PERSPECTIVES ON PREHISTORIC LANDSCAPES: Archaeology at the Puncheon Run Site, Kent County, Delaware

Abstract

Located in Dover, Delaware, on a peninsula where a small stream (Puncheon Run) enters the St. Jones River, the Puncheon Run Site was the focus of a series of investigations that revealed a series of Native American occupations spanning 2000 BC to AD 1500. Artifacts were widely scattered over more than 200 acres, usually in low quantities, but concentrations of artifacts and features were identified at several locations. Given the nature of these concentrations of features and artifacts, the site is viewed as a series of separate activity areas within a large landscape rather than as a single archaeological site. The site was broadly interpreted to represent a broader perspective, leading to new insights into Native American settlement patterns and their relationship to the larger landscape.

The Landscape Approach

One of the most distinctive features of the Puncheon Run Site is the archaeological features and deposits were spread over a very broad area, rather than being concentrated in smaller, settlement clusters, as would be traditionally viewed as a single archaeological site. This allowed interpretation to proceed from a broader perspective, leading to new insights. The community associated with these mounds would have been comprised of extended family households, with the total group size fluctuating.

The wide separation of activity areas at Puncheon Run compiles up to 5000, not on extensive clusters, but on smaller, more discrete clusters, perhaps located around separate centers of age or gender. One should be tempted to view these communities moving as a whole from one site to the next, to another, as their lifeways evolved.

Native American Foods

Individuals and small groups, large or small, occupied the land as their needs were determined. The location of these recurrent residential areas should also account for their complex relationships within the cultural and natural landscape.

The discovery of a large number of storage pits in an isolated area was clear at odds with the typical base camp model wherein local storage facilities are located within residential areas. Why was this interesting site chosen? The simplest interpretation is a consequence of the storage. Hinterland locations may have used storage pits that were widely distributed throughout the landscape. In locations that were defined as isolated from their main travel routes, to control their supply through kin groups, or by creating a barrier to others. The location of storage pits at Puncheon Run also calls into question the belief that storage pits multi-function as accumulations of water and increasing population, since the site remains to have been used by small, highly mobile groups.

Native American Foods

Information on subsistence practices was one of the major research areas. Direct information about Native American foods in the Middle Atlantic coastal plain is rare, and the lack of archaeological data makes it difficult to understand the economic base of Native American societies in the region, their settlement patterns, their degree of mobility, and other important issues.

At the western end of the site, excavations in the Site 3 area revealed as storage pits exist for 100 and 400 AD, on the Biddle's Quarry area, and on Record Flats where historic depressions had preserved an assemblage of prehistoric artifacts.

Experimental Archaeology

Archaeological interpretation of cultural behavior must rest on a sound understanding of the processes that shaped the archaeological record. At Puncheon Run, the focus of this study was to synthesize various archaeological trends and to design a process-oriented approach to the study of Native American subsistence patterns. The project was designed to help illuminate the relationship of archaeological data to the subsistence activities of Native Americans and to re-examine the archaeological record in the context of contemporary issues.

- geophysical investigations
- soil chemistry analysis
- artifact distribution studies, including refining of soil samples
- excavation of a work area
- investigation of the effects of fire on artifact analyses
- site analysis techniques
- artifact replication studies

Dietary remains such as bone were vital non-invasive and a variety of techniques were employed to examine subsistence:

- soil chemistry
- pollen analysis
- phytolith analysis
- protein residue analysis

Ochre analysis of feature fills showed some abnormal high concentrations of strontium. Strontium is more in Delaware's soils, but it is common in sea water and marine organisms incorporate it into their bodies. Investigations were begun into whether the strontium levels may be related to the processing of faunal remains.

Flotation recovery techniques provided some of the most significant information regarding prehistoric subsistence patterns. Flotation, and the few archaeologists, significant remains were found, including history nut shell, a few perforate (Chromolithops), seeds, and the area was by an American Lotus (Nelumbo lutea). History nut and Quillwort are relatively common in prehistoric ethnological assemblages, but the less common soil was unusual. The American Lotus is native to the Mesopotamian region and may have been introduced into the area by Native Americans, who harvested in Florida, and other sites.

Fossil remains of coastal shell materials remain a focus that has been reported from Native American archaeological contexts in Delaware. Therefore, the project was designed to explore the identification of "blood residue" on animal teeth from the site. Nutshell residues were extracted from a number of sites, and these were used for species identification using the carbon-stain technique (CST) technique. The species identified include American east, great mud, and Atlantic, eastern, striped bass, and perch, and other, suggesting a heavy reliance on fish.