# The Ancient Ohio Trail

DRAFT List of Anticipated Topics, January 13, 2010

**Note to readers:** This list reflects collected ideas for media segments that will be included in the Ancient Ohio Trail resources currently under development. A few of these will be created as audio files suitable for drive time while touring the region; most will be narrated videos keyed to site tour locations and available for delivery via various portable media including iPhone. Where appropriate they will make extensive use of our digital reconstructions and animations of the earthwork sites; all content of a visual nature will be visible on screen.

**Contents:**



## Arriving and orientation

**Welcome to "Ancient Ohio"** provides an overview of the aims and structure of the travel experience, and how to get the most out of the media resources and the ways the itinerary and other components are presented; includes quotes on the meaning and benefits of heritage travel.

**Native American Voices** past and present describe life ways in the Ohio Valley region, describing the fertility of the land and waters, hunting the abundant deer, life in the continuous forest and along the rivers, settlements and home life. The aim is to evoke these cultural landscapes prior to the arrival of Euro-Americans in the region.

**Glacial Construction of Ohio Landscape** tells how the Ohio Valley topography was formed many thousands of years ago. The edge of the flat, glaciated region is prominent along a line just west of Serpent Mound, Chillicothe, and Newark.

**Paleoindians** were the first who arrived in this region, as early as 13,000 years ago, living in wandering bands, gathering plants, and hunting. Their distinctive spear points have been found in the bones of long extinct ice age animals like the wooly mammoth. They were skilled stone workers, and discovered the beautiful rainbow-colored stone from Ohio's Flint Ridge, used by their descendants for centuries and still prized by flintknappers today.

**Archaic Indians** lived here from 8000 to about 1500 BC. When the glaciers melted, the tundra and pine forests of eastern North America were replaced by the "eastern woodland" ecology we know today: hardwood forests, with deer and other woodland animals, plus a wealth of nuts, fruits, plants and edible roots.

**The Origins of Agriculture in America.** The "Archaic" people began to plant seeds and tend gardens, making eastern North America one of only a handful of places on earth where agriculture began without outside influence. Compare to other places worldwide.

**The Conventional Names of the Great Ohio Cultures.** How the Adena, Hopewell, and Fort Ancient cultures are described and defined by modern archaeology, where they got their names, and what the overall significant achievements of each were: Adena burial mounds and pottery, Hopewell geometric and hilltop earthworks, and Fort Ancient villages, effigies, and corn agriculture.

**The Plagues Afflicting Native People** between 1492 to 1650, when probably more than 80% of all native peoples died from European diseases within the span of a few decades. Elders died, memories and ancient knowledge were lost; people watched desperately as the old cures failed against the new diseases. All this sudden death may help explain why so little is known today of the ways and beliefs of the ancient earthwork builders.

**Indians in the Ohio Valley** at the time of Contact, were already involved in their own migrations, rivalries, and warfare; tribal names we know of today (Cherokee, Shawnee, Delaware (Lenape), Ottawa, Seneca, Miami) and how they continued to be associated with regional territories until gradually displaced by a series of so-called "treaties."

**Common Building Sites.** Places like Marietta, Portsmouth, and Cincinnati happened because the settlers were quick to build among the earthworks: they were often in ideal spots for water access or for farming. Many were destroyed and many more were cut down by treasure hunters. By the late-1800s, scientific archaeology began to study them.

**Along the Big River Valleys:** Modern farming, graveling, and urban sprawl are still taking a toll on the ancient sites, despite strong efforts by the Ohio Historical Society, the National Park Service, the Archaeological Conservancy, and others.

**Preservation Dilemmas:** Comparisons of Ohio preservation laws and practices compared to those of surrounding states; what citizens and visitors can do to help.

**Native Views on Site Access and Preservation:** Indian spokespersons speak out with a variety of views on public access, preservation policies, and the on-going meaning of the sites to their people.

## SunWatch Village

**SunWatch Village:** On a terrace of the Great Miami River, just south of downtown Dayton, is SunWatch Indian Village Archaeological Park, a partially reconstructed, 800-year-old Fort Ancient era Native American village with an impressive museum.

**Indian Town Life** is portrayed at SunWatch through reconstructions as well as museum exhibits which portray an excellent idea of a "Fort Ancient" period village in the last centuries before European contact

**The Intensive Farming Practices** of the Fort Ancient society, and how corn agriculture (and other crops) supported the development of a more settled, urban, way of life.

**Reconstructed Houses and Poles** at SunWatch, on the remains and post mold locations discovered during archaeological investigations, show the quality of the houses, with their wattle and daub walls and thick thatched roofs, and suggest a remarkable level of comfort.

**The Meaning of "SunWatch"** is derived from the relationships among pole locations, certain house doorways, and the positions of shadows cast by the rising sun at different times of the year, apparently the society's way of marking out a calendar for agricultural and ceremonial purposes.

**Review of Native Events**, gatherings, and ceremonies that are still held regularly at SunWatch Village, including festivals and PowWows, with on-camera descriptions by craftspeople, musicians, and participants.

**Mississippian Connections:** Like their contemporaries to the south and west (Cahokia, etc.) the villagers set out fields of corn, beans, and squash along the fertile river terraces, tending them with shell hoes. The corn-based diet pushed out some other wild foods, and made the people more prone to disease, and rotting teeth.

**Village Planning:** Their villages were built around earthen plazas, and sometimes fortified with wooden palisades accompanied by ditches which are often still visible at these sites. Small mounds held the dead, in the plaza, or near the houses.

**Shadows and Time:** At SunWatch village, archaeologists noticed a dramatic event on the shortest day of the year, December twenty-first, the winter solstice, when the shadow of the great central pole fell squarely through the doorway and across the hearth of one of the houses

**Archaeologist Andy Sawyer** explains how on two other days, the shadow falls across other doorways: April 29 and August 20. He notes these as the beginning of the planting and the beginning of the harvesting seasons, the most important dates for horticulturally based farmers.

**Storing Food in Pits:** To keep it through the cold seasons, their corn, beans, and other foods were dried and placed in carefully prepared pits. Lined with prairie grasses and bark, they provided insulation and waterproofing, and also repelled insects and rodents. These pits were often big enough to contain a year's supply of food.

**Ways of Preparing Corn:** They probably ate very little fresh corn. Instead, the corn was dried, and then when they needed it they pounded the dried kernels to powder or ground them up with a stone mortar

and pestle. Ground corn was used in making mush, stews, and breads (still available in regional restaurants!).

**Why Call this Culture "Fort Ancient"?** The first village of this type that was identified by archaeologists was actually inside the walls of the much older hilltop enclosure called "Fort Ancient." At first, the scientists thought the village was the same age as the enclosure. Even when they discovered the mistake, the name stuck.

**Overlaps with Europeans:** In the very last archaeological layers of some Fort Ancient sites, European trade goods have been found, suggesting that the people of this culture were the ancestors of historic tribes of Indians, most clearly the Shawnee.

**Shawnee Historic Preservation Officer** talks about the continuities and discontinuities between the archaeological record at such sites, and the European historical record, and the complexities of the contact period.

## Dayton and nearby sites

**Dayton: Carillon Historical Park** contains relocated historic settlement buildings and an interpretive center, and at the top of the steep bluff behind them are the scant remains of a hilltop enclosure that once circled much of the Calvary Cemetery property.

**Dayton: Calvary Cemetery** stands atop the steep bluff overlooking downtown Dayton and the I-75 Great Miami River bridge. Remains in the woods of the undulating hilltop earthwork (shown by Squier and Davis, Plate VIII, No. 4) are accessible by a short, rugged hike from behind the Nash family obelisk, just off the northernmost cemetery drive.

**Dayton: American Aviation:** While in Dayton, also explore the Wright Brothers historic heritage, and the National Air Force Museum. the Dayton Aviation Heritage National Historical Park (16 South Williams Street, Dayton, Ohio 45402) commemorating the legacy of local bicycle makers and flight pioneers Orville and Wilbur Wright.

**The Village of Springboro:** A walking tour of this small town, including its historical society, includes many houses identified as stations on the Underground Railroad. As many as 4,000 slaves came through Springboro on their flight to freedom. (The Null Log House, built in 1798, with a hiding area in the basement.)

**Springboro: the Jonathan Wright House** was built for the town's founder in 1815 and has one of the most authentic slave hiding places in the state. It is now a Bed-and-Breakfast.

**Yellow Springs** is a picturesque college town and former spa, with a distinctive cultural life and history, plus excellent recreational opportunities including hiking and bike trails, waterfalls, a covered bridge, and a mound.

**Clifton Gorge,** a three-mile-long canyon of the Little Miami River sheltering rare plants and wildflowers, was once named by *National Geographic* as one of the nation's 50 most beautiful places.

**The Clifton Mill** is one of the nation's oldest and largest water-powered grist mills, one of several built here early in the 1800s to harness the gorge's rushing water. The Millrace Restaurant, in the historic structure, serves traditional foods including home-ground cornmeal mush.

## Pollock Earthworks

**Cedarville:** Indian Mound Park just west of Cedarville contains the Williamson Mound and Pollock Earthworks [** Worth a Detour]. The large, Adena-era mound stands atop a hill and affords sweeping views across the upper Little Miami watershed.

**Pollock Earthworks:** At the end of a 600-foot forested trail, a series of Hopewell-era earthen walls and gateways appear, where, through 20 years of systematic study, archaeologist Robert Riordan has discovered an elaborate construction sequence:

**Pollock Construction Sequence:** The stone and earthen gateways were briefly protected by a high wooden stockade, which was then burned and buried by its builders. On its other three sides, the plateau is surrounded by often dramatic, sheer stone cliffs. Dr. Riorden explains how this was discovered.

**Pollock Rock Shelters:** Wooded trails lead past rock shelters where many ancient remains have been found, and among evidence of early 20th century quarrying and abandoned industrial waterworks.

**Pollock: Dr. Riordan** illustrates how modern archaeology is a very meticulous process. Deciding where to dig is done with great care, since it is rare that an entire site can ever be excavated. Trenches are laid out on an exact grid. Layers of soil are removed very carefully; and everything that's found is recorded: drawn, photographed, numbered, tagged, stored, and dated.

**Pollock Stockade and Northern Wall:** The huge timber fence, or stockade, was set atop the earthen wall, and out along the northern bluff. Perhaps at that time, these crescents and small mounds were added to enhance the entrances, but we only know about these from old, uncertain maps.

**Pollock Burning and Burial:** The fence was destroyed by a big fire, probably set on purpose. Dr. Riordan found that soil had been piled on the burning timbers while they were still hot enough to bake the clay red. This was a common pattern for these people: building was followed by burning, and then covering the remains with earth.

**Pollock Modern Uses:** This was farm land until the 1960s. An old paper mill used the stream, and built big holding ponds down below to try to reduce their pollution. Just outside the ancient gateways there was a limestone quarry, where blasting marks are still visible, along the southern cliff.

**Pollock Crescents:** The four crescents on Squier and Davis' plan are now only a mystery. Architectural historian John Hancock talks about major discrepancies in the early drawings of this set of features, and how early site surveyors probably made guesses or fanciful recollections in the process of redoing their work, and how this relates to our visualization dilemmas today.

## Lebanon and vicinity

**Lebanon:** In the historic center of Lebanon are well-preserved, tree-lined downtown streets are many cafés, antique and specialty shops, and other amenities including a museum, a scenic railroad excursion, and historic houses.

**The Golden Lamb Inn:** Dating from 1803, the legendary Golden Lamb Inn is Ohio's oldest continuously operating business. Its 18 guest rooms have many stories to tell, and the large restaurant

serves an excellent American menu. On weekends, a scenic railroad tour embarks from the nearby station for Mason and Monroe.

**Glendower Estate:** Two blocks from the Golden Lamb is one of Ohio's finest Greek Revival mansions, open as a museum: "Glendower" was built in 1840 for one of the framers of the state's constitution, and has exceptional architectural details.

**Waynesville:** Clustered along its well-preserved Main Street are many antique and specialty shops. The Hammel House Inn was built in 1817 and 1822, replacing an even older tavern on the same site, along one of Ohio's earliest thoroughfares, between Cincinnati and Columbus.

## Fort Ancient

**Fort Ancient:** From the high bridge that carries Interstate 71 across the Little Miami, we can look to the south and see Fort Ancient. The 2000-year-old earthen wall is still visible, even from here, on its bluff above a narrow gorge of the Little Miami River.

**The earthwork** surrounds the hilltop, enclosing about 100 acres. The southern plateau was ringed first, then connected by a passage to a larger area to the north. Three monumental gateways develop a theme of walls, gaps, and mounds, in different combinations.

**The North Fort** contains a new museum and period garden with a reconstructed Hopewell house, plus the site's highest walls (east) and deepest walled ravines (west). Four stone-covered mounds form a perfect square, with astronomical alignments that inspire a sunrise festival here every June 21.

**The older South Fort** is entered via an impressive narrow gateway, with nearby mounds, crescents, and pavements. The site's most dramatic feature is the monumental South Gate, reached by a forested pathway. Remains of an almost-continuous necklace of ancient, clay-lined ponds are visible inside the walls and between the gateways.

**The steep wooded gorge** of the Little Miami River, passes an old schoolhouse structure on the right, and crosses the river. At the top of the bluff on the other side, the road passes directly through one of Fort Ancient's 67 gateways and enters the broad, open North Fort.

**The Twin Mounds** signal one of the three grandest gateways and the start of the long parallel walls that stretched to the northeast.

**Steep ravines** along the western edge of the North Fort are some of the deepest and most dramatic at the site, reached by rugged trails. The ancients designed their earth walls to cross these gullies and create ponds.

**Stone paved rings** survive in the woods near the museum, are examples of other patterned pavements in other regions of the site; archaeologist Ted Sunderhaus explains how there were discovered.

**The slim neck** leading toward the older South Fort is punctuated by beautiful earthen crescents, and culminates in the tight, impressive Great Gate. Just beyond here are a mound and more stone pavements.

**The South Gate** can be reached by a pathway beyond the large parking lot in the South Fort. Remains of the stone-paved avenue from that elevated gateway down to the river can be found among the underbrush, as can the stone coverings on much of the walls' exterior surfaces.

**Clay-lined ponds** form an almost-continuous necklace parallel to the walls. Dr. Robert Connolly explains how the ancients were designing with systematic and complex combinations of earth and water, symmetry and rhythm, ramps and passages, in order to create this vast ceremonial enclosure.

**Views of the Little Miami River** and its gorge from the western corners of the South Fort remind us of the special prominence of this location, and how important it must have been to create an elevated sacred place with such a strong visual tie the river below.

**Parallel Walls** extended across the level field to the northwest from the Twin Mounds, following the subtle ridge; traces are still visible on aerial photos. In this vicinity craft shops and material caches from the time of the earthwork builders have been discovered, containing flint, obsidian, and copper.

**Lindesey Brine's** nineteenth-century account of reported extensions of these parallel walls heading off in several directions, suggesting similar intentions as those near Newark or Chillicothe.

**Kern Serpents:** About a thousand years after the walls of Fort Ancient were built, two small serpent effigies were laid down in the valley on the other side of the river; on the summer solstice sunrise, a pole standing at this serpent's head casts a shadow along its body.

**The Moorhead Circle,** just discovered in 2007, resembles the Stubbs Woodhenge; Dr. Riorden describes the massive deposit of burned soil at its center, and the array of parallel and concentric trenches occupying much of its interior.

**The paired "Crescent Mounds"** help define passage through the connector or "middle fort". Nearby was a mound that the archaeologist Moorehead called "torch red"; and in several more nearby he found many bodies in disarray, as if thrown in and buried in a hurry.

**The Walls** are up to 23 feet tall, and interrupted by 67 openings. They were faced with limestone outside, perhaps 1/3 of the way up. Soil to build the walls was scraped from the surface of the plateau, or taken from the adjacent ditches or hillsides.

**The construction** of the walls themselves was an enormous undertaking: Moorehead calculated that there were over 13 million cubic feet of earth in the walls alone. That's enough to fill a bumper-to-bumper line of dump trucks from here to Cleveland! And it's estimated that another, equal amount of soil was also moved for other design purposes, like leveling hilltops or filling ravines.

**The North Fort Plateau** was stripped down to the clay subsoil, to make it flatter, and to provide material for the walls. To this day it remains very poorly drained; it is impossible to mow in wet seasons.

**The South Gate:** All three of the major gates have similar features: a pair of mounds, together with ramps passing through a large gap in the walls and between ponds; like the Great Gateway, the South Gate opening was made higher by bringing the walls up, as if mounds were added to the top of the wall.

**Grand Processions** are suggested by the wide paved pathway leading down to the river from the South Gateway: pilgrims, after a long journey, arriving by canoe, then climbing and entering the sacred enclosure; through the wall, past the mounds, and across the water.

**North Gate:** When the northern extension was built, it included a new monumental gateway, to the northeast. Here though, there was a new design idea: The monumental "gateway" effect was translated into a pair of "gate mounds" (Twin Mounds) that now were set outside the wall, rather than on top of it.

**Ponds:** Fort Ancient was designed not only with earth but with water. The earthen walls obviously have the power to enclose space, but water was also part of this enclosing idea: the ditches along the interior were designed to fill with water and become ponds, helping to establish a sacred boundary.

**Site Archaeologist Jack Blosser** describes how, in the 1930's, the Civilian Conservation Corps decided to drain many of the ponds, and unfortunately cut trenches through the openings of the earth wall. Still, there are several ponds that do retain water to this day, as intended by the builders.

**The Foursquare:** Inside the North Enclosure, four mounds form a square, 512 feet on each side. This area seems to have been kept absolutely clean and free of buildings, suggesting it was sacred. From the southwestern mound, alignments through three of the gaps in the wall mark three major astronomical events: the summer solstice (or northernmost) sunrise, and the minimum and maximum northern moonrises.

**The Summer Solstice Sunrise** is captured on film, appearing through the gap in the walls from the stone mound, amidst a gathering of visitors.

**The mounds of the Foursquare** were covered with limestone that had been burned. It was oxidized, red, and crumbly; and the fossils in it had turned white. Huge fires had been set atop these stone-surfaced mounds, obviously for some dramatic, ritual purpose.

**Habitations:** Evidence from the area suggests that many people lived here, over many centuries, during the time the earthwork was being built and afterward (including the confusingly-named "Fort Ancient" culture).

**The western arm of the South Fort** was the primary occupation area for the later societies who lived here. At least off and on, between 1100 and 1550, there was a village here with a wooden stockade around it. These later people also had settlements down in the valley.

**Archaeologist Adrienne Lazzazera** discusses settlement patterns and densities of Hopewell culture, based on her surprising discoveries at the site of the new Fort Ancient Museum, suggesting these settlements were larger than previously thought.

**Were they forts?** Fort Ancient is the largest and most complex of all so-called "forts," but these walls could not have been very effective for defense, since the ditches were on the inside, there are too many open gateways, and the perimeter is far bigger than could ever be defended by the small populations who lived here.

**Time at Fort Ancient:** Archaeologist Robert Connolly discusses how this site was actually used long before the construction of the earthwork, as well as after. For example, we find artifacts here that date to as early as 5000 years B.C., up through at least AD 1200.

**Mounds at Fort Ancient** probably had many functions besides burial, explains Robert Connolly. Instead, they may have been used for signal fires as here in the North Fort, or to mark the entryways of primary gateways into the enclosure.

**Fort Ancient Celebration:** Site Manager Jack Blosser describes the history of Fort Ancient Celebration, and the long-term connections built up among the region's Native American groups and artists who participate.

## Stubbs Earthworks

**Stubbs Earthworks** once stood on the site of the Miami Valley High School near Morrow: one of southwest Ohio's grandest geometric earthwork complexes, and one of the earliest to be destroyed. An irregular mound remains in the school's circular driveway; the school's grandstand occupies the position of the great, ancient Woodhenge.

**A Reconstruction** shows the combined geometric shapes, much like several designs in the Scioto River Valley. These large shapes were combined with a "graded way" to the river, and an unusual "W" shaped feature to the west.

**Salvage Archaeology:** in the summer of 1998, as the school was under construction, revealed important new knowledge about both domestic scale and monumental scale timber architecture: evidence of a wide variety of timber constructions from simple open shelters, to houses, to a huge temple or "woodhenge" made of poles.

**Wooden Architecture:** underground, the investigators found many postmolds, the marks left by poles which once anchored buildings. The patterns showed many buildings here, more than are known from any other site, and also with more variety: both enclosed and open, both round and rectangular.

**Cleaning up the Trash:** Because there's very little garbage, we know most of these buildings were for short term use, probably to house people doing the building, or attending gatherings here. And they cleaned up very thoroughly!

**The Great Stubbs Woodhenge:** Dr. Frank Cowan describes his discovery of this spectacular timber temple in1998: After a trench exposed these postmolds, a pattern seemed clear. Gradually, and his team revealed the whole thing, the very largest wooden structure that we know of for this time period in all of North America.

**Woodhenges in general:** comparisons made with more recent smaller ones, and speculations about their use as dance grounds, or solar markers, or both: This one had 172 timber posts, the size of telephone poles, had been set nearly five feet deep in the ground.

**Woodhenge construction:** Each pole had been put into place along a ramp, and chinked tight with slabs of limestone. Whatever the rituals enacted here, when they were finished, they took it all down, brought in soil to fill the holes, and mounded over the circle with an earthen ring.

**A Serpent?** In the 1920's, a group of enterprising local residents apparently thought it would be good for tourism if Warren County could boast of an ancient snake effigy, like the very famous one in nearby Adams County, so tracing over the remnants of this feature, drawn by Whittlesey a century earlier, they crafted a curling serpent. The School Building

## Little Miami Valley

**The Little Miami Valley** held some of their most remarkable Hopewell-era sites: a large cluster of geometric earthworks near Terrace Park and Milford, including the Turner Works; Foster's, where the ancient earthen walls were deliberately burned; and Stubbs.

**Foster's:** This "a singular ancient work" (Putnam) because he found that the walls were made up of heavily-burned materials: ash, burned limestone and lime, baked clay and charcoal, with stone and soil ovens. Some of the soil was actually vitrified: made smooth and shiny by high heat.

**Milford:** Long before the growth of this eastern Cincinnati suburb, views from this hilltop afforded views of a large array of unique earthwork designs, comprising one of the largest concentrations in the region.

**Turner Earthworks:** Two enclosures were connected by a graded way. There were several mounds, including an unusual cluster laced together by rings of stone. A set of deep fire pits and flues was found beneath one of these; in another, this majestic serpent, made of sparkling mica.

**Dr. Charles Metz,** together with Frederick Ward Putnam of Harvard, investigated at Turner in the 1880's, and found some of the Hopewell Culture's most spectacular artistry: besides the mica serpent a series of figurines and a strange, broken, horned creature.

**The Turner Elevated Circle:** On this steep ridge, an earthen ring was built, and connected by a wide ramp rising from the east. Mounds here contained walls of rounded river stones, and a clay basin with a single unio shell, laid carefully on a bed of sand.

**Graded Way:** An earth ramp or "graded way" was built to join the elevated circle to the large oval on the terrace below. It was 600 feet long and nearly 170 feet wide. Like avenues at other earthwork sites, such as Newark, it was suitable for grand processions.

**Archaeologist Dr. Kenneth Tankersley** describes his remarkable discoveries about the graded way's design as a water control feature, and its resemblance to similar hydro-engineering functions at other Ohio Valley ancient sites.

**Turner's Fire Mound:** Beneath its smoothed floor, this carefully-layered, multi-colored mound concealed many clay-lined fire pits, connected by tunnels to secondary chambers, with flues leading to the surface. A spectacular range of precious materials and artifacts were deposited here.

**Turner's Snake Mound:** This magnificent mica serpent has become a symbol of the Hopewell culture. It was found here, topping a ritual deposit, along with a heavy copper nugget, and a chunk of cannel coal, lying atop a dramatically divided bed of white and black ashes.

**The Mica Serpent:** mica often cloaked ritual deposits. But here at Turner this serpent may have carried special meanings still known in the Woodland Indian tradition: the ancestor of a clan, the sun-related lord of the winds, or the mystic traveler in all the elements of earth, water, and air.

**Newtown:** The Odd Fellow's Cemetery Mound stands at the center of this graveyard, illustrating the practice of intrusive burials by later Indians, and the practice of Euro-Americans taking over prominent mound sites and using them as cemeteries.

**Mariemont:** This beautiful, 1930s planned suburb has street names in its southern residential district (Midden Way, Cachepit Way, and Flintpoint Way) that allude to its rich ancient heritage. Along the Miami River bluff, a large earthen wall remains visible among the trees.

**The Madisonville Village Site:** Archaeologist Bob Genheimer relates the stories of the highly productive excavations, and how this place gave its name to a range of artistic and cultural practices of the late prehistoric period, and the importance of this high terrace location in antiquity.

## Cincinnati

**Downtown Cincinnati.** The art-deco masterpiece Netherland Plaza Hotel is at the corner of Fifth and Race Streets, its 1930s arcade and the newly renovated Fountain Square across the street occupy the position of the huge, elliptical earthwork that once dominated this high Ohio River terrace.

**Dr. Daniel Drake's map:** Most of the extensive geometric earthworks here had been destroyed by 1815, plowed down by the early pioneers, when Daniel Drake made this map of the great ellipse, a long oval, several mounds, and other features.

**William Henry Harrison,** who became US President, remarked that when he first saw this level plain, in 1791, "it was literally covered in low lines of embankments… the number and variety of figures in which these lines were drawn, was almost endless."

**The Cincinnati Tablet:** in a large mound here, a carved stone tablet was found, perhaps a kind of stamp. It had been laid under the skull of the central burial; its abstract shapes have suggested, to some scholars, figures climbing the tree of life from one world to another.

**Urban Monuments:** Like those here today, the ancient earthworks probably brought people together for festivals, rituals, trade, and pleasure; much as the sports stadiums, performing arts centers, restaurants, and galleries that animate the city center today.

**Norwood Mound,** about 6 miles up US 22, near the Mound Café, a small alley slips between two houses encircles the tall, unusually-oval mound. The nearby water tank emphasizes the prominence of this spot, overlooking an ancient, pre-glacial course of the Ohio River.

**The Cincinnati Museum Center,** housed in the architecturally-spectacular train station of 1931, presents excellent exhibits on the history of the area and the archaeology of its diverse ancient sites.

**The tomb of William Henry Harrison** may be visited out along the Ohio River to the east, on the way to Shawnee Lookout Park, an opportunity to review Harrison's history as Indian fighter, settler, leader, and president.

**Shawnee Lookout Park:** The park drive ends beneath a narrow ridge on which the ancient Hopewell built a hilltop enclosure which is still well preserved. Nineteenth-century maps fail to capture the full extent of this site, recently discovered to extend far beyond the promontory itself.

**Miami Fort Earthworks:** Trails lead among the walls and gateways, some in deep ravines, allowing visitors to explore a smaller scaled essay in the undulating architectural ideas used similarly at Fort Ancient.

**Dr. Tankersley's Discoveries:** New evidence suggests the scope of this earthwork may be much, much larger than what's reflected in the 19c drawing, and that much of the construction may have had to do with gathering, conserving, directing, and using water during a time of difficult climatic conditions.

**The Great Miami Confluence Vista:** Beyond the earthwork is one of the most spectacular vistas in all of southern Ohio: this steep isolated promontory looks out over the vast confluence of the Great Miami and the Ohio Rivers, and the wooded hills and fields of three states.

## Great Miami River

**Miamitown,** a small river village with a number of antique shops along its main street.

**The Fernald Preserve,** the reclaimed site of a former Cold-War-era uranium processing plant complex, is now a restored prairie landscape, much as it was at the time of the first Euro-American settlers, with an impressive visitors center.

**Fortified Hill Earthwork** lies on a forested hilltop between Ross and Hamilton on the north bank of the river, with its (unfortunately not accessible) remarkably complex gateway design as illustrated by Squier and Davis (Plate VI).

**The Fairfield Township Earthworks** are in the Rentschler Forest Preserve (along with remnants of the Miami and Erie Canal and other historic features), with a beautiful gateway design, a 100-foot ring embraced by two arcs (Squier and Davis's Plate VIII, No 1).

**The Carlisle Fort Earthworks:** This 3- to 4-foot high earthen enclosure wall was built in the Hopewell era, and encircles a wooded hilltop reached by hiking trails from the south parking lot of Twin Rivers Metro Park just south of Germantown.

**Archaeologist Jarrod Burks** discusses his use of non-invasive geophysical investigations at Carlisle Fort, which is then compared with digital orientation imagery and the on-the-ground experience of walking the site, to identify its features.

**Miamisburg Mound:** In a hilltop park in Miamisburg, near Dayton, is the largest conical burial mound in Ohio, containing 54,000 cubic yards of earth. Artifacts found in the mound connect it with the Adena Culture. Early excavations revealed two log-built burial vaults, one 8 feet from the top and another 36 feet down.

**Miamisburg: View from the Top:** Climbing the 116 steps to the top of the earthwork affords a splendid view of its surrounding 36-acre park, and the Great Miami Valley all the way from its mouth to the southwest, to the tops of Dayton skyscrapers to the northeast.

**Grave Creek West Virginia:** (Comparison) The only larger Adena burial mound in existence is the Grave Creek Mound, in Moundsville, West Virginia, located on the Ohio River 15 miles south of Interstate 70 at Wheeling.

## East from Cincinnati

**Fort Salem Earthworks,** two conjoined mounds together with a 450-foot circular ditched earthwork, recently purchased by the Archaeological Conservancy and restored. Its remote location bridges the two dominant Adena/Hopewell cultural regions – the Little Miami and Scioto valleys.

**Site Owner Bill Bear** describes his stewardship of the Fort Salem site, and its preservation significance: the giant grove of ash trees, the fact that it has never been plowed, the concentration of turtles in the creek below and his idea that the double mound may be a turtle effigy.

**Hillsboro** presents a gem of a Greek Revival courthouse, the once and future opulent Bell's Opera House, and a fine collection of period specimen houses and churches along the main roads north and east from the Square.

**The Appalachian Plateau** rises east of Hillsboro, with the fundamental geological and ecological changes that accompany it. Many of Ancient Ohio's greatest earthwork monuments are clustered along this natural seam, where multiple resources and landscapes could be combined and celebrated.

## Serpent Mound

**Serpent Mound State Memorial** may be the most famous effigy in the world, as revealed through a review of art history, landscape, Native, and other publications and lore from around the world.

**The aesthetic impression** of the site is best conveyed early or late in the day, when deep shadows best reveal its undulating shape and the natural curve of the land. Site interpretation is much enhanced by the old iron tower allowing visitors to get an overhead view.

**The three main coils** which unwind from the tightly-spiraling tail are claimed by some to offer astronomical alignments, as their center lines point to the northeastern positions of the moon and sun at their extreme rising points.

**The head** (or egg, or eye, or the sun) faces the summer solstice sunset during celebrations every June 21, consisting of the great eye, plus features possibly representing the poison glands and the heat-sensing organ.

**Many people and beliefs** about the serpent are represented in the crowds that gather for the summer solstice, including nature lovers, new-age mystics, Native Americans from a variety of groups, earthworks enthusiasts, and others; their interpretations of the place are captured on video. They all share a sense of its sacredness.

**A trail to the right** near the neck leads down to the creek below, revealing how the serpent's designers seem to have mimicked the pronounced head-like formation of the cliff itself, and the undulating curves of the bluff behind it.

**A small museum** interprets the site and its history, maintained by the Arc of Appalachia Preserve System, dedicated to the preservation of the rich nature, ecology, history, and archaeology of the region.

**The large Adena-era mound** nearby indicates this site was important for centuries before the Fort Ancient culture created the effigy in about AD 1100.

**The crypto-explosion crater:** Long before humans were here at all, the vicinity of Serpent Mound was a geological anomaly, likely the result of a primordial meteor strike and crater formation. The serpent's head looks out over the western rim of this 4-mile wide formation.

**Frederick Ward Putnam.** Following his investigations at the site, which began in 1883, he returned to Harvard and persuaded members of Boston society to preserve the serpent, already degraded some by agriculture, and place it into the safe-keeping of the Ohio Historical Society at an early date.

**The snake iconography** resembles Mississippian serpents from the same time period, found on artworks from among the urban cultures farther west; the parts of this creature's head can be compared to drawings of rattlesnakes incised on shells by related Mississippian peoples:

**Serpent symbols:** We still respect and fear poisonous snakes. To the builders of this effigy, the serpent had more meanings, connected probably with the sun's control over the growth of crops, and the cycle of the seasons.

**Construction** of the Great Serpent took place between A.D. 1025 and 1215. The builders scraped soil from the hard subsurface, then marked the serpent's shape with clay, ashes, and stones, before building up the form with mounded earth.

**Squier and Davis** recorded the Serpent in 1846; but by 1860, it was already being reduced by farming and treasure hunters. A review of early drawing, maps, and photographs reveals its earliest encounters with tourists and its everyday neighbors.

**Various Native traditions** and stories are associated with Serpent Mound. Mekoce Shawnee chief Frank Wilson tells one that connects the mound with a ritual of spiritual cleansing, by moving along the creatures seven curves:

## The Arc of Appalachia

**Fort Hill State Memorial** is one of the best preserved Hopewell-era hilltop enclosures in North America. This 1,200 acre nature preserve contains 11 miles of hiking trails to the earthwork and natural features, plus a picnic area and a new museum.

**Arc of Appalachia Naturalist Larry Henry** presents Fort Hill as an astonishing biological island, the largest remaining piece of old growth forest in the region, its hilltop ponds filled with distinctive flora and fauna.

**Fort Hill site features**, reached by a strenuous mountain trail, include specific ponds, wall segments, and gateways, as recorded in early plans and modern visualizations.

**The scenic farmland** nearby is home to many Amish families, often seen in their distinctive horse-drawn buggies. A history of Mennonite settlement in the Ohio region is presented, as well as places to find their cuisine, crafts, and produce.

**The Arc of Appalachia Preserve** is a 3,000+ acre region filled with springs, caves, rare plants, and surprising rock cliff formations. The headquarters near Bainbridge orients visitors to the many specific site locations, to the natural history of the area, and to gorge and cave tours.

**Arc Director Nancy Stranahan** explains why it is essential to tie together the interpretation of nature and antiquity: there were distinctive features in the landscape that brought people here, very early and for very specific reasons.

**Arc Naturalist Larry Henry** explains landscape features of the eastern deciduous forest, from 40 million years ago, through the glacial remnants that were here, and how a unique ecological pocket was created.

**Features include:** besides the caves, rare exposed dolomite, springs, clear-water streams, canyons, and sinkholes, plus ancient trees and Nordic ecosystems that have been here for 14,000 years; plus uncountable numbers of wildflower species.

**The White Cedar** survives here (a rare location outside of Canada) as the "Tree of Life" in Native traditions; its unique presence here in this small tributary of Paint Creek underscores the startling ecological diversity of these Appalachian foothills.

## Paint Creek Valley

**Seip Earthworks and Seip-Preiser Mound.** The large mound at the Seip Earthworks is a reconstruction after extensive excavations. Beneath lay the post-mold pattern of a huge, multi-chambered timber building, with a precise, perfectly-symmetrical, temple-like floor plan almost identical to another at the Liberty Earthworks nearby south of Chillicothe.

**The Ancient Community at Seip:** 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.

**The M'sikamekwi and Great Tomb:** The Shawnee people, like other Eastern Woodland tribes, have a special name for a building or ground used for ceremonies: "M'sikamekwi" meaning Big House Framework. This great hall was 113 feet long, precise and symmetrical in its layout

**Chief Glenna Wallace** of the Eastern Shawnee Tribe of Oklahoma explains the sense of continuity with these terms and traditions among the Shawnee people today.

**Elaborate, pearl-drenched burials** and beautiful oversized effigy smoking pipes were found. Among the few unburned burials were four young adults and two infants, placed together in a large common tomb and surrounded by thousands of fresh water pearls.

**View from the Top of Mound:** One can begin to imagine the surrounding geometric figures, and their spatial relationships with the beautiful Paint Creek valley. Exactly where the valley seems to close up, 4 miles to the east, is a very similar 3-part geometric earthwork, called Baum.

**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, though the location is still defined by farm fields, and the walls and mounds appear on LiDar imagery.

**Dr. N'omi Greber** discusses the placement of these two similar three-part geometric complexes literally within sight of each other along the river valley, and how this proximity was likely related to clan and cult relationships.

**The Tri-partite Earthworks:** Five major earthworks in Ross County were variations on this theme: also Frankfort, Works East, and Liberty, forming the most consistent and complex architectural pattern among the geometric monuments of the Hopewell era.

**Spruce Hill Fort** surrounds a steep, prominent hill just east of the Baum site. The stone-walled hilltop enclosure is even larger than Fort Ancient, and just recently acquired and placed under the management of the Hopewell Culture National Historical Park.

## Chillicothe

**Historian Roger Kennedy** has aptly called Ohio's first capital the "Delphi of North America" no less for its remarkable concentration of Greek Revival architecture than for its status as the apparent birthplace and center of the brilliant Hopewell culture, whose influence was spread across much of the continent seventeen centuries ago.

**Downtown Chillicothe:** Main Street's intersection with Paint Street marks the center of 16+ blocks of remarkable historic architecture, much dating from the time when newspaper publisher Ephriam Squier and physician Edwin Davis collaborated on their *Ancient Monuments* volume.

**Squier and Davis:** The history of their collaboration, from how they each ended up in Chillicothe, to their "day jobs" (newspaper editor and doctor, respectively) to their methods of on-site surveying, to their avid collecting of artifacts, to their role in the early theories of just who the "Moundbuilders" might have been.

**Early public interest** in the mounds was at its peak by the mid-1800s, when Squier and Davis were setting out to survey the earthworks of the entire Mississippi and Ohio river system (80% of which were in Ohio). With support from Albert Gallatin, their work became the first publication of the new Smithsonian Institution.

**Albert Gallatin:** Historian Roger Kennedy discusses the importance of Gallatin, who was among the most appreciative and respectful of all early-19$^{th}$-century American leaders towards Native Americans and the achievements of American Antiquity.

**The Greater Scioto Valley:** A review and description of Squier and Davis' Plate II showing Chillicothe and its many geometric earthworks in the early 1800s, perhaps the most astonishing image of the extent of Hopewell geometric earthwork building in the Ohio Valley region; the various sites are introduced.

**The Atwood House:** Now a Bed and Breakfast run by Bill Hirsch, a former presidential butler, this stately Greek Revival home was built in 1843 by Jacob Atwood, a financier from Baltimore. The façade bricks arrived by canal, also from Baltimore.

**Chillicothe, the name:** The Indian word means town, and many "chillicothes" can be seen on very early maps of Ohio, offering an opportunity to discuss the history of tribal activities, known settlements, and movements in the region from the time of first European contact.

**Tribes in the Ohio Valley:** By 1650, the Iroquois were moving through Ohio, and then other tribes came in from the north and east. The first French and British traders encountered Miami, Wyandot, Ottawa, Shawnee and Delaware (Lenape) people, among others. The largest settlements were usually Shawnee.

**Cultural Continuities:** None of these groups had proven, direct connections with the earthwork builders. But it is clear that all Eastern Woodland Indians share a common heritage, and that the earlier Adena, Hopewell, and Fort Ancient people are among its ancestral sources.

**Tecumseh Drama:** Native cultural spokespersons in Ohio discuss their feelings about the portrayals of persons and events in this long-running and popular outdoor drama; stories of Tecumseh from Indian viewpoints are juxtaposed.

**Chillicothe's Greek Revival** architecture is perhaps the finest concentration in the country, made possible by the combination of the city's aristocratic Virginia origins, and the new wealth from the canal-related business after 1831.

**Many elegant houses** grace the historic district, but in particular, the large Atwood Wilson House at Fifth and Paint Streets, and next door the very distinctive, single-story "Temple of the Winds" or Bartlett-Ritchart-Cunningham House.

**Chillicothe Historian Kevin Coleman** narrates a tour of early commercial buildings along Paint Street between Fifth and Water (the site of the old canal).

**The McKell Library,** part of the Ross County Historical Society Museum contains excellent collections illuminating the city's ancient and early historical pasts.

**Belleview Avenue** climbs out of downtown to the southeast, following part of the original Zane's Trace, one of the most important of Ohio's early (and probably ancient) communication routes.

**Paint Hill House:** Besides the Adena Mansion, this other prime example of an exquisite, stone, federal mansion (built by George Renick, King of the Cattlemen, in 1804, now the Presbyterian Pastor's House) stands near the quarry from which was taken all the beautiful honey-brown Waverly Sandstone used throughout the city.

**From Belleview Cemetery** there are beautiful views out across the valley, the hills, and the city. Old graves tell the early history of settlement here; including a walled plot of the distinguished Renick family.

**Junction Group:** Jarrod Burks describes the use of geophysical surveys for studying nearly-invisible earthworks, such as this cluster of rings and related shapes outside of Chillicothe.

**The Story Mound** is in the northwestern part of town, along Allen Avenue (seventh left off 104 north of Main) at Delano Street. Dr. Bradley Lepper of the Ohio Historical Society tells the story of investigations here and other mounds in the Chillicothe vicinity.

**Adena Mansion and Gardens:** Of the greatest historical significance, this 2000-acre estate of Thomas Worthington, who served in Washington DC as the new state's first Senator. The mansion was designed by Benjamin Henry Latrobe, America's first professional architect (who also designed the US Capitol for Thomas Jefferson), and finished in 1807.

**Thomas Worthington,** like many others who settled the Chillicothe region, was a Virginian, and his grand, elegant house and gardens reflect well the post-revolutionary-war transposition of Virginia aristocratic ideals (minus slavery, notably) into the Ohio Country.

**Architectural Influences:** The house and interiors were inspired by distinguished French, English, and American precedents, and have been largely restored to Worthington's time. Latrobe scholar Patrick Snadon (of the University of Cincinnati) discusses Adena in the context of Latrobe's other domestic designs.

**The Great Seal View:** From the north lawn, the striking view across the Scioto Valley to Mount Logan and its neighboring hills was, according to legend, the inspiration for the Great Seal of the State of Ohio: Roger Kennedy tells the story.

**Historian Roger Kennedy**, on site, describes the connections among Worthington, Jefferson, and Gallatin, whose Pittsburgh factory supplied the glass for the house, and who later oversaw the founding of the Smithsonian and the publication of Squier and Davis.

**The Adena Tea Party:** Roger Kennedy describes the Tea Party in the mansion attended by Blue Jacket and Tecumseh, revealing not only a clash of cultures but their wit and shrewdness in dealing with Worthington.

**Defining "Adena" Culture:** An excavated mound on the estate (now gone) was the source of the defining characteristics of the "Adena" culture; Dr. Bradley Lepper explains how they began to make pottery and erect thousands of great earthen burial structures around the Ohio and its tributaries, showing a strong sense of community..

**Adena's new Museum** and Education Center interprets the life and history of early 1800s Ohio, and the details of its founding as a state, as well as providing access, admissions, and amenities for visitors.

**Adena Hopewell Interactions:** The later Hopewell cultural practices overlap with the Adena, both in years and in territory. The Hopewell built enclosures near or even around Adena earthworks. The Adena and the Hopewell may have been the same people whose practices changed, or neighbors with different views but mutual respect.

**The Shriver Circle:** Enroute to Mound City, the front yards of the giant new prisons once contained the 1,050-foot diameter Shriver Circle, now only visible in old maps: though reconstructions will show its 12-foot-deep interior ditch, designed to create a ring of water.

## Mound City

**Mound City** is the headquarters of Hopewell Culture National Historical Park; a visitors center presents artifacts from the site, an orientation film, and an interactive media program. Outside, walk among the 23 mounds within their low enclosing wall.

**Creating Enclosure:** Unique among Hopewell era sites, Mound City augments traditional mound-building with bigger, grander ideas about geometric form and embracing enclosure. Here they created a collective cultural monument on a much larger scale, a likely prototype for the more precise and complex geometric figures to come.

**The Riverbank:** Across the earthwork from the visitors center, the trail enters the forests along the bank of the Scioto River. On the left in the trees is an ancient graded way leading down to the river. On the upper terrace across the river are the remains of the Hopeton earthworks.

**Sacred Gatherings:** To the people who built it, this concentration of building and meaning must have been a place of reverent memory, like Britain's Westminster Abbey, or the memorials along the Mall in Washington, D.C.

**Buildings:** All these mounds cover the floors and post holes of ceremonial buildings. The patterns show a variety of designs, though most often a rectangle with rounded corners.

**Fire and Cremation:** Inside, fires burned in shallow clay basins. The ceremonies included the cremation of the dead. Objects were ritually killed to be left with them. The ash and remains were swept up, and placed carefully on the building floor, or on low earthen platforms.

**Mounding as Memorial:** In a final ceremony, each building was taken down or burned, and a mound was built over its remains and contents. While Mound City was in use, visitors would have seen functioning buildings here, and also those already memorialized under mounds.

**Early History of the Site:** Mound City was first granted to a white owner in 1798, soon after the Ohio and Erie Canal came through. When Squier and Davis surveyed the site in 1846, the forest still preserved most of the mounds; but soon after, farming and plowing began.

**Camp Sherman:** In 1917 the site became a World War I training camp. The army was shaving off all the mounds to build barracks when Henry Shetrone of the Ohio Historical Society stepped in and asked that the central mound be spared.

**Building Phases:** Rituals were going on here before mounds were built. During the first century A. D., a few ceremonial houses were put up, which were later mounded. Over the next century, the three central buildings were erected, creating a new ritual focus; later buildings and the surrounding wall then reinforced this central focus.

**The Central Mound:** The central mound was the tallest one here--nineteen feet when first measured in the eighteen-forties. Inside, the builders or their descendents put down layers of earth, sand, clay, and gravel, probably in acts of dedication and remembrance.

**The Central Mound Building,** underneath, was complex. A sunken room had straight, clay-plastered walls, a drainage system, an entry ramp, and a shallow fire basin. Later they filled the room, and built a new clay fire basin exactly above the old one, and a new floor. A building and long fence partially enclosed several graves.

**The Central Mound Burials:** Ten cremated burials were placed on low earthen platforms surrounded by logs, and accompanied by beautiful objects including a copper death-cap mushroom, a belt of copper turtle rattles, seven large cups made of shells from the Gulf of Mexico; all probably signs of a person's special work or status in life.

**The Deathcap Mushroom:** This grave centerpiece, made of wood wrapped in shiny copper, has the form of the amanita mushroom, known for its poisonous and hallucinogenic qualities. A shaman might have eaten amanita to make a dream journey to the world of the spirits, or to communicate with the realm of the dead.

**The Paired Mounds:** Near the western gateway, two mounds stand close together, covering two buildings that were connected by a gallery. Inside one, pits and clay basins suggest ritual preparations for elaborate burials in the other, which included a huge blanket of mica, plus copper and mica figures of birds, antlers, and a human torso.

**The Pipes Mound:** A large bag, left under here contained about 200 carved effigy pipes, all purposely broken (to release their powers?), showing a variety of animals and 3 human heads. They were carved with accuracy and artistry, very nearly identical to another batch found at the Tremper Mound, forty miles to the south.

**The Snake Pipe:** The animals shown on the Mound City pipes are traditional figures in Eastern Woodland stories. Janifer Brown, Delaware (Lenape) Storyteller, tells how a Delaware man was saved through his encounter with the snake.

**The Turtle Pipe:** Lenape storyteller Annette Ketchum, a member of the Turtle Clan, relates the story of how they came to be know as the Turtle people.

**Hopeton Earthworks:** Though not currently open for public viewing, an extensive video tour describes the architectural features of Hopeton, a square and circle with walls up to 12 feet high, and set of parallel lines leading down to the lower river terrace.

**Archaeologist Mark Lynott,** of the National Park Service, describes his cross-sectional trench at Hopeton which illustrates the construction materials (soils of different types and colors) and sequences used in building the wall.

**High Bank Earthworks:** Though not currently open for public viewing, an extensive video tour describes the architectural features of High Bank, a giant circle-octagon (comparable to Newark's Octagon Earthworks) with a long, complex tail stretching far down the edge of the terrace towards the river.

**Archaeologist N'omi Greber,** of the Cleveland Museum of Natural History, describes her excavations near the top (northwestern) point of the circle, and the possible meanings of the variety of postmold patterns found there.

**Archaeoastronomers Ray Hively and Robert Horn** describe the solar and lunar alignments created from key points on the High Bank site, and how they complement those at Newark's Octagon Earthworks, which they also exhaustively surveyed.

**Superintendent Jennifer Pederson-Weinberger** describes the on-going activities of the National Park Service in acquiring, preserving, and interpreting the "heartland" sites of the Hopewell Culture, under their care.

**Discovery Day:** Hopewell Culture National Historical Park Superintendent Jennifer Pederson describes the opportunities for learning and engagement at the Mound City site on the annual Discovery Day.

## Hopewell Mound Group

**The Hopewell Mound Group:** For its astonishing complexity and spectacular artifacts, this brilliant, multi-component design became the "type site" of the entire culture, as defined by archaeologists. It may be visited as part of Hopewell Culture National Historical Park.

**Mound Twenty-Five:** Though subtle today, the wide profile of the large, 3-lobed mound (re-arranged after excavations) can be detected in the large field to the right of the road; from here Warren Moorehead pulled brilliant artistry for display at the Chicago Fair of 1893.

**Northern Walls and Ditches:** a new trail leads to the surviving walls and ditches that run intact across the hilltop to the north, and that still hold water ponds like those at Fort Ancient.

**The huge irregular enclosure** contained many rings and mounds, some of earlier Adena origin, and some still being discovered by National Park staff's remote-sensing methods. Visualizations aid with orientation to these features in the open field today.

**As the archaeological "type site"**, this place has given a brilliant Native culture the name of retired Confederate Officer Mordecai Hopewell, who farmed this land in the 1890s. Yet it is anything but typical: It is the largest of the geometric enclosures; it contains the smallest and the largest mounds; the most spectacular burials and the most astonishing deposits of precious objects were found here.

**The Red Square:** Some time after the great enclosure was built, the Hopewell laid out a huge square to the northeast; its clay soil quite noticeably red. Edwin Davis in 1845 remarked how the red walls were easily traceable, and that their having been "subjected to the action of fire is too obvious to admit of doubt."

**The Ceremonial Center:** On this level part of the site, under Mound 25, Hopewell people planned their largest ceremonial space that we know of anywhere. They mixed clay and water to create a very hard floor surface that has been called "Hopewell concrete".

**Evidence of rituals** here includes pits, fires, multi-colored stone or clay pavements, buildings large and small for a variety of ceremonies, and of course burials – 102 in all.

**Burials:** The people buried here were attended with great ceremony: some of the burials were first burned in another location, then the remaining ash and bone swept together and redeposited here. Most were buried unburned, though, stretched out in log tombs.

**Archaeology and Destruction:** The destruction of these sacred tombs by early archaeologists cannot be remedied; but their records, and the artifacts, tell us much about the people, their ways of life and death, the brilliance of their artistry, and the reach of their trade networks.

**Inside buildings,** some of the tombs were covered with mounds. It is possible that burying, mounding, 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.

**The Copper Shapes:** Flat hammered copper shapes were found piled on top of one low mound in the ceremonial center, possibly part of regalia, or clan signage of some kind, and laid down in memorial tribute. In their beautiful abstraction, they seem to link the human and natural world with a world of ideal spirits.

**Social Structure:** About 80 of the graves here were in three large groups or clans. The artifacts as well as grave locations were distributed widely suggesting that there were a several leaders in each group, plus a larger number of people with some importance, prestige, or special duties.

**Ceremonial Regalia:** A man buried in the Great Mound (25) at Hopewell wore a robe decorated with fur, bear teeth, copper plates, and vast areas of abstract pearl designs.

**Bear Teeth:** The ancients admired much about bears: especially their strength and hibernation. They collected bear canine teeth. Over five hundred of them were found at the Hopewell site: from black bears, and also the fierce grizzly.

**Copper Plaques:** The Hopewell seem to have liked surfaces that played with light: translucent, pearly, or reflective. Their shiny, copper plaques were perforated, so they could be hung with sinew, or

decorated with shell beads, maybe associating light or power with certain individuals or certain parts of the body.

**Copper Preservation:** For the burial, though, each plaque was apparently wrapped in fabric, as if to protect its power, then laid out on the chest and 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.

**Paired Deposits:** Ritually broken or burned objects were left in dual, contrasting deposits: obsidian contrasted with pearls, or, out near the bluff, mica (on a square tablet) and copper (on a round disc). These signs of dualism and unity were placed among the burials, but not connected with any particular ones.

**Material Deposits:** Some mounds covered extraordinary deposits of unworked materials. At Mound City, there was a stash of thirty pounds of galena, while here at Hopewell, there were mounds dedicated to mica slabs, and to obsidian pieces. Another mound held over 8000 neatly-bundled, unworked flint discs.

**The Great Hopewell Earthworks** show changes in social organization and the sense of shared purposes: generations of meaningful assembly were required to these create complex, precise, enormous earthworks; and the elaborate burials and beautifully crafted objects that have been found in them.

## The Lower Scioto Valley

**The Teays-Age Valleys:** The wide, steep-walled valley of the lower Scioto is a remnant of the giant pre-glacial Teays River which flowed northward here, draining much of eastern North America before the formation of the Ohio; another now-unusued Teays-Age valley branches eastward at Piketon.

**Glacial effects** on the rivers of the region are explained, including why there are small rivers in huge valleys, and bigger rivers in narrow gorges, where the Teays River was going, and how the distinctive landforms of the region were affected by the glacial movements.

**Piketon:** At the huge confluence of two ancient valleys, a discussion of their rich soil types and deposits, laid over the sand and gravel till left behind by the glaciers, and wide terraces at different levels that later became prime locations for earthworks.

**Wakefield Mound Cemetery,** south of Piketon, centers on a prominent and unusual cluster configuration of Adena-era burial mounds.

**The "Seal Township" or "Barnes" Earthworks** below Piketon (in the early village of Sargents) were the first to be published in the east, by a Boston newspaper in 1775, opening a century of both public and scholarly fascination with Ohio Antiquity.

**Circle and Square:** A digital reconstruction (current traces are not visible) portrays this iconic design, the only one aligned to the cardinal points (the square); aerial photos are used to clarify a discrepancy in Squier and Davis's drawing of the site.

**Archaeologist William Romain** explains his documentation of shared and inter-related dimensions among the squares, circles, and octagons of most of the Ohio geometric earthworks.

**The large, historic Barnes House** stands directly on what was once the cross axis of the Barnes Earthworks. From an upstairs window where he spent the night, Abraham Lincoln surveyed the huge perfect square and circle across the road, having just read about Ohio Antiquity in the new Smithsonian publication series.

**Writer Geoffrey Sea,** present owner of the Barnes House, tells the story of the shooting of the last Passenger Pigeon in 1900, and of the huge flocks that used to migrate up this large valley, and what an impact this sight must have had on Native populations long ago.

**Tremper Mound** will appear in a private field on the right, farther down the river. Excavations beneath its irregular shape uncovered remains of a complex Hopewell-era building, with many ceremonial fire pits and an astonishing treasure-trove of animal effigy pipes directly comparable to those at Mound City.

**The Tremper Burials:** The carefully-cleared, charred remains of the Tremper mortuary building included twelve basins probably used for cremation. Remains from about 300 people were accumulated in here.

**The 60 Tremper Pipes** are one of the greatest treasures left by these ancient people. We can recognize the faces and paws, the bills and wings of creatures common in Ohio Valley woods and meadows. Their stone bodies were beautifully formed and meticulously incised. But they were all ritually broken before being buried, to release, or to cut, their spiritual power.

**The fate of the Pipes,** and those of Mound City, are discussed with the aid of new photography and Squier and Davis's beautiful color drawings, the sale of their collection, how the Ohio Historical Society glued theirs back together for display.

**Portsmouth** occupies a spectacular setting, an understandable site for the elaborate earthworks now best depicted on the floodwall murals along the riverfront.

**Archaeologist Gwynne Henderson** discusses the historical and cultural significance of the large Indian settlement at the time of European contact, called Lower Shawnee Town, which occupied the site of the city, at the confluence (now Alexandria Point Park).

**Horseshoe Mounds Park,** contains a surviving feature of the vast Portsmouth complex, allowing comparison with Squier and Davis's drawing of one of the region's most elaborate complexes. Reconstructions depict how it extended across the Ohio River and included ten miles of wide, walled roadways connected to several remarkable features.

**Portsmouth Historic Preservation** advocates discusses progress being made in the historic Boneyfiddle District and in nearby downtown to .

**The Southern Ohio Museum** exhibits an extensive ancient and historic collections plus changing exhibits and performing arts. Ten thousand pieces from ancient Ohio, mostly from nearby, are all on display, giving an unusual opportunity to compare and contrast object types, or observe the evolution of forms.

**The Portsmouth Floodwall Murals** vividly depict the history of the city including its spectacular ancient earthwork complex that stretched across both sides of the river.

**The Old Fort Earthworks** in South Portsmouth, Kentucky, have recently been preserved with help from the Archaeological Conservancy. The beautiful square enclosure is set in a perfectly diagonal relationship to the cardinal points.

**Archaeologist Gwynne Henderson** explains how and why, even centuries after the earthwork building culture faded, the square's interior remained clean: there was no debris from either settlements or workshops over the following centuries.

**The Biggs Mound** survives today nearby, ringed by its Adena-era moat. Another, very large mound, surrounded by multiple walls, was mapped, but never found by modern archaeologists.

## East from Chillicothe or Portsmouth

**Leo Petroglyphs State Memorial,** where along the edge of a beautiful ravine, 37 incised drawings of humans, animals, and human and animal footprints are attributed to the Fort Ancient culture (AD 1000 and 1650); a trial leads among the 60-foot sandstone cliffs. Wildflowers and birds are abundant.

**Buckeye Furnace State Memorial,** a reconstructed charcoal-fired blast furnace typical of those serving Ohio's Hanging Rock Iron Region from the mid-1800s. Visitors can see the casting shed, charging loft, and steam-engine house, as well as the company store serving as a visitors center.

## Athens

**Athens** was founded on a terrace high above the Hocking River and maintains a lively university, arts, culture, history, and local-cuisine ambience.

**Ohio University** was founded here in 1804 as the first college in the Northwest Territory and remains the focus of life in Athens. Around the College Green are the oldest buildings, including Cutler Hall from 1816.

**The University's Kennedy Museum of Art** has significant Native American, African, and 20th century American collections, and special library collections on the history of the Northwest Territory.

**The Dairy Barn** is the other important University-owned museum, with contemporary arts and crafts and the famous biannual National Quilt Show. Both museums are at The Ridges, originally a mental hospital where inmates did their own farming, and where fascinating Victorian buildings remain.

**The ornate Athens County Courthouse,** from 1880, is latest of a series on this plot; the first was an 1808 log building; the Athens County Historical Society museum is near the courthouse, plus many lively shops, taverns, and restaurants.

**White's Mill** is down by the Hocking River, one of the last water powered grist mills that once lined the Hocking, and now used as a garden store.

**The Plains** is a pocket formed by complex glacial forces, unique in this hilly part of Ohio. This flat space was covered with about 30 circles and mounds, although remarkably, no domestic remains have been found here.

**Archaeologist Elliot Abrams** explains how it is probable that the (Adena-era) people seem to have lived above the sacred plain on the surrounding terraces and hillsides, where small local clan or family mounds marked the hilltops. Some are under current investigation.

**The only remaining visible circle,** of the many once known to have been in The Plains, is privately owned but can be seen from the road near a small wooden barn next to the creek.

**The Hartman Mound** remains at the Plains and is 40 feet high. Though no archaeological investigations have been done it is undoubtedly an Adena-era burial mound. Panoramic views from here show how The Plains is a flat space surrounded by the hills from which people assembled.

**The Woodruff Connet Mound** nearby is 15 ft. high, with a possibly-ancient "apron" of higher ground along one side. This was once one of a cluster of three mounds. Many other mounds remain around The Plains, barely visible as swells or as elevations under buildings.

**The Armitage Mound** is the most recently investigated; it contained one complete burial accompanied by 14 cremated and completely disintegrated burials, probably moved from elsewhere to be with the central figure. Forty small fire pits suggest continued episodes of mounding additions and ceremonies over many generations.

**Nelsonville and Logan** are thriving arts and tourism towns, and the heart of the Hocking Hills region laced with many state parks, waterfalls, caves, and scenic drives and trails.

**The Wayne National Forest** is headquartered near Nelsonville, and contains obscure mounds visible from the hiking trails. The visitors center, and the Athens Conservancy website, provide information on local flora, fauna, trails, and natural points of interest.

**The Hocking Valley Scenic Railway** is based in Nelsonville, running historic trains up the river valley to Haydenville or Logan, some stopping at Robbins Crossing, an authentic collection of 1840's Ohio houses, with historic demonstrations.

## Marietta

**Marietta,** where the Muskingum River joins the Ohio, is a well-preserved river town laid out in the late 1700s by the Ohio Land Company, which included many soldiers from the Revolutionary War whose final pay was in land. The leaders were former officers, members of the Society of the Cincinnati, who sought to expand America's future in the "West."

**Historian Roger Kennedy** explains how the retiring officers of George Washington's army respectfully planned their town among the huge, geometric earthworks they found there, already 1500 or more years old.

**The Conus Mound and Ring** stand at the center of the Mound Cemetery at the corner of 5th and Scannel Streets and offers the best example in all of Ohio of this architectural combination. An Adena-era mound, this pre-dates the geometric lines

**The ditch and wall** surrounding the Conus set each other off (positive and negative form), and define an entry point at the "bridge" across them at only one point, as if to say that the approach had to be orderly and respectful.

**Dr. Manasseh Cutler,** one of the founders of Marietta, began digging at the top of the mound, but after finding carefully-placed human remains, declared "that this venerable monument might not be defaced, the opening was closed without futher search."

**The Ohio Company** in 1791, as a condition of leasing the public land with the mound to Rufus Putnam, set conditions that he would enclose it with a fence and plant it with a respectful and appropriate selection of tree species including elm, weeping willow, and evergreen. The stone steps were added in 1837.

**Many Revolutionary War veterans**, the founders of the town, are buried in the surrounding cemetery, especially clustered among the square of thickly planted flags on left in proximity to the ancient Conus.

**Latinate naming of the earthworks** at Marietta (Conus, Quadranaou, Sacra Via) was a deliberate imitation of the idea of antiquity associated with Ancient Rome, which of course as "Cincinnati", the officers greatly admired.

**The remains of a Wall** (as shown on the Squier and Davis map) is visible from the bridge across the ring and ditch. It connects the Conus and the surrounding rectangular enclosure.

**An upscale nineteenth century district** with fine specimen houses was developed here along Fifth Street for the same reasons that the earthworks were: beautiful level land out of the reach of flood waters.

**The Capitolium Mound,** on which the town's Carnegie Public Library now stands, was named after the smallest (but most sacred) of Rome's seven hills. The flat-topped, rectangular mounds here are nearly unique for their Hopewell-era.

**The Library Elevator** addition in 1990 prompted the only archaeological investigation of the Marietta earthworks. The Capitolium Mound was opened up allowing investigators to confirmed the earthworks are of the Hopewell era, and built purposefully in layers.

**World Renewal Ceremonies:** As part of the dig, archaeologists collected charred material from a hearth which turned out to be wood from many different kinds of trees from near and far, all burned in one fire at one time. Dee Anne Wymer's analysis suggests a world renewal ritual.

**Ramps** led to the top of the platform. One became the front steps to the main entry; the second is behind the building, barely visible and a bit north of the centerline. The best preserved ramp is on one side, opposite what Bill Pickard calls the "anti-ramp", a curious depression which one can still go "into".

**At Fourth and Washington,** we are entering the space of the larger rectangular enclosure, called "the town" by the first settlers (see below).

**The Quadranaou Mound,** stand in a city park on Warren Street, the largest and grandest of Marietta's remaining works. It has 4 wide ramps, affording access to the top of the mound for views; though the edges are "softened" the architectural impact is clear.

**Counting Ramps:** Among the four rectangular mounds that were within the Marietta enclosure, the Quadranaou had four ramps, the Capitolium had three, a destroyed one had two, and another had none. Archaeologist Bill Pickard speculates on why this is.

**Dr. Cutler's Dating Efforts:** Early Marietta was the scene of the first effort to date earthworks scientifically in the U.S. Working from tree rings, Dr. Cutler estimated age at more than 900 years. (Signs in town still reflect this incorrect calculation.)

**Quadranaou and the Civil War:** The park was used as a mustering camp under General Benjamin Tupper (who is buried in Mound Cemetery), like many other enclosures used as military camps including Newark and Mound City. Fort Ancient still serves for Civil War re-enactments.

**Citizen Preservation:** The monuments at Marietta have been in the public trust since the first preservation resolution of the Ohio Land Company in 1788 : One citizen who was entrusted with the Quadranaou started to plow it, and was stopped by angry fellow-citizens who revoked his rights to it and voluntarily restored the parts he had harmed.

**The Ancient "Sacra Via"** is open park land now defined between narrow lanes. This 150-foot wide graded way between the riverbank and the enclosure has been preserved with grass and trees, still suggesting the processions that passed here.

**Solstice Alignment:** The Sacra Via is oriented to the winter solstice sunset behind Harmar Hill, the steep elevation across the river. The vista remains, between a brick monument at the top of the Way and what would have been a marker mound, or tree cutting, atop Harmar Hill.

**A Reconstruction of the Sacred Way** shows the original design with deepening walls on either side as it approaches the riverbank. The walls were taken down to make bricks, many for the interesting Unitarian Church at Third and Putnam Streets, in 1855.

**The Marietta Preservation Resolution:** A presentation of the specific language and conditions included in the founders' 1788 wish to "reserve for public benefit" and to "improve" and "ornament" the town, and "in what manner the ancient works shall be preserved".

**Fort Harmar** was the first American settlement here, built in 1785 on the west side of the Muskingum. The Treaty with Six Nations was signed here, a step in the process of gaining rights to land from the occupying tribes. (The Treaty of Greenville, in 1795, pushed the Natives northwest and finally made Fort Harmar unnecessary.)

**The Ohio Land Company** was formed by Revolutionary War veterans, many of whose new plots of land were subsidized by the government in lieu of back pay. Ohio Land Co. settlers arrived April 7, 1788 and built among the earthworks the first permanent European American settlement in the Northwest Territory.

**Archives:** Deeds, records, maps, and letters are preserved in the archives of Marietta College, located downtown. A new college library is open to the public; many of these documents are available online.

**Captain Jonathan Heart,** an officer at Fort Harmar, made an early investigation and map of the earthworks. A French engraver produced a map from it which reached the hands of de Crevecoeur in France, making an early international splash of excitement about American earthworks.

**The Campus Martius** was the fort-like beginning of the settlement, now partly preserved in the Campus Martius Museum with leader Rufus Putnam's house. Putnam also surveyed the earthworks and drew an early map.

**Steamboat traffic** on the Ohio and Muskingum rivers after 1811 led to growth and prosperity and the building out of the downtown district. Later visitors to the earthworks arrived by steamboat.

**The Ohio River Museum** located on the Muskingum at the foot of St. Clair Street preserves this history; also keeps for the public the William P. Snyder, last of the steam powered towboats, moored there.

**Architect Benjamin Henry Latrobe** was delayed two days here for boat repairs, and so toured the earthworks and recorded his impressions.

**The Muskingum River** was "canalized" in 1841, when a series of hand-operated locks was installed that are still in use today. Day boat trips from Marietta cruise up the river, with lock demonstrations, to the Stockport Mill Inn for lunch (Ohio specialties) then returns.

**Warren Moorehead's 1878 Expedition:** Early and famous Ohio archaeologist Warren Moorehead explored the Muskingum valley and recorded many mounds, circles, a square, and other works, and gave a lecture at the McConnelsville Opera House (which is still open and putting on shows).

**Early Marietta Architecture** includes a spectacular Gothic Revival mansion called "The Castle" (1855) which is open to public view. Clustered along Front Street between Putnam and Foster Streets are some of Marietta's earliest houses, and the first chartered American Masonic lodge (1790).

**The Harmar Village Historic District** lies across the Muskingum via a re-used train bridge, high above is Lookout Point, at the top of Bellevue Street, affording excellent views.

**Marietta best captures** the early decades of Ohio settlement around 1800, when settlers from the newly independent United States of America first crossed the mountains, floated down the Ohio River, explored its tributaries, encountered Native groups, marveled at the already-ancient architectural monuments, and established new settlements.

## Chillicothe to Newark

**The Great Hopewell Road:** the diagonal route between Chillicothe and Newark approximates the possible "Great Hopewell Road," an ancient arrow-straight, sixty-mile thoroughfare which may have connected Newark and Chillicothe, the Hopewell era's two greatest ceremonial centers.

**Searching for the Road:** Dr. Bradley Lepper discovered, and has analyzed, the tantalizing evidence in old aerial photographs and drawings, though the full route has yet to be proven by on-the-ground surveys.

**Following the Road:** In 2009, a group followed the route led by Indian drumming, over a seven day "Walk with the Ancients" from Mound City to the Newark Octagon.

**The Pickaway Plains:** An ancient, glacially-created prairie and favored settlement region of the Shawnee Indians up until the time of settlement. It was the primary "Chillicothe" (Indian for important town).

**Ohio and Erie Canal:** Along the west bank of the Scioto above the village of Westfall run some of the best preserved remnants of the old canal: a system of water channels, towpaths, locks, and other stone constructions culminate in Canal Park near its northern end.

**Circleville:** The town was planned with concentric streets inside an ancient, earthen circle (and adjoining square). Though later replaced with a regular grid, an old drawing of this inventive and respectful, if temporary, layout adorns the metal tins sold at Wittich's Candy Shop.

**Circleville's Main Street:** The new grid centers on Main Street, which follows the central axis of the ancient work and aligns to the summer solstice sunset. The Pickaway County Historical Society Museum has excellent collections on the town's history and antiquity.

**Caleb Atwater** was Circleville's eccentric postmaster and one of the earliest surveyors and scholars of Ohio antiquities in the 1820s. He lobbied mightily to save the town's distinctive and respectful street plan.

**The town of Tarlton** was a major stage-coach connection; old houses along the old road set the scene and Zane's Trace is commemorated in a marker.

**Tarlton Cross Mound:** From a small picnic area the trail winds up the hill to the unique plus-sign-shaped mound crowning a small wooded ridge, probably built by middle-woodland (Hopewell-era) peoples or later.

**Another Foursquare:** Jarrod Burks explains how he discovered that four of the other small mounds in the woods nearby form a perfect square.

**The Concrete Bridge:** An interesting suspension bridge built by the WPA, and inscribed with the "cross", takes the trail across Salt Creek before it climbs up to the mound.

**Appalachian Plateau:** The road northeastward through Lancaster skirts the scenic Appalachian Plateau; among the back roads are many covered bridges. At

**Lancaster,** offers a pleasant downtown district with many shops; Shaw's Restaurant and Inn provides meals and guest rooms. Historic houses, including a beautiful Greek Revival museum of decorative arts, climb the hill.

**Buckeye Lake** was constructed in the early 1800s as a feeder for the state's new canal system; diagrams explain how this was accomplished and how the gravity feed system worked.

**The Northern Embankment** of the lake was partially lined with huge limestone slabs from a nearby mound which was dismantled for this purpose; its human remains only recently re-interred with ceremony at the Fernald Preserve.

**Buckeye Lake State Park:** By 1900, the canals had been long abandoned, but there were lively amusement parks along the shore. A historical museum tells the stories.

**Canal segments** head out of the lake in various directions, for example north tward the town of Heath; directions are provided to the most picturesque remains, with explanations of canal operations and life.

**At Millersport,** a deep cut for the canal was one of the major engineering feats of the whole Ohio regional canal enterprise.

## Granville

**Granville** was founded by New Englanders eager to create an environment that would help them feel at home; its picturesque look and exquisite period architecture (several churches) make it one of Ohio's finest villages.

**Denison University** crowns the hill above the village, its meandering drives lead among examples of impressive academic architecture.

**Jeff Gill** relates several of the stories of the town's founding, early history, and eccentric characters.

**Two historic inns** anchor the east end of Broadway, the Tudor revival Granville Inn and the Buxton Inn, a collection of nineteenth-century houses linked with whimsical and eclectic courtyards; both inn's have excellent restaurants.

**The Alligator Mound Effigy** is the most interesting animal effigy in Ohio after the Great Serpent. With four rounded feet and a long, curling tail, the creature has recently been dated to about AD 1100, similar to the Serpent.

**A mysterious fifth appendage** appears between the creature's two north-pointing feet, and was an elevated, stone-covered circle where fires were lit, maybe for offerings or prayers to this spirit.

**The creature's identity** is open to doubt. Early settlers called it the "alligator" but other creatures seem more likely: It might be an opossum, like this one etched on a shell from the same period, about 1200 AD.

**The Underwater Panther** is a more likely theory; this was a powerful creature of the watery underworld, believed by Indians to have dark and dangerous powers, and a long tail that could unleash canoe-swamping whirlpools. These pottery figures from the area may be versions of the panther.

**Comparing with the Serpent:** The underwater panther and the serpent are the two principal powers of the underworld, so comparing with the region's only other major effigy mound, the larger and more famous Great Serpent, is appropriate: both effigies lie atop steep bluffs and overlook water courses. Today this one survives in the midst of a housing development.

**Hilltop Views:** The beautiful views from this hilltop extend westward to open plains beyond Granville, and eastward into the defined valley terraces across which the Newark Earthworks were laid out about 800 years earlier.

## Newark

**The city of Newark** centers on its central square, where the impressive, Victorian Licking County Courthouse stands, among several shops and restaurants and a rare gem: a Louis Sullivan designed bank building of 1914.

**The Works Museum** is two blocks away, featuring exhibits focusing on area history, arts, and technology, especially glass-making and other early industries.

**Orientation to the Earthworks:** Rising from the square seventeen centuries ago provides a view out over the largest geometric earthwork complex in the world. Enormous enclosures connected by walled roadways were built by Indians and spread out over more than four square miles.

**Awe-struck settlers** discovered, described, and began to measure it in the early 1800s. The impact of these monuments on the visitor today is still stunning, creating an architectural experience like no other on earth.

**History of the site** since settlement, how it has been variously appreciated, destroyed, preserved, and interpreted, and what fragments remain today, and why.

**Newark's Preservation Vote:** Jeff Gill tells the story of the 1890 vote in Newark to preserve the earthworks, how unusual it was for its time, how it may have been influenced; and how the earthworks there almost became the first US National Park.

**The Octagon Earthworks,** including its adjoining circle, are the most precise of all the remaining earthworks. They're a half mile across, perfectly formed, and exactly level. The circle's diameter is 1,054 feet, an interval that also perfectly constructs the Octagon.

**The walls enclose us** exactly at eye-level, with an artificial horizon. Even the gateways are visually blocked by these smaller mounds. Inside this huge, perfect work of geometry, our eyes are drawn across from one point to another, and on to the real horizon beyond.

**Poles and banners** probably marked the gateways, as postmold evidence has shown. We can imagine grand processions approaching along these wide roadways, and also poles being used to make the gateways more visible from long distances.

**Project Co-Director John Hancock** discusses the planning technology that probably went into figuring out the Octagon, how the vast shapes could be constructed with simple tools, how experimentation over time with timber poles probably enabled the great precision of the forms.

**Circle and Octagon shapes** are interpreted by a series of Native American scholars including Christine Ballangee-Morris and Sande Garner; some suggest in particular the connection feature between two shapes may suggest a male-female principle.

**The Country Club Lease:** Although the surviving sections today are officially public state memorials, the Moundbuilders Country Club holds a lease for the Circle and Octagon that extends far into this century; controversies will continue.

**Lunar Movements:** The builders of the earthworks noticed much more complicated lunar patterns than its simple phases. An explanation of how it's rising point swings back and forth between the southeast and the northeast every few weeks.

**The Octagon as Lunar Observatory:** Remarkably, all eight lunar rise and set positions are marked precisely by these earthen walls and gateways, with the extreme northernmost moonrise every 18.6 years perfectly aligning along the central axis of the Octagon.

**Moonrise 2006:** Photo and video documentation, and participant impressions, of the events, celebrations, and viewing opportunities organized by the Newark Earthworks Center during the most recent northernmost moonrise season.

**The Walk with the Ancients:** Vincent Stanzione (independent anthropologist from Guatemala) describes the promise of the "Walk with the Ancients" from Chillicothe to Newark in October of 2009; Sandra Garner (Cherokee; Lakota; Ph.D. candidate in humanities) recalls its profound importance afterward.

**Praying Up the Moon:** Dr. Clara Sue Kidwell describes Native Americans "praying up the moon" at Newark's Octagon Earthworks.

**The Viewing Platform** near the Moundbuilders' parking lot offers views into the Avenue connecting the giant Observatory Circle (left) with the open-cornered Octagon (right), lifting visitors above the perfect eye-level horizon of the walls themselves.

**Observatory Mound:** From the top of this feature, ancient shamans could observe the perfect alignment of the moon at its northernmost rising, appearing along the axis of the Avenue and across the center-point and distant gateway of the Octagon, about six-tenths of a mile away.

**The Twin Tails Detail:** In an unusual and elegant detail, the ancients designed the sides of the circle so they don't quite meet, but rather seem to curve gently inward and underneath the Observatory Mound, from which they emerge on the outside as two small tails (this exact configuration is the result of a 19th century partial reconstruction).

**At the Octagon gateways,** perfect, flat-topped mounds block the vistas out of the open corners so that inside we are both contained and released, with subtle shifts in these effects as we move around inside.

**A Sighting Instrument:** Drs. Hively and Horn have demonstrated the immense sophistication of this geometric arrangement, and why it needed to be so big to increase it's precision: like looking down the barrel of a long gun, the sighting alignments become more accurate with length.

**Raccoon Creek Terraces:** The northern edge of the Octagon overlooks the narrow lower terrace and on into Raccoon Creek, showing how carefully the ancients sited their geometric earthworks on perfectly level, well drained gravelly terrain, safely out of the reach of erosion and flooding.

**South and East Gateways:** The eastern, somewhat overgrown gateway of the Octagon touches the modern road; the southern opens to a small stretch of grass that also contains an exquisite small circular enclosure. This is one of many that accompanied the Newark Earthworks as recorded on 19th century plans.

**Order, Science, and Human Understanding:** Astronomer Dr. Ray Hively reflects on the significance of monumental Newark as an encoding of both mathematical symmetry and natural phenomena, and the power that can have for a society, much like modern science does for us.

**Architecture of Alignments:** Drs. Ray Hively and Bob Horn describe how they came to Newark skeptically intending to debunk the excesses of archaeoastronomy, but left astonished by the Octagon's precision as a lunar marker.

**Golf and Prayer:** Barbara Crandell (of Cherokee heritage) tells the story of her arrest in 2002 for going to the Octagon to pray, in violation of Country Club rules, explains the connection she feels to the site, and advocates for the earthworks to be open to all visitors.

**Protests and Progress:** Marti Chaatsmith and others discuss the role of civil disobedience and other types of persuasion in confronting the situation with the Moundbuilders Country Club, and the question of public access to the Octagon Earthworks.

**The Great Circle** is a gigantic circular enclosure with a steep interior ditch. It is 1,200 feet in diameter from crest to crest; its walls vary in height from four feet up to fourteen at this monumental gateway.

**Adena Prototypes:** The design is typical of many earlier, Adena earthworks: a ring, with an interior ditch and a gateway opening to the east; but because of its dramatic scale, this portal was the grandest anywhere in their cultural world.

**Eagle Mound:** At the center of the Great Circle is an oddly shaped mound, nicknamed Eagle Mound by the first pioneers. When it was excavated (by Greenman) in 1928, a pattern of postmolds showed a long building, with screen-walls extending from it like two wings.

**Eagle Mound Building:** Inside the building were ritual fire basins; scraps of shiny mica littered one end of the floor; two copper shapes were left behind. They dismantled the wooden structure, or burned it, and covered its floor with earth as a final memorial.

**Construction Tools:** Dr. Bradley Lepper discusses and demonstrates the use of deer shoulder-blade hoes, baskets, and the other implements with which the people moved over seven million cubic feet of earth into these complex designs.

**Building the Great Circle:** An excavation has shown how the construction was done. First a set of point mounds were placed around in a circle, then a ditch was dug, and that soil was used to make a ring. Finally, yellow gravelly clay was brought up from deep pits nearby, to cover the inside, making for a dramatic interior.

**Excavation Protests:** Mark Welsh (Mohawk) tells of protesting the archaeological dig at the Great Circle in 1992, and of leading the peace pipe ceremony of reconciliation after it was completed; Brad Lepper (Curator of Archaeology, OHS) and Jim Kingery (Newark Site Supervisor) give their recollections of the same situation.

**The Bronze Model:** An orientation to the whole complex can be provided by the bronze tabletop model in front of the Great Circle Visitors Center, also home to the Greater Licking County CVB.

**Encircling Embankment:** Outside the Great Circle gateway and to the north are well-preserved remains of the low embankment walls that once encircled the entire Newark complex with a continuous outline.

**A Continuous Enclosure:** All parts of the Newark complex were connected and enclosed by an elaborate system of low earthen walls, with only three apparent entry points or gaps, all associated with water.

**The Square,** framed here between the Great Circle and the Ellipse, was about the size of nine city blocks. Eight small mounds inside emphasize the Square's geometric precision and mark its gateways.

**Squier and Davis** reported that as early as the 1840s, much of the square and the surrounding "ancient lines" were destroyed; indeed the canal had already cut through it in the 1820s, where Highway 79 is now.

**The Wright Earthworks:** From the remnants of the square (actually a corner) the water tower to the northeast will help in grasping the scale of the earthwork complex as a whole: it stands near the center of the now destroyed ellipse where the Newark Shaman figurine was found.

**The Burial Ellipse:** Each piece of the Newark complex seems to have had a special use and meaning. This large ellipse was the cemetery, where eleven conical mounds surrounded a large, irregular one at the center.

**The Destruction of Tombs:** The ellipse and its mounded tombs were destroyed very early by the construction of the canal, the railroads, and the town. Old records prove that builders and looters came across objects made of copper and other precious materials; but all we are certain came from here is the Newark Shaman figurine.

**The Newark Shaman** figurine is discussed, its discovery in the burial ellipse, its naming, and its features: the priest or shaman with his bear skin, his ear spools, and the severed human head resting in his lap perhaps being prepared for burning or burial, or being used in divination.

**The Bear Transformation:** Dr. Lepper points out that the Newark Shaman is not built to be set down but rather to be held in the hand; when it is tipped in the hand the figure's design allows it to transform from man to bear, and back again.

**The bear** has traditionally meant many things to Native people, including awakening after a long hibernation. Sending someone to their burial with such a symbol of rebirth would link them to the renewing circle of life.

**A Giant Ritual Machine:** Dr. Bradley Lepper offers his interpretation of the functional and formal differentiation of the Newark complex as being interconnected parts of a "giant ritual machine" through with people, leaders, rituals, processions, would have moved, "re-enacting some fundamental cosmological cycles."

**Nearby Settlements:** Recent evidence suggests that people gathered from both local and distant places in very large numbers, first to build and then to use the site. Vast temporary villages or encampments may have covered much of the surrounding land.

**The Murphy Site:** A few miles upriver, Dr. William Dancey's investigations at the Murphy settlement site have yielded one of the best pictures available of the more permanent houses that were scattered over the local landscape.

**Early Fascinations:** When pioneers began to settle around Newark in the late 1700s, the earthworks were already ancient and overgrown. Local Indians, many just recently arrived in Ohio themselves, knew or told little about them. From the beginning, the mystery and size of the works fascinated some Newark citizens and visitors:

**Comparing Early Maps:** A chronological review of the various survey maps that were made of the site, noting their similarities and differences: Wyrick, Middleton, Salisbury, as well as Squier and Davis, and on what bases some scholars prefer one over another.

**Newark in the Thirties:** John Nethers (retired Ashland College history professor) tells of his Aunt serving as OHS site manager for the Newark Earthworks in the 1930s and through World War II and reads from her diary.

**Re-Use as Entertainment:** The only reason two major parts of the earthworks survived is that they were adaptable to entertainment: The Great Circle became the Licking County Fairground from 1854 to 1933; the Circle and Octagon were leased as a private golf course by 1910.

**The Great Hopewell Road:** From a corner of the Octagon, we know that parallel lines stretched at least six miles, which if extended for sixty would arrive exactly at Chillicothe, and the only other circle-octagon, High Bank Earthworks, which is set at an exact 90-degree angle from Newark's.

**The Salisbury Evidence:** Bradley Lepper recounts his discovery of the Salisbury manuscript, which most decisively suggested the possibility of the 60-mile Great Hopewell Road from Newark to Chillicothe, and his subsequent efforts to test the hypothesis using maps, flyovers, LiDAR, and field testing. .

**Milky Way Alignments:** William Romain describes the correspondence between the Great Hopewell Road alignment and the Milky Way at the date of the summer solstice.

**Geometry at Newark:** The ellipses, squares, octagons, circles, and parallel walls at Newark share common dimensions and areas, many based on the diameter of the Observatory Circle. Huge scale, unexpected alignments mark additional minimum and maximum southern moonrise angles.

**The Heath Hilltop Enclosure:** Atop a very steep wooded hill, a big ring with a central mound still stands. Dr. Lepper describes how this would have been part of the overall idea and also afforded views of the entire Newark complex plus the hills and valleys beyond.

**Pilgrimage:** Ancient Newark may have been one of the most important destinations in all of North America. People brought exotic materials here from far away (mica, obsidian, copper) and yet only tiny bits of Ohio flint have been found at the origin points of those precious things. Dr. Lepper suggests they were coming here for spiritual gifts instead.

**Native American Pilgrimage:** Several Indian scholars and commentators describe traditions and meanings of travel, and destination sites known from Native perspectives such as Chaco Canyon; the spiritual dimension invites comparison with pilgrimage themes worldwide.

**Waterways:** The builders at Newark chose a site surrounded by waterways, and centered on a pond. Without climbing over walls, visitors could only enter the complex from the waterways; yet some of these were not readily navigable by boat so probably the water boundary was more of a symbolic idea.

## East from Newark

**Black Hand Gorge Nature Preserve:** The Indian petroglyph after which the place was named was sacrificed in the 1820s when this section of the Licking River became part of the Ohio and Erie Canal; though paths from the parking area lead to interesting canal-era remnants.

**A geological anomaly,** the gorge itself is a precipitous pre-glacial river channel through a prominent sandstone ridge, creating a vivid place (and early routes for both canal and railroad), with an unusual character for the region.

**A Lakota Pilgrimage:** Mark Welsh (Mohawk) tells of Lakota spiritual leader Asa Primeaux asking Mark to drive him from South Dakota to Ohio to visit sacred sites: Flint Ridge; Black Hand Gorge; and the Newark Earthworks.

**Mark Welsh** tells the story well known among his tribe about Black Hand Gorge being a place of healing.

**Lock and Towpath:** A well preserved canal lock enclosure now stands isolated in the forest, reached by overgrown paths, while an extensive, impressive, and well preserved tow path built of local stone ashlar follows along the edge of the river beneath the cliff.

**The old train-bed** carved through the ridge provides an easy path through the park, its sides blackened by soot from locomotives, although the rugged quarry trail offers striking cliff-top views.

**Flint Ridge:** Less than a day's walk from Newark is where generations of Natives obtained beautiful, multicolored flint for shaping into weapons and tools, as early as 10,000 years before the nearby earthworks were built.

**Mining Methods:** They broke out chunks using heavy boulders and levers, then with care and skill, chipped them into beautiful shapes. Dozens of water-filled pits remain here in this ridge-top forest; exquisite scraps litter the pathways.

**An unusual building** here was in use for a long time, perhaps a temple to enshrine the spirit of the place. Its thick walls surrounded visitors with precious flint. Eventually, two people were entombed in here, and the walls mounded with earth, carefully dotted with sets of flint blades.

**Proximity to Newark:** It may be that the earthworks were planned as a place of gathering and ceremony in connection with this natural source, where a deposit of beautiful, hard, sharp, rainbow-colored flint lies close to the surface.

**Flintknapping:** Watch modern expert "flintknappers" demonstrating the ancient techniques of fashioning the stone into beautiful shapes, as they explain how striking the edge produces sharp cutting blades.

**Coshocton:** This site was a capital of the Delaware (Lenape) Indians and location of early Moravian missions. Downtown is the marker of The Delaware Council; in the basement of the Roscoe Village visitors center is the early treaty signed with the Delawares.

**The Roscoe Village Historic District** is a restored early 1800s canal town and living history museum, preserving many canal-era buildings; nearby an operating canal boat offers rides. It is also home to the Johnson-Humrickhouse Museum.

**The Johnson-Humrickhouse Museum** features a spectacular collection of Chinese lacquer ware, and is home to the "Newark Holy Stones" which figured so prominently in 19th century debates about the origins and significance of the earthworks, and the humanity of their makers.

**Brad Lepper and Jeff Gill** tell the story of the "Holy Stones" in the context of Civil War America, and what motivated their makers (forgers), in that particular historical context, to encourage their fellow-citizens to regard all humans as a single race.

**Myths of the Moundbuilders:** Racism prevented early Ohioans from believing Indians could have built the earthworks, so often-bizarre theories emerged that the Egyptians, or Israelites, or a Welsh tribe, or the Vikings were involved. This confusion persisted well into the twentieth century.

## Columbus

**The Ohio Historical Center** is the place to see the most brilliant examples of the Adena, Hopewell, and Fort Ancient era artifacts from the many earthwork and settlement sites throughout the region.

**Startling artistry,** wrought upon precious, luminous materials brought to Ohio from all over North America, speak of the genius of the earthwork builders, and their ways of interpreting the world around them in both ceremonial and functional objects.

**Exhibited highlights** include all the Tremper Pipes, for example, plus the Adena Pipe, the Newark Shaman, the gigantic obsidian ceremonial blades, and exquisite mica and copper cutouts.

**Highbanks Metro Park** just north of the city contains two Adena-era mounds and a semi-circular earthen enclosure (also called the Orange Township Works), atop a 100 foot cliff overlooking the Olentangy River.

**The Shrum Mound** in Campbell Park (five miles northwest of downtown) is a well-preserved, 20-foot tall, Adena-era conical mound. There are steps to climb to the top; adjacent is an old limestone quarry.

**The Ohio State Capitol Building** downtown preserves in its basement crypt level the rubble stone footers that were taken from the Mound Street Mound, as was the clay to make many of the bricks in its inner walls; the murals in the Rotunda depict the Treaty of Greenville.

## Thematic Topics

**Arkansas Cherokee Artist Victoria McKinney** shares mound images from Spiro, in the context of a discussion of the continuities of mound-building culture and practices.

**Christine Ballangee-Morris** discusses contemporary Choctaw practices and ideas concerning mound-building, and how it remains a continuing, living tradition.

**Pilgrimages** across cultures are discussed by Dr. Lindsey Jones, who lays out some of the main historical and religious themes behind the idea of taking a spiritually-inspired journey.

**DeeAnne Wymer** discusses the characteristics we find in the transition to early agriculture and how those changes are likely tied to the ideas about landscape (and astronomy) that are embodied in the earthworks.

**Bill Romain** explains the principles of Hopewell geometric and landscape design based on his research using LiDAR technology and detailed measurements.

**Southwestern Comparisons:** Video clips portray the comparison to the Chaco Canyon Sun Daggers, and the road building techniques there, with Hopewell achievements.

**British Comparisons:** Video clips portray the comparisons with Avebury and other related ditch-and-ring constructions in England, in terms of size, technique, and possible uses.

**Mary Borgia** describes her experiences on a Fulbright Exchange to Salisbury, England, to work with grade school students in exploring detailed comparisons between Newark and Stonehenge.

**Jamestown Comparisons:** Video clips compare the reconstructions of large Hopewell buildings (Seip, Liberty) with recently discovered Longhouses at Jamestown, Virginia.

**Native Poet Allison Adelle Hedge Coke** reads excerpts from her *Blood Run*, a highly praised account of a mound site in South Dakota, whose history is revived from the point of view of the humans, the animals, and the world around it.

**Margaret Pearce,** Native American and professor of geography at Ohio University, discusses indigenous methods of mapping.

**Our Ways of Knowing:** Project Co-Director Dr. Richard Shiels discusses the question of what can be known about Ohio's ancient earthworks and how we can know it: comparing and contrasting archaeological analysis with the history of what previous generations including Indians have said about them.

**Interpreting** from material evidence, including the earthworks themselves, pottery, and other artifacts, plus insights of Native descendents, requires both understanding and imagination, Dr. Shiels explains, if we are to see the ancients as humans like ourselves.

**Sharing the landscape** in which they built, we can identify with the features and events in it, for example looking at the moonrise and holding ceremonies within the earthen walls. We can walk the ground they walked, and like them travel to and strive to understand meaning in visits to these places.

**Tourists as Pilgrims:** Dr. Richard Shiels offers the pilgrimage interpretation of the sites and connects the idea of sacred travel to modern thoughtful tourism, seeking to enable twenty-first century travelers to connect with those who built these mounds and those who traveled to them.

**Euro-Americans** have rarely seen the earthworks as Native Americans do. In past generations Indians have been removed from Ohio and dismissed from the dominant culture, yet growing awareness of the earthworks will open us increasingly to Native readings of these sacred places.

**Pre-Contact Native History:** Textbooks are being revised to include pre-contact peoples as part of the story we call American history. Native Americans are still here, Native culture persists and the legacy of their ancestors surrounds us all.

**Indians and Archaeology:** Robert Warrior (tribe; Director, American Indian Studies at the University of Illinois) summarizes one Native perspective on archaeology; part of a complex and often contentious difference of approach. Sonia Atalay discusses another.

**Witnessing the Alignment:** Jeff Gill recalls what might have been the first sighting of the lunar alignment at the Octagon in hundreds of years.

**Creek Moundbuilding:** Alfred Berryhill (Second Chief of the Creek Nation) describes contemporary Creeks building a mound in Oklahoma.

**Green Corn Ceremony:** Chief Berryhill describes contemporary Creek Indians celebrating the Green corn ceremony in a large circular earthwork in Oklahoma.

**Shawnee Removal from Ohio:** Glenna Wallace (Chief of the Eastern Shawnee Tribe of Oklahoma) recounts Shawnee removal from Ohio.

**A Shawnee Pilgrimage:** Chief Glenna Wallace describes Shawnee people traveling to Ohio in 2007 on a recent pilgrimage; some were returning to their sacred towns and homelands here for the first time.

**Naming Social Roles:** Marti Chaatsmith talks about the problems of using terms like "shaman, priest, or pilgrim" to refer to pre-contact Native groups, roles or activities; and ways to avoid over-assuming resemblance to Old World associations.

**Native American Science:** Dr. Clara Sue Kidwell discusses the distinctions between Native American models of scientific understanding, and how they compare to western science.

**Native Spirituality:** Carol Welsh (Director, Native American Indian Center of Central Ohio) describes the importance of Ohio's earthworks to Native American identity and spirituality.

**Earthwork Principles:** William Romain describes what he calls the "principles of Hopewell earthworks construction" that he has identified using the highly-procise LiDAR imagery techniques.

**Six Hundred Enclosures:** Jarrod Burks discusses his knowledge of 600 earthen enclosures within what is today the state of Ohio, comparing this with William Mills' inventory published in 1914.

**Native American Cosmology:** Several scholars compare ideas on the three-layered universe of Native America: the sky-world, the middle earth where humans live, and the below-world which is mostly water, each with their representative spirits. The role of earth and water in this architecture is often seen as related to these themes.

**Ancient Observatories:** A narrator points out that many of the first human monuments mark celestial patterns; archaeoastronomer Dr. Anthony Aveni suggests the importance tying these observations to the practices of everyday life.

**Moon:** A Lenape moon origin tale is followed by an interview with Delaware Grand Council Chief Linda Poolaw in which she tells the ongoing meaning of the moon, and the female ancestors, for her tribe and herself.

**The Earth-Diver:** Neeake (Fred Shaw) recounts one version of the widespread creation story of the earth-diver, thought by many scholars to be connected to the earthworks' often water-related construction symbols.

**Adena Architecture:** Characteristics of "Adena" architecture are shown, compared with later Hopewell builders who used some of the same patterns and sometimes built around Adena works.

**Shapes and Meanings:** Possible meanings of the prominent circles and squares of Hopewell earthworks, are tied to traditional Woodland Indian dualities, and continuing building practices of certain tribes.

**Sacred Circles:** Spatial and symbolic characteristics of sacred circles which apply equally to those of the Ohio earthworks and others around the world.

**Bear:** Storyteller Neeake (Fred Shaw) tells the Shawnee story of the primordial fight between Man and Bear and how it helps define the tribe's sense of who they are.

**Shaman:** Northwestern University archaeologist Dr. James Brown discusses the possible role of the shaman at earthwork sites.

**Gardening:** Which plants were domesticated by the Hopewell, how they were grown, and how gardening may have affected the landscape, filmed at the Fort Ancient garden.

**Deer Hunting:** A dramatic excerpt from a Native American memoir suggests how close a Native hunter could come to understanding, and approaching, his primary Eastern Woodland prey.

**Ceremonial Gatherings:** A synthesis of the ways the geometric earthworks may have been used, and how gatherings there were probably multi-purposed.

**Geometry and Culture:** How different societies have done their "earth measuring" to solve problems, reflect values, and (consciously or not) assert their intellectual and cultural imprint.

**A Hopewell Settlement:** Two houses surround a yard in which objects (flint, doorway, textiles, fire, deer, squash, basket) introduce topics about the daily life of the earthwork builders.

**Fire:** The role of fire in the builders' treatments of deposited items, burials, and the burning down of buildings before earthen memorials were raised.

**Hopewell Hilltops:** The nature and variety of Hopewell hilltop enclosures, telling how they were built and offering some possible reasons for occupying and embellishing them.

**Hilltops Worldwide:** A discussion of the global context of spiritual centers on elevated landscapes, from the Acropolis to the Temple of the Mount.

**Burning Things:** Comparative religion scholar Dr. David Cave, discusses the meaning of community ritual burning of meaningful objects across cultures.

**Flint:** Mastery of this essential stone is an ongoing aspect of Native American heritage, including modern flintknapping; illustrated with beautiful Ohio blades both ancient and contemporary.

**Copper:** Explanation of origins and artistry of Hopewell copper, with photos and reconstructions of dazzling earspools, clothing ornaments, cutouts, and other artifacts.

**Obsidian:** The Rocky Mountain origin of Hopewell obsidian, and the qualities of the stone that must have made it so valuable for making ceremonial objects, including the beautiful giant blades in the OHS collections.

**Precious Materials:** An overview of the use and trade of precious materials used in making artifacts associated with the earthworks: copper, obsidian, mica, pearls, and flint.

**Settlement Size:** Archaeologist Dr. Adrian Lazzazera presents her research showing a larger-than-expected settlement discovered at Fort Ancient, and how this differs from other theories of how the earthwork builders lived.

**Water:** Lists the aspects of water that hold deep meaning in many cultures, and suggests that these may have influenced the water engineering of the Adena and Hopewell sites.

**Preservation:** Ohio State University archaeologist Dr. William Dancey explains how the state of Ohio, despite its ancient treasures, still lacks strong preservation laws.

**Native Preservation:** Miami tribal official Julie Olds gives her view of the need to preserve and educate people about earthwork sites, both for native people and for all people.

**Deer:** Seneca artist Patti Shinn talks about the meaning of the deer for Deer Clan members in her tribe, and by extension, the value of the deer for all Eastern Woodland Indians.

**Duality:** The use of complementary opposites in Hopewell and many other cultures as a way to express difference and complementary relationships, while also asserting unity.

**Mica:** Showcases the use of mica from the Smoky Mountains by the earthwork builders for creating translucent decorations, mirrors, and sheets to cover burials.

**Pipes and Smoke:** Historian Roger Kennedy demonstrates the use of a Hopewell animal effigy platform pipe, and how the user comes face-to-face with the animal.

**Antler Headdresses:** Three spectacular copper antler headdresses from the Hopewell site help show how the people may have used them to celebrate stages of growth in the deer.

**Pearls:** Fresh water pearls were used by the thousands in necklaces and to embroider fabric fashioned by the earthwork-building cultures.

**Communication:** An exploration of the theory that mounds may have been used for signal fires across great distances.

**Inside a House:** Description of the construction, furnishings, and uses of a domestic interior, using the house in the Fort Ancient garden combined with a virtual scene and a reconstructed, furnished interior.

**Squier and Davis:** The personal story of the journey of these historic pioneers from Chillicothe, Ohio, in recording the ancient monuments of the Mississippi Valley.

**Earth, Soil.** Architectural historian and Project Co-Director John Hancock discusses how well the earthwork builders understood "earth" itself as an architectural element, the many varieties of soil and their technical properties.

**Parallel Walls:** The variety of examples of parallel walls created at the sites, and their possible uses as roads, locations of processions or games, and as directional "pointers."

**Effigies:** Exploration of the Great Serpent Mound and other effigies now attributed to the Fort Ancient culture, compared with effigies from elsewhere in the Americas.

**Forests:** All of the Ohio Valley region was once covered with dense forest, defining the enormous impact created by the large clearings artificially created for the earthworks.

**New Archaeology:** How new tools are enabling new (and non-invasive) discoveries at old sites, and the discovery of new ones; demonstration by Dr. Jarrod Burks, then a curator at Hopewell Culture National Historical Park.

**Soil and Expression:** Architect William Taylor of Howard University explores the potential meanings of using soil as an architectural idea, in part symbolizing the precariousness of the earth's surface and of our existence.

**NAGPRA and Respect:** Miami Tribe official Julie Olds discusses the still-open questions of what ancient things should be let alone, and which ones proudly shown as part of Native patrimony.

**Hopewell Culture NHP:** The history of the creation of the national historical park, and its recent site additions in the Middle Scioto Valley.

**Textiles:** An explanation of the variety and complexity of Hopewell textiles, with a demonstration by Dr. Kathryn Jakes of how plant fibers were obtained from stems.

**Resources:** Dr. William Dancey of Ohio State University explains why settlement patterns may link to the location of hickory trees and the populations of deer that sought out the nuts.

**Menu:** Evidence from settlement midden (garbage) lets us reconstruct the diet of the people, which was remarkably diverse with foods from various environmental zones.

**Building Construction:** An illustration of what we know and can guess of the techniques used in timber constructions at earthwork sites, and how these are related to known Native techniques.

**Shells:** Originating on the Atlantic or Gulf coasts, shells were important in Hopewell deposits and imply trade or pilgrimage across a large sphere of interaction.

**Music:** Ethnomusicologist Robert Templeman emphasizes that the builders' music (panpipes, rattles, rasps, drums, and voices) differed in sound and purpose from we know today, and discusses the function of music in South American tribes he has studied.

**Music and Authenticity:** Ethnomusicologist Robert Templeman points out that most of the music in our program is "Westernized" and inauthentic, compared to what the music of the ancient Ohioans probably sounded like.

**The Uncanny:** Architect William Taylor describes the feeling of being next to the great earthworks as uncanny, as though another world were projecting into the one we know.

**Spirit Barrier:** How water acts as a barrier to spirits in various American Indian beliefs; and the possible application of the idea to Adena circles and other earthworks, and the incorporation of water as a design element.

**Sacred Landscape:** Archaeologist Dr. Mark Seeman discusses the relation between the hills and valleys of the Ohio River landscape, particularly near Mount Logan and Chillicothe, and the formations of the earthworks and mounds.

**Axis Mundi:** Dr. David Cave explains the concept of the world axis, or world tree, as seen across the American continents; Dr. Chris Carr locates it in Hopewell artifacts.

**Reincarnation:** Archaeologist Dr. James Brown explains how the earthworks may have been scenes of ritual adoption and the spiritual reincarnation of revered ancestors.

**The Cosmological Plan:** Dr. James Brown interprets geometric earthworks as perhaps the cosmos on earth, allowing potential enemies to meet within a common order.

**Elaboration and Ritual:** Dr. David Cave explores the reasons for the great size and elaboration in ritual grounds and preparations, across cultures.

**Naming these Cultures:** Historian Dr. Geoffrey Plank talks about the reasons for caution in using the common archaeological categories to define ancient groups, beliefs, or practices.

**Deposits:** A discussion of the practice, and examples, of Hopewell interment of precious objects and materials in the earth.

**Making Fire:** Mark Welsh of Dakota heritage tells a story he remembers about the origin of fire being at Ohio's Flint Ridge.

**Hopewell Interaction Sphere:** Dr. Robert Hall describes the nature of the trade networks and other influences that had Hopewell ideas going far across the continent.

**Circle of Life:** Shawnee Chief Frank Wilson talks about walking the medicine wheel of life with its four gateways.

**World Renewal:** Archaeologist DeeAnne Wymer explains why some Hopewell ceremonies suggest the tradition of world renewal, still celebrated by many Native American tribes.

**Light and Shadow:** Archaeologist Dr. Gwynne Henderson of the University of Kentucky talks about the aesthetic power of light and shadow in earthwork design.