

# Archaeology at Fort Halifax Park

## Series Article: Part 1

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### Summary and Site Background

During the 2011 field season, the PennDOT Highway Archaeological Survey Team (PHAST) conducted its first archaeological investigation at Fort Halifax Township Park, in northern Dauphin County. The work was conducted through an interagency agreement between PennDOT and the Pennsylvania Department of Conservation and Natural Resources (DCNR) who provided much of the funding for the park's acquisition. That 2011 project was followed by several phases of work that occurred between 2012 and 2019. Those projects were completed by PHAST, by volunteers from the Society for Pennsylvania Archaeology and the Pennsylvania Archaeological Council, by two IUP students working on master's thesis projects, and by the instructors and students from the Society for Historical Archaeology's *Advanced Metal Detecting for the Archaeologist* course in 2015.

What follows is Part 1 of an archaeological context we developed for the park. That context has served to guide the various phases of research that have taken place there over the years. Part 1 focuses on the geological and natural history of the park, and Part 2 is a succinct history of human land use there.

### Context: A Natural and Human History of the Project Area

A review of the many definitions for the term "Context" denotes the specific conditions under which a concept, occurrence, word, place or action may be understood and appreciated. In the case of an historic property, it means the natural and historical events and conditions that influenced and affected it; not really a complete natural or human history, but enough of both to understand the place. What follows then is a succinct description of the environmental and cultural setting of Fort Halifax Park, and the ways that setting may have affected the history and prehistory of the property.

### Part 1: The Environment

The central environmental fact of Fort Halifax Park is the main stem of the Susquehanna River. Shallow and nearly a mile wide, the Susquehanna is, like many Appalachian rivers, among the oldest on earth. The river was likely in place in the Paleozoic era. As the Appalachian ridges rose some 300 million years ago, the river sought the softest, weakest places and began to cut, eventually creating soaring water gaps at Berry's Mountain and Peters Mountain north and south of Halifax respectively. The flat to gently rolling landscape of the park, and some of the township, is a product of the Ice Age (Pleistocene) and Modern (Holocene) Susquehanna.

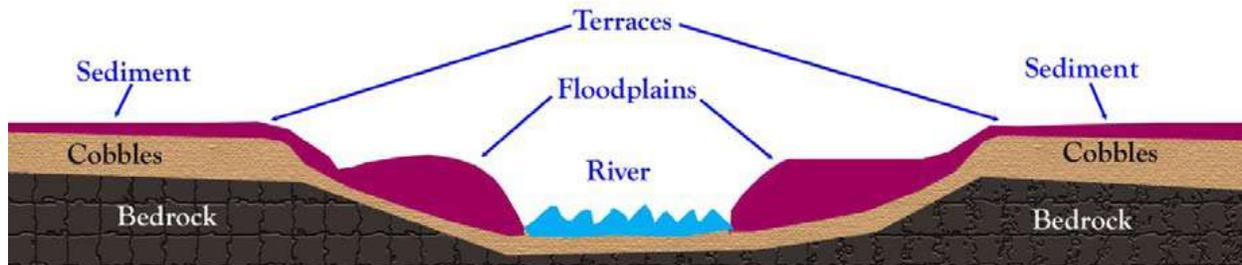


While Ice Age glaciers did not reach as far south as Halifax, the effects of their melting did. The Laurentide Ice Sheet, a massive continental glacier some 1500 miles wide and a mile thick in places, began to recede between 20,000 and 15,000 years before the present (BP) as global climates warmed. During this recession, the Pleistocene Susquehanna carried the melting glacier water to the sea, and ran at enormous volumes. These high volumes of meltwater had the capacity to transport large amounts of sediment, and moved enormous quantities of sand, gravel and even cobbles hundreds of miles. This has influenced the record of human land use at the park in at least a couple of ways. First, the high water and sediment from the melting glaciers (outwash in geological terms) left behind large, flat to gently sloping surfaces as high as 30 feet or more above the modern riverbed that are made up mostly of sand, gravel and cobbles. These are known as **glacial or outwash terraces**. Route 147 and the lower, western part of the town of Halifax, as well as much of the park land west of 147, are all sitting on such a terrace.

A second consequence of the glacial outwash is the presence of cobbles in the terraces and even in the bed of the river, which came from geologic formations far upstream. Some of these cobbles are composed of materials that are suitable for flintknapping (the manufacture of stone tools) and they were exploited by prehistoric people for millennia.

By 10,000 to 8,000 years BP, the Susquehanna had begun to look and act like it does today. That included periodic seasonal flooding. The modern Susquehanna is not carrying the volume of water it did at the end of the Pleistocene, and its capacity to move sediment is mostly limited to sand, silt and clay, not gravel and cobbles. When the stream overtops its banks during a flood, this finer material drops out and is left behind as a layer of sediment when the river recedes back into its channel. This is the process that produces **floodplains**. Within the park, the true Holocene floodplain lies within roughly 100 feet of the riverbank, and it is typically about 10 feet deep at its maximum depth. A small, fairly modern portion of the floodplain lies closest to the river, and consists almost entirely of anthracite coal silt that is a century or so old. Immediately behind it is a larger, deeper deposit of silt that has been growing since the end of the Ice Age, and most recently grew a little during the floods of September 2011. In its uppermost and most recent deposits there is evidence of the park's two and a half centuries of Euroamerican history. Deeper within this floodplain are the encampments and settlements of generations of

Native Americans who lived along the river. They are stacked atop each other, and get progressively older with depth. East of the river with increasing elevation the floodplain gradually tapers away until the Pleistocene deposits of the outwash terraces are at the surface. The figure below is a good illustration of this sequence of landforms.



The soils that have formed on the floodplains and terraces in the vicinity of the park are highly productive. Linside silt loam composes the Holocene terrace section of the park, and the Pleistocene terrace section is composed of Chavies fine sandy loam, both of which are grouped as Prime Farmland soils by the Natural Resources Conservation Service (NRCS) for their productivity. They have supported healthy natural forest communities and wetlands, as well as cultivated crops, for a very long time.

### **Susquehanna River and the Human Connection**

The river and its associated wetlands, floodplains, and terraces, were a nearly boundless source of both native and migratory fish, game species, and edible and useful plants well into the 19th century. As a result, the riverine environment around the Susquehanna has always attracted and supported human populations.

The river served as a highway for shallow draft vessels of various kinds, allowing for water connections between the Chesapeake estuary and the Appalachian hinterlands. Important Native American trails paralleled both sides of the river (Wallace, 1965), trails were later followed by canals, railroads, and highways. Encampments and settlements have grown, disappeared and reappeared along its banks, particularly at or near the mouths of tributary streams. The arc of prehistory and history in the Halifax area is largely the story of human interaction with the Susquehanna, and that story began at or before the end of the Pleistocene.

*To be continued...*