



Hopewell Happenings

Hopewell Culture NHP nears World Heritage Status



by Dean Alexander
Superintendent

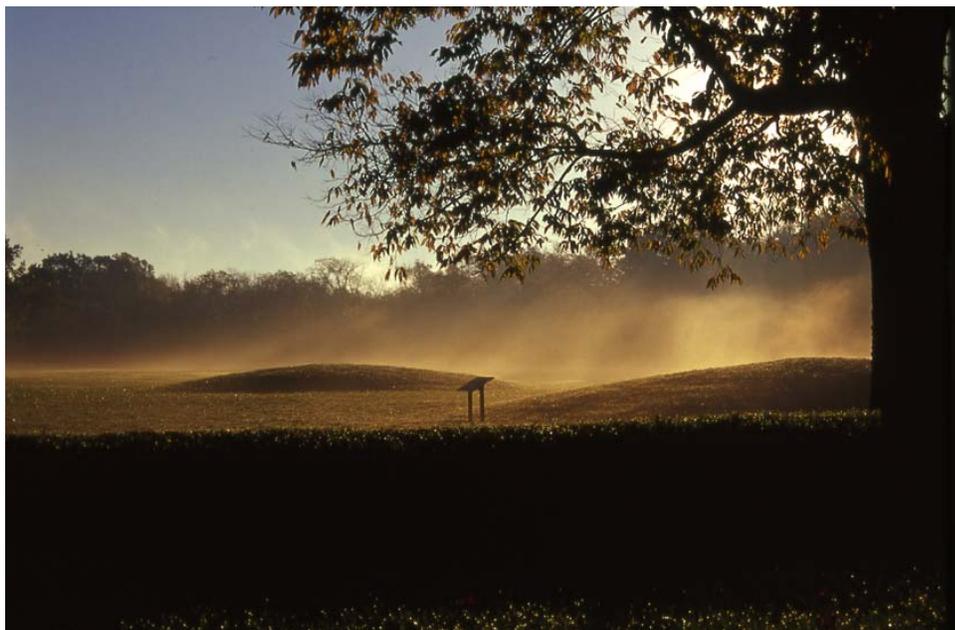


The five ancient earthworks of Hopewell Culture National Historical Park were among the outstanding sites proposed by the United States for the United Nations World Heritage list. The

park in conjunction with two sites managed by the Ohio Historical Society, Fort Ancient and the Newark Earthworks, formed one of 14 nominations on the U.S. World Heritage Tentative List released by the Department of the Interior on January 22, 2008. Other significant archeological sites on the list are Serpent Mound in Adams County, Ohio and Poverty Point near Epps, Louisiana.

The Hopewell Ceremonial Earthworks nomination includes all or part of nine large earthworks built by the Ohio Hopewell culture about 2,000 years ago. The nine features are:

- Fort Ancient State Memorial, Warren County, OH;
- Seip Earthworks, Hopewell Culture NHP, near Chillicothe, OH;
- Hopewell Mound Group, Hopewell Culture NHP;
- High Bank Works, Hopewell Culture NHP;
- Mound City Group, Hopewell Culture NHP;
- Hopeton Earthworks, Hopewell Culture NHP;
- Octagon Earthwork, Newark Earthworks State Memorial, Heath, OH
- Great Circle Earthwork, Newark Earthworks State Memorial, Newark, OH;
- Wright Earthworks, Newark Earthworks State Memorial.



View of Mound City Group in Ross County, Ohio. Photo courtesy Joe Murray

These sites are the best preserved and protected legacy of the 2,000-year old Hopewell culture. The large monumental earthworks and rich material culture found at these sites are distinctive from other Eastern Woodlands Cultures in North America. These were large ceremonial sites used by a people that interacted over a large portion of temperate North America. This cultural florescence is distinctive from cultures that preceded and succeeded it in Eastern North America. The earthworks are extraordinarily large, and feature complex geometric shapes that exhibit the use of standard units of measure. The artifacts associated with these sites are finely crafted from materials brought to Ohio from sources as far apart as Florida and the Yellowstone basin. Many of the artifacts have complex or abstract designs. These achievements are particularly notable because they were the products of a relatively small population that lived in dispersed settlements. Similar achievements were the products of more hierarchically organized, densely populated cultures that extensively farmed in order to produce an agricultural surplus that would support the labor needed for such large public works projects. Despite the Hopewell culture's relatively low population densities and simple social structure, they produced monumental

ceremonial structures that were as large as or larger than other famous monumental structures in the world.

Now that the Hopewell Ceremonial Earthworks are on the U.S. World Heritage Tentative List, work will begin on updating and revising the nomination for submission to the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The United States can submit one or two of the 14 nominations each year between 2009 and 2018. UNESCO's World Heritage Centre will review the nomination, a process that usually involves site visits by international experts. The final step in the process is a vote on the nomination by the World Heritage Committee, which is made up of representatives of 21 of the signatories to the World Heritage Convention. Membership on the committee rotates among the 184 signatories to the Convention. If no snags are encountered, the Hopewell Ceremonial Earthworks in Ohio could be "inscribed" on the World Heritage List by 2017.



New Museum Collections Storage Facility to be Constructed

by Kathy Brady-Rawlins, Curator/Archeologist

Hopewell Culture National Historical Park will be constructing a new museum collections storage facility. The project has been in the planning stages for several years. In January, the park received a preliminary design for the new building from the contract architect firm in Salt Lake City, Utah, and from the National Park Service's Denver Service Center in Colorado involved in coordinating the planning and implementation of the project.

The museum collections not on exhibit are currently housed in the Resource Management building. The collections storage area is a converted bomb shelter. While it is a secure location, it lacks the environmental controls necessary for the long-term preservation and conservation of the artifacts. The below-grade location and the cinder block construction allow extreme fluctuations in humidity levels and expose staff to harmful radon gas. Fluctuating humidity levels are harmful over the long term to objects made from just about any material and particularly harmful to the 2,000 year old copper artifacts of the Hopewell culture.

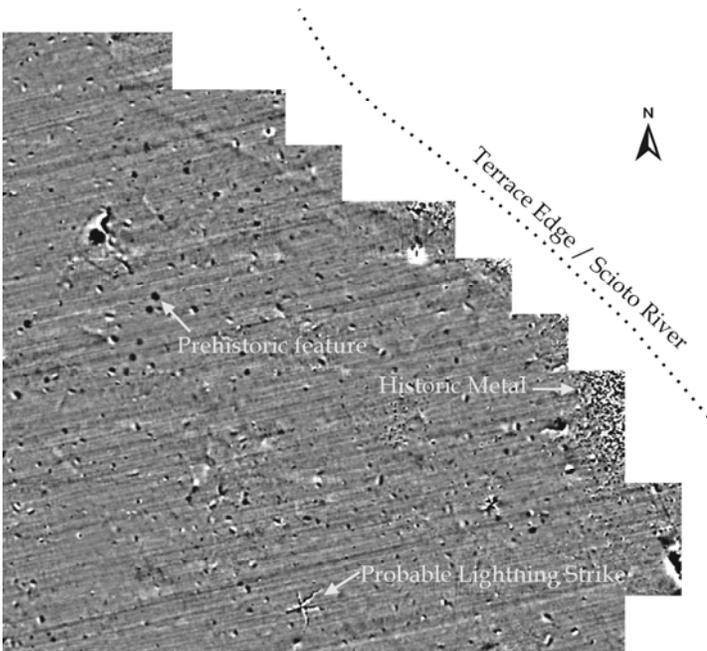
Construction of a new museum collection facility, approximately 2,300 square feet in size, is scheduled to begin in 2012. The building will be located just to the west of the existing Resource Management building and will be attached by an enclosed connector. The building site was chosen for its proximity to the existing Archeology lab and staff. The new building will provide a secure, climate-controlled space for the park's museum collections that are in storage and not on exhibit. The new building will provide space for the park's archeology collections,

archive materials, and natural history specimens. Because the new building has been designated a multi-park storage facility by the National Park Service, it will also house objects not on exhibit from Dayton Aviation Heritage National Historical Park. The new facility will be used solely for the storage of the park's museum collection and will not have interpretive exhibits or office space. In order to provide better security and avoid hazards to the collections such as fluctuating temperatures and harmful UV rays, the new building will not have any windows. Site disturbance during construction will be kept to a minimum with little disturbance to existing trees or buildings.



Floor plan of existing Resource Management building outlining the proposed addition of the collections storage facility. NPS graphic.

Archeological Investigation of the North 40-acre Tract at Mound City



Magnetometry data from the 2007 survey of the North 40-acre tract. NPS graphic.

Until the 1980s, archeological research at Mound City largely concentrated on the mounds themselves or in the areas adjacent to the mounds within the earthwork walls. Eventually archeologists turned their attention to investigating the areas outside of the earthwork walls and to discovering what kinds of activities took place in these areas.

In the early 1980s, archeologists from the Midwest Archeological Center conducted archeological investigations in the area immediately north of Mound City. Archeological investigation of the North 40-acre tract included controlled surface collection and shovel testing. Artifacts dating to the Middle Woodland period and the Hopewell Culture were found during the survey. The artifacts clustered on a low rise in the center of the field and extended eastward toward the terrace edge.

In the summer of 2007, three college interns, Brian Adams, Erin Dempsey, and Carly Sentieri, conducted a magnetic survey in a portion of the North 40-acre tract under the direction of park archeologists Jennifer Pederson Weinberger and Kathy Brady-Rawlins. Magnetometry is one kind of remote sensing technique. Remote sensing allows archeologists to get an idea of what lies beneath the surface over large areas without destructive testing. The survey consisted of nearly 100 20 x 20-meter survey blocks.

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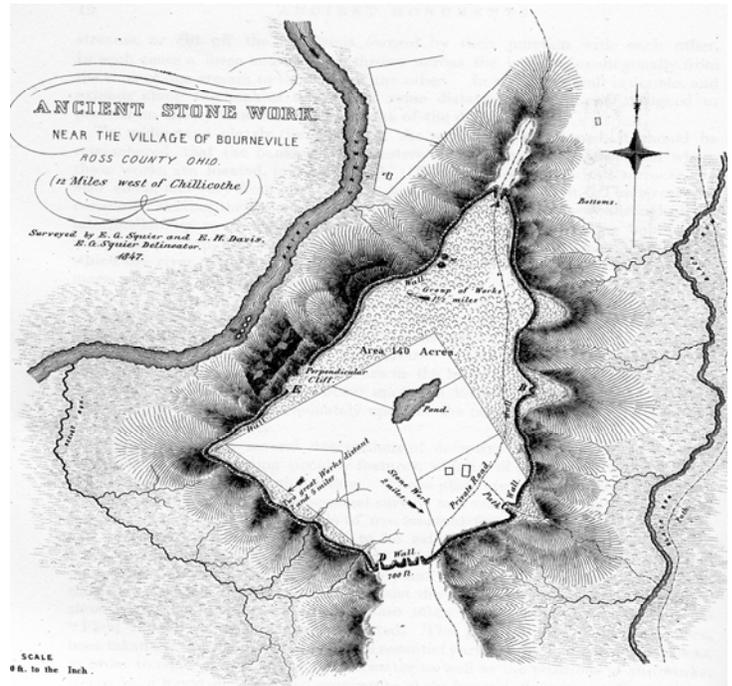
Spruce Hill has New Ownership

By Nancy Stranahan
Co-director Arc of Appalachia Preserve System

The Arc of Appalachia Preserve System, who along with The Archeological Conservancy and Wilderness East, spearheaded the drive to save 238-acre Spruce Hill at the invitation of the National Park Service, has recently announced that a successful completion of this year-long project is nearly in sight.

Spruce Hill is a 238 acre world-significant Hopewell archeological site that the National Park Service has prioritized for years to protect and acquire. Years away from funding, well-laid NPS plans were shattered when the owner of this highly-rated rock walled hilltop enclosure passed away, and the property went up for auction last June, in 2007. Rushing to save the property from private sale and possible development, the coalition raised \$300,000, half of the sale amount, just days away from the auction date. The Archeological Conservancy (TAC) then saved the day through signing a loan for the property's remaining value. TAC and non-profit Wilderness East (a Friends Group of the Arc of Appalachia Preserve System) then made an offer to the owners, which was approved, pulling the property off the auction block in literally the last hours before the public event was to be held.

The Arc of Appalachia Preserve System has released the uplifting news that they, along with local Ross County Park District, will soon be the new owners of the property, thanks to the help of Clean Ohio grant funding. The grant will enable the The Arc of Appalachia Preserve System to purchase the property at bargain sale, free and clear of loans. It is the intention of the new owners to work closely with the National Park Service to manage the archaeological site, and to steward the beautiful Appalachian forests that cloak the enclosure's steep hillsides.



This drawing of the Spruce Hill Works was rendered in the 1840s by Ephraim Squier and Edwin Davis.

For a map and descriptions of the park's existing five sites, please see page 10 .

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Magnetic anomalies are a result of slight distortions of the earth's magnetic field. These distortions are measured in nanoTesla (nT) and are caused by differences in the subsurface soils and/or their contents. Prehistoric pit features, fire pits, and features containing more magnetic-mineral rich top soil tend to be visible as positive anomalies or monopoles. Historic metal objects are visible in the data as positive/negative anomalies or dipoles. Archeologists familiar with magnetic survey can make an educated guess as to what the magnetic anomaly suggests lies below the ground surface in a particular location. The exact nature of the anomaly cannot be known without subsurface testing.

In this research project, a sample of seventeen anomalies was chosen for coring using a four-inch bucket auger. Coring is a good technique to ground-truth magnetic anomalies since it is minimally destructive and can be done quickly and efficiently. Each core was dug through the plowzone until sterile subsoil was encountered. The soil removed from each core was examined for artifacts. Eleven of the seventeen cores tested positive for prehistoric feature fill in the form of small flint flakes, stone tools, charcoal, or pottery.

One large linear anomaly suspected of being the location of a possible prehistoric structure and several associated anomalies tested positive for prehistoric artifacts and will undergo further testing in the summer of 2008.

Hopewell Culture National Historical Park will be hosting a Teacher's Workshop in June 2008. Participating teachers, along with park staff, will be excavating in these areas that have already tested positive for prehistoric artifacts. Teachers interested in attending the workshop should contact Jennifer or Kathy at 740-774-1126.



Sample of artifacts collected during coring. NPS photo



New and Improved Junior Ranger Booklet

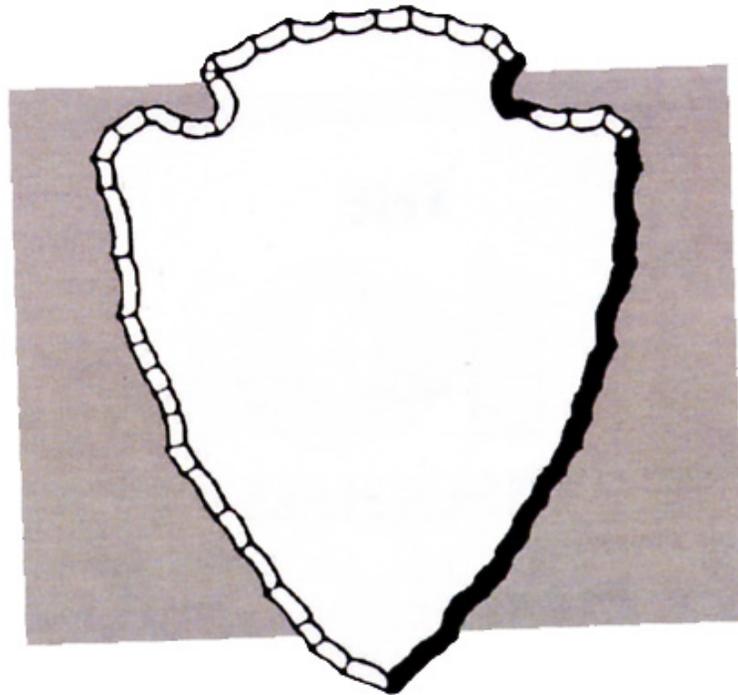
By Sara Jones
Park Ranger

Hopewell Culture National Historical Park is pleased to announce the release of a new and improved Junior Ranger activity booklet. When asked what would help them create a better Junior Ranger program, National Park Service rangers provided a comprehensive list. They wanted a “gold standard” for implementing a successful Junior Ranger program. A kit was developed by NPS rangers and education specialists from all areas of the country. The goal of the kit was to help others create, improve, or diversify their park Junior Ranger program. The kit provided required elements and program guidelines for Junior Ranger programs.

Rangers at Hopewell Culture NHP studied the kit and developed a new Junior Ranger booklet, combining new activities with activities from the previous booklet. The activities are now divided into different groups depending on the degree of difficulty. The Junior Ranger program is designed to provide participants with the flexibility to discover and interact with the park at their own pace and within the limits of their visit.

THE ARROWHEAD PATCH

Like many other groups, the National Park Service has an emblem that symbolizes the things that we care for and care about. Each part of the emblem represents something important. You will see it in every National Park you visit. Below is the outline of the arrowhead, but it is incomplete. Find an arrowhead in this newsletter or at a National Park and complete the drawing.



Each item in the arrowhead represents a feature protected within all National Parks. Look at the arrowhead design and find the items that fit in the blanks below.

1. The _____ represents all plants.
2. The _____ represents all animals.
3. The _____ represents all waters.
4. The _____ represents land formations.
5. The _____ represents history.



Become a Junior Ranger and help Hopewell Culture NHP protect and preserve Hopewell earthworks for generations to come. To become a Junior Ranger, visit the Mound City Group visitor center to obtain a Junior Ranger activity booklet. Complete the booklet to the best of your ability and you will be awarded a Junior Ranger badge and a certificate of completion for the Hopewell Culture NHP Junior Ranger program.

Junior Rangers are important people because they help park rangers take care of very special places. The Junior Ranger program is a way to learn about Hopewell Culture National Historical Park and the National Park Service and have fun at the same time!

Below is a sample of one of the new activities in the Hopewell Culture NHP Junior Ranger booklet:

A “Year” on the Nature Trail

By Joe McMahon
Volunteer

This year I started something a little different. Since I no longer like going to Scioto Trail because of the timber cutting, I started making surveys on the Nature Trail at Mound City Group, and it has been a very pleasant experience. I tried to make a survey every week during the spring, summer, and fall. During the survey, I try to record everything I see, mainly plants that are flowering, butterflies and other insects that I can identify in the field, birds, and other animals and plants that don't fit into these categories.

It usually takes about 1.5 to 2.0 hours to make the trip from the Resource Building where I keep my scooter to the end of the trail and then back to the Resource Building. I find that by making the trip in both directions, I can see more. It's strange that a flower that is completely missed on one leg of the survey can really stand out on the second. The time needed depends on how many pictures I take, and how many conversations I get into along the way with visitors. I am trying to get a picture record of all the plants blooming along the trail and also shots of the seed heads as well. No matter how many times I make the trip, I always seem to find something that I failed to see before.

As might be expected, plants were the most numerous of all my sightings. I identified seventy-five species. There are many more to be found, since I did not include trees and most shrubs unless they were in bloom. There are many grasses to be found, but I have not identified most of them. I wanted to include fungi, but this summer was so dry that there were very few to be found. In 1995, Jennifer Course, a student at the University of Wisconsin, did a summer-long survey of the plants of Hopewell Culture NHP. I assisted with the computer work and processing the plants she collected for inclusion in the park's herbarium. She collected almost 700 specimens of around 400 species from all the parks. Of these specimens, 300 were from Mound City. Many of this number were duplicates, of course, so the sixty-one I recorded is fairly representative. She also had the advantage of searching all of the area while I was limited to the trail. A few of the plants I found were not on her list. Either she missed some, an almost certainty considering the time she had; or they have come into Mound City since that time.



Moth larva. Mound City nature trail. Photo courtesy of Joe McMahon.



Indian tobacco. Mound City nature trail. Photo courtesy of Joe McMahon.

Next most numerous are the birds. Birds are much easier to identify than the plants, and are easier to spot since they move and sing or call to help locate them. This year I recorded fifty-eight species. I think this is a low number but the very dry weather we had through most of August and September contributed to the lower numbers. In very hot weather, birds tend to sit still in shady areas and do not move around or call. The three species seen most often were Common Grackle, Turkey Vulture, and American Goldfinch. I did not attempt to count the total numbers since, in a small area such as this, one tends to count the same bird several times. The bird that flies up as one approaches it will usually fly ahead, and may be counted again further along the trail. I merely noted whether the bird was present. Twenty-one species were seen only once. This large number is due partly to the fact that some were migrants and did not stay around very long and partly to the hot conditions later in the summer. I am sure several were there, because I saw them at other times than on the survey day, but they just didn't show themselves when I was counting. Probably our best bird this year was a Golden-winged Warbler heard in the woody area north of the entrance. This was my second record of this rare warbler here. The last was about ten years ago.

Butterflies are always a good group to count. They are bright colored, easy to spot, and usually do not move very far when they are flushed. I recorded seventeen species this summer. This is a very disappointing figure! I was not able to record a single swallowtail butterfly, and there should have been at least four. Here again I think the weather pattern is to blame. In the early spring, the weather was very warm for a prolonged period and the eggs hatched and some came out of their

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Black rat snake. Mound City Nature Trail. Photo courtesy of Joe McMahon.

pupae too early. When the weather turned very cold, this wrought havoc on larva and adults. The extremely dry conditions in the later months did not help either.

There were a few other insects that I was able to identify on sight. Bumblebees I frequently encountered visiting the flowers and the Paper Wasp (*Polistes*) was found usually scraping up rotted wood to make the paper for its nest. I usually steer clear of both of these insects. I'm not allergic to them but no one likes to be stung. There are three other insects that can be found most of the time in late summer. The Blue-tipped Dancer is a damselfly with the head and the tip of the abdomen a very bright blue. It prefers the wooded trails rather than ponds or streams although it must return to them to lay its eggs. Everyone knows the sound of the cicadas in late summer. We have about five kinds, but the only one I can recognize by its call is *Tibicen chloromera*. Again there is no common name to separate it from the others. Finally the Field Cricket began to tune up as fall approached.

Finally there were some sightings that I just lumped together. Two toads were spotted along the trail. They were Fowler's Toad and American Toad. Both were very small and had probably recently emerged from the tadpole stage. I found only one snake although there must be more, but most snakes tend to be nocturnal. The one I found was a five-foot Black Rat Snake. It was on the trail just after it joins the service road near the Resource Area. I was talking to two men from a university in Virginia when it began to crawl across the trail. We didn't see it until it was partly across the trail. It remained so still that I began to think it might have been a rubber snake laid out by one of our interns who was very into snakes. The men left to go back to the Visitor's Center and I went on down the trail. I could easily have picked it up, since they are very tame, but I took pictures instead.

On another day I was cruising along the trail near the Canal Display when a Cottontail Rabbit started across the trail about twenty feet ahead. We seldom see them here for some reason. This one froze in mid-hop and did not move until I moved closer. I was able to get several good pictures. Finally when I tried to get closer, it hopped into the brush.

On one trip soon after some rain, I found many snails crawling along the edge of the trail. They were of two species, neither of which have a common name: *Mesodon thyroidus* and *Mesodon clasus*. Finally I saw Fox Squirrels on a few occasions and once a White-tailed Deer trotted across the trail.

That's about all for the summer. I hope to get to take a tour during the winter to see the trail in its resting state. If not, I'll be back on it in the spring, which can't come too soon for me.



Eastern cottontail. Mound City nature trail. Photo courtesy of Joe McMahon.

Park's VIP and Internship Programs: 2007 accomplishments

By Rick Perkins
Park Ranger and VIP coordinator

More than 2000 hours of time and energy was given by 36 volunteers to Hopewell Culture National Historical Park (HOCU). Volunteers gave as little as 2 ½ hours to Spring Clean-up and Landscaping to a combined time of several hundred hours of non-native vegetation management. The diversity of opportunities available, large or small, for Volunteers attracts a diversity of Volunteers to assist HOCU.

One major volunteer project includes a working partnership of time exchange with Adena State Memorial Greenhouse. Volunteers worked with greenhouse managers to prepare historical garden plants for the on-site public garden in an exchange for the

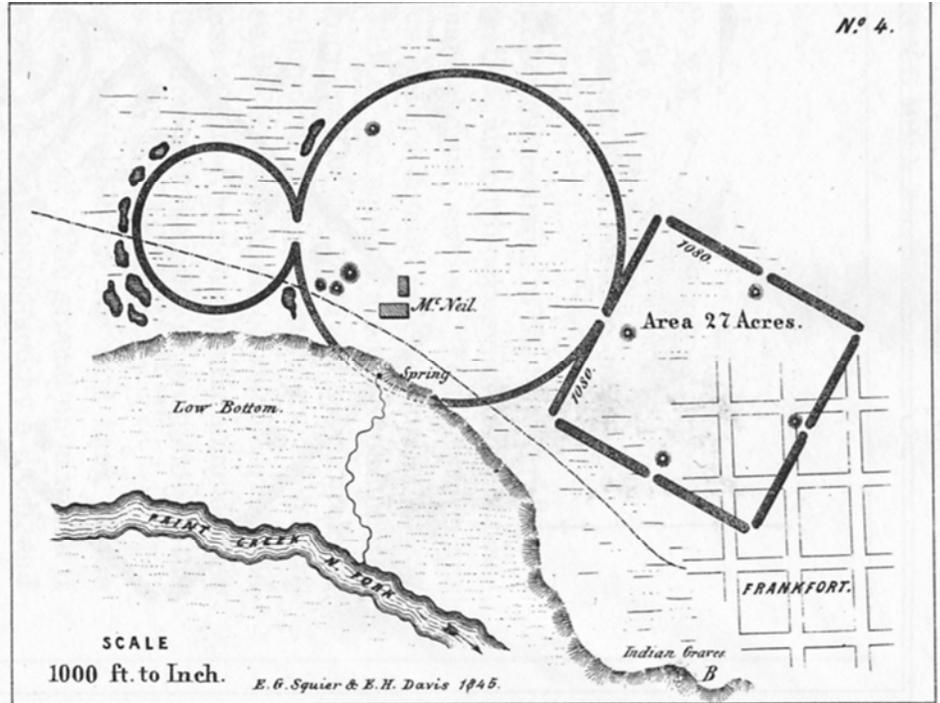
opportunity to propagate native seed collected for HOCU to be planted in an interpretive garden and landscaping. Another major undertaking of a volunteer is the archival of the historic slide collection to computer discs. Seven Volunteers spent many hours at Spruce Hill working through plant identification and completing a leaf carbon sequestration evaluation to highlight the natural value of Spruce Hill. Park inventory of Frog and Toad Calling Survey contributing to a State wide survey, Spring Migration Bird Festival, park wide monitoring of 71 Eastern Bluebird nest boxes, continued addition to HOCU entomology collection, participation with National Monarch Tagging Program, continued addition to HOCU Herbarium plus developing a working herbarium are some of the accomplishments of the great works of great volunteers.



The Disappearing Mark of the Hopewell Culture on Frankfort, Ohio

By Nicholas Roll
Park Ranger

The town of Frankfort, Ohio is located along the Paint Creek in Ross County. It has been a home to European settlers for some two hundred years, but they were not the first to inhabit the rolling hills and rich soils. Long before their arrival, the area was the site of a large Shawnee village that carried the name Chillicothe. This name was later given to what is the present day city of Chillicothe. This is why Frankfort is commonly referred to as “Old Town” to this day. The Shawnee were not the first to inhabit this area though. There was yet another group of Native Americans that lived there centuries before them. These people were responsible for an explosion of culture, art, and ceremony on a scale that had not before been seen in the eastern woodlands of what is today the United States. Commonly referred to as the Hopewell Culture, it was these people who left a resounding mark on the landscape of modern day Frankfort.



This drawing of the Frankfort Works was rendered in 1845 by archeologists Ephraim Squier and Edwin Davis.

Traveling west on County Road 550 out of downtown, one will see a large conical mound of earth tucked in amongst the barns and houses on the edge of town. Standing an imposing fifteen feet high, this relic of a past civilization is named the Henneberger Mound. It is named for Freda Henneberger, a lady who owned the land that the mound was located on, and who preserved and protected the mound for over fifty years. This mound is the last visible remnant of a geometric earthwork that was built by the Hopewell Culture some two thousand years ago and is known as the Frankfort (aka. “Old Town”) Works.



Henneberger Mound as it stands today near downtown Frankfort, OH.

The earthwork consisted of an earthen embankment that stood several feet high and formed three distinct, but connected geometric figures. There was a perfect square with sides that

measured over 1000 feet. The sides were broken at their mid points in what are commonly referred to as “gateways”; each one with a corresponding mound on the interior. The corners of the square were also open but did not have the corresponding mounds. To the west of the square, and connected at the mid point of one side, was a very large circular embankment. This was one of the largest of the Hopewellian circles found at any of their earthworks. The circumference of the circle was over a mile in length, and several mounds were located within it. Connected to the western end of the large circle, was another circular enclosure of smaller size that was possibly more elliptical in nature.

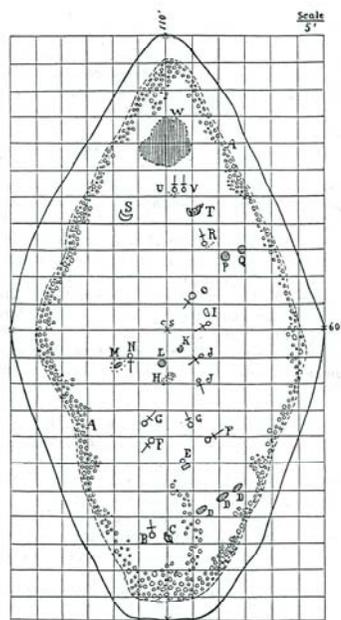
There are several earthworks in the region that show this relationship between a large circle, small circle, and square. These earthworks include the Seip Works, Baum Works, Works East, and Liberty Works to name a few. They are commonly called tripartite earthworks and are found along the Paint Creek and its north fork, as well as the Scioto River. The sizes of the shapes at these works are often the same, or show a definite relationship. This has led many investigators to hypothesize that the Hopewell Culture used a standard form of measure; similar but not equal to our twelve inch foot. The Frankfort Works also shows relationships with sites as far away as Circleville, Newark, and Marietta to name a few. Many of the earthworks built by the Hopewell Culture were situated to mark out certain solar and lunar events like the sunrise on the summer solstice or the most northern or southern of the moonrises. Some of the more famous of these are the Newark Octagon, the High Bank Earthworks, and Fort Ancient. From the limited research that has been done, there has been no sign that the Frankfort Works displays any relation to these events.

To drive through the town today, there is no sign of the “walls” that made up the embankment. The only evidence that we currently



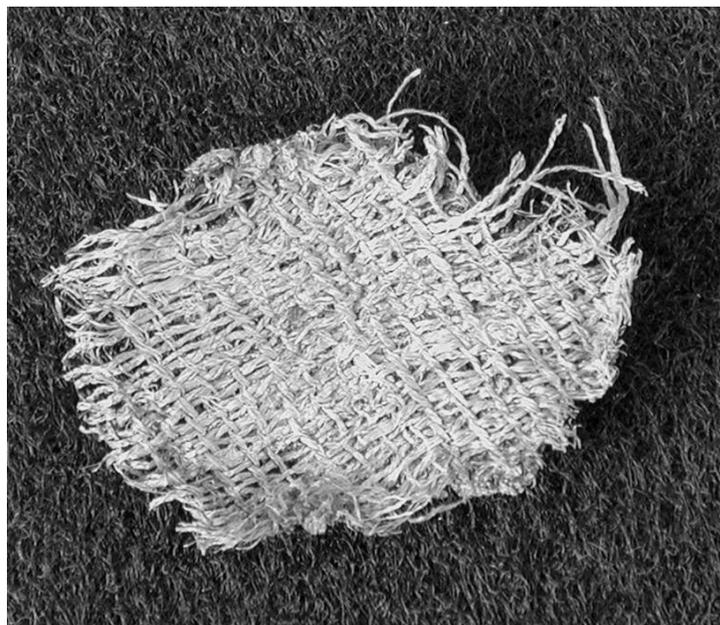
have to show the shape and orientation of the earthwork is the plate drawn by Squier and Davis as part of their magnum opus, *Ancient Monuments of the Mississippi Valley*, (1847). Development and farming have destroyed the earthwork to the point that it can no longer be seen by the naked eye. Even in the Squier and Davis plate from 1845 the encroachment of the town onto the square portion is shown. This is the case with many of the estimated 600 earthworks and mound sites located within southern Ohio. Many are only visible from aerial photographs or modern geophysical work that senses magnetic disturbance to the soil. The works under and around Frankfort have been so effectively destroyed that they do not even show up on modern aerial photographs, and there has not been sufficient geophysical investigation to determine their exact location.

The limited archeological work that has been conducted at the Frankfort earthwork was conducted in the late 19th century, and focused on the mounds within the enclosure as opposed to the embankment itself. Enter Warren K. Moorehead. Moorehead was an early archeologist who prided himself on how many sites he had excavated and the objects he had recovered from them. To many early archeologists, their excavations were operated like treasure hunts. This was often to the detriment of both the integrity of the site and the quality of the field notes, which left much to be desired. Moorehead was not immune to this mentality. Financed by the Columbian Exhibition of Chicago, who were looking for artifacts to display at the up coming World's Fair, Moorehead went to the town of Frankfort to excavate the five mounds located on the farm of Tighlman Porter. These are the mounds within the large circle depicted on the Squier and Davis plate. Mr. Porter allowed him to open two of the mounds, but refused to let him disturb the largest



Floor plan of Mound 15 rendered by archeologist Warren K. Moorehead

had served its purpose, and offerings or burials were placed within (not all mounds were burial mounds), the building was then either taken down or burnt to the ground. The mound was then built atop the ruins leaving scars in the soil where the structure's posts had been, and giving archeologists a posthole pattern as evidence to the buildings existence and shape.



Sample of Hopewell "cloth." NPS photo.

of the mounds. The two that were explored were given the names Porter Mound 15 & Porter Mound 38. The largest of the Porter mounds that Moorehead was refused access to is the one that now carries the name Henneberger, which was mentioned above.

Porter Mound 15 was a large, egg shaped mound with dimensions of 110 foot long by 60 foot wide and rose to a height of five feet. Some mounds built by the people of the Hopewell Culture, including this one, covered the floor of what was once a building. These buildings were ceremonial structures that show signs of being used for long periods of time. Celebrations, ceremonies, market place activities, and political decisions likely took place at these buildings. When the building

Upon opening Mound 15, Moorehead was not to be disappointed in the wealth of artifacts that were to be found. Several burials of both cremation and full skeletal inhumation practice were found within. Along with these were offerings of art and valuable items. Two copper breast plates measuring 7"x9.5" and 6"x8" were found by 197 finely polished and drilled shell beads. Two large, decorated conch shells were found turned face down and containing clean sand. Flint blades and a stone tool called a celt were also found along with teeth from wolf, panther, and Grizzly bear. Mica sheets had been placed atop the ashes of a cremation burial that contained 990 polished pearl beads. The Hopewell Culture was known for their decorative pottery and they were the first to fashion tetrapodal supports, or four feet, on the bottoms of some of their pots. Fragments of 14 pots were found in varying states within the mound. The people of the Hopewell Culture fashioned ornaments to be fitted into the stretched ear lobes of a person that are commonly called "ears-pools." Twenty one of these were found fashioned out of copper. A clay cremation pit that measured 2 foot by 2.5 foot by four inches in depth was also unearthed upon the floor. Many mounds contained one or more of these that show signs of repeated burning. Moorehead tried to remove this pit and crate it for transport, but the pit fractured in two as it was being removed and quickly deteriorated when exposed to the elements.

Porter Mound 38 was made up of three conjoined mounds that measured fifteen foot, six foot, and nine foot in height. Moorehead was permitted to open the nine foot mound and was not without its own wealth of artifacts. 606 polished pearl beads were found within; some measuring as much as 3/4 of an inch in diameter. Several platform pipes were also unearthed. These pipes are often effigies of animals found from all over the eastern and western US, and are diagnostic of the Hopewell Culture. The copper plates found within this mound were of particular importance. As copper corrodes it produces a sulfate which preserves what it is lying next to. In this case fragments of preserved cloth were discovered which offer archeologists a rare glimpse into what materials were used to fashion it, as well as what styles and dyes were utilized. Many burials were also found within this mound as well. One position alone contained seven burials.

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These examples of art are one of the things that define the Hopewell Culture. In them we see a wealth of ceremonial practices being conducted over a broad area. They also tell us the great distances that were traveled to obtain these valuable materials. Copper from Lake Superior, conch shells from the Gulf of Mexico, mica from the Blue Ridge Mountains, and even obsidian from as far away as Yellowstone have all been found in great quantities. These objects were found almost exclusively within mounds and very little was ever unearthed within the embankment walls at earthworks. This led many early archeologists to focus their attention on the mounds. Moorehead was no exception.

Several mounds located on hill tops in the area were also excavated by Moorehead. His notes simply remark that these, "... bore little for the labor." The mounds that he excavated in the area can no longer be seen. This is largely due to the techniques he used to excavate them, and that he was not in the practice of rebuilding those that he excavated. At some sites a horse and plow were used to remove large portions of dirt completely destroying the mound's integrity.

The fate of the Frankfort Works and the other mounds in the area is a common story. Of the estimated 600 earthworks and mound areas in southern Ohio alone, few are still in any condition like they were at the time of European contact, and still fewer are preserved

and protected. This fascinating culture left us with little information to examine and no written record. If the information at these sites is lost forever then our understanding will not progress any further. The people of the Hopewell Culture are part of the heritage of the regions that many of us call home as well as the ancestors of Native Americans throughout the country. They are also a significant portion of the human story and can help our understanding of ourselves as a species. Several sites are now preserved as part of Hopewell Culture National Historical Park and are open to visitation year round. Some sites are also preserved by the Ohio Historical Society as well. The museums and interpretive exhibits at these sites are there to encourage the understanding and appreciation of this fascinating culture, but it only works if they are visited. The act of protecting and preserving the last remaining remnants of the Hopewell Culture will fall to the next generations. That is why it is important that we all do what we can now for the preservation of these sites. However, it is equally important to motivate the next generation to do the same so that the lessons and understanding of our heritage is not lost.

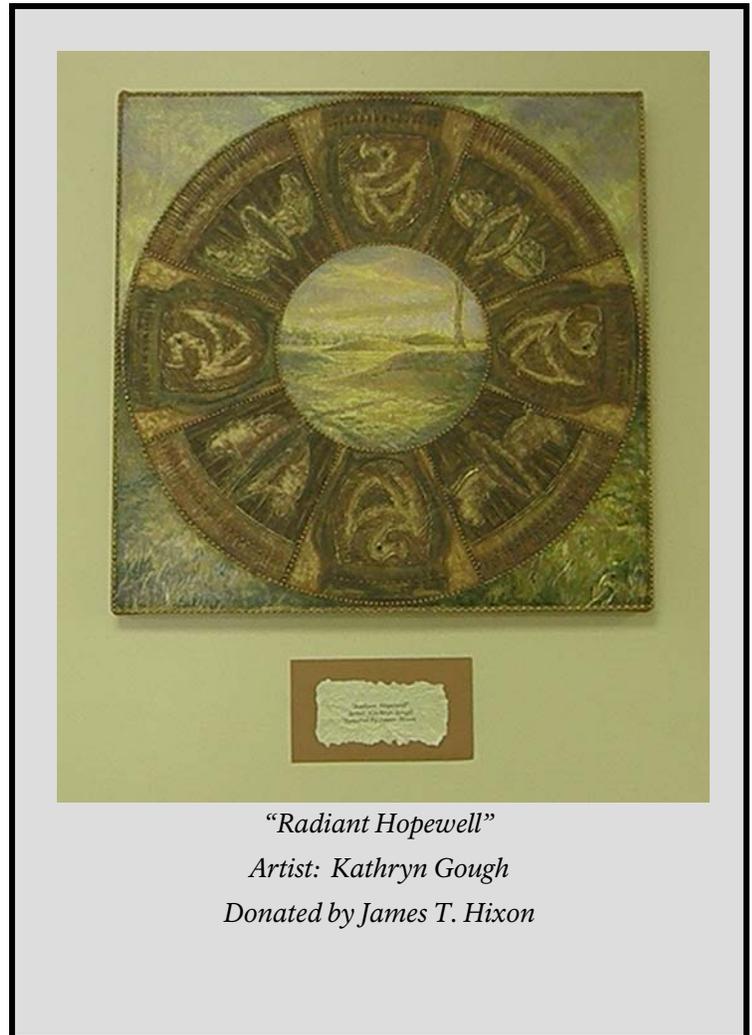
"Radiant Hopewell" Graciously Donated to Park

By Susan Knisley
Park Ranger

An explosion of ceremony and craftsmanship are unmistakable characteristics of the Hopewell Culture. For over two hundred years their monumental earthworks and spectacular designs have awed scientists and artists alike.

Chillicothe artist Kathryn Gough's artistic impressions of the Hopewell Culture received notoriety in 2007, when her Christmas ball design was selected to represent Hopewell Culture NHP on the official White House Christmas tree. James T. Hixon, a local Chillicothe resident, owned numerous works by Kathryn Gough, but requested in his estate that *Radiant Hopewell* be given to the park. On May 15, 2008 we received this very kind and beautiful donation.

From Hopewell Culture National Historical park: a very gracious thank-you to the family of James T. Hixon's for following his wishes and seeing that the painting be given to the park. Hopewell Culture NHP is now delighted to have Kathryn Gough's *Radiant Hopewell* hanging on its wall for visitors to enjoy daily.



"Radiant Hopewell"

Artist: Kathryn Gough

Donated by James T. Hixon



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.

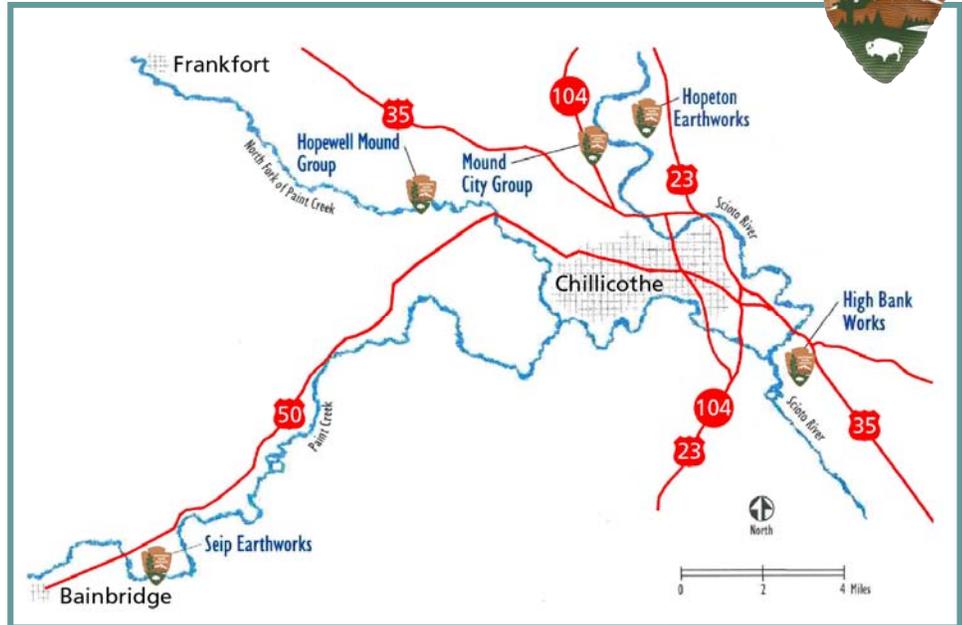
Cultural Features: This early Hopewell ceremonial center consists of 23 mounds that cover the remains of ceremonial buildings. Eight borrow pits ring the embankment. A museum in the visitor center contains artifacts from archeological work at the site, including objects made of copper, flint, mica, and 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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