

The Shenks Ferry Indians on the West Branch of the Susquehanna River, 1300 to 1550 A.D

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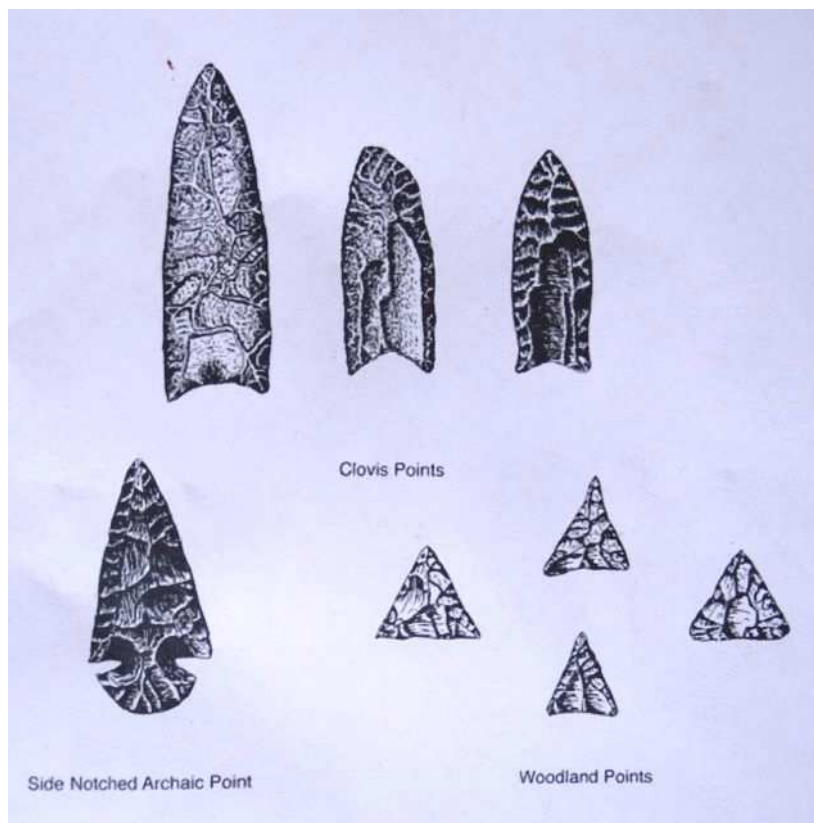
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[This is the first of two articles examining prehistoric Native American cultures on the West Branch of the Susquehanna River prior to the arrival of Europeans. This first article describes the Shenks Ferry archaeological culture, dated from 1300 to 1550 A.D. A second article, appearing in a subsequent issue of *Accounts*, will look at the Susquehannocks, who came after the Shenks Ferry people and for whom the river came to be named.]

Native Americans have lived in the Susquehanna River Valley for at least 10,000 years, and in the area that came to be known as Pennsylvania for perhaps as long as 16,000 years. The oldest known archeological site in the Valley is the Shoop Site on the North Branch of the river. Reliably dated to 10,000 years before present (B.P.), the Shoop site reveals native life at the end of the last Ice Age when glaciers covered northern Pennsylvania to about 40 miles north of what would become Williamsport, and much of the rest of the state was an Arctic-like tundra. However, the river was even then bordered by forests, and Native Americans lived a hunting & gathering existence not too different from the tundra-dwelling natives of the early 20th Century in Alaska and Northern Canada. Archaeologists refer to the people of this era as PaleoIndians, and they are recognized in archaeological sites by the long, beautifully made and fluted spear points, called Clovis points, after the site in New Mexico where they were first uncovered.

By 8,000 years ago, the glaciers had retreated, and the climate and landscape became much like it is today. This introduced a new phase in native

life, referred to as the Archaic, in which a new style of projectile point, smaller than the Clovis points, but notched at the base, is characteristic. At that time, Native Americans were still living as hunter-gatherers in small seasonal encampments along the river, drawing on the abundant plant and animal life that the river provided.



Prehistoric projectile points found in Pennsylvania. Adapted from *A Projectile Point Typology for Pennsylvania and the Northeast*, by Gary L. Fogelman, 1988 With permission of Gary L. Fogelman.

By around 2,300 years ago Native Americans in the river valley began to supplement their diet with agriculture, based largely on what the Iroquois would call the Three Sisters - maize, beans and squash - which had been domesticated in Mexico centuries before and which had eventually spread across the continent into the Northeast. Ceramic pottery also begins to appear in this time period. This mixed economy of hunting, gathering and Three Sisters agriculture is called the Woodland Era by archaeologists, and it persisted in the Valley until contact with Europeans in the 16th and 17th centuries.

Archaeology in Union County

Very little archaeological research on the Native Americans who lived along the Susquehanna River has been conducted - or reported - in Union County. On the surface, this is not unusual. Union County is relatively small, as Pennsylvania's counties go, and Europeans tended to settle on the banks of the river in the same places where Native Americans had camped, hunted or fished, or tended their fields. As a result, Native American sites became farmers' fields, home sites, or businesses, thus obscuring the prehistory of the region. Native projectile points and broken pottery can still be found along river courses, and especially in a newly plowed field in the spring, but native living sites have now been overlaid with construction and use for nearly 300 years. In an article in the April 2013 *National Geographic*, archaeologist Sarah Parcak notes that "We've only discovered a fraction of one per cent of archaeological sites all over the world," and the sad fact of archaeology is that unless a prehistoric culture produced monumental architecture that attracts great modern interest - such as Mayan pyramids at places like Tikal in Guatemala - it is often only by chance that a place where people once lived comes to the notice of an archaeologist, together with the opportunity to conduct even a small-scale scientific excavation.

In the United States, modern public construction such as putting in a bridge abutment or widening a road, requires an environmental impact statement to be filed, part of which may include an archaeological survey if there is reason to believe a prehistoric site might be uncovered or if early stages of construction reveal such a site. Even then, a site may be only partially excavated, depending on whether the artifacts or features revealed are deemed to be of sufficient interest, and compatible with the time schedule for the construction. Much of the archaeology conducted in Union County is the result of these constraints, and what is generally revealed are layers of habitation representing Archaic and Woodland era camp sites or village sites, often one superimposed upon the other in places that were obviously highly desirable locations in pre-contact times.

The Shenks Ferry Culture

Among the Woodland Era prehistoric cultures represented in the archaeological record of the Susquehanna River Valley is the Shenks Ferry culture that is dated to roughly 1300 to 1550 A.D. The Shenks Ferry culture takes its name from an excavation first conducted by Donald Cadzow in 1931 at a site along the river in Lancaster County - its modern name obtained from the ferry service the Shenks family operated in Conestoga Township 150 years ago. Shenks Ferry sites have been located all along the Susquehanna River from Lancaster County to Sunbury, and then north and west along the West Branch of the river all the way to the Lock Haven area. The most extensive Shenks Ferry excavations to date have been conducted in Lancaster and Lycoming Counties. This is not because sites in places like Union County are uninteresting, but because of the presence in the other counties of professional archaeologists, such as Cadzow in the Lancaster area and James Bressler in Lycoming County, who had the time and opportunity to conduct extensive work in those areas.

What is known about the Shenks Ferry people comes from three aspects: their material culture, as revealed through artifacts such as their pottery and stone tools, their economy as seen in the remains of plants and animals in their garbage middens as well as the seeds, rinds, and other preserved pieces of cultivated crops, and their structures. The size and shape of now vanished structures can be deduced through what archaeologists call post molds. Native American cultures in the Northeast typically built wooden structures for homes and storage. These structures were built around a framework of wooden poles or posts that were anchored in the ground. As the wood decomposes in the acidic soil of Pennsylvania, the soil in which it was placed becomes discolored - typically a darker shade than the undisturbed ground around it. Archaeologists carefully remove layers of dirt from a living site and mark these structures through the discolorations - the post molds.

From these remains archaeologists know that from around 1300 to about 1450 A.D. the Shenks Ferry people lived in small villages along the Susquehanna River in circular, bark-covered homes. Judging by the size of these structures and what is known historically from people who lived in similar homes, these



Shenks Ferry pottery fragments

early communities were probably made up of no more than 30 or 40 people. They made pottery hand-formed from local clay that was then decorated with lines, dots and distinctive rims before being fired in open fires. They used bows and arrows, tipped with small triangular stone points typically made from local flints, as well as larger polished stone implements, such as axes. In addition to maize, beans and squash, they had tobacco, which was smoked in small ceramic



Shenks Ferry projectile points, celts, net sinker weight

pipes, the latter fashioned from local clays. Agricultural produce was dried and stored in underground pits for later use. They took advantage of the river's

abundance, especially the periodic runs of shad, eels, and other fish, and they hunted deer, as well as other animals such as raccoons, rabbits, and occasionally, bears. The remains of nuts and berries in trash pits indicate the importance of collected plant foods, as do the seeds of wild plants such as goosefoot (*Chenopodium*).

Shenks Ferry people led a physically demanding way of life. The finishing of one polished stone ax head, made of hard river stone and made smooth



Shenks Ferry hoe blade

through polishing with river sand and smaller stones, would have taken an enormous amount of labor. Other stone tools, including projectile points and hide scrapers, had to be replaced frequently, as the stone broke or edges became dull with use. Hunting, fishing and gathering firewood to heat and cook, food and hide preparation, and collecting bark for covering homes were also time consuming and physically demanding. Even more time consuming would have been the clearing of the riverside forests to create fields for growing crops.

Smaller trees and shrubs could have been cleared with a stone ax, but the larger, old-growth trees had to be brought down by girdling - removing a strip of bark from the circumference of a tree, which would eventually kill it - or setting fires at the base of the tree to bring it down. A crop such as maize requires direct sunlight for over 100 days to mature, so not only would the area for a field itself

need to be cleared, but also some of the surrounding forest which would otherwise throw shade on the developing plants.

If the Shenks Ferry people were like later Woodlands cultures that are known historically, such as the Lenape, these labors were divided by a complementary gender-based system. That is, men would clear the fields, and women would plant and tend the crops. Men hunted animals and women turned their hides and pelts into clothing and blankets. If Shenks Ferry agriculture was conducted as is known from other cultures at historical contact, maize was



Clay pipe fragments from the Ault site

planted in hills (mounds), rather than in the continuous, monocropped fields we are familiar with. Each hill was made of mounded up soil and vegetation and planted with seeds of all three staple crops. The three crops germinate at about the same time, and as they grew, the vining beans would use the developing corn stalks as support, while the squash vines covered the ground in between the hills, acting as a ground covering green mulch. Research by agronomists at Cornell University has shown that this traditional form of planting could produce about as many food calories per acre as modern farming.

However, the work was labor intensive - and all done by hand, as the Shenks Ferry people had no mechanized equipment or draft animals to help them. And, because the fields were not fertilized, other than by the composted

remains of last year's crop, they would grow infertile after a few years. This was usually accompanied by a reduction in the local population of game animals and the pollution of the village site with garbage and pests. Consequently, Shenks Ferry villages were not permanent, but rather were abandoned periodically for new, more fertile sites. Based on what the archaeology suggests, as well as what is known from historic Native communities, this may have been every 10 to 15 years.

1450 A.D.: Shenks Ferry Culture Changes

Around 1450 A.D. the structure of Shenks Ferry villages changes dramatically. Now villages are surrounded by walls - palisades - of cut tree trunks set vertically in the ground, with only a single gate for entrance. A site in



Shenks Ferry projectile points with bone awl

Lycoming County excavated by Bressler and members of the North Central Chapter of the Pennsylvania Archaeological Society (known as the Ault Site) has a moat around the periphery of the stockade (marked by post molds) that was twelve feet across and five feet deep at its deepest point - all dug without metal tools like shovels or picks. The gate would have admitted only one person at a time. A stone foundation at one point suggests a tower built to look over the wall. These villages are significantly larger in population than earlier ones, and the

individual homes, while still built by the same principles as the previous small circular ones, were now larger and oval shaped, somewhat like the longhouses of the Iroquois peoples.

The obvious conclusion that is drawn from these changes is that the Shenks Ferry people now felt threatened and had adopted defensive formations to guard against incursions from hostile enemies. Since this time period roughly corresponds to when archaeologists and historians know that the Susquehannocks of New York State were moving down the Susquehanna River, the conclusion typically drawn is that the Shenks Ferry people were defending themselves against these invaders - though in reality, no one knows for sure. At any rate, this period is short-lived. At the Ault Site for instance, Bressler estimates that the logs used in the palisades would have rotted within six years, and they were not replaced. What is known is that by 1550 the banks of the Susquehanna were inhabited by the people we now call Susquehannocks and that Shenks Ferry material culture has disappeared.

What Happened to the Shenks Ferry People?

Archaeologists are interested in three related questions with regards to the Shenks Ferry Culture: 1) Where did they come from? 2) To what degree did they interact with other local cultures in the Susquehanna Valley at the time? and 3) What happened to them after 1450? Since the Shenks Ferry people left no written records, archaeologists turn to pottery to give some insight into these questions. Fortunately for archaeologists, prehistoric cultures tended to be conservative in their ceramic traditions, passing down their techniques and designs generation after generation. That is, pottery traditions tend to be remarkably consistent over time with regards to the shape of the vessels produced, the temper added to the clay (temper being sand, crushed shells or gravel that is added to the clay before firing to make it tougher and less likely to crack during firing), and the designs added to the pots.

Shenks Ferry pots tend to be fairly small and globular in shape, with tall, often notched rims. They are tempered with crushed shells and finished with designs that often cover the entire pot, designs made by pressing string or cords

into the wet clay. It is also fortunate for archaeologists that broken ceramics are common finds in archaeological sites; over 30,000 broken pieces of pottery were found at the Ault Site, for instance. On the one hand, fired pottery is hard and can last for centuries; on the other hand, clay pots break in use and the pieces are often discarded in prehistoric garbage pits.

When Cadzow made his original discovery, it was assumed that the Shenks Ferry Culture had evolved in place out of earlier prehistoric native cultures along the Susquehanna. However, similarities between Shenks Ferry pottery and that found in archaeological sites along the Potomac River in Maryland now suggest that the Shenks Ferry people migrated into the Susquehanna River valley, perhaps from the Maryland area. This migration scenario is bolstered by evidence suggesting that the previous inhabitants of the valley moved out of the area to the northwest at about the same period in time, i.e., around 1300 A.D. These pre-Shenks Ferry people are well known in the archaeological record as the Clemson Island Culture (1000 to 1300 A.D.), named for the excavations done on a large island in the river north of Harrisburg. Clemson Island pottery is also distinctive - large conical pots with little surface design, other than rims often decorated with perforated dots. In Union County and other places on the West Branch, Clemson Island pottery is found in archaeological sites in layers below Shenks Ferry artifacts. Clemson Island ceramics are also similar to later Owasco pottery; the Owasco prehistoric culture is seen as a predecessor to the Iroquois peoples of New York State.

These findings suggest to Bressler that the Shenks Ferry people arrived from Maryland and moved up the Susquehanna, replacing or forcing out the Clemson Island people (whom he believes moved north and west and became the Senecas.) However, pottery also suggests that there may have been some interaction between the two beyond the replacement of one culture by another. In West Branch Shenks Ferry sites, a style of Shenks Ferry pottery appears that is called the Stewart Phase. The Stewart Phase pottery is not found in the North Branch or along the main river after the branches come together at Sunbury. However, it is occasionally found in archaeological sites northwest of the Susquehanna in the Ohio River Valley. Stewart Phase pottery appears to be

Shenks Ferry ceramics with some Clemson Island influence. Bressler interprets this to mean that the two cultures interacted and that the Clemson Island people who moved north after 1000 A.D. took some of that Shenks Ferry influence with them.

The Susquehannocks Arrive

As noted above, around 1450 A.D., Shenks Ferry villages go through a significant change, with large palisaded towns replacing smaller scattered villages. The interpretation that is easy to draw from this is that the Shenks Ferry people felt the need to defend themselves, and historians suggest that this need may have arisen from an invasion by the Susquehannocks. The Susquehannocks, after whom the river came to be named, are believed to be originally from communities on the North Branch of the river near present day Athens and Sayre, Pennsylvania. Little is known about the Susquehannocks other than they were Iroquoian people related to the Senecas, Cayugas and other members of the Haudenosaunee (League of the Iroquois) of New York State.

Historians believe that the Susquehannocks were forced out of their native area in the late 15th century by the other Iroquois people, though some have suggested that the Susquehannocks moved voluntarily to get closer to European communities and their trade goods in Maryland and southeastern Pennsylvania. Objects of European manufacture are frequently found in Susquehannock sites dating from the 16th and 17th centuries. Whatever the reason, archaeology shows that the Susquehannocks rapidly moved down the river along the North Branch in the 15th century, eventually creating their large towns such as Washington Boro in the Lancaster County area. Captain John Smith famously met a contingent of Susquehannocks in his voyage up the Chesapeake Bay to the mouth of the Susquehanna in 1608; the Susquehannocks had come south to trade with the Tockwogh people of the Chesapeake.

Archeologists and historians alike assume that the Susquehannocks overwhelmed and destroyed the Shenks Ferry culture, though there is little or no archaeological evidence for this. As noted before, the Shenks Ferry people built their palisaded towns, but soon abandoned them. Bressler again notes the

possibility of interaction between the two cultures, noting that some pottery recovered from Susquehannock sites in Lancaster County suggest Shenks Ferry influence. To explain this Bressler suggests that some Shenks Ferry women may have been taken as captives by the Susquehannocks; it was not unusual for native people of the Northeast to take women captives and “adopt” them into their own communities. If this is so, Bressler believes that these Shenks Ferry adoptees brought their own traditions to their new communities.

[An account of the Susquehannocks will appear in a second article by Dr. Minderhout in a forthcoming issue. – ed.]

Suggested Further Reading:

James Bressler and Karen Rockey. *Tracking the Shenks Ferry Indians at the Ault Site*. Williamsport: Lycoming County Historical Society. 1997.

David Minderhout. *Native Americans in the Susquehanna River Valley, Past and Present*. Lewisburg: Bucknell University Press. 2013.

Daniel Richter. “The First Pennsylvanians.” In, *Pennsylvania: A History of the Commonwealth*. Randall M. Miller and William Pencak, eds. pp. 3-46. 2002.

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