4. RESEARCH PRIORITIES & STATE PLAN

THE DELAWARE PREHISTORIC cultural resources management plan identifies the Dover area as a region with "high/medium significant site potential with development pressure" that deserves special attention (Custer 1986:206). Since that determination was written, the Census Bureau identified Dover as a metropolitan statistical area, indicating an elevated level of urbanization. In areas where composite sensitivity is so high, surveyors are more likely to consider fragmentary sites, or sites that might have been partly compromised.

Blueberry Hill at first appeared to be such an unpromising, damaged site. Upon application of previously-formulated predictive models, the site was shown to be a candidate for potential National Register eligibility.

APPLICATION OF PREDICTIVE MODELS

The proposed road crosses Fork Branch just below the confluence of its two principal sources and near a minor tributary. Such confluences are considered to possess relatively high likelihood of containing archæological sites.

Bay/basin features, the landlocked watery depressions that dot central Kent County, were heavily utilized during prehistory. As many as 90% of such features are associated with archæological remains, mostly from the Woodland I period, but including every period except the Paleo-Indian (Custer and Cunningham 1986: 18; Custer, Bachman, and Grettler 1987:33). Testing of one such feature in New Castle County indicated that the archæological material was concentrated on a sandy knoll in the center of a cluster of bay/basins.

Such locations exist in the Scarborough Road project area. A large basin west of Blueberry Hill, adjacent to the Geiser toft site, was examined in connection with the present project. Its associated prehistoric site probably was in the area later occupied by the farm's kitchen garden, on a sandy ridge outside the proposed right-of-way. Geological testing in the basin was undertaken as part of the present study, in no small part because of the light it could shed on the natural history of Blueberry Hill.

In the southern New Castle County part of the Route 13 corridor, nearly all the Woodland II sites were found in the fringe of forest land around the edges of plowed fields along bluffs adjacent to major drainages. Sites of this period were found to be small and tightly organized against the edges of bluffs, which may explain why they were consistently missed during surface surveys of the adjacent cultivated fields (Custer and Cunningham 1986:25). The surviving part of the Blueberry Hill site fits the specifications for such a marginal site of the Woodland II period.

In connection with these fringe sites, it should be noted that most borrow pits do not extend to the edge of the bluff. The narrow, insignificant-looking, remnant ridges between borrow pits and floodplains might, in fact, contain nearly intact prehistoric sites.

At the nearby Mudstone Branch site, Louise Heite (1984) discovered a small, isolated, Woodland-period deposit with pottery on a knoll near a swamp along the creek, where the model predicted a micro-band seasonal procurement site could be expected.

Elevation was evidently a serious concern among prehistoric people when they were choosing sites. Even the very slightest difference in elevation can have a dramatic effect on the artifact content of the ground, as was demonstrated nearby in 1985 (Heite and Heite 1985).

When Blueberry Hill was first tested at the Phase I level, the test was situated in the highest surviving natural rise (Heite and Blume 1992:75), which turned out to lie near a well-defined Woodland activity area. This experience should alert future surveyors to place their tests in these fringe sites at the highest possible elevation.

Æolian site burial has attracted considerable attention in recent years. The Delmarva peninsula contains a number of dunes that have accumulated during Holocene times (Denny and Owens 1979). The resulting æolian soils on these dune features have been found to contain wind-buried sites that can be quite deeply stratified (Ward and Bachman 1987). Any æolian soil, therefore, must be assigned a high likelihood of containing buried land surfaces. If, in addition, it meets other locational criteria for site sensitivity, it deserves special attention. This was the case at Blueberry Hill.

GENERAL RESEARCH OBJECTIVES

While geographical data is valuable toward formulating a general picture of prehistoric society, information about the people and their way of life can be derived only from controlled examination of the sites.

The planning process is organized from the top down, tapping the data for ever more detailed questions. State management plans provide a general framework of research questions, but the individual researcher has considerable leeway at the site-specific level.

At least six general research objectives can be readily identified to guide any data recovery project on any site in Delaware. These general objectives are in fact a useful key to organizing virtually any site worldwide. Stated as questions, they are:

1. What was the internal structure of the site, and how did that structure change through time?
2. What depositional contexts can be identified, and how do they relate to human utilization of the site?
3. How did the environmental setting of the site change through time, and how did the changes relate to human utilization of the site?
4. How did the site's occupants exploit the lithic resources that were available to them?
5. What was the function of the site?
6. What can this site tell us about the prehistoric chronology of human occupation on Delmarva?

If a site can contribute to answers for several of these questions, its significance is assured. Criterion D for the National Register states that a site is considered significant if it contributes to our knowledge of history or prehistory.

Archæological significance normally is expressed as criterion D: properties that have yielded, or may be expected to yield information about history or prehistory. The amount of information needed for reaching these conclusions may vary with conditions.

EVALUATION CRITERIA

Evaluation of National Register eligibility involves three elements: significance, integrity, and extent or boundaries. In a group of planning documents for the Route 13 Relief Route (State Route 1) corridor studies, Custer and his associates have developed frameworks for evaluating both prehistoric and historic sites (Custer, Jehle, Klatka, and Eveleigh 1984:113-129; Custer and Bachman 1986:192-194; Custer, Bachman, and Grettler 1986:178-180). The framework for evaluating prehistoric site significance can be summarized as follows, in descending order of potential significance:

1. All unplowed sites, regardless of period of occupation or site type, are of high potential significance.

2. Late Paleo-Indian and Archaic sites which have been plowed, but which are otherwise undisturbed, are of high potential significance.

3. Plowed base camps of all time periods are considered potentially highly significant.

4. Plowed sites that are not procurement sites and are associated with bay/basin features are potentially of medium significance.

5. Plowed, disturbed, and eroded sites of all types are potentially of low significance.

6. Plowed procurement sites are also potentially of low significance.

This hierarchy provides a key to relative ranking according to integrity, expressed as potential for yielding data. It does not address potential research value of the site's contents, which must be evaluated against the six questions. A composite of the two lists will provide a sound basis for making significance decisions, under National Register Criterion D.

After the planning studies were completed, additional testing within the Relief Route corridor (Custer and Watson 1987; Ward and Bachman 1987) indicated the presence of buried components in a large number of sites, some of which had never been plowed. Stratified sites are capable of providing significant information for the study of prehistory because of the temporal separation provided by site burial.

RECOMMENDED RESEARCH QUESTIONS
FOR THE FUTURE STUDY OF MARYLAND ARCHÆOLOGICAL RESOURCES
(FROM THE 1986 MARYLAND STATE PLAN)

1. What is the role of environmental change in the process of prehistoric culture change?

2. What factors are involved in the social transformation of prehistoric populations from egalitarian, non-sedentary societies into complex, sedentary societies?

3. Is some of the change and/or variability noted in the archeological record due to migration of outside populations into new areas?

4. What is the relationship of historically identified Native American groups with prehistoric culture groups identified in the archæological record?

5. In the prehistoric period, does technological change serve as a stimulus to culture change, or is technological change simply a response to other internal or external factors involved in culture change?

6. Are existing archæological predictive models of prehistoric site distribution and content accurate and a true reflection of the total remaining prehistoric archæological record?

7. Why did indigenous Native American populations largely disappear from Maryland after European settlement began?

8. To what extent did European goods and culture supplant traditional goods and culture in native American populations during the Contact period?

9. How has the maritime/riverine physiography of Maryland affected its prehistoric and historic development?

10. Did a recognizable American culture, distinct from European/British culture, develop by the 18th century?

11. How are changes in European/British culture reflected in American culture?

12. How did the lifestyle of free blacks differ from that of whites of the same general economic status in the period prior to the end of the Civil War?

13. Did the lifestyle of slaves and the institution of slavery differ signficantly in Maryland from that documented in the American Deep South and the Caribbean?

14. How does the culture of distinct non-Anglo American ethnic and cultural groups differ from that of the Anglo-American population, as seen in the archæologial record?

15. How did the growth and development of industrialism affect the lifestyle of rural and urban populations?

DELAWARE STATE PLAN PRIORITIES

The state management plan places a high priority on research in areas with heavy development pressure and a high or medium significant site potential. The project area fits this specification.

The plan cautions that field methods should be sensitive to the discovery of marginal sites. "Given the large extent of agricultural impact on sites in Delaware, unplowed sites on the edges of poorly drained settings and in wooded areas fringing water courses take on special importance" (Custer 1986:215). This was the setting at Blueberry Hill.

ADJACENT STATES' PLANS

Delaware is a small state, surrounded by the larger adjacent states of Maryland, New Jersey, and Pennsylvania, with whom it shares most of its culture history.

Maryland, the nearest neighbor, has formulated in its state plan a seamless progression of fifteen research questions applicable to both prehistoric and historic archæological resources and standing structures (box, preceding page). Of particular interest is question 6, which calls for continuing reassessment of models as knowledge accumulates and evolves.

Unlike the Delaware questions, which are few and general, the Maryland questions are specific and may not be answerable by the archæological record alone.

Maryland's plan reflects a broad culture history approach rather than an exclusively archæological approach to setting archæological priorities. Questions 7 and 8, for example, require both folklore and documentary input. Other questions on the list seem to address limited research designs, if not the research interests of certain individuals.

Maryland's question 7 is of particular interest when applied to the current project vicinity, which contains a Native-American remnant population that shows no signs of disappearing.

SITE-SPECIFIC QUESTIONS

1. Internal structure of the site

A hundred square meters, strung out along a ridge, should provide a large enough sample to interpret the internal structure of the site. The surviving site area was large enough to let the researchers identify and segregate activity areas. For purposes of this investigation, an "activity area" is any contemporary concentration of artifacts or features that contains evidence for some human activity that occurred there. Specimens of activity areas would include a hearth and related artifacts, a house pit, or just a place where a foraging hunter sharpened his or her weapon and left a few retouching flakes.

A primary objective of the investigation was to isolate and characterize as many individual activity areas as possible.

Once the soils consultant had determined that the site's topography had changed radically through time, the investigators undertook to analyse the reactions of people to this changed topography. Specifically, they asked if the center of the site's occupation shifted in response to the changed location of the hill's summit.

2. Depositional contexts

A meter or more of soil has been deposited by the wind on the site since people first visited. Twelve millenia of intermittent occupations, separated by sterile sand, potentially will provide new insights into both artifact chronologies and man's response to the environment.

3. Environmental Change Through Time

As soon as it became apparent that the site was deeply stratified, the

authors assembled a team of specialists who could address the environmental history of the site. A soil scientist, a geologist, a geomorphologist, and a pollen analyst were brought into the study to provide an understanding of environmental settings.

4. Lithic Resource Exploitation

Sandy central Kent County imposed limits on toolmakers, who sometimes were forced to be satisfied with less than satisfactory raw materials. Examination of the debitage from a site in this environment should provide insights into the ways prehistoric people dealt with the lithic shortage.

5. Site Function

While the models identify this as a potential procurement site location, its precise function might be better understood if discrete activity areas can be studied.

6. Prehistoric Chronology

Because the site is deeply stratified, it is potentially able to shed considerable light on chronology. Stratified æolian sites have been recognized relatively recently in Delaware.

Plate 3

View of the dirt-bike track area where the first test was made

This is a photograph taken during the first test into the side of the hill. The scale is graduated in five centimeter intervals. A one-person unipod sifter is in foreground. The camera direction is generally north, September 1990.