



Hopewell Happenings

Welcome

Hopewell Culture National Historical Park, originally established in 1923 as Mound City Group National Monument, preserves and protects five earthwork complexes built by American Indians nearly two thousand years ago. These earthen monuments include miles of walls formed into geometric and free-form shapes as well as mounds of varying sizes and shapes. Each earthwork contains a unique story of the people who designed, constructed, and used these special places.

Today you can learn a part of the story by taking a site tour, visiting the museum, attending a special event, browsing our website, or talking to a National Park Service ranger. Walk among the mounds at Mound City Group and think about the effort it took to build the mounds and walls using only hand tools. Gaze around the park and look for one of the many animals depicted in objects made by the Hopewell peoples, such as deer, squirrels, rabbits, cardinals, vultures, or frogs. Look at what remains today and learn about stewardship so that future generations can learn from these earthworks. Together we can preserve and protect these important sites for others to enjoy.

- Jennifer Pederson Weinberger
Superintendent

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Local Teacher Helps Turn National Park into Area's Best Classroom

by Park Ranger Susan Knisley



Students participated in programs at Hopewell Culture NHP and in the Midwest Archeological Center (MWAC). Pictured above while visiting Homestead National Monument of America near Beatrice, Nebraska, from left to right: Timothy Everhart, Jeremy Krech, Corey Lump, Dacia Posey, Emily Kinneer, and teacher Cathy Daugherty.

Following the 2010 school year, a group of Paint Valley High School students began a unique, year-long journey at Hopewell Culture National Historical Park. They stepped into the world of archeology, working alongside archeologists visiting from the Midwest Archeological Center (MWAC) based in Lincoln, Nebraska. Paint Valley High School science teacher Cathy Daugherty and her students, Timothy Everhart, Emily Kinneer, Jeremy Krech, Corey Lump, and Dacia Posey, then returned from the field to turn their experiences into service-based educational programs for area fourth grade students. Their work is all part of the National Park Foundation's Park Stewards program, which helps build a deeper connection and sense of stewardship for national parks among high school students.

This program is important because it expands on a continuing partnership with MWAC in Lincoln, Nebraska and the Paint Valley Local Schools. National Park Service staff worked with Cathy and her students to conduct archeology field projects, as well as to develop and conduct educational activities at Hopewell Culture National Historical Park.

"The Park Stewards program creates a ripple effect as each teacher becomes a conduit for bringing classrooms of students into their parks year after year," said Neil Mulholland, President and CEO of the National Park Foundation. "This program is an introduction for many students to their parks, and the service learning that they do can spark a connection to the parks that will last a lifetime."

(continued on page 2)

Parks to the Classroom

(continued from front page)

Cathy and her students began their summer 2010 work by familiarizing themselves with Hopewell Culture NHP, its resources, and responsibilities of the park staff. Together, Cathy, students and staff then worked to develop service learning activities that advance the park's mission, yet are broad enough to be applicable to local, state, and national education standards. Through the service learning activities the students apply academic knowledge and critical thinking skills, in addition to physical skills as appropriate, to address genuine needs of the park.



Paint Valley High School students Emily Kineer (L) and Dacia Posey (R) assist in a geophysical survey at Mound City Group.

identifying, and cataloguing of the artifacts unearthed during their field excavations at Hopewell Culture NHP. When the school

“This program is an introduction for many students to their parks, and the service learning that they do can spark a connection to the parks that will last a lifetime.”

Hopewell Culture NHP in Chillicothe, Ohio is partnered with the Midwest Archeological Center (MWAC) to provide the first-hand experiences for Cathy Daugherty and her students. The grant also allowed Cathy and her students to travel to Lincoln, NE to the MWAC center to meet with Dr. Dawn Bringelson, lead coordinator of the Park Stewards program at MWAC. Students participated in the washing,

year began last August, these students completed their research and prepared to teach and share their experiences with area schools and younger students.

For more information about the Midwest Archeological Center located in Lincoln, Nebraska please visit their website at www.nps.gov/mwac



L to R: Cathy Daugherty, Park Curator Kathy Brady, students Corey Lump, Emiley Kineer, and Timothy Everhart (standing) take core samples at Mound City Group to study the stratigraphy of the area.

The Park Stewards Program is made possible with generous support from Bank of America and other private donors to the National Park Foundation.

About the National Park Foundation

You are the part-owner of 84 million acres of the world's most treasured landscapes, ecosystems, and historical sites -- all protected in America's nearly 400 national parks. Chartered by Congress, the National Park Foundation (NPF) is the official charity of America's national parks. NPF works hand in hand with the National Park Service to help connect you and all Americans to the parks, and to make sure that they are preserved for the generations who will follow.

Connect with the National Park Foundation via their official website and on Facebook and Twitter!

WEBSITE: www.nationalparks.org

FACEBOOK: <http://www.facebook.com/nationalpark>

TWITTER: <http://twitter.com/goparks>



Journey to Hopewell Mound Group

by Park Ranger Susan Knisley

Hopewell Culture National Historical Park invites you to explore Hopewell Mound Group. Pickup directions and a trail map from the Mound City Group visitor center and continue your journey of discovery to the Hopewell Mound Group. Early archeologists named the site for the landowner, Mordecai Cloud Hopewell. This site is the *type-site* for the Hopewell Culture. This means that the Hopewell Mound Group contained significant remnants that help define the Hopewell Culture.

The site is accessed from Sulphur Lick Road, which crosses through the interior of the earthwork. A parking lot at Hopewell Mound Group makes access to a bike trail easy.

Near the parking lot is a newly constructed picnic pavilion



(pictured below left, first-come-first-served only). Begin your discovery of Hopewell Mound Group by meandering down the paved path that extends beyond the restrooms and parking lot (pictured below right). The paved path shortly becomes a gravel trail and leads to the top of a ridge. An overlook meets you at the top of the ridge with a gorgeous view of this amazing prehistoric earthwork (top



picture). Continue further down the path and you will be able to view remnants of this 2,000 year old earthwork nestled in the trees near the path. Further on, the trail meets up with the Tri-County Triangle Bicycle Trail to lead you back to the parking lot—a 2.5 mile journey!

Visitor services at Hopewell Mound Group. NPS photos.



World Heritage Status Update

by Park Superintendent, Jennifer Pederson Weinberger

In 2008, 10 spectacular earthwork sites in southern and central Ohio were listed on the U.S. World Heritage Tentative List by the Department of the Interior. Each year the United States can submit up to two properties for full nomination to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) for consideration for inscription as World Heritage properties. A vote by the World Heritage Committee to inscribe, defer, or reject the nomination takes place at their annual meeting and is the final step in the process. The entire process can take about two years.

Currently, there are two listings on the U.S. World Heritage Tentative List focusing on Ohio earthworks: Hopewell Ceremonial Earthworks and Serpent Mound. The Hopewell Ceremonial Earthworks listing includes nine sites: Octagon Earthwork, Great Circle Earthwork, Wright Earthworks, Fort Ancient State Memorial, Seip Earthworks, Hopewell Mound Group,

High Bank Works, Mound City Group, and Hopeton Earthworks. To advance these listings, a committee of individuals from government agencies, preservation or tourism organizations, and universities has been formed to write the full nomination. The nomination provides detailed documentation about the sites and explains why the sites have outstanding universal value worthy of being preserved on an international scale.

The earthworks in Ohio are remarkable and meet several of the selection criteria. The earthworks bear a unique or exceptional testimony to a cultural tradition which has disappeared (criterion iii), are outstanding examples of an architectural form and landscape design which illustrates centuries of significant stages in human history (criterion iv), and are directly associated with events, ideas, or beliefs with artistic works of outstanding universal significance (criterion vi). In addition, some earthworks meet an additional criterion of representing

a masterpiece of human creative genius (criterion i) as is the case with Octagon Earthworks and Serpent Mound.

Designation as a World Heritage property heightens local, regional, national, and international awareness about the property's significance and value, which is a primary goal of Hopewell Culture National Historical Park.

Quick Facts

- There are 911 World Heritage properties throughout the world in 151 countries: 704 cultural properties, 180 natural properties, and 27 cultural/natural properties.
- There are 21 World Heritage properties in the United States and none located in Ohio. The nearest properties are Mammoth Cave in Kentucky and Cahokia Mounds in Illinois.
- Designation as a World Heritage property does not affect the legal status of the property and there are no applicable international laws or regulations.



Happenings and Highlights

The Robert L. Harness Lecture Series



The Ohio Archeology 2011 Summer Lecture Series will begin in June and run through July. Lectures are Thursday evenings and begin at 7:30 pm in the Mound City Group visitor center. A schedule of speakers and titles can be downloaded from the park's website at www.nps.gov/hocu.

Whether you are a professional archeologist, an armchair enthusiast, or just interested in archeology the lecture series has something for everyone. Learn from experts in the many fields of archeology. Speakers and titles vary from year to year and always include visiting researchers conducting excavations in and around Ross County. This is your chance to ask questions and gain knowledge about many topics, including those pertaining to the Hopewell Culture.



Summer Saturday Hikes

Saturdays in June, July, and August
9:00 am

On Saturdays 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. Dates, directions, and tour descriptions can be found on our website at www.nps.gov/hocu or by stopping in at the Mound City Group visitor center. Come explore the other earthworks of Hopewell Culture National Historical Park!



Summer Solstice Celebration

Tuesday, June 21, 2011
8:00 pm to sunset

Celebrate the longest day of the year at Mound City Group! Join Park Rangers for an evening program and mound tour. The event will end as visitors watch the summer solstice sun set across the northwest corner of the earthwork's square earthen wall.



Hopewell Discovery Day

October 8, 2011
10 am - 3 pm

Enjoy a day at Mound City Group making your own connections to Ohio's ancient past at Hopewell Discovery Day. Visitors are invited to join in a variety of activities, including earthwork tours, flintknapping demonstrations, artifact and fossil identification, atlatl demonstrations, hands-on crafts, and nature displays. Bring a picnic lunch and enjoy the day with us!

For Kids

The park is a cool place for kids to learn about what happened in Ohio during the last 10,000 years. Discover the park's museum, watch our short orientation film, explore the earthworks, or join us for a special event. Kids can also participate in our...

- Junior Ranger Program
- Archaeology Merit Badge Program
- Resource Stewardship Scout Ranger Program



For more information, visit our website at www.nps.gov/hocu or ask a Ranger at the Mound City Group visitor center.

Stop By, Call, or Log-on!

There is always more to discover at Hopewell Culture National Historical Park. Are you planning a summer trip, interested in volunteering, or curious about upcoming events for your family? Call, stop by, or visit us on the web. We look forward to your visit!

Hopewell Culture National Historical Park
16062 State Route 104
Chillicothe, OH 45601

Phone: 740-774-1126

Website:

www.nps.gov/hocu

Join us on Facebook:

<http://www.facebook.com/pages/Hopewell-Culture-National-Historical-Park/192277604144823>



New Museum Collections Storage Facility

by Museum Curator Kathy Brady

Hopewell Culture National Historical Park constructed a new museum collections storage facility at the Mound City Group unit of the park. The new facility provides a secure, climate-controlled space that meets National Park Service Museum Standards necessary for the long-term preservation of the museum collections, including 2,000 year-old prehistoric copper objects, the park's most climate sensitive material.

Planning and design for the project began in 2007, and was managed by the Denver Service Center (DSC). DSC is the National Park Service's centralized planning, design, and construction project management office. Construction funds for the project were provided through the American Recovery and Reinvestment Act of 2009. Construction of the facility began in April 2010, and has involved the work of many individuals and businesses, from both locally and around the country.

The museum collections not on exhibit are housed in a basement facility. The below-grade location and the old concrete construction of the space allows for severe fluctuations in humidity levels. The fluctuations have harmful effects on the objects and can result in deterioration of the objects over the long-term. In addition, the current storage space is small, 420 square feet, exposes the staff to harmful radon gas, and is not handicapped accessible. The new facility is 2,300 square feet, with storage space for archeological and historical objects, archival material, and natural history specimens. The building is located adjacent to the Resource Management building and is attached by an enclosed connector. The facility has been designated a multi-park storage facility by the National Park Service and will house objects from



A portion of the High Density Mobile Storage System for housing artifacts in the main storage room of the new facility. NPS photo.

Dayton Aviation Heritage National Historical Park and potentially other parks in the Midwest region. The new facility will be used solely for the storage of museum collections. The facility was designed to anticipate for 50 years of growth in the size of the collection. The facility contains a high density compact mobile storage system, a fire suppression system, a security system, humidification and dehumidification equipment, and motion-sensor activated lighting. All of these features will help protect our valuable national treasures well into the future.

Artist in Residence Program Coming to the Park

by Park Ranger Brandi Harmon

Artists have been a part of national parks since their conception. In fact, "America's Best Idea," the National Park System, is an idea that can be traced back to the artist George Catlin. The Pennsylvania born artist, a painter and writer, documented life on the western frontier. In 1832, during a trip to the Dakotas, Catlin wrote of preserving the Wild West through a "great policy of government. . .in a magnificent park. . .A nation's park, containing man and beast, in all the wildness and freshness and beauty!"

Since Catlin, many more artists such as Ansel Adams and Thomas Moran have been

inspired by the beauty of the national parks. Today artists are working in more than 40 units of the National Park Service through Artist-in-Residence programs using their talents to bring sights and stories of the parks to life for the public.

In the upcoming year, Hopewell Culture National Historical Park will participate in the Artist-in-Residence program, once again making art an important part of the story. For more information about the Artist-in-Residence program at Hopewell Culture please contact Brandi Nunnelee at:

740-774-1126 or by email at brandi_harmon@nps.gov



The 5 units of Hopewell Culture NHP by Park Ranger Brandi Nunnelee, on display in the Mound City Group museum. NPS photo.



Recent Research on Landscape Construction at Mound City

by Mark Lynott (National Park Service), Rolfe Mandel (University of Kansas), James Brown (Northwestern University)

Mound City is one of the most important and well known archeological sites in North America. The site consists of 24 mounds within a geometric enclosure formed by an embankment wall. International interest in the site developed after the publication of [Ancient Monuments of the Mississippi Valley](#) by Ephraim G. Squier and Edwin H. Davis in 1848. The authors described the excavation of several mounds at Mound City and the rich and complex mortuary and ceremonial remains they discovered at base of the mounds. Knowledge about Mound City was further enhanced by excavations conducted by the Ohio Archaeological and Historical Society in the early 1920s (Mills 1922). Both of these studies described crematory basins, prepared clay altars, and other features resting on floors at the base of the mounds. Associated with the features were large numbers of beautiful and artistic objects made from exotic materials from as far away as the Rocky Mountains, Great Lakes, and Gulf of Mexico.

The embankment walls that form these enclosures have only been the subject of archeological study in recent years. Studies at Hopeton, High Bank, Hopewell, and Anderson have shown that walls were carefully constructed with sands, gravels, and sediments. The careful placement of fill material as part of wall construction suggests that the process of wall building was as important, or even more important, than the



Sunrise at Mound City Group. NPS photo.

A. Brown. Those excavations were intended to explore the condition and location of the embankment wall in four areas. The excavations uncovered a series of profiles exposing different sections of the embankment wall, and documented midden deposits that had been incorporated into two sections of the southern embankment wall. That study also documented the presence of a sheet midden that had been scraped up and incorporated in the embankment wall in the

1. Prior to construction of the embankment wall, the A horizon (the upper most soil layer, or root zone) and most of the B horizon (the layer under the root zone, or subsoil) was removed from this location. At least 0.5 m of soil was removed from the area where the southeast embankment wall and borrow pit are located.
2. The base of the embankment wall was made from fill containing numerous small artifacts. The color and character of this

Mound City is one of the most important and well known archeological sites in North America.

final wall configuration itself. Although several models have been proposed to explain how these large earthen enclosure sites relate to one another, we have not determined with certainty the temporal position, construction methods or purpose of any single earthwork site. Generating information about these issues is critical to understanding the role that geometric earthen enclosures served in Ohio Hopewell society.

1963 Research

The Ohio Historical Society conducted extensive excavations in part of Mound City Group in 1963 under the supervision of James

southeast corner of the embankment.

Recent Mound City Embankment Wall Studies

In 2009 Midwest Archeological Center archeologists excavated a trench into the backfill from the 1963 excavations to expose the original embankment wall section. This profile was recorded (photographs, drawings, written descriptions) and studied using geoarchaeological and geophysical techniques. Analysis of this data is ongoing, but field observations produced the following observations:

- fill suggests that it was from a midden or occupation area. Although charcoal is abundant in this fill, it is not suitable for dating because its original context is not known.
3. The southeast embankment wall and the southeast borrow pit are contiguous and may have been built at the same time. Careful design of the earthen features and selection of construction material was necessary to keep the embankment wall from eroding into the borrow pit.

In 2010 the Midwest Archeological Center exposed a section of the east embankment wall



by excavating a 1 m x 6 m trench perpendicular to the wall. At the apex of the wall, the upper 80 cm of the feature is comprised of historic fills from the restoration work following the Camp Sherman era. The remains of the original embankment are at most 38 cm tall at this point of the wall, and the wall fill is a homogenous silty clay loam. The original embankment wall is 3.9 m wide in the exposed cross-section, and rests on a prehistoric fill layer of poorly sorted gravelly loam that appears to have been placed there by the builders to level the landscape surface prior to wall construction. This trench also revealed evidence that more than 50 cm of the natural soil profile was removed prior to wall construction.

Borrow Pit Investigations

Eight borrow pits surround the exterior side of the embankment wall. The southeast borrow pit was identified and excavated under the direction of James Brown in 1963. All of the other borrow pits were excavated as part of restoration activities with much of the work being done with heavy equipment in the 1960s and 1970s. All of the borrow pits are sufficiently deep that they were excavated into the sand and gravels of the outwash terrace upon which the enclosure and mounds were built. Most of these sands and gravels are loose and unconsolidated and highly subject to erosion when exposed to weathering. Since many of the borrow pits are immediately adjacent to the embankment wall, test excavations in 2009 and 2010 were conducted to determine how the borrow pits were constructed. Test units in the southeast and east borrow pits confirmed that the borrow pits penetrated into the loose outwash sediments of the terrace, and also confirmed that the borrow pits were lined with a clay loam that has maintained the shape of the borrow pits over many centuries. This geo-engineering practice is yet another example of the careful planning and execution associated with earthen landscape construction at Mound City and other Hopewell sites in the Scioto River valley.



Top: Mound City Southeast embankment wall, 1963. Bottom: Mound City, 2010, East embankment trench looking Southeast. Photos courtesy of Mark Lynott, NPS.

The test trench in the southeast borrow pit revealed the presence of steps that were cut into the sands and gravels along the northwest edge of the borrow pit, and these steps were covered by clay loam sediments. Buried in the clay loam layer was a small area of burned soil and charcoal (pine) which appears to have been the result of brief burning episode. Radiocarbon dates from this feature yielded a weighted average of 1607 BP +/- 23 or a calibrated age of A.D. 465 +/- 23. This supports James Brown's interpretation that the embankment wall represents one of the final monumental features to be built at the site.

Mound City as a Constructed Landscape

The 2009 and 2010 investigations were intended to determine how the embankment wall and borrow pits were constructed. Although our research is on-going, the data from this research in combination with earlier investigations permits some preliminary observations:

- The upper portion of the natural soil profile was stripped away prior to construction of most large earthen features. More than 50 cm of the A and B horizon was stripped from parts of the site. This is consistent with data from High Bank, Hopeton, Hopewell, and Anderson.

The placement and construction of borrow pits appears to be associated with a landscape plan rather than quarries for construction material. The use of clay loam to line the borrow pits reflects understanding of soil engineering principles and the intent to stabilize these features within the landscape.

- The construction of Ohio Hopewell earthen walls is now known to be more than the act of piling up dirt to create an earthen shape. Research indicates many of the monumental earthen features were constructed using carefully selected soils that reflect soil engineering considerations. The process of Ohio Hopewell wall construction seems to represent a careful process that likely involved ritual/ ceremonial and practical engineering considerations.

- The 2010 investigations produced new information about the landscape construction associated with Mound City. The study of the embankment wall and borrow pit confirms that these are carefully constructed features that are parts of a more complex cultural landscape. Test excavations west of the Visitors Center indicate that this area may have been used to quarry materials for construction of earthen features.



Landscaping With Native Plants

by Park Biologist Dafna Reiner

During our lifetimes we meet, listen and talk to an unaccountable number of people, but only once in awhile we meet a person who will leave an indelible mark on our lives. Douglas Morris was such a person. Dr. Morris is a respected scientist in the field of Evolution and Conservation Ecology. When I was a young student I happened to catch one of his seminars, still clear in my mind after all these years. In slide after slide he showed pictures of what he called “urban savannahs”. The pictures showed the typical American home, a house, condo or apartment complex, surrounded on all sides by a lawn and punctuated with some shrubs and flowers planted for landscaping beauty. These landscapes, which go on for mile after mile in our urban, suburban, and even rural areas, provide habitat for us (*Homo sapiens*) and a few species that seem to accompany and thrive in our midst such as Norway rats, white-tailed deer, starlings, house sparrows, German cockroaches, common dandelions and the like, all of which are not native to North America except the deer. By altering the areas we inhabit, we have effectively excluded the rich and wonderful diversity of plants and animals that inhabited this land in the not-so-distant past.

Our native birds, mammals and insects did not evolve with frost-hardy mums nor with Callery Pear trees, thus their value for wildlife is mostly nil. Worse, many plants that we have imported to plant in our gardens have escaped into the wild, where some have become invasive. These invasives have a detrimental effect on our native plants that has long been documented in scientific research. Reading all this can make one shrug their shoulders and say “but what can I do about it?” Truth is that you can do a lot. Whether you are a home owner, a renter, a citizen in your local community, there are tangible actions that you can take that will have an impact. If your neighbors and community members join, then a large and positive impact can be realized. Start out by looking at your back and front yard, or the common areas in your condo development, or even the potted plants that you have on your balcony. Think about where the plants that you see came from and if they are biologically valuable to the local wildlife. For example, why not experiment with your flower bed? Instead of planting geraniums, petunias,



2010 wildflower garden located near the flagpole at the Mound City Group visitor center. NPS photo.

zinnias and the like, why not plant native butterfly weed, cardinal flower or purple coneflower, all of which are beautiful Ohio natives. By planting these plants we invite native butterflies and insect pollinators into our flowerbed, who will pollinate the flowers and give us seeds for next year’s plantings. How about planting a corner of your yard with native grasses, or your hedge row with native shrubs? An additional benefit of ‘going native’ is reduced time and money spent on watering and fertilizing. Plants native to Ohio evolved in our climate and soils, and are accustomed to our rainfall and soil minerals, unlike imported plants or plants genetically engineered and grown in a greenhouse.

Hopewell Culture National Historical Park has two locations where native plants are used for landscaping. Next to the flag pole in front of the park’s visitor center at the Mound City Group you may see up to seven species of native wildflowers blooming anywhere between June and August (see photo above). The island in the parking lot at Hopewell Mound Group also has a variety of native wildflowers. During July a public program on gardening with native plants will be given by park biologists.

For further details inquire at the visitor center.

In the last few years there has been an explosion of information on this subject. There are many books and websites devoted to this, and you may have a good time researching and planning your native garden. A good place to start is your local public library. Here are some suggestion for starting-off points for web-based research:

<http://www.for-wild.org> – Wild Ones is a nonprofit environmental education organization promoting native plant landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities.

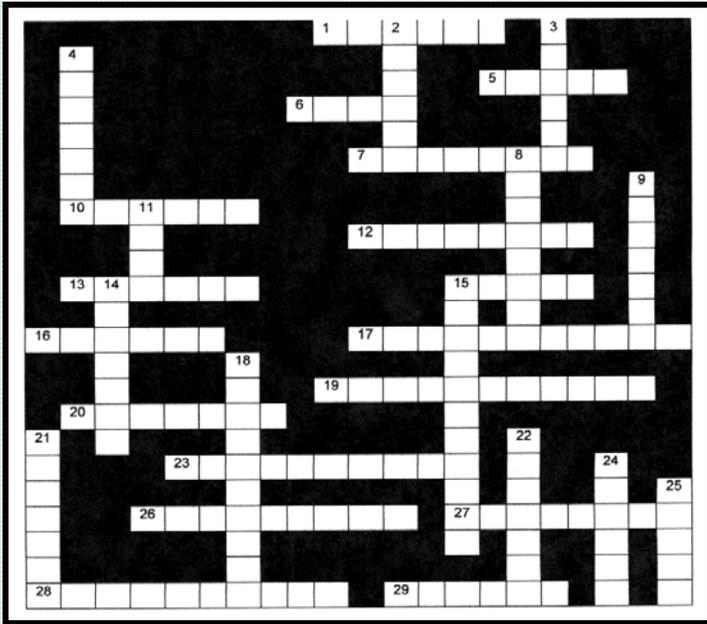
www.wildflower.org/collections - The Ladybird Johnson Wildflower Center has specific recommendations for native landscaping plants for the state of Ohio and includes pictures of the plants.

www.ohiodnr.com - Ohio Department of Natural Resources had a species list and a list of nurseries in Ohio that carry native plants. Just search for “Ohio Native Species for Landscape and Restoration” from ODNR’s main web page.



Test Your Hopewell Knowledge

Hopewell Crossword



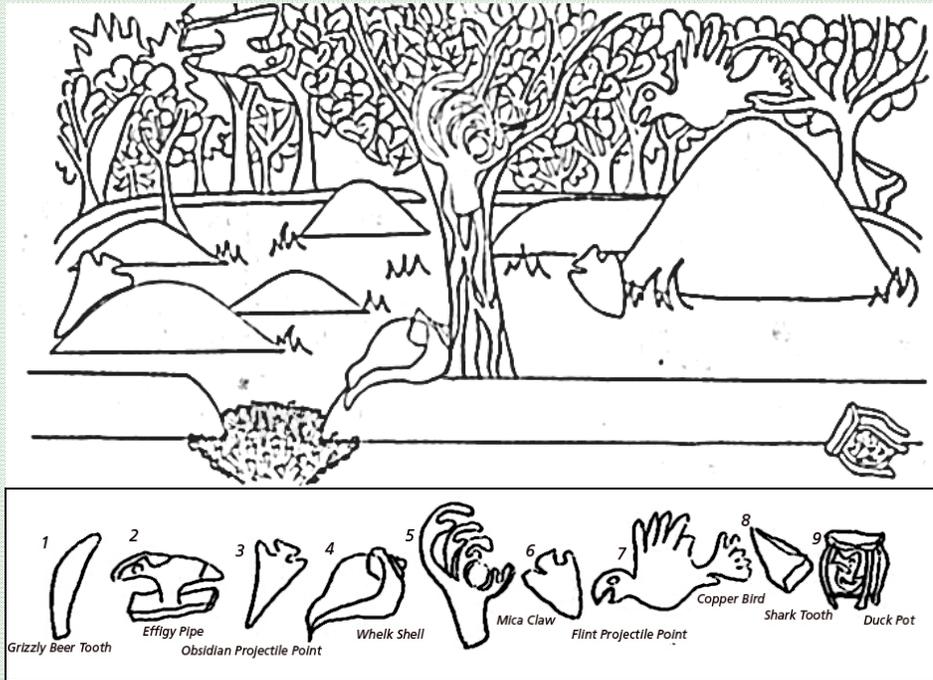
ACROSS

- 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 mined from Lake Superior to make objects.
- 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 mound at Mound City Group 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 Answers:

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



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

by Park Ranger Susan Knisley

In addition to our Junior Ranger program, Hopewell Culture National Historical Park (NHP) is pleased to offer 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 Group 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.



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:



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



_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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



There are more National Parks in Ohio for you to explore!



CUYAHOGA VALLEY NATIONAL PARK: The park encompasses 33,000 acres of the pastoral Cuyahoga River Valley between Akron and Cleveland, including forests, meadows, streams, lakes, waterfalls, rock outcroppings, farm fields, historic villages, and canal resources. Year-round activities include hiking, biking, skiing, nature study, golfing, train rides, concerts and plays, and more. The 20-mile-long Ohio & Erie Canal Towpath Trail is fully accessible for bicycles and wheelchairs. Hale Farm & Village is an outdoor museum of pioneer life operated by the Western Reserve Historical Society. Fees are charged for some activities. For more information, contact: Boston Store Visitor Center, 1550 Boston Mills Road, Peninsula, OH 44264, (800) 257-9477, (300) 657-2752, www.nps.gov/cuva.

DAYTON AVIATION HERITAGE NATIONAL HISTORICAL PARK: The legacy of Paul Laurence Dunbar, Wilbur and Orville Wright and the early development of aviation in Dayton are preserved within the four units of the park. The Wright Cycle Company building is where the Wright brothers worked when they became interested in flight. Huffman Prairie Flying Field is where they learned to control their machine in the air. The Wright Flyer III, located in Carillon Historical Park, is the world's first practical airplane. The Paul Laurence Dunbar State Memorial is where the poet, author, and friend of the Wright brothers lived and worked prior to his death. Start your tour at The Wright Cycle Company building, 22 S. Williams Street, Dayton, Ohio 45407. For information, contact: Dayton Aviation Heritage NHP, 16 South Williams Street, Dayton, OH 45402, (937) 225-7705, www.nps.gov/daav.

FIRST LADIES NATIONAL HISTORIC SITE: First Ladies National Historic Site preserves and interprets the roles of America's First Ladies, and the impacts they have had on our nation's social and political history. The site's operating partner, the National First Ladies' Library (NFL), manages a virtual library, as well as an on-site, seven-story Education and Research Center (ERC), to tell the stories of our First Ladies. Housed in the historic home of Ida Saxton McKinley in Canton, Ohio, the site offers tours of the home and ERC, educational and interpretive programs. For more information, contact: NFL, 205 Market Avenue South, Canton, OH, 44702-2107, (303) 452-0876, www.nps.gov/fila, www.firstladies.org.

JAMES A. GARFIELD NATIONAL HISTORIC SITE: The James A. Garfield National Historic Site preserves and interprets the stories, and personal belongings, of the public and private life of the 20th President of the United States, James A. Garfield. Recently restored to its Victorian-era splendor, the site consists of eight-acres of the former farm, the president's house and memorial library, campaign office, and several outbuildings. The grounds are free, but a fee is charged for the visitor center and guided tours of the house. The site is operated jointly by the National Park Service and Western Reserve Historical Society. For more information contact: James A. Garfield NHS, 8095 Mentor Avenue, Mentor, Ohio 44060, (440) 255-8722, www.nps.gov/jaga, www.wrhs.org.

PERRY'S VICTORY AND INTERNATIONAL PEACE MEMORIAL: Constructed between 1912 and 1915, this massive memorial commemorates Commodore Oliver Hazard Perry's decisive naval victory over a British fleet in the Battle of Lake Erie during the War of 1812. This memorial also inculcates the hard won lessons of international peace through disarmament, arbitration, and negotiation. Comprising 78 courses of pink granite, the 352 foot memorial is the largest Greek Doric column in the world. An observation deck 317 feet above Lake Erie is reached by elevator for a



small fee. All special events and entrance to the Visitor Center are free. For more information, contact: Perry's Victory & International Peace Memorial, Box 549, Put-in-Bay, Ohio 43456, (419) 285-2184, www.nps.gov/pevi.

WILLIAM HOWARD TAFT NATIONAL HISTORIC SITE: The Site commemorates the only man to serve as President and Chief Justice of the United States. A visit to the site includes a tour of four period rooms that reflect family life during Taft's boyhood. The home also includes second floor exhibits highlighting Taft's life and career. The Taft Education Center, houses an orientation video, exhibits on later generations of the family, and classrooms for visiting schools. The restored home is at 2038 Auburn Avenue, 513-684-3262. www.nps.gov/wiho.

DAVID BERGER NATIONAL MEMORIAL: This site honors the memories of David Berger, an American citizen, and ten other Israeli athletes who lost their lives during a hostage taking at the 1972 Olympic Games in Munich, Germany. The memorial is located on the grounds of the Mandel Jewish Community Center (JCC) of Cleveland, 26001 South Woodland Road, Beachwood, OH 44122. There are no fees to visit. Visitors have access to the JCC grounds, but access to the NPS passport cancellation stamp is limited to the community center's hours of operation. For more information, contact the JCC at (216)-831-0700 or visit www.nps.gov/dabe.

NORTH COUNTRY NATIONAL SCENIC TRAIL: The 3,200-mile trail links outstanding scenic, recreational, and historic areas in seven northern states: North Dakota, Minnesota, Wisconsin, Michigan, Ohio, Pennsylvania, and New York. More than 1,800 miles of the trail are open to public use. Completed segments in Ohio and other states offer enjoyment to the casual walker and challenge the long-distance hiker. A few segments offer bicycling and horseback riding. Information is available from 700 Rayovac Drive, Suite 100, Madison, WI 53711, (608) 441-5610, www.nps.gov/noco.



One National Park, Six Important Archeological Sites



The Hopewell Culture flourished from about 2,200 to 1,500 years ago. Those of the Hopewell culture conducted elaborate rituals, 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 as evidenced by the ability to build monumental architecture using only hand tools.

Mound City Group

Unit Acreage: 120

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

Features: This Hopewell ceremonial center consists of 24 mounds that cover the remains of ceremonial buildings. Eight borrow pits ring the embankment. A museum in the visitor center displays artifacts from the site, including objects made of copper, flint, mica, and obsidian. 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.

Features: One of the largest and most complex Hopewellian 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.

Seip Earthworks

Unit Acreage: 168

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

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 were located 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. Contact the park for access at 740-774-1126.

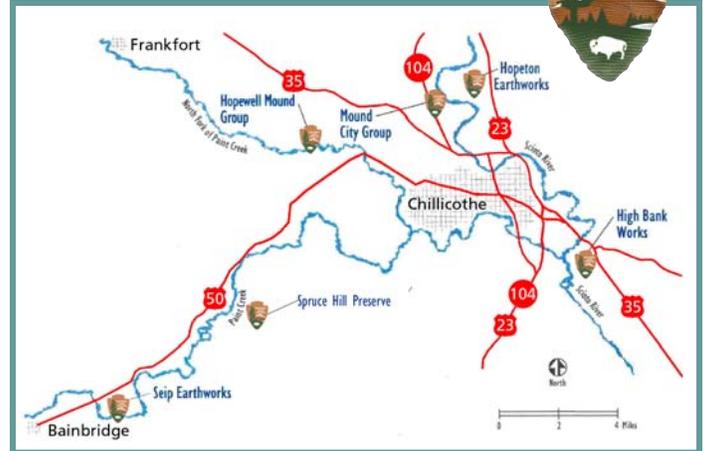
Features: Low parallel embankments of earth nearly 2,500 feet in length lead up to a set of conjoined embankments in the shape of a large circle and square. The walls of the square-like enclosure were 12 feet tall when surveyed in the 1840s. Four mounds and numerous borrow pits are found along the southern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

High Bank Earthworks

Unit Acreage: 190

Location: South of Chillicothe near the split of U.S. Route 35/U.S. Route 50. Contact the park for access at 740-774-1126.

Features: This is one of only two Hopewell



earthwork complexes known to have an octagonal enclosure. Eight mounds were found inside the octagon. The earthen walls were 12 feet tall when surveyed 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.

Spruce Hill Preserve

Unit Acreage: 240

Location: Approximately 12 miles west of Chillicothe, off of Blain Highway. Contact the park for access at 740-774-1126

Features: 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. Included in Hopewell Culture National Historical Park in March 2009, Spruce Hill Preserve is owned by the Arc of Appalachia Preserve System and Ross County Parks District.

For more information, including upcoming events, visit our website: www.nps.gov/hocu

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