



Hopewell Happenings

Summer Saturday Hikes

By Park Ranger Bruce Lombardo

Hopewell Culture National Historical Park manages other prehistoric earthwork sites besides Mound City Group, but visitation to the other sites is still less than it could be. To promote appreciation of the park's other units, park rangers began offering guided walks each Saturday last summer. Interpretive walks were led at the two other open units of the national park: Seip Earthworks and Hopewell Mound Group. Hikes were also led at Spruce Hill Works, a prehistoric site newly acquired by the Arc of Appalachia Preserve System and the Ross County Parks, two of the national park's partner organizations.

For many participants, the Saturday walks were their first visit to these magnificent prehistoric works. Two thousand years ago, the prehistoric Hopewell people built carefully designed earthworks in the shape of perfect circles and squares. Seip Earthworks is a classic example of the Hopewell Culture's fascination with geometry. Within the remnants of its ancient earthen walls stands majestic Pricer mound, the largest restored Hopewell burial mound in existence.

Among Southern Ohio's renowned prehistoric earthworks, Hopewell Mound Group is superlative in many respects. At 111 acres, the main enclosure was the largest known Hopewell earthen-walled area and contained the largest Hopewell burial mound ever built. The former farm of Mordecai Hopewell, this location is the place where this prehistoric culture was first described by archaeologists. No one knows what these people called themselves 2,000 years ago, but they have ever after been referred to as the Hopewell Culture by scientists.

Mysterious Spruce Hill is the world's largest Hopewell hilltop enclosure and one of only



Visitors enjoy a hike with Park Ranger Nicholas Roll at Spruce Hill. Photo courtesy Larry Henry.

three such rare hilltops surrounded by a mound of stone. Though little remains of the stone walls, hikers will get a sense of scale for the prehistoric project when standing in the middle of the plateau. Spruce Hill is not normally open to the public without prearrangements, so this was an uncommon opportunity to explore this flat-topped finger of stone that thrusts into the scenic Paint Valley.

So popular was the Summer Saturday Hike series that the national park has decided to offer the program again this summer. For a listing of locations and times see page 2, check with the visitor center at Mound City Group or click "Special Events" on the national park's website: www.nps.gov/hocu.

Summer Saturday Hikes—2009 Tour Schedule

On Saturday throughout the summer, park rangers will lead tours of four other sites the park protects besides Mound City Group. All tours begin at 9am and last two to three hours. Directions, places to meet, and tour descriptions are listed below. Come see the other earthworks of Hopewell Culture National Historical Park!

Seip Earthworks -- June 6, July 4 and August 1

Length: 2 miles

Difficulty Level: Easy, Flat

Seip Earthworks is a classic example of the Hopewell Culture's fascination with geometry and skillful construction of their earthworks. Within the remnants of these ancient earthen walls also stands majestic Pricer mound, the largest restored Hopewell burial mound in existence.

Meet at Seip Mound main parking lot on U.S. Rt. 50 by Paint Valley High School, 2.5 mi. east of Bainbridge, 5 miles west of Bourneville.

Spruce Hill-- June 13, July 11 and August 8

Length: 2¼ miles

Difficulty Level: Moderate, Uphill

Mysterious Spruce Hill is the world's largest Hopewell hilltop enclosure and one of only three such rare hilltops surrounded by a mound of stone. Though little remains of the stone walls, hikers will get a sense of scale for the prehistoric project when standing in the middle of the mesa. Spruce Hill is not normally open to the public without prearrangements, so this is an uncommon opportunity to explore this flat-topped finger of stone that thrusts into the scenic Paint Valley.

Meet at Seip Mound main parking lot on U.S. Rt. 50 by Paint Valley High School, 2.5 mi. east of Bainbridge, 5 miles west of Bourneville.

Hopewell Mound Group -- June 20, July 18 and August 15

Length: 2 ¾ mile

Difficulty Level: Easy, Mostly Flat

At 111 acres, the main enclosure is the largest single Hopewell earthen-walled area ever found and contained the largest Hopewell burial mound ever built. It was at this former farm owned Captain Mordecai Hopewell, that this prehistoric culture was first described by archaeologists. It is also from this site that the Hopewell Culture borrows its name.

Meet at Hopewell Mound Group parking lot, 3 miles northwest of Chillicothe on Sulphur Lick Rd., ¼ mile from Maple Grove Rd. near the west end of Anderson Station Rd. Driving maps are available at the main National Park Visitor Center at Mound City Group (16062 State Rt. 104), which opens at 8:30 am. Hopewell Mound Group is a 15 minute drive from the main visitor center.

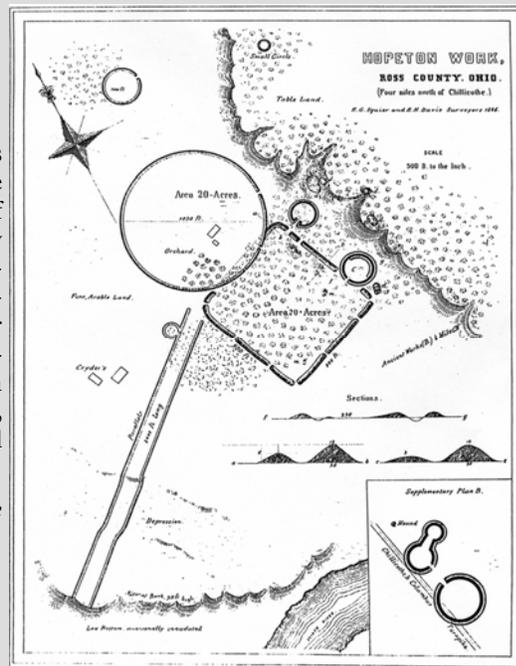
Hopeton Earthworks — June 27, July 25 and August 22

Length: 2 miles

Difficulty Level: Easy, Rolling Terrain

One of the most mystifying of Hopewell complexes, Hopeton Earthworks are comprised of a large circle and a square whose walls were once twelve feet high. No burials have ever been discovered here, but a parallel set of mysterious earthen walls stretch from the heart of the complex for nearly half a mile toward the Scioto River. What function these baffling earthworks served is lost in obscurity, yet archaeologists discovered that prehistoric people regularly gathered here in large numbers. Regrettably, after centuries of plowing, Hopeton's great walls, like most Hopewell earthworks, are now only barely visible. Though it sits across the river from Mound City Group, Hopeton Earthworks are not yet open to the public, so this walk is an uncommon opportunity to explore one of the national park's newer acquisitions.

Meet at Hopewell Culture National Historical Park main visitor center at the Mound City Group unit, 16062 State Rt. 104, 2 mi. north of Chillicothe.



The Robert L. Harness Lecture Series

Ohio Archeology 2009 Summer Lecture Series

Hopewell Culture National Historical Park is pleased to host the summer archeological lecture series. The following is a list of speakers and titles of topics to be presented. The weekly series will begin June 11th and end on July 23rd. The programs will be held at the Mound City Group Visitor Center located at 16062 St. Rt. 104 just north of Chillicothe. Each lecture will start at 7:30 P.M..

June 11, 2009

“Birds in the Hopewell Archeological Record”

Dr. Jarrod Burks, Ohio Valley Archeology, Inc.

The Hopewell were expert artists and worked in numerous media. From bone to copper and shell to pipe stone, birds were a very popular subject of Hopewell art. In this presentation I explore examples of the many kinds of bird imagery used by the Hopewell and talk about how birds fit into Hopewell society, according to some archaeologists. Is the bird imagery good enough for us to identify particular species some 2000 years later? What about actual bird remains, have archaeologists found evidence of birds (bones, beaks, talons, feathers, etc.) in Hopewell burials or in their trash pits? Bring your birding field guides and come find out—binoculars are optional for this birding expedition into Ohio’s past.

June 18, 2009

“Ancient Diggings”: A Review of Nineteenth-Century Observations in the Prehistoric Copper Mining Pits of the Western Lake Superior Basin

Dr. John R. Halsey, Michigan State Archeologist, Michigan Historical Center

Beginning in the late 1840s, Euro-American copper miners in the western Lake Superior basin became aware that someone had been there before them. With this realization came curiosity about who had done the mining, how long ago and how much copper had been removed. Eventually, evidence of prehistoric copper mining would be found over a swath 150 miles long, varying in width from four to seven miles in the Michigan counties of Keweenaw, Houghton and Ontonagon and also over much of Isle Royale in Lake Superior. As the miners cleared out the “ancient diggings” preparatory to establishing their own operations, a significant number of them recorded their observations and ideas. This presentation summarizes the contributions made by these pioneers and in particular those of Ohioan Charles Whittlesey, a towering figure in the history of Midwestern and Great Lakes archaeology.

June 25, 2009

“Ohio Hopewell Earthworks as a Historical Type of Ritual Landscape in the Eastern Woodlands.”

Dr. James Brown, Northwestern University, Evanston, IL

The Hopewellian geometric earthworks have rightly commanded attention as unique in many ways. Features possessed in common with earlier and latter mounds and earthworks have not been given the attention they deserve. These lie with ritual landscape in general, and because they take in much larger territory than the earthworks proper, the features connecting these earthworks over the millennia have gone unacknowledged. Our interest is in the various ways in which the same ritual principles have been expressed over the course of thousands of years.

July 2, 2009

“New Insights into Fort Ancient Social Structure, Settlement Patterning, and Subsistence.”

Dr. Rob Cook, Ohio State University, Newark, OH

Fort Ancient peoples were the last prehistoric inhabitants of the Middle Ohio River Valley, circa A.D. 1000-1650. The best known of their villages is the Sun Watch site, located in Dayton, Ohio along the Great Miami River.

Recent analyses at the site and nearby settlements are revealing much about the Fort Ancient way of life. In particular, it is becoming increasingly clear that interactions with neighboring Mississippians were more important than previously recognized. This presentation highlights recent findings regarding this interaction and the structure of a landscape utilized by increasingly complex shifting horticulturalists whose practices and interactions were structured by environmental perturbations and population movements across the mid-continent.

July 9, 2009

“Recent Investigations at Mound City Group Earthworks.”

Dr. Kathleen Brady, Curator, Hopewell Culture NHP

During the summers of 2007 and 2008 archaeological investigations were conducted at a little-known site just north of the Mound City Group earthworks. In the 1980s, the site (33Ro338) was recorded as a Middle Woodland site based on a surface survey and limited testing. Plans to reforest the area renewed interest in the site and led to a geophysical survey of the area by park staff and volunteers. Ground-truthing of anomalies yielded numerous cultural features and artifacts. Subsequent excavations have focused on two areas—a prehistoric structure pattern and a group of aligned pit features. The site is believed to represent a specialized activity area associated with the use of the Mound City Group earthworks. Data from the current field season will also be presented.

July 16, 2009

“LiDAR Analysis of Prehistoric Earthworks.”

Dr. Bill Romain

The Ohio Hopewell are best-known for their monumental, geometrical-shaped earthworks. Many of these structures are larger than several football fields. Recent findings made by using a new technology called LiDAR (infrared lasers that scan the ground from the air) have been able to show how the Hopewell built these earthworks in geomantic harmony with earth, sky, and water while using a specific unit of measurement. Join Dr. Romain as he discusses the use of cutting edge technology in archeology today and learn how the Hopewell laid-out their earthworks with consideration to earth, sky, and water variables.

July 23, 2009

“The Earliest Americans: Current Perspectives on Paleoamerican Origins, Arrivals, and Ecology.”

Dr. Jerry N. McDonald, Virginia Museum of Natural History Martinsville, Virginia, and McDonald & Woodward Publishing Company, Granville, OH

The contemporary recognition of Pre-Clovis, or Paleoamerican, human presence in North America began to emerge in the 1970s and gradually gained support during the following three decades. Paleoamerican presence has come to be an accepted – albeit poorly defined – part of North American prehistory. Important aspects of the emerging conception of Paleoamerican history on the continent include determination of the chronology of human arrivals; the source areas and routes and means of their dispersal; and the material culture, resource bases, and ecological strategies that typified these people.

This presentation will review current understanding of the time of arrival, source areas, material culture, and economic activities of North America’s Paleoamericans. The inventory of economic activities will emphasize insights obtained from the more complex and informative Paleoamerican sites, and will conclude with thoughts about the research frontiers associated with documenting and defining North America’s Paleoamerican history.



Hopewell Discovery Day

by Park Ranger Tiffany Best

Most of the practices and achievements of the Hopewell Culture are lost to time. However, thanks to the preservation of several earthworks and advances in the science of archeology, we have been able to rediscover some of the mysteries of the Hopewell Culture and connect the past to the present. Since the mid 1800s, the earthworks that make up Hopewell Culture National Historical Park have been the location for numerous archaeological excavations and new discoveries about the Hopewell Culture.

Throughout the year, the park works to promote the relationship between archeology and our understanding of the Hopewell Culture by presenting a variety of programs. The largest of these archeology and Hopewell inspired events takes place each October when the park holds its' *Hopewell Discovery Day* celebration. Over the years, this event has become an opportunity for National Park staff, members of the archeological community, and the public to get together and share their archeological findings and appreciation for the Hopewell Culture.

Hopewell Discovery Day is attended by hundreds of visitor each year. Activities such as displays, mound tours and mock digs allow people to witness first-hand the tools and methods used in archeological excavations. Visitors also experience what it was like to live two thousand years ago by participating in spear throwing and flint knapping demonstrations, learning about the environment the Hopewell lived in, and creating Hopewell



Hopewell Discovery Day attendees participate in a mock dig at Mound City. Children of all ages practiced the science of archeology and earned Junior Archeologist badges. NPS photo.

inspired crafts.

Like the science of archeology and discoveries about the Hopewell Culture, *Hopewell Discovery Day* is always changing and evolving. This year's event will take place on Saturday, October 10, 2009 from 10am to 3pm, so come out and enjoy this action packed day of learning and family fun!

Artistic Interpretation of Ancient Geometry

by Park Ranger Tiffany Best

As people explore the Hopewell earthworks, many find themselves inspired by the thousand year old culture's skills and designs. Over the years, members of the public have created their own Hopewell inspired works of art and donated them to the park. However, visitors are not the only ones who use their artistic talents to bring the Hopewell Culture to life. Park staff also make several of their own creative contributions to the National Park Service as is the case with of the park's latest artwork acquisition.

Last summer, William Huebner, the park's Eastern National Bookstore associate, began designing his own creative interpretations of the five earthwork sites protected by Hopewell Culture National Historical Park. Based on maps created in the 1840s, William used stained glass to represent the geometric layouts of Mound City Group, Hopewell Mound Group, Seip Earthworks, Hopeton Earthworks and High Banks Earthworks. William has enjoyed working with stained glass for years. While mainly a hobby, he says he will continue to create panels as new inspirations come. Today, these panels can be seen hanging in the windows of the visitor center adding interest and interpretation to the park.



Eastern National Associate William Huebner stands with his stained glass panels of the five units of Hopewell Culture National Historical Park. Top row from left: Hopewell Mound Group, Mound City Group and Hopeton Earthworks. Bottom row from left: Seip Earthworks, and Highbank Earthworks. Photo courtesy Kevin Coleman.



Archeological Open House

By Park Ranger Bruce Lombardo

Last summer, teams of archeologists were conducting scientific excavations at two Hopewell Culture National Historical Park sites. Dr. N'omi Greber of the Cleveland Museum of Natural History worked at the High Banks Works southeast of Chillicothe, while Dr. Mark Lynott from the National Park Service Midwest Archaeology Center excavated at Hopeton Earthworks north of town.

These two national park sites are normally closed to the public. However, on July 19, 2008, the public was invited to attend an open house and these two eminent archeologists were on hand to explain what they were studying. Hundreds of visitors took advantage of this rare window of opportunity at these two magnificent earthwork sites.

This summer, in 2009, Dr. Lynott will be back to Hopewell Culture National Historical Park along with Dr. James Brown of Northwestern University. This time, they will be conducting a research excavation in the wall of Mound City Group, so the national park's regular visitors will be able to see for themselves what the archeologists are studying.



2008 excavation of Hopeton Earthworks. Photo courtesy N'omi Greber.

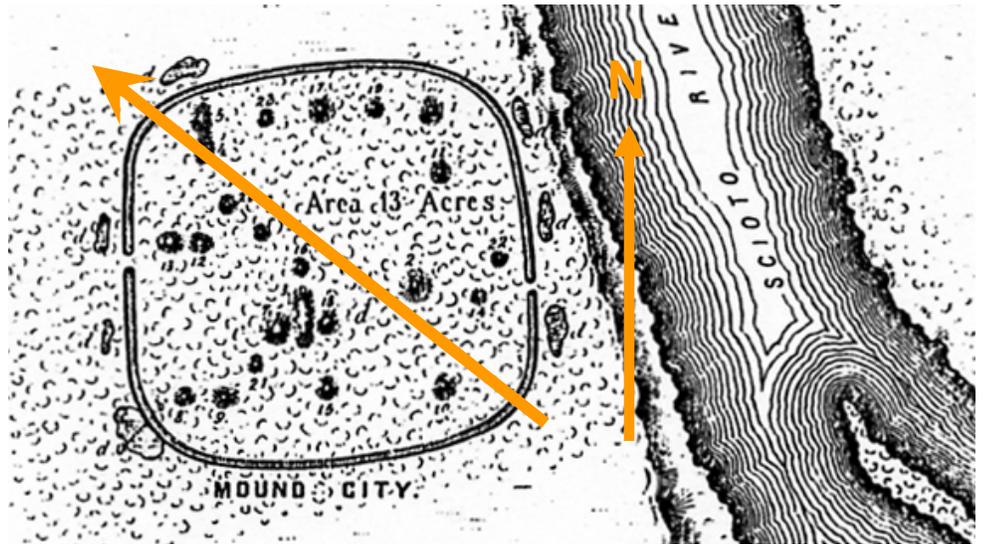
The Hopewell Culture presents many mysteries to scientists and our understanding of them is slowly developing thanks to decades of painstaking archaeological research. Hopewell Culture National Historical Park is pleased to be able to provide these rare opportunities for the public to witness archeology in action.

Summer Solstice Celebration

By Park Ranger Tiffany Best

The summer solstice marks the longest day of the year and the beginning of the summer season. The solstice has been celebrated since ancient time and plays an important role in numerous cultures. In many civilizations around the world, the summer solstice held such significance that monuments were constructed to align with the rising and setting of the solstice sun. Over the past several years, archeoastronomers have discovered that several earthworks built by the Hopewell Culture are among some of these spectacular constructions. Of the five earthworks that make up Hopewell Culture National Historical Park, this includes Hopeton Earthworks, High Bank Earthworks and Mound City Group!

To commemorate this amazing knowledge of astronomy and skill in engineering within the Hopewell Culture, the park began hosting an annual "Summer Solstice Celebration" on the evening of June 21, 2008. During the event, the public was invited to enjoy an after hours guided tour of Mound City Group, to learn about the role the sun and moon may have had within the Hopewell Culture, and to witness as the



The diagonal line indicates the path of the summer solstice sunset across the Mound City Group earthwork. Squier and Davis map.

summer solstice sun set in alignment with the northwest corner of the site's earthen square wall. Severe weather threatened to cancel the evening, but the event became a spectacular success as the sky cleared treating visitors to both a colorful sunset and a beautiful double rainbow stretching across Mound City Group!

In keeping with a desire to bring mysteries of the Hopewell Culture to light, the park

will hold its next *Summer Solstice Celebration* on Sunday, June 21, 2009, and Monday, June 21, 2010. The doors of the Mound City Group Visitor Center will reopen at 7pm. Families and friends are invited once again to attend a tour of the earthwork and watch the solstice sun set. Each visit to the earthworks of Hopewell Culture National Historical Park holds a variety of new experiences. Join us and make some connections of your own!



Resource Stewardship "Scout Ranger" Programs



by Park Ranger Susan Knisley

The National Park Service, the Boy Scouts of America and the Girl Scouts of the United States of America team up to bring you the *Resource Stewardship Scout Ranger* and *Girl Scout Ranger* Programs.

Boy Scouts of America

On August 3, 2008 the National Park Service launched the *Resource Stewardship Scout Ranger Program* ("Scout Ranger"), developed in partnership with the Boy Scouts of America (BSA). The "Scout Ranger" program is a new, NPS-tailored certificate/patch program for Boy Scouts, Cub Scouts and Venturers. The program is designed to increase scout visitation to national park units, promote a better understanding of the National Park Service (NPS) mission among scouts and their families, educate young people about their responsibility to conserve our natural and cultural resources, encourage volunteer service and promote good citizenship.

Boy Scouts are given the opportunity to earn a unit certificate and an individual patch based on their participation level in organized education programs or volunteer service projects. Individual scouts are encouraged to earn their "Scout Ranger" patch by participating in regularly scheduled NPS programs. The individual patch is available for distribution by NPS staff at participating parks. Scout Ranger program participants may earn the certificate or patch by participating in volunteer service projects or education programs at Hopewell Culture National Historical Park (NHP).

Girl Scouts of the United States of America

Like the "Scout Ranger" program the "Girl

Scout Ranger program" is a cooperative effort between the National Park Service (NPS) and the Girl Scouts of America (GSUSA) and is a component of the GSUSA's Elliott Wildlife Values Project Linking Girls to the Land program.

The "Girl Scout Ranger" program supports the NPS goal of introducing youth to the outdoors. Beyond that, it is a great opportunity for today's girls to join together, have fun, and make a difference!

Consider engaging girls in a journey or other Girl Scout program activity in a park and earn hours toward the certificate or patch. There is a project or activity for every grade level. When girls work with the park, projects can be catered towards the girls' interests and goals. There are many different types of career opportunities with the National Park Service like biology, education and interpretation that you could explore! It is so important and very rewarding for you to get outside, take in some fresh air, see wildlife, discover culture, and learn your role in protecting our environment.

It is important for Boy and Girl Scouts to spend some quality time exploring park resources. Scouts are awarded a certificate to recognize their leadership development and resource stewardship activities after five hours at one or more national park sites. Five hours is an afternoon at a national park site. A patch is awarded after ten hours at one or more national park sites. Ten hours is two afternoons, or a month of volunteering 2 or 3 hours per weekend. The NPS strongly believes that with these set hour requirements, boys and girls will come away with not just a certificate or patch, but the reward of discovery, sense of awareness and hopefully an interest in something new.

On October 11, 2008, during *Hopewell Discovery Day* events, Hopewell Culture NHP was proud to recognize Webelo Joshua Pickelheimer from Troop 112 of Washington Courthouse, Ohio (see photo) with the park's first Scout Ranger patch.



Park Ranger Susan Knisley presents Webelo Joshua Pickelheimer with his "Scout Ranger" patch. NPS photo.

Joshua completed an amazing 10 hours of service while participating in scheduled activities that stretched over two weekends at Hopewell Culture NHP. His activities included: a clean-up of Mound City Group, ranger guided interpretive tours and assisting in demonstrations, and assisted rangers in the set-up and completion of the Junior Ranger and Junior Archeologist programs during the park's *Hopewell Discovery Day* event.

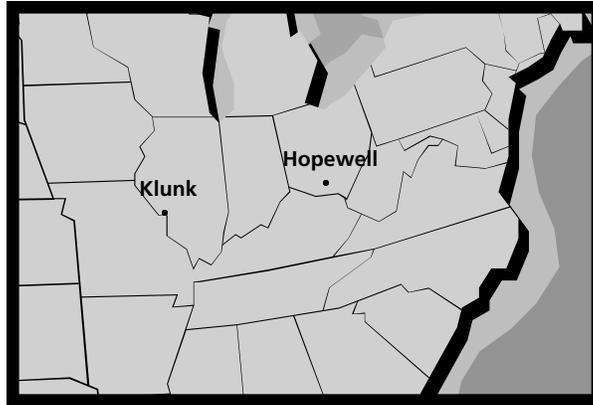
All interested scouts and troops can visit www.nps.gov/gettinginvolved/youthprograms/programs, and for Hopewell Culture NHP visit www.nps.gov/hocu.



Ancient DNA from Hopewell Sites in Ohio and Illinois

by Deborah Bolnick
Department of Anthropology,
University of Texas at Austin

For more than a century, archaeologists have studied the cultural remains of the prehistoric people who built the Hopewell earthworks. Many aspects of Hopewell culture are now well understood, but questions still remain about the biological makeup of these people. Were different Hopewell communities biologically related? Were they related to contemporary Native American populations?



The location of the Pete Klunk Mound Group and the Hopewell Mound Group sites are shown. NPS graphic.

Recent advances in molecular biology have made it possible to address such questions in new ways. Ancient DNA can now be extracted and analyzed from human skeletal remains, allowing us to assess the genetic relationships among individuals who lived hundreds or thousands of years ago. When considered in conjunction with the archaeological record, genetic data can help evaluate (a) the level of biological relatedness among communities sharing material culture and (b) possible ancestor-descendent relationships between prehistoric and contemporary populations.

Ohio Hopewell sites are characterized by a number of distinctive features, including monumental geometric earthworks, complex burial mounds, elaborate facilities for processing the dead, and non-utilitarian grave goods made from exotic imported materials. Similar assemblages have been found elsewhere (most commonly in Illinois and Indiana), and the distribution of “Hopewell” material culture is thought to reflect interregional interactions during the Middle Woodland period (100 BC – 400 AD). Archaeological evidence suggests that dispersed communities were connected via trade networks and periodic ritual gatherings at the earthworks, but it remains unclear whether there were also biological connections between communities from different regions (due to shared ancestry and/or the exchange of genes through migration and reproduction).

To help address this question, David Glenn Smith and I analyzed mitochondrial DNA (mtDNA) from Hopewell burial populations in Illinois and Ohio. Mitochondrial DNA is maternally inherited (i.e., mothers pass on their mtDNA to their children, but fathers do not), so it provides a measure of matrilineal relatedness between individuals and populations. In this study, we extracted and analyzed mtDNA from the skeletal remains of 39 individuals buried at the Pete Klunk Mound Group in Calhoun County, Illinois. The burials date to approximately 175 AD, and archaeological evidence indicates that this population was associated with the Havana Hopewell tradition. Our analysis also included mtDNA data that Lisa Mills collected from 34 individuals interred in Mound 25 of the Hopewell mound group in Ross County, Ohio. The Hopewell mound group was located at the epicenter of the Ohio Hopewell culture, and dates from Mound 25 range from 78 BC to 398 AD. Both sets of ancient DNA data were collected using appropriate methods to ensure their authenticity.

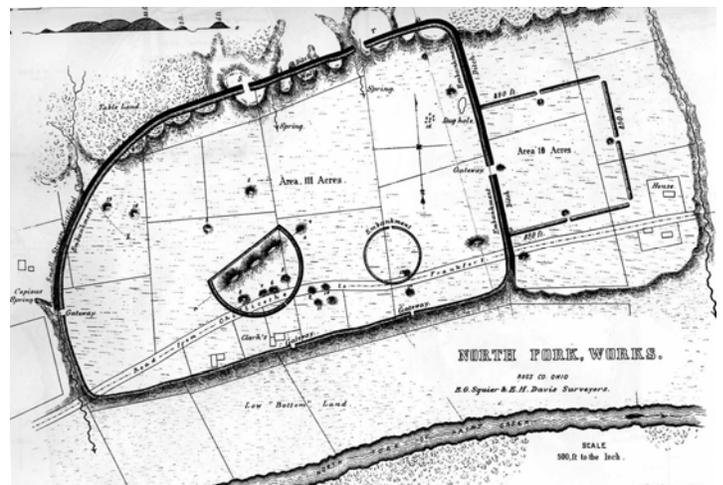
Our analysis showed that the two Hopewell communities were biologically related. Some of the same mtDNA lineages were present at both sites, and four different tests indicated genetic exchange between the two communities, estimating that an average of 39.9 breeding individuals moved between the communities in each generation. Interestingly, the evidence suggested that this genetic exchange was not due to a single mass migration, but rather multiple migrations of individuals or small groups over several generations. These individuals may have moved directly between the two sampled

communities, but the observed genetic patterns could also be due to the cumulative effects of short-range and incremental migrations, perhaps via regional mating networks. Either way, these movements played an important role in shaping the genetic makeup of the two communities.

In addition to showing that genetic exchange accompanied the cultural exchange between Hopewell communities in Ohio and Illinois, our analysis indicated migration in primarily one direction: from Ohio to Illinois. This finding was surprising since no previous studies have proposed this pattern of migration. Indeed, some archaeologists have actually interpreted the archaeological evidence as indicating the opposite — uni-directional migration from Illinois to Ohio! More research is therefore needed to clarify the direction of migration.

Finally, our analysis demonstrated that these prehistoric populations were related to contemporary Native Americans. They exhibited many of the same mtDNA lineages that we see in Native Americans from eastern North America today, making clear the Native American ancestry of the Hopewell peoples.

For more information, see:
Bolnick DA, Smith DG. 2007. Migration and Social Structure among the Hopewell: Evidence from Ancient DNA. *American Antiquity* 72:627-644.



A Dwight David Eisenhower - State of Ohio Relationship

by Paul and Shirley Thacker

"Dear Ginger: Arrived and all is serene. Get my address from Glenn and write. I think I shall like army life. ... Ike" – wrote the 27 year old Dwight D. Eisenhower on a postcard, post-marked at Sherman Branch, Chillicothe, O. - Feb. 9, 1918.

An event of historical significance began at Chillicothe in WWI Camp Sherman, Ohio and culminated for Ohio's Sesquicentennial. I refer to Ohio's Sesquicentennial (150 yrs.) celebration in 1953. Ike sent his Feb. 9, 1918 "I Think I Shall Like Army Life. Ike" postcard from Ohio's First Capital. On Feb. 11, 1943 (near the card's twenty-fifth anniversary) he became General Ike.

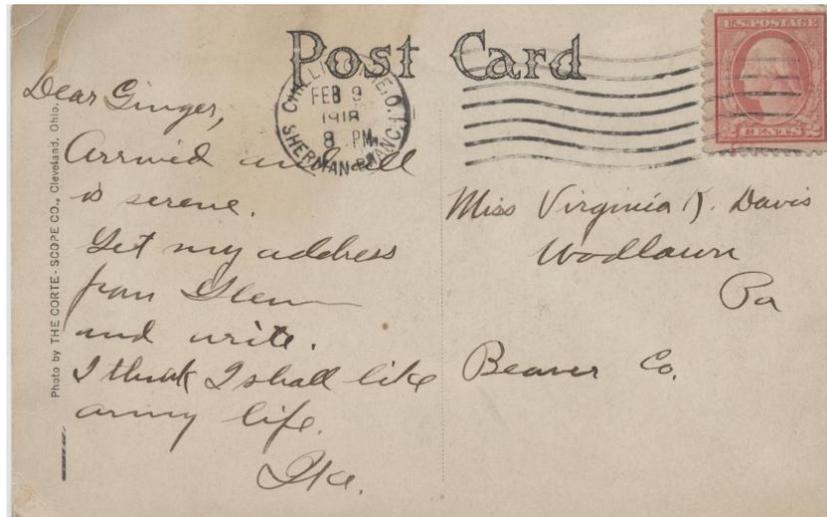
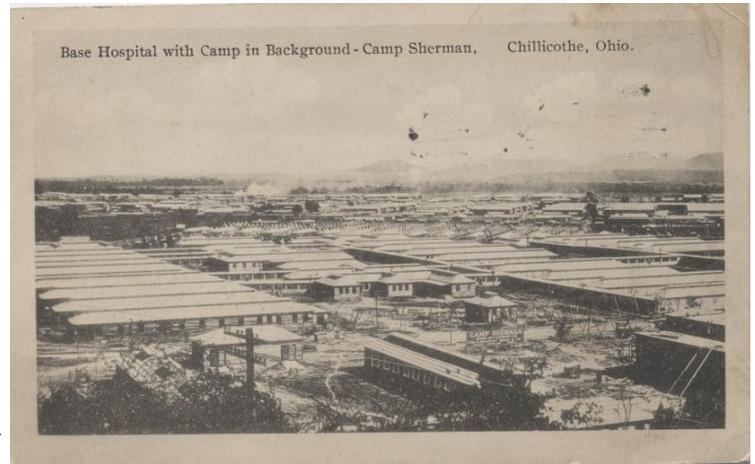
After that he became the Supreme Commander, a Five-Star-General, a U.S. President and saved Chillicothe as Ohio's First State Capital and Columbus, Ohio from needing institution in order to be Ohio's State Capital. Ohio would've been the 48th U.S. State - not the 17th. Otherwise illegal, would have been all Ohio U.S. Presidents, Ohio State Governors, all State offices & State taxes thru over 150 years. Chillicothe, Zanesville and Columbus's claims as State Capitals could have been void and all Ohio citizens lost National and State Citizenship. What a calamity!

On August 7, 1953, new President Dwight D. Eisenhower signed an official act of Congress. Having never completed our State Birth certificate, we needed an official date recorded for Ohio to become a State. Ike signed it retroactive to March 1, 1803.

On November 29, 1802, the Ohio Convention Delegates ratified Ohio's Constitution. As chosen, on December 7, 1802, Thomas Worthington with the Ohio Constitution and the Convention message to President Jefferson, set out on horseback from Chillicothe along with Colonel Samuel Huntington as far as Zanesville where they parted ways. Worthington continued on to Washington. He arrived at Georgetown on Dec. 19, met with Thomas Jefferson on the 20th and on the 22nd delivered the New Ohio Constitution and Resolutions accepting conditions written in the Enabling Act to Congress.

Though in 1803 President Jefferson and Congress accepted Ohio as a State, an official date was not recorded until 1953 when Ohio Congressman George Bender presented an act before Congress.

My Wife and I purchased the unidentified postcard nearly 30 years ago at a flea market for \$.50. We received authentication. I presented a copy to the Eisenhower Library in October, 1990 - Centennial month of Ike's birth and a copy of my personally discovered photo of 27 year old Captain Eisenhower sitting beside General Edwin F. Glenn at a Camp Sherman, Ohio football game - possibly at Ohio Field (pictured right).



Postcards sent from Chillicothe, OH by Dwight D. Eisenhower above and left.

Pictured below is a historic photo of General Edwin F. Glenn (standing) at a Camp Sherman vs. OSU football game. Dwight D. Eisenhower is seated to the right of General Glenn.



The Magnificent American Chestnut

By Park Biologist Dafna Reiner

Stop and ask yourself: when was the last time that you saw a mature, full-sized American chestnut tree? Chances are you never have. Furthermore, chances are that even your parents have not seen this magnificent tree in all its glory. However, your grandparents or great grandparents may have seen it! How could this be and what led to this situation?

To solve this mystery we will start with some natural history. The American chestnut (Latin name *Castanea dentata*) belongs to the beech family (*Fagaceae*) and ranged from southern Maine, along the Appalachian mountains to northern Alabama and Mississippi. Some historical range maps even place it as far south as Florida and west to Iowa. This dominant



The fruit of the American chestnut. Steve Hurst @ USDA-NRCS PLANTS Database.

tree of the eastern forests grew up to 100-150 ft tall. Its sweet tasting nuts were a very important food source to wildlife such as deer, squirrels, bears, wild turkeys and passenger pigeons (now extinct). Later, when humans arrived in North America they, too, used the tree as a food source, as well

as a source for medicines and wood. The Cherokee used various parts of the tree to make a cough syrup, a stomach soother, and a cold medicine. The Iroquois made an itch-relief compound out of chestnut wood powder, and mixed it with bear grease to make a mosquito repellent. The tree's wood was strong, light and rot resistant. Such qualities made it ideal for use in home and barn construction, furniture, fence posts, railroad ties and more.

Then, at the end of the 19th century, a microscopic organism hitched a ride and arrived uninvited in New York City harbor. This was an Asian fungus, known as the American chestnut blight (*Cryphonectria parasitica*). It is thought that the fungus arrived on imported stock of Chinese chestnuts. The fungus infects trees by entering through a fresh wound and spreading through the plant's tissues, killing the cells as it spreads. Eventually the flow of water and nutrients is cut off and the tree dies. The first to show signs of infection were chestnut trees growing in the Bronx zoo in 1904. Since the fungus can be spread by wind, it advanced tens and even hundreds of miles a year, killing all chestnuts that came into contact with it. The American chestnut, not having evolved with the Asian fungus, proved to be highly vulnerable and mass die-offs soon occurred in all its native range. These days you can still see young chestnut sprouts in our forests, but never a mature tree. Once the trees reach a certain size (8 inches diameter-breast-height), the blight takes over and kills the tree before it can mature. The only reason that the chestnut has not become extinct is because some young trees manage to produce a few nuts before succumbing to the blight.

Now for some good news. Scientist dedicated to restoring the American chestnut to its former glory have been working on creating a hybrid tree that is resistant to the Asian blight. In the late 80's three scientists, Philip Rutter, Dr. David French and the late Dr. Charles Burnham, started experimenting with backcrossing native American chestnuts to the blight-resistant Chinese chestnuts. An American chestnut was crossed with its relative, the Chinese chestnut, to produce an offspring that was half American and half Chinese (a 50%-50% hybrid). This hybrid had the blight resistant genes from the Chinese tree. This offspring was then crossed with an American chestnut to produce a tree that was 75% American and 25% Chinese. After repeating this process several times a tree emerged that had all the characteristics of the native American chestnut, but still had the gene



Historical photo of mature American chestnut tree. John Foley @ USDA-NRCS PLANTS Database.

that gave it its blight resistance. Currently there are several research farms and breeding orchards that produce this blight resistant chestnut for plantings.

This spring two American chestnut seedlings will be planted at Hopewell Culture National Historical Park as a scientific experiment. Our aim is to determine if soil and site conditions are favorable to these trees. If successful, more chestnuts will be planted in the following years. Park rangers have planted these trees near the visitor center at Mound City and near the parking lot at Hopewell Mound Group. Weed mats and tree tubes will protect the young seedlings. We invite you to come and see these trees, to wish them well, and to follow their growth year after year. You can find additional information about the American chestnut on the American Chestnut Foundation website at <http://www.acf.org>.



Pictured is one of two American Chestnuts planted. This one is planted at the Mound City visitor center. NPS photo.



Explore, Learn, Protect...as a Junior Archeologist

by Park Ranger Susan Knisley

Hopewell Culture National Historical Park (NHP) is pleased to announce the debut of the Junior Archeologist program for children ages 8 and up! Junior Archeologists are important people because they help park rangers and archeologists take care of very special places. The Junior Archeologist program allows children to learn about the use of archeology at Hopewell Culture NHP and have fun at the same time!

Children begin their expedition into archeology by first completing the Junior Ranger program at Hopewell Culture NHP. The Junior Ranger program is for children ages 5-12 and consists of a small booklet for the child to complete during a visit. The booklet is available at the park's Mound City Group visitor center. Children receive a Junior Ranger badge and certificate upon completion. This program is free and is available during normal park business hours.

The Junior Archeologist program builds on the knowledge children learn from the Junior Ranger program by focusing on a subject every child is excited about...archeology! Archeology is the only way we have to study the Hopewell Culture. The process of archeology, however, involves more than just excavating and

collecting artifacts, it also includes analyzing, interpreting and preserving prehistoric data. The Junior Archeologist program presents children with the importance of preservation and conservation of Hopewell sites and artifacts.



Like the Junior Ranger program, this program is also free and consists of a booklet for the child to complete. Additionally, children will complete a mock dig with a national park ranger! Children earn a Junior Archeologist badge and certificate. The booklet is available at the Mound City visitor center. Mock digs will be scheduled throughout the summer months and will be announced on the park's website at: www.nps.gov/hocu.

As with all of our educational programming at Hopewell Culture NHP, the Junior Ranger and Junior Archeologist programs are meant to be family activities. Adults are encouraged to help their aspiring Junior archeologists. We hope that adults and children alike will learn about the park, have fun and continue to help us protect these special places so that all may enjoy them.



A proud Junior Ranger earns her badge and certificate at Hopewell Culture NHP. NPS

What's Hidden in Your Midden?

Much of our knowledge about prehistoric cultures comes from studying the objects they left behind. The science of archeology often focuses on sites known as *middens*. Middens are deposits that people have left behind, the "garbage dumps" of long lost communities. We can infer many things about what materials they used in daily life by studying artifacts such as bone, wood and shells that have been preserved in middens.

In this activity, you will make a list of the trash your family throws out in one day:

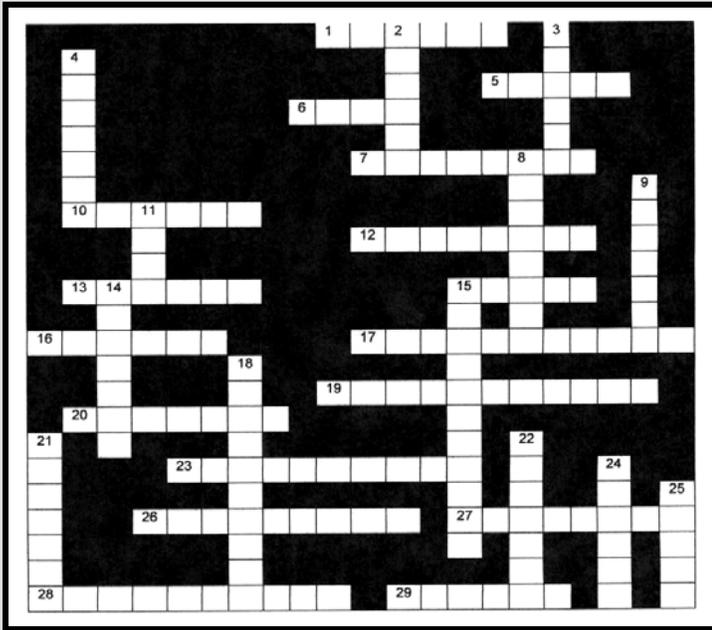


Explain what archeologists a thousand years from now might learn about your family using the artifacts found in your trash.



Test Your Knowledge of the Hopewell Culture

Hopewell Crossword



ACROSS

- 1 Site where raw material is mined.
- 5 Type of monumental architecture built primarily of earth.
- 6 Mineral from Blue Ridge Mountains used by the Hopewell to make artwork.
- 7 Type of pipe unique to the Hopewell.
- 10 In the shape of a human or an animal.
- 12 Process by which projectile points are made.
- 13 Organic material from the seashore thought to have been used in ceremonies.
- 15 Shaped rock affixed to the end of a pole or stick of some kind.
- 16 Metal used to create art mined from Lake Superior.
- 17 North America's largest prehistoric Indian hilltop enclosure earthwork.
- 19 Technique for dating organic material.
- 20 Artifacts made of heated earth.
- 23 Before written records.
- 26 Embankment or construction made by earth.
- 27 Name of farmer the culture gets its name.
- 28 Study of peoples of the past... their culture and their relationship with their environment.
- 29 River many Hopewell Sites were built along.

DOWN

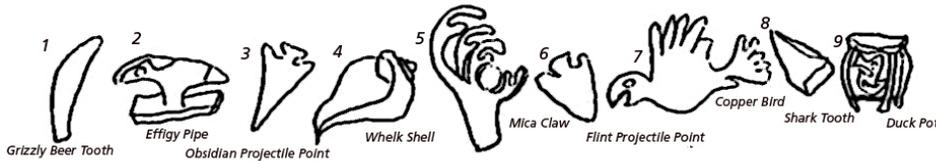
- 2 Prehistoric hunting tool.
- 3 One of the first people to document the mounds.
- 4 The way of life of a group of people.
- 8 Volcanic glass obtained from the Yellowstone region
- 9 Only two sites in Ohio contain this shape.
- 11 Number of earthwork units that presently make up Hopewell Culture NHP
- 14 Geometric earthwork across the river from Mound City.
- 15 Art carved into rock
- 18 Type of projectile point.
- 21 Large Mississippian settlement.
- 22 Shape of largest effigy mound
- 24 _____archeology. Non-scientific misapplication of the archeological record.
- 25 Hard rock that breaks with a sharp cutting edge. Found in abundant deposits in the hills of present day Newark, Ohio.

Locate the missing Artifacts!



There are nine artifacts hidden in this picture. Can you find them? After you find the artifact match it to the place it came from.

- Projectile point made of volcanic glass from the Yellowstone region.
- Part of an animal that comes from the Atlantic Ocean used to adorn ceremonial clothing and jewelry.
- Made from a mineral that was brought from the Blue Ridge Mountains.
- Projectile point made of rock that was quarried from Flint Ridge.
- Artifact constructed out of material mined from Lake Superior.
- Famous representation of Hopewell pottery found at Mound City.
- Over 200 of these were found in one burial at Mound City made of Illinois pipestone.
- From the Rocky Mountains belonging to a very large animal that still lives there today.
- Artifact that may have been used in ceremonies that came from the shores of the Atlantic Ocean and Gulf Coast.



Crossword Solutions

Across

1 quarry 5 mound 6 mica 7 platform 10 effigy 12 knapping 13 shells 15 point 16 copper 17 Fort Ancient 19 radiocarbon 20 pottery 23 prehistory 26 earthwork 27 Hopewell 28 archeology 29 Scioto

Down

2 atlatl 3 Squier 4 culture 8 obsidian 11 five 14 Hopeton 15 petroglyph 18 turkeytail 21 Cahokia 22 Serpent 24 pseudo 25 flint



One National Park, Five Important Archeological Sites



The Hopewell Culture flourished from about 2,200 to 1,500 years ago. Those of the Hopewell Culture conducted elaborate rituals, performed unique burials, crafted distinctive ceremonial items, and maintained an extensive exchange system that covered most of eastern North America. While they lived in small, scattered groups, their social structure was highly organized. Work was shared and possibly specialized.

Mound City Group

Unit Acreage: 120

Location: State Route 104, three miles north of Chillicothe.

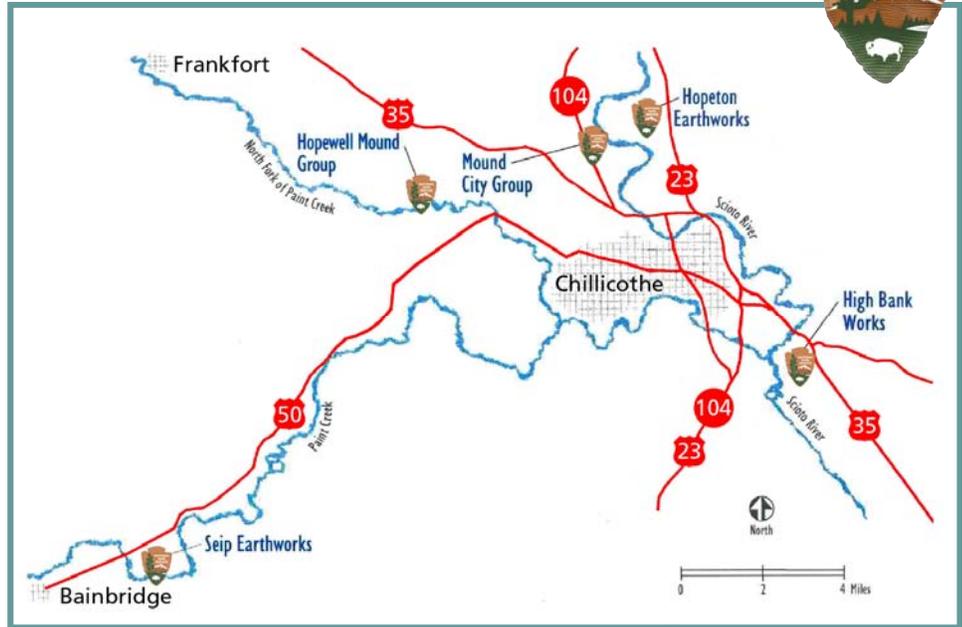
Cultural Features: This early Hopewell ceremonial center consists of 23 mounds that cover the remains of ceremonial buildings. Eight borrow pits ring the embankment. A museum in the visitor center contains artifacts from archeological work at the site, including objects made of copper, flint, mica, and pipestone. An interactive computer kiosk provides virtual tours of a wide range of Hopewell sites and topics.

Hopewell Mound Group

Unit Acreage: 316

Location: A few miles west of Chillicothe on Sulphur Lick Road, near Maple Grove Road.

Cultural Features: One of the largest and most complex Hopewell earthwork centers, this site includes: about three miles of earthen embankments (four to six feet high in the 1840s); at least 40 mounds including the largest known Hopewell mound; and three smaller interior earthworks. The site is named for a family



which owned the site in the 1890's when Warren K. Moorehead conducted excavations.

Seip Earthworks

Unit Acreage: 168

Location: On U.S. Route 50 between Bourneville and Bainbridge.

Cultural Features: Owned in partnership with the Ohio Historical Society, Seip Earthworks is one of five distinctive Hopewell earthwork complexes in the area made up of a circular embankment connected to a smaller circle and square embankment. At least 18 mounds are found within and around the earthworks with as many as 19 interspersed borrow pits. The conjoined mound and the large mound near the center of the earthwork cover the remains of large ceremonial buildings.

Hopeton Earthworks

Unit Acreage: 292

Location: One mile north of Chillicothe at Hopetown Road. (No public access).

Cultural Features: Low parallel embankments of earth nearly 2,500 feet in length lead up to a set of conjoined embankments in the shape of a large circle and square. The walls of the square-like enclosure were 12 feet tall in the 1840s. Four mounds and numerous borrow pits are found along the southern and eastern edges of the earthwork complex. Two small circular embankments open onto the area enclosed by the square.

Hopewell groups built this earthwork complex at a time when the use of the Mound City Group was declining.

High Bank Earthworks

Unit Acreage: 190

Location: South of Chillicothe near the split of U.S. Route 35/U.S. Route 50. (No public access.)

Cultural Features: This is one of only two Hopewell earthwork complexes known to have an octagonal enclosure. Eight mounds are found inside the octagon. The earthen walls were 12 feet tall in the 1840s. A 20-acre circular enclosure is attached to the northern edge of the octagon by a narrow opening. Large borrow pits line the edges and low, elaborate embankments extend off to the south. This important site is one of the least understood in Ross County.



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