Archeology at Mammoth Cave

The First Ones
Over 12,000 years ago, when huge sheets of thick glacial ice covered large portions of the North American continent, small nomadic groups of people wandered over the Kentucky landscape. Today, archeologists refer to these early American people as Paleo-Indians, which means "ancient Indians." However, we know very little about them. We don't know what they called themselves and we don't know what language they spoke. We know that they were experts at working stone to make spear points for thrusting into their prey. We know that they lived by hunting animals and gathering plants, and we know that part of their time was spent hunting megafauna (large animals) such as bison, giant ground sloths, and mastodons. The PaleoIndians were a transient people, moving frequently and moving long distances in order to follow animal herds and collect nuts, berries, and other foods that ripened with the seasons. Because these people moved so often and traveled in small groups, there have been few opportunities to locate the places where they camped. So far, only a few spear points of the PaleoIndian people have been found in Mammoth Cave National Park.

A Changing World
Over time, temperatures warmed, glaciers retreated to the north, megafauna became extinct, and the local environment changed from a forest dominated by pine, spruce, and fir to a forest of mixed hardwoods containing oak and hickory. The population of the Indians also increased. With these environmental changes came changes in the ways native Americans lived. Instead of hunting megafauna, they hunted smaller animals such as deer, turkey, and raccoon. They continued to make fine stone tools, but they made them in different shapes and sizes, reflecting the new hunting methods developed to more efficiently capture smaller animals. Because these descendants of PaleoIndians practiced a different way of life from their ancestors, archeologists have given them a different name: the Archaic Indians. The Archaic period dates from 8000 B.C. to 1000 B.C. in Kentucky. The earliest Archaic peoples continued a foraging way of life similar to that of their Paleo-Indian ancestors. Small groups of related peoples, called "bands," frequently moved within their hunting territories, collecting various plants and animals as they became seasonally available. Several Early Archaic (8000-6000 B.C.) sites exist in Mammoth Cave National Park.

Getting Crowded
As the numbers of Archaic people grew, the number of bands grew, and the hunting territory of each band shrank in size. The smaller territories and the differences in local environments between territories led to the development of more and more differences between groups. Members of each band adapted to the conditions, developing new tools and modifying seasonal movements and hunting and gathering strategies to take advantage of the resources within their own territory. In Mammoth Cave National Park, this slow adaption to local environments is reflected in an increase in the number and types of artifacts, especially spear points, found from the Middle Archaic period (6000-3000 B.C.). Bands did not live in isolation. They came in contact with other bands, and they exchanged chert, shells, copper, and marriage partners.

The Miners
During the Late Archaic period (3000-1000 B.C.) the numbers of people in this region continued to grow. During the later portion of the Archaic period, the Indians began making pottery, cultivating gardens, and growing domesticated plants. It was near the end of the Late Archaic period that Indians began exploring Mammoth Cave and other caves in the area, collecting minerals they found. Why Late Archaic people traveled miles within Mammoth Cave to collect selenite, mirabilite, epsomite, and gypsum is a matter of speculation. The most likely reason is that these minerals were valued for their medicinal properties and/or ceremonial uses, and that they were traded to other groups for food, shells, chert, and other goods.
The adoption of gardening and pottery-making signaled the beginning of fundamental changes in the way Indians lived. No longer did they have to rely solely upon wild animals and plants for their subsistence. Now they could increase their food supply by growing some of their food in gardens. In addition to maize, the adoption of these and other changes that occurred in the lives of the Indians, archaeologists have called the period following the adoption of pottery-making and gardening the Woodland period. The **Woodland period** in Kentucky dates from 1000 B.C. to 900 A.D., and like the Archaic period, has been subdivided into Early Woodland, Middle Woodland, and Late Woodland periods. During the Woodland period, populations grew and aggregated in larger and larger groups. Groups moved less often and formed small semi-permanent villages. Along with the population increase and a more settled lifestyle, Indian social organization changed from the loosely organized hunter/gatherer band organization characterized of the Archaic period to more complex tribal-like social organization where village and lineage elders exercised some controls over the actions of their followers. Along with this increasing social complexity came changes in technology, economy, religion, and mortuary ceremonialism.

**Trade and Travel**

The Middle Woodland period (200 B.C. - 500 A.D.) is noted for a florescence in mortuary and ceremonial activity and for far-reaching trade networks. Shells were traded from the Gulf of Mexico to the Great Lakes and points in between. Obsidian was traded from Wyoming to Ohio. Mica and copper were traded from the Appalachian Mountains to Ohio and beyond. Artisans made copper, shell, and mica ornaments for village leaders. Large mound and earthwork complexes were constructed and elaborate ceremonial rites were performed by religious specialists. During the Middle Woodland period, maize (corn) was first introduced to the eastern U.S. from the southwestern U.S. However, it wasn’t until much later in the Late Woodland period that Indians grew corn in sufficient quantities to provide a significant portion of their diet. In the Mammoth Cave area, the Middle Woodland period was a time of resettlement. People no longer occupied the uplands as frequently as their Archaic and Early Woodland ancestors did. Native Americans spent more and more of their time living in the floodplain near the Green River, where gardens could be grown and tended. During this period, mining activities that had occurred during the Early Woodland period stopped and were never resumed.

For reasons not yet understood, the elaborate mortuary and ceremonial activity that occurred during the Middle Woodland period ended during the **Late Woodland period** (500 to 900 A.D.). The Late Woodland people continued to live life much like their Middle Woodland ancestors, but they no longer traded shells, copper, mica, and other goods in large quantities. During the Late Woodland period, the bow and arrow was invented and soon replaced the lance as the primary weapon for hunting. The population continued to increase and greater and greater reliance was placed on growing plants for food. Hunting deer, turkey, raccoon, and other animals, and collecting nuts and other wild plants continued to provide important sources of food.

**Complex Cultures**

The Mississippian period followed the Woodland period, and ended with the arrival of the first Europeans to America. This period lasted from around 900 to around 1500 A.D. The Mississippian period was the period during which native American cultures reached their greatest complexity. This complexity was manifested in a hierarchy of settlement types ranging from small single family residences or “farmsteads” to large ceremonial centers and villages, a stratified social/political organization that has been broadly compared to chiefdom level societies, specialization in the production of various commodities, and a heavy reliance on farming corn. Technological and stylistic changes in the material culture accompanied the shift from Woodland to Mississippian. These included the use of shell as a tempering material in the manufacture of pottery, new pottery vessel forms (salt pans, plates, “cauzaella type” jars, and water bottles), and rectangular wall trench house construction (the poles that formed the house walls were set in trenches dug into the ground). In the Mammoth Cave area, there appears to be a decrease in the number of Mississippian sites compared to earlier periods. This is probably because the floodplain along the Green River is not very wide and does not offer much room for farming. Like their ancestors, the Mississipians did not live by farming alone. They also hunted, fished and gathered wild plants.

**The Ending**

The Proto-Historic period in Kentucky is the time following the arrival of the first Europeans to America and before the arrival of the first white settlers. During this period, native inhabitants of Kentucky did not have much direct contact with Europeans, but they were greatly affected by the dislocation of other Indian groups caused by the intrusion of the English, French, and Spanish. Measles, smallpox, and other diseases had the most devastating effect on the Indians’ lives. Estimates place the mortality rate of some Indian groups as high as 75% as a result of the European diseases. By the time the first white settlers moved to Kentucky following the Revolutionary War, much of the land was used as a hunting ground by the Shawnee, Cherokee, and other groups. Soon, white settlers pushed these few remaining tribes from their lands. So ended thousands of years of native American settlement in Kentucky and Mammoth Cave National Park.