

DelDOT ARCHAEOLOGY

PREHISTORY ALONG STATE ROUTE 1: THE WHITBY BRANCH SITE IN ODESSA

The Whitby Branch Site was identified in 1995 during a preliminary archaeological survey along the proposed path of State Route 1 (S.R. 1) in Odessa, Delaware. The site, located on a freshwater wetland near the Appoquinimink River, is one of dozens of prehistoric Indian sites that are located along the river and its adjacent marshes and tributaries.



Excavation begins with the gridling of a site into measured squares, so that precise records can be kept regarding the location of artifacts. Carefully placing these artifacts were found enables archaeologists to reconstruct the patterns of prehistoric life.

Due to anticipated impacts to the site by the S.R. 1 project, the Delaware Department of Transportation sponsored an extensive program of archaeological excavations in 1995 and 1996. During the two field seasons a team of 12 archaeologists recovered over 15,000 artifacts and exposed several cooking hearths, food storage pits, and the remains of a small hide or bark covered dwelling.



Precise measurements are taken of each area within the search prior to its removal. The use of drawings and photographs allows archaeologists to make comparisons between items unearthed at Whitby Branch and at other sites.



Detailed records are taken on all aspects of the excavation. Here Jeff and Diane Big are mapping the location of a prehistoric cooking hearth that was unearthed earlier that day. The archaeological tools are paper, pencil, tape, and plumbline.

Berger archaeologists utilized a variety of analytical techniques, including radiocarbon (C14) dating, micro-floral analysis, and soil chemistry testing to evaluate and interpret the site. These procedures provided

evidence that the site had been repeatedly visited by prehistoric Indian groups over the past 4000 years, most likely by small family units on hunting and gathering forays.



The wetland margins near the site were a highly productive ecological zone, attracting a wide variety of animals and plants. In addition to the availability of these food resources, the Whitby Branch Site proved an attractive location to prehistoric hunter-gatherers because of its large supply of accessible cobbles for the manufacture of stone tools. Workable stone was an important resource in the adaptive strategies of prehistoric peoples, and knowledge of source locations was critical to their survival.



The most common type of stone tool found at Whitby Branch is called a "flint" because it is chipped on 2 sides of the blade. These three examples are made of quartz, a hard flint-like stone that can be chipped, or "flaked" to produce sharp edges capable of penetrating animal hide. The flint on the right was used as a drill, perhaps to work wood, bone, or leather, while the left and center flints were arrow or spear points.

The vast majority of site artifacts were made of hard durable stone, such as quartz and flint, many still retaining a razor-edge sharpness today. These stone tools took a variety of forms and included knives, drills, hammers, scrapers, an axe, and spear and arrow points. Analysis of point types revealed that two primary site occupations occurred between 2000 BC - 500 BC, and AD 600 - AD 900.



Over 100 pieces of polished wood were recovered from the site. Polished wood may have been collected by prehistoric Native Americans for religious ceremonies, or as ornaments.



These unusual tools, called hammerstones, were wing-shaped stone implements that could be slipped onto the end of an "atlatl," or throwing stick. Atlatls were hand-held wood devices that helped to propel spears with greater force than could be achieved by man's power alone. It is thought that the hammerstone acted as a counter-weight, adding thrust to the spear. The photographs examples were found broken, each representing half of an original hammerstone.



From Marvin Engel's *The Longago* (1980). Drawing by John T. Engel.

Pottery sherds dating back almost 2500 years are evidence of an evolving technology that enabled Native American Indians to increase their capacity to store foods for periods of scarcity, enabling them to become increasingly sedentary. Food remains discovered during the investigations at Whitby Branch included walnut and hickory nuts, a resource high in proteins and fats.



An example of a stone axe. Unlike the flaked flints, this axe was ground and polished to form. The groove served to attach or "haft" a wood handle to the axe, which was then used much like a modern hatchet.



Historical Museum of American Art, Smithsonian Institution, gift of Mrs. Joseph Harrison, Jr.



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