

APPENDIX XIV

**Research Design and
Data Recovery Plan**

**RESEARCH DESIGN AND DATA RECOVERY PLAN
FOR THE HISTORIC COMPONENT
OF THE
HAWTHORN FARMSTEAD (7NC-E-46)**

By

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INTRODUCTION

This report presents a data recovery plan, schedule, and budget for an historic archaeological data recovery project at the W. M. Hawthorn Farmstead (7NC-E-46), New Castle County, Delaware. This data recovery plan follows the opinion of the State Historic Preservation Officer's staff that a no adverse effect determination would be appropriate upon recovery of significant archaeological resources as per 36CFR 800.4(c) and the Advisory Council's "Treatment of Archaeological Properties: A Handbook."

BACKGROUND

The W. M. Hawthorn Farmstead is located in northern New Castle County, Delaware, and was located by Delaware Department of Transportation archaeologists during a cultural resources survey of the corridor for the proposed dualization of New Churchmans Road (Figure 1). Test excavations were carried out at the site and a determination of eligibility was prepared. The site was declared eligible to the National Register of Historic Places on July 2, 1982.

The site is located in a region of Delaware that included relatively intensive settlement in the 18th century. The tract of land containing the site was originally patented in 1672 and is within one-and-one-half miles of the Christiana Historic District, a 17th century town that was an important portage point to the Chesapeake Bay into the 19th century. Two additional 18th century towns, Ogletown (located two miles to the west) and Stanton (located about two-and-one-half miles northeast), are also in the immediate area. The Hawthorn Farmstead itself first appears on an 1868 map of the area although historical documents place the occupation at least as early as 1760. Standing structures including a house, barn, and outbuildings were demolished in 1960 for initial construction of New Churchmans Road.

Initial discovery of the archaeological site took place during a Delaware Department of Transportation cultural resource survey for the proposed relocation and widening of New Churchmans Road. An intensive testing program was carried out to determine the extent of the site, the presence of buried, datable, and intact cultural materials, and the extent of modern disturbance at the site whereby National Register eligibility would be assessed. A program of excavated test squares in various areas of the site, including areas adjacent to extant foundations, was carried out in addition to post-holer tests and soils augering (Figure 2). In the vicinity of the house, late 18th through 20th century artifacts and construction materials were recovered. Test units located in areas away from the house and outbuildings showed some buried historic land surfaces that contained artifacts from approximately the same time range with different spatial distributions of artifacts from different time periods. The subsurface context of the finds is quite good and extensive dumping in some site areas through historic times has created a series of buried artifact horizons with good stratigraphic context. Modern disturbance of the site is limited to surface disruption of foundations and recent (20th century) deposits.

The presence of preserved artifact-bearing horizons was one of the main reasons for determining the site's eligibility for the National Register of Historic Places. Additionally, no farmsteads of a similar socio-economic group have been excavated in the northern Delaware area. Only one additional farmstead, the Robert Ferguson Site, has been studied by Delaware Department of Transportation archaeologists (Coleman et al 1983); however, the Ferguson site was a tenant house with associated outbuildings. The apparent non-tenant occupation of the Hawthorn Site should produce contrasting information to that discovered at Ferguson.

"Specifically, because of the separate, undisturbed areas of cultural materials dating to different periods of occupation of the site, it probably retains information concerning the variation in spatial utilization of a farmstead in the surrounds of the residence structure from the late 18th through mid-20th century. Hence this site provides the research opportunity to gain a better understanding of the changing lifeways of the Delaware farmer through time as well as a comparative base for future excavations at other similar sites."*

Study of the changing lifeways at rural farmsteads is a particularly interesting research question for the local northern Delaware area, as well as the Middle Atlantic region, and accentuates the significance of the Hawthorn Site. Fletcher (1950) suggests that most farming operations in the central Middle Atlantic were primarily subsistence economies in the late 18th and early 19th century. However with the development of improved transportation networks, the coming of the industrial revolution and increased population densities in urban areas, farm economies in the central Middle Atlantic were drawn into a broader market economy (Lemon 1972:224-228). In the northern Delaware area, local historical (Hoffecker 1974) and archaeological studies (Klein and Garrow 1982) of Wilmington, Delaware (less than 15 miles from the Hawthorn Site), indicated an emerging transportation and commercial center through the late 18th and 19th century. With further industrialization, varied patterns of ethnic and socio-economic groups with different residence patterns and complex changes in land use seem to be apparent in urban contexts. However, the effects of industrialization, expanding markets, and improved transportation on rural areas are not known at present. The Hawthorn Site provides a unique setting to see if these historically documented urban and regional trends had effects on farmsteads in rural, yet

*Section 8, Hawthorn Site Determination of Eligibility

not isolated, areas. Archaeological studies of these effects may be particularly useful because they may identify changes in material culture and spatial utilization patterns that would not necessarily be documented in the historical record.

RESEARCH GOALS AND STUDY QUESTIONS

Because the archaeological study of rural farmsteads, such as the Hawthorn Site in this area of the Middle Atlantic is undeveloped, a major goal of the proposed research will be to provide a broad data base that can be used for comparisons with other rural sites that may be excavated in the future, and to compare the data to previously studied sites in the Chesapeake where much more has been done. However, although specific description of the artifact patterning at the Hawthorn Site is a major research goal, a number of more general research issues can be developed from the regional land use and economic patterns noted above and from more general studies in Middle Atlantic historical archaeology (H. Miller 1980). These questions include:

- 1) Are changes in artifact distributions present and are they indicative of changing spatial utilization present at the site? Can such changes in patterns be related to historically-documented economic and social changes in the surrounding area?
- 2) Are there changes in the presence or absence, and frequencies, of certain artifact classes through time that can be related to changes and/or stability in purchase and consumption habits of the site's occupants?
- 3) Can changes in either of the above categories of data be analyzed for meaningful covariance?

Each of these three questions is discussed below.

1) Patterns of Artifact Distribution and Spatial Utilization

Based on the work of South (1979), it can be expected that changing uses of the Hawthorn Farmstead through time would have produced different distributions of varied classes of artifacts such as domestic refuse, agricultural refuse, and subsistence refuse during different time periods. Similarly, artificial changes in site landscape may have been accomplished through time as the activities at the farmstead changed (Handsman 1981). All of these changes may reflect variation in the economic orientation of the farmstead (e.g., from agricultural to livestock) and are related to regional economic trends (see Lemon 1972). Preliminary documentary and archaeological research suggests that the farmstead has been primarily oriented toward moderate scale grain agriculture throughout its documented history and little distributional change is expected.

Previous research at this site was limited in its areal extent and has limited interpretive value for such questions. Nevertheless, a locus of late 18th and early 19th century artifacts was discovered within the general distribution of late 19th and 20th century artifacts. Therefore, the major research task will be to obtain a representative sampling of the various sections of the site and to further investigate the possible spatially distinct late 18th and early 19th century artifacts. A sample of varied site areas such as front yard and back yard will also be obtained using stratified sampling techniques. These samples will consist of a series of test units (measured excavation units and post hole tests, depending on stratigraphy) placed at regular intervals in transects across the known site area and within special site areas.

Artifact distribution variation alone, however, is not expected to fully answer questions on spatial utilization. Information on architectural remains as well as fence lines and wall lines will also be needed. Therefore, when any such remnants are encountered they will be delimited and excavated to recover artifacts that can

provide data on their age and function. This excavation program should delimit various patterns of artifact distributions through time. Also, the existence of stratified remains shown from preliminary testing and some initial indications of spatial variability make it highly likely that the methods proposed will recover significant data with respect to this research question.

Cataloging and laboratory analysis of the artifacts from the excavations will focus on variation in function and will follow the methods proposed and described by South (1979). Expected categories to be delineated include household vs. farm implement, ceramic vs. metals, and varied ages. Diagnostic artifacts and histograms of ceramic and glass categories will be used to define chronological controls within the spatial analysis. Distributions of varied classes of artifacts found during cataloging will be mapped and plotted using the SYMAP computer package. A series of distribution maps for various points in time will be produced to show the presence or absence of changes in spatial distribution.

2) Purchase and Consumption Habits

The regional socio-economic changes described earlier may not only have changed spatial utilization at the site, but may also have affected the income of the site's inhabitants and their purchase and consumption habits. For example, as northern Delaware was drawn into wider ranging market economies, new goods and perhaps foods might have become available. This is especially true given the role of Philadelphia and Wilmington as import/export centers. Also, vagaries of local and regional economies may have had important affects upon economic standings of farms. Lemon (1972:224) notes that in nearby southeastern Pennsylvania, the period between 1760 and 1790 was one of disruption of "normal economic patterns" due partly to the Revolutionary War but also due to a major reorientation of immigration patterns and fluctuations in the values of all goods within the trans-Atlantic market. There are some indications that real income rose throughout the

new "National" economy in the 1790's and again between 1815 and 1830 (Adams 1968). However, Fletcher's (1950) study of agricultural economy during the same period does not clearly indicate a change in agricultural income until after 1840.

Both archival and archaeological research will be used to analyze the economic standing of the inhabitants of the Hawthorn Site through time. The original archival research involved in determining the eligibility of the site for the National Register suggests that on the basis of size of land holding and taxes the Hawthorn Site was in the middle income range and little change could be seen in its economic status over time. However, the initial research did not include a consideration of regional and local economic trends and there is really no existing basis for comparison to other rural farm economies in northern Delaware. Consequently, some archival research will be necessary to document the comparative backdrop of regional and local agricultural economies against which the Hawthorn Site can be considered. Archaeological research will consist primarily of artifact analysis and will utilize the artifacts recovered during the testing program described for the analysis of spatial distributions. These artifacts will be analyzed as indicators of socio-economic status using techniques similar to those utilized by G. Miller (1974, 1980). These techniques consider the costs and availability of various classes of ceramics and correlates them with differing patterns of utilization found in different socio-economic classes. The varied classes of artifacts recovered will also be analyzed for indications of changing primary trade networks. For example, the increasing participation in market economies that covered wider regions may be reflected in the archaeological record by a proliferation of new kinds of ceramics, glass wares, agricultural tools, and household goods. Food sources may also have changed with certain foodstuffs becoming available as markets increased the size of the networks.

The presence of stratified remains, including a variety of household and agricultural artifacts, recovered in the initial testing of the site ensures that there should be sufficient archaeological data to analyze this research topic. Studies of historical agri-economic history (Lemon 1972) provides part of the basis for the historical analysis, and primary documents such as local taxes, inventories, and wills should provide an adequate archival data base.

3) Covariation of change

Changes in any of the data categories noted above may or may not be correlated with each other. As part of the overview of the analysis, the covariation of the changes will be studied specifically. This research should reveal the different ways by which varied cultural sub-systems are articulated with one another and with the changing biosocial environment (Binford 1965). It is also possible that the data categories may show no change in the face of regional socio-economic change. In this case, the conservative resiliency of certain kinds of rural economies may be apparent, or, perhaps, archaeological data do not reveal these kinds of changes.

Artifacts will be processed and conserved, if necessary, in accordance with State of Delaware Bureau of Archaeology and Historic Preservation standards and will be placed on repository at the Island Field Museum, the official Delaware repository, along with field notes, maps, and all excavation records. Copies of the report will be distributed to the local archaeological community and libraries, and additional copies will be on file at the Department of Transportation, the Island Field Museum and the Bureau of Archaeology and Historic Preservation.

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