Chapter 1

INTRODUCTION: WHY AND HOW THE WORK WAS DONE

A. BACKGROUND: HIGHWAYS, ARCHAEOLOGY AND IMPROVEMENTS TO HENDERSON ROAD

This project report describes archaeological and historical research undertaken on two archaeological sites lying on the south side of State Route 316, variously known as Henderson Road, Old Coach Road and Pike Creek Road, in Mill Creek Hundred, New Castle County, Delaware (Figures 1.1 and 1.2). This road crosses Pike Creek, one of numerous north-south Piedmont tributaries of White Clay Creek and the Christiana River, which flow into the Delaware River at Wilmington. At the bridge crossing the creek, a north-south road, Upper Pike Creek Road (Route 322), intersects with Route 316, the northern section lying on the west side of the Creek, the southern on the east side. The narrow bridge, the awkward intersection, and the increasing traffic in this formerly rural but rapidly suburbanizing setting, all combine to make highway improvements necessary here. See Figure 1.3 for a detailed map of the area.

Since the mid 1960's, federal and state agencies, whose actions affect the natural and cultural environment, have been required to assess the effects of such actions and to take steps to reduce or avoid any adverse impacts on the natural or cultural resources affected. There are a number of laws and resultant regulations and guidelines now in place. For cultural resources (chiefly archaeological sites and historic structures), the most important of these are Section 106 of the National Historic Preservation Act of 1966, as amended; Section 4(f) of the Department of Transportation Act of 1966; Section 101(b)(4) of the National Environmental Policy Act of 1969; and Section 1(3) and 2(b) of Executive Order 11593. Each of these regulations essentially requires a threefold process of identification, assessment, and treatment of cultural resources adversely affected by a public undertaking. Planned improvements to this intersection are one such undertaking.

This threefold process is guided by procedures in the Code of Federal Regulations (CFR). These include:

- the Regulations and Guidelines for Determining Cultural Resource Significance and Eligibility for the National Register of Historic Places (36 CFR 60 and 63);
- the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (36 CFR 61); (Senior Hunter Research personnel who were responsible for undertaking these investigations met these federal standards for qualified professional archaeologists)
- the Regulations and Guidelines specifying the Methods, Standards and Reporting Requirements for the Recovery of Scientific, Prehistoric, Historic and Archaeological Data (36 CFR 66);
- the Regulations and Guidelines for the Protection of Historic Properties (36 CFR 800, revised in 1999);
- the Regulations and Guidelines Developed for the Implementation of Section 4(f) of the Department of Transportation Act of 1966 (23 CFR 771);

In addition to these federal guidelines, the Delaware State Historic Preservation Office has developed guidelines outlining how cultural resource studies should be carried out in the state and also has a State Historic Preservation Plan, which helps to provide a framework within which historic resources in a particular area can be studied.

In 1995 a preliminary study was undertaken of the project area to make initial identifications of cultural resources, though not to make a firm recommendation as to their significance (Hunter Research Inc. 1995). This study identified several historic sites and also located one prehistoric artifact. Early in 1996 additional historical research was undertaken in an attempt to clarify some of the issues relating to the mills other properties in the area. This was followed in 1996 by Phase II level studies, designed to evaluate the importance of specific resources, including backhoe testing at the mill site. This work was summarized in a letter report in December 1996 (Hunter Research Inc. 1996). The report concluded that, of the sites identified in the survey to date, the Ward/Little Farmstead Site (given the state identification number 7NC-D-203) and the Woodward/Trump/Broadbent/Taylor Textile Mill and Raceway Site (7NC-D-202) were eligible for the National Register.

The Taylor Skelly House Site was not considered to be eligible for the National Register of Historic Places, and no determination was offered for the second site, a Wheelwright shop, because the archaeological evidence there was inconclusive. There was poor archaeological integrity of this part of the project area, suggesting that the site was not likely to be significant. The background research in the Phase II study showed, however, that there were other resources in the vicinity, particularly other waterpower sites. This raised the possibility that the area of the crossing of Pike Creek might be considered as a historic district, but it was felt at that time that the historical and spatial unity of the site was insufficient to sustain such a designation. These other resources are outside the area of direct impact from the intersection improvement. It will be clear in the following chapters that there is a complex set of spatial and tenurial relationships that link these historic sites together to a greater extent than was apparent at that level of work.

B. THE RESEARCH PLAN

Following this preliminary work, the data recovery plan was designed as an appropriate treatment for two National Register eligible archaeological sites on the south side of Henderson Road/Old Coach road in Mill Creek Hundred, New Castle County, Delaware (Figure 1.2). These two sites are the Ward/Little Farmstead Site [7NC-D-203] and the Woodward/Trump/Broadbent/Taylor Textile Mill and Raceway Site [7NC-D-202]. The Delaware Department requested this research design for data recovery, and for more formal determination of eligibility statements, in January 1997. These are included in this report as Appendices E and F.

It was clear that both sites would be unavoidably affected by highway improvements, which would likely destroy the archaeological evidence within the construction areas. Because portions of the sites beyond the project limits would not be impacted, archaeological excavations were restricted to the Area of Adverse Effect. This inevitably limited to some degree the completeness of the evidence which could be recovered. It was hoped to alleviate this through survey work and recording of the standing ruins, particularly at the farm, and through more intensive documentary research. The final research or “data recovery” plan was presented in March 1998 and work started shortly afterwards, being completed by midsummer.

The research plan is presented in full in Appendix D, but the main points are as follows. The plan was designed to obtain historically significant information from the study of these sites through archaeological investigation and through historical research.

1. Ward/Little Farmstead Site [7NC-D-203]

The archaeological study of 19th-century agricultural sites is the subject of an ongoing methodological debate throughout the mid-Atlantic region and beyond. The literature on the topic is now prodigious (see Burrow 1996 for a partial review). In Delaware, a general framework was established by De Cunzo and Catts (1990), with detailed historic context development for Sussex (De Cunzo and Garcia 1993) and New Castle and Kent Counties (De Cunzo 1992). The objective of the research-driven data recovery at the Ward/Little Farm will be to contribute to the broader understanding of 19th century agriculture in New Castle County.

One emphasis of the research program was to establish how atypical or typical the Ward/Little tenant farm is in the New Castle County Piedmont in terms of its history and characteristics. The farm was established in the late 18th century, but in the mid-19th century, documented improvements suggest that the original log house was probably replaced by a frame building. At this time one may expect to see the influence of the reform farming movement on the farm complex, of which the rebuilding of the house may be a manifestation. We wanted to know if the landscaping of the farmstead, which we had observed in the initial work, dated to this period or later. We hoped to see if there were changes in foodways and material culture that reflect a change in social and economic status of the farm in the mid-19th century. Was there any evidence for an increased emphasis on dairying?

Overall, we viewed the Ward/Little Site as a case study of a northern tier Piedmont farm that survived for over 100 years. Our intention was also to compare this site with other archaeologically and historically researched farmstead sites in the area to produce a synthesis which will bring out contrasts and similarities among the sites.

In order to achieve these goals, a program of research was set out. A range of primary historical records were to be examined to try to set the farm in a wider historical context, and a field investigation plan was also developed. The emphasis was on the comparison between this site and others that have been studied to a comparable level within the cultural resource management process.

The area of the site available for study was a zone about 30 feet wide along the south side of Henderson Road. Within this area lie the ramp and northwest portion of the barn, most of an agricultural structure to the west of the barn, and an area of deep fill flanked on its north side by a retaining wall along the road.

The presence of structurally-complex standing walls and associated stratigraphy provided a valuable opportunity to examine the sequence and chronology of the farm buildings.

Two areas were proposed for below-ground archaeological investigation. The first was a continuous area extending from the bank barn to the eastern end of the agricultural building ruins to the east. Excavation here was designed to sort out the relationship between the bank barn, the other building, and the landscaping episode observed in the Phase II work. Plates 1.1 and 1.2 show this work in progress.

We also proposed to draw and photograph all the standing walls on the site (including those outside the immediate APE) to record changes of build, material and mortar types, the character of openings, and the

Plate 1.1. Excavation in progress in the barn area at the Springer/Little Farm in April 1998. Supervisor Vincent Maresca (left) discusses the stratigraphy of Excavation Unit 97 with Assistant Archaeologist Gregg Tindall, while Field Assistants Rebecca White and Mike Lenert make records in the background (Photographer: Ian Burrow, April 1998) [HRI Neg. #98014/1:35].

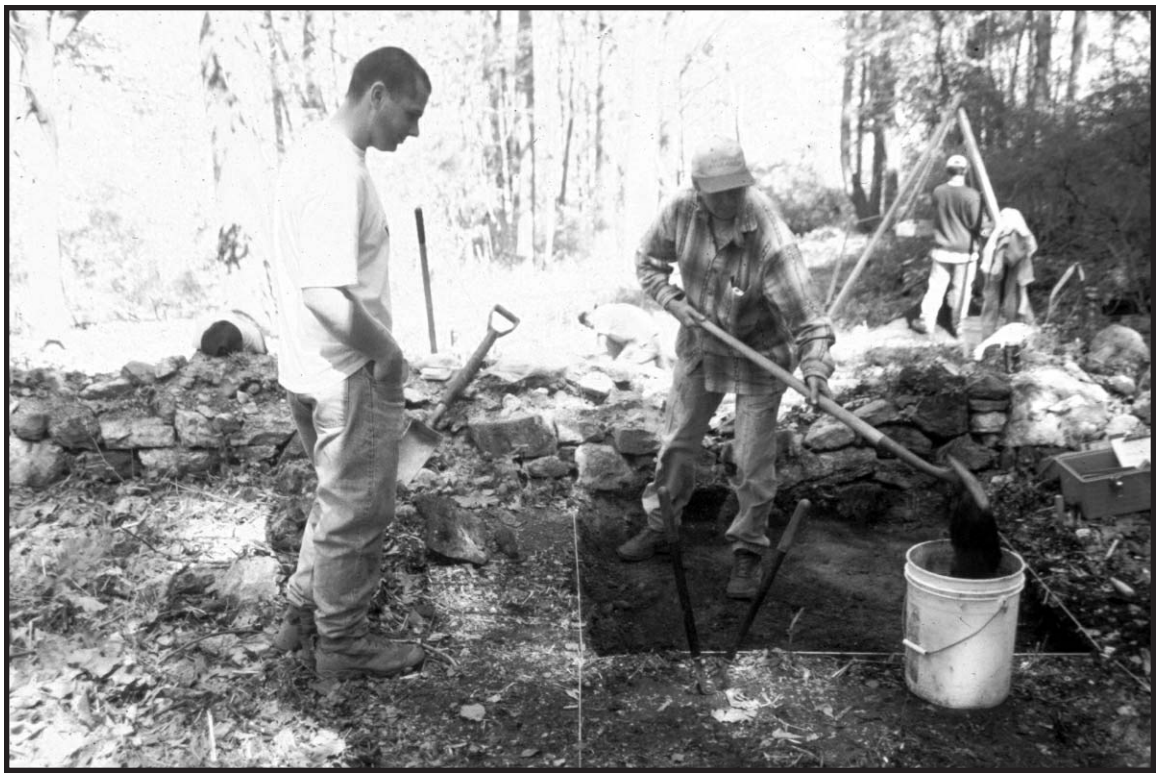

Plate 1.2. Vivian Braubitz and Aaron Levinthal excavating Unit 106 against the west face of wall 913, one of the Springer/Little farm outbuilding walls, in April 1998. Matthew Kinsey screening soil in the background (Photographer: Ian Burrow, April 1998)[HRI Neg. #98014/1:36].

Plate 1.3. Supervisor Sue Ferenbach (left) holding surveying prism for George Cress, who is using a lazer transit to map the walls of the Springer/Little Farm barn area. Mike Lenert is transferring the transit readings to the site map in the top center of the view. (Photographer: Ian Burrow, May 1998) [HRI Neg. #98014/9:9].

location and nature of metal and other attachments. The process of mapping these walls is shown on plate 1.3

The second excavation area was proposed, running southwards from the south face of the retaining wall adjacent to Henderson Road. This area was believed to contain deep fill deposits derived from the barn area, and possibly from the house to the north.

2. Woodward/Trump/Broadbent/Taylor Textile Mill And Raceway Site [7NC-D-202]

We saw the research at the mill site in the broader context of the textile milling and waterpower history of the Delaware Piedmont and Upper Peninsula and, more broadly, of the eastern seaboard of the U.S., from the early Federal period to the Civil War. In Delaware, textile milling was significantly localized in the Piedmont area in early and mid-19th centuries. Study of mill sites has accelerated in the region in recent years. In 1990 only five mill sites (of all types) were recorded as historic archaeological resources in the whole of Delaware by the Bureau of Historic Preservation (De Cunzo and Catts 1990: Appendix I). A management study of the White Clay Creek Mills was completed in 1989 (Bruff 1989), viewing mills as a regional and interlinked phenomenon. A detailed engineering study of the Dayett Mill on the Christiana River (Demars and Richards 1980) is a valuable examination of technological aspects of mills in the region. Mills forming part of the DuPont properties on Wilson's Run have been examined by Heite (1992). Further south, an archaeological study of the Bennett-Thomas fulling and grist mill on Scott's Run immediately south of the Delaware and Chesapeake Canal was completed in 1995 (Doms et al. 1995). Other recent studies include Greenbank Mill and the Cubbage Pond Mill Site in Sussex County. Research materials at the Hagley Museum will provide other comparative material.

These studies set the Woodward/Trump/Broadbent/Taylor Textile Mill and Raceway Site in context as an example of a modest rural textile operation in operation for about 50 years. It may have changed its product on more than one occasion (textiles, carpets and wool are mentioned in the documents). The Delaware historical archaeological management plan (De Cunzo and Catts 1990) identifies a number of issues which can be addressed through the archaeological study of mill sites. These include the effect of the mill technology on the immediate settlement pattern and landscape, the material circumstances of the workers at the mills, and the interaction between changing technology and economies of scale as larger more efficient mills were built.

In terms of archaeological evidence, it was deduced that the main contribution of this site to the understanding of Piedmont textile mills would be through the examination of the waterpower system and to wider changes in technology (e.g. the introduction of turbines).

In addition to more intensive regional and site-specific background research, archaeological investigations were proposed on the mill site and its waterpower system. The Phase II work had shown that only the use of machinery could examine effectively the large scale features relating to the mill building and the raceways, which were thought to be deeply buried. The mill building would be examined first, followed by a presumed raceway on the southern side of the road and finally by observation of the road itself when the intersection improvements began. In this way we hoped to get a fuller picture of what the mill looked like and how it developed through time.

3. Other Sites

The plan also proposed to investigate two additional areas which had not previously been explored: blacksmith shop site at the eastern limits of the project and a flat terrace area towards the western end.
These areas of potential significance would be directly impacted by the construction.

4. Making the Results Known

In addition to the production of this report, the plan outlined ways in which information about the project could be made available to the public. This emphasis on public involvement is in the spirit of the revised Federal regulations for Protection of Historic Properties (36CFR Part 800.2(d) and the Advisory Council's *Draft Guidance on Archaeological Data Recovery Projects*, both of which stress the importance of public involvement in the Section 106 process.

This report is organized in such a way that the detailed technical archaeological information is placed in Appendices A and B towards the end of the report. This arrangement is somewhat different from the more common structure of these reports, in which the archaeological data is central to the body of the text. The organization used here reflects continuing experimentation with new ways of communicating the results of these kinds of investigation.
The main chapters present the results of the extensive historical research on the two main sites and the way in which the archaeological evidence meshes with conclusions drawn from the research. The final chapter attempts to summarize the information and evaluate the project as a whole.