

3.0 PRE-CONTACT PERIOD CULTURAL CONTEXT

The following is a summary of previously identified pre-contact period archaeological sites within the Western Parkway study area, and a general discussion of the pre-contact period.

3.1 Paleoindian Period (15,000 B.C.-6,500 B.C.)

The Paleoindian period started with the arrival of the earliest inhabitants of Delaware, ca. 15,000 B.C., and ended with the emergence of essentially modern environmental conditions at approximately 6,500 B.C. The Paleoindian period encompassed the end of the Pleistocene, including the declining Late Wisconsinan glaciation. The Pleistocene was a time of full glacial climate, characterized by a cold, dry tundra environment, which remained stable for several thousand years (Watts 1979). The subsistence adaptations of the Paleoindians appear to have been a response to the cold, and alternately wet and dry conditions at the end of the Pleistocene and the beginning of the Holocene (Custer 1987:22). A mosaic of deciduous, boreal, and grassland environments would have provided a large number of productive habitats for game animals throughout southern Delaware (Custer 1987:22). Paleoindian archaeological remains in Delaware include fluted projectile points attributable to the Clovis, Mid-Paleo, and Dalton-Hardaway phases, as well as early side and corner notched projectile points, such as Palmer, Amos, and Kirk types (Broyles 1971; Coe 1964; Custer 1986:32). Types of Paleoindian sites include quarries, quarry reduction stations, base camps, base camp maintenance stations, outlying hunting sites, and isolated projectile point finds, with these isolated projectile points being the most common type (Custer 1984:52-53). The majority of the Paleoindian site types, as defined by Gardner (1979), are directly related to lithic resource procurement and lithic tool manufacturing. Gardner's (1974, 1977, 1983; Gardner and Verrey 1979) model for Paleoindian settlement patterning, which was based on data from the Flint Run and Williamson sites in Virginia, proposes that high quality cryptocrystalline raw material was the single most critical Paleoindian resource. As such, the distribution of such material would have defined site locations and home ranges.

"Three major concentrations of Paleo-Indian sites are noted for the northern portion of the Delmarva Peninsula" (Custer 1984:56). The Western Parkway study area is not located within any of these three Paleoindian site concentrations. Sources of high-quality lithic raw materials are not present within the Western Parkway study area; therefore, the likelihood of

substantial Paleoindian period remains being present in the study area is low, and no Paleoindian archaeological remains have been previously identified within or adjacent to the study area.

3.2 Archaic Period (6,500 B.C.-3,000 B.C.)

“The beginning of the Archaic period coincides with the emergence of Holocene environments in Delaware and is characterized by a shift in human adaptation strategies” (Custer 1984:61). The new environment was dominated by mesic forests comprised of hemlock and oak. Rapid sea level rise and a reduction of open grasslands, reflecting warm and wet conditions, occur during the Paleoindian period. The subsistence/adaptation strategy shift, which occurs at approximately 6,500 B.C., includes a more generalized foraging pattern than that postulated for the Paleoindian period.

Technologically, the beginning of the Archaic period sees the emergence of bifurcate projectile points, such as St. Albans, LeCroy, and Kanawha types (Broyles 1971; Chapman 1975). Based on preliminary information gleaned from excavated archaeological sites in locations surrounding Delaware, a variety of stemmed projectile point types characterize the Archaic period from approximately 6,000 B.C. to 4,000 B.C. (Custer 1984:62). Indicators of the new adaptations include the addition of new tools, such as groundstone, to the tool kit; the addition of alternative lithic raw material sources (e.g., secondary cobble sources) for tool making; replacement of direct procurement systems by embedded systems; reduction in the range of activities carried out at special purpose sites; less reliance on cryptocrystalline lithic raw materials; increased floral resource use; reduced emphasis on hunting; and site location preference to a wider variety of environmental settings different from Paleoindian preferences.

“In the overall picture the variety of site types and activities seems to represent a diffuse adaptation (Cleland 1976) to an increasing variety of environmental settings as well as the increasing variety of resources available due to increased seasonality” (Custer 1986:65). This seasonality is reflected in the macro/micro-band/procurement site settlement types postulated for the Archaic period in Delaware. A variety of environmental settings, including swamps/marshes and their associated terraces, and floodplains of major streams would have been preferred locations for macro-band camps. The Western Parkway study area contains these types of environmental settings and evidence of macro-band camps may be present. Sheltered locales along smaller streams and major stream headlands appear to be the

preferred micro-band camp environmental settings. The study area also contains these types of environmental settings, and therefore the potential for their archaeological remains.

There is a paucity of data for both Archaic period macro- and micro-band site locations in Sussex County (Custer 1986:73). By 3,000 B.C. in Delaware, significant changes occurred in lifeways, climate, and environment, and signaled the end of the Archaic period. Few Archaic period archaeological sites are known in Delaware, and of those investigated, none are stratified (Custer 1984:61, 65). The potential for the Western Parkway study area to contain Archaic period archaeological remains is moderate, based on the presence of environmental settings which appear to have been used by Archaic period peoples. Due to the disturbed and urban nature of large portions of the study area, if Archaic period remains are identified, they will most likely not be stratified or without disturbance.

3.3 Woodland I Period (3,000 B.C.-A.D. 1000)

The Woodland I period begins at approximately 3,000 B.C. when the rate of sea level rise slowed and riverine and estuary environments began to stabilize (Morin *et al.* 2001:3.2). A pronounced warm and dry period occurred from ca. 3,000 B.C. to 1,000 B.C. (Catts *et al.* 1992:19). Mesic hemlock-oak forests were replaced by xeric forests of oak and hickory, and grasslands again become common (Catts *et al.* 1992:19). Extensive brackish water marshes, which were especially rich in natural resources, were created throughout the Atlantic Coastal Plain during this period (Custer 1987:31). An increase in population is posited for the period, along with the development of sedentism. "Important areas for settlement included the major river floodplains and estuarine areas" (Custer 1987:31). Many large base camp sites, with associated large numbers of people, are evident in many parts of the Delmarva peninsula during the Woodland I period (Custer and Catts 1991:19). The overall trend was towards more sedentism, with increases in local populations.

Woodland I period lifeways varied from the Archaic period and included increases in plant processing tools; the introduction of stone and then ceramic containers; the development of incipient ranked societies; the addition of fishing gear such as netsinkers; increases in broad-bladed knives; and the development of trade and exchange networks/systems. Settlement during this period commonly consisted of repeated use campsites and semi-sedentary to sedentary village sites along major drainages (Morin *et al.* 2001:3.3). Woodland I complexes identified in southern Delaware include Clyde, Wolfe Neck, Delmarva Adena, and Carey. The close of the Woodland I period is dated to approximately A.D. 1000 (Morin *et al.* 2001:3.2). Due

to the lack of major drainages within the Western Parkway study area, there is a moderate probability of identifying Woodland I period sites, despite their being the most common sites in the Atlantic Coastal Plain (Custer 1987:33). Custer (1987:43) indicates that the interior area in which the Western Parkway study area is present contains mainly procurement and small base camp sites.

3.4 Woodland II Period (A.D. 1000-A.D. 1600)

The Woodland II period is dated from A.D. 1000 to the Contact period, ca. A.D. 1600. The environmental setting of the period is essentially modern and is described as less moist and cooler than the previous periods (Custer 1984:91). Vegetation at this time would have consisted primarily of evergreen forests and is classified as Oak-Pine forests of the Atlantic Slope (Braun 1967:246). The dominant game animals associated with these forests would have been deer, turkey, squirrels, rabbits, and water fowl (Custer 1984:93; Shelford 1963).

The period is marked by the alteration of Woodland I lifeways (Custer 1984:146). "The basic changes noted in Delaware include the breakdown of trade and exchange networks, alterations of settlement patterns, the development of sedentary lifestyles, and the appearance of agricultural food production to varying degrees in different areas" (Custer 1984:146). Horticulture became very important across the Middle Atlantic region during the Woodland II period, although little archaeological evidence for it has been identified in southern Delaware (Morin *et al.* 2001:3.3; Custer 1987:43). In general, the change in lifeways from the Woodland I period to the Woodland II period is not as marked in southern Delaware (Custer and Catts 1991:24). "In general, the Woodland II subsistence patterns in southern Delaware are similar to those of the Woodland I period with the likely addition of minor amounts of cultivated plant food resources" (Custer and Catts 1991:24).

Small triangular projectile points and various styles of ceramics are temporally diagnostic Woodland II period artifacts. Two basic varieties of ceramics, Townsend and Minguannan wares, are distinguished in Delaware (Custer 1984:148). Townsend ceramics are described as shell tempered, fabric impressed exterior surface wares (Griffith 1982), while Minguannan wares exhibit sand, grit, or quartz temper with smoothed, corded, or smoothed-over corded surfaces (Custer 1981). Woodland II ceramics of southern Delaware are classified within the Townsend series (Griffith 1982). For a complete and detailed pre-contact period context of the project area, the reader is referred to *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986); *A Management Plan for the Prehistoric Archaeological Resources of*

Delaware's Atlantic Coastal Region (Custer 1987); Delaware Prehistoric Archaeology, An Ecological Approach (Custer 1984); and Chesapeake Prehistory (Dent 1995).

3.5 Previously Identified Archaeological Resources

Custer *et al.* (1986) formulated an archaeological predictive model for the Delaware coastal plain based on the classification of various types of environmental zones and the mapping of those zones *via* the interpretation of LANDSAT remote sensing data. According to the predictive modeling accomplished by Custer (n.d.) for pre-contact period archaeological resources in Delaware, the majority of the Western Parkway study area is contained within large low probability areas; however, moderate and high probability areas are present as well. Table 1 presents an informal comparison between Custer's (n.d.) probability zones and Skelly and Loy's predictive surface values.

**Table 1.
Comparison of Skelly and Loy's Predictive Values to
Custer's (n.d.) Probability Areas**

Custer's (n.d.) Probability Areas	Skelly and Loy's Predictive Values Within Custer's Areas				
high	very low*		moderate	high	very high
high	very low				
high	very low				
high	very low				
high	very low	low	moderate	high	very high
high	very low		moderate		
high	very low	low	moderate	high	
high	very low	low	moderate	high	
high	very low		moderate	high	
high			moderate	high	very high
high	very low	low	moderate	high	very high
high				high	very high
high		low			very high
moderate				high	
moderate	very low	low	moderate	high	very high
moderate	very low	low			
moderate	very low	low	moderate	high	very high
moderate		low	moderate	high	
moderate	very low				
moderate	very low				
moderate			moderate	high	
moderate	very low			high	
moderate	very low		moderate	high	
moderate	very low			high	
moderate	very low	low	moderate	high	very high

Custer's (n.d.) Probability Areas	Skelly and Loy's Predictive Values Within Custer's Areas				
moderate			moderate	high	very high
moderate	very low		moderate	high	
moderate	very low		moderate	high	
moderate	very low		moderate	high	
moderate	very low			high	very high
moderate			moderate	high	very high
moderate	very low		moderate	high	very high
low		low	moderate		
low	very low	low	moderate	high	very high
low	very low	low	moderate	high	very high
low	very low	low	moderate		
low	very low	low	moderate	high	very high
low	very low	low	moderate	high	very high
low		low	moderate	high	very high
low	very low	low	moderate	high	very high

*The bolded Skelly and Loy values represent the majority value in each of Custer's Areas.

As can be seen from the table, Custer's and Skelly and Loy's values match in 12 cases, or 29.3 percent of the total cases. In 11 cases, or 26.8 percent of the total cases, Custer and Skelly and Loy's values are opposite in ranking, and in 18 cases, or 43.9 percent of the total cases, the two sets of values are a single step in rank away from each other. Twelve of these 18 cases resulted in Skelly and Loy's predictive value being higher than Custer's and in six of these 18 cases, Skelly and Loy's predictive value was lower than Custer's. The differences in the values reflect not only the two different methodologies used to arrive at the values, but also the size and scale of the area for which the values are being presented. In addition, the continued and increased development of the study area (Skelly and Loy's disturbance layer) since Custer originally proffered the model would most likely have reduced the overall potential ranking of many portions of the Western Parkway study area. Based on the most up-to-date environmental and archaeological information, a limited project area, and updated computerized GIS software/hardware, the Skelly and Loy predictive surface presents contemporary and specific predictions for the presence of archaeology within the Western Parkway project area.

More specifically, Table 2 (after Custer 1987:62) indicates that the probability for finding significant sites within the interior areas of the Atlantic Coastal region (of which the Western Parkway study area is a part) is low to medium for most of the pre-contact period site types, while the existing data quality is poor. This makes the interior areas of the Atlantic Coastal region low research sensitivity areas (Custer 1987:58). Custer (1987:62) does list two site types, Woodland I and Woodland II procurement, as high probability sites with fair data quality; however, this is not enough to off-set the lack of data and potential to find sites representative of the remainder of the pre-contact period.

Table 2.
Site Probabilities and Data Quality for the Interior Areas
of the Atlantic Coastal Region (after Custer 1987)

SITE TYPE	PROBABILITY FOR SITES	EXISTING DATA QUALITY
Paleoindian Period		
Base Camp	Low	poor
Base Camp Maintenance Station	Low	poor
Procurement	Medium	poor
Archaic Period		
Macro-band Base Camp	Low	poor
Micro-band Base Camp	Low	poor
Procurement	Medium	poor
Woodland I Period		
Macro-band Base Camp	Low	poor
Micro-band Base Camp	Medium	poor
Procurement	High	fair
Woodland II Period		
Macro-band Base Camp	Low	poor
Micro-band Base Camp	Medium	poor
Procurement	High	fair
Contact Period		
General	Low	poor

In 1986, Custer (1986:196) identified 117 previously recorded archaeological sites within County Blocks D and G, where the Western Parkway study area is located. Recent review of the Delaware archaeological site files yielded over 180 recorded archaeological sites in these two blocks. Eleven of these previously recorded pre-contact period archaeological sites are located within the Western Parkway study area (Appendix A).