3. PALEO AND ARCHAIC BACKGROUND

IN THE DELAWARE STATE PLAN for prehistoric cultural resources, the Paleo-Indian and Archaic periods are given a high priority for archaeological research in Delaware. This ranking is assigned because of the paucity of information for these time periods.

Although Woodland I and II occupations were present at the site, they were not stratified; consequently, the research design called for only partial excavation of the A horizon where cultural material from these periods was found. The primary significance of the Blueberry Hill site lies in the early occupations in stratified contexts.

A review of information from other areas of eastern North America is necessary in order to place the Blueberry Hill site in perspective. At the end of this chapter is a reading list, describing some of the most useful sources for information on these two periods.

Buried occupations at the Blueberry Hill site could conceivably date from as much as 14,000 years ago to about 8,000 years ago. This covers the Paleo-Indian Period (12,000 B. C. to 6500 B. C.) and the early part of the Archaic Period (6500 B. C. to 3000 B. C.) as defined for Delaware. It should be noted that, in the cultural chronology used in Delaware, the Paleo-Indian Period includes the period of use for notched point types such as Amos, Palmer, and Kirk, and the beginning of the Archaic Period is marked by the use of bifurcate points (Custer 1989:86-88).

PALEO-INDIAN PERIOD

Paleo-Indian occupations have now been identified throughout much of the eastern part of the United States and southern Canada. A selection of the better known sites in the Middle Atlantic are shown on Figure 4. The archaeological literature for the Paleo-Indian Period in the Middle Atlantic falls into four major categories. The earliest studies for this period consist almost entirely of reports of fluted point distributions (Thomas 1966, 1974; Brown 1979; Reynolds and Dilks 1965; Mason 1959; Kinsey 1958, 1959), supplemented by reports of single finds or small groups of points from particular sites. As understanding of the Paleo-Indian toolkit grew, and single component Paleo-Indian sites were identified, occasional studies focusing on groups of tools associated with fluted point finds were published.

Only a few Paleo-Indian sites have been excavated in the Middle Atlantic. In a number of cases, the sites excavated consisted of surface deposits which had been disturbed by cultivation (Kraft 1973; Custer and DeSantis 1985). In these cases, excavation reports have focused on the tools and lithic debitage recovered. Even where information on site structure is available, there is a tendency to stress tool technology, as in a recently published summary report on the Neponset Paleo-Indian site in Massachusetts (Carty and Spiess 1992).

In a small, but significant number of cases, however, living surfaces have been protected by later overlying deposits, or have simply escaped cultivation. These sites are important because they provide insight into aspects of Paleo-Indian life not available through the technological analysis of tool assemblages. The excavations at the Thunderbird site (Gardner 1974) are of particular interest because evidence of a structure was recovered, apparently associated with one of the artifact clusters. At other sites, such as Holcombe Beach (Fitting 1966), West Athens Hill (Ritchie and Funk 1973), and Debert (MacDonald 1985), it has been possible to look at site structure. The deeply buried Shawnee-Minisink site (McNett 1985) is of particular interest because the floral material and fish bones provide information on Paleo-indian subsistence not available from other sites.

In addition, there have been a number of overviews which summarize the information available for specific areas or for specific aspects of Paleo-Indian culture.

These may be found in regional prehistories, such as Custer's volumes on the prehistory of Delaware (1984) and the Delmarva Peninsula (1989). Regional settlement pattern studies have been based on the earlier projectile point surveys as well as excavated material (Funk 1972, 1977; Eisenberg 1978).

Of particular note are Gardner's analyses of Paleo-Indian sites of the Flint Run complex (Gardner 1974, 1977, 1983). In some areas, the most recent and complete summaries are found in state Historic Preservation Plan documents and historic context reports (Raber 1985; Office of New Jersey Heritage 1989). Daniel and Wisenbaker (1987) provide a summary of available information in their report on the Harney Flats site in Florida.

For purposes of the present study, however, the most useful has been one of the most recent, Inashima's (1992) comparative summary for the northern Blue Ridge. Unfortunately, only Part I has, as yet, been published. The following summary is based, to a large degree, on Inashima's discussion.

Inashima (1992:111) identifies a number of site settings in which Paleo-Indian sites have been found. These include ridge lines and hilltops in areas with flat or rolling topography, on elevated ground along the Late Glacial or early Holocene margins of lakes, ponds and bogs, and at stream confluences. He cites an Indiana study which indicated that 40% of Paleo-Indian sites were found on floodplains or terraces of major streams and tributaries, 30% near marshes, ponds, lakes or springs, and 28% on overviews such as bluff tops, ridge edges, knobs, and a variety of glacial features.

Inashima cautions that analyses of site location are based on fluted point occurence, and that recent excavations, most notably those at the Shawnee-Minisink site, indicate that fluted points may not be the best indicators of Paleo-Indian occupation.

Several excavated sites of this period, in scattered locations throughout eastern North America, have produced information about site structure.

The Holcombe Beach site in Michigan consisted of a small encampment approximately 60 ft. in diameter with a central area for cooking and heat-treating flint and 8 hearths around the central area (Fitting, DeVisscher, and Wahla 1966)).

The Debert site in central Nova Scotia (MacDonald 1985) consists of a series of living floors with multiple associated hearths. The organization of activities within these living floors differs from that at the Holcombe Beach site, but in both cases, the living floors appear to represent simultaneous occupation by a number of small family groups. At the Debert site, it is not clear whether more than one living floor was occupied at any given time.

At the West Athens Hill site in New York, smaller occupation clusters ranging in size from 8 ft. to 12 ft. in maximum diameter were identified. Ritchie and Funk (1973:32-6) have suggested that each cluster represents short term occupations by single family groups, and that the artifacts were lost or discarded within or around small huts or lean-tos.

Eight possible habitation loci were identified at the Vail site, ranging in size from 26 m^2 to 85 m^2. At the Thunderbird site (Gardner 1974), in the Shenandoah Valley in Virginia, 20 lithic concentrations have been identified which are interpreted as activity areas associated with family groups. A circular to oval pattern of postmolds, outlining a structure, was identified in one of these activity areas.

Although the number of excavated sites providing information on site structure is small, there appear to be two distinct occupation patterns. The first, exemplified by the Holcombe Beach site and individual living floors at the Debert site, appears to consist of a cluster of family groups represented by individual hearths.

The second, noted at West Athens Hill, at Vail, and at the Thunderbird site, consists of individual family activity areas, which are smaller in size than the family clusters. It is not clear whether more than one family area at the West Athens Hill and Thunderbird sites were occupied at the same time.

The sites described above were all identified as belonging to the Paleo-Indian Period because of the presence of fluted points. The results of the excavations at the Shawnee-Minisink site (McNett 1985), however, indicate that even comparatively large sites with dense artifact concentrations may not include this tool category.

Inashima (1992:115) suggests that such sites may reflect general foraging / riverine resource oriented encampments. A wide variety of plant species were identified in the Shawnee-Minisink excavations which could have been utilized as food resources, and fish remains were recovered as well. This suggests that the traditional view of the Paleo-Indians as hunters with a largely protein diet may not be entirely accurate.

Gardner's study of Paleo-Indian sites in the Shenandoah Valley and surrounding areas led to the development of a settlement system model for this time period which identified the need to replenish tool kits as a major factor in scheduling visits to various sites (Gardner 1977). This settlement model includes six site types: quarry, quarry reduction station, base camp (both quarry-related and non-quarry related), base camp maintenance station, hunting sites, and isolated fluted point finds. Distance from the primary source of lithic raw materials is reflected in the proportion of reduction flakes to resharpening flakes, and in the frequency of heavily curated tools in relation to newly produced ones.

Most researchers have noted a preference for cryptocrystalline materials in Paleo-Indian lithic assemblages. Gardner (1974:42-43) argues that this preference strongly influenced the structure of the settlement system. Inashima (1992:117) suggests that, for the Blue Ridge at least, much of the Paleo-Indian toolkit "...consisted of tools expediently manufactured from locally available stones or of tools refashioned from larger, broken or otherwise damaged tools." He goes on to suggest that the toolkit included both ". . .a 'travel kit' of core tools which were transported from site to site across large areas and of a 'disposable kit' of locally procured and manufactured tools which were employed at a single or several closely related work stations." One difficulty in studying these assemblages is that much of the toolkit may be "...unidentifiable due to its generic (non-temporally diagnostic) form."

Although a number of Paleo-Indian sites are known for Delaware and the Delmarva Peninsula, few have been subjected to sub-surface testing, and none have been intensively studied. Artifact distributions at the Hughes complex of sites (7K-E-10, 7K-E--24, and 7K-E-33) in Kent County suggest occupation clusters like described for excavated sites discussed earlier (Custer 1989:103-4). At the Linn Woods site in Sussex County, Custer and Mellin (1991:48-54) were able to isolate Paleo-Indian components in two areas of the site, buried under 50 to 70 cm. of aeolian deposits. Detailed analysis of this material is not yet complete, but offers the possibility that more detailed information on site structure will be available in the future.

Custer's analysis of the distribution of Paleo-Indian sites on the Delmarva Peninsula (1989: 102-9) suggests that cobble lithic sources may have played a significant role in structuring settlement patterns. Quarried sources of high quality cryptocrystalline rock occur only at the extreme northern end of the peninsula, where a concentration of Paleo-indian sites has been identified. A second concentration of sites has been identified on the western edge of the peninsula near the mouths of the Choptank and Nanticoke Rivers. Cobble beds containing high quality cryptocrystalline cobbles have been identified in this area (Custer and Galasso 1980:8-9). A third concentration of sites, located along the mid-peninsular drainage divide, is not associated with a high quality lithic source. However, the sites in the mid-peninsular cluster are characterized by evidence of intense curation of lithic tools. This is exemplified in the artifact collection from the Hughes complex of sites (Custer 1989:110-12).

The Blueberry Hill site is located on the edge of the mid-peninsular Paleo-Indian site cluster, and is situated on a high bluff overlooking the confluence of the two main branches of the St. Jones River. The range of resources available to the Paleo-Indian occupants of the site was enhanced by the

presence of two basins within a few minutes walk from the site. In short, only the absence of a high quality lithic source seems to have limited the desirability of this setting for settlement.

EARLY ARCHAIC PERIOD

The Archaic Period is significantly less well-studied than the preceding time period. In part, this is because the same sites used by Archaic period peoples were reoccupied by later groups. With the exception of the bifurcate projectile point style (Broyles 1971, Chapman 1975 105-114), few Delmarva artifact types have been identified which are diagnostic of this time period, making it difficult to isolate such occupations. Although plant processing tools first appear during the Archaic, along with a variety of ground stone tools, such tools continue in use with little change into the Woodland Period.

Nonetheless, it is clear that significant changes occurred between the Paleo-Indian and Archaic Periods. Custer (1989:128-9) cites a number of studies which document differences between Paleo-Indian and Archaic settlement locations and site types. For the most part, these are interpreted as representing adaptation to an increased variety of environmental settings and to increased seasonality.

Settlement systems are no longer limited by the location of high quality lithic resources. Rather, settlement locations and scheduling are determined by the availability of food resources, and more variable local sources of stone are used for flaked stone tools. Non-cryptocrystalline materials such as quartz and quartzite are in use as well.

Custer identifies a limited range of settlement types for the Archaic Period, including macro-band base camps, micro-band base camps, and procurement sites. Settlements for this time period cluster around freshwater swamps, including Churchman's Marsh in New Castle County, Delaware, and the poorly drained areas of the mid-peninsular area. Intensive use of bay/basin features appears to begin during this time period.

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