
Hopewell Ceremonial Earthworks (United States of America) No 1689

1 Basic information

Official name as proposed by the State Party

Hopewell Ceremonial Earthworks

Location

Licking, Ross, and Warren counties

State of Ohio

United States of America

Brief description

Hopewell Ceremonial Earthworks is a series of eight monumental earthen enclosure complexes built between 2,000 and 1,600 years ago along the central tributaries of the Ohio River in east-central North America. They are the most representative surviving expressions of the Indigenous tradition now referred to as the Hopewell culture. Their scale and complexity are evidenced in precise geometric figures as well as hilltops sculpted to enclose vast, level plazas. Huge earthen squares, circles, and octagons are executed with a precision of form, technique, and dimension consistently deployed across a wide geographic region. There are alignments with the cycles of the Sun and the far more complex cycles of the Moon. These earthworks served as ceremonial centres, built by dispersed, non-hierarchical groups whose way of life was supported by a mix of foraging and farming. The sites were the centre of a continent-wide sphere of influence and interaction, and have yielded finely crafted ritual objects fashioned from exotic raw materials obtained from distant places.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of eight *sites*.

Included in the Tentative List

30 January 2008

Background

This is a new nomination.

At the request of the State Party, an ICOMOS Advisory Mission visited the nominated property from 16 to 20 November 2015.

Consultations and technical evaluation mission

Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the nominated property from 17 to 24 September 2022.

Additional information received by ICOMOS

A letter was sent to the State Party on 3 October 2022 requesting further information about the boundaries and integrity archaeological finds, ownership and protection, monitoring, research, and community involvement.

Additional information was received from the State Party on 31 October 2022, 1 November 2022, and 12 December 2022.

An Interim Report was provided to the State Party on 21 December 2022 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report, including: research, management, community involvement, site interpretation, land use and integrity.

Additional information was received from the State Party on 17 February 2023.

All additional information received has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report

10 March 2023

2 Description of the nominated property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report provides only a short summary of the most relevant aspects.

Description and history

The eight component parts of the nominated property are situated in Licking, Warren, and Ross counties in the southern part of the State of Ohio. Built between 2,000 and 1,600 years ago on the upper-level terraces of river valleys in a landscape shaped during the last glaciation of northeastern North America, they illustrate the full repertoire of earthwork configurations created by the Indigenous tradition now referred to as the Hopewell culture (1 to 400 CE). These include landform-based shapes plus geometrically precise earthen circles (diameters greater than 300 metres with less than a 0.25 metre variance), squares, and octagons in a variety of combinations. Many were built to standard dimensional units and related geometrical principles that were used across the region and that conceptually link all these archaeological sites to each other.

Built as places for ceremonial assemblies often involving burials, these earthworks consist of embankment walls enclosing huge spaces, with carefully positioned and often monumental gateways. These earthworks are distinguished by their size, geometric and formal precision, and archaeological objects made from materials obtained

from across much of North America. In many cases, walls, mounds, gateways, and other features are aligned to the cyclical risings and settings of the Sun and Moon, the latter encoding all eight lunar standstills over an 18.6-year cycle. There is also archaeological evidence of substantial stone and timber constructions associated with the use and development of the sites.

Octagon Earthworks and Great Circle Earthworks

The two northernmost component parts are the principal surviving portions of what is known as the Newark Earthworks complex. The first of these is the Octagon Earthworks component part, comprised of two linked geometric figures enclosing an area of more than 24 hectares. A circular enclosure and its adjoining open-cornered octagon have multiple lunar orientations. The second is the Great Circle Earthworks component part. The best preserved and largest of the circular earthworks, the 10.07-hectare enclosure is entered from the northeast through a monumental gateway. Evidence indicates that its interior ditch was engineered to hold water.

Hopeton Earthworks and Mound City

About one hundred kilometres to the southwest, in the Scioto River Valley, the Hopeton Earthworks component part illustrates the combination of a circle and a square, enclosing a total of 15.16 hectares, with two adjacent smaller circles and a parallel-walled avenue. Hopeton appears to form a geographical and ritual pair with Mound City, which is just across the Scioto River from Hopeton. Mound City is the finest surviving necropolis of the Hopewell culture. A rounded-cornered square earthen wall encloses an area of 6.81 hectares containing the highest density of burial mounds of any Hopewell earthwork.

High Bank Works

The High Bank Works component part, located twelve kilometres south of Mound City in the Scioto Valley, complements the Octagon Earthworks with a circular enclosure of identical size linked to a smaller octagon, together enclosing 16.42 hectares and aligning to key positions of the solar and lunar cycles.

Hopewell Mound Group

This component part is located eight kilometres west of Mound City in the small valley of the North Fork of Paint Creek. The largest of all Hopewell earthen enclosures, its combination of geometrical and landform elements encloses 55.34 hectares. Its many mounds were the repositories of the best assemblage of artefacts known from the Hopewell world.

Seip Earthworks

The Seip Earthworks component part is in the Paint Creek Valley, eighteen kilometres southwest of the Hopewell Mound Group. Two large circles combine with a square to enclose more than 40 hectares in total. It presents a

repertoire of shapes and sizes that were repeated at four other nearby earthworks that no longer survive.

Fort Ancient

Finally, the Fort Ancient component part crowns a high bluff overlooking the Little Miami River, eighty kilometres west of the Seip Earthworks. It is the most elaborate and largest Hopewell hilltop enclosure (40 hectares). It encodes solar and lunar alignments, and exemplifies architectural techniques of building earthen walls and water features in relation to the topographic conditions.

The area of the eight components totals 320.7 hectares, with buffer zones totalling 561.8 hectares.

By about 800 BCE, people in this area had begun experimenting with small-scale horticulture. From about 500 BCE, during the Middle Woodland period, the Adena culture started to build small-scale earthworks. By the year 1 CE, the Middle Woodland period had ushered in the increasingly elaborate Hopewell culture, which dominated the Miami, Muskingum, and Scioto river watersheds and influenced many regions beyond.

People began to assemble here over many generations, creating elaborate earthwork complexes as places of assembly, ceremony, and burial. All of this rich cultural activity, along with the monumental earthworks themselves, was achieved by otherwise dispersed groups of relatively egalitarian hunter-gatherers. The Hopewell culture was not a single group of people, but instead a religious movement that linked many distinct communities, likely with differing languages. By about 400 CE, however, forests were reclaiming the hilltop and geometric earthworks. The sites were being used less frequently by then, and no new ones were being built.

In the Late Woodland period, the so-called Intrusive Mound culture placed their own burials into the Hopewell mounds and earthworks. Around 900 CE, the forests in the region were being more widely cleared to accommodate intensive, large-scale cultivation of maize. From about 1000 until 1650, the residents of the area shifted to a sedentary, village-based, agriculturalist way of life. By the early 1500s, the people had largely coalesced into fewer and larger settlements along the main valley corridor of the Ohio River.

European goods began to appear in the Ohio Valley by 1550. The region was largely depopulated of its residents within one hundred years, mainly due to devastating epidemics following their contacts with Europeans. This was followed by Iroquois military incursions, which displaced the surviving groups to refuges largely outside the region. The area was later repopulated by several Indigenous groups.

By the beginning of the 19th century Euro-Americans were settling in ever larger numbers in the river valley areas, and a policy of removing Indigenous peoples was implemented. The settlers cleared forests, created large farms, and established towns and transportation networks that

transformed the landscape and the earthworks. Beginning in 1854 and extending into the early 21st century the area of the nominated property gradually entered into public ownership. While the Octagon Earthworks component part has been public land since 1892, it was leased to a private golf club in 1911.

The first European references to the Hopewell earthworks date from the 1780s. Scientific investigations began in the early 1800s, and documentation and study became more systematic in 1820. Many earthworks were documented in the 1840s, including some that are not conserved today. These and other investigations that followed speak to the important role the nominated property has played in the history of scientific archaeology in the United States of America.

State of conservation

Most of the earthworks were built on well-drained stable soils in areas where flooding was unlikely. Only the steep topography of Fort Ancient has suffered from some natural erosion. The sites were covered by forests between 400 and 1800 CE, which helped to preserve them. Today, the component parts are more park-like or are open fields, due to having been in agricultural use for many decades.

Three of the eight component parts (Octagon Earthworks, Great Circle Earthworks, and Fort Ancient), despite superficial disturbances, are in near-pristine condition both architecturally and archaeologically. Two component parts (Mound City and Seip Earthworks) have had their earthen architecture partially or wholly restored based on archaeological and documentary evidence. The remaining three component parts (Hopeton Earthworks, High Bank Works, and Hopewell Mound Group) are architecturally degraded from activities such as ploughing, but retain their archaeological integrity.

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is good.

Factors affecting the nominated property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the nominated property are environmental pressures, including invasive woody vegetation, burrowing animals, erosion, flooding, and tree falls. Events such as extreme wind have been linked by the State Party to global climate change. Some of the component parts are in built-up areas and could be the subjects of future development pressures.

A turf grass and native grassland cover is used to stabilise the earthworks and prevent destruction by burrowing animals. Dead or damaged trees are monitored and removed if they are considered to pose a threat. In general, visitation levels seem to be well below the carrying capacity. Visits are well monitored and currently do not pose a threat. In the additional information provided

in November 2022, the State Party indicates that possible solutions are still being investigated for three high-voltage transmission towers and a visitor overlook at the Hopewell Mound Group component part, as well as for the road that crosses the Fort Ancient component part.

ICOMOS welcomes the information provided by the State Party on 12 December 2022, on the cessation of the use of the Octagon Earthworks as a golf course that restricts public access. This situation was considered incompatible with the proposed Outstanding Universal Value.

The ICOMOS Advisory Mission in 2015 mentioned easements at the Hopeton Earthworks and Hopewell Mound Group component parts, where gravel extraction is taking place. These could represent future threats.

ICOMOS considers that the state of conservation is good and that factors affecting the nominated property are well known and controlled. Nevertheless, some current uses such as gravel extraction will have to be resolved.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The nominated earthworks exhibit geometric precision of a vast scale and complexity. Huge squares, circles, and octagons executed with an astonishing precision of form, technique, and dimension are consistently deployed across a wide geographic region.
- The nominated property includes astronomical alignments of great variety and accuracy. These alignments are not only with the cycles of the Sun, but also with the far more complex rising and setting patterns of the Moon.
- The earthworks served as elaborate ceremonial centres, built by dispersed, non-hierarchical groups whose way of life was supported by a mix of foraging and farming.
- This was the centre of a continent-wide sphere of influence and interaction, as evidenced by exceptionally finely crafted ritual objects fashioned from exotic raw materials from distant places.

Based on the nomination dossier and the additional information provided, the key attributes of the nominated property are the earthworks of vast scale and geometric precision, including remnants of earthen walls, gateways, mounds, ditches, earthen and timber rings, as well as water features; the astronomical alignments; and the elaborate ceremonialism expressed through the earthworks themselves as well as through the archaeological features contained in them such as woodhenges, burials, and offerings. Some claims related to the astronomical alignment aspect would need further deliberation to be

supported with confidence. The artefacts, which are indicators of continent-wide interactions, are not considered attributes of the proposed Outstanding Universal Value, but instead play a supporting role.

Comparative analysis

The comparative analysis has been developed around the following parameters: monumental works that manifest sophisticated geometry; works that demonstrate astronomical precision; works with elaborate ceremonialism of a non-hierarchical, non-urban culture; and works with a nearly continent-wide interaction. It has examined properties within eastern North America, within the continent of North America, and throughout the world inscribed on the World Heritage List, inserted in the Tentative Lists of States Parties, as well as other properties.

The component parts are compared to eighteen other Hopewell sites, most of which are judged to be good or excellent in at least one of the parameters of comparison. The State Party concludes that the selected component parts represent the most complete examples of the wider Hopewell phenomenon and constitute the most comprehensive collection of attributes necessary to illustrate the proposed Outstanding Universal Value.

A comparison with other North American sites excludes the cultures of southern Mexico, since they are considered to be completely different both culturally and architecturally. The cultures/sites of comparison in the United States of America are Watson Brake, Louisiana, 3500-2800 BCE; Poverty Point Culture, Louisiana, 1600-1100 BCE (Monumental Earthworks of Poverty Point, 2014, criterion (iii)); Adena culture, Ohio River Valley, 500-0 BCE; Effigy Mound culture, Upper Mississippi River Valley, 900-1200 CE (Serpent Mound, Tentative List); Mississippian culture, southeastern United States, 1000-1450 CE (Cahokia Mounds State Historic Site, 1982, criteria (iii), (iv)); and Ancestral Puebloan culture, southwestern United States, 850-1250 CE (Chaco Culture, 1987, criterion (iii)). The State Party considers that, apart from Chaco culture, the geometrical and astronomical properties of the sites compared here are less precise, and most of them are much smaller as monumental architectural conceptions. The Hopewell Ceremonial Earthworks also stand apart from all the others as “vacant” ceremonial centres – places of widespread importance and influence, yet conceived and created by otherwise dispersed, non-resident, non-hierarchical groups.

At the global level, the nominated property is compared with eleven sites that exemplify monumental and/or astronomically significant works by ancient mixed-economy or non-urban cultures. These include Chankillo Archaeoastronomical Complex (Peru, 2021, criteria (i) and (iv)); Heart of Neolithic Orkney (United Kingdom of Great Britain and Northern Ireland, 1999, criteria (i), (ii), (iii) and (iv)); and Göbekli Tepe (Türkiye, 2018, criteria (i), (ii) and (iv)). The State Party considers that a number of these properties share some of the attributes that support the proposed Outstanding Universal Value of the nominated

property, but the constructions of the nominated property are exceptional amongst ancient monuments worldwide in their combination of enormous scale, geometrical and astronomical precision, and region-wide consistency and distribution. In particular, the high precision in marking rising and setting points of the Moon appears to be almost non-existent amongst ancient monuments worldwide.

The State Party also highlights that the nominated property, if inscribed, would help to address several significant gaps identified in the World Heritage List by UNESCO and ICOMOS.

ICOMOS considers that the methodology for the comparative analysis is sound, and the rationale and criteria for selecting the component parts for the serial nomination are justified.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (i) and (iii).

Criterion (i): represent a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that the nominated component parts are exceptional amongst ancient earthworks worldwide, not only in their enormous scale and wide geographic distribution, but in their geometric precision and in their astronomical breadth and accuracy. These features imply high-precision techniques of design and construction and an observational knowledge of complex astronomical cycles that would have required generations to codify. The series includes the finest extant examples of these various principles, shapes, and alignments, both in geometric earthworks and in the pre-eminent surviving hilltop enclosure. They reflect the pinnacle of Hopewell intellectual, technical, and symbolic achievement.

ICOMOS considers that criterion (i) is demonstrated in relation to the enormous scale, wide geographic distribution, and geometric precision of the earthworks. The astronomical alignment aspect is not as well documented in the nomination dossier. The additional information provided on this point in February 2023 refers to some recent work undertaken by a limited group of researchers. Given the on-going state of the research, ICOMOS considers that further deliberation should be facilitated in order to confirm which claims can be supported.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that these earthwork sites bear exceptional testimony to the unique characteristics of their builders, who lived in small, dispersed, egalitarian groups amongst the river

valleys and who gathered periodically to create, manage, and worship within massive public works that reflect an elaborate ceremonialism linked to the order and rhythms of the cosmos. The continent-wide reach of the interactions of this culture is evident in raw materials such as mica, copper, and obsidian brought from as far away as the Rocky Mountains more than 2,500 kilometres distant. The quantity, diversity, and aesthetic quality of these artefacts have few equals in the history of American Indian artistry.

In its request for additional information sent in October 2022, ICOMOS indicated that more research or better presentation of existing research was needed concerning the artefacts as well as the lifeways of the Hopewell culture, in order to better contextualise the ceremonial centres. Additional information and a full bibliography concerning the latter point were supplied by the State Party in November 2022. More information about the research done on the archaeological artefacts and their origins was provided by the State Party in February 2023. In addition, ICOMOS notes that the artefacts are not attributes of the proposed Outstanding Universal Value but are playing a supporting role.

ICOMOS considers that criterion (iii) is demonstrated.

ICOMOS considers that the nominated property meets criteria (i) and (iii), and that the serial approach for selecting the component parts is justified.

Integrity and authenticity

Integrity

All the attributes necessary to convey the proposed Outstanding Universal Value are encompassed within the boundaries of the nominated serial property. These include the earthwork walls, gateways, ditches, ponds, and *in situ* archaeological remains. The series is of sufficient size to ensure the complete representation of the features and values that convey the nominated property's significance.

The maps of the component parts show that in some of them (Seip Earthworks, High Bank Works, and Hopewell Mound Group) small parts of the earthworks are located outside the nominated property, in the buffer zones. In the additional information supplied in November 2022, the State Party indicates that these are still in private ownership. The law of the United States of America requires the consent of the owners for privately-owned land to be included in a World Heritage nomination. The National Park Service has committed to acquire these parcels once the owners agree to sell. The additional information supplied by the State Party in February 2023 notes that LiDAR surveys indicate that the privately-owned parcels do not contain significant resources. The relationship with the landowners is described as generally positive, with open communications.

The attributes are intact, and major pressures on those attributes are being managed. Two situations received

particular attention from the 2015 ICOMOS Advisory Mission: the Moundbuilders golf course in the Octagon Earthworks component part; and the three high-voltage transmission towers in the Hopewell Mound Group component part. In the first situation, a ruling by the Ohio Supreme Court issued in December 2022 has opened the way for the non-profit Ohio History Connection to acquire the leasehold of the Octagon Earthworks from the Moundbuilders Country Club and to create conditions to increase public access to the site. In February 2023, ICOMOS was informed that Ohio History Connection will have possession of the property before the end of 2023, but that there is the possibility of appeals, which could delay the process. In the case of the transmission towers, the consensus is that the most viable course of action is to leave the towers in place for the remainder of their useful life (fifty to seventy years), especially since the component part is of sufficient size to largely offset the adverse visual effect. The State Party also considers that all other options have significant drawbacks.

The detailed description of the state of conservation of the nominated property in the nomination dossier showed that the secondary uses of the sites in prehistoric, historic, and modern times left their mark on them. These uses include the construction of roads, buildings, and other infrastructure, as well as surface alterations and excavations for a number of different reasons (agriculture, archaeological investigation, restoration, etc.). All of these situations affect the integrity of the nominated property. The State Party contends that, in spite of these situations, recent LiDAR images, geophysical surveys, and excavations show that the archaeological attributes are intact and thus support the proposed Outstanding Universal Value.

ICOMOS considers that the condition of integrity for the nominated serial property has been met. Efforts should be made to resolve any issues connected to non-conforming elements and uses, as well as the situation where attributes are excluded because they are on private property.

ICOMOS considers that the integrity of the whole series as well as the integrity of each of the component parts have been demonstrated.

Authenticity

The authenticity of the nominated serial property is based on its locations and settings, forms and designs, materials and substance, and spirit and feeling. The settings of the earthworks are predominantly semi-rural or low-density residential areas, surrounded for most of their perimeters by parkland. In form and design, the enclosure walls and mounds remain mostly intact. High-resolution remote-sensing data for the Seip Earthworks, Hopewell Mound Group, Hopeton Earthworks, and High Bank Works component parts clearly show intact subsurface portions of wall and building constructions. The materials and substance of the earthworks are likewise authentically preserved in the intact forms of Fort Ancient and the Newark Earthworks complex, as well as in the *in situ*

archaeological remains at all the other component parts, in several cases made visible by LiDAR imagery and geophysical surveys. Finally, the State Party highlights the spiritual resonance of the sites with contemporary American Indian Woodland traditions, which supports an authenticity of spirit and feeling.

ICOMOS considers that the attributes of the nominated property authentically convey the proposed Outstanding Universal Value, even though some elements have been damaged or altered during their long history. ICOMOS recommends indicating clearly on the ground and in documents which parts of the nominated property were altered, restored or destroyed in order to facilitate a correct reading of the component parts by visitors. Furthermore, it would be important to include more information on the relationships of present-day Indigenous peoples with the earthworks.

ICOMOS considers that the authenticity of the whole series as well as the authenticity of each of the component parts has been demonstrated.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole series and of the individual component parts have been met.

Boundaries

There are no permanent residents within the nominated property and a total of 386 permanent residents in the buffer zones.

The boundaries of each component part encompass all the attributes necessary to convey the proposed Outstanding Universal Value. These attributes include remnants of earthen walls, gateways, mounds, ditches, earthen and timber rings, as well as water features. All known surviving traces of features connecting sites, such as parallel-walled causeways, are included within the boundaries of the relevant component parts.

While the concept of a ceremonial landscape is raised in the nomination dossier, the State Party stresses, in the additional information submitted in November 2022, that the landscape aspect does not play a relevant part in the nomination and is not an attribute that supports the proposed Outstanding Universal Value of the nominated property. The vistas and landforms on the horizon, which are also mentioned in the nomination dossier, are understood to be part of the setting, not attributes contributing to the proposed Outstanding Universal Value. The only exception is the alignment with the distinctive landforms of the Mount Logan Range in Mound City, six kilometres away. The State Party maintains that it is not necessary to include the intervening land in the buffer zone, since the mountain peaks are protected within state park lands and are so large that they cannot be obscured.

Very small portions of earthwork elements that are part of the High Bank Works, Hopewell Mound Group, and Seip Earthworks are not currently included in the nominated property, but remain instead within their buffer zones. This

privately-owned land is located within the authorised boundary of the Hopewell Culture National Historical Park and has been identified for acquisition in the future, depending on willing sellers.

ICOMOS considers that the buffer zones proposed by the State Party for the nominated property are realistic and offer extra protection to the eight component parts through direct ownership (with the exceptions mentioned above), inclusion within the authorised boundary of the Hopewell Culture National Historical Park, and local government zoning laws.

Evaluation of the proposed justification for inscription

In summary, ICOMOS considers that the comparative analysis shows in a conclusive way that the nominated property justifies consideration for the World Heritage List. Criteria (i) and (iii) have been met, and the serial approach for selecting the component parts is justified. The nominated property meets the conditions of integrity and authenticity. The boundaries of the nominated serial property are clear and contain, with minor exceptions, the attributes that support the proposed Outstanding Universal Value. The buffer zones are adequate.

4 Conservation measures and monitoring

Documentation

The historic documentation of the component parts is very complete. The descriptions and plans elaborated since 1820 have been used as baseline information for conservation and restoration interventions. More recent information, including LiDAR images and geophysical surveys, allow changes to the state of conservation of the nominated property to be tracked up to the present day. The inventories and condition assessments are updated regularly (annually, at a minimum) by Ohio History Connection and Hopewell Culture National Historical Park for their respective component parts. For the National Park Service, the most recent inventories and assessments are maintained in management software systems. Ohio History Connection maintains inventory and assessment documents within its Historic Sites & Museums and Facilities Management Department files.

Concerning artefacts, the additional information supplied by the State Party in November 2022 advises that artefact collections and much of the related documentation is stored in a Collections Facility maintained by Ohio History Connection, and Hopewell Culture National Historical Park artefact inventories are maintained in a comprehensive national collections management database. Many of the objects are exhibited.

No detailed overarching research plan appears to exist for the nominated property as a whole. In the additional information provided in February 2023, the State Party indicates that the drafting of shared research questions and an overall research strategy for the nominated property is

in the early stages. Currently, Ohio History Connection is working with Indigenous peoples to develop priorities and appropriate procedures for conducting research with the archaeological collections and at sites managed by Ohio History Connection. The development of a comprehensive research plan will be part of that conversation. Ohio History Connection expects to involve Tribal Nations in reviewing research proposals and will share research results at the annual Tribal Nations Conference. In addition, the organisation has been working with Indigenous groups to conduct research that addresses questions of interest to them.

Archaeological investigation has a long tradition at the nominated property, and both management agencies have given much thought to future archaeological research. In the additional information provided in November 2022, the State Party advises that a new landscape-scale framework for organising and interpreting archaeological research in the Hopewell Culture National Historical Park was outlined in 2019 in "Hidden Hopewell Landscapes: An Archeological Research Framework for Hopewell Culture National Historical Park." It is conceived as a long-term effort to revolutionise the basic understanding of Park resources and encourage multi-disciplinary studies, and is intended to integrate the activities of researchers from a wide range of institutions.

Conservation measures

Conservation activities are fully integrated into management decisions and business functions. Each component part has a management plan and is subject to ongoing monitoring and maintenance. Soil erosion is addressed by using a turf grass and native grassland cover. Dead, dying or diseased trees are removed from the earthworks before they potentially uproot, and new trees are not planted or allowed to grow on the earthworks. Eroding terrain is stabilised before it affects the nominated property. Visitation is actively and passively monitored, but is not considered a current issue at any of the component parts. Signage to discourage visitors from walking on the earthworks is present at the seven sites that are open to the public. The National Park Service and Ohio History Connection work collaboratively to ensure that conservation activities are carried out to accepted standards.

These conservation measures ensure the conservation of the nominated property and its attributes. The measures are appropriate to preserve the proposed Outstanding Universal Value, including authenticity and integrity. Funding to implement conservation work and maintenance is adequate.

Monitoring

All attributes and features within the boundaries of the nominated property are closely monitored on a regular basis by professional expert staff from the two owner agencies. The aspects monitored by the managing agencies include changes in the surface and dimensional stability of the mounds, walls, and ditches due to erosion; evidence of intrusions on below-grade resources due to

burrowing animals; the number of mature trees with weakness or disease, susceptibility to serious damage or falls, or number of falls; changes in the presence of invasive or exotic plants and woody species; numbers of visitors per day, per event, and per type; and impacts from visitor foot traffic or other activities.

Private landowners within the buffer zones of the Hopewell Culture National Historical Park practice no-till agriculture. Until such time as these land parcels may be purchased by the National Park Service, staff monitors them closely for any disturbances. The Fort Ancient component part requires continuous monitoring of its areas at risk of erosion and land slippage due to its steep slopes, many ravines, and significant forestation (and resulting tree-falls).

Monitoring is done weekly or monthly and monitoring forms are filed annually. For the Hopewell Culture National Historical Park component parts, a mobile application is now available to document site conditions. The information is centralised and evaluated by the National Park Service staff or the Historic Sites & Museums staff of Ohio History Connection.

ICOMOS considers that the documentation is very complete, though no detailed overarching research plan appears to exist for the nominated property as a whole. The conservation and monitoring measures in place have proven to be effective. It would be important for the management agencies to develop a joint approach to archaeological investigation in the nominated property as well as the Hopewell culture in general. ICOMOS considers that it would be advisable that the monitoring system is adapted for easy integration of its outcomes into the Periodic Reporting questionnaire.

5 Protection and management

Legal protection

The nominated property is fully protected by means of federal and state laws, regulations, and policies. The primary legal protection for the National Historical Park is provided by the National Park Service Organic Act (1916). The national significance of the component parts Octagon Earthworks, Great Circle Earthworks, Hopeton Earthworks, and Fort Ancient is recognised by their designation as National Historic Landmarks. Five component parts (High Bank Works, Hopeton Earthworks, Mound City, Hopewell Mound Group, and Seip Earthworks) are included within the Hopewell Culture National Historical Park and thus equally considered as having national significance. Hopeton Earthworks has both designations. Some component parts have Ohio State Memorial status and are protected under Ohio Revised Code 149.30 (1965, revised 2018).

The eight component parts are owned by three entities: the United States Department of the Interior's National Park Service, which owns Hopewell Culture National Historical Park comprised of the High Bank Works, Hopeton

Earthworks, Mound City, Hopewell Mound Group, and Seip Earthworks; Ohio History Connection, which owns the Newark Earthworks complex comprised of the Octagon Earthworks and Great Circle Earthworks; and the State of Ohio, which owns Fort Ancient. Hopewell Culture National Historical Park is under federal jurisdiction through the National Park Service and is subject to federal laws, policies, and guidelines for the protection of cultural heritage. Ohio History Connection is a private non-profit corporation acting on behalf of the State of Ohio. Fort Ancient and the Newark Earthworks complex are located on State of Ohio lands and are subject to state laws, policies, and guidelines.

Federal and state laws, guidelines, and regulations to protect the nominated serial property are well documented. ICOMOS considers that the legal and regulatory environment is robust and well enforced, and that there are no concerns with its effectiveness in the context of the nomination.

The buffer zones for the Octagon Earthworks, Great Circle Earthworks, and Fort Ancient rely to a large degree on zoning restrictions of the City of Newark, the City of Heath, and Warren County. These local zoning restrictions serve to maintain the largely residential or rural characters and viewsheds of these buffer zones, and appear to be effective.

The Indigenous peoples consulted support the nomination process and feel a great responsibility toward the nominated property, its protection, and its commemoration.

In conclusion, ICOMOS considers that robust legal protection is in place and implemented at all eight component parts of the nominated serial property.

Management system

Ohio History Connection has individual management plans for the Newark Earthworks complex covering the Octagon Earthworks and Great Circle Earthworks, dated 2003, and for the Fort Ancient component, dated 2021, as well as other agency-wide policies and directives. Ohio History Connection will prepare a new management plan for the Newark Earthworks complex by 2023 (foreseen to be completed and to include the Octagon Earthworks by summer 2025), but in the meantime has developed an Addendum to the 2003 plan that provides essential updates.

The five component parts that are within the Hopewell Culture National Historical Park are included in management and planning documents covering the Park as a whole. The General Management Plan (1997), the prime document for decision-making, was developed in consultation with service-wide programme managers, park staff, interested parties, Indigenous partners, and the general public. The General Management Plan of the Park articulates basic values for the long term and is not expected to change, while subsidiary documents are updated more routinely. The nomination dossier indicates that Park managers are currently conducting a

comprehensive planning portfolio review to define additional resource protection strategies and visitor experience enhancements.

ICOMOS considers that, pursuant to paragraph 114 of the *Operational Guidelines for the Implementation of the World Heritage Convention*, a management system or mechanisms for ensuring the coordinated management of the separate component parts are essential.

The two agencies responsible for managing the nominated property maintain an ongoing Cooperative Agreement (2019) that provides a framework for coordinated approaches to site management. The current agreement is limited to five years, but the organisations intend to renew it perpetually. The agreement specifies areas of shared work and responsibility, communication protocols, and financial considerations. ICOMOS considers that a commitment to safeguard the attributes of the proposed Outstanding Universal Value should be embedded in the Cooperative Agreement.

The administrative structure includes the World Heritage Ohio Executive Committee, which oversaw all aspects of the preparation of the nomination dossier and will continue in a coordinating role in the case of inscription, and World Heritage Ohio Ambassadors, who have been identified to support the nominated property beyond the roles of the two owner agencies. It is comprised of stakeholders and citizens with expertise and connections, such as representatives of federally recognised Indigenous nations, universities and colleges, business and civic organisations, travel and tourism organisations, and state, county, and municipal governments, amongst others.

The technical, human, and financial resources necessary for the conservation of the nominated property are in place. On-site leaders and staff include highly trained personnel in all aspects of heritage conservation, from the maintenance of archaeological remains to liaison with Indigenous peoples.

ICOMOS recommends that mechanisms for Heritage Impact Assessments and risk management provisions be included in the management system.

Visitor management

All component parts are open year-round, and only Fort Ancient has an entrance fee. Information on the component parts is available on the websites of the managing agencies. Interpretive brochures and guidebooks are available at the visitor centres at Mound City and the Newark Earthworks complex, and at the Museum of American Indian History at Fort Ancient.

The museums and visitor centres also offer exhibits and informational films, shops, and restrooms. Some basic visitor installations (for example, orientation and informational signage, trails, car parks, and/or restrooms) are available at the Hopewell Mound Group, Hopeton Earthworks, and Seip Earthworks component parts. No public amenities are currently available at the Octagon

Earthworks, though changes are foreseen once Ohio History Connection acquires the golf club lease. Visitor access to the High Bank Works component part is currently limited, since the archaeological site is reserved for research.

Differential mowing of the grass is practiced on the archaeological sites in order to enhance the visibility of the degraded earthworks. Where possible, areas inside earthwork enclosures are maintained in low-mown grasses, and taller grass is grown on the earthwork walls themselves. Native warm-season grasses are cultivated in areas surrounding the earthworks.

A new Long Range Interpretive Plan for the nominated property has been completed, in consultation with Indigenous peoples. It outlines a set of themes, approaches, topics, and programmes shared amongst the component parts. Collaborative work is well underway toward visitor experience planning and a property-wide approach for all visitor touchpoints and media around the specific factors affecting multi-site earthwork visitation. The activities are planned for implementation over the next three to five years.

In the additional information supplied in February 2023, the State Party indicates that information on restoration and changes at the nominated property can be found on the social media channels, website, individual site bulletins, and the national mobile application of the Hopewell Culture National Historical Park.

All the component parts are believed to have a carrying capacity well in excess of current visitation numbers. Both component parts in the Newark Earthworks complex have had thousands of people on them during their varied recreational uses without significant detrimental impact on the earthworks. The State Party advises that despite this evidence of the higher visitor capacities, measures and monitoring will be put in place across the nominated property to minimise the social, physical, and environmental impacts of increased numbers of visitors. ICOMOS considers that most of the archaeological sites and the nominated property as a whole are well equipped to receive visitors. The activities planned within the framework of the Long Range Interpretive Plan will further enhance the current situation. Finally, it would be advantageous to define the actual carrying capacities for each of the component parts.

ICOMOS also considers that, while it is important to provide sufficient interpretative information, on-site signage should not cause a visual disturbance. Furthermore, museum displays should specify which artefacts are original and which are replicas.

Community involvement

The State Party highlights the efforts made by the managing agencies to include local and Indigenous communities in their efforts to protect, manage, and interpret the nominated property. The Indigenous nations consulted support the nomination process, and have

indicated their great responsibility toward the nominated property, its protection, and its commemoration. This support is expressed, for example, in a 2011 Resolution from the National Congress of American Indians entitled *Support the Nomination of the Ohio Earthworks to become World Heritage Sites* (Resolution PDX-11-060), as well as through the one provided, amongst others, by the Miami, Eastern Shawnee, and Pokagon Tribes. One important step that led to this support was the appointment of a Director of American Indian Relations within Ohio History Connection.

Hopewell Culture National Historical Park has had a formalised consultation programme with Indigenous peoples since the 1990s. An increasingly robust consultation and involvement process has been informing all significant management planning at the Park, and activities such as the annual Tribal Nations Conference have created a fertile context for involvement of Indigenous peoples in the preparation of management plans and the development of new interpretive themes, events, and materials. In the additional information supplied in February 2023, the State Party informed ICOMOS about the recent authorisation and funding for a Tribal Liaison position for the Hopewell Culture National Historical Park.

Since 2017, Ohio History Connection and Hopewell Culture National Historical Park have jointly updated Tribal Partners on the nomination efforts at the Tribal Nations Conference, where forty-five federally recognised tribes with historic ties to Ohio are invited each year. The conference will continue to serve as the annual focus for consultation and collaboration with Indigenous partners on the subject of World Heritage and the nominated property. Additional consultation and collaboration occurs frequently on specific documents, exhibits, and projects. Efforts are being made to co-manage the forest at Fort Ancient with Indigenous forest caretakers.

The archaeological sites that are open to the public engage their local communities through the involvement of volunteers for visitor and school programming, site tours, and general staffing support, and have done so for decades to the benefit of the two managing agencies. The agencies also reach out to local schools, inviting them to activities both on and off site that include “Ranger in the Classroom” at local schools, as well as field trips to the Park grounds.

While the management structure of the nominated property draws heavily on input from local and Indigenous communities, it is not clear to what degree these groups are included in decision-making processes.

Effectiveness of the protection and management of the nominated property

In summary, ICOMOS considers that the protection and management structures of the nominated property are very effective. The State Party is recommended to further address some issues, including renewing individual site management plans; ensuring the coordinated management of the separate component parts; implementing the Long Range Interpretive Plan; and exploring additional

opportunities for involving local and Indigenous communities in decision-making processes at the nominated property.

6 Conclusion

Hopewell Ceremonial Earthworks is a series of eight monumental earthen enclosure complexes built between 2,000 and 1,600 years ago by the Indigenous tradition now referred to as the Hopewell culture. The most remarkable aspects of the nominated serial property are the vast scale and geometric precision of the earthworks together with the elaborate ceremonialism expressed through the earthworks themselves, as well as the archaeological features (woodhenges, burials, offerings) and artefacts contained in them. Furthermore, the artefacts are indicators of continent-wide interactions.

The nomination dossier is very clear and well-presented. It is evident that the management agencies have considerable experience with the conservation and presentation of the archaeological sites, some of which have been actively studied and protected for more than a century.

ICOMOS considers that the nominated property meets criteria (i) and (iii).

Several important issues require further attention by the State Party. In the long term, more documentation and more deliberation would be needed regarding the astronomical alignments in order to support the claims related to their existence and exactitude. While research goals concerning groups of archaeological sites have been defined, no overarching research plan for the nominated property as a whole appears to exist. A commitment to protect and conserve the attributes of the proposed Outstanding Universal Value should be added to the Cooperative Agreement. Furthermore, Heritage Impact Assessment mechanisms and risk management provisions should be included in the management system. The coordinated management of the separate component parts must be ensured.

While visitor numbers do not seem to be a problem at the moment, a carrying capacity study for all the component parts would be necessary in the future. Efforts need to be made to resolve remaining issues associated with non-conforming elements. In terms of interpretation, it will be important to implement the Long Range Interpretive Plan, paying particular attention to indicating explicitly which (parts of) earthworks are restored and why it was necessary to restore them. It is also important to avoid visual disturbance when posting signage on the sites.

Follow-up has to be ensured concerning the acquisition of the leasehold of the Octagon Earthworks component part, as well as for the plan to acquire the privately-owned lands in the buffer zones that include parts of the earthworks. Local and Indigenous communities are informed and consulted about activities concerning the earthworks, but further involvement in the decision-

making processes could be explored. More information should also be made available concerning the relationships of present-day Indigenous peoples with the earthworks.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that Hopewell Ceremonial Earthworks, United States of America, be inscribed on the World Heritage List on the basis of **criteria (i) and (iii)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

Hopewell Ceremonial Earthworks is a series of eight monumental earthen enclosure complexes built between 2,000 and 1,600 years ago along the central tributaries of the Ohio River in east-central North America. They are the most representative surviving expressions of the Indigenous tradition now referred to as the Hopewell culture. Their scale and complexity are evidenced in precise geometric figures as well as hilltops sculpted to enclose vast, level plazas. Huge earthen squares, circles, and octagons are executed with a precision of form, technique, and dimension consistently deployed across a wide geographic region. There are alignments with the cycles of the Sun and the far more complex cycles of the Moon. These earthworks served as ceremonial centres, built by dispersed, non-hierarchical groups whose way of life was supported by a mix of foraging and farming. The sites were the centre of a continent-wide sphere of influence and interaction, and have yielded finely crafted ritual objects fashioned from exotic raw materials obtained from distant places.

Criterion (i): Hopewell Ceremonial Earthworks comprises highly complex masterpieces of landscape architecture. They are exceptional amongst ancient earthworks worldwide not only in their enormous scale and wide geographic distribution, but also in their geometric precision. These features imply high-precision techniques of design and construction and an observational knowledge of complex astronomical cycles that would have required generations to codify. The series includes the finest extant examples of these various principles, shapes, and alignments, both in geometric earthworks and in the pre-eminent surviving hilltop enclosure. They reflect the pinnacle of Hopewell intellectual, technical, and symbolic achievement.

Criterion (iii): Hopewell Ceremonial Earthworks bears exceptional testimony to the unique characteristics of their builders, who lived in small, dispersed, egalitarian groups, between 1 and 400 CE, amongst the river valleys of what is now southern and central Ohio. Their economy was a mix of foraging, fishing, farming, and cultivation, yet they gathered periodically to create, manage, and worship within these massive public works. The precision of their

carefully composed earthen architecture, and its timber precursors, reflected an elaborate ceremonialism and linked it with the order and rhythms of the cosmos. The earthworks in this series, together with their archaeological remains, offer the finest extant testimony to the nature, scope, and richness of the Hopewell cultural tradition.

Integrity

All the attributes necessary to convey and sustain the Outstanding Universal Value are in the boundaries of the serial property. These include the earthwork walls, gateways, ditches, ponds, and *in situ* archaeological remains. The series is of sufficient size to ensure the complete representation of the features and values that convey the significance of the property, through the inclusion of the largest and best-preserved examples of each major geometric form found amongst Hopewell Ceremonial Earthworks, as well as the most important hilltop enclosure. In addition, all the component parts are complete and in good condition, with the ability to convey their large forms and the relationships amongst them. The property does not suffer from adverse effects of development and/or neglect, as each site is managed as a public park in rural or low-density suburban settings. The curated artefacts in site-based collections also support the understanding of the attributes.

Authenticity

Hopewell Ceremonial Earthworks is authentic to an extraordinary extent, given the long time that has elapsed since its construction, in terms of their locations and settings, forms and designs, materials and substance, and spirit and feeling. The locations for all the component parts are unchanged; the settings for the earthworks are still predominantly semirural or are in low-density residential districts buffered for most of their perimeters by parkland. In form and design, the enclosure walls and mounds remain mostly intact. High-resolution remote-sensing data for the Seip Earthworks, Hopewell Mound Group, Hopeton Earthworks, and High Bank Works component parts clearly show intact subsurface portions of wall and building constructions. The predominant materials and substance of the earthworks are likewise authentically preserved in the intact forms of Fort Ancient and the component parts at the Newark Earthworks complex, and in the *in situ* archaeological remains at all the other sites.

Protection and management requirements

All the component parts are protected as national or State parks. Rigorous federal, state, and local protective measures are also in place to ensure the continued conservation and protection of the property. The buffer zones provide additional protection around the component parts.

Detailed management plans are in place for all eight component parts, following the established policies and legal requirements of their respective governmental

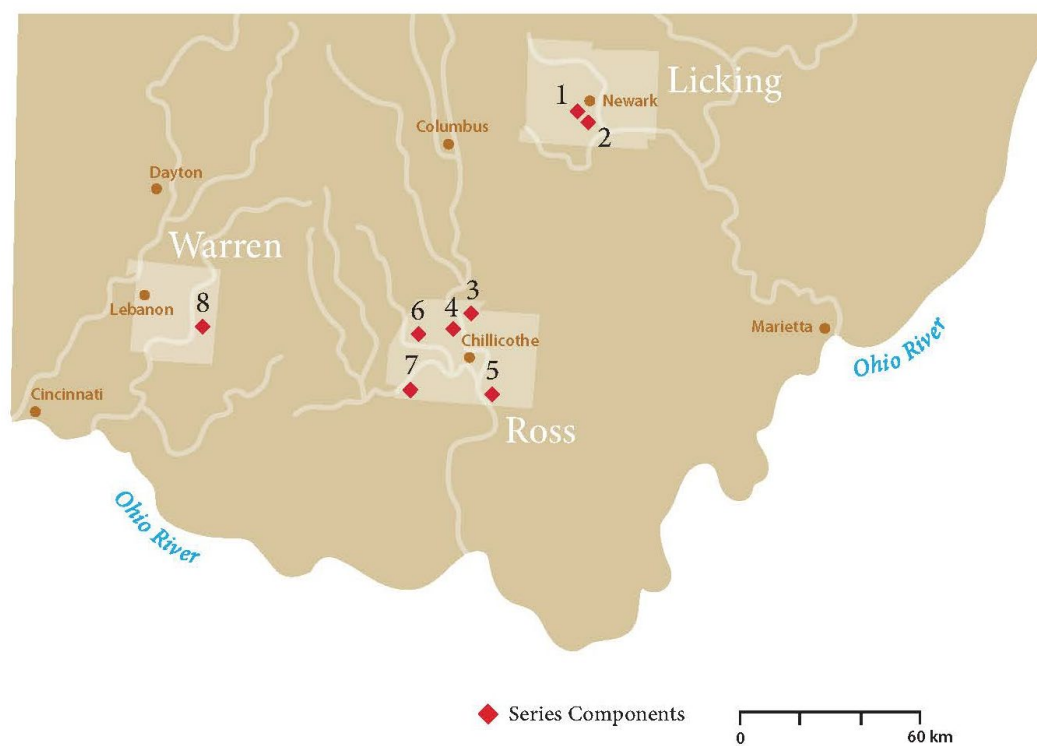
owner agencies, the Ohio History Connection and the United States National Park Service, whose local representatives work closely together to provide consistent and coordinated management for the series. All features and elements within the boundaries of the property are closely monitored on a regular basis by professional expert staff from the two owner agencies. Regular maintenance and periodic conservation programs ensure that the sites, features, and resources will be sustained in a superior state of conservation in the future.

Additional recommendations

ICOMOS further recommends that the State Party give consideration to the following:

- a) Ensuring the acquisition by Ohio History Connection of the Octagon Earthworks leasehold from the Moundbuilders Country Club following the Ohio Supreme Court ruling issued in December 2022, and creating conditions to increase public access to the site,
- b) Ensuring the coordinated management of the separate component parts of the serial property,
- c) Adding to the Cooperative Agreement a commitment to protect and conserve the attributes of the Outstanding Universal Value,
- d) Furthering the inclusion of local and Indigenous communities in the management and decision-making processes at the property,
- e) Elaborating an overarching research plan for the property,
- f) Implementing the Long Range Interpretive Plan that will include information explaining the various alterations done to the earthworks as a result of the numerous changes caused by secondary uses and restorations, in order to facilitate a correct understanding of the public visiting the property,
- g) Elaborating a carrying capacity study for all component parts of the property,
- h) Acquiring from willing sellers any privately-owned parcels of land in the buffer zones that include parts of the earthworks, followed by adjustments to the boundaries of the property through requests for minor boundary modifications,
- i) Making efforts to resolve the issues associated with non-conforming elements and uses such as high-voltage transmission towers and gravel extraction,
- j) Including Heritage Impact Assessment mechanisms and risk management provisions in the management system,

- k) Facilitating more research and deliberation on the astronomical alignments of the property;



Map showing the location of the nominated component parts