Archaic Period in Pennsylvania

I

The Archaic in the Northeast includes the period between 10,000 and 3000 years ago, during which people lived in small family-based groups known as bands. Like people during the earlier Paleoindian Period, Archaic Period people were hunter-gatherers whose diet consisted of wild plants and animals. However, because glacial ice had retreated, the Archaic Period climate was becoming warmer. Plants and the animals that were adapted to warmer environments were migrating into Pennsylvania, and forests similar to those we know today gradually became established. At the beginning of the Archaic Period, the forest contained a high proportion of trees that thrived in cold climates, such as spruce, pine and hemlock. By the end of the period, the forest was dominated by oak, hickory and chestnut, all of which produce edible nuts or acorns that were a basic part of the diet of the Archaic Period population. Also available in the Archaic Period forest were other wild plant foods such as berries and tubers, as well as fish, deer, rabbits, squirrels and other wild animals. Evidence that these foods were a part of the Archaic Period diet has been preserved in cooking hearths at archeological sites.

II

Based on evidence from modern hunter-gatherers, archaeologists believe that the members of a band included parents and children, as well as grandparents, aunts, uncles, cousins and other extended family members. The number of people in the band varied seasonally, depending in part on the abundance of various plant and animal foods, and on their distribution. When resources were abundant or closely spaced in the forest, there was plenty of food available in one place and large groups could remain together. Large groups provided opportunities for social interaction and the development of friendships that provided important sources of help in times of crisis. Information about the environment and the location of resources was also exchanged when people were together in large groups. During seasons when foods were less abundant or sparsely distributed across the landscape, bands broke into smaller groups to forage.

III

Archaic Period bands were egalitarian. Status was not inherited at birth, but was
earned. Individuals who were especially skilled or knowledgeable had greater influence and authority within the band. Leadership belonged to whoever had the most skill or knowledge in a specific situation. Thus, one individual may have had authority during a fishing expedition, whereas someone else may have led a hunting party. Land and resources were not owned by individuals, but were used in common by all members of the band.

IV

The forest of Pennsylvania during the Archaic Period contained abundant resources to support the survival of humans, but these resources were distributed in complex patterns. Many foods were available only in certain seasons—berries ripened in the summer and fall, hickory nuts and walnuts ripened in the late fall. Also, plants and animals were not evenly distributed across the landscape, but were found where conditions of sunlight and soil were favorable. To find and collect food and other resources, bands moved their camps from place to place. It is clear that Archaic Period hunter-gatherers knew and understood the environment in which they lived. They scheduled their movements according to their needs and availabilities of resources. Therefore, the length of time they spent at one camp depended on the abundance of food or the need for other resources, such as raw material for stone tools. In some cases, camps were occupied for the season during which an important food resource was available. However, on some archaeological sites evidence of substantial houses has been found. The presence of such shelters indicates that these base camps were occupied for relatively long periods, perhaps through winter and spring. Special-purpose camps have also been found. These were temporary camps, established during foraging trips that took people away from the base camp for a night or more. Special-purpose camps are often found near sources of raw material for stone tools and near good locations for hunting or fishing.

V

Archaeological sites representing Archaic Period base camps and special-purpose camps can be found in a variety of settings, including along streams, on upland flats and in rock shelters. The most visible components of these sites are small pieces of stone known as debitage that represent the waste material from the making of chipped stone tools. Archaeological sites also may contain features such as hearths, storage pits, cooking ovens and refuse pits. Together with stone tools, these features tell us about the types of activities that Archaic
Period people were performing at the site.

VI

Archaic Period peoples used a variety of tools, only some of which have survived at archaeological sites. Chipped stone tools, such as drills and projectile points, were made by removing small flakes from a piece of stone to shape the tool and sharpen edges. These tools were made from very hard and durable materials such as chert, flint or jasper. Other tools were made by grinding and polishing softer stone. These tools include axes, adzes, celts and gouges, all of which are types of woodworking tools. Expedient tools were also used; these are tools that were made quickly by making minor modifications to a piece of stone. For example, a thin, sharp-edged piece can be quickly knocked off the end of cobble and used for cutting. Wood and bone tools were probably also used. Although such tools are often found in other parts of North America, the soils of Pennsylvania are acidic and most of these tools have long ago decayed.

VII

Pottery was not used until immediately after the Archaic Period. However, near the end of the Archaic, bowls were fashioned of a very soft stone called steatite, or soapstone. This material occurs in southeastern Pennsylvania and northeastern Maryland. The fact that steatite bowl fragments are found throughout the central and eastern parts of Pennsylvania indicates that this material was traded over long distances. Because these bowls are heavy and difficult to carry, their use indicates that, by the end of the Archaic Period, bands were moving their camps less frequently.

VIII

Archaic hunters used an atlatl, or spearthrower, which acted as an extension of the hunter’s arm and provided additional power and distance to the spear’s trajectory. Even so, hunting returns varied from day to day and from hunter to hunter, because success depended both on finding game and on individual hunting ability. In modern hunter-gatherer societies, people deal with this problem by sharing. Successful hunters share their meat with the rest of the band and can expect to receive a share from others when they have a bad day. Charred bone found in hearths indicates that deer were an important source of meat.
during the Archaic period. However, a wide variety of other animals were also hunted, including bear, squirrels, birds and rodents.

IX

Fishing also provided a source of food for Archaic Period hunter-gatherers. Its importance is indicated by the presence of netsinkers on many Archaic Period sites. Netsinkers are small, flat stones with notches on opposite edges. They were used to weight nets that could be stretched across a stream, an extremely efficient fishing method. Other fishing methods included a spearing and hook-and-line fishing.

X Because of the variability in hunting success, plant foods were important in providing a stable food supply. Evidence from modern hunter-gatherers indicates that while men were most often hunters, women were in charge of gathering plant foods. Archaeological sites from the Archaic Period often contain hearths in which seeds and nutshells that have been charred by the fire are preserved. These charred plant remains indicate that nuts such as hickory and walnut were important foods. Acorns were used and were especially important because they could be stored in pits to provide food during winter. Wild berries, such as blackberries, raspberries and wild grape were used when available. Because tubers are soft and fleshy, no evidence of these plants is preserved in the hearths. However, modern hunter-gatherers make frequent use of tubers because they are available in most seasons of the year. Tubers were probably especially important in the spring, when stored foods were running out and other foods were scarce.

XI

The Archaic way of life lasted for over 6000 years and represented an extremely successful adaptation to the temperate forest. The success of the hunter-gatherer strategy is indicated by archaeological evidence that population was increasing during this period. Rather than struggling for survival, Archaic Period people were living successfully within an environment that was rich in resources. They were knowledgeable about their environment and knew where to find the food and other materials they needed. When necessary, they developed new types of tools to increase their efficiency or to provide a technological solution to a problem. Although there was likely occasional conflict among groups, there is no evidence of warfare during the Archaic Period in Pennsylvania. By the end of the Archaic Period, however, the increased population density began to limit the ability of the bands to move through the forest to hunt and gather without
competition from the neighboring bands. New solutions, including a gradual shift towards the use of agriculture and the establishment of village life, would be adopted during the Woodland Period that followed.