6/1.3-1.7	2	Blue transfer print whiteware
		1	Whiteware
		1	Window glass frag.
7	ST 7/0-.5'	1	Whiteware, blue edge decorated.
		3	Whiteware sherds.
		1	Porcelain, overglaze painted.
		1	Glass goblet base frag.
		1	Bottle lip frag., crown type.
		1	Bottle lip frag., screw top.
		34	Bottle body frags.
		17	Window glass frags.
		2	Wire nails.
		1	Bolt with nut and washer.
		1	Wire frag.
		2	Unid. lumps of iron.
		1	Composition material, impressed.
		1	Chert, projectile point basal frag. Bare Island-like.
		1	Poss. flake, quartzite.
8	RT/AG/ST 7 .3-.2'	2	Whiteware, blue transfer print.
		1	Bottle body frag.
		4	Lumps iron.
		1	Bifacially worked pre form.
		1	Flake, secondary, brown jasper.
		1	Flake, finishing, jasper.
9	RT/AG/ST 5 .9-1.3'	1	Whiteware, blue transfer print.
		1	Whiteware sherd.
		1	Stoneware, salt glaze.
		1	Bone frag., unid.

10	RT/A3/ST 8 0-.4'	1	Wire nail.
		1	Flake, secondary, quartzite.
11	RT/A3/ST 9 0-.8	3	Bottle body frag.
		3	Window glass frags.
		1	Porcelain, electrical insulator.
		1	Wrought nail frag.
		1	Cupreous alloy ring.
		1	Brass door lock, embossed.
		1	Cupreous alloy strip.
12	RT/A3/ST 9 .8-1.2'	2	Bottle body frags.
		26	Window glass frag.
		3	Wire nails.
		1	Screw.
		1	White clay tobacco pipe stem, 5/64" bone dia.
13	RT/A3/ST 9 1.2'-1.5'	1	Whiteware sherd.
		1	Bottle body frag. molded.
		13	Window glass frags.
		2	Porcelain, electrical insulator frag.
		5	Wire nails frags.
14	RT/A3/ST 9 1.5-1.9'	2	Whiteware sherds.
		1	Redware frag.
15	RT/A3/ST 10	1	Glass frag., molded, red frosted.
		2	Porcelain insulator frags.
16	ST 10/0.5'- 0.8'	2	Clear glass bottle frags.
17	RT/A3/ST 11 0.0'-0.4'	1	Porcelain frag.
		1	Ironstone frag.
		5	Whiteware sherds.
		1	Porcelain, bisque, painted, poss. clay frag.
		13	Bottle body frag.
		1	Window glass frag.
		3	Cut nail frags.
		1	Rivet.
		2	Bone frags. unid.
		1	Walnut shell frag.
18	RT/A3/ST 11 0.4'-0.8'	1	Whiteware frag., blue decoration.
		4	Whiteware sherd.
		7	Bottle body frags.
		1	Cut nail frag.
		1	Cut spike frag.
		8	Bone frags., unid.
1	Flake, secondary, flint.		

19	RT/A3/ST 11 0.8'-1.6'	1	Glass frag., enameled.
20	RT/A2 Surface	8	Porcelain.
		1	Porcelain window glaze blue, poss. painted.
		1	Porcelain, overglaze painted.
		2	Whiteware, blue transfer printed.
		1	Whiteware, hand painted.
		1	Whiteware, green transfer printed.
		1	Whiteware, over and underglaze transfer printed.
		1	Whiteware flow blue.
		1	Ironstone.
		32	Whiteware sherds.
		1	Yellowware.
		1	Stoneware, grey glazed.
		1	Stoneware.
		2	Bottle body frags.
		2	Glass frags.
		1	Bottle body frag.
		2	Window glass frags.
2	White clay tobacco pipe stem frags. 4/64" bore dia.		
21	RT/A2/ST 12 0-.4'	1	Porcelain, molded pattern.
		1	Bottle body frag.
		1	Iron rod.
		1	Sheet iron frag.
22	R2/ST 12 .4-1'	1	Stoneware, white slipped.
		1	Bottle body frag.
23	RT 2/ST 13 0-.7'	1	Bottle body frag.
24	RT/ST 14 0-.8'	2	Whiteware sherds.
		1	Redware, lead glazed.
		4	Bottle body frags.
		2	Wire nails
		1	Cut nails frag.
		2	Window glass frags.
25	RT/ST 14 .8-1.3'	1	Whiteware sherd.
		4	Bottle body frags.
		3	Bottle body frags.
		1	Window glass frag.
		2	Wire nail frags.
26	RT/ST 14 1.8-2'	1	Whiteware sherd.
		1	Window glass frag.
		1	Wire nail.
27	RT 4/ST 14 2.2-2.5'	1	Redware basal base frag. Isaac glazed.

DARK BROWN SALTY SAND
[A]

ORANGE SALTY SAND
[A?]

Reddish
Sandy
CLAY
A B 7

✓ 28	RT 4/ST 14 2.3-3'	1 1 2 5 2 1 1 3	✓ Porcelain, over glaze. ✓ Tin glazed earthenware. Whiteware sherd. Redware, glazed. Redware. Bottle body frag. Bone frag., rib. Iron strip frags.
	<i>Reddish Sturdy Clay [A]</i>		
✓ 29	RT 4/ST 15 0-.4'	1	Glass frag.
	<i>Mottled Brown Slurry Sand AND Red Clay Fill A[3]</i>		
✓ 30	RT 4/ST 15 .4-1'	2 6 1 1 1 1	Bottle body frags. Window glass frags. Lump iron. Wire frag. Flake, secondary jasper. Flake, secondary, thermally altered jasper.
	<i>Yellow Brown Sand</i>		
✓ 31	RT 4/ST 15 1-3.3'	41 3 4 1 3 1 7 5 4 2 2 2 2 2	Porcelain. Porcelain, underglaze painted. Whiteware sherd. Bottle body frag. Bottle body frags. Glass lamp chimney frag. Glass lamp shade frags. Window glass frags., 1 molded pattern. Porcelain insulator frag. Wire nail frags. Nail frags. Bone frags., unid. Coconut shell frag.
	<i>Fill WITH MEDIUM Brown Sand AND Rubber and Bruch</i>		
32	Beach S of W Inlet	1	Bottle base, free blown, glass pontil, high narrow kick.
33	RT 3/ST 16 0-1'	1 1 2 1 23	Whiteware sherd. Whiteware, green transfer printed. Whiteware sherds. Bottle, machine made. Bottle body frags.
34	RT 3/ST 16 1.-1.5'	2 1 1	Bottle body frags. Window glass frag. Ferrous alloy disc.
35	RT 2/ST 17	21 1	Safety glass frags. Aluminum disc.
36	RT 3/ST 17 0.3-2.5'	3 1 1 3	Whiteware sherds. Bottle body frag. Window glass frags.

DRAFT

37	Old Place Surface	1	Whiteware sherd.
		1	Flake, secondary, thermally altered jasper.
		3	Flakes, secondary, chert.
		1	Flake, decortication, quartzite.
		1	Flake, decortication, argilite.
38	Old Place Disturbed Area Surface	1	Iron stone, black transfer printed, overglaze painted.
		1	Porcelain, overglaze painted.
		2	Redware, glazed tea pot lid.
		2	Redware, unglazed.
		2	Glass goblet foot, fire blown.
		1	Bottle lip and neck frag., hand finished lip.
		10	Bottle body frags.
		1	Glass lamp shade frag.
		1	Porcelain, bisque, figurine frag., hand painted.
		1	End scraper, flint.
		1	Flake, argilite, poss. utilized.
		1	Nutting stone frag.
39	Area B/ST 18 0-.5	1	Redware, lead glazed.
		1	Earthenware tile frag.
		1	Bottle frag. machine made.
		1	Flake, quartz.
		1	Flake, secondary, flint.
40	Old Place ST 18 .5-.95	1	Nail frag.
		1	Flake, thinning, thermally altered jasper.
		1	Flake, thinning, Onondaga chert.
41	Old Place ST 18 31 .95-1.35'	1	Whiteware sherd.
		2	Window glass frags.
		1	Flake, flint.
		2	Flakes, secondary, chert.
42	Old Place ST 18 82 1.35-1.7'	1	Bottle body frag.
		1	Window glass frag.
		1	Flake, secondary, jasper.
		2	Flakes, thinning, chert.
		1	Fire cracked rock.
43	Old Place ST 18 1.7-2.1'	1	Flake, jasper.
		1	Flake, chert.
		1	Flake secondary, chert.
44	Old Place ST 18 2.1-2.8'		No Artifacts

45	Old Place ST 18 2.8-3.2'	1	Flake, flint.
46	Old Place ST 20 0-.5'	1	Ironstone.
		1	Earthenware, grey, salt glazed.
		1	Bottle body frag.
		1	Glass drawer pull frag.
		8	Window glass frag.
47	Old Place ST 20 .5-.8	1	Bottle body frag.
		1	Window glass frag.
48	Old Place ST 20 1.5-1.9'	2	Porcelain, molded pattern.
		3	Whiteware sherd.
		1	Stoneware, red body, white interior glaze.
		2	Bottle lip and neck frag. applied lip.
		1	Bottle base frag. machine made.
		3	Bottle body frag.
		1	Glass lid liner frag.
		1	Porcelain, bathroom fixture frag.
		1	Button, plastic, 2 hole.
		6	Window glass frags., 1 molded pattern.
		1	Ceramic building tile frag.
		1	Flake, secondary, flint.
		49	Old Place ST 20 1.9-2.4'
1	Poss. refined earthenware frag. unglazed.		
3	Redware frags.		
6	Glass frags.		
1	Glass frag.		
1	Glass frag., machine made.		
1	Milkglass sherd.		
1	Shell-oyster-frag.		
2	Bone.		
1	Window glass.		
1	Window glass (stained glass).		
3	Brick frags.		
2	Red shale.		
2	Grey slate.		
5	Coal frags (clinker).		
50	Old Place ST 20 2.4-3.0	1	Fire cracked rock.
51	ST. 20 3.0-3.5	2	Fire cracked rock, 1 lump coal
52	RT 1/ST 23	1	Bottle frag.
		1	Window glass frag.
		1	Brick or redware frag.

53	RT 2/ST 24 0.4-0.8'	1	Stone, limestone.
54	RT 4/ST 25 Lev 2/0.4-1.1'	1	Bottle glass.
		1	Iron rod frag.
		9	Window glass frags.
55	RT 4/ST 26 0-0.4'	1	Bone frag.
		1	Spike.
56	W.J. Halsey House Locus 6 House Area Surface	2	Porcelain frags.
		1	Pearlware frag.
		2	Whiteware, transfer printed, Staffordshire Delo. 1 frag. Poss. teapot, flo-blue.
		4	Whiteware, rimsherds.
		1	Ironstone, rim/body, coffee cup.
		2	Stoneware.
		2	Bottle frags.
		1	Jar lid frag, zinc mason jar lid insert.
		1	Spike, square x section.
		1	Terra cotta pipe frag. 4-6" Dia.
		1	Kaolin pipe bowl frag.
1	Brick.		
57	W.J. Halsey House Locus 6 Old Place ST 27 0.4-1.3'	1	Whiteware sherd.
		3	Bottle frags., screw top.
		1	Bottle, machine made.
		1	Bottle, prob. beer, machine made.
		1	Bone.
		1	Bone.
		4	Window glass.
		1	Nail Poss. wire frag.
		3	Tile paving and poss. hall tile.
		1	Mortar frag.
		1	Plaster.
1	Brick/plaster frag.		
3	Iron frags.		
58	W.J. Halsey House Locus 6 Old Place ST 27 1.3-3.0/Lev 3	1	Porcelain frag.
		1	Redware, slip decorated frag.
		1	Stoneware frag.
		1	Bottle frag.
		1	Bottle frag.
		1	Window glass.
		1	Nail poss. wire.
		2	Thumbtack, 3/4" Drainage pipe, earthenware.
59	W.J. Halsey House Locus 6 Old Place ST 28 0-0.4'	1	Porcelain frag.
		1	Whiteware sherd.
		1	Bottle frag.
		1	Bottle frag.
		1	Window glass.

		1	Nail frag.
		1	Clinker.
60	W.J. Halsey House	1	Bottle frag.
	Locus 6	4	Window glass.
	Old Place ST 28	1	Brick frag.
	0.4-0.7'	1	Coal frag.
61	Kinney Property	4	Bottle frag.
	ST 29; Lev 1		
62	ST 29; Lev 2	1	Milk glass frag.
63	ST 31; Lev 2		No Artifacts
64	Kinney House	2	Window glass.
	ST 32 0-0.6'		
65	Kinney Property	4	Bottle frags., hand blown.
	ST 32/0.6-1.8'	4	Window glass.
		1	Nail 1&A wire.
		1	Brick frag.
66	Kinney Property	1	Whiteware base frag.
	Tran B/ST 33	3	Bottle body frags.
	0-0.6'	2	Bottle body frags.
		1	Bottle base frag. Prob. beer bottle.
		4	Window glass frags.
		1	Cut nail.
		1	Mortar frag.
		1	Chimney flue tile.
		1	Brick frag.
		1	Button, silver/chrome plated.
			Floral pattern.
		2	Coal frags.
		2	Safety glass frags.
67	Kinney Property	1	Whiteware, base frag.
	ST 33/0-0.6'	1	Whiteware frag.
		5	Bottle body frags.
		1	Bottle body beer bottle.
		1	Bone.
		3	Window glass.
		1	Window glass, bluish stained glass.
		1	Nail, cut frag.
		1	Brick.
		1	Steel/tin frag., poss. jar lid.
		1	Bakelite frag., poss. lid or cap.
		1	Clinker.
68	ST 33/1.2-1.6 Ft	1	Green bottle frag.
		1	Clear bottle frag.

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		1	Amber bottle frag.
		1	Mortar sample.
		1	Lump coal.
69	Kinney Property	1	Bottle frag., prob. soda bottle.
	ST 33/1.6-1.9'	1	Coal.

<u>Cat.</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>		
70	Kinney Property ST 34/0-0.6	1	Porcelain burned.		
		12	Bottle frags.		
		8	Window glass.		
		3	Nails, cut.		
		2	Nails, wire.		
		1	Asbestos shingle.		
		1	Tile, frag. tan. stoneware with white glaze.		
		1	Mirror frag.		
		1	Safety glass.		
		71	Kinney Property ST 34/0.6-2.6	2	Wire frags - poss. bed springs.
72	Kinney House ST 35/Lev 3	1	Porcelain frag.		
		1	Whiteware sherd.		
		1	Stoneware.		
		51	Bottle frags.		
		1	Bottle body frag. prob. beer.		
		2	Window glass.		
		1	Window glass, stained.		
		1	Kaolin pipe stem frag.		
73	Kinney House ST 35/Lev 4	9	Bottle frags.		
		1	Window glass.		
74	Kinney House ST 36/0-1.35	1	Porcelain frag.		
		2	Whiteware frags., under glaze.		
		1	Stoneware frag.		
		5	Bottle body frags.		
		1	Whisky flask frag.		
		5	Nail frags., 4 cut, one wire 16d.		
		1	Red earthenware, flower pot frag.		
75	Kinney House ST 37/0-0.7'	3	Bottle body frags.		
		1	Window glass.		
		1	Cut nail.		
		1	Brick.		
		1	Cinder block frag.		
		2	Coal.		
		1	Coal ash.		
76	Kinney House ST 37/0-0.7'	1	Ironstone frag.		
77	Kinney Property ST 37/1.5'2.1	3	Bottle frags.		
		1	Oyster shell.		
		1	Window glass.		
		1	Spike.		
		1	Brick or flue tile.		
		1	Red earthenware, flower pot frag.		

78	Kinney Property ST 38/0-0.6'	3	Window glass.
		1	Tile poss. delft.
		1	Tile, porcelain, hexagonal.
79	Kinney Property ST 38/0.6-2.8	1	Whiteware-blue willow pattern.
		7	Container glass.
		1	Tin can base.
		1	Oyster shell frag.
		6	Window glass.
		7	Nails wire, 1 galvanized wire.
		1	Flue tile/pipe frag.
		1	Lighting device.
		1	Button, plastic 3/4" dia.
		1	Coal frag.
1	Plastic army soldier miniature.		
80	Kinney Property ST 39/0-1.0 L-1	1	Bottle body prob. beer bottle.
		1	Oyster shell frag.
		1	Window glass.
		2	Window glass, steel wire mesh/screening reinforced.
81	Kinney Property ST 39/2.0-3.0'	5	Whiteware frags.
		5	Bottle body frags.
		1	Oyster shell frag.
		5	Window glass.
		1	Brick frag.
		1	Porcelain frag.
		3	Button porcelain.
1	Coal.		
82	Kinney House ST 39/3.0-3.5'	1	Whiteware body.
		1	Bottle frag., molded threading.
		1	Shell, oyster.
		1	Tapered metal rod.
		3	Tile frags.
83	Kinney Property ST 40/0-0.4'	3	Bottle body frags.
		3	Nails, 2 cut frags. 1 wire 16d.
		1	Brick frag.
84	Kinney Property ST 40/0.4-1	1	Bottle frag.
		2	Window glass.
		4	Nails, 2 wire 16d. 2 cut.
		1	Handle wire for trash cans or tubs.
		2	Safety glass.
85	Kinney Property ST 40/1.1.4	1	Ironstone basal sherd.
		2	Bottle frags.
		2	Bone.
		1	Window glass.
		2	Nails cut, 16d.
		1	Mortar frag.
		1	Coal frag.
		1	Coal frag.

86	Kinney Property ST 40/1.4-2.3	2 1 1	Bottle frags. 33 Caliber bullet. Brick frag.
87	Kinney Property ST 42/0-0.5'	1	Ironstone rimsherd.
88	Kinney Property ST 42/1.2-2.8	7 6 8 1 1 11	Ironstone sherds, 2 rimsherds, 5 body sherds. Bottle frags. Window glass frags. Brick frag. Plastic item, poss. trigger or wall fixture. Glass frags, melted.
89	W.J. Halsey House Locus 6 ST 43/0-.7'	2 12 1 1 1 7 1 1 1 1	Whiteware frags. Bottle glass frags. Bottle glass frag. with cut design, poss. decanter. Glass rim frag., opalescent; plub. mason jar lid iner. Animal one Window glass. Steel junction box cover. Light bulb frag. Melted glass frag. Coal frag.
90	W.J. Halsey House Locus 6 ST 43/0.7-2.0'	4 2 10 6 1	Porcelain frags. Whiteware frags. Bottle glass frags, one embossed. Window glass frags. Glass frag., frosted, prob. lamp chimney frag.
91	W.J. Halsey House Locus 6 ST 43/2.0-3.1'	5 1 3 1 20 4 1 1 1 1 1	Whiteware sherds. Redware sherds, manganese glazed. Stoneware sherds. Stoneware sherd, salt-glazed on base. Bottle frags. 1 handblown with molded screw-top lid. Window glass frags. Wire nail or spike. Coal frag. Enamelled steel frag. Red earthenware flower pot sherd. Melted glass frag.
92	RT/A3 ST44/0-0.4'	2	Bottle frags.

93	RT/A3 ST 44/B-1.0'	1	Whiteware basal sherd.
		1	Window glass frag.
		1	Light bulb frag.
94	RT/A3 ST 44/1.0-1.8'	1	Nail, cut.
95	Downey Shipyard Surface	1	Iron spike, 5 1/2"
96	RT/A5 ST H-1/.5-2.1	1	Underglazed blue porcelain, handpainted.
		1	Overglazed reddish-gold porcelain.
		6	Ironstone frags 1860+
		2	Milk glass frags.
		16	Clear glass bottle frags.
		4	Amber glass bottle frags.
		4	Window glass frags.
		3	Nails
97	RT/A5 ST H-2/Str B	1	Ironstone sherd.
		1	Green Glass Frag.
98	RT/A5 ST H-3/Str B 0.2'-1.2'	1	Ironstone sherd 1860+.
		2	Aqua bottle frags.
		10	Clear bottle frags.
		3	Green bottle frags.
		1	Green bottle neck frag. mod.
		1	Platic container frag.
		1	Milk glass frag.
		1	Grey stoneware sherd; brown glaze exterior.
99	RT/A5 ST H-4/Str B 0.2-2.5'	1	Rim decorated whiteware.
		13	Sherds common whiteware.
		2	Semi porcelain sherd with polychrome floral transfer print decoration 1929.
		4	Overglaze porcelain; modern.
		1	Plain porcelain modern.
		4	Refined earthenware polychrome decoration.
		1	Pink depression glass sherd.
		7	Green bottle frags.
		6	Beer bottle frags.
		58	Clear bottle frags.
		1	Clear bottle base 1890-1913.
		3	Milkglass frags.
		2	Ironstone cracked rock or jar frags.
2	Grey stoneware sherds.		
7	Window glass frags.		
3	Nail frags.		

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100

RT/A5
ST H/Str B
No Depth Given

1 Blue transfer printed refined earthenware.
1 Underglazed blue porcelain modern.
1 Overglazed porcelain sherd "Made in Germany".
3 Plain Porcelain.
1 Iridescent purple underglazed porcela.
1 Plain whiteware sherd.
2 Common Whiteware.
1 Annular decorated cream bodied semi-porcelain, utilim grade-modern.
1 Milkglass frag.
1 Aqua glass frag.
21 Clear glass frags.
4 Amber glass frags.
2 Green glass frags.
1 Clear pressed glass frag.
1 Glass clorox bottle frag. neck portion brown.
1 Clam shell frag.

101

RT/A5
ST H-6/Str C
0.9-2.9'

4 Clear glass bottle frags.
1 Green glass bottle frag.
1 Window glass frag.
1 Lump coal.

102

RT/A5
Str A/0.0-0.4'

1 Transfer print, blue oriental motif porcelain.
2 Plain porcelain.
1 Semi porcelain frag. rim decorated.
5 Transfer printed whiteware.
1 Green transfer printed whiteware "Nivals" frag. of makers mark.
1 Ironstone plate frag.
1 Refined earthenware creambodied, utility grade.
2 RBE frags. clear glazed.
2 Milkglass.
4 Amber glass bottle frags.
1 Aqua glass bottle frag.
1 Blue glass bottle frag.
2 Clear glass bottle necks.
31 Clear glass bottle necks.
10 Charred glass frags.
1 Ceramic button half.
2 Nails.
1 Metal ring.

103

RT/A5
ST P-1/Str B
0.4-1.5'

2 Ironstone sherd.
1 Plain RBE frag.
1 Blue glass bottle frag.
2 Green glass bottle frag.
1 Amber glass bottle frag.
1 Burned glass bottle frag.

		4	Badly burned glass frags.
		10	Clear glass bottle frags.
		1	Aggie shooter.
104	RT/A5	1	Ironstone frag.
	ST P-2/Str A	2	Pressed glass frags.
	0.0-0.4'	12	Clear glass bottle frags.
		1	Green glass bottle frag.
		1	Amber bottle neck, molded medicinal.
		1	Aqua glass bottle base.
		1	Milk glass bottle base.
		1	Burned glass frag.
		1	Bisque baby doll hand; miniature.
		1	Metal buckle.
		4	Window glass frags.
		2	Nails.
		1	Alloy handle.
		1	L bracket
		1	Sewer pipe frag; ceramic.
105	RT/A5	3	Rocks discarded
	ST P-3/Str A		No artifacts
	0.0-0.5'		
106	RT/A5	4	Red sandstone (Poss.) flakes.
	ST P-4/Str A		
	0.0-0.1'		
107	RT/A5	2	Ironstone frags.
	ST P-5/Str A	4	Clear glass bottle frags.
	0.0-0.2'	1	Green glass bottle frag.
		1	Amber glass bottle frag.
108	RT/A5	1	Modern clear glass bottle neck.
	ST P-6/Str A	3	Clear glass bottle frags.
	0.0-0.9'	1	Blue glass bottle frag.
		1	Flower pot frag, RBE.
109	RT/A5	2	Ironstone sherds.
	ST P-7/Str A	1	Clear bottle glass frag.
	0.0-0.9'	1	Ceramic wire insulator.
		1	Metal gauge; prob. pressure gauge from boiler.
110	RT/A5	2	Rim frags., transfer printed semi porcelain.
	ST P-8/Str A	1	Ironstone frag.
		1	Ironstone teacup handle frag.
		1	Ironstone sherd.
		1	Milkglass sherd.
		1	Pressed glass bottle frag., sheaf of wheat design.
		1	Mason Jar frag.
		2	Clear glass bottle bases.
		1	Clear glass bottle neck.

		1	Clear glass bottle frag.
		1	Amber glass frag.
		2	Green glass frags.
		2	Blue glass bottle frags.
		1	Grey stoneware; brown glazed interior.
		1	Metal strap.
111	RT/A5	1	Plain porcelain saucer base.
	ST P-9/Str A	1	Clear textured bottle glass.
	0.0-0.1'	4	Clear glass bottle frags.
		2	Blue glass bottle frags.
		1	Aqua glass bottle frag.
		7	Thick walled glass bottle frags.
112	RT/A5	1	RBE base; lead glaze frag.
	ST H-7/Str A	5	Aqua glass bottle frags.
	0.0-0.7'	1	Metal spoon type tea infuser frag.
113	RT/A5	1	Porcelain molded rim sherd C. 1880.
	ST P-11/Str A	8	Clear glass bottle frags.
	0.0-0.5'	1	Brick frag.
114	RT/A5	1	Ironstone
	ST P-12/Str A & B	4	Clear bottle frags.
	0.0-1.5'	1	Amber bottle frag.
		5	Burned glass frags.
		1	Nail.
		1	Shale flake.

APPENDIX E

Management Summaries

NEW YORK STATE
Lahman
Commissioner

DRAFT

March 20, 1986

Dr. Jan Ferguson
US Army Corps of Engineers
NY District
Planning Division, Environmental Analysis
Bureau
26 Federal Plaza
New York, NY 10007

Dear Dr. Ferguson:

Re: CORPS
Howland Hook Marine Terminal Expansion
Staten Island, Richmond County

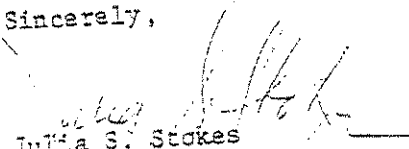
We have received additional information on the above referenced project from MAAR Associates, Inc. It has been reviewed in accordance with the Advisory Council on Historic Preservation's regulations, 36 CFR 800.

Based upon this review, it is the opinion of the State Historic Preservation Officer (SHPO) that the project as proposed will have no effect upon structures either listed on or eligible for the National Register of Historic Places. (See attached sheet #109).

With regard to archeology, and the Management Summary Report of December 1985 (MAAR Associates), Stage II archeological investigation is recommended on all identified sites which will be impacted by the project.

If you have any questions, please contact Rebecca Harrison at 518:474-3176.

Sincerely,


Julia S. Stokes
Deputy Commissioner for
Historic Preservation

bb

attachment

cc R. Thomas

APPENDIX B

Qualifications of Investigators

RESUME

Ronald A. Thomas
2608 Stephenson Drive
Wilmington, Delaware 19808

RES: (302) 999-1197
SS#: 165-32-2948

Membership/
Offices: Eastern States Archeological Federation,
Recording Secretary 1969-74
President 1976-78
Middle Atlantic Archaeological Conference,
Editor 1972-73
Delaware Review Board 1977-81,
Member 1986
Society of Professional
Archaeologists (S.O.P.A.) 1977-85
Archaeological Society of Delaware,
Editor & Membership Chairman 1978-82
Delaware Academy of Science,
President 1981-82
Environmental Advisory 1985
Service, Inc., Founding Member

EDUCATION: Uniontown, PA High School 1958
Penn State University, 1962
(B.A.) Anthropology
University of Arkansas, 1964
(M.A.) Anthropology
University of Pittsburgh 1969
(Ph.D. Candidate)
Temple University 1978/85
(Ph.D. Candidate)

EXPERIENCE:

1962-1964 University of Arkansas, Research Assistant.
1963 University of Pittsburgh, Instructor.
1965-1977 Division of Historical and Cultural Affairs,
State of Delaware, State Archaeologist and
Archaeology Supervisor.
1967-1979 University of Delaware, Department of
Anthropology, Instructor and Adjunct Assistant
Professor.
1978-1980 DeLeuw, Cather/Parsons, Amtrak Northeast
Corridor Project, Senior Archaeologist.
1977-Present MAAR Associates, Inc. (Formerly Mid-Atlantic
Archaeological Research, Inc.), Newark, DE,
President and Principal Investigator.

SELECTED CULTURAL RESOURCE INVESTIGATIONS:

In the Caribbean

- 1983 Mangrove Lagoon/Turpentine Run Phase IA and
& 1985 IB, St. Thomas, U.S.V.I. Environmental Protection
Agency.
1985 Cruz Bay, Stage IA Survey, St. John, U.S.V.I.
1985 Culebra Stage IA and IB Survey, Puerto Rico.

In Delaware

- 1977 Kent County Administration Building, Dover,
DE: 18th century domicile, salvage excavation.
1979 Wilmington Boulevard Survey, Wilmington, DE:
Intensive survey of six city blocks for
Delaware DOT project.
1980 Delaware Park Site, Newark, DE: Extensive
data recovery of prehistoric site.
1983 Lewes Field II, Sussex County, DE: Data
recovery of 18th century farmstead.

In Maryland

- 1977 Molloy House Investigations, Kent County, MD:
Excavations around standing-18th century
structure in Chestertown, MD.
1977 Susquehanna Museum Excavations, Harford County,
MD: Excavations around Canal Lock House of
Susquehanna Canal in Havre de Grace.
1979 Hampton Mansion Excavations, Baltimore County,
MD: Excavations of front porch area at
Hampton Mansion National Park, Towson, MD.
1981 St. Clement Shores II, St. Mary's County, MD:
Data recovery operations of 18th century
"earth fast" house.
1982 Granite Factory Site: Excavations at mid-19th
century textile mill on Patapsco River,
Baltimore County, MD.
1983 Wallace Carter Mill Complex, Cecil County, MD:
Extensive excavations.
1985 Buck House Restoration Project, Upper Marlboro,
MD.
1986 MD-SHA Professional Services Contract-Statewide.

In New Jersey

- 1979 Gloucester County Highway Surveys, Phase I and II.
& 1980
1983 Gloucester City Senior Citizens Housing
Project, Gloucester, NJ: 17th and 18th
century domestic occupations along Delaware
River.
1983 Carino Park Elderly Housing Project,
Williamstown Glass Factory, Monroe Township,

- NJ: Salvage investigations.
1985 State IA, IB and II investigations for Burlington County Solid Waste Management Project.

In New York

- 1985 Phase II investigations at Howland Hook Marine Terminal, Staten Island.

In North Carolina

- 1983 Cultural Resource Investigations at Orange Factory, Lipscomb's Mill, and Johnston's Mill, Durham County, NC: Data Recovery operations of three mill complexes.
1985/86 Continuing archaeological investigations at federally licensed and funded projects of the Wilmington District, North Carolina and Virginia, as notified by the U.S Army Corps of Engineers, Wilmington, NC.

In Pennsylvania

- 1977 Pennsylvania Historical & Museum Commission Property Survey of all historic properties throughout the Commonwealth of Pennsylvania.
1978 Transco Energy Company Survey, Delaware County, PA.
1985 Bakers Bay Retirement Center, Phase I & II, Philadelphia County, PA.

In South Carolina

- 1985 U.S. Route 221 Relocation, City of Laurens, Laurens County, SC.

In Tennessee

- 1985 Tellico Plains-Robbinsville Highway, Monroe, Tennessee, and Graham Counties, TN.

In Virginia

- 1979 Chatham Manor Survey, Stafford County, VA: Excavations at Chatham Manor National Historic Site in Fredericksburg, VA.
1983 Fort A.P. Hill Survey, Caroline County, VA: Reconnaissance and intensive survey project of four 18th century homestead complexes, the ruins of a large manor house, and an early church and academy site.
1985 Lake Gaston Water Supply Project Cultural Resources Reconnaissance, Lake Gaston, VA.

- 1985 Fort Lee, comprehensive survey and management plan.
- 1985 Fort Eustis/Fort Story, Phase I comprehensive surveys and selected Phase II investigations.
- 1986 City of Hampton, Data Recovery on urban waterfront project.

In West Virginia

- 1980 Van Voorhis Farm Site Archaeological Investigations.

SELECTED PUBLICATIONS:

- 1963 "Projectile Point Sequence at Breckenridge Shelter", Bulletin of the Arkansas Archeological Society, Vol. III, No. 10, pg. 1-3.
- 1965 Delaware Archaeology, Editor.
- 1966 "Excavations at Prall Shelter (3BE187) in Beaver Reservoir, Northwest Arkansas", Bulletin of the Arkansas Archaeological Society, Vol. VII, No. 4, co-authored with Hester A. Davis.
- 1966 "Preliminary Excavations at the Old Martin Place, 3LR49, Millwood Reservoir, Arkansas", National Park Service, Southeast Region.
- 1966 "Paleo-Indian in Delaware", Delaware Archaeology, Vol. 2, No. 3.
- 1969 Archaeology in Delaware, Department of Public Instruction Pupil Guide, Editor.
- 1970 "The Island Field: A Prehistoric Village and Cemetery", Delaware Archaeological Board.
- 1970 "Adena Influence in the Middle Atlantic Coast", Adena: The Seeking Of and Identity, Ball State University, B.K. Schwartz, Editor.
- 1970 "1970 Salvage Excavations at the Mispillion Site", The Archeolog, Vol. XXII, No. 2, co-authored with Nancy H. Warren.
- 1970 "A Middle Woodland Cemetery in Central Delaware: Excavations at the Island Field Site", Buletin of the Archaeological Society of Delaware, No. SNS, co-authored with Nancy H. Warren.
- 1973 "Cached Blades from a Millsboro Site", The Archeolog, Vol. XXV, No. 1.
- 1973 "Prehistoric Mortuary Complexes of the Delmarva Peninsula", Proceedings of the 4th Annual Middle Atlantic Archeological Conference.
- 1974 "A Brief Survey of Prehistoric Man on the Delmarva Peninsula", Transactions of the Delaware Academy of Science, Vol. 5/6.
- 1974 "Webb Phase Mortuary Customs at the Island Field", Transactions of the Delaware Academy of Science, Vol. 5/6.

- 1974 "A Discussion of the Lithics, Ceramics, and Cultural Ecology of the Fox Creek-Selby Bay Paradigm as it Applies to the Delmarva Peninsula", 5th Annual Middle Atlantic Archeological Conference, co-authored with Daniel R. Griffith, Cara L. Wise, Richard E. Artusy, Jr. Lithic Source Notebook, Editor.
- 1975 "Environmental Adaptation on Delaware's Coastal Plain", Archaeology on Eastern North America, Vol. 3, co-authored with Daniel R. Griffith, Cara L. Wise, Richard E. Artusy, Jr.
- 1975 "Early Man at Holly Oak, Delaware", Science, Vol. 192, No. 4241, co-authored with John C. Kraft.
- 1976 "A Re-evaluation of the St. Jones River Site", Archaeology of Eastern North America, Vol. 4.
- 1982 "The Early/Middle Woodland Period in New Jersey: ca 1000 B.C.-A.D. 1000", New Jersey's Archeological Resources from the Paleo-Indian Period to the Present: A Review of Research Problems and Survey Priorities, New Jersey Department of Environmental Protection, Olga Chesler, Editor.
- 1982 "Intensive Archeological Excavations at the Hollingsworth Farm Site, Elkton, Maryland", Maryland Archeology, Journal of the Archeological Society of Maryland, Inc., Vol. 18, No. 1.

RESUME

Ted M. Payne
22 Hobart Dr., Apt. E-1
Newark, DE 19713

BUS: (302) 368-5777
SS#: 453-38-5780

Member: Society of Professional Archaeologists
(S.O.P.A.)
American Anthropological Association
Society for American Archaeology
Society for Historical Archaeology
Delaware Archaeological Society
Northeast Anthropological Association
Maryland Council for Archaeology

EDUCATION: New York University, 1979
(M.A.) Anthropology
Wayne State University, 1964
(Grad Study) Anthropology
(B.A.) Speech 1963
North Dallas High School 1948

POSITIONS:

1984-Present Principal Investigator and Principal Investigator.
1981-1984 Cultural Heritage Research Services, Inc.;
President and Principal Investigator.
1980-1981 MAAR Associates, Inc., Newark, DE; Research Associate, Archaeologist, Editor.
1973-1977 Passaic River Basin Archaeological Survey;
Archaeologist and President.
1973 Undergraduate Archaeology, Upsala College;
Adjunct Instructor.
1973-1974 Passaic River Coalition; Consultant Archaeologist.
1972 Seton Hall University; Laboratory Assistant.
1964 Fort Lernoult Urban Salvage Project, Wayne State University; Archaeologist.
1963 Hotel Pontchartrain Ceramic Dump, Wayne State University; Archaeologist.

EXPERIENCE:

Over the past two decades, a comprehensive background in historic and prehistoric archaeological research has been acquired as Principal Investigator, senior supervisory and crew positions. Cultural resource report authorship includes all levels of investigations. Research has dealt with material culture patterns from prehistoric, rural, urban, and industrial research from the perspective organizational patterns and change. Also acquired is a background in historic preservation consultation and contract administration. Thirteen years experience supervising business administration has provided a background in personal management, client relations, budget control, and contract management.

Archaeological experience includes urban projects in Baltimore, Detroit, New York, and South Carolina, industrial projects in Maryland and New Jersey, rural historic 18th through 20th century projects in New York, New Jersey, North Carolina, Pennsylvania, South Carolina, and West Virginia; and prehistoric projects include Paleo-Indian through contact in Maryland, New Jersey, New Mexico, North Carolina, Pennsylvania, South Carolina, and West Virginia.

CULTURAL RESOURCE MANAGEMENT PROJECTS:

- | | |
|------|--|
| 1986 | Burlington County Landfill, Phase II Archaeological Survey and Architectural Assessment (16 sites), New Jersey: <u>Research Associate.</u> |
| 1986 | A Phase I Archaeological Survey 31BF115 and 31BF117 and A Phase II Archaeological Survey 31BF115, Texasgulf, Bath Creek, North Carolina: <u>Research Associate.</u> |
| 1986 | Historic Archaeological Investigations of a Proposed Septic Drainage Field Associated with the Rehabilitation of the National Register of Historic Places James A. Mangum House, Falls Lake, Wake County, North Carolina: <u>Research Associate.</u> |
| 1985 | Beaver Dam Road Extension, Phase I Archaeological Survey, Texas, MD: <u>Research Associate.</u> |
| 1985 | U.S. 221 Relocation, an Archaeological Survey of Laurens, SC: <u>Research Associate.</u> |
| 1985 | Harrisburg WORTAC, Phase I Survey, Perry County, PA: <u>Research Associate.</u> |
| 1985 | Realignment of Force Main and Perth Amboy, New |

- Jersey Pump Station, Phase IB Survey:
Research Associate.
- 1985 Upper Musconetcong Force Main and Sewer
Collections Systems, Phase IB Survey:
Research Associate.
- 1985 Burlington County Landfill, Phase IA & IB
Survey: Research Associate.
- 1984 Hampton Mansion Dairy and Barn Phase II
Restoration Research, National Park Service,
Baltimore, MD: Historic cultural material
analysis.
- 1984 Buck House Restoration Research, Upper
Marlboro, MD: Historic cultural material
analysis.
- 1983 Reaves Point Disposal Area 2 and Proposed
Disposal Area 5 Project, Cultural Resource
Survey, Military Ocean Terminal, Sunny Point,
NC: Principal Investigator.
- 1982 Shaw Air Force Base Cultural Resource Survey,
SC; prepared a Cultural Resource Management
Plan: Principal Investigator.
- 1982 Baltimore Savings and Loan Corporation
Cultural Management, Phase I through
Mitigation, Inner Harbor, Baltimore, MD:
Project Director.
- 1982 H & S Bakery Cultural Resource Data Recovery
and Survey, Fells Point, Baltimore, MD:
Project Director.
- 1982 Reconnaissance Level Investigation of the
Archaeological and Historic Resources within
the Potential Impact Areas of the Proposed
Rahway River and Van Winkles Brook Flood
Control Project, Springfield, NJ: Principal
Investigator.
- 1982 Cultural Resource Survey of Blue Route
Expressway, Delaware County, PA: Principal
Investigator.
- 1982 Cultural Resources Survey of Madera Canyon
and Archeological Area IV Project, Kirtland
Air Force Base, NM; prepared a Cultural
Resource Management Plan: Principal
Investigator.
- 1982 Investigations at the Wilderness Island

- (Lasater) Homestead Site, Chatham County, NC:
Principal Investigator.
- 1982 Intensive Site Surveys, Somerset Railroad
Right of Way, Niagara County, NY: Principal
Investigator.
- 1981 An Intensive Archaeological Investigation at
18H062 and 18H063, Howard County, MD:
Principal Investigator.
- 1981 Archaeological Data Recovery at the Hollings-
worth Farm Site (18CE29), Cecil County, MD:
Project Director.
- 1980 Reconnaissance Survey of the Somerset Railroad
Right of Way, Niagara County, NY: Principal
Investigator.
- 1980 Archaeological Investigations at Fort Martin,
Monongalia County, WV; Reconnaissance Survey:
Project Director.
- 1980 Van Voorhis Farm Site (46MG77) Archaeological
Investigations, Phase IIa: Project Director.
- 1980 Archaeological Investigations at Fort Martin,
Monongalia County, WV, Phase IIa: Project
Director.
- 1980 The Hollingsworth Farm Site Archaeological
Survey, Phase IIb, Final Report: Project
Director.
- 1980 The Van Voorhis Farm Site (46MG77) Archaeolo-
gical Investigations, Phase IIb, Final Report:
Project Director.
- 1973-77 Cultural Resource Survey and Excavation of
East Orange Water Reserve Prehistoric Sites
One, Four, and Five; Passaic River Basin
Archaeological Survey, NJ: Principal
Investigator.
- 1973-76 Excavation of the Parsippany Rock Shelter,
Passaic River Basin Archaeological Survey, NJ:
Principal Investigator.
- 1964 Fort Lernoult Urban Salvage Excavation,
Detroit, MI: Crew Chief.
- 1964 Hotel Pontchartrain Importers Ceramic Dump
Excavation, Wayne State University, Detroit,
MI: Crew Chief.

DRAFT

SELECTED PAPERS:

- 1982 "Reciprocity and the Privately Owned Frontier Fort", Society for Historical Archaeology.
- 1981 "Some Concepts on Intensive Analysis in Contract Archaeology: The Intermediate Contract Level", Mid-Atlantic Archaeological Conference.
- 1981 "Analysis of Limited Contexts: An Application", Society for Historical Archaeology.
- 1976 "Post Pleistocene Settlement Patterns in the Passaic River Basin", New York State Archaeological Society Annual Meeting.
- 1975 "Passaic River Basin Settlement Model", Pennsylvania Archaeological Society Annual Meeting.

GRANTS AND AWARDS:

- 1976 Archaeological Merit Award, Archaeological Society of New Jersey.
- 1975 Research Grant for Parsippany Rock Shelter Excavation, New Jersey Historical Society.
- 1974 Research Grant for East Orange Water Reserve, Site One Excavation, New Jersey Historical Society.

RESEARCH INTERESTS:

Research has centered on socio-economic practices with a specific interest in environmental dynamics. Studies have dealt with prehistoric and historic cultures. Research projects have ranged from the East Coast to the Midwest and the Southwest.

Projects have included research pertaining to post glacial Amerindian settlement practices within the Passaic River Basin, socio-economic and settlement practices which led to the development of the Onondaga Iroquois, 18th and 19th century socio-economic changes that led to the Cheyenne Plains settlement system, subsistence-settlement practices of the Pueblo Periods I-IV in the Central Rio Grande River Valley, the development of the historic frontier, privately owned forts and independent settlements, and the socio-economic development of the lower Cape Fear area during the 17th through the 20th century.

RESUME

Kenneth Baumgardt
103 Greenfield Road
Newark, Delaware 19713

RES: (302) 737-9118
SS#: 222-46-1679

EDUCATION: University of Delaware, 1981
B.A. (History)
Way College of Emporia, 1984-85
Emporia, Kansas
(Biblical Studies with emphasis in
textual and historical research.)

HISTORICAL EXPERIENCE:

1979 Volunteer Tour Guide, Delaware Academy of
Science at Iron Hill Museum of Natural
History, Old Baltimore Pike, Newark, DE.
1980-81 Editorial and Research Assistant for
Dr. Edward Lurie, University of Delaware,
Newark, DE.

ARCHAEOLOGICAL EXPERIENCE:

Apr. 1980 Phase III, 19th century urban complex
excavation of Federal Research Bank,
Baltimore, MD, for MAAR Associates, Inc.,
Newark, DE.
June 1980 Phase I, Historic and Prehistoric Site Survey
of Bloodsworth Island, MD, for MAAR
Associates, Inc., Newark, DE.
July 1980, Phase I, Historic and Prehistoric Site Survey
Oct. 1980 of St. Clement's Shores, St. Clement's, MD,
for MAAR Associates, Inc., Newark, DE.
Aug. 1980 Phase III, excavation of frontier fort,
Fort Martin, Morgantown, WV, ca. 1790-1820,
for MAAR Associates, Inc., Newark, DE.
Oct.-Dec. Phase II, Late Archaic-Late Woodland site
1980 excavation of Hollingsworth Farm, Elkton, MD,
for MAAR Associates, Inc., Newark, DE.
Sept. 1981 Phase I, Historic and Prehistoric Site Survey
of Prime Hook Refuge, Milford, DE, for MAAR
Associates, Inc., Newark, DE.
Sept. 1981 Phase II, testing of Prehistoric

Site 36-Mi-14, McVeytown, PA, for John Milner Associates, West Chester, PA.

Oct. 1981 Phase I, Historic and Prehistoric Site Survey of Germantown, MD, for MAAR Associates, Inc., Newark, DE.

Oct. 1981 Phase I, survey of Historic grain mills, Flat River Survey, Durham, NC, for MAAR Associates, Inc., Newark, DE.

Dec. 1981 Phase II, 19th century industrial site excavation, Rail Electrification Project, Providence, RI, for DeLeuw Cather, Washington.

Feb. 1982 Phase I, Prehistoric Site Survey, Route 4 Survey, Newark, DE, for the University of Delaware, Newark, DE.

Mar.-Dec. 1982 Phase I, investigation of Historic and Prehistoric cultural resources, Route 7 Survey, Newark, DE for the Delaware Department of Transportation, Dover, DE.

Jan.-July 1983 Laboratory Manager, artifact processing of Baltimore Federal Savings and Loan, Baltimore, MD, ca. 1790-1850, for Cultural Heritage.

July-Aug. 1983 Phase III, excavation of 17th century European settlement, Gloucester City, NJ, for MAAR Associates, Inc., Newark, DE.

Aug.-Sept. 1983 Phase I, Historic and Prehistoric Site Survey, Upper Passaic River Survey, Morristown, NJ, for MAAR Associates, Inc., Newark, DE.

Sept. 1983 Phase I, survey of Prehistoric resources, Veterans Administration Hospital, Lyons, NJ, for MAAR Associates, Inc., Newark, DE.

Sept.-Dec. 1983 Phase II and III, excavation of Late Archaic-Early Woodland Prehistoric resources and 18th century Historic resources, Limerick Power Line Survey, Valley Forge Historic Park, Valley Forge, PA, for John Milner Associates, West Chester, PA.

Feb. 1984 Phase I, excavation of 19th century farmstead site on Horn Point, Cambridge, MD, for MAAR Associates, Inc., Newark, DE.

Feb. 1984 Phase I, survey of Prehistoric and Historic resources, Montour Power Site Survey, Washingtonville, PA, for MAAR Associates, Inc., Newark, DE.

Feb.-Mar. 1984 Phase II, excavation of 19th century privies, Christina Gateway, Wilmington, DE, for Louis Berger and Associates, East Orange, NJ.

Mar. 1984 Phase I, survey of Historic and Prehistoric resources, Larchmont, Mount Laurel, NJ, for MAAR Associates Inc., Newark, DE.

Mar.-Apr. 1984 Phase III, excavation of 19th century privies, Christina Gateway, Wilmington, DE, for Louis Berger and Associates, East Orange, NJ.

Apr.-May 1984 Laboratory personnel, processing of soil samples, Gloucester City, NJ, for MAAR Associates, Inc., Newark, DE.

June-Aug. 1984 Phase I, excavation of 18th to 20th century farmstead, John Dickinson Mansion, Dover, DE, for Delaware Bureau of Museums, Dover, DE.

Apr. 1985 Phase I, testing for Historic resources in 19th century industrial complex area, Route 221 Bypass, Laurens, SC, for MAAR Associates, Inc., Newark, DE.

Apr.-May 1985 Phase I, testing for locations of outbuildings associated with an 18th century tobacco plantation, Buck House, Upper Marlboro, MD, for MAAR Associates, Inc., Newark, DE.

May 1985 Phase I, excavation of exterior and interior architectural features for identification of 1863 configuration and surface grade, Leister Barn, Gettysburg, PA, for MAAR Associates, Inc., Newark, DE.

May 1985 Phase II, controlled surface collection and testing on two sites with Archaic and Woodland components, Lake Gaston Project, Emporia, VA, for MAAR Associates, Inc., Newark, DE.

APPENDIX C

Shovel Test Inventory

DRAFT

SHOVEL TEST PROFILES

Unit	Depth (feet)	Description
ST. 1	0.0-2.0	Fill - concrete, asphalt, and rock.
ST. 2	0.0-2.0	Fill - concrete, asphalt, and rock.
ST. 3	0.0-2.0	Fill - concrete, asphalt, and rock.
ST. 4	0.0-1.3	Grey muck.
	1.3-2.0	Decomposed plant material.
ST. 5	0.0-1.1	Grey muck.
	1.1-1.5	Decomposed plant material.
	1.5-3.2	Dark and light grey mottled silt.
ST. 6	0.0-0.4	Reddish sandy clay (A).
	0.4-1.0	Orange silty sand (A).
	1.0-1.2	Dark brown silty sand (A).
	1.2-3.0	Orange silty sand (A).
ST. 7	0.0-0.5	Brown sandy loam (A).
	0.5-0.7	Mottled yellow brown sand and dark brown sand (A).
	0.7-1.6	Yellow brown silty sand (A).
	1.6-2.1	Yellow brown silty sand with decomposed shale fragments.
ST. 8	0.0-0.5	Yellow sandy clay (A).
	0.5-1.0	Reddish and yellow sandy clay (A).
ST. 9	0.0-0.8	Red clay fill with trash (A).
	0.8-1.2	Dark brown sandy silt with trash (A).
	1.2-1.5	Compacted ash and coal fill (A).
	1.5-2.6	Medium brown sand with shale fragments (A).
	2.6-3.0	White sandy clay.
	3.0-3.2	Yellow clay.
ST. 10	0.0-0.6	Dark brown clay fill with trash (A).
	0.6-0.9	Red clay fill with trash (A).
	0.9-2.8	Yellow brown silty sand.
ST. 11	0.0-0.4	Dark brown silty sand (A).
	0.4-0.8	Dark brown silty sand (A).
	0.8-1.6	Light brown sand (A).
	1.6-2.7	Reddish clay with shale fragments.
	2.7-3.0	Light brown clay with shale fragments.
ST. 12	0.0-0.5	Dark brown loam (A).
	0.5-1.0	Dark brown sandy silt with coal ash (A).
	1.0-1.4	Reddish brown sandy clay (A).
	1.4-2.5	Dark grey clay with ash and coal (A).