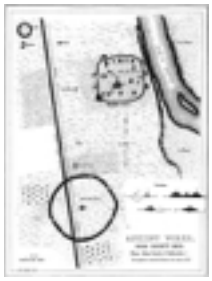


Exploring the Adena and Hopewell Cultures in Ross County

Hopewell Culture National Historic Park * Ross County History Depot

This publication was created as an educational resource for the Ross County History Depot local history program, http://rosscountyhistorydepot.edublogs.org This is a nonprofit endeavor to enrich students understanding of the significance of local history.

Many of the pictures, illustrations, and information included in this guide were provided as a courtesy by the Hopewell Culture National Historic Park for use in this educational publication only.

Please direct any questions to Julie Lambert at coverlet@bright.net

Sources of information:

http://www.earthworksconservancy.org
http://www.nps.gov/hocu/index.htm
http://www.ohiohistorycentral.org/w/Hopewell_Culture
http://www.ohiohistorycentral.org/w/Adena_Culture

Thanks to the following for providing assistance and guidance:

Hopewell Culture National Historic Park
Bruce Lombardi Melinda Repko Susan Knisley

Jarrod Burks, Heartland Earthworks Conservancy

The Mound Builders

The Hopewell Indians, National Park Service Publication

Over two hundred years ago, many people from Kentucky, Virginia, and other states in our new United States came to what is now Ross County to settle. When they arrived, they found thick woods full of bear, deer, turkeys, and other wild animals. Eager to settle, they quickly cleared the land to make room for their homes, and fields for planting. The uncovering of the land led to their discovery of unusual earthworks which became known as Indian mounds. Some of the earthworks were shaped like a cone, some like animals, others like geometric shapes. (squares and circles) The new Ross County settlers were not the first to find these Indian mounds. Early settlers in other parts of Ohio had also discovered earthworks just like these.

Many of the settlers assumed these earthworks had been built by ancestors of the Shawnee or another indian tribe. When the Shawnee were asked about the earthworks, they too could only guess about who built them.

As more settlers moved into Ross County, more of the prehistoric earthworks were destroyed. The settlers had no idea these mounds of soil were over 2,000 years old. They did not realize the treasure of information buried in these earthworks. Fortunately early archeologists, such as Ephraim Squier and Edwin Davis were able to record descriptions of the earthworks and their contents. Through their work and the efforts of others, archeologists began to discover that the earthworks seemed to have been created by two different cultures of people.

Taking the Lead . . .

Ross County Pioneers in Archeology

In the 1800's, two Chillicothe men took a special interest in these earth- works and the people who created them. Their names were E.G. Squier and E.H. Davis.

Dr. Edwin H. Davis, had a medical practice in Chillicothe and Ephraim Squier was the editor of the Scioto Gazette newspaper. They shared an archaeological interest in the many earthworks found in Ross County. Earthworks just like these had been found throughout Ohio and in the states of Wisconsin, Louisiana, Mississippi, Alabama, Indiana, and South Carolina.

The many earthworks were quickly disappearing as more land was cleared for communities and farms. Both Squier and Davis felt it was important to document the earthwork sites before they all disappeared. From 1845 through 1847 they traveled to nearly 100 of these sites, drawing sketches of each earthwork and **excavating artifacts**. In 1948, they published their drawings in a book called "Ancient Monuments of the Mississippi Valley."

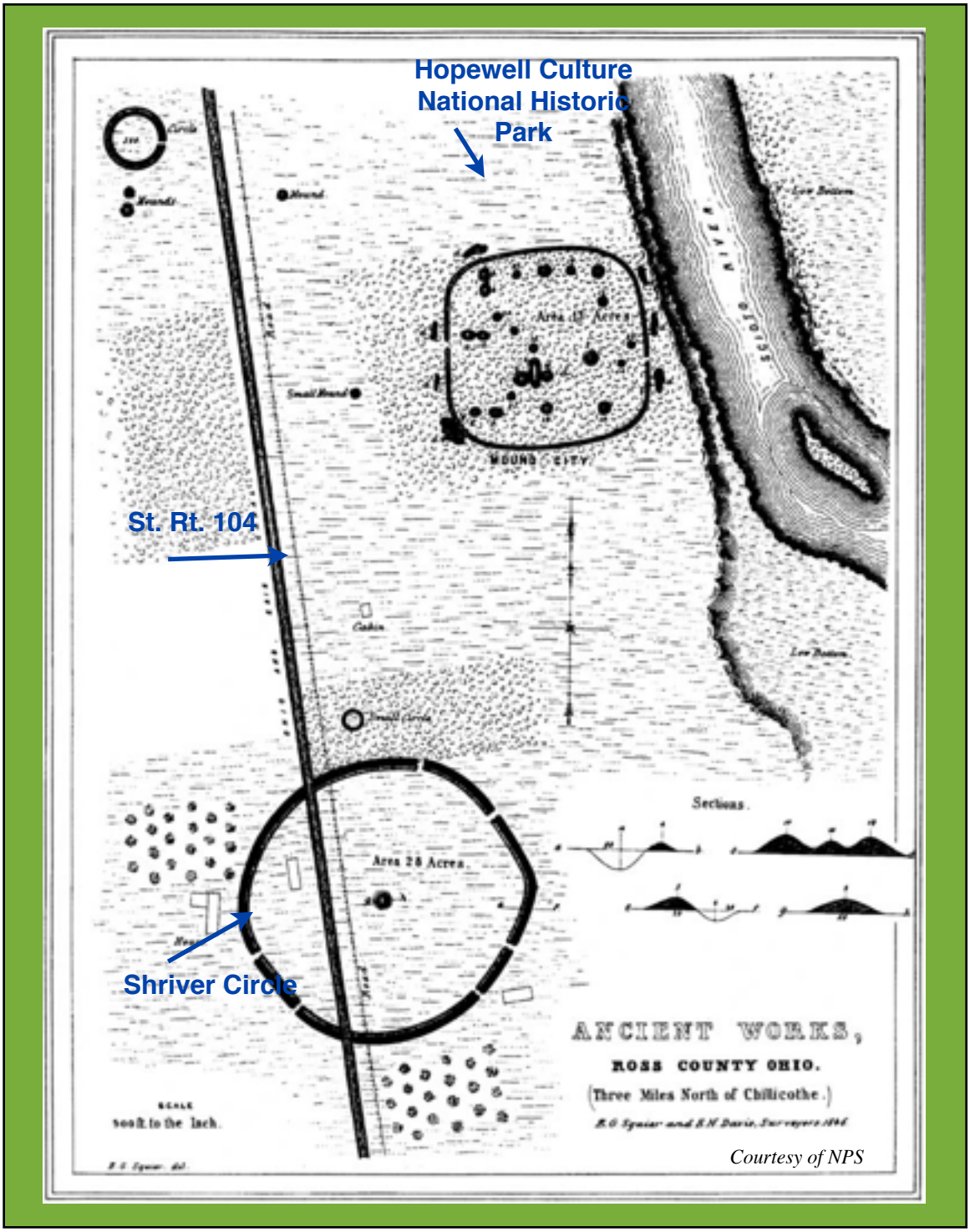
Courtesy of the Ross Co. Historical Society

Dr. Edwin H. Davis
1811-1888

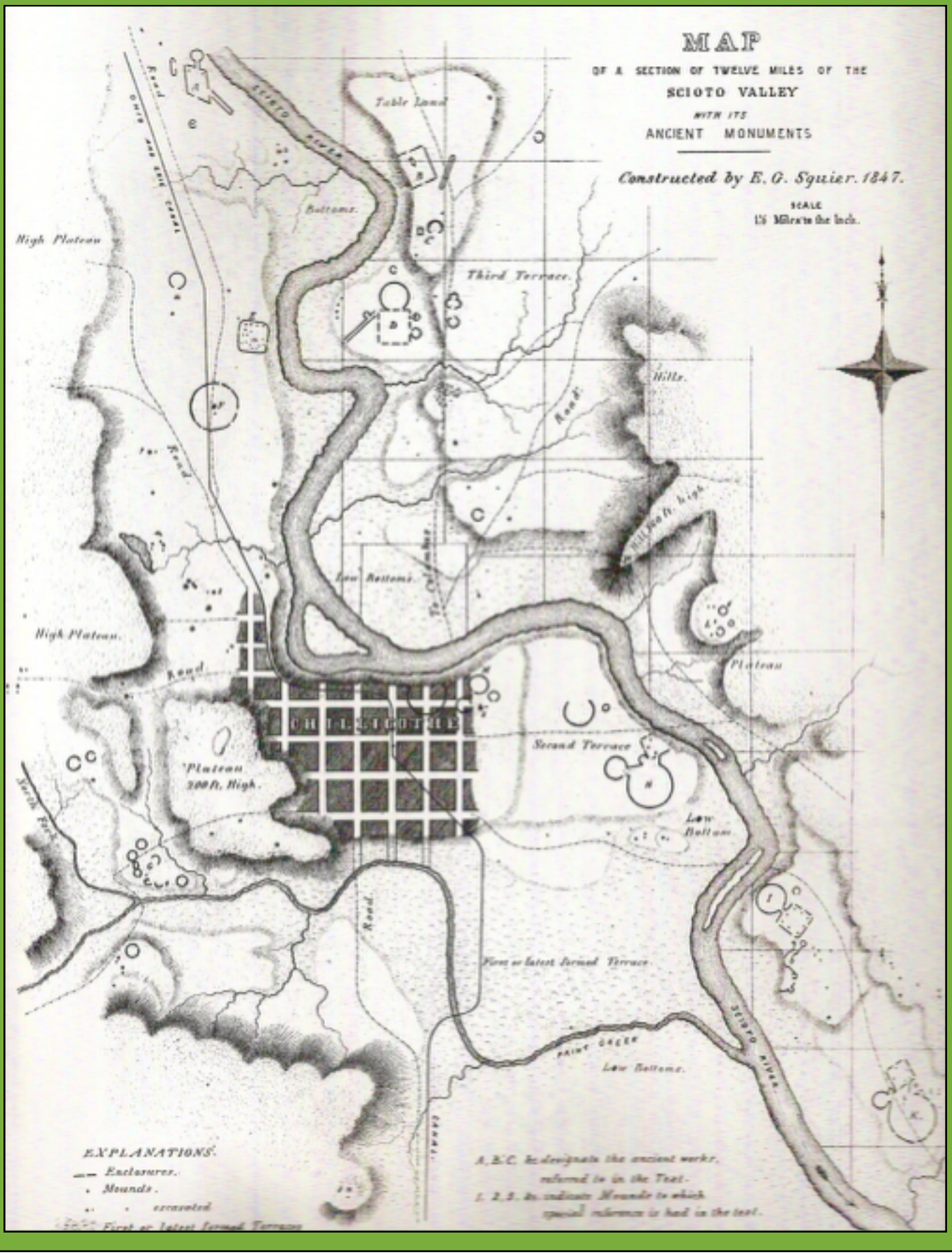
Courtesy of the NPS

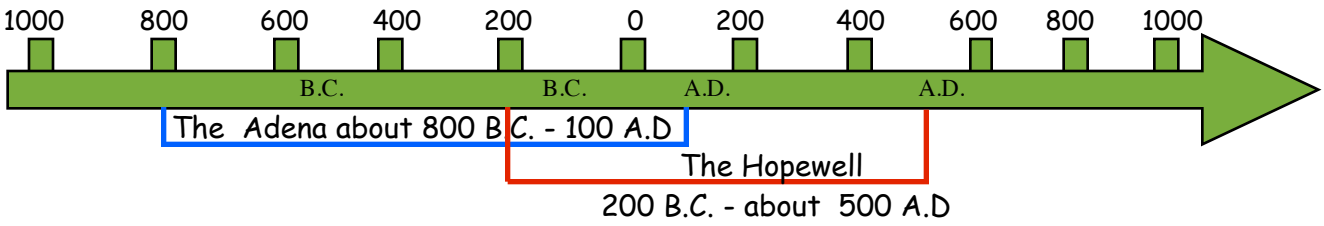
Ephraim G. Squier
1821-1888

We are fortunate Squier and Davis drew sketches and recorded their discoveries because very few of the early earthworks are left. Their early excavations of artifacts helped **archaeologists** discover that there were probably two groups of Mound Builders who lived in our area.



This is a 1846 drawing by Squier and Davis. The top square enclosure shows the mounds at Hopewell Culture National Monument just north of Chillicothe. This drawing shows St. Rt. 104, as it passes through the "Shriver Circle." The circle enclosure was named after the Shriver family who at one time owned the land.


MAP
OF A SECTION OF TWELVE MILES OF THE
SCIOTO VALLEY
WITH ITS
ANCIENT MONUMENTS
Constructed by E. G. Squier. 1847.
SCALE
15 Miles to the Inch.
Table Land
Bottoms.
High Plateau
Third Terrace.
Hills.
Road
Low Bottoms.
High Plateau.
Plateau
Second Terrace
Plateau
200 ft. High.
Low Bottom
First or latest formed Terrace.
PAINT CREEK
Low Bottoms.
SCIOTO RIVER
EXPLANATIONS.
Enclosures.
Mounds.
excavated
First or latest formed Terraces
A, B, C, to designate the ancient works referred to in the Text.
1, 2, 3, &c. indicate Mounds to which special reference is had in the text.



The Woodland Period

1000 B.C to 1000 A.D.

The many mounds and earthworks found in an around Ross County were left by two groups of early people known as the Adena and Hopewell cultures. They lived here during a time archeologists refer to as the Woodland period.

The Adena Culture * 800 B.C. to 100 A.D.

The earliest of these two groups is known as the Adena culture. They lived in small villages. They left a trail of earthworks along the Ohio River Valley in what are now the states of Ohio, West Virginia, Kentucky, and Indiana. Their earthworks are mostly found near waterways that lead into the Ohio River.

The Adena earthworks were mostly conical shaped mounds which were often used as burial places for their honored dead. Sometimes these mounds would be enclosed within a circular earthwork. Story Mound at the corner of Allen and Delano Avenues (near Worthington School) is a good example of an Adena burial mound.

Photo courtesy of the Ohio Historical Society

The Adena people also built animal-shaped effigy mounds. The most famous of these is the Great Serpent Mound found in nearby Adams County. It is an amazing 1,348 feet long!

Photo courtesy of the Ohio Historical Society

Local Adena Mound Provides the Name for an Entire Culture

The Adena culture was named after a large mound located on Thomas Worthington's Adena Estate. In 1901 archaeologist, Dr. William Mills headed a team in excavating the Adena mound. Their findings led to the the discovery that the people who built this and similar mounds were a different group from the ancient people we now know as the Hopewell.

The Adena mound which was 24 feet in height, was actually a second mound had been built over an earlier mound. 21 skeletons were buried in the first mound, 12 skeletons in the later mound.

*From Records of the Past * Prof. William C. Mills*

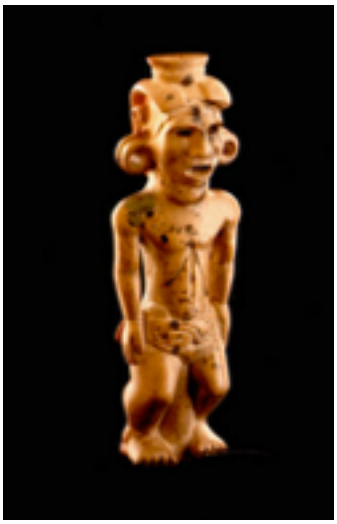


Photo courtesy of the Ohio Historical Society

Copper bracelets and rings, bone and shell beads, and spear points made from Flint Ridge in Licking County, Ohio were among the many finds inside the mound. The Adena man effigy pipe, which is now Ohio's official state artifact was discovered in this Adena mound.

The mound, which was located near Lake Ellensmere, was destroyed in the early 1900s to make way for more farmland.

Chillicothe Gazette, July 20, 2013
Written by “Special to the Gazette”

Adena Pipe's Place in History Secure

Ohio selects Ross County artifact for special recognition

CHILLICOTHE — An idea born in Columbus and reinforced by a visit to Chillicothe is what led to a piece of Ross County prehistory becoming the official state artifact earlier this year.

The new state artifact of Ohio, the Adena Pipe, was discovered in Ross County.
Ohio Historical Society Photo

The journey to that designation began more than three years ago when fourth-grade students at the Columbus School for Girls, who were studying Ohio’s prehistory and government, took on a project to create an official state artifact along the same lines as designations for a state tree, a state insect and a state flower. Each of those official state objects was chosen because it had an important connection to Ohio’s history and natural resources.

The idea came about as the girls took field trips to locations across the state. During one such trip to the Statehouse in fall 2009, they saw a connection between state government and Ohio’s prehistory and decided it would be important to honor a culture often forgotten by Ohioans. The students thought becoming one of three states to name a state artifact would encourage others to learn more about Ohio’s history and prehistory.

The students began the search for an appropriate artifact, which started with the girls meeting, interviewing and writing to different archaeologists across the state — among them Kathy Brady at Hopewell Culture National Historical Park in Chillicothe. The students also took field trips to various prehistoric sites and museums to view the artifacts. Several were considered before the students settled on one they felt stood apart from the rest — the Adena Pipe, which was discovered on the grounds of the Adena Mansion & Gardens.

The pipe made of pipestone portrays a full human body with decorative clothing. The material is commonly found in Portsmouth near the Ohio River.

Once the artifact was determined, the process of finding someone in the state Legislature to sponsor the legislation began. The students also wrote letters to Native American tribes to gain their consent for the project.

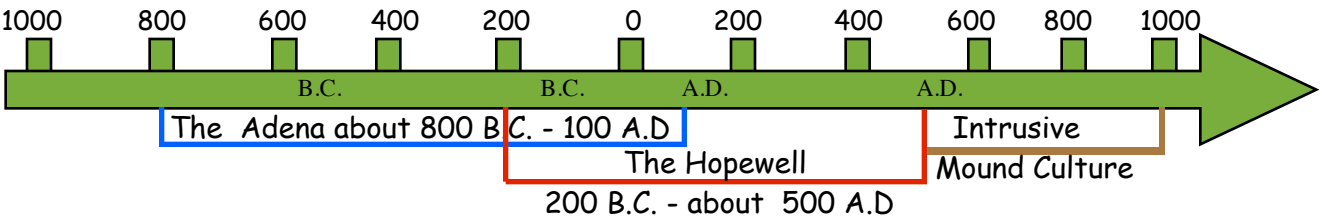
When the proposal originally was brought to legislators in 2010, the Legislature was tied up with state budget issues and was unable to take up the artifact legislation.

It was reintroduced as House Bill 501 in the spring of 2012, and students from the school continued to write letters to legislators and Gov. John Kasich to gather support, and testified before House committees during the process. At the end of November, the bill passed in the House, but because it was a lame duck session, the bill died again because of time constraints.

A new bill introduced in the Senate this year was placed before both houses of the General Assembly simultaneously and, with the help of lobbyists organized by a parent, met with quick approval. After more than three years, three classes from the school that were instrumental in the process watched Kasich sign the bill into law May 16.

“We hope that this project has inspired some of our young female students to someday become legislators, archaeologists, or lobbyists,” said teachers Tracy Kessler and Charlotte Stiverson in a written account of the process provided to the Gazette. “Through this experience, they have learned that, much like the Adena people, their voice can be heard whether they are a child or a long-lost prehistoric culture.”

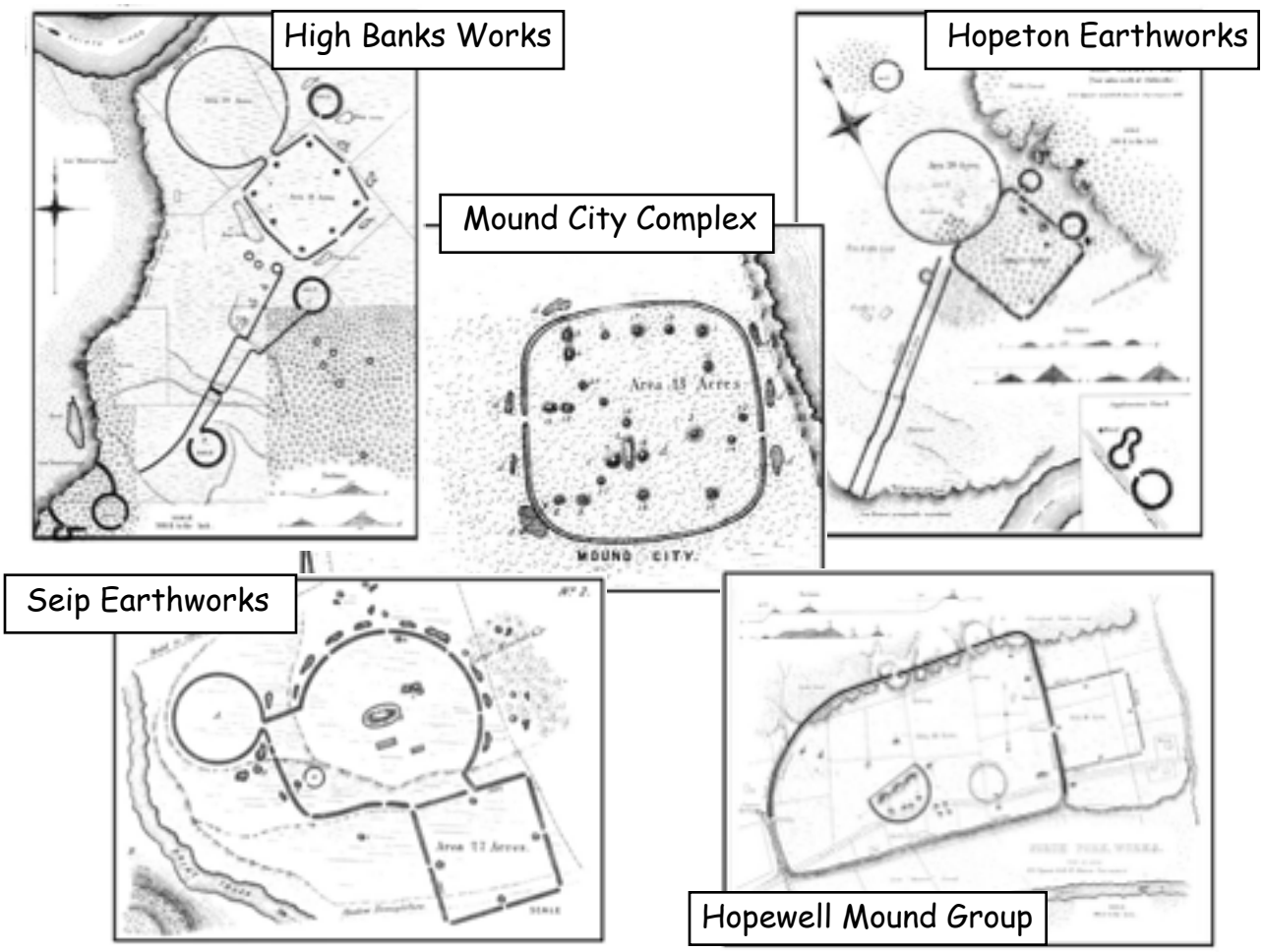
Gov. John Kasich signs a bill in May designating the Adena Pipe as the official artifact for the state of Ohio. The pipe is sitting in a display case to the left of Kasich. / Submitted photo



The Hopewell Culture * 200 B.C. to 500 A.D.

The Hopewell culture were also very common in our southern Ohio area. Their village and earthwork sites can be in the Ohio and Mississippi Valleys. Like the Adena people, the largest number of Hopewell sites have been found in southern Ohio.

Hopewell Culture National Historical Park, located on Rt. 104 north of Chillicothe is the most familiar Hopewell site to many local residents. It is one of five earthworks sites under the care of the Hopewell National Historic Park.



http://www.nps.gov/hocu/historyculture/places.htm

The Hopewell culture built earthworks which were a lot more complex than the Adena. They went beyond building a simple burial or effigy mound, using a lot of geometric shapes for their enclosures. These enclosures were used for special purposes and were not village sites.

Hopewell Farm Earthworks Inspire the Naming of the Hopewell Culture

Mordecai Hopewell's farm on Sulphur Lick Rd. was the site of the large enclosures and mounds. In 1891 archaeologists excavated the site & found what archaeologist. Dr. Nomi Greber, of the Cleveland Museum of Natural History described as:

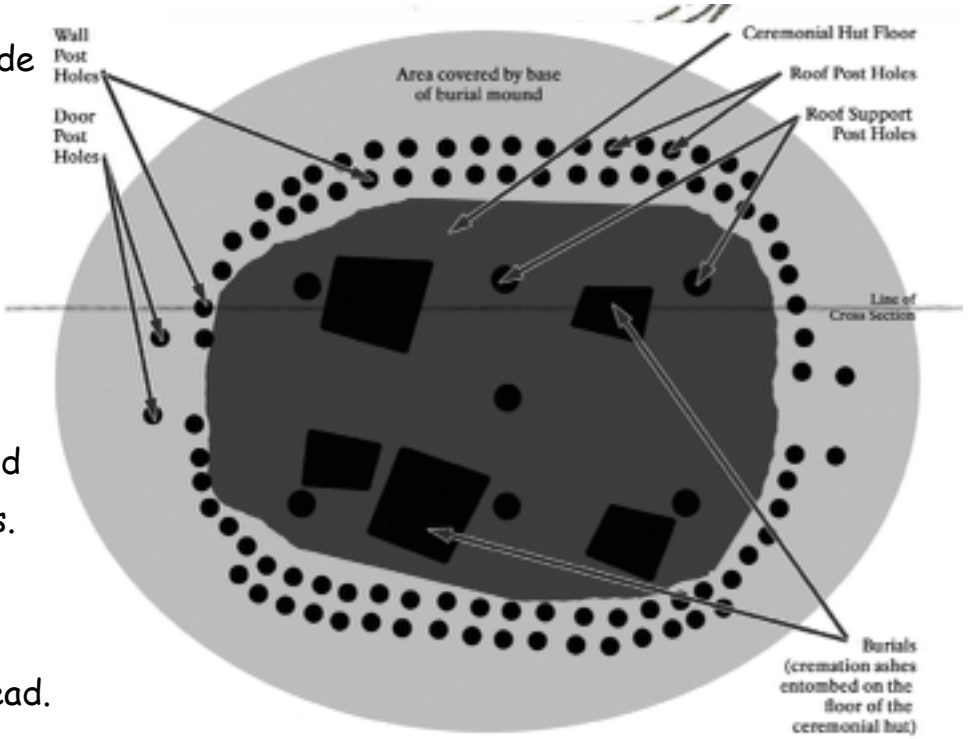
Photo Courtesy NPS

"in quality and quantity, the most striking total set of Hopewellian cultural remains in Ohio."

The "dig" was so impressive that archaeologists named the Hopewell culture after the Hopewell farm site. This human hand effigy carved from mica was discovered at the Hopewell farm site. The site is now known as the Hopewell Mound Group and is open to the public.

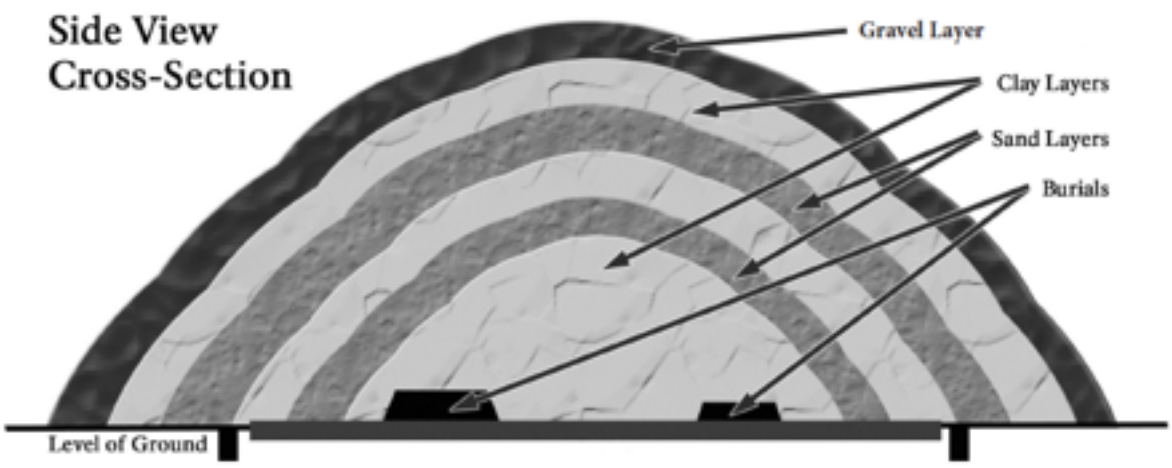
Hopewell Burial Mounds

Ceremonial buildings made of wooden posts covered with bark were used in cremation of the dead. Once the cremation was complete, the ashes were swept up onto an earthen platform and a small mound was built over the remains. Special objects were left behind as an offering or sign of respect for the dead.



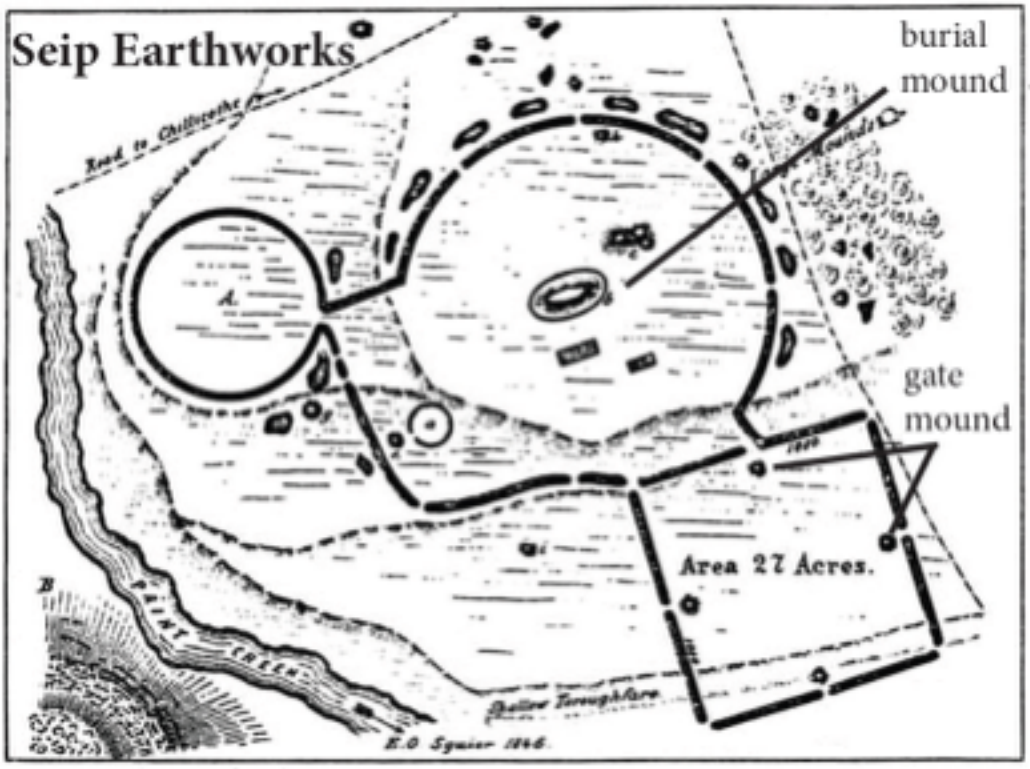
At some point, the Hopewell would all stop using these buildings. They would either burn or take apart the wooden structures and build a mound over the floor, burials and any other objects that were left behind. Rather than just piling up any earth, the Hopewell mounds were made of individual layers of sand, gravel and clay. These are the same materials found in cement today, suggesting that the Hopewell wanted these mounds to last a long time.

Indians of the Late Woodland period used existing Hopewell mounds to bury their dead. They became known as the **Intrusive Mound** culture.



Sizing Up Seip Earthworks

One football field



The Seip Earthworks are Hopewell site located just west of Paint Valley High School in Bainbridge. They were named after Charles Seip, a Chillicothe business man, who at the time owned the farm on which the earthworks are located.

The earthen walls of Seip Earthworks were 10 feet high and went for about two miles! These walls enclosed over 120 acres to form one of the great Hopewell earthworks. A large burial mound can be seen in the center Smaller mounds can be found inside the square enclosure in front of each opening. They are known as "gate mounds" as they seem to block the opening. Gate mounds are found frequently and do not contain burials.

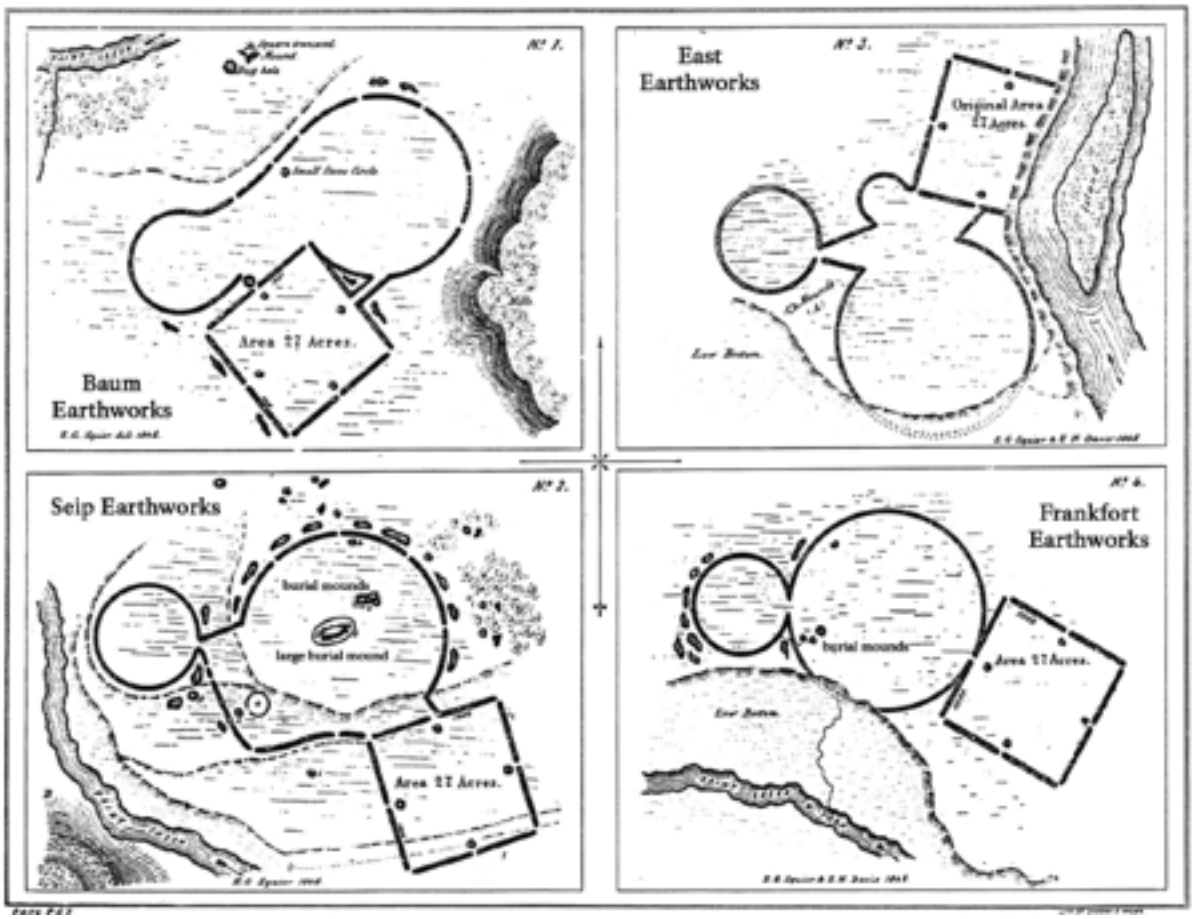
Find "Seip Mound State Memorial" on Google Earth. Interpretive mowing has been used to show the location of the original earthworks. A reconstructed burial mound and a portion of the original wall can still be seen today at the park site which can be entered from U.S. Rt. 50.

*Use the scale drawing of the football field above to draw a football field over the mound in the center of the big circle to imagine just how large the Hopewell built their earthworks.

*Draw little people inside the circle.

Hopewell Earthwork Designs

The Squire & Davis drawings below show four different earthworks in the Chillicothe area. Even though they are miles apart from each other, they are similar.



1. Circle the shapes that all four earthworks had in common.

   Big Circle Small Circle Square Octagon

2. Circle the one shape that always contains the burial mounds.

   Big Circle Small Circle Square Octagon

3. Circle any of the ways that the squares of the four earthworks were the same.

Same size	Eight openings	Gate mounds at side openings	Gate mounds at corner openings

4. The squares are all 1,080 feet on each side, which is longer than three football fields end to end. How do you think the Hopewell people measures so exactly?

Mapping the Mounds

Follow the directions below to complete the "Ohio Hopewell Earthworks" map on page 15.

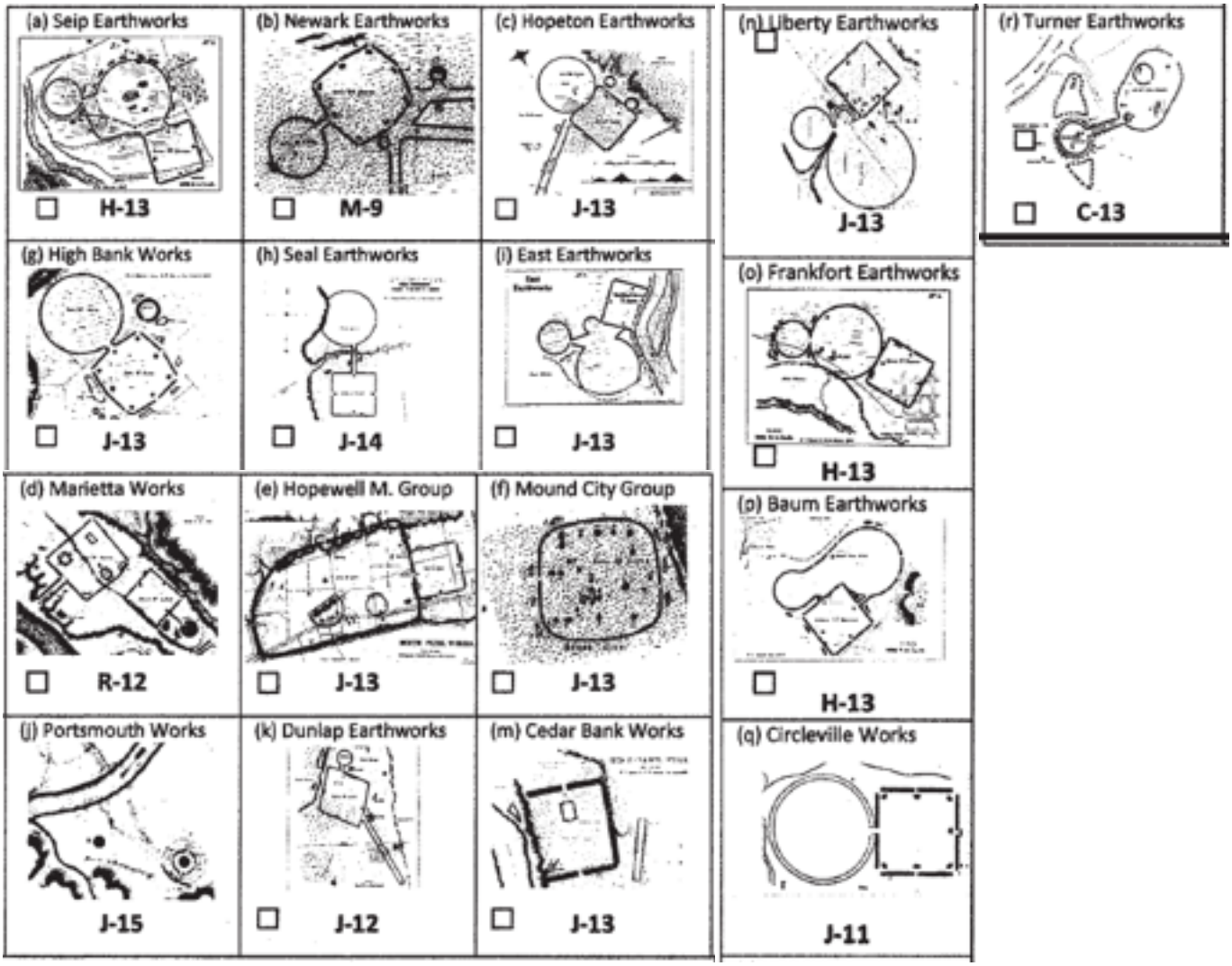
1. Using a blue color pencil trace and label the following rivers on the map:

   Great Miami River Maumee River Muskingum River Ohio River Scioto River

2. Using a red color pencil write the small letter on the map for each earthwork according to its location. (coordinate) Draw a small circle around each small letter that you write on the map. Check the box after you map each earthwork. Write Small, there are lots of earthworks!

3. What Ohio city has the most big Hopewell earthworks near by.

_____



Ohio Hopewell Earthworks

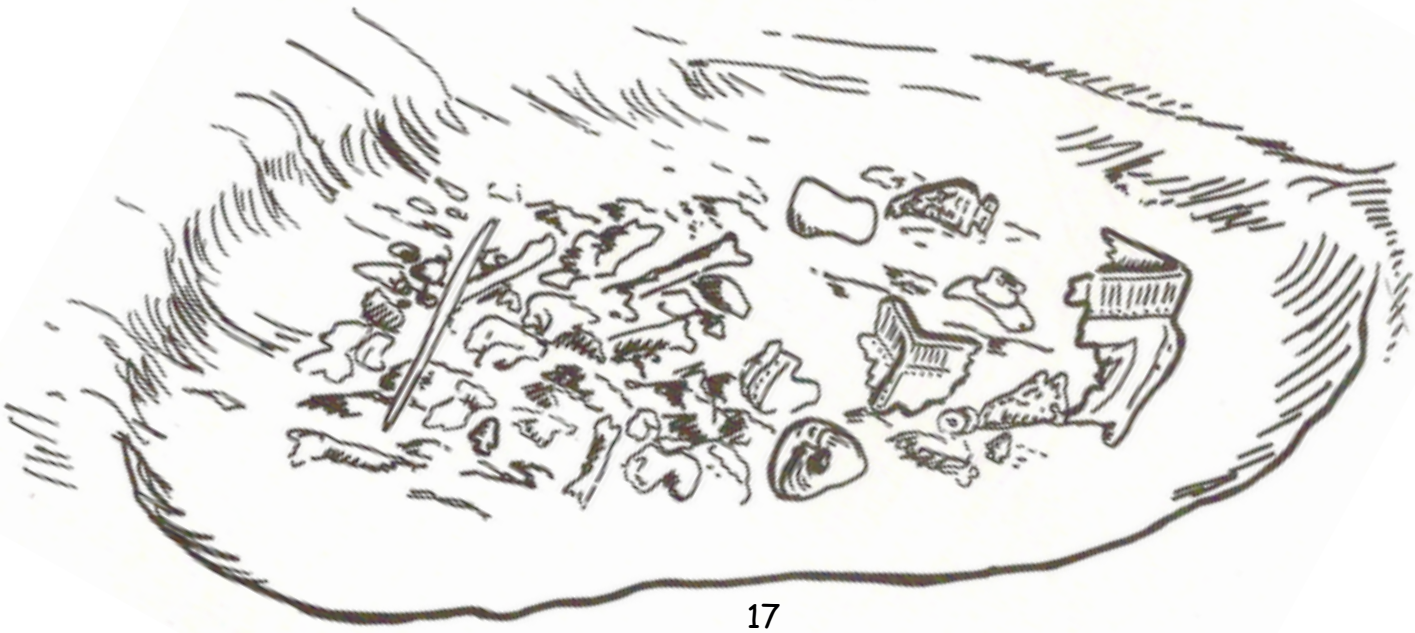
Digging into the Lives of the Mound Builders

The Adena and Hopewell lived in prehistoric times, so we have no written history about how they lived. Archaeologists have spent years sifting through village and earthworks sites piecing together the many clues left behind by these ancient residents of Ross County.

Trash Collectors

We know by looking in their trash piles, which archaeologists call **middens**, what foods were eaten. Seeds from corn, pumpkins, and other squash have been found. Remains such as bones and teeth from deer, bear, turkey, and rabbit also were found in these piles. Not only does this tell us what the Mound Builders ate, but it tells us what animals lived in our area at that time.

These middens also tell us that the Mound Builders made clay pottery for their everyday use. Pieces of pottery, some nicely decorated, have been found. Archaeologists have discovered they used arrowheads made of flint and clubs with stone heads for hunting and work. Their clothing was made of woven cloth and animal skins which were sewn together with needles made from animal bones.



What kind of trash do you leave behind? If future archaeologists were digging through the trash at your school, what would it tell them about what kids

1. ate? _____

_____

2. wore?_____

_____

3. studied? _____

_____

4. played? _____

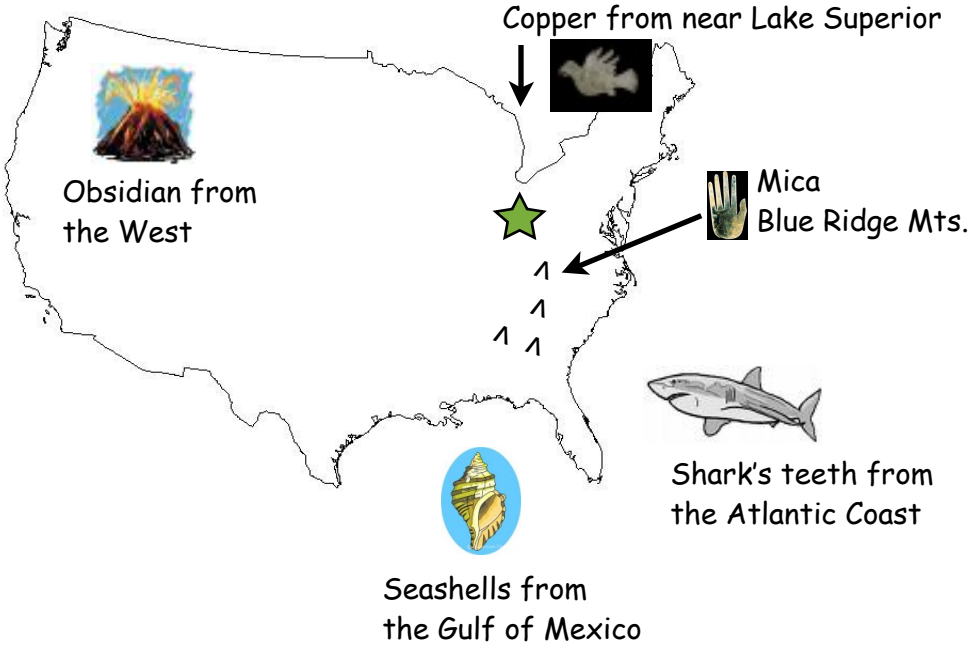
_____

System of Trade was Developed

Flint for arrowheads and pipestone for pipes were both found in Ohio, However the materials used to make many of the artifacts discovered were not from nearby. Jewelry made of sea shells from the Gulf of Mexico, copper from near Lake Superior, and shark's teeth from the Atlantic coast have been found in the burial mounds. Decorative pieces carved of mica from the Blue Ridge Mountains have also been found buried in the mounds. Volcanic obsidian rock from the Rocky Mountains was used to make ceremonial spear heads. This tells us that the Mound Builders had developed a system of trade with people from other parts of the country.

The Mound Builders Depended On Natural Resources From Near & Far

The Adena and Hopewell people did not have the convenience of pre-made goods that we have today. They looked to their environment for their needs. What couldn't be found nearby, they acquired through a trading system with tribes from all over what is now the United States.



Mica

Photos Courtesy National Park Service

Photo Courtesy Ohio Historical Society

Mica artifacts found were mined from the Blue Ridge Mountains of North Carolina. Both the Human Hand and Eagle Claw were excavated from Hopewell earthworks here in Ross County.

Obsidian

Obsidian rock is a glasslike volcanic rock which was mined in the Rocky Mountains of the western United States.

Obsidian rock was carved into spearheads and knives. Today some surgeons prefer to use obsidian scalpels because they can be made sharper than steel surgical scalpels.

Photo Courtesy TheGemDealer.com

Copper

Copper was mined from the Lake Superior area.

Photo Courtesy NPS

Copper was hammered into decorative pieces and jewelry. Copper develops a green coating called a patina when exposed to air.

Field Museum

Flint

Courtesy Gabriel VanderVort

Arrowheads, knives and scrapers were carve from flint. The local Mound Builders did not have to travel far for their flint source. Flint Ridge in Licking County was a source of flint in Ohio. Flint from other parts of the country have also been excavated from local Hopewell sites.

Animal Bone

Courtesy Gabriel VanderVort

Courtesy Gabriel VanderVort

Animals were killed for more than just the meat they provided. The skins were used for clothing and carved the bones into tools such as the sewing needles above and the fish hook to the left.

Pipestone

Photos Courtesy National Park Service

Smoking pipes were made from pipestone. Ohio pipestone was a clay which could be easily carved when first brought out of the ground. Once exposed to air it would harden.

Pipestone outcroppings could be found throughout the midwest. The closest spot for pipestone was along the Ohio River near Portsmouth.

These pipes from the Hopewell Culture National Historic Park were found here in Ross County.

Photos Courtesy National Park Service

Sea shells

Photo Courtesy Ohio Historical Society

Courtesy Gabriel VanderVort

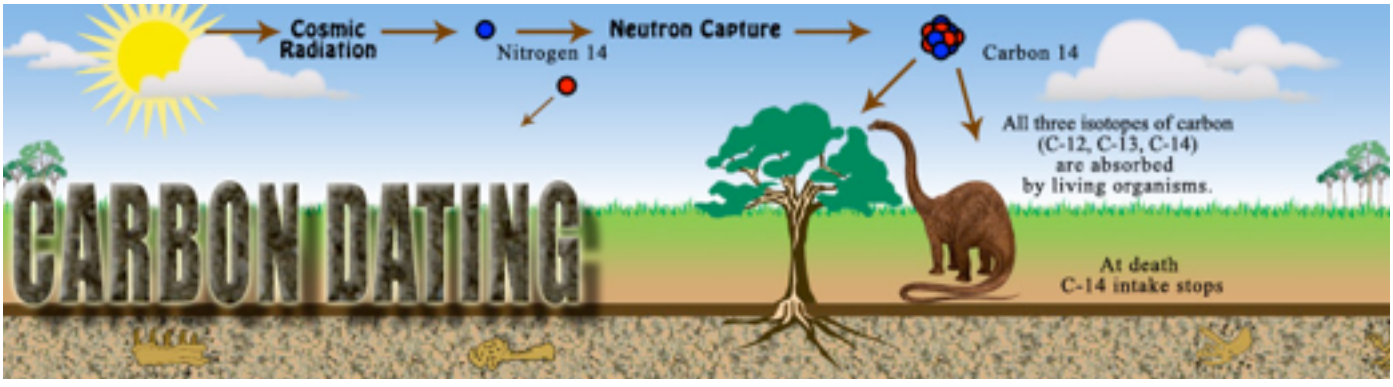
Shells from the Gulf of Mexico were carved into jewelry. Shell beads and pendants are shown above.

How Do We Really Know How Long Ago the Mound Builders Lived in Ross County?

One clue is a test called Carbon-14 Dating (also known as radiocarbon dating). All living things, plants and animals, have a certain level of the element Carbon-14 while living. Once dead, the remains very slowly lose tiny bits of Carbon-14. A scientific test can be done to a bone that is found. The amount of Carbon-14 still remaining in the bone will clue the scientist into the approximate time that has passed since the living being stopped living.

Carbon-14 dating is used in dating things such as bone, wood and plant fibers (cloth) that were alive in the past 50,000 years. Carbon-14 dating can be used to determine the age of rock such as sedimentary rock, which may contain plant or animal remains in its layers.

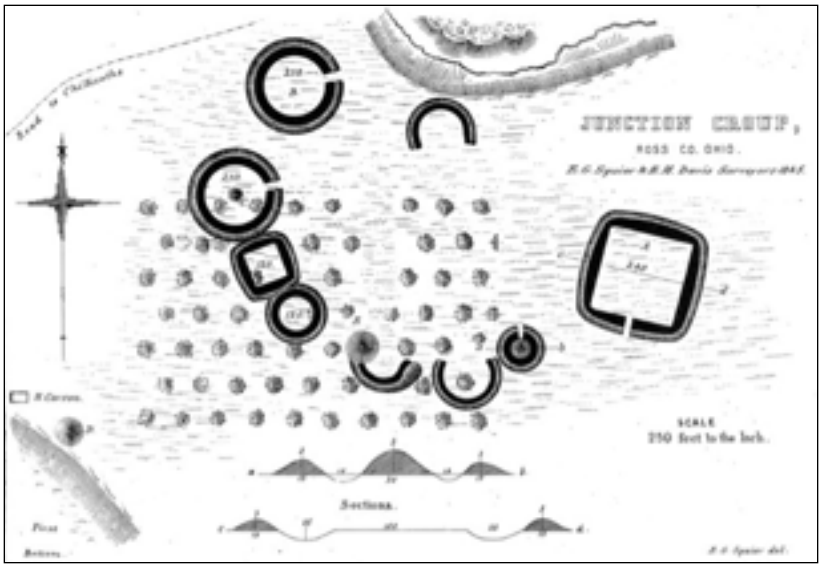
Carbon -14 dating was used to determine the age of the Mound City Group of mounds which are part of the Hopewell Culture National Historic Park on Rt. 104, just north of Chillicothe. Archaeologists tested charcoal from a cremation burial pit. The results of the test determined that the body had been cremated about A.D. 178. Carbon-14 dating was also recently used to determined that the Adena effigy pipe found in the Worthington Estate's Adena Mound dates to approximately 125 B.C.



http://www.tokresource.org/tok_classes/biobiobio/biomenu/options_folder/D3_human_evolution/index.htm

The Junction Group Earthworks are Rediscovered!

What remains of a group of Native American earthworks built between 1800 and 2000 years ago are located in a farmer's field, just southwest of Chillicothe. It sits at the intersection of Plyley's Lane and Bellevue Avenue, just a mile from Allen Elementary. Squire and Davis named the site the Junction Group when they first mapped it in 1845

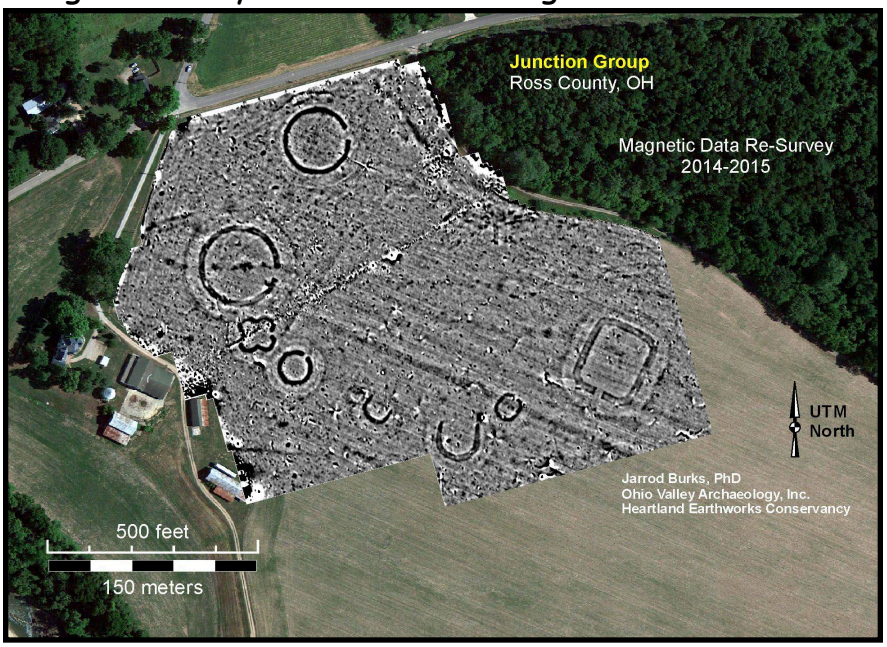


The Junction Group was a ceremonial center as were most of the earthwork sites which have been studied in Ohio. Several burials and what was believed to be an altar were found during the Squire and Davis excavation. The arrangement and design of the earthworks also indicate the site was a gathering place and a sacred space.

Although the site has been farmed for many years, evidence of some of the earthworks could still be seen in aerial photographs such as the one seen in this 1943 photo. The recent use of magnetometry has given archaeologists an even more accurate picture of the original earthworks which once were present at this site.

Magnetometry gives Archaeologists a View Underground

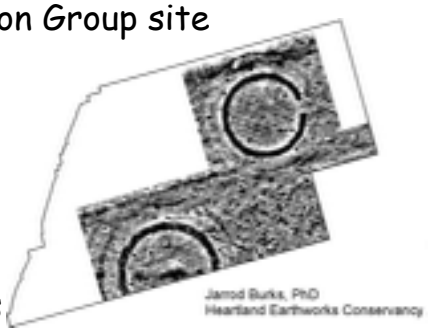
Use of a technology called Magnetometry has led archaeologists to the discovery of many pre-historic sites which cannot be seen above ground. A **magnetometer** measures patterns of magnetism in the soil. It will pick up evidence of soil below ground which has been changed as can be seen in the picture to the right. The dark circles were ditches which were possibly three to five feet deep when they were dug by the Hopewell. **Embankments**, or walls of dirt were built around the ditches. They appear in the survey as a lighter color. Over the years, the ditches filled with top soil and the embankments were plowed over as the land was farmed. Burned soil as was found in pits, post holes, stone walls and other left overs of ancient times can also be detected.



Dr. Jarrod Burks, of Ohio Valley Archaeology is shown to the right using a 4-probe magnetometer to create the survey of the Junction Group site which is seen at the top of the page.

A magnetic survey is done by dividing the site into grid sections. Each section is surveyed, then the information is pieced together to create one big picture.

Archaeologists will do less destruction of ancient sites when magnetometers can show them where to dig.



Survey Grid Sections

The Junction Group Earthworks Comes Back to Life

Interpretive mowing brings the Junction Group Earthworks back to life in this aerial photo taken by local Chillicothe resident, Tim Anderson, Jr. The location of the earthworks are based on the magnetic survey done by Dr. Jarrod Burks.

The Junction Group long sat on private farmland under a large crop field. In 2015 the property became available for purchase. Through the efforts of The Arc of Appalachia and the Heartland Earthworks Conservancy, funds were raised through grants and the generosity of almost 1,000 individual donations to purchase the land with the purpose of preserving the earthworks site.

Their goal is to now turn the site into a public park. The Junction Earthworks Archaeological Park and Nature Reserve is due to open in the Spring of 2016. Visitors can walk among the "grass" earthworks and hike on trails which will be available. Money is being raised to fund the maintenance of the park, so that it's use will be free.

To learn more about these to groups you can visit their websites :

Heartland Earthworks Conservancy:

http://www.earthworksconservancy.org

Arc of Appalachia:

http://arcofappalachia.org