

lachia.org) for opening times

FORT HILL EARTHWORKS Between Serpent Mound and the Paint Creek Valley is one of the region's most spectacular natural and architectural treasures, Fort Hill. Owned by the Ohio History Connection and operated by the Arc of Appalachia Preserve System, this 33-acre, walled plateau stands exactly where an amazing variety of geological and ecological zones converge. The massive, sandstone-paved, Hopewell-era earthwork (ca. AD 200) stands today within a huge nature preserve, amidst one of the largest oldgrowth forests in the Midwest.

The park is a remarkable convergence of ecosystems; rare plant and animal life thrives in conditions which seem, amazingly, to vary from one side of the hill to another. Micro-climates, plus soil and bedrock conditions around the hilltop and in the surrounding ravines, produce a startling variety: most spectacular are the spring wildflowers, and surviving pre-glacial species like the Canadian White Cedar. The steep hillsides, the earthworks, streams, gorges, and dense old-growth forest can be explored along 11 miles of hiking trails, of varying length and difficulty, all diverging from the peaceful picnic area, just above the museum.

# Fort Hill Museum 2 Picnic Area 3 North Gate 4 Pond 5 East Gate 6 South Wall 7 Circular Earthwork 8 Baker Fork Gorge The site's GPS coordinates are: 39122193 N, 83,396375 W; the address is 1634 feathers in 1634 feathers

### THE FORT HILL MUSEUM A

small museum presents the geology, zoology, and archaeology of the site. Exhibits portray the remarkable fact that four of Ohio's five major geological zones converge here: the Till Plains, the Glaciated Hills, the Unglaciated Appalachian Plateau, and the Lexington (or Bluegrass) plains coming up out of Kentucky.

Other displays explain the diverse flora (especially flowers and exotic plants) and the conditions that support them, plus the fauna (especially birds) of the area. Model reconstructions depict the ancient "arbor" underneath the earthen ring, and the large ceremonial building, both discovered in the 1950s in a meadow just south of the site.

**THE PINIC AREA** Home base for Fort Hill hiking is the beautiful picnic area, with its tree-shaded parking lot, small stream, and



well-proportioned stone and timber structures, erected here in the 1930s by the Civilian Conservation Corps. These and similar structures at other archaeological sites were part of the public outreach and facility enhancement initiatives by Henry Shetrone, the former newspaper reporter who was then Curator of Archaeology at the Ohio History Connection.

From here the various trails diverge: The Fort Trail heads south, from where it offers good views of the earthworks from below as it approaches the southeastern Gateway. Beyond that, the long, strenuous Gorge Trail leads to stone cliffs and arches, and a picturesque log cabin shelter. Leaving directly from the edge of the parking lot, the Earthwork Trail makes the steep, 360-foot vertical climb to the northern

> "prow" of the plateau, encircled by the North Gate of the earthwork.

**NORTH GATE** Near the top of the steep Earthwork Trail, the pathway becomes strewn with huge sandstone blocks and passes through one of the earthwork's 33 gateways. Inside, the natural plateau comes to a sharp point, with the earthwork rimming it on three sides. These giant walls were built nearly 2000 years ago, to enclose the entire level hilltop with a system of ditches, walls, pavements, and gates. This halfmile perimeter includes three other especially dramatic "prow" shapes, like this northern one.

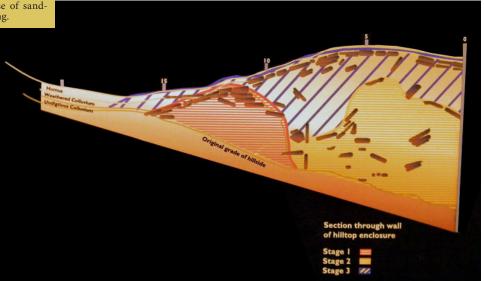
WALL CONSTRUCTION Giant oldgrowth trees now cover the Fort Hill earthwork. Tangled among their roots are masses of now-broken sandstone slabs, once part of an elaborate construction process. Retired Ohio History Connection Curator Martha Otto explains:

There was work done there in the 1960s to investigate a section the wall, and to determine that there was a inner core of blocks of stone in kind of a triangular shape, and then, to provide the ballast for the wall itself. So it wasn't just a bunch of earth piled up, but there was an intentional plan for making sure that the wall would be secure and stay in place. In fact, it has for two thousand years.

Two parallel walls were built, around the rim of the plateau, with both earth and stone. Then both were capped and unified by the final layer, up to 15 feet high, and surfaced with carefully shaped and fitted sandstone slabs, taken from the top of the plateau.

A sunlit contour model of Fort Hill adorns the entrance to the site's museum.

The ancient walls were built in three stages, and made extensive use of sand-stone for both ballast and paving.





April is the time for wildflowers at Fort Hill; over 800 plant species have been recorded within the 1200 acre nature preserve.



**POND AND EAST GATE** A rugged trail follows the eastern flank of the earthwork and approaches near a large pond, often brimming with frogs and distinctive plant life. Beyond, the eastern prow of the earthwork is marked by a cascade of worked, sandstone slabs, one of the best spots to appreciate the extensive role of stone in this architectural design.

To appreciate the scope of this achievement, stand at the edge of the natural plateau and look down the slope into the ditch: imagine that surface continuing down the hill. Everything standing before you is a massive construction of earth and stone.

**SOUTH WALL** The Earthwork Trail follows the long western flank of the hilltop, with several especially prominent gateways, before the sharp turn at the southwestern corner (the trail

drops through here to descend and meet the Gorge Trail). The especially monumental southern flank of the earthwork overlooks the trails below, and culminates in another projecting "prow" to the southeast, aiming out towards the park's southern meadow, where ancient ceremonies and workshops were located.

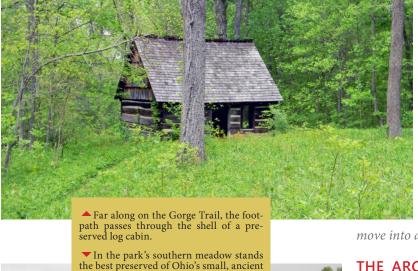
Like other Hopewell-era hilltop enclosures, there is no evidence of warfare, or defensive requirements. Instead, this artificially-encircled hilltop was about some other purpose.

**CIRCULAR EARTHWORK** Below the southern prow of the earthwork, the park's trails diverge. A piece of Ohio's Buckeye Trail (a system that criss-crosses much of the state) heads south and opens out into a meadow, with a large barn. To the right lies one of the ghostliest treasures in all of Ohio – visible on Google-Earth, and still here, at the edge of the meadow. It is a beautifully preserved, ancient earthen ring. This is probably the best kept of the several hundred that were recorded during the 19th century.

It was partially excavated by Ohio History Connection archaeologist Ray Baby in 1953. His exploratory trenches revealed a double ring of posts, 174 feet in diameter – he called it an arbor. A possible reconstruction, as well as details of Baby's excavation work, is presented in the site's Museum. With its posts in place, such a ceremonial courtyard would resemble the circular "dancing floors" used in contemporary Indian rituals.

A few hundred feet to the southeast from the ring (though not visible today) is where Baby also found evidence of a large rectangular building, 120 feet long with rounded corners. It suggests other known Hopewell-era Ceremonial Halls, like those at Liberty and Seip. The prepared, two-thousand-year-old floor was littered with broken pottery, stone tools, and flint chips; pits were filled with the debris from flint-knapping. The museum's reconstruction model shows a structural framework of buttressed tree-trunks, set in the ground, and covered with sheets of bark or skins.

BAKER FORK GORGE The Gorge Trail branches off the Fort Trail beneath the south-eastern prow of the earthwork, and winds down into the deep, limestone crevice created by Baker Fork. The plant life changes to those favoring these sheer rock cliffs. The trail climbs and descends several promontories, offering views of the river and rock formations from



both above and below. Tree-roots cling to clifffaces high above stone arches and waterfalls. The trail follows the river all the way around the base of the earthwork's hilltop. At points the steep, human-made rim of the hilltop is visible high above. The trail passes through the shell of a preserved log cabin, before returning to the museum and parking lot from the northwest.

Meanwhile, the Deer Trail cuts additional loops farther into the forests, across Baker Fork, and among the nearby ridges and ravines.

HIKING FORT HILL Fort Hill is an amazing experience, and a well-kept secret. The combination of adventurous hiking, glorious scenery, and ancient earthen architecture is unparalleled. Both the architecture and the distinctive ecosystem are exceptionally well preserved. Arc of Appalachia Director Nancy Stranahan explains:

The trees are magnificent, large; the ravines are true primeval in quality. I'm careful to throw out the word "sacred site"... but I will tell you this, when I walk up into Fort Hill, I feel a living presence. But I am not alone, there are many, many

people who trek those trails and they come back and they just go, "I don't know, but wow." And when you look out over those hills from the lookouts, and you just see curve after curve of hill intersecting in the blue, something happens.

When you get up to the top of the Fort itself and you look out of the lookout and you see the immense, immense, incomprehensible work that it took to create these earthen walls, on top of a ridge, you kind of go into a state of disbelief, and you

move into awe and wonder.

THE ARC OF APPALACHIA Between Fort Hill and Bainbridge, you will be among various land holdings that comprise the Arc of Appalachia Preserve region: protected forest lands filled with springs, caves, rare plants, and surprising rock cliff formations. Their head-quarters is at the Highlands Nature Sanctuary and the Appalachian Forest Museum (7660 Cave Road, Bainbridge, 937-365-1935).

Since 1995, the Arc has been acquiring and reuniting south-central Ohio forest lands for preservation – with the help of many dedicated supporters, donors, and volunteers. The efforts have steadily grown. Arc Director Stranahan:

The miracle is how many people rose to the vision. I would say probably about 1000 households are what have put the sanctuary on the map. And we have about 2000 acres here, and about five years ago the Highlands Nature Sanctuary idea spread to thirteen other preserves. We now have fourteen preserves in a five county area in southern Ohio, helping to keep green in Ohio's future for our children's children's children. We either do it now, or it's not going to happen.

THE FOREST MUSEUM A new museum at the Arc's headquarters was completed in 2010. Its mission is to tell the story of the eastern broadleaf forests of the US, now torn into tiny shreds by settlement, agriculture, and development. That huge single forest is an idea people need help to understand, to identify with, and to help preserve. Stranahan explains:

This is one forest. The Temperate Broadleaf Forest covers the eastern third of our continent. That biome is the most disturbed of the earth's fourteen biomes: more in peril than the tropical rainforests, even the Boreal forest, even the prairies. So this incredibly disturbed system world-

wide is one we want to bring citizen awareness too.

The Appalachian Forest Museum is a place where in fifteen minutes we're going to get this concept across to people: that they belong to something, that it is special beyond measure, that much has been lost, and it is our job to restore, connect, and reunite.

**ROCKY FORK GORGE** From its museum and headquarters on the rim of Rocky Fork Gorge, The Arc of Appalachia Preserve System runs educational programs, rents out historic lodgings, and encourages land stewardship and preservation. Its scenic hiking trails are a popular destination:

The Rocky Fork Gorge is a 100-foot deep vertical walled limestone gorge, with a very clear river running through it, and it has phenomenal rock formations. It's the second densest cave system in Ohio. And then there are all kinds of rock formations: big boulders midstream, tipping

boulders that you're walking underneath, so it's a labyrinth of rocks that's really beautiful. But in the summer you're getting tremendous bird life, animal life. For avid hikers there's back country trails that also go out to other sections of the Rocky Fork Chasm – we actually have fourteen miles altogether.

THE ANCIENT FOREST These preserved nature sanctuaries sit among spectacular ancient earthworks: not only Serpent Mound and Fort Hill, but also the huge geometrics of the Paint Creek Valley. Stranahan talks about how the ancient earthworks and their builders add meaning to this spectacular landscape legacy:

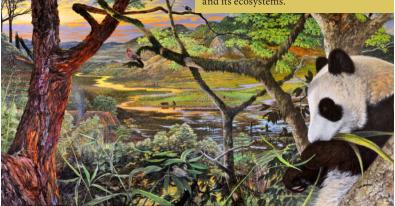
We know their presence. We feel the honor and the obligation to take care of the land and maintain the landscape. For these people it wasn't a postcard, it wasn't a nature preserve, it wasn't wilderness, it was their home. It was their community. They were part of that tapestry. Our organization is partly here because of the inspiration of the people that came before us. We want to not only maintain the memory of those people, and the history of those people, and the speculations of what they might be able to teach us if they were here today, but we also want to maintain their landscape.

Here where we live, in the Paint Creek Valley, we really feel like we live in the Valley of the Kings. Everywhere we go, we're walking in their footsteps.



▲ Giant old-growth trees make for beautiful hiking and wildlife habitat all seasons of the year.

▼ Murals in the Arc of Appalachia's Forest Museum depict the temperate forest and its ecosystems.





THE PAINT CREEK VALLEY Bainbridge marks the western end of the beautiful Paint Valley, which in antiquity held an especially close concentration of geometric earthworks, including Seip, Baum, and along its northern fork, the spectacular Hopewell Mound Group. At the valley's eastern end, a tight passage (at Slate's Mills) leads into the historic city of Chillicothe.

The town of Bainbridge may be best known as the birthplace of modern American dentistry: the story is told in a small, white house, the Dental Museum, on Main Street.

**SEIP EARTHWORKS** Just outside of Bainbridge to the east lies Seip Earthworks, where the large mound is a faithful reconstruction after extensive excavations. Beneath the mound lay the post mold pattern of a huge, multichambered timber building, with a precise, perfectly symmetrical, temple-like floor plan almost identical to another at the nearby Liberty Earthworks south of Chillicothe.

Elaborate, pearl-drenched burials and beautiful oversized effigy smoking pipes were found. Today visitors pass between two small segments of the surrounding geometric wall, which originally consisted of two large circular segments and a perfect square. From the top of the mound, thanks to new landscape work by the National Park Service, one can well imagine the surrounding earthen walls, and their spatial relationships with the long, enclosing valley, which forms a natural amphitheater around the

earthworks.

A community of perhaps two hundred people used this site over several generations as a civic and ceremonial center. Over time they erected two great halls, several specialized buildings, and the huge enclosure. The square may have been used to monitor the movements of the sun. And this three-part pattern suggests a relation between the community at Seip and the people at four similar sites in the region.

In this case it is not disrespectful to climb the mound and enjoy the view, since it is a complete reconstruction and the graves have all been removed. The view opens up to the whole valley including the location of Baum Earthworks, Seip's sister "tripartite" monument, on to the precipitous alum cliff where ancients would have gathered this valuable substance, and the flat hilltop of Spruce Hill Fort.

THE M'SIKAMEKWI The Shawnee people, like other Eastern Woodland tribes, have a special name for a building or ground used for ceremonies: "M'sikamekwi," Big House Framework. The word suits the great hall built here, 113 feet long, precise and symmetrical in its layout, and nearly identical to another at the Liberty Earthworks, nearby in the Scioto Valley. Each of its three sections was apparently used by a different social group within the society. There were probably many activities and ceremonies that took place in here; we know that ritual burning and burial were among them.



and about 250 feet long.

SEIP AND BAUM A few miles east of Seip Earthworks, along Paint Creek, stood a similar earthwork site, also of "tripartite" design, called Baum. Archaeologist N'omi Greber:

One of the remarkable things about Seip, this huge circle, medium sized circle, and big square, is that within practically eyesight there's another very large earthwork that has a very similar design, and they are in a sense mates; but the land within and around them was used somewhat differently. However, they

look as if they had been designed by the same architect, and possibly made by the same engineering crew. It's remarkable to have two such huge, it's like having two great cathedrals next to each other, but perhaps one being St. Joseph, and one being St. John.

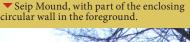
BAUM EARTHWORKS Baum lies exactly where the valley seems to close up, 4 miles to the east from Seip. The Baum earthworks were across the river from the village of Bourneville, and traceable on aerial photos as late as the 1980s. Today they are invisible from ground level, and yet it is still possible to admire the Hopewell genius at marking out monumental geometric figures within the space of these lovely hills, and to wonder at their placement of two such similar complexes literally within sight of each other along the river.

THE TRIPARTITES The Seip Earthworks, and nearby Baum, are two of five so-called "tripartite" designs in the vicinity: together with Liberty, Frankfort, and Works East, they make a remarkable series. Huge, precise circles and squares are used throughout the Hopewell World, but this set shows the ancient architects at their most advanced.

Each one has a large circle, a larger circle, and a large square, though in a different arrangement. All the smaller circles were eleven acres. All the squares were twenty-seven acres. All the big circles were forty acres. These repeated dimensions tell us that the ancient architects had precise, well-refined techniques of design, measurement, and execution.

The different units of enclosure may have been for specific clans, or ceremonies. Align-

View from the top of the large, reconstructed mound at the Seip Earthworks, toward Baum and Spruce Hill





THE GREAT TOMB Most people buried on the floor in Seip's hall were cremated first. Among the few to be laid out unburned were four young adults and two infants, placed together in a large common tomb and surrounded by thousands of freshwater pearls.

One theory suggests that one among them was a vital leader, whose death required that the others be sent to their deaths, too. This grand burial may have been the last at the M'sikamekwi, for the tomb was marked twice after the building was dismantled and mounding began. On three feet of clay, five oversized pipes (brought from far away) were offered, perhaps as guardians. Many feet higher, on the primary stage of mounding, a printed fabric canopy was pegged down over the tomb's location. More earth was added to create the final memorial, 32 feet high ments and gateway positions were likely related to sun- and moon-rises on the calendar.

Archaeologist Warren De Boer speculates that these exactly duplicated shapes correspond to traditions of "winter" and "summer" houses, which in historic Indian times are round and square respectively. And the three-part composition corresponds to the Big Houses. One new feature here is the openings in the walls of the bigger circles: this, and the more complex com-

ANCIENT STONE WORK THE VILLAGE OF BOUR Spruce Hill Fort, Squier and Davis Drawing, with detail (below) of its gate-▼ Four of the five "Tripartite" earthwork designs, including Seip (lower left) and Baum (upper left).

binations, suggest new social patterns. Because of their precise correspondences, they may be the latest of all the Hopewell-era geometric enclosures.

SPRUCE HILL FORT Atop the steep, prominent hill just east of the Baum site lies Spruce Hill Fort, a stone-walled hilltop enclosure even larger than Fort Ancient, and just recently acquired and placed under the management of the Hopewell Culture National Historical Park. Access is via a steep climb from its eastern flank, along Black Run Road, which may be arranged by contacting the Arc of Appalachia Preserve for a permit (937-365-1935), or checking in at the National Park's headquarters at Mound City (or its web site) for the times and dates of periodic ranger-escorted tours.

The arrowhead-shaped hilltop juts prominently out to the north, 360 feet above the Paint Valley. It was named in the nineteenth century for a prominent stand of hemlock trees, along its rim. The 140-acre, level hilltop was ringed, between the years AD 1 and 400, with a low, stone-covered wall.

Magnificent views of the valley extend in all directions. In antiquity, this would encompass the string of magnificent geometric earthworks: Bourneville, Baum, Seip, and more – their freshly-cleared geometric outlines punctuating the

length of this beautiful valley to the west and north.

## FLAMING SPECTACLES

Most intriguing at Spruce Hill is the evidence of intense, super-hot fires, a kind that can only be created in enclosed chambers. Park Service Ranger Bruce Lombardo explains:

We find chunks of soil where they were heated so hot the sand crystals melted and re-crystalized, and made things that look like clinkers you'd pull out of your coal furnace. To get those temperatures, to melt quartz, to melt sand, is about 1100 degrees Celsius, and that's far beyond what can be achieved in a typical open fire.

So, how did it happen? Well, in the 1930s, Emerson Greenman, Ohio Historical Society archaeologist, did an excavation up at Spruce Hill. He mentions finding chunks of

baked clay that have the impressions of logs on them, and where those log impressions are in the clay, the surface of the clay has been vitrified, has been melted and glazed.

The log impressions show a criss-crossing pattern, meaning there was some kind of a stacking system: giant pyres made of wood, and rock, and clay. And as the wood burned out, open cavities would form.

Well you're up on top of a drafty ridge, a very good wind, and these open spaces now may have acted as flues, as drafts. And inside those pyres, you may have reached temperatures where you melted sandstone and quartz.

Massive bonfires atop this prominent plateau would have made for an impressive spectacle, visible from all the major ceremonial centers in the Paint Valley and its tributaries.

# VIKING FORGES? We now know that the



▲ Baked clay from Spruce Hill imprinted with a criss-crossing log pattern.

▼ A Virginia-style mansion stands at the edge of the village of Bourneville, once anchoring a huge estate.

Hopewell did a lot of intense burning, at many of their sites. But the early fame of Spruce Hill was based on other theories: legends about "Vikings" or other Iron Age Europeans, forging implements here. Bruce Lombardo:

When the first settlers came to this area, in the late 1700s and early 1800s, they found this plateau with evidence of intense fires on top, and things that looked like clinker, or slag, that would have come out of a blacksmith's furnace. And so they naturally started to think: Well, these were iron forges up here.

And then, a particular author named Arlington Mallory, in the 1940s, heard about this. He had been looking for evidence of Iron Age European intrusion into North America. And he actually predicted the Viking settlements that were later found along the coast of Nova Scotia and Labrador. But he predicted they came all the way into Ohio. And he wrote a book called "Lost America," claiming to have found evidence of Viking forges on Spruce Hill. And there's no evidence at all of Iron Age Europeans anywhere in Ohio, let alone Spruce Hill.

# Park Service Archaeologist Bret Ruby continues the story:

Mallory was a really interesting character. He was a metallurgist, a bridge builder, an iron engineer, a Naval officer; he had a wide-ranging career. He came here with the express purpose of trying to demonstrate a connection to the Vikings here in the Ohio Valley. He created quite a stir, and there was a whole spate of newspaper arti-

cles about these claims that he had found Viking iron furnaces, and Viking graves, atop Spruce Hill, and it really caught fire in the local community. And so those legends still are out there today.



the valley near Bourneville stand several very grand old mansions, some built of brick and some in the local Waverly sandstone. Their architectural features and proportions derive from 18th century Virginia, reflecting the architectural tastes as well as the agricultural practices of their builders. These wealthy, post-Revolutionary War landowners in the new "Virginia Military District" ran vast estates, often with indentured servants, and sent their abundant crops and livestock to market in the nearby economic hub of Chillicothe.



# HOPEWELL MOUND GROUP

3½ miles west of downtown Chillicothe, turn northwest on Anderson Station Road where, after 2½ miles, a large open field on the right is the site of the brilliant Hopewell Mound Group. For its astonishing complexity and spectacular artifacts, this became the "type site" of the entire culture, as defined by archaeologists. Walls and ditches enclose 127 acres.

About

Though subtle today, the wide profile of the large, 3-lobed mound (re-arranged after excavations) can be detected in the open field; a new trail leads to the surviving walls and ditches still intact across the hilltop to the north. These still retain water as was likely intended by their makers, an effect similar to Fort Ancient. To the east, near the parking lot, is a perfect square.

This was probably the Ancient Ohioans' most revered sanctuary. The huge enclosure contained many rings and mounds, some probably of earlier Adena origin, and some still being discovered by the National Park staff's remotesensing methods.

Although this is the Hopewell "type site" (that's why a brilliant culture was named after Mordecai Hopewell's 1890s farm), it is anything but typical: It is the largest of the geometric enclosures. It contains the smallest, and the larg-

HOPEWELL MOUND GROUP MAP

est mounds. The most spectacular burials were found here, and the most astonishing deposits of precious objects.

**THE RED SQUARE** Some time after the huge yet irregular enclosure was built, the Hopewell laid out a huge, perfect square, to the northeast. As at other sites nearby, the soil of the quare was noticeably red. Dr. Edwin Davis, in 1845:

The wall of the square is wholly of clay, and its outlines may be easily traced by the eye, from a distance, by its color... That [the walls] have been subjected to the action of fire, is too obvious to admit of doubt.

THE CEREMONIAL CENTER In the open, level center of the site, the builders planned their largest ceremonial space. First, they scraped away grass and earth to reach a clay layer. They mixed clay and water to create a very hard floor surface – it's been called "Hopewell concrete!" No one yet knows what features were built here first, but over several generations, people were performing ceremonial rituals here. They dug pits and built fires. They covered certain areas with stones or multi-colored clay. Buildings large and small were erected here, to shelter or enclose the ceremonies.

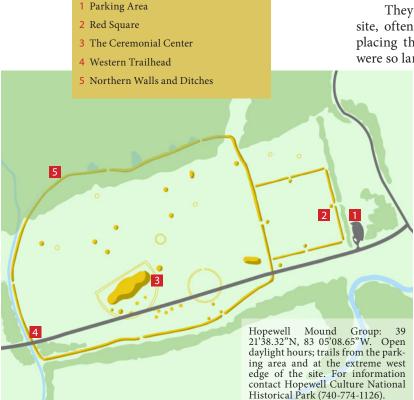
They brought many precious things to the site, often breaking and burning them before placing them in ritual deposits. Two of these were so large they are called "The Great Depos-

its." And, people were buried here: 102 in all, just within this single, ceremonial space.

# BURIALS, SOCIAL STRUC-

TURE The people buried at the Hopewell Site's ceremonial center were attended with the fullest ritual and care. The early archaeologists' records, and the artifacts, tell us much about the people, and their ways of life and death. Some of the burials were first burned in another location, then the remaining ash and bone swept together and re-deposited here. Most were buried unburned, though, stretched out in log tombs.

Inside buildings, some of the tombs were covered with mounds. It's possible that burying, mound-





Hopewell Mound Group reconstruction, showing its composite design: part geometric, part hilltop, part irregular, and with many mounds and interior enclosures.

Abstract shapes were made of ham-mered copper, brought here from northern Michigan.



ing, burning, and depositing precious objects were all going on at once: a concentrated mix of human effort and vision with the elements of earth and fire.

About eighty of the graves under the Great Mound at Hopewell were in three large groups. These may have been kin groups, or clans, each with a respected place in the community. The nonperishable metals, stones, bone, and shells that survive were distributed widely, suggesting that there was not just one single, important person here.

Each of the three groups included a few leaders, a larger number of people with some importance or special duties, and others without any particular prestige. And, with plain graves right next to elaborate ones, it seems that there were not strong class divisions. In many societies, only the most powerful would be buried within such an important ceremonial center.

# DAZZLING ARTISTRY

Flat hammered copper shapes were found piled on top of one low mound in the ceremonial center. People may have worn them here

as part of their costumes, or carried them on poles or banners, and then laid them down in tribute: maybe a memorial ceremony for the ones already buried beneath. The variety is extraordinary. There are copper spools for the

> ears, and bracelets; also natural forms, like fish, bear claws, bear teeth, a deer antler. And, there are abstract forms that may have many meanings.

> A man buried in the Great Mound at Hopewell wore a fabric robe with a colored design, on which were sewn many shell beads and fresh water pearls - and bear teeth, some pearl-studded and incised. This necklace of bear claws, with a fur piece, resembles the ones still worn by certain tribes' Bear Clan members. Teeth and claws may symbolize bravery in hunting, or a connection to rebirth or healing (since a hibernating bear re-awakens every Spring). The man's antler headdress, like others

throughout native history, shows him taking on the spirit of an animal. On his chest, abdomen, and back were copper plates.

The Hopewell seem to have liked surfaces that played with light: translucent, pearly, or reflective. The shiny copper plaques (sometimes called chest plates) were perforated, so they could be hung with sinew, or decorated with shell beads. They might have been meant to associate light or power with certain individuals, or certain parts of the body. For the burial, though, each plaque was apparently wrapped in cloth, as if to contain or protect its power. Then they were carefully laid out: on the chest, on the abdomen, and behind the hips. After many centuries, though, it is the plaques that have protected their wrappings: the corroding copper has preserved the fine design of the fabrics.

SPECTACULAR DEPOSITS On the floor of the Great Mound, the people placed two "great deposits" of objects, many of them ritually broken and burned. Even after two thousand years underground, their beauty and astonishing variety are still clear today. There are some sharp contrasts, or dualities, here: All the obsidian, for instance, was in the eastern deposit; all the pearls in the western one.

Two deposits, left under a small mound near the bluff, were also deliberately different from each other: all the mica was in one, on a square tablet; while all the copper was in the other, on a round disc. To those who left them, the dual deposits probably seemed like two parts of a whole. These signs of unity were placed among the burials, but not connected with any particular ones. They suggest the variety of ceremonies that took place in the buildings, later memorialized by mounds.

Sometimes, mounds covered extraordinary deposits of unworked materials. (At Mound City, for instance, Mound Five was built over a fire basin filled only with thirty pounds of galena – lead sulfide, which they left in its shiny,

> crystalline form.) At the Hopewell site, there were mounds dedicated to mica slabs, and to obsidian pieces. Another mound held over 8,000 flint discs, laid down carefully in two layers, and set in fine gravel. They were in little bundles, each about as many as one person could carry.

> Why were these materials left like this? Were they reserves, for use in another world? Offerings made to people, or spirits? Or some form of thanks to the earth, for its gifts? Whatever their meaning, these deposits show how much the

people valued the rare materials from which shaped thev their most precious objects. Today, you can view the discs in Columbus at the Ohio Historical Center, where many

beautiful objects from this culture

are on display. THE NEW CIRCLE In 2001, a National Park Service team was using their new remote-sensing equipment out near the center of the Hopewell enclosure. One afternoon, a startling image appeared: it was the trace of a long-lost earthen ring and ditch, completely invisible to the naked eye. It was 100 feet across, and perfectly circular, with a gateway pointing east. It is typical of earlier, Adena-



N5140

E4500

Details of a Burial Robe from the Ceremonial Center, studded with copper, pearls, and bear teeth.

This magnetometry image is typical of how remote sensing instruments can detect ancient earthworks now invisible on the surface

era earthen rings, so it may have already been here before the larger, enclosing earthwork was built.

Excavations carried out recently have shown that the earthen ring traced the outline of a huge, dismantled Woodhenge (a ring of timber poles) similar to the one found at the Stubbs Earthworks in Warren County in 1998.

# NORTHERN WALLS, DITCHES

The huge Hopewell Mound Group was a composite design, and encompassed a portion of the undulating hilltop to the north. A path from the parking lot (or along the western rim) climbs to overlooks and trails, among deep forests, where intact earthwork walls and ditches

> dip in and out of small ravines, framing glimpses out over the vast enclosure, and the Great Central Mound.

> In antiquity, we would have seen from here the whole, composite design, centered on the magnificent, triple-lobed "Mound 25" and its distinctive, D-shaped enclosure.

> Other mounds, with their rich deposits, were scattered around. The perfect square aligns toward the northeast, toward Mound City, and Hopeton beyond. Today, this spectacular, sacred site lies in ruins, stretching our imaginations to their limit.



 Digital reconstruction of the Hopewell flint disc collection, in its original building.