

1. WHAT WE DID AND WHY WE DID IT

*Plans to build a new access road
prompted cultural resource surveys
through a wooded site in the City of Dover.*

This report describes Phase I and Phase II archaeological and historical investigations along the proposed course of a new road to be built south of Scarborough Road in the City of Dover, Little Creek Hundred, Kent County, Delaware. This road will connect Scarborough Road with the mixed highway-commercial business complex along duPont Parkway (U. S. 13).

Delaware Department of Transportation engaged Heite Consulting of Camden, Delaware, to conduct the study in response to requirements of the Federal Highway Administration. In the course of the investigations, two different rights-of-way were assessed.

The project lies in the Delaware coastal plain, in the drainage of Fork Branch, head stream of St. Jones River. In the immediate project area is a stream called White Marsh Branch, which was improved as a drainage ditch during the nineteenth century.

PLANNING TIME FRAMES

Time periods applied in Delaware preservation planning (Herman and Siders 1986) reflect only feebly the actual history of most parts of the state. The state's generalized chronology is:

Exploration and frontier settlement	1630-1730
Intensified and durable occupation	1730-1770
Early industrialization	1770-1830
Industrialization and urbanization	1830-1880
Urbanization and suburbanization	1880-1940

Only one area of the state, between Wilmington and Newark, actually experienced these historical periods in exactly this sequence. Cultural - resource investigations throughout the state are subdivided this way for the sake of uniformity, if not historical accuracy.

THEMATIC CONSIDERATIONS

Delaware's "framework of historic context elements" (Ames, Callahan, Herman and Siders 1989:21) is arranged according to a group of 18 themes, ten of which refer to occupations, such as forestry and manufacturing. Forestry clearly has had an impact on this site and certainly warrants thematic consideration.

Most of the postcontact history of this property has been agricultural. After the last farmer left, the project area has been consumed in urban sprawl. An agricultural theme is appropriate, but the largest part of the project area has been mapped as forest since the earliest detailed property map, in 1805. The woods that cover most of the project site contain several huge beech trees and a large number of smaller hardwood trees. A site visitor conjectured that the beech were not considered desirable and were therefore not harvested. Other hardwood trees apparently were harvested selectively.

PREHISTORY

People arrived in the Delaware Valley near the end of the latest (Wisconsin) glaciation. Glaciers entrapped so much water that the ocean lay fifty miles east of the present Sandy Hook, New Jersey. As glaciers retreated and the ocean advanced, the project area's ecology changed. With changes in ecology and population came changes in land use, which are reflected in the cultural record. By the time people had arrived on Delmarva, the modern geography of streams and hills already existed. Since the end of the Pleistocene, wind and water have created dunes, gullies, and alluvial valleys. In many places, the relatively intact Pleistocene deposits lie very close to the modern ground surface.

Mammoths, musk ox, horses, caribou, and walrus provided food for dire wolf, short-faced bear, and other predators. Man was among the smaller competitors in the tundra food chain, but his skills compensated for his physical shortcomings. Nomadic people of this Paleo-Indian period were among the most skilled makers of stone tools in the world. They would travel great distances to quarry the best flinty materials from which they made exquisite spearpoints, knives, and small tools. A well-known source of such material existed at the north end of

Pencader Hundred, about forty miles north of the project area.

During the Paleo period, most of the downstate human occupation appears to have been concentrated along the drainage divide of the peninsula.

Paleo - Indian hunting - gathering society lasted in the coastal plain until about 6,500 BCE, when the Atlantic climate episode and the Archaic period of prehistory began. Northern hardwood forests had replaced the tundra, the ocean had risen, and the climate was warmer. Pleistocene megafauna were replaced by smaller game, which required different hunting techniques and tools. "Micro-band base camps" of this relatively arid period often are found on slight elevations above poorly-drained spots (called "bay basins") where game might have come to drink or feed. Even after the climate became wetter, people apparently continued to live on sand hills that formed near the basins. One such nearby sand hill site is Simon's Savannah, tested during the Scarborough Road project with field assistance provided by the Kent County Archaeological Society (Heite and Blume 1992: 42, 63). Simon's Savannah is identified, in error, as a gravel pit on the present DelTech campus, in the geological map (Figure 8).

By about 3,000 BCE, prehistoric society was decidedly different. The last prehistoric period, the Woodland, is characterized by the frequent reuse of mid-drainage settings and the use of less productive areas that were not in use during the earlier periods. The frequent reuse of mid-drainage settings has resulted in sites that are larger in areal extent and artifact density than earlier sites, although the number

PRIORITY RANKING FOR BELOW-GROUND RESOURCES
(State Plan, June 1989, page 79)
Settlement patterns and demographic change
Trapping and hunting
Mining and quarrying
Fishing and oystering
Forestry
Agriculture
Manufacturing
Other themes

conformed to the frontier model: they were populated mostly by males, compact and strictly regulated, and were supported largely by supply lines that brought necessities from Europe or from older colonies (Heite and Heite 1986). Once the farmers were established, the colonial towns were freed from dependence upon supply lines and a local supply network developed.

of people living here at any one period was still quite small. Storage became increasingly important through time, suggesting that people were less mobile than during earlier periods (Custer 1994: 171-177).

POSTCONTACT HISTORY

Wherever Europeans have settled, they have first built highly-organized towns on the frontier, projecting all the trappings and institutions of the mother country onto the wilderness.

Pioneer farmers typically follow, after the soldiers have established an outpost. The first Dutch and Swedish settlements in the Delaware Valley

International competition probably delayed the region's transition to the second phase of colonization, which was a less regimented period of agricultural development. Most other North American colonies moved to settle the countryside within a decade after initial settlement. The Delaware coastal settlements, in contrast, clustered around their fortified command posts for at least thirty years. Not until the fall of New Netherlands in 1664 was the Delaware Valley finally able to realize its potential as an open, self-supporting, agricultural colony under a single European colonial power.

The indigenous population of Kent County was affiliated with the Lenape people, an Algonkin - speaking population known today as the "Delaware" tribe. Much of northern Delaware, Pennsylvania, and New Jersey was occupied by related bands. In these three Quaker-dominated colonies, the settlers were required by conscience and by law to "extinguish" native title through purchase. The project vicinity was called Mitsawokett by the native proprietor, who was known as Christian when he sold farms to settlers. Recorded Indian deeds to land in

PREHISTORIC CHRONOLOGY (After Custer 1986)		
<i>Dates</i>	<i>Environmental Episode</i>	<i>Cultural Period</i>
8080 BCE	Late Glacial	Paleo-Indian /Early Archaic
6540 BCE	Pre-Boreal/Boreal Atlantic	Middle Archaic
3110 BCE	Sub-Boreal	Late Archaic
810 BCE	Sub-Atlantic	Woodland I
CE 1000		Woodland II
CE 1600		Contact

Mitsawokett account for only a small part of the area.

It appears from the historical record that some local native people adopted European ways and merged unnoticed into the larger population. During the nineteenth century, they asserted their Indian origin, which now is locally recognized by their neighbors.

In order to maintain and nourish their Indian heritage, local Lenape descendants have organized a corporation, the Lenape Indian Tribe of Delaware.

EARLY NATIONAL PERIOD ECONOMY

First tobacco, and then grain and pork, exports sustained the colonial-era economy of central Delaware. These crops brought prosperity to the landowners, among whom were several wealthy families.

During the half century after the Revolution, Delaware farmland declined. Neglect, ignorance, and the disinterest of absentee landlords conspired to reduce the prosperity of Delaware agriculture. Early in the nineteenth century, a few educated farmers began to introduce new methods that eventually had a lasting effect on the landscape.

Grafted peach trees and fertilizers would be the key to rebirth of Delaware agriculture.

PEACH BOOM AND FARM PROSPERITY

Delaware soil productivity reached a nadir in the 1830s, when it was estimated that Delaware's farmland was within five years of total abandonment. Instead of collapse, the region rebounded during the next few years, thanks to aggressive young scientific farmers (Passmore 1978) who introduced the concept of fertilization and budded fruit trees.

AGRICULTURAL PROPERTY TYPES

Property types that might be found in or near the project area, based in part on a list promulgated for Delaware historic properties by Herman, Siders, Ames and Callahan 1989.

Agriculture (crops)

Products

- Nursery / Orchard
- Tobacco
- Grain
- Potatoes
- Truck crops

Methods

- Cultivation
 - Plowing
 - Plow Scars
 - Orchard planting holes
- Enclosures
 - Field boundaries
 - Drainage ditches
- Fertilization and improvement
 - Manuring Spread
 - Fertilizer Residues

Forestry

- Sawmills

Mining and Quarrying

- Borrow Pits
- Brick Clay Pits

Scientific, fertilized, agriculture, as practiced today, was unknown during the first years of settlement. Only after large areas had been rendered infertile did American farmers begin to address the problems of conservation and soil fertilization.

Evidence of scientific farming practices can be seen in the soil in the form of ditches, drain tiles, calcined oyster shells, and tiny dispersed bits of brick, bone, pottery, and other domestic debris that would have been included with manure and compost. Manure, including human waste, was used extensively in the United States during the nineteenth century, when the word "manuring" referred to any soil improvement through modification of its contents.

When the Delaware Rail Road opened in 1856, Delaware producers gained access to national markets. Toward the coast, steamboat companies served communities that were not along

the railroad. By the end of the nineteenth century, roads had been reduced to feeder status; railroads and steamboats dominated long-distance travel.

TRENDS IN LANDOWNING

There were periods when large estates accumulated, and periods when they were broken into smaller holdings. Such broad trends in ownership patterns can be seen reflected in the vicinity of the project area.

The project area was originally part of Hiron Range, a speculative holding, owned by speculators. A large portion was bought by a local wealthy farmer, whose heirs were absentee landowners. As the property was subdivided with each death and estate division, individual parcels became less valuable. Finally, the old manorial estate was divided into many parts, which were bought by local people who set about improving the property again.

Each real-estate transaction can influence the archaeological record. When a small farmer sold out to a larger landowner, his toft became a tenancy or was abandoned. Either way, the archaeological record was affected. When a well-off farmer married, he might build or remodel his house, also leaving a mark in the archaeological record.

Such events must be documented as precisely as possible before any fieldwork, because they can provide explanations for archaeological deposits.

A marriage, estate sale, or farm consolidation is the documentary expression of events represented in the field by features and artifact deposits. With these objectives in mind, documentary research for this project

included probate, land grant, survey, and tax records at the state archives and the courthouse, in addition to secondary histories.

HISTORIC CONTEXTS

Agriculture, and particularly agricultural tenancy, stand out as the dominant theme in Kent County historic planning. A context study for tenancy was prepared by the University of Delaware Center for Historic Architecture and Engineering (Siders, Herman, *et al.*, 1991). A context for archaeology of agriculture and rural life in New Castle and Kent counties was prepared by the University of Delaware Center for Archaeological Research (De Cunzo and Garcia 1992). Transportation remains undefined among Delaware contexts.

PROPERTY TYPES

In terms employed by the Comprehensive Historic Preservation Plan (Ames, Callahan, Herman and Siders 1989:33), the project area is part of the upper peninsula geographic zone. The management plan for prehistoric resources (Custer 1986:13) classifies the project area in the mid-drainage physiographic zone of the low coastal plain.

PRIORITY RANKING FOR ABOVE-GROUND RESOURCES

(State Plan, June 1989, page 79)

- Agriculture
- Settlement patterns and demographic change
- Manufacturing
- Retailing and wholesaling
- Transportation and communication
- Other themes

The obvious historical archaeological context is agriculture, as defined by DeCunzo and Garcia (1992), which will be considered here.

A defining characteristic of recent Delaware agriculture is consolidation. Over the past half-century, farms have been combined; as a result, there are many abandoned toft sites among the broad fields.

In urban areas such as this, agriculture has been in decline, supplanted by urban sprawl. Among the casualties of urbanization are prehistoric sites, which survive only in

small pockets of sprawling cities. The relatively undisturbed woodland behind the apartment complex is an example of the kind of urban pockets that might contain prehistoric remains. In this case, the setting is particularly likely to contain prehistoric sites.

PROPERTY TYPES IN THE LOCALITY

Nearby historic property types include agricultural complexes, agricultural fields, and a railroad. Older agricultural complexes all occur on well-drained soil. Only more recent habitations, such as mobile homes, occur on soils that are not well drained. The project area is a sandy ridge, one of

the favored geographical settings for agricultural complexes. The dominant agricultural soil type in this neighborhood is Sassafras, which occurs here.

STATE PLAN CONTEXTS

Because of the high priority assigned to agriculture and the archaeology of agriculture by the state planning documents, there is a high likelihood that well-preserved agricultural remains would be candidates for the National Register.

In order for a property to be eligible, it must possess integrity and definable boundaries as well as a quality called "significance," which can be defined only in terms of each specific context. The context may be spatial, temporal, or thematic, but it must exert a unifying effect (DeCunzo and Garcia 1992:311-317).

A concept of eligibility through "representativeness" takes on special importance when dealing with "ordinary" or "commonplace" properties. A property is "representative" if it contains all the elements of the "typical" property of that category. That is, integrity becomes the most important single determinant in evaluation.

PURPOSE OF THIS SURVEY

At the Phase I level, the purpose is to identify all cultural resources that might be present on the areas that are to be impacted by the proposed activity. In this case, the area of potential effect is a right-of-way for a road to connect Scarborough Road with the commercial complex that includes Wal-Mart, Lowe's, Sam's Club, and the Sheraton, among others. These businesses currently face Route 13; giving them an outlet to Scarborough Road will relieve

congestion on that major north-south artery.

A "cultural resource" can be anything that has been placed, built, or modified by humans at any time in the past. Very old Native artifacts are cultural resources, but so are tin cans. To determine their significance is the task of a Phase II, or evaluation, study. In the Phase II exercise, the criteria for evaluation are used to identify resources that are eligible for listing in the National Register of Historic Places.

While a Phase I survey might reveal evidence sufficient for evaluation, such findings are mere serendipity, not to be expected.

The Phase II survey project takes the evidence found in Phase I and evaluates it in terms of National Register eligibility. In order to evaluate eligibility, it is necessary to identify the site's boundaries, its internal structure, and its cultural affiliations.

Because it is intended to review the entire project area, a Phase I strategy must be designed to find all the cultural resources that might exist in all the different parts of the project impact area. The more intensive Phase II survey must examine each identified resource.

This study was undertaken before the final route of the road had been determined. Therefore, the Phase I survey ranged over a wider area than the immediate impact zone. When the Phase II project was accomplished, it too went beyond the right-of-way line because it was necessary to determine the site boundaries at this level. Two different alignments were investigated as the road planning process went forward. All the land involved belongs to the Department.