

ENVIRONMENTAL/ARCHAEOLOGICAL OVERVIEW

Delmarva prehistory is usually discussed in terms of major temporal periods characterized by different cultural configurations and adaptations to changes in the natural environment. The following discussion will briefly outline the major cultural periods and environmental changes documented for the Delmarva Peninsula. The discussion is based largely on the work of Custer (1984); Carbone (1976); Cheek, Friedlander, and Warnock (1983); and Gardner (1982).

Paleo-Indian Period (10,000 BC - 6500 BC)

The Paleo-Indian occupation in Delaware corresponds to the period of transition from Late Pleistocene environments to those of the Holocene (Custer 1984:43; 1986:34). The Late Glacial, Pre-Boreal, and Boreal climatic episodes present during this time period are characterized by cold winters and cool, moist summers; distinct seasonal climatic patterns had not yet been established. Pollen cores from southern Pennsylvania, Maryland, and Delaware indicate that spruce, fir, and northern pine forests with extensive areas of open grassland dominated the landscape during the Late Glacial climatic episode. The Pre-Boreal and Boreal episodes in Pennsylvania, Maryland, and the Delmarva Peninsula were typified by an increase in deciduous species, e.g., oak, hickory, and chestnut, and a reduction in the open grasslands (Carbone 1976; Custer 1984).

Four Paleo-Indian phases have been defined for the Delmarva Peninsula, but artifactual materials are uncommon (Thomas 1966; Reynolds and Dilks 1965; Kinsey 1958; Mason 1959; and Brown 1979). The phases include Clovis, Mid-Paleo, Dalton-Hardaway, and Notched Point. Contributing to low artifact/site density is the fact that these people lived in tightly knit social groups of nomadic or otherwise mobile hunters. Paleo-Indian societies are characterized as hunters of late Pleistocene megafauna such as mastodon, mammoth, horse, camel, and bison (Mason 1962; Gardner 1974). Plant foods also probably contributed a considerable portion of the calorie intake. It is likely, however, that game movements were instrumental in determining scheduling of subsistence activities more so than the availability of plant foods. Thus, due to the short term land usage, societies of this nature typically leave behind little cultural material and do not significantly alter land surfaces.

Archaic Period (6500 BC - 3000 BC)

The Archaic period corresponds to the Atlantic climatic episode. This climatic episode is marked by rising temperatures, decreasing precipitation, and the establishment of seasonal climatic patterns. Oak/hickory forests dominated the landscape

and deer became the dominant mammalian fauna in the region. An increase in the number of sites, coupled with an increase in site size and functional diversity, indicate not only a population increase during the Archaic period, but also a shift in subsistence/settlement patterns.

During this period, subsistence seems to have been attuned to the intensive exploitation of seasonal plant resources. This is reflected in the diverse environments in which sites are found and the appearance of tools specifically manufactured for plant food processing. During the Archaic Period, regional diversity in artifact types, styles, and configurations can be recognized, which reflects both differential adaptations to local environmental conditions as well as the development of distinct, autonomous societies.

Diagnostic artifacts associated with the Archaic period include bifurcate based projectile points, including LeCroy, St. Albans, and Kanawha types (Broyles 1971; Chapman 1975). Custer (1986:58) believes that these point types are followed chronologically by stemmed projectile points; however, no stratified sites of this time period have been excavated in Delaware. Other artifacts recovered from Archaic sites include axes, grinding stones, and plant processing artifacts indicating the adaptation to the new environment (Chapman 1975:275-276).

Woodland I (3000 BC - AD 1000)

The Woodland I Period is a consolidation of the "traditional" cultural periods of Late Archaic/Terminal Archaic, Early Woodland, and Middle Woodland. In Delaware these three periods are considered as one (Custer 1986) as has been done in other areas of the Mid-Atlantic (Cheek, Friedlander, and Holt 1983:71).

Climatic episodes during the Woodland I Period include the Sub-Boreal and the Subatlantic. The former episode includes a period of warm dry conditions followed by a period of higher temperatures and a continued increase in moisture. The Sub-Boreal episode lasted from c. 3100 BC to c. 810 BC. Around c. 810 BC climatic conditions began to change to cooler, moister environments. This event marks the onset of the Subatlantic episode that lasted until c. AD 1000. The deciduous Eastern Woodland environment had become established by the beginning of this period, and a wide-ranging adaptation to it was developed by the native inhabitants of the region. The subsistence economy was based on an intensive exploitation of the flora and fauna of the woodlands as well as riverine and estuarine resources (Custer 1986:87). Sea level continued to rise and gradually leveled off, creating salt- and brackish-estuarine marshes attractive to migratory birds and suitable for the development of extensive shellfish beds. Anadromous fish such

as shad and herring created large-scale fish runs during spawning seasons.

Seasonality was a primary determinant of economic organization throughout this period. There was a great deal of variation in settlement pattern and seasonal group movement depending on local patterns of resource distribution and density, as well as local responses to population increase (Gardner 1982). In Delaware, population growth at single site locations was much greater than during the previous cultural/temporal periods (Custer 1986:87).

The Woodland I Period witnessed the introduction of pottery to the Delmarva Peninsula. It is unlikely, however, that the pattern of adaptation changed significantly with the adoption of ceramic technology. Most archaeologists agree that during the Woodland I Period in the Coastal Plain and the Piedmont, subsistence was based primarily on intensive hunting and gathering strategies, as discussed above. There may have been some manipulation of wild plants to increase yields (Binford 1980); however, true horticulture was not yet developed. Ceramic wares known from Sussex County include steatite bowls, Marcy Creek, Dames Quarter, Selden Island, Wolfe Neck, and Mockley Wares (Custer 1984:84).

Lithic artifacts represented in the Woodland I tool kit include large, stemmed projectile points with narrow blades, such as Bare Island/Lackawaxen Projectile Points. Also present are Broadspears, Fishtails, Rossville points, Fox Creek points, Jacks Reef points, and various side notched, basal notched, and triangular points. During this time period, it is believed that exchange networks were established and resulted in the movement of finished lithic tools, lithic raw materials, and ideas across a large area.

Woodland II Period (AD 1000 - AD 1600)

Woodland II societies supported themselves with the cultivation of corn, beans, and squash. Hunting, gathering, and fishing still played a major role in the subsistence economy but were now scheduled around the requirements of the agricultural cycle. People tended to live for most of the year in semi-permanent villages (i.e., villages that were moved only every generation or so). The extent to which agriculture was an important element throughout the period is not altogether certain at this point; tentatively, it would appear that agriculture may have been the predominant mode of subsistence only by late Woodland II times. Most socio-political systems can be characterized as tribal and egalitarian (cf. Custer 1984; Turner 1986). Social organization was most likely based on tribal level structures and integrative mechanisms.

Other characteristics of the Woodland II Period in Delaware include a breakdown in the exchange and trade networks present during the Woodland I Period, as well as changes in settlement patterns as a result of the emergence of agriculture (Custer 1984:146). Predominant Woodland II Period cultural complexes include the Minguannan Complex and the Slaughter Creek Complex. Several sites representative of the Slaughter Creek Complex have been excavated in Sussex County. Among these are the Townsend Site near Lewes (Omwake and Stewart 1963) and the Mispillion Site (Thomas and Warren 1970). Among other sites recorded in Sussex County are shell middens in Rehoboth and Lewes by Leidy (1965) and Jordan (1880, 1895).