National Park Service
U.S. Department of the Interior

Hopewell Culture National Historical Park

Expeditions into Ohio's Past

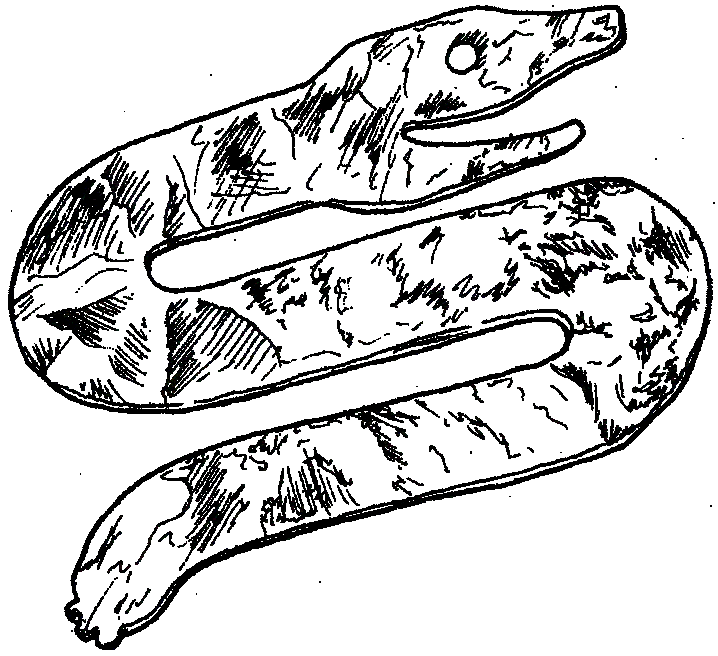
Teacher's Guide

An Integrated Curriculum for Grades 3-5

CHARTING THE COURSE

MICA

Mica was obtained by the Hopewell people from the Blue Ridge Mountains. It can be split into thin sheets having high luster. The Hopewell used this mineral for cutouts, mirrors, and other decorations.



Activity Format

➢ **SUMMARY**
Contains a brief description of the concepts, skills, and effective dimensions of the activity.

OBJECTIVES
Outlines the qualities or skills students should possess after participating in the activity. These learning objectives contain specific, measurable outcomes which allow easy evaluation.

BACKGROUND
Relevant information is presented about activity concepts or teaching strategies. The background describes the relevance of the activity to students and presents the rationale for the activity. Prepares everyone for the activity and introduces concepts to be addressed.

SUGGESTED PROCEDURE
Provides step-by-step directions to address concepts.

ASSESSMENT
Brings closure to the lesson and includes questions and activities to assess student learning.

EXTENSION
Provides additional activities for continued investigation into concepts addressed in the activity. Extensions can also be used for further assessment.

Icon indicates the activities placement within the conceptual framework of the guide

- **Subject:** Defines disciplines to which the activity applies
- **Duration:** Suggests approximate time needed for completion of the activity
- **Setting:** Suggests the proper location for the activity and whether the activity should take place before or after visiting Hopewell Culture NHP
- **Materials:** Supplies needed to conduct the activity

Planning Your Fieldtrip

To make your visit as productive as possible here are some guidelines:

- Before bringing your class to Hopewell Culture NHP, we suggest that you visit the area personally to become acquainted with our resources and facilities. You may also schedule a park ranger to visit your classroom and prepare your students for their visit to our park. A visit from a park ranger should take place at least two weeks prior of the actual fieldtrip. All ranger classroom visits should be scheduled at least two months in advance.
- Plan to spend about 2 ½ to 3 hours at Hopewell Culture NHP. At least one hour for every 30-40 students will be needed for a tour of the park and additional time for stops at the museum and bookstore.

Fees: Hopewell Culture NHP does not collect fees.

Arrival: Arrive at least 10 minutes before your scheduled start time. In order to prevent program delays and cancellations, your group must be at the park on time. Upon arrival, you must first check in with a park ranger at the visitor center (before unloading students) to confirm itinerary and to assure all groups are informed of any last minute changes.

Traffic Safety/ Bus Parking: After the bus pulls up and unloads at the visitor center, instruct the bus driver to pull around the parking loop and park the bus on the turf blocks in front of the small mound, off of the driveway. If your group is participating in an outdoor tour the park ranger will need your cooperation in guiding the group safely throughout the mound area and on the river trail.

Dress: A majority of our activities are conducted outside. All programs will continue as scheduled, ***weather permitting***. Components of each program involve standing and walking outside. Students should dress comfortably and take into account variable weather patterns. Please ask students to dress in comfortable layers.

Auditorium/Bookstore/Museum Areas: Our visitor center is designed to be accessible to all visitors. Teachers and chaperones are expected to control students at all times so that injury to persons and/or property may be prevented. Teachers receive a 15% discount in our bookstore but must have proper identification. Food and drink are not permitted inside the museum. Flash photography is permitted.

Picnic Area/Restrooms: Restroom facilities and a water fountain are located inside the visitor center. A picnic area is available for your class and holds approximately 40 students. The picnic area is used on a first -come, first -served basis unless reserved at the time of group reservation. Yoctangee City Park in Chillicothe has three covered picnic shelters which are available by reservation at (740) 772-5626. Camp Sherman Memorial Park has another covered picnic shelter located 2 miles south of Hopewell Culture NHP on State Route 104.

Please call the park at **(740) 774-1126** prior to your visit for specific directions, or in the event of changes regarding your group's reservations.

We look forward to your visit!

Program Choices

Programs in the Classroom

All of the following programs are presented by a park ranger in your classroom at no cost to you. All programs should be scheduled at least **two months** in advance. November through March are excellent months to schedule classroom visits.

These programs include all of the necessary supplies. Upon teacher's request, the park can present programs on a variety of topics within archeology, history, or natural history, in addition to those listed below. Due to the nature of these activities, the teacher will need to be present during the program.

- ***Prehistoric Tool Time:*** (30 minutes)
  A reproduction of a prehistoric tool kit. Students determine how prehistoric tools were used and what their modern counterparts are in today's tool kits. Topics covered include location of raw materials, manufacturing techniques, and tool use.

- ***Travel or Trade?:*** (30 minutes)
  Utilizing a floor-sized map (9' x 12') of North America and exotic materials of the Hopewell, students gain valuable geography skills. After learning about the Hopewell trade network, students can play mapping games on the canvas.

- ***Habitats of the Hopewell/Suppertime 2,000 Years Ago:*** (50 minutes)
  Students will compare three habitats in the region where those of the Hopewell lived. The students will then brainstorm how those people met their needs with the resources available to them. This is a fun and interactive way for the students to explore the year round diet of the Hopewell.

- ***Map Quest:*** (30 minutes)
  By piecing together puzzles of reproduction 1848 Squier and Davis maps, students will learn about the geography of Ross County, as well as all five park units of Hopewell Culture NHP.

- ***What's Hidden in the Midden?:*** (60 minutes) Working in teams, students learn the techniques for sifting, removing, keeping track of, analyzing, and classifying the contents of a prehistoric midden.

Program Choices

Programs at Hopewell Culture NHP

All programs should be scheduled at least **two months** prior to your visit. Keep in mind that April, May, and October are very busy months at the park, so make reservations well in advance. You may conduct your own program without a ranger, but please notify the park prior to your visit.

- ***Guided Mound Tour:*** (45 minutes) A guided tour of the Mound City earthwork complex will explain the Hopewell way of life as well as cultural and natural resources stewardship.
- ***Legacy of the Mound Builders:*** A 17-minute introductory film tells the story of the Hopewell culture which built geometric earthworks and burial mounds 2,000 years ago. This film is appropriate for third grade and up.
- ***Earthworks: Virtual Explorations of the Ancient Ohio Valley:*** This touch-screen computer program provides images and interpretations of the ancient Ohio Valley.
- ***Museum:*** A collection of 2,000 year old artifacts that were excavated from the mound area are on display. Items vary from pipes and shark teeth to mica and obsidian.

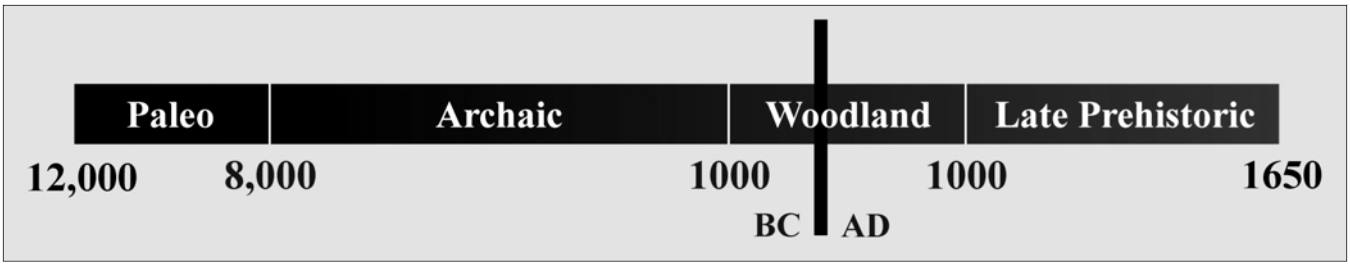
ACTIVITIES

- ***Hopewell Tool Time:*** (30 minutes) A reproduction of a prehistoric tool kit. Students figure out how prehistoric tools were used and what their modern counterparts are in today's tool kits. Topics covered include location of raw materials, manufacturing techniques, and tool use.
- ***Travel or Trade?:*** (30 minutes) An interpretive activity utilizing a floor-sized map (9' x 12') of North America and raw materials used by the Hopewell. Using group learning skills, students place raw materials on the map where items were obtained during traveling and trading. After learning about the Hopewell trade network, students can play mapping games on the canvas.
- ***Atlatl Demonstrations:*** (30 minutes) Your students can experience first-hand the skill required to throw spears with the use of the atlatl.
- ***What's Hidden in the Midden?:*** (60 minutes) Working in teams, students learn the techniques for sifting, removing, keeping track of, analyzing, and classifying the contents of a prehistoric midden.

Ohio's Prehistoric Past:

An Introductory Reading for Teachers and Students

For more than 14,000 years humans have lived in the region between Lake Erie and the Ohio River, now known as Ohio. Archeologists studying the Eastern Woodlands have divided these 14,000 or so years into four major time periods: Paleo-Indian (12,000-8,000 BC), Archaic (9,000 -1,000 BC), Woodland (1,000 BC-AD 1000) and Late Prehistoric (AD 1000 -1650). While these time periods serve only as basic guides to what happened in the past, each period is uniquely characterized by changes in day to day life.



The Paleo-Indian Period (12,000-8,000 BC)

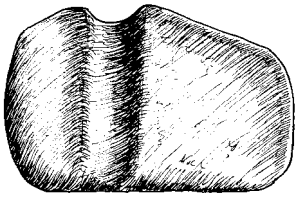
The earliest known people in Ohio lived during the Paleo-Indian time period. They lived in North America during the end of the last Ice Age, when most of Ohio was covered in large glaciers and the climate was much colder. People lived in small mobile groups, following the migrating herds of Ice Age animals such as mastodon, giant sloth, giant beaver, bison, musk ox, caribou, wild horse, and elk. Many of these animal remains have been found in Ohio, such as the mastodon accidentally found in 1989 at the Burning Tree Golf Course near Newark, Ohio. These early hunters utilized spears with stone points; the points were called Clovis points. Although this time period is most often associated with large game hunting, the hunting of smaller game and gathering of plants provided the bulk of the Paleo-Indian diet.

Clovis point

The large Ice Age animals vanished from Ohio by 8,000 BC as a result of a changing climate and perhaps over-hunting. Groups of Paleo-Indians that remained in Ohio were directly affected by the changing climate and environment. During the next 8,000 years some recognizable cultural changes took place.

The Archaic Period (8,000-1,000 BC)

Archeological investigations of many Archaic camp sites throughout Ohio provide clues to daily life. During this time period the modern climate of Ohio became established. The combination of forests, prairies and rivers provided an abundant supply of food. People living during the end of Archaic period began gathering wild plants such as sump weed and



Archaic stone axe

goosefoot and saving the seeds to plant later. This early form of plant domestication produced bigger seeds and thinner seed husks making harvest more productive.

The use of the atlatl assisted hunters with throwing spears. Atlatl is the name given to a rod of wood with a hook at one end to leverage the back end of a spear. This innovative tool provided the accuracy and force needed to bring down larger game from a safe distance. Archaic hunters added stone weights to the atlatl to increase the efficiency of the tool.

Archaic point

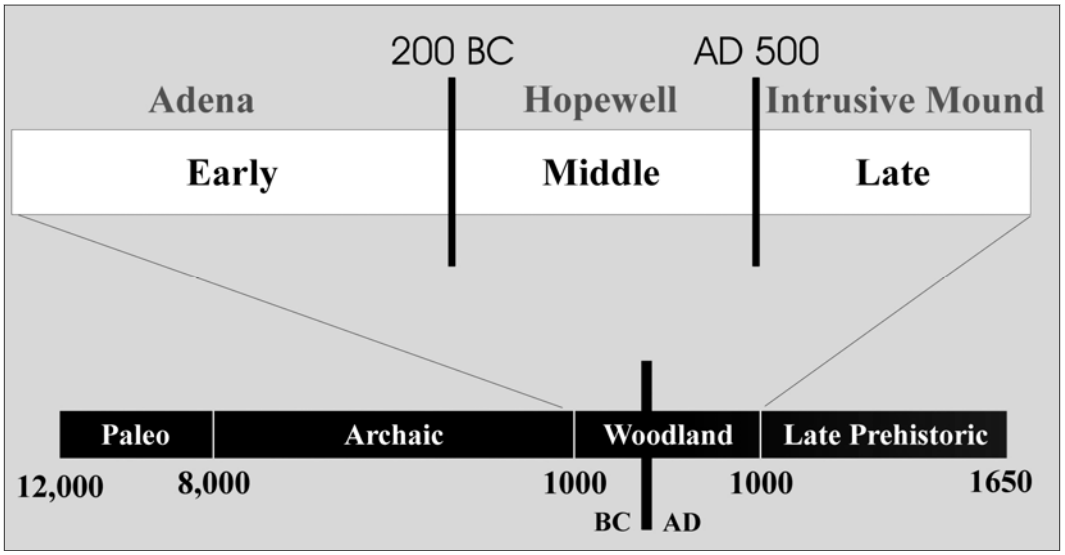
By 2,000-1,000 BC Archaic ceremonial life was changing. Many human burials exhibit signs of burial ceremonialism with special grave offerings. It is in the Middle to Late Archaic period that tending to the dead began to take on a very important role for the living.

The end of the Archaic period is also marked by the evolution of new technology responsible for baskets and clay pots. Archaic pots were big and crude with little to no decoration. They lasted much longer than bark, skin or gourd containers. In addition, the appearance of clay pots in the archeological record is an indication that people were beginning to linger in one place for more extended periods.

The Woodland Period in the Ohio Valley (1,000 BC - AD 1000)

Earthworks, including mounds, were built fairly late in the timeline of human prehistory of what is now Ohio. During the Woodland Period Native Americans built thousands of earthworks in the Ohio Valley. While the mounds they constructed were often used for burials, it is also believed that the earthwork sites represented places of ceremonial gathering for the community. A handful of earthworks can still be seen today. The Woodland Period is subdivided into Early, Middle, and Late periods.

Early Woodland Period: about 1000 BC to AD 100



In a matter of 500 years (around 450 BC), growing domesticated plants, cooking in pottery vessels, and burial ceremonialism culminated in some parts of Ohio in what archaeologists refer to as the Adena culture. During this time American Indian groups built immense burial mounds up to 63 feet high. They also created sacred space by piling up dirt in low earthen embankments in the shape of circles.


Adena point

Members of the Adena culture lived in a geographic region stretching from southeastern Indiana to southwestern Pennsylvania and from central Ohio to central Kentucky and West Virginia. The natural environment played an important role in the lives of the Adena people, who made their homes along the many waterways that empty into the Ohio River. The rivers and streams were important for transporting people and material goods, and for exchanging information.

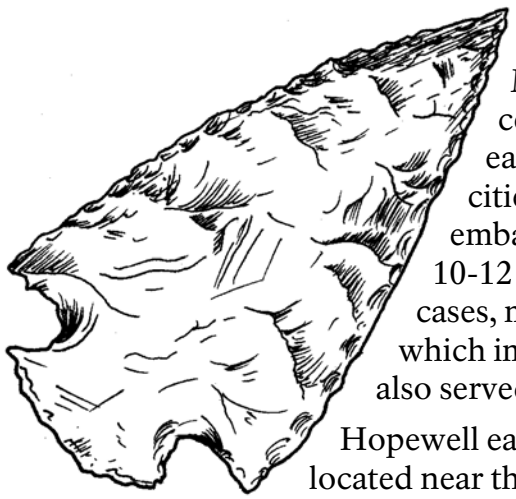
The Adena way of life was based on hunting and gathering, but the Adena also grew some plants. Some of the native plants that were grown in their gardens included *goosefoot*, *knotweed*, *sunflower*, *may grass* and *squash*. The Adena produced engraved stone tablets and stone pipes for smoking tobacco. They obtained materials from distant regions as well, such as *copper*, which was used to make jewelry and other objects.


goosefoot

Adena mounds were usually *conical* in shape and often, but not always, contained burials. Before creating a mound, the Adena would prepare a site by clearing away trees and plants so that they could cover the area with sand or clay. They would then construct a ceremonial building, or dig a rectangular pit and line the sides of the pit with logs. These buildings and log lined tombs were not the homes of the Adena. They were places for performing burial rituals. Before building a mound, structures were taken down or burned.

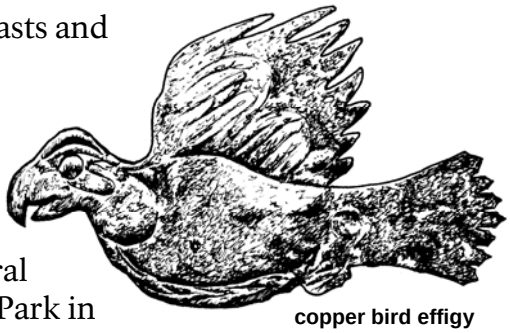
Middle Woodland Period: about 200 BC to AD 500

Out of local Adena populations emerged the peoples of the Hopewell culture, during the middle of the Woodland period (2,200 to 1,500 years ago), the Hopewell continued the traditions of burial ceremonialism and mound building. But they also built large earthen embankments shaped like circles, squares, and octagons. Some of these earthworks covered more than 100 acres. More than a dozen of the largest earthworks and mound centers are located in Ross County, Ohio. Additional large earthwork centers are found near the present day Ohio cities of Marietta, Newark, and Portsmouth. The embankments of these Hopewell earthworks were as tall as 10-12 feet and enclosed as many as forty mounds each. In most cases, mounds cover the remains of wooden buildings inside of which important ceremonies took place. Many of these buildings also served as the resting place for the remains of ancestors.


Hopewell point

Hopewell earthworks were constructed for a variety of uses and were located near the center of Hopewell communities. They were special places where families came to bury their dead and make

offerings of elaborate objects crafted from materials such as mica, copper, and obsidian brought from many points across North America. While death ceremonies were events for mourning, there were also occasions for feasts and celebration.


copper bird effigy

The variety of materials from which artifacts were made indicate the Hopewell maintained an extensive network that brought raw materials from hundreds of miles away. Using rivers and trails for transportation, copper from the southern shore of Lake Superior, silver from east central Canada, obsidian from what is now Yellowstone National Park in western Wyoming, mica from the Blue Ridge Mountains of North Carolina and Tennessee, and shells from the Gulf of Mexico, were brought into southern Ohio. These raw materials were fashioned into the shapes of birds, mammals, reptiles, humans, and dozens of other forms.

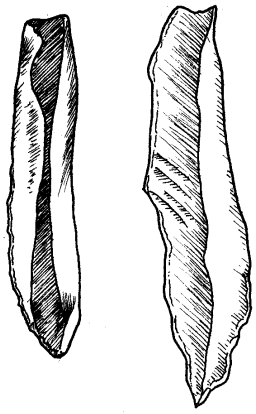

toad pipe

Based on the large quantities of objects buried with the dead and the immense size of the earthworks and mounds, we know that Hopewell earthwork centers must be the result of cooperative construction projects. In many cultures around the world, such large scale public works projects were overseen and controlled by a class of elite rulers, many of whom passed their status to their children. In Hopewell society, however, little evidence of a ruling class has been found.

When not attending group gatherings at earthwork centers, the Hopewell lived a life of hunting, gathering, and gardening. Their settlements were scattered across the landscape of southern Ohio and each consisted of just a few homes. Nearby garden plots were sown each spring with seed-producing plants such as goosefoot, sunflower, knotweed, and may grass. From studying their midden, what archeologists call trash piles, we have learned that these people relied on a variety of starchy and oily seed-bearing plants and nut trees. Bountiful garden harvests helped the Hopewell survive the winter and move less often.


sunflower

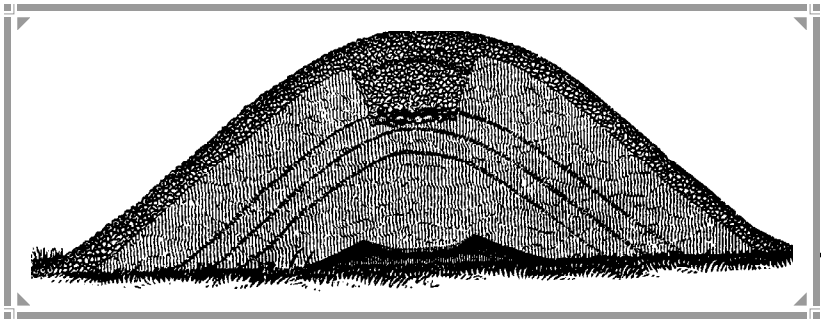
The Hopewell people did not use the bow and arrow. The projectile points they used were darts, spears and knives, sometimes in conjunction with the atlatl. A common stone artifact found at Hopewell sites is the bladelet. Some obsidian bladelets of the Hopewell are sharper than modern surgical steel.


bladelet

By A.D. 400 Hopewell communities were using their earthwork centers less and less, and the use of exotic raw materials in ceremonies was declining. While descendants of the Ohio Hopewell lived on, focusing even more on growing food in large garden plots, their cultural priorities changed and the ceremonial center of their ancestors were slowly overtaken by forest.

Late Woodland Period: about AD 500 to 1000

The Intrusive Mound culture lived during the Late Woodland period between the decline of the Hopewell culture and the rise of the Fort Ancient culture in the Scioto River Valley. This culture is defined by how they buried their dead, and the stone, bone, and horn tools they manufactured. In 1846, Squier and Davis discovered un-cremated burials in four mounds at Mound City. These burials were clearly placed in shafts dug into mounds built by the Hopewell long before (see illustration). Based on information recovered from Mound City Group and two other sites near Portsmouth, Ohio this cultural group was identified and named for the manner in which it buried its dead. It is possible that the Intrusive Mound culture built their own mounds, however, little archeological evidence has been discovered.



Mound 2 at Mound City, as drawn by Squier and Davis in *Ancient Monuments of the Mississippi Valley,* illustrating the Intrusive burial at the top of the mound.

Research indicates this Late Woodland culture lived in small groups, was highly mobile, and began the use of bows and arrows to hunt game. Around AD 1000 the Ohio Valley saw the introduction of the Fort Ancient culture and the end of the Intrusive Mound culture. The passing of the Intrusive Mound culture marks the end of the Late Woodland period and begins the Late Prehistoric period.

Late Prehistoric Period: Fort Ancient Culture (AD 1000 to 1650)

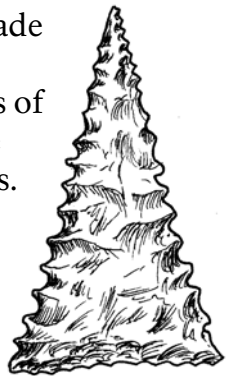
The beginning of corn (maize) agriculture is one of the last major changes to have taken place in the Ohio region prior to the arrival of Europeans. Corn was initially brought to the Middle Ohio Valley from Mexico via the southwestern United States perhaps during the early portions of the Woodland period. However, corn was not used in significant quantities until about AD 1000, during the Late Prehistoric period, when people of the Fort Ancient culture grew large fields of it.

Many Fort Ancient people lived in large villages surrounded by tall fences. Some of these villages had up to 250 people living in them. Along with growing corn and beans, people also hunted deer and other animals using the bow and arrow. The bow and arrow came into use in Ohio around AD 800 about 200 years before the Fort Ancient culture. Fishing and collecting clams from the rivers was also very important during this time period.

Like earlier cultures, some Fort Ancient communities built mounds. Fort Ancient mounds were usually much smaller than Adena and Hopewell mounds and were often flattop mounds, but were used for burying the dead. The Fort Ancient also built effigy mounds, or mounds shaped like animals. Some archeologists believe the Serpent Mound in southern Ohio was built by the Fort Ancient.

When Europeans arrived in the Ohio Valley sometime around 1650 Ohio had already been emptied of its native residents. Some died from the spread of Old World diseases, others

moved out of the Ohio area as a result of wars with the Iroquois. European trade goods have been found at a number of late Fort Ancient villages. When Chillicothe was established in the late 1700's, the Shawnee lived in many parts of southern Ohio, but this area is not their original home. What happened to the descendents of the Fort Ancient is still one of Ohio's great historical mysteries.



Fort Ancient point

How Do We Know What We Know?

The Study of Archeology

Archeology is a sub-discipline, or a part of *anthropology*, the study of humans. Other fields of anthropology include *physical anthropology* (which centers on human biology and evolution), *cultural anthropology* (which studies human societies today), and *linguistics* (which focuses on human languages).

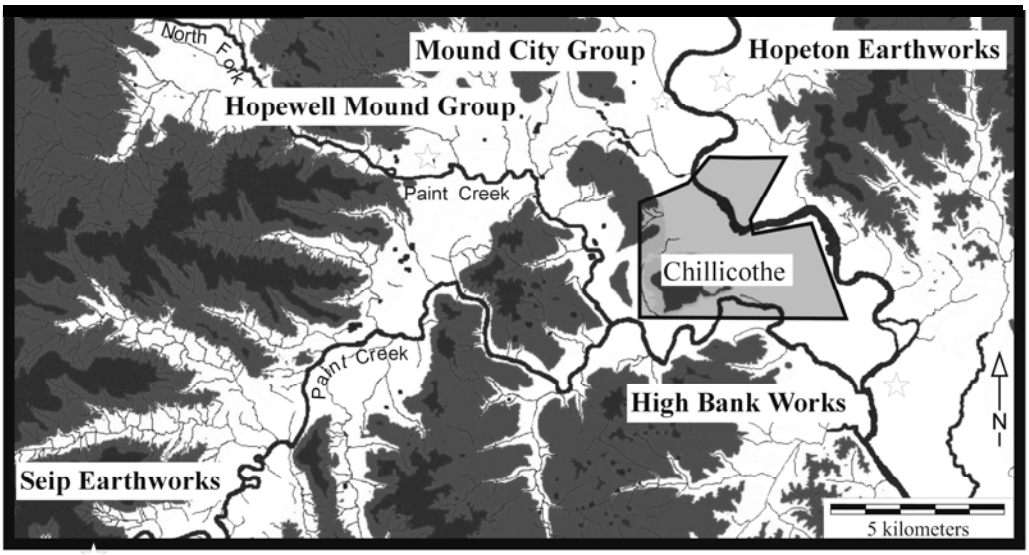
Archeology is defined as the scientific study of the life and culture of past people through the excavation and examination of their settlements, relics, and artifacts. An *archeologist* is a scientist who practices this field of study. When most people think of archeology they think of an adventurous explorer like the fictional Indiana Jones who braves great danger to grab a precious object. This is far from the truth. Archeology provides a link to the past and a means to study the people who came before us. There is a natural human curiosity about the past. As humans, we want to know more about those who came before; we want to understand them as people. The National Park Service is actively engaged in archeological studies. Most units of the National Park Service, including Hopewell Culture National Historical Park, contain prehistoric and/or historic archeological remains.

Archeological sites are the physical remains of the past that can be studied by archeologists to answer questions about history and prehistory. Archeological sites may be building remains, trash heaps, habitation sites, or ceremonial sites. These physical remains are often buried by natural processes, such as flooding, or by subsequent human activity, and must be studied carefully and systematically through excavation and other techniques.

Archeological sites are especially important to the preservation and understanding of our nation's heritage because they are the main source of knowledge about the prehistoric past. Historic archeological sites can provide information on aspects of history that were never written down, even though they occurred at a time when written records were kept.

All archeological sites are fragile and irreplaceable; they cannot be rebuilt or remade. Through systematic excavation archeologists can unearth clues to a culture's past.

Even the archeological excavation is a destructive process, so archeologists are very careful to excavate only what they need to answer a question. Archeologists frequently concentrate their work on sites that may soon be lost, such as highway or building construction sites. This way, archeologists can rescue as much information as possible from these endangered sites before their complete destruction. These clues usually come in the form of artifacts and features. An *artifact* is any object made or changed by human beings, whether it is an arrowhead or piece of pottery. A *feature* is any archeological remain that cannot easily be transported whole for study in a lab. Examples of features include postholes, foundations, hearths, and trash pits. When artifacts and features are discovered, their location, or *provenience*, is carefully documented and recorded. Later, after analyzing all the field data, the context of the artifacts and features provide the archeologist with a glimpse into the story of the peoples who came before.



Excavation is not the only tool the archeologist uses. Archeologists rely on ethnographic studies, or studies of more contemporary peoples and their cultural changes through time. The studies are usually conducted by cultural anthropologists. Archeologists also rely heavily on old-fashioned research through historical records. New technology called *geophysical survey* allows archeologists to detect archeological features below ground without digging. They also study plants in the field of ethno-botany, and astronomy in the field of archaeo-astronomy. Archeologists are not only excavators: they are also observers, writers, and analysts.

Preserving the Past

The National Park Service administers 388 units, many of which have prehistoric and historic archeological remains. These include prehistoric sites such as Hopewell Culture NHP, historic sites such as Jamestown, and presidential homes such as Abraham Lincoln's birthplace. Hopewell Culture NHP currently preserves and protects five sites constructed by the Hopewell culture in Ross County, Ohio (shown on map below): Mound City Group, Hopeton Earthworks, Hopewell Mound Group, High Bank Works, and Seip Earthworks.

As early as 1906, the Antiquities Act provided protection for the antiquities of the United

States. In 1979, the Archeological Resources Protection Act was signed into law, stating in part:

> On lands administered by the National Park Service, it is unlawful to excavate, remove, disturb, deface, or destroy any historic or prehistoric building, structure, ruin, site or in place exhibit, artifact or object, or to collect, appropriate, excavate, damage, disturb or destroy artifacts, pictographs, petroglyphs, objects of antiquity, fossils or scientific specimens.

In 1990, the United States Congress signed the Native American Graves Protection and Repatriation Act (NAGPRA) into law. In response to this law, the National Park Service has completed summaries and lists of Native American human remains and ceremonial and cultural items in its collections and notified the associated tribe or groups. Native American human remains and cultural items can be repatriated to the culturally affiliated tribe or organization on request. In addition, the National Park Service is consulting with the associated tribes regarding planned excavations and accidental discoveries. This cooperation has helped to give archeologists an extremely important new source of information, the native peoples themselves.

Although several activities in this guide provide some of the basic understanding of archeological excavation, collecting artifacts from the surface or digging on your own is not a constructive way to participate in archeology. Unauthorized collecting or looting of artifacts is illegal on Federal land and on private land without permission. More importantly, excavating without the proper training and professional support destroys vital archeological information about the provenience and context in which artifacts and features are found.

Discussion Questions for *Legacy of the Mound Builders*

The questions listed below were created to accompany the viewing of the park video, *Legacy of the Mound Builders*. The questions can be used by individuals or in group settings. Pass out copies of the questions to the students prior to the viewing of the video. These questions will help guide your students through the video by giving them key concepts to look for.

1. Why build mounds?
2. What happened to the Hopewell culture?
3. Name some of the tools the Hopewell used to help construct the mounds.
4. List some of the many shapes and designs used to construct earthworks.
5. What are effigy mounds?
6. What percentage of mounds has been destroyed in the United States?
7. Is the Hopewell culture the only mound building culture?
8. Do we have any effigy mounds in Ohio?
9. What else was going on in the world when the Hopewell were building mounds?
10. Why is Ohio a good place to build mounds?
11. What types of food did the Hopewell eat?
12. How long have people been in Ohio?
13. Did the Hopewell have a written language?
14. What river flows along Mound City?
15. How did the Hopewell obtain their food?
16. Is Ohio the only state that had mounds?
17. Did the Hopewell eat corn?
18. What other cultures built mounds?
19. What do the mounds of Mound City contain?
20. Do all mounds contain burials?
21. Do all mounds contain artifacts?
22. What would the environment or habitat have been like 2,000 years ago in what is now Ohio?
23. Did the Hopewell have free time? What does this tell us about the Hopewell culture?
24. Name some of the items the Hopewell were obtaining to make their artifacts?
25. Why were many of the earthwork sites constructed along river and streams?
26. Why is it important to learn about the Hopewell culture?
27. How do we know what we know about the Hopewell culture?
28. Why is Mound City part of the National Park Service?
29. How do archeologists help us learn more about the Hopewell culture?
30. Why do you think the Hopewell constructed earthen walls around many of their earthworks?

Bonus: Why did the movie say the timeline becomes less clear or comes to a grinding halt in the 1650's?

Bonus: How many mounds once dotted Eastern North America?

Bonus: How do we know that it took about 3 hours a day for the Hopewell to get the amount of food that they needed to survive?