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278 EDGEGROVE AVENUE

STATEN ISLAND.

RICHMOND COUNTY, NEW YORK.

STAGE 1B ARCHAEOLOGICAL FIELD INVESTIGATION

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278 EDGEGROVE AVENUE
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INTRODUCTION

On April 15, 1995 CITY/SCAPE: Cultural Resource Consultants completed a field reconnaissance level archaeological survey of the 278 *Edgegrove Avenue* site, Staten Island, Richmond County, New York. (Map 1) A work plan was submitted to the New York City Landmarks Preservation Commission (LPC) and approved by Daniel Pagano, Director of Archaeology. A copy of this correspondence appears in Appendix D.

Archaeological field work was supervised by Stephanie Roberg-Lopez, M.A., S.O.P.A., Principal Investigator. Preparation of the final report and Field Reconnaissance Map were completed by Stephanie Roberg-Lopez. Preparation of the shovel test excavation record, photographs and production of the report were completed by Gail T. Guillet.

PROJECT AREA DESCRIPTION

The project area is a single 72 foot by 100 foot lot located in south central Staten Island. It is bounded to the west by Edgegrove Avenue, to the north by a building lot with a small structure, to the east by a recently constructed house and to the south by a vacant 40 foot by 100 foot lot. The house directly south of this vacant lot (two lots south of the project area) is constructed on a bench of artificial fill that rises approximately four feet above the wetland and four feet above the surface of the project area. The owner of this parcel, two lots to the south of the project area, reports that he had purchased a lot behind him and one to the south from the city at auction. He states that the city repossessed these parcels, returning his purchase price as restitution, because the lots are within a designated wetland area..

Present in this wetland, which is approximately 100 feet due south of the project area, are a spring, an intermittent stream and wetland soils and flora. The owner of the house directly east of the project area report that after a substantial rain, the ground is flooded over an area of some 25 square yards.

The parcel in its present form is a vacant lot with an elevation of 84 feet above sea level. Trees on the lot are recent growth hardwoods. The land surface is overgrown with low bushes and ground covers such as myrtle, dog tooth violet and pachysandra. There is surface evidence of small fauna such as squirrels and chipmunks. A number of bird species were noted on the site.

The project area is flat with the exception of recently deposited piles of fill for the septic system in the southwestern corner of the lot. One third of the western side of the lot is overlain with large downed trees. A zone of approximately 10 feet of this same boundary is disturbed by road construction. (see Field Reconnaissance Map)

As indicated above, the ground surface of the site is substantially lower than the house elevations surrounding it, indicating that the land surface has not been artificially filled.

ENVIRONMENTAL AND ARCHAEOLOGICAL SETTING

A very complete Archaeological Evaluation and Sensitivity Assessment of Staten Island was completed in 1994 by Eugene J. Boesch for the New York City Landmarks Commission. In this study, a number of research problems are addressed, and the overall island is assessed zone by zone for archeological sensitivity. The ramifications of this study will be considered in both the following archaeological discussion and in the formulation of a testing strategy.

The project area lies within one of two geophysical provinces that make up Staten Island. The northwestern 20% of the island is Piedmont Lowland that gradually slopes south easterly until it meets the Atlantic Ocean. This long, sloping landscape is part of the Atlantic Coastal Plain, a geophysical and archaeological zone that unites the east coast. The Piedmont Lowland is underlain by shales, siltstones and sandstones, while the Coastal Plain is underlain with unconsolidated clay, silt, sand and gravel overlain by glacial deposits from the Wisconsin period (Boesch, 1994:3). Boesch reports that in pre-contact times, there were three predominant eco-zones, "saltwater/brackish water marshes", "freshwater marshes" and "upland forests". These eco-zones would be present in a mosaic of interlocking landscapes all over the island, grading from the saltwater estuaries, up brackish streams to freshwater streams. Wetland flora as well as oaks, chestnuts, beech, hickory maple, white ash and black cherry were present on the landscape (Boesch, 1994:5)

Among the food sources available to the prehistoric peoples of Staten Island would have been abundant fish and shellfish (clams, oysters, scallops and snails), mammals in the form of deer, bear, elk and smaller species such as rabbit and squirrel, many forms of birds and nuts, berries and tubers (Boesch, 1994:6). In later periods, the prehistoric residents would have cultivated corn, beans and gourds. Reports by Dutch travelers indicate that agricultural fields were abundant on Staten Island during contact times.

PREHISTORIC BACKGROUND

As the first native Americans, indeed the first humans, entered the region that is now Staten Island during the Paleo Indian period some 12,000 years ago, their logical route would be along the mighty river systems that were the "super-highways" of the times and along the open seacoast. At this time, with world-wide sea levels lower, Staten Island would have been part of the mainland. the Hudson River trench was located between modern Staten Island and New Jersey.

Not only humans, but the post Pleistocene mega fauna, the mammoth, the mastodon and the caribou that inhabited this tundra-like area would be logically drawn to these corridors. (Map 2) The glaciers reached their maximum extension in 18,000 B.C., covering most of Staten Island with a thick layer of ice. As the great ice sheets began to retreat from southern New England both the hunter, the Paleo Indian, and the hunted began to move into this region.

Research indicates that the post glacial landscape was tundra-like, the colonizing grasses, sedges and herbs supporting a variety of large and small game animals. Among the fauna were mastodon and mammoth (two mastodons have been found in central and southern Staten Island and three mammoths in nearby New Jersey (Boesch, 1994:9)), giant beaver, giant ground sloth, and horse, all of which became extinct, as well as the caribou, musk-ox and bison that persist to modern times.

Paleo-Indians, as these small bands of nomadic hunter-gatherers are called by archaeologists, appear to have entered the previously uninhabited northeast from the south and west. Their sites, identified primarily by characteristically fluted points, are found all over North America. It has traditionally been assumed that these nomadic peoples were strictly "big game" hunters; however that assumption has been called into question by the discovery of fish, bird, small mammal bones and some plant remains found in association with Paleo-Indian sites. It now seems that in addition to the large animals that comprised their principal food source, the Paleo-Indians also hunted small game and gathered a wide variety of plants to support their diet. Paleoindian sites are quite rare in the archaeological record, and have been found in association with major waterways such as the Hudson, and in quarry zones such as the Wallkill Valley. Staten Island, however, has emerged as a major focus of Paleoindian activity. The most intense locus of Paleoindian activity is the area between Rossville and Tottenville. The sites here are characterized as high, well-drained spots overlooking the Arthur Kill (Boesch, 1994:9). The Port Mobil site is among the best known Paleoindian sites in the northeast. A number of other finds have been made to the south of this rich region, however they consist largely of surface finds of fluted points, collected in the absence of controlled excavation, and therefore subject to flaws in interpretation. Bearing in mind that the entire continental shelf was a vast tundra region, now submerged beneath the Atlantic Ocean, and that several Paleoindian points have been recovered from the ocean floor, the lower coastal plain zone of Staten Island might be seen as an inland buffer between this vast coastal plain and the higher lands of the New Jersey Piedmont.

The Archaic period in Staten Island is better represented than the Paleo-Indian. It is divided into four stages: the Early Archaic, the Middle Archaic; the Late Archaic and the Terminal Archaic. In many important respects, the nature of life in the Archaic period was little different from the nomadic lives lived by the Paleo-Indians; however, during the time span of the Archaic significant changes in the environment occurred. The tundra-like landscape began to give way, first to spruce forest and then to a forest composed of various conifers, hemlocks and hardwoods. As the hardwood forests advanced northward, a new ecosystem became available, an ecosystem that provided a range of nuts (in particular the acorn), grasses and tubers that supported both the smaller game of the Archaic period and the human population as well.

Population growth is inferred for this time period as sites increase in density and versatility. The Late Archaic period is well represented on Staten Island. The period lasted from roughly 4000 BC to 1700 BC, a time during which the Copper and Bronze Ages and the construction of the great Pyramids of Giza were all taking place in the Old World (Snow, 1980:187). Archaic sites on Staten Island include the Hollowell, Old Place, Charleston Beach,

Ward's Point, Travis, Richmond Hill, Chemical Lane, Harik's Sandy Ground, Pottery Farm, Bowman's Brook and a number of others.

The people of this time followed a life-way called the "Mast Forest Tradition", an adaptation that focused on the processing of a broad range of nuts and plant foods that supplemented the hunting of the white tail deer and other small game. Ritchie says "seeds, nuts, berries, roots (and) dried meat . . ." were processed with a variety of grinding implements, with the main focus being acorn meal (Ritchie 1969a:62). Sites are not large, but they are numerous.

A number of excavations have yielded evidence of small houses based on a spiral plan, with overlapping walls creating the entryway. Few burial sites have been excavated, but it is suggested that cremation was the preferred mortuary practice for these people (Snow, 1980:231). On Staten Island, Long Island and along the southern coast of New England, shell middens associated with the consumption of coastal and riverine shellfish are abundant. The overall profile of these Late Archaic people, then, is of a group of nomadic hunter-gatherers organized in relatively small groups with an extremely flexible adaptation to a varied landscape.

The Archaic period in Staten Island is followed by the Transitional Stage. Chief among the general characteristics that separate the Transitional Stage from the earlier period is the use of stone vessels. With soapstone being the usual raw material, these vessels were extremely heavy, and were later replaced by pottery vessels of various types. The Transitional period is identified by the highly distinctive Orient Fishtail projectile point, by the use of soapstone vessels, whose raw materials were most probably quarried in Rhode Island and in Bristol Connecticut, by distinctive burials and by the intense exploitation of shellfish. Boesch indicates that a radically different broad-bladed projectile point type arrived in Staten Island at this time (probably the "Susquehanna Broad" tradition). Transitional sites have been found at the Pottery Farm, Wards point, Old Place and the Travis site. Orient Fish Tail points have been recovered along the beach at Kreischerville (Boesch, 1994:12)

The Woodland Stage, like the Archaic is divided into several substages, including the early Woodland Stage, the Middle Woodland Stage, and the Late Woodland Stage. Sites used by Woodland groups tend to be away from the major waterways and are frequently located on inland streams. In later periods there is some indication of the presence of palisaded villages. Around these sites, on the alluvial plains of nearby streams, the Indian fields were located. Horticulture, although practiced in other parts of North America at an earlier date, does not appear in this area until c. 1000 AD. The changeover to cultivation of a variety of domesticates, among them maize, beans, gourds, sumpweed and sunflower, created a marked change in the pattern of land use and settlement. With the advent of sedentary or semi-sedentary occupations, the character of sites changed.

By the time the Europeans arrived the dominant indigenous groups inhabiting Staten Island were the Lenape/Delaware, Munsee speakers who had migrated into the area during the Late Woodland. The Munsee are a sub-group of the very extensive Algonquian cultural and linguistic group.

Population figures are difficult to calculate due to the lightening speed with which European diseases wiped out the indigenous population. Snow states that "There are almost no

data on which to base a population estimate for the middle and lower Connecticut and central Long Island population". This assessment would be equally true of Staten Island. With the coming of first the Dutch, then the British settler, the indigenous population of New England decreased to its current negligible size.

An assessment of the broader ecological setting in the general region of the project area indicates that substantial streams and wetlands exist in the area. As the subsistence patterns of the indigenous inhabitants of the northeastern United States have become clearer to modern archaeologists, it has become increasingly accepted that not only the streams, but the associated tidal marshes, wetlands and their fringes were intensively exploited as one of the richest subsistence zones available. Wetlands and abundant streams provided aquatic life such as the fish, frogs, shellfish, water insects and water flora. Avian resources in the form of the birds that were themselves attracted to the teeming life of the wetlands abounded, as did the large game species that watered in these spots. The mosaic of food sources available to the inhabitants of the project area would have been quite rich.

In terms of the greater archaeological context, the project area rests in the center of a dense locus of prehistoric activity. Very close to the site are Fiddler's green, a small site identified as a campsite just to the north of Edgegrove, Indian Hill just to the south, which is identified anecdotally as "Native American artifacts found on the hill" and Woods of Arden, also just south of Edgegrove, with no further information available.

Virtually all prehistoric phases up the contact period are represented on Staten Island. The ecological richness of this landscape in addition to the proximity of known archaeological sites indicate that the Edgegrove site possesses a moderate (Boesch) to high potential to yield prehistoric cultural resources.

TESTING STRATEGY

Testing strategy for the *278 Edgegrove Avenue* site was structured around the knowledge that the property possessed a moderate to high probability to yield prehistoric cultural resources. Although the site is extremely small, it was believed that sub surface testing presented the potential to recover cultural material.

The area selected for testing was identified after a careful walkover of the site, and a review of the occupational history of the lot. A major concern was determining if the site had been subjected to a major filling or grading episode since prehistoric times, a situation that is extremely common on Staten Island. To assess this possibility, sensitivity maps located at the New York City Landmarks Preservation Commission offices were examined. Importantly, empirical observation of the surrounding lots demonstrated that all other houses on Edgegrove were very obviously built on fill "mounds" overlying the wetland. The surface of the site lies at the same elevation as the associated designated wetland. In addition, a shovel test excavated as a stratigraphic control yielded a set of strata consistent with known Staten Island sediments rather than trucked in fill.

The area selected for subsurface testing was identified during a comprehensive walkover and visual assessment of the property. Because the western third of the site is inaccessible due to downed trees and septic fill, testing was focused on the eastern two thirds of the site. The designated test area was subjected to shovel testing at intervals of twenty five feet apart. This particularly fine grid was selected to maximize the potential for recovering cultural material.. Using the southern boundary as baseline, two transects of four tests each were laid out.

FIELD METHODOLOGY

Field Methodology for the 278 *Edgegrove Avenue* site consisted of several stages of investigation. These included:

1. A walkover and visual assessment of the site to assess areas of disturbance versus areas of potential sensitivity for prehistoric activity.
2. The excavation of a stratigraphic control test to establish the stratigraphy of the soil of the site and to identify the depth and composition of the sterile glacially deposited sub soils.
3. Shovel testing the area identified as having a potential sensitivity for prehistoric remains.
4. Photographic documentation of the overall site (see Appendix C).

Because of the small size of the site and in order to thoroughly investigate the potential of the site to yield prehistoric cultural resources, it was decided to employ a fine grid system (25' grid rather than the standard 50' grid). Within the sensitive area identified 40 cm diameter shovel tests were excavated along the 25' grid system. Soils were passed through a 0.25 inch steel mesh screen and the materials remaining in the screens were carefully examined for historic and prehistoric artifacts. Items, had they been recovered, would have been assigned to the stratum from which they were obtained. The stratigraphy of each test was recorded, including the depth and the soil description of each stratum (Appendix B: Shovel Test Record).

FIELD RESULTS

As indicated above, once a testing strategy had been established, and areas unsuitable for testing eliminated from the survey, a single area with potential for cultural remains was selected. This area comprises the eastern two thirds of the site, a parcel of 80' by 66 feet. Two transects of four shovel tests each were established on a north-south axis.

Shovel Test One, on Transect One was established as the stratigraphic control. The top stratum consisted of three inches of dark grayish brown silty loam. Stratum two consisted of yellowish brown clayey sand which quickly became unscreenable due to its saturated consistency. At 13" below surface, water began to pool in the shovel test and further excavation became impossible. Shovel Test Two on the same transect yielded an almost identical set of strata to shovel test one, but pooling water began to occur at 6" below surface,

and water was noted seeping in from the sides of the test. The third test on Transect One was not dug, having been eliminated from testing on the basis of surface disturbance. Shovel Test Four yielded the same results as One and Two.

Transect two appeared to be very slightly higher in elevation than transect one, and 25 feet farther away from the wetland, so an attempt was made to proceed with the testing. Shovel Test Five yielded a stratigraphy that was identical to Tests One, Two and Four and the soils became unscreenable at 15" due to the saturation level. Tests Six and Seven were not dug, however Shovel Test Eight was dug to confirm the evaluation of the soils. At 12" water pooled in the base of Test Eight and soils became unscreenable.

All of the tests on the Edgegrove site exhibited identical strata -- a thin layer of silty loam underlain by clayey sand. Soils became saturated between six and twelve inches. The soil color, an intense orangeish yellow is consistent with soils examined by the Principal Investigator on an unpublished site excavated by Columbia University in 1973 (with Professor Shirley Gorenstein, currently of Rensselaer) which produced Late Archaic argillite points. The strata had very little in the way of gravel or clast inclusions, indicating that the soils are, indeed, alluvial deposits of settled silty wetland soils. The coarse sand and glacial outwash gravel so common on Staten Island were not present here.

No prehistoric or historical cultural materials of any kind were recovered on this site.

CONCLUSIONS AND RECOMMENDATIONS

A walkover reconnaissance was completed on the 278 Edgegrove Avenue site, located in Staten Island, New York. A thorough review of the existing body of archaeological data relevant to the project area was undertaken and conclusions drawn concerning the probability of encountering prehistoric cultural remains on the site. Areas of prior disturbance were not identified and the location potentially sensitive for prehistoric cultural resources was selected for sub surface testing.

Using a fine 25' grid system, a total of five shovel tests was excavated in the area considered to possess a probability of yielding prehistoric cultural material. All tests proved to be sterile down to the point of saturation, whereupon pooling water made further excavation impossible. No prehistoric cultural material was recovered in any of the tests and no further archaeological testing is recommended for the 278 Edgegrove Avenue site.

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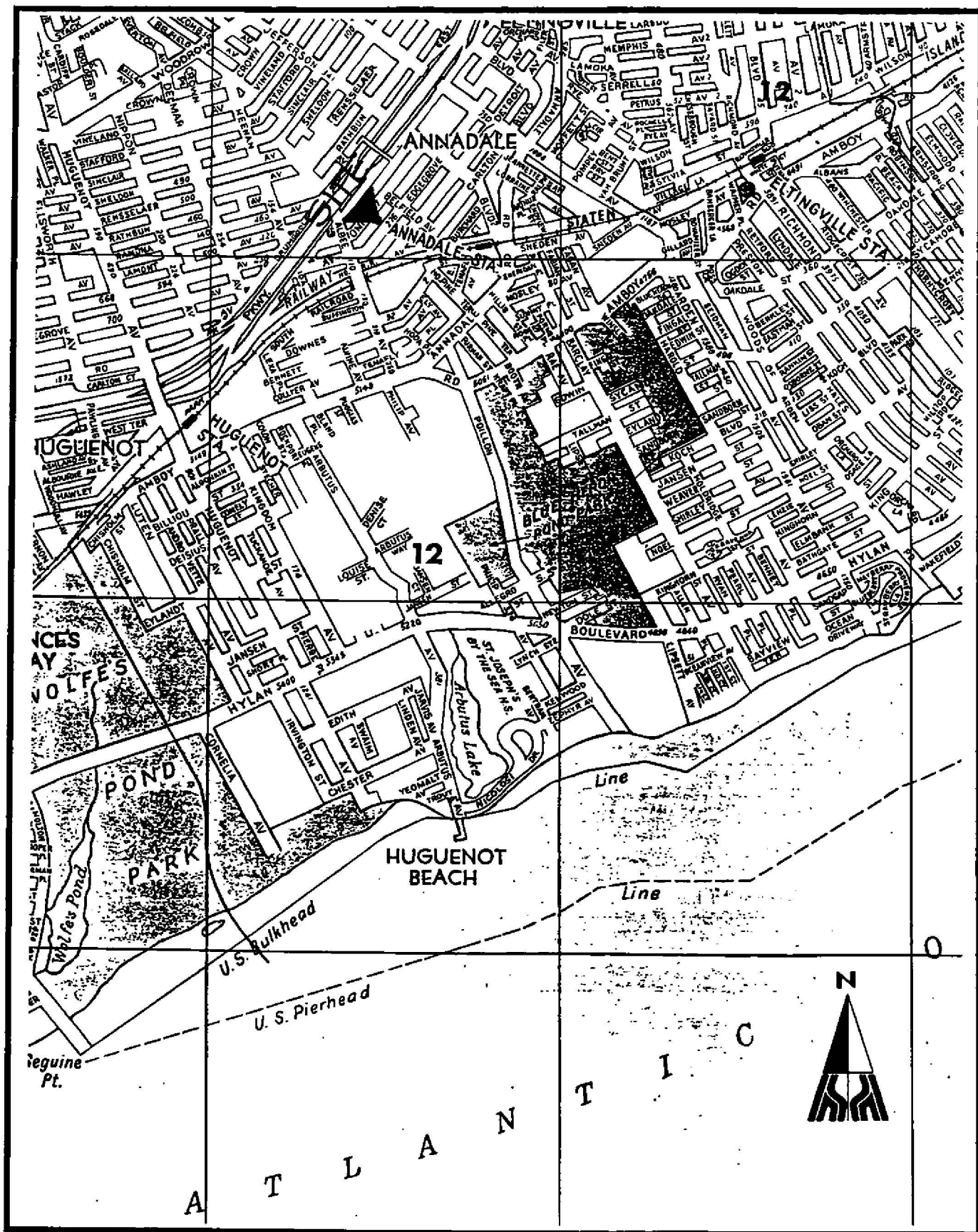
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APPENDICES

APPENDIX A

MAPS AND FIGURES

Map 1: Location Map. (Hagstrom's New York City 5 Borough Atlas. Scale: 1 inch = 500 m)
 278 Edgegrove Avenue. Staten Island. Richmond County, New York



AND DOWNED TREES

71.93'

FILL FOR

(84.9)

278 Edgegrove Avenue

Staten Island, Richmond County, New York

Stage 1B Archaeological Reconnaissance FIELD MAP

Scale: 1" = 15'

Prepared by:
CITY/SCAPE: Cultural Resource Consultants
Brooklyn, New York

PROPOSED

SIDEWALK

PROPOSED

CURB

[84.1]

EDGE GROVE

AVE.

APPENDIX B

SHOVEL TEST RECORD

278EDGE

			278 EDGE GROVE AVENUE		
			Shovel Test Record		
			Munsell	Soil Description	Cultural Material Recovered
TRANSECT 1	ST 1	0-3"	10YR3/2	very dark grayish brown silty loam	NCM
		7-13"	10YR5/6	yellowish brown clayey sand - mud	NCM
		.		clay balls - not screenable	
		..		water pools at 13"	
		...		no gravel inclusions in soil	
	ST 2	0-4"	10YR3/2	very dark grayish brown silty loam	NCM
		4-10"	10YR5/6	yellowish brown clayey sand - mud	NCM
		.		clay balls - wet/not screenable	
		..		water seeping in from sides and	
		...		pooling at bottom of STP - water	
	ST 3		pools at 6"	
			no gravel inclusions in soil	
	ST 4	.		Not dug - disturbed pile of dirt	
		0-5"	10YR3/2	very dark grayish brown silty loam	NCM
		7-14"	10YR5/6	yellowish brown clayey sand - mud	NCM
		.		clay balls - wet/not screenable	
		..		water seeping in from sides and	
TRANSECT 2	ST 5	...		pooling at bottom of STP @ 6"	
			no gravel inclusions in soil	
		0-2"	10YR3/2	very dark grayish brown silty loam	NCM
		2-15"	10YR5/6	yellowish brown clayey sand - mud	NCM
	ST 6	.		clay balls in screen/not screenable	
		..		no gravel inclusions in soil	
	ST 7	...		Not dug	
		.		Not dug	
	ST 8	0-6"	10YR3/2	very dark grayish brown silty loam	NCM
		6-12"	10YR5/6	yellowish brown clayey sand - mud	NCM
		.		water pooled at bottom of STP	
		..		STP moved 5' to avoid spoil pile	
		...		no gravel inclusions in soil	

APPENDIX C

PHOTOGRAPHS



Photo 1: Road disturbance along southeast side of Edgegrove Avenue abutting project area.

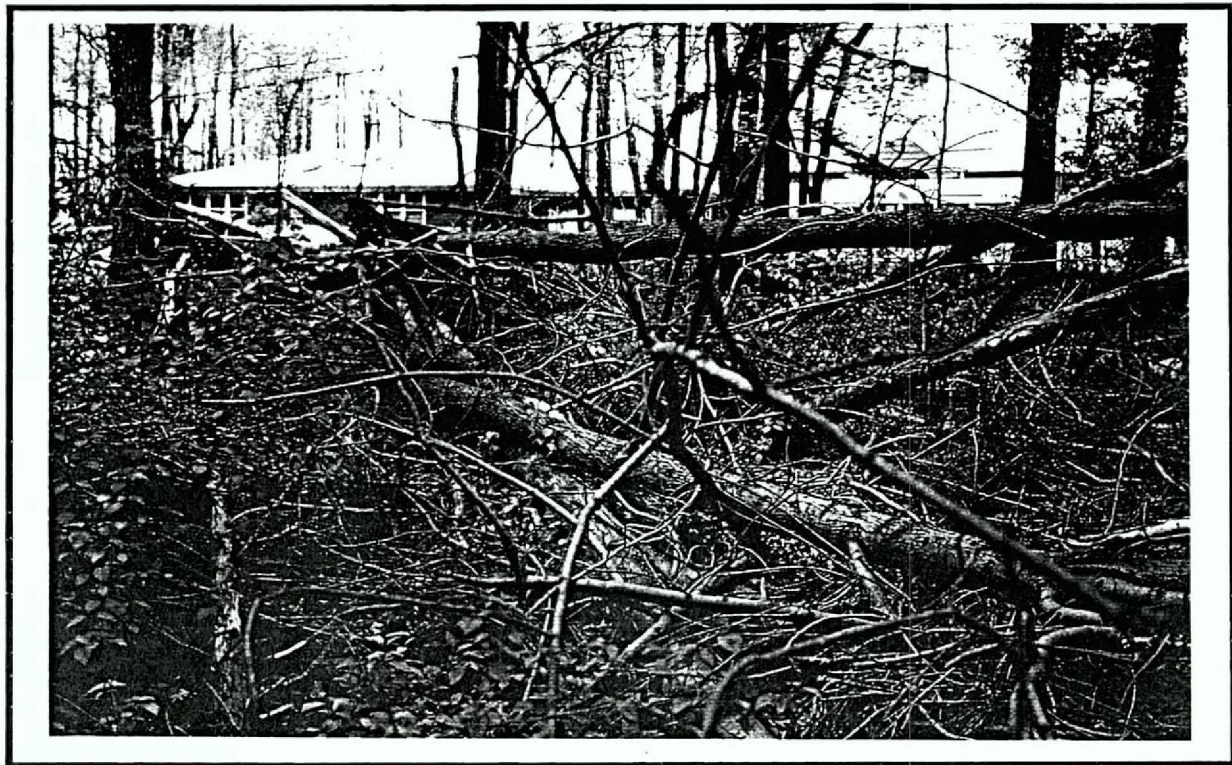


Photo 2: Downed trees abutting Edgegrove Avenue. View toward southwest.

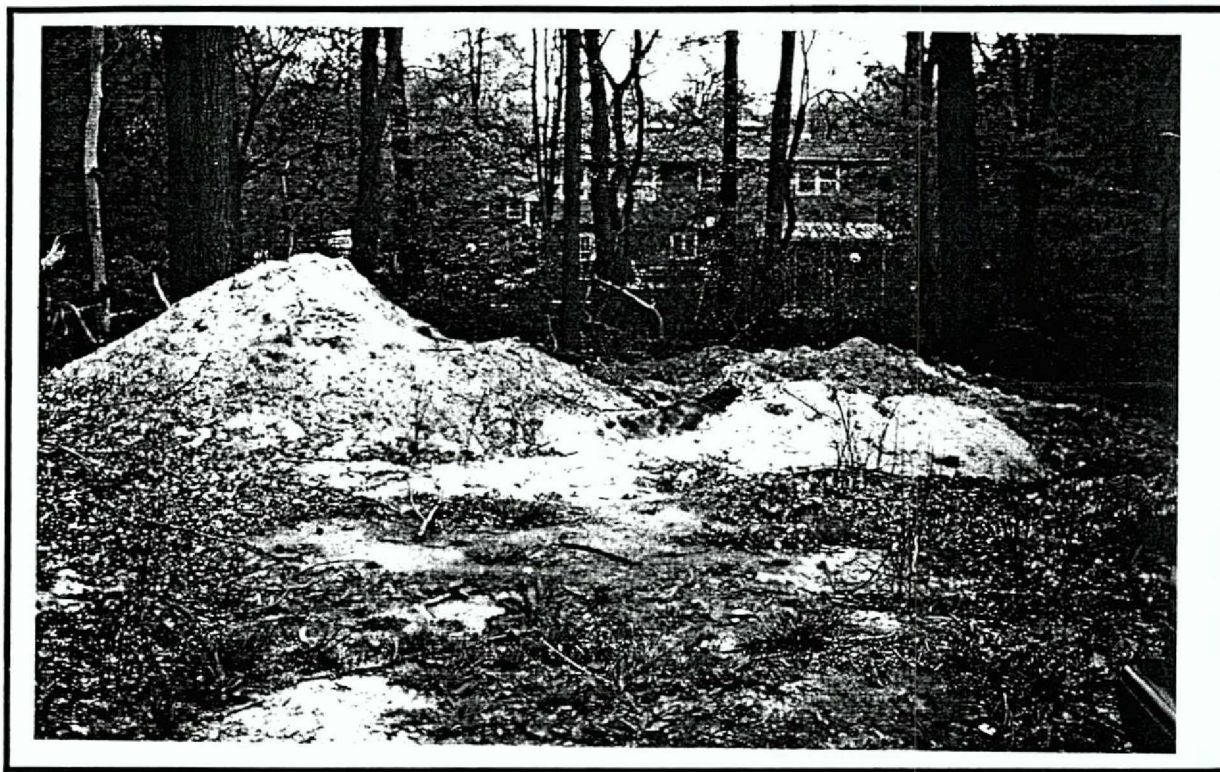


Photo 3: Sand and soil pile for septic sytem. Southwest corner of project area .



Photo 4: General conditions on site. View to northwest