DRAFT

HISTORIC SITE MANAGEMENT PLAN for

SERPENT MOUND

Ohio History Connection
800 E. 17th Street
Columbus, Ohio 43211
Approved by the Ohio History Connection Board of Trustees

Approved _______, 2015

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PHOTOGRAPHY CREDITS

➢ Jeff Wilson - Cover photograph, aerial view of Serpent Mound
➢ Gray & Pape – all photographs not otherwise credited were taken by Gray & Pape staff, and Michael J. Matts in preparing this plan
1.0 INTRODUCTION

1.1 INTRODUCTION

This plan has been created to guide decisions concerning the development, use, interpretation, study, and preservation of the ancient Serpent Mound geoglyph and related resources. It will provide the Ohio History Connection with the means to make informed decisions concerning its stewardship of the site, which is presently on the United States World Heritage Tentative List.

Thus, the plan was prepared to address the complementary purposes of guiding the Ohio History Connection’s decision-making regarding capital improvements, management, and operation and meeting World Heritage Committee’s standards for preserving those attributes which give the site Outstanding Universal Value (see Section 4.0). A key partner in the development of this plan was the Arc of Appalachia Preserve System, which has been responsible for the day-to-day operations of the site under a management agreement entered into in 2009. A Steering Committee provided direction and conducted review of the plan; its members included representatives of the Ohio History Connection, the Arc of Appalachia, Hopewell Culture National Historical Park, the Friends of Serpent Mound, and a representative from the Adams County Travel and Visitors Bureau was added later.

The Ohio History Connection entered into a contract with the cultural resources consulting firm Gray & Pape, Inc. of Cincinnati to work with the Ohio History Connection to prepare the plan. Gray and Pape conducted one-on-one interviews with twenty-one individuals representing ten different local organizations and government entities; 27 stakeholders participated in a two-day planning retreat, and those participants reviewed and commented on the draft plan; the general public was invited to a public open house where the plan was presented for comment; and the plan was promoted as being available for review and comment on the Connection’s website. Opportunities were provided to participants in the two-day planning retreat and to the general public to review and comment on the plan online through the Ohio History Connection’s website.

As a non-profit organization that functions under Ohio law in a public/private sector partnership, the Ohio History Connection has a responsibility to Ohio citizens that is different than the managers of many state-owned and managed properties around the world wherein the government has autonomous authority, if they so choose to exercise it. Thus, the process for this plan has included substantial public input to inform this management plan. Conducting public engagement activities makes it possible to encourage and maintain public support for the long-term protection of the resource.
Importantly, the Connection is engaged in extensive and on-going outreach to American Indian tribes with ancestral lands in Ohio. These outreach efforts have encompassed all of the programmatic endeavors of the Ohio History Connection, including, but not limited to Serpent Mound.

Founded as the Ohio State Archaeological and Historical Society in 1885, the Ohio History Connection operated as a corporation under that name from 1885-1954. In 1954 the corporate name was changed to the Ohio Historical Society. In 2014 the corporation began doing business as the Ohio History Connection. It is a private non-profit organization that operates under Section 149.30 of the Ohio Revised Code to provide a wide variety of historical services for the citizens of Ohio through a public/private partnership with the State of Ohio. In addition to operating a system of historic sites and museums, it operates the state historic preservation program, the state archives, a library and the state museum; publishes historical material; provides assistance to local historical groups; and collects and maintains historical, archaeological, and natural history collections.

Serpent Mound is listed as a National Historic Landmark and is internationally recognized as the largest and best preserved pre-contact effigy in the world. In addition to the monumental serpent earthwork, the site includes three small burial mounds, archaeological remains of ancient villages, landscape features that likely were significant to the builders of Serpent Mound, as well as several historic buildings and a reconstructed picnic shelter.

The World Heritage List is a program that arose out of the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (commonly known as the World Heritage Convention). A World Heritage Committee operates the program within the auspices of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Serpent Mound was added to the United States' Tentative List in 2008 by the United States Department of the Interior. As of the final preparation of this plan, no date had been set for submitting the nomination to the World Heritage Committee. The United States National Park Service, which operates the program in this country, advised the Ohio History Connection in January, 2015 that Serpent Mound will need to be submitted to the World Heritage Committee with other examples of this type of earthwork.

Gray & Pape, Inc. in association with Meisner Land Vision assisted the Ohio History Connection with the planning process, conducted research and public outreach, performed site analysis, and prepared the plan. Changeworks of the Heartland assisted with the planning, conducting, and reporting of the two-day planning retreat.
1.2 HOW TO USE THIS PLAN

This plan is primarily a document that will be used by Ohio History Connection staff and local manager, the Arc of Appalachia, to guide the day-to-day operation of the site and for making long-term decisions and plans for the benefit of the site.

However, it also is a public statement that informs those interested in the site of the Connection’s plans and aspirations for the site. It is intended to be a dynamic document that will be revisited as work is accomplished and/or conditions change.

It is intended that action steps in the plan are to be continually informed by changes in existing conditions, information in historic documents, findings from future research, and by the vision, mission, and guiding principles stated in the plan.

The plan is divided in 11 sections: Introduction; Chronologic History of Serpent Mound; World Heritage Attributes; Subject of Protection Goal, Protection Goal and Instruments of Protection; Management System; Basic Principles for Planning and Action; Threats and Protection; Monitoring and Quality Control; Science and Research; Interpretation and Education; and Tourism and Visitor Guidance. Throughout the plan there are photographs and other material to further inform the reader and the appendices includes a bibliography, maps, and additional supporting material.

1.3 METHODOLOGY

Guidance in preparing this plan was derived from the professional experience of numerous contributors, and by several relevant publications to include, but not limited to: The Secretary of the Interiors Standards for the Treatment of Historical Properties and the Treatment of Cultural Landscapes, National Park Service, US Department of the Interior, and The Secretary of the Interiors Standards and Guidelines for Archaeology and Historic Preservation; the Guide to Cultural Landscape Reports: Content, Process, and Techniques, National Park Service; Timothy Darvill’s article in World Archaeology, ‘Research frameworks for World Heritage Sites and the conceptualization of archaeological knowledge’; and Management Plans for World Heritage Sites: A practical Guide, UNESCO. The Historic Site Management Plan for Newark Earthworks (another Ohio History Connection historic site) which was completed in 2003, also served as a model.

On-site Analysis of Existing Conditions
On August 2, 2012 a multi-disciplinary group of skilled professionals from Gray & Pape and Meisner Land Vision conducted an on-site analysis of existing conditions at Serpent
Mound. Experience and skill sets in the group encompassed archaeology, architectural history, history, preservation planning, master planning, site design, landscape architecture, cultural landscapes, heritage tourism, and interpretation.

Karen Hassel, Regional Coordinator for Historic Sites for the Ohio History Connection, engaged with the team on-site. Documents and maps were reviewed, and research conducted in advance of the site visit, photographs were taken of existing conditions, discussions were held amongst the team, and a written summary of observations, issues, and related background material was assembled and provided to the Connection and the Steering Committee.

1.4 Public Input
Results of the following public outreach efforts identified below, its full breadth and depth, served to inform the Connection, the Steering Committee, and the consultant team in the development and preparation of this plan. Members of the Steering Committee early in the planning process were: George Kane, Karen Hassel, and Brad Lepper, then the Ohio Historical Society; Nancy Stranahan and Tom Johnson, the Arc of Appalachia; Jeff Wilson and Jeff Cobb, the Friends of Serpent Mound; and Bret Ruby, Hopewell Culture National Historical Park. Later in the planning process, Tim Goodwin, Serpent Mound site manager with the Arc of Appalachia, and Jeff Huxmann of the Adams County Travel & Visitors Bureau, replaced Jeff Cobb and Tom Johnson.

Planning Charrette
Agenda was prepared in consultation with the Steering Committee, and conducted with the Steering Committee members on September 29, 2012 at the Louden One Room School in Bratton Township, Adams County, Ohio. A written summary was prepared, as well as a complete set of notes, and a document was distributed to the Steering Committee that captured key findings and recommendations from the charrette.

Stakeholder Interviews
One-on-one stakeholder interviews were conducted, during February and March of 2013, with twenty-one individuals representing ten different local organizations or government entities. The interviews were performed throughout Adams County, Ohio at the respective offices of the interviewees, and in one instance by telephone. Interview questions were developed, reviewed, and revised in consultation with the
Steering Committee, as was the interviewee contact list. Written reports capturing the interviewee responses and a summation of overarching observations gleaned from the interviews was provided to the Connection and the Steering Committee.

**Two-day Planning Retreat & Review and Comment**

On November 21 and 22, 2014 the Ohio History Connection convened a meeting of stakeholders who are committed to the future of Serpent Mound. The primary purpose of the retreat was to gain stakeholder insights and input regarding the future of the site for the development of this Historic Site Management Plan. The meeting was also an opportunity to build ongoing relationships and support for the site and the plan now and in the future.

Over twenty individuals participated in the retreat representing county and township government, the Ohio History Connection, the Arc of Appalachia, the National Park Service, a representative of the Miami Tribe of Oklahoma, the Friends of Serpent Mound, Ohio earthworks sites, members of the professional archaeology community, and other professionals with relevant skills and expertise and others. A complete list of the participants and their affiliation is included as Appendix A.1. The results of large group sessions and small group break-out activities were recorded on charts during the retreat, and a complete report of the retreat (Appendix A.2) was prepared by the lead facilitation consultant, Chris Kloth, Changeworks of the Heartland.

Retreat participants were given the opportunity to review and comment on the draft plan March 6 through 15. An important purpose of that review was to ensure that committee priorities and recommendations coming out of the retreat were effectively identified and addressed in the plan.
Outreach to American Indians

Work on the plan halted for about two years to allow the Connection to start to build meaningful relationships with the American Indians that were forced from Ohio in the 19th century. The Connection’s motivations extended well beyond this management plan, and having an American Indian voice at its associated sites is imperative in all future plans. Serpent Mound and other pre-contact sites do not have a tribal affiliation because the people that built the earthworks are likely not the people who were removed from Ohio.

June 23 – 25, 2014, George Kane, Karen Hassel, Brad Lepper and Erin Bartlett went to Oklahoma to talk to the tribes about tribal representation and input for Ohio History Connection’s historic sites. The tribes represented at the table were the Eastern Shawnee of Oklahoma, Shawnee Tribe of Oklahoma, Absentee Shawnee Tribe, Peoria Tribe of Oklahoma, Ottawa Tribe of Oklahoma, and Wyandotte Nation. The Miami Nation of Oklahoma and the Delaware Tribe attempted to call in to the meeting, but the delegation had technology problems. The Connection shared a PowerPoint presentation and provided an overview of Ohio sites on the World Heritage Tentative List. The overview addressed the history of the site, facilities, management and other successes or challenges associated with the sites. The tribes voiced their language and management concerns, and together discussed how to move forward and work together to include each other’s perspectives.

On March 24, 2015, George Kane, Karen Hassel, Brad Lepper, Nancy Stranahan, and Michael Matts presented the plan to tribes in Oklahoma. In addition to reinforcing the Ohio History Connection’s interest in maintaining dialogue with the tribes regarding Ohio’s historic sites, its primary objective was to hear from the tribes regarding site treatment of the effigy, burial mounds, and habitation sites, as well as interpretation and visitor use. Representatives of 5 of the 9 tribes invited were able to attend (Appendix A.3). Their comments were recorded and the plan modified to reflect what was learned through the consultation. See Appendix A.4.

General Public

In addition to all the above input and review cited, the Ohio History Connection’s Public Relations Office developed and implemented a Communications Plan designed to promote awareness of the draft plan’s availability for comment on the Connection’s website. The plan was made available for review and comment received from the general public from _______ to _______, 2015. Comments were compiled and distributed to the Steering Committee and as appropriate, changes were made to the plan.
A public open house was held at the Peebles High School in Peebles, Ohio on April 21, 2015, for public review and comment. Comments received were recorded for consideration and included in the plan as appropriate.

Public comments received are included as Appendix A.5.
2.0 SUMMARY OF PRIORITIES

This brief summary of key action steps, by priority, reflects priorities at the time the plan was prepared and adopted. It is not a complete summary of every action identified throughout the plan. In some cases, action steps to achieve plan goals occur in every stage from short-term to long-term.

Over time, new research information, unforeseen opportunities, or unsuspected increases or decreases in human and fiscal resource capacity may result in pragmatic adjustments to these priorities. More detail regarding the rationale and the action step is provided in the body of the plan.

2.1 SHORT-TERM ACTION STEPS

Visitor Kiosk
➢ Design and install a kiosk on the grounds that contains orientation for the visitor, interpretation focused on the outstanding universal value of the site, and information regarding rules and appropriate behavior. (p. 52)

Replace Museum Exhibits
➢ Bring the existing exhibits in the museum up-to-date and correct deficiencies in the interpretation, given this plan’s long term direction to locate new facilities away from the serpent effigy, and the burial mounds and habitation areas. (p. 52)

Security in Off-Hours
➢ Assess cost-effectiveness and timeliness of response to security issues through the rehabilitation of the caretaker’s residence to house security personnel in comparison to contracting or hiring security. (Residence is currently unoccupied due to its deteriorated condition.) (p. 38)
➢ Invest in a security camera system, and incorporate messaging in visitor orientation that encourages visitor monitoring and reporting of vandalism, looting, and related inappropriate behavior. (p. 40)
Stability of the Bluffs and Ridge
➢ Hire consultants to conduct a geologic and hydrogeologic study of the bluff and the ridge to assess stability concerns identified in the planning process. The study should include evaluating stability and safety issues at the overlooks at both the head and the tail with regard to the existing condition, and if possible, identify the rate of bedrock slump and evaluate stormwater management throughout the site. (p. 38)

Baseline Inventory of Archaeological Record
➢ Assemble existing research results from various investigations that are not presently compiled; some examples include research in the area associated with Section 106 and 4(f), various previous research at the serpent effigy, archaeological investigations for the restroom improvements in 2011-2012, and installation of a new water line across the property in the early 1990s. (p. 47)
➢ Prepare a Composite Map (exercise appropriate professional caution and standards with regard to sensitive data) – A modern composite map is needed that would include digitizing Putnam’s map (Putnam 1887) onto a modern backdrop (GIS), and a secondary effort could entail geophysics to determine the exact locations of past excavations, e.g. gradiometer survey. (p. 48)

Establish an Advisory Council
➢ An advisory council will engage and advise on the development and operation of the site and advance public understanding and knowledge of Serpent Mound. It will consist of members drawn from government, community institutions, business, site volunteers, educational and academic institutions, archaeological organizations, American Indians and citizens interested in the well-being of the site. (p. 25)

2.2 MID-RANGE ACTION STEPS

Remove or Relocate Intrusions
➢ Steps through the tail of the serpent effigy - remove the steps in the tail area of the serpent mound effigy and restore the mound in consultation with archaeology expertise at the Ohio History Connection and other experts. (p. 37)
➢ Move granite marker to a more suitable location. (p. 51)
- Remove invasive species, regularly trim branches, or remove trees that restrict view perspectives of the effigy mound. (p. 35)

**Negotiate Revised Agreement with Harvard University**
- Renegotiate the terms of the gift of the property from Harvard College in 1901 with Harvard University to permit the charging of admission fees. Fees are set by the site management organization. (p. 39)

**Future Research Steps**
- Design and conduct research to prepare a baseline Inventory of natural resources with a focus on the paleo-environment. (p. 48)
- Working with the Ohio Archaeological Council, develop a formal process for consultation with outside experts for major research projects at the site.

**Tourism and Visitor Guidance**
- Ohio History Connection, the Arc, and the Serpent Mound Advisory Council, consisting of county and regional heritage tourism stakeholders, to ensure that effective communication methods are in place so that Adams County businesses and residents may fully realize the benefits of possible World Heritage designation, and so that citizen concerns are brought forward to be addressed. (p. 55)
- Develop a partnership outreach plan (p. 25)

**2.3 LONG-TERM ACTION STEPS**

**Buffer Zones and View Sheds**
- Secure easements on agricultural land in the valley and surrounding forests to ensure long-term protection of view perspectives identified in the plan. (p. 31)
- Acquire additional property to accommodate increased visitation, and to locate new visitor facilities, away from the serpent effigy and habitation sites. (p. 31)
Design and Build New Museum/Visitor Center Facility
➢ New facilities are to be designed and built to meet world-class aspirations identified in this plan. Facilities are to be located according to a new master plan and acquisition of additional property to meet plan goal to locate new facilities away from OUV resources which are for new exhibits. ( p. 52)

Remaining Intrusions
➢ After appropriate evaluation, consider the removal and/or relocation of the picnic shelter, observation tower and other remaining intrusions identified in the plan, and not yet addressed.
3.0 A CHRONOLOGICAL HISTORY OF SERPENT MOUND

3.1 IMPORTANT DATES

250,000,000 – 330,000,000 BC – Cryptoexplosion impact crater
800 BC– 100 AD – Burial mounds and occupation attributable to Adena culture
950-1650 AD – Burial mound and occupation attributable to Fort Ancient culture
1120 AD – Serpent Mound effigy built (estimate in World Heritage nomination based on current knowledge, March 2015)
1830-1843 AD – Indian Removal Act in 1830, various treaties, and eventual removal of all remaining Ohio tribes by 1834
1846 AD – Squier & Davis survey Serpent Mound
1859 AD – Tornado passes over Serpent Mound removing trees
1883 AD – Putnam from Harvard’s Peabody Museum first visits the site
1885 AD – Ohio State Archaeological & Historical Society formed
1887 AD – Site acquired by Harvard College
1900 AD – Site deeded to the Ohio State Archaeological & Historical Society
1908 AD – Observation tower constructed at the site
1930s AD – Construction of museum, restrooms, other facilities
1954 AD – Ohio Historical Society, a change in name for the Archaeological & Historical Society
1964 AD - Site included in group of National Historic Landmark designations, prior to the National Historic Preservation Act of 1966 (NHPA), as amended
1976 AD - Site further documented as a National Historic Landmark meeting new professional standards and in compliance with the NHPA
1990 & 1992 AD – Excavations for waterline reveal Fort Ancient artifacts
1991 AD – Limited excavation of Putnam trench for radiocarbon samples
2008 AD – Serpent Mound placed on United States World Heritage Tentative List
2009 AD – Management agreement with the Arc of Appalachia
2010-2011 AD – Coring of geoglyph to obtain samples for radiocarbon dating
2011-2012 AD - Restroom and associated archaeological investigation
2012 AD – Ohio Historic Inventory Forms completed for Depression Era features and tower
2014 AD – Ohio Historical Society begins doing business as the Ohio History Connection

3.2 CHRONOLOGY OF ANCIENT HISTORY

Archaeological evidence, to date, indicates that the landscape encompassing Serpent Mound was inhabited for more than 13,000 years. Many millions of
years earlier, there was a cryptoexplosion in the area, which through advancements in technology determined its origin to be an impact site (Ohio Geological Survey, Department of Natural Resources). Previous origin theories included a sunken mountain and a volcanic eruption. Serpent Mound is located in the southwestern area of the outer circle of the impact crater. To provide some sense of time – the impact was approximately 200 million years before *Tyrannosaurus rex* was thriving on earth. For thousands and thousands of years – various ice ages and glaciations, climate change, sedimentation, and erosion have subsequently modified the landscape and the resultant forms from the cryptoexplosion.

This National Natural Landmark is identified as the Serpent Mound Cryptoexplosion, which may inadvertently cause the public to make more direct association than is warranted between the impact crater and the building of the geoglyph. The name represents two occurrences that are hundreds of millions of years apart, one created by an astrophysical event, and the other constructed by humans with limited tools.

Serpent Mound itself, the serpent effigy, is a striking reflection of the indigenous belief system of the Native American peoples of the Fort Ancient culture, which flourished in this region during the Mississippian/Late Prehistoric period, circa 900-1650 AD. However, it is very important to understand that to date there is no definitive time period of construction, but rather various estimated time periods of construction and theories regarding cultural affiliation.

For many years, it was thought that the Serpent Mound was constructed by the earlier Adena culture, certainly the Adena culture identified this area as culturally significant given the presence of Adena burial mounds. However, the best evidence to date indicates that the Serpent Mound was built by the Fort Ancient culture (Fletcher et al. 1996; Lepper and Frokling 2003). These people used monumental serpent effigies constructed of stone and earth as well as “woodhenges” to serve as solar calendars that structured the year for the planting and harvesting of domesticated crops, principally maize, and for the various ceremonies that accompanied the key dates in the seasonal cycle (Lepper 2005).

Other evidence suggests that Serpent Mound is an Adena effigy after all, since radiocarbon dates published in 2014 were in that age range (Herrmann, et al. 2014). The authors of that report suggest the effigy was originally built by the Adena and later refurbished by the Fort Ancient culture. As stated earlier, these dates, however, are not definitive. Moreover, all other effigy mounds in eastern
North America, including Ohio's only other effigy mound, Alligator Mound, have been dated to the Late Woodland-Late Prehistoric (or Mississippian) period.

Evidence of ancient occupation of the site includes three American Indian burial mounds, as well as evidence of contemporary habitation sites of the builders of both the Serpent effigy and the burial mounds. One of the burial mounds is an elliptical mound, attributable to the Fort Ancient culture, circa 900-1650 AD, and the other two burial mounds are simple conical mounds attributable to earlier Adena culture, circa 800 BC – 100 AD. The habitation remains include a Fort Ancient village overlying a smaller Adena occupation.

Archaeological investigations also found later burials in the upper layers of a large Adena conical burial mound, in addition to burials and artifacts that were not in burial mounds attributable to Paleolithic and Archaic cultures. Collections at the Harvard Peabody Museum of Archaeology & Ethnology hold Serpent Mound artifacts from every Ohio pre-contact period.

3.3 HISTORICAL CHRONOLOGY

Serpent Mound was surveyed in 1846 by Ephraim G. Squier, Editor of the Scioto Gazette, and Dr. Edwin Davis, a Chillicothe physician. Their work was first documented in Ancient Monuments of the Mississippi Valley, the first publication of the Smithsonian Institution. They reported that a “circular elevation of large stones much burned” once had existed within the oval enclosure, but it had “been thrown down and scattered” (Squier & Davis 1848:97).

Southwestern Ohio encompasses historical ancestral lands of the Shawnee and several other tribes. Certainly much has been said and written criticizing government treaties with tribes, and regarding the treatment of American Indians in this period of history. It is not a purpose of this plan to recount that history. However, it is relevant to present that during the late 18th and early 19th centuries treaties between the tribes and the federal government resulted in substantial changes to tribal land claims in Ohio. Further, in May of 1830, the U.S. Congress passed the Removal Act, which brought about subsequent treaties in 1831 and 1832 with remaining Ohio bands. These treaties resulted in the forced removal of the remaining bands out of Ohio, by the end of 1843 there were no Indian tribes remaining in the state.

Recent efforts of the Connection to open a dialogue and build relationships with former Ohio tribes, and likewise the tribes welcoming this opportunity to reconnect, or strengthen connections to their ancestral land has resulted in an
awakening of tribal interest and spiritual connection to the Serpent Mound effigy and the site.

It is fully acknowledged that several tribes were being proactive in an effort to learn more about sites in their Ohio ancestral lands prior to the Connection’s outreach endeavor, and in part, their interest served to encourage the Connection in seeking such dialogue. Serpents and Giant Horned Snakes have been documented as elements of contemporary Shawnee belief systems in Shawnee!: The Ceremonialism of Native American Tribe and its Cultural Background (176-178, Howard 1981). Indians of the Midwest, a website and publication of the Newberry Library, states under an aerial photograph of the mound, “The sculpture probably represented the Horned Serpent . . .”. In George Lankford’s study published in 2007, The Great Serpent in Eastern North America, he states, “the Great Serpent was a universally known figure in the Eastern Woodlands for many centuries . . . the Great Serpent appears not only in myth, but also in graphic designs, both ancient and historic."

More importantly, dialogue with Indian tribes during the preparation of this plan has confirmed the importance of serpents/snakes (both terms used) in the American Indian cultural history of tribes once living in Ohio and the Midwest. It is important to note that contemporary American Indian representatives do not purport to understand the meaning of the serpent effigy to its builders, but rather, accept that serpents/snakes have played a significant role in their tribes’ culture. Thus, in turn, they respect that the meaning of the serpent was held special, indeed “sacred”, to its builders and also to the tribes that inhabited the villages and buried their dead near the effigy.

It was reported by Putnam that Serpent Mound was “covered in a heavy growth of trees” when Squier and Davis did their survey, and that “two maples alone escaped the terrible blast” (Century Magazine, 1890). The reference to a “terrible blast” is the disastrous tornado that went through the area in 1859. After the tornado, the landowner, J. Lovett, cleared and cultivated the site for a few years, including the
Serpent Mound itself. Later, the mound and surrounding area was used for livestock grazing.

Frederic Ward Putnam, traveling with a small group via mule-drawn wagon, first visited and photographed the site in 1883. Putnam was the Curator of Harvard University’s Peabody Museum from 1875-1909, and Harvard’s Peabody Professor of American Archaeology and Ethnology, 1886-1909.

It had been 37-years since Squier & Davis surveyed the site. Photographs taken by John Kimball, a member of Putnam’s party indicated that the effigy had been reduced from a height of 4-5 ft when surveyed by Squier & Davis to 2-3 ft some 40-years later, but the outline of the serpent was intact and clearly visible. When Putnam arrived at the site again, in 1885, he became very concerned about the continued deterioration of the mound caused by erosion, people now visiting the site, and excavations.

In response, Putnam initiated engaged an effort to purchase the site through the Peabody Museum, Harvard College. A year later, in 1886, the property was acquired by Harvard College through the generosity of private Boston donors, which was the result of a fundraising effort led substantially by women, including Alice Fletcher. This act represents a very early historic preservation effort by the private sector and a non-profit entity to save a special place. It is said to be the first such preservation effort for an archaeological site in the country.

From 1886 to 1889, Putnam conducted systematic investigations of portions of the effigy, the adjacent burial mounds, and parts of the surrounding landscape (Putnam 1890). After concluding his research, he carefully restored the mounds. The Peabody Museum converted the property into a public park and operated it as a park until 1900 when it was deeded to the then Ohio State Archaeological and Historical Society.

A metal observation tower, which remains on the site today, was constructed in 1908. During the 1930s, the Works Progress Administration, one of several federal Depression Era programs, built a museum, restrooms, service buildings, and the overlook that are extant today. The picnic shelter, which had been removed earlier due to deterioration, was reconstructed in 2006 and the original stone walls and floor restored.

Between 1990 and 1992, the Ohio Historical Society (now the Ohio History Connection) conducted a series of excavations along a proposed waterline. This projected line extended near the small conical burial mound located south of the
effigy mound and across the area identified by Putnam as the village site. A number of features were uncovered most of which yielded ceramics and flint tools assignable to the Fort Ancient culture. These results also indicated that a great deal of the subsurface archaeology at the site remained intact beneath a shallow layer of cultivated soil.

In 1991, avocational archaeologists Robert Fletcher and Terry Cameron, assisted by Ohio History Connection archaeologist Bradley Lepper, and professional archaeologists Dee Anne Wymer and William Pickard undertook a limited excavation of one of Putnam's old trenches in order to obtain charcoal samples to use in radiocarbon dating (Fletcher et al. 1992). This investigation resulted in radiocarbon dates that suggest the effigy mound was built between 990 and 850 years BP (cal 995 to 1265 CE).

In 2008, Serpent Mound was added to the United States World Heritage Tentative List. In 2009 the Ohio History Connection entered into a management agreement with the Arc of Appalachia Preserve System.

In 2011-2012, a team of archaeologists led by William Romain, William Monaghan, and Edward Herrmann, conducted a series of investigations at Serpent Mound, including the retrieval of soil cores from which they obtained organic sediment for radiocarbon dating. The samples produced dates ranging from 2530 – 2170 years BP (cal 639-303 BCE).

Also in 2011-2012, the men’s and women’s restrooms in the circa 1930s stone structures were upgraded from pit latrines to modern flush toilets. Prior to excavation for the septic system, archaeological investigations were conducted that found artifacts from Early Woodland, Late Prehistoric (Fort Ancient), and the historic era.

Ohio Historic Inventory Forms were completed in 2012 for the barn, picnic shelter, men’s and women’s restroom, museum, tower, overlook, caretaker’s house, and maintenance building (Appendix B).

**4.0 WORLD HERITAGE ATTRIBUTES**

Serpent Mound has outstanding universal value as a monumental geoglyph embodying fundamental cosmological principles of an indigenous ancient American Indian culture.
Serpent Mound represents the acme of ancient effigy mound-building in North America. It has become an icon of indigenous cultural achievements in this region, principally because of its enormous scale and its remarkably naturalistic quality that makes it immediately recognizable as a representation of a serpent. Whatever else it may have represented to its ancient builders, modern observers readily can identify it as a snake.

The serpent as a biomorphic geoglyph is widespread in the Americas and as a feature of the iconography of Mississippian/Late Prehistoric/Historic American Indian art and cosmology the Great Serpent is a well-known spiritual being.

The physical environmental setting of Serpent Mound preserves much of the ambience of its aboriginal setting and, moreover, preserves the underlying bedrock outcrop that may have suggested the immanent presence of the serpent spirit to the builders of the effigy.

The depiction of the Serpent in the form of a massive, naturalistic geoglyph designed to mark the passage of the seasons, epitomizes the attempts of the indigenous people of the Ohio Valley to integrate their lives with the cosmos in much the same way as peoples in places as distant as the World Heritage sites of Cahokia Mounds, Chaco Canyon, Copan, and even Stonehenge.

Located in Appendix C, is the complete justification that was prepared in 2007 to place Serpent Mound on the World Heritage Sites’ Tentative List. (Note: the justification is to be revised prior to final submission and consideration for designation as a World Heritage Site; this revision has not been completed at the time the management plan was prepared.)
5.0 SUBJECT OF PROTECTION, PROTECTION GOAL and INSTRUMENTS OF PROTECTION

5.1 SUBJECT OF PROTECTION

Serpent Mound falls into the World Heritage Sites cultural heritage categories Monuments, and also Sites. Cultural heritage sites are defined in Article 1 of the World Heritage Convention, as follows:

Article 1
For the purpose of this Convention, the following shall be considered as “cultural heritage”:
– Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science.
– Sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from a historical, aesthetic, ethnological or anthropological point of view.

This management plan is organized to conform with Management Plans for World Heritage Sites: A Practical Guide (Ringbeck 2008), and also meet the management goals and objectives of the owner and principal manager of the site, the Ohio History Connection. As a non-profit organization that functions under Ohio law in a public/private sector partnership, the organization has a responsibility to Ohio citizens that is different than many state-owned and managed properties around the world wherein the government has the autonomous authority, if they so choose. Thus, the planning process has included substantial stakeholder input to inform this management plan. Conducting public engagement activities makes it possible to secure public support for the long-term protection of the resource.

5.2 PROTECTION GOALS

• Conserve the material substance of the serpent mound effigy,
• Maintain a buffer around the mound that is free of man-made or natural obstructions,
• Avoid further development in proximity to the Serpent Mound, the burial mounds, and the ancient village habitations,
• Protect view perspectives from unwanted development, and
• Preserve the rural aesthetic of the agricultural valley and the natural ecosystem.
5.3 INSTRUMENTS OF PROTECTION

State Law: Ohio Revised Code, Section 2927.11 (A)(3) prohibits a person, without privilege to do so, from purposely defacing, damaging, polluting, or otherwise physically mistreating any historical or commemorative marker, or any structure, Indian mound or earthwork, cemetery, thing, or site of great historical or archaeological interest. (B) declares that whoever violates this section is guilty of desecration, which in the case of subsection (A)(3) is a misdemeanor of the second degree.

Ohio Revised Code Sections 155.05 and 155.99 provides that “The owners of such prehistoric parks (referring to earthworks) may establish all reasonable rules governing access to said parks” and sets up penalties for infractions.

Deed Restriction: Deed from Harvard College to Ohio State Archaeological and Historical Society, 6 October 1900, requires perpetual care.

State Law: Ohio Revised Code, Section 149.30, requires that the Ohio Historical Society maintain and operate a system of state memorials (including properties owned by OHS) and requires legislative approval for the transfer or sale of Society property if the State has a "financial interest" in the property. Since the State has made considerable investment in the development, maintenance, and operation of the site since it was acquired, the Ohio History Connection affirms that the state has a “financial interest” in the property.

Serpent Mound Historic Site Management Plan: This plan substantively guides protection, future development, and use of the site. Its adoption by the Ohio History Connection’s Board of Trustees (_____date___) will provide direction for funding requests to the Ohio legislature and private sector sources to take such actions as acquiring additional property, conducting research, upgrading interpretation, increasing staffing, and so on. It will also guide operation and maintenance of the site to ensure that the cultural and natural resources are protected.

A subsequent master plan for the site will guide development to ensure that the goals and priorities established in the management plan will be implemented in such a way as to not jeopardize or impact the cultural resources which give the site its Outstanding Universal Value.

5.4 NATIONAL PLANNING and LAW
National Law: National Historic Preservation Act Section 106 (36 CFR 800 – Protection of Historic Properties) provides for an assessment of adverse effects to historic properties and review and consultation for federally funded, permitted, or licensed activities. As a designated National Historic Landmark any such actions at the site, or in close proximity, would fall under this law.

National Law: National Historic Preservation Act Section 110(f) of the Act outlines the specific actions that an Agency must take when a National Historic Landmark (NHL) may be directly and adversely affected by an undertaking. Agencies must, "to the maximum extent possible...minimize harm" to NHLs affected by undertakings. Both Sections 106 and 110(f) also require Agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking.

National Law: Section 4(f) of the Department of Transportation Act stipulates that the Federal Highway Administration and other DOT agencies cannot approve the use of land from public owned parks, recreation areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:
- There is no feasible and prudent alternative to the use of land.
- The action includes all possible planning to minimize harm to the property resulting from use.

5.5 PROTECTED AREA

Property Description
Serpent Mound, the property owned today by the Ohio History Connection, encompasses the monumental Serpent Mound as well as other mounds, archaeological remains, and landscape features that likely were determinative in the ancient builders' selection of this location as the site for the construction of Serpent Mound. This serpent effigy is the largest documented surviving example of an ancient effigy mound in the world. It is a sinuous earthen embankment that if straightened out would measure approximately 1,420 feet long, and includes a 120 by 60 foot oval oval embankment at the northwest end. The oval has been interpreted variously as the serpent's eye, part of its head, or a secondary object, such as an egg, grasped in the serpent's open jaws. The effigy ranges from 4 to 5 feet in height and from 20 to 25 feet in width.

Serpent Mound is situated on a ridge, which is a part of a geologically ancient meteoric impact crater. Natural rock formations at the end of this finger-like ridge are suggestive of a snake's head, which may have provided the inspiration to build the serpent effigy along the top of this ridge.
Resources identified above, the Serpent Mound, the burial mounds, and the archaeological remains were cited in the statement of significance when the National Historic Landmark was further documented in 1976. It is understandable that 1976 documentation did not address any of the WPA-built buildings or structures at the site given that all of the buildings and structures, with the exception of the 1908 Observation Tower, were less than fifty years of age at that date. As of the preparation of this management plan they are now over 80 years of age, these buildings, and the 106-year-old Observation Tower, have achieved some significance in their own right. However, the level of historic significance may be that of National Register of Historic Places designation, and not necessarily, rising to the threshold of National Historic Landmark status.

Ohio Historic Inventory forms were completed for all of these buildings and the tower in 2012. Indeed, these buildings contribute to the overall story of the Great Serpent Mound, which survives to this day as a result of preservation efforts initiated during the late nineteenth and early twentieth centuries. During the Great Depression of the 1930s, the Works Progress Administration (WPA), the Civilian Conservation Corps (CCC), and the National Youth Administration (NYA) played a major role in the development and renovation of parks, historic sites, and memorials. These buildings comprise an intact collection of buildings bearing the unmistakable mark of craftsmanship indicative of WPA construction. Retaining good-to-excellent integrity, the seven, WPA-built buildings, the CCC-designed landscape, and the Observation Tower are of historic merit. At present, they have not been placed on the National Register of Historic Places, and only the comfort stations officially determined eligible. Additionally, these resources are not included in the outstanding universal value statement for the site.

Built in 1908, the Observation Tower dates to the early years of the Ohio State Archaeological and Historical Society’s ownership and management of the site. It was designed and manufactured by the Columbus Wire and Iron Works specifically for the Serpent Mound site. Over 100 years of age, the tower has now served numerous generations of sightseers, making it one of the more beloved features of the site. Aside from the replacement of the wooden stair treads and deck planks during basic maintenance, this structure appears much as it did when erected in 1908.

WPA-built buildings and structures include the barn; museum and concessions building; the Overlook; the two comfort stations; the caretaker’s house; and the garage. All seven of
these resources exhibit characteristics common to Depression Era park construction projects, making them excellent examples of the type. The use of native stone, wood, and the topography itself, reduces the visual impact of park buildings. Aside from a few minor alterations to the museum and concessions building, the caretaker’s house, and the comfort stations (installation of plumbing), the buildings at Serpent Mound provide an excellent example of original construction.

The only structure at the site that does not retain good integrity is the picnic shelter. The original shelter dated to ca. 1930, but the only vestige from that time period consists of a low, rock wall that skirts the perimeter of the extant picnic shelter and the original floor. The extant posts, beams, and roof were reconstructed in 2006 and are considerably less than fifty years in age. Consequently, the picnic shelter no longer retains historic integrity.

Toward the southwestern corner of the property a pair of early trails skirt the upper rim of the bluff above Brush Creek. The pathways likely date to the Ohio State Archaeological and Historical Society period of management and Depression Era construction. Now overgrown and highly eroded, these stone-lined pathways appear to have provided pedestrian access to the mound itself, as well as to the rock ledge below the serpent’s head. A portion of the trail is lined by a series of mature cedar trees, spaced at ten-foot intervals. Sightseers entering the site over these footpaths would have experienced the approach to the mound in an entirely different way than we do now.

In addition to the above features, there is a granite memorial, a bronze historic marker, a ticket booth located at the parking lot entrance, and various signage throughout the site.

Bordered by Ohio Brush Creek immediately to the west of the site, the nature of the surrounding environment consists of a pastoral agricultural valley and surrounding hills shrouded in recovering successional forest.

Present access to the site is via an access road from Ohio Route 73, approximately 7.5 miles northwest of Peebles, Ohio via OH-41 and OH-73 in Adams County. The access road leads to a surface parking lot approximately 1,000 ft from the site entrance at OH-73.

**Boundaries of the Site**
Serpent Mound is located in the Township of Bratton, County of Adams, State of Ohio. Access to the site is from OH-73 in Bratton Township, Adams County, and the site is bordered on the west by Ohio Brush Creek. Acreage of the Serpent Mound site is commonly reported to be 60-acres. The 1900 deed from Harvard College stated that the property contained 60.75 acres. A 1994 survey
determined that the site is actually 54.141 acres (Ty R. Pell, Registered Land Surveyor No. 7524, February 1994). At least part of the difference is due to the relocation of Ohio State Route 73 and the construction of a new bridge over Ohio Brush Creek. The center point for the geographic coordinates is: N 39° 1' 27" W 83° 25' 47". A complete legal description can be found as Appendix D.

**Buffer Zones**

Existing property boundary of the parcel owned by the Ohio History Connection and tracing back to the original purchase of the property by Harvard College – provides for a minimum of a 50 m (164 ft) buffer adjacent to the effigy, to upwards of 100 m (328 ft). The property is large enough to provide a suitable setting for the effigy itself. However, the property is not large enough to accommodate enhanced, or additional visitor services and still provide an adequate buffer for the burial mounds and ancient village habitations. Thus, this plan identifies priorities and makes recommendations to address this condition, which will also be further addressed in the master plan.

A “buffer” as defined in the *American Heritage Dictionary of the English Language* is something “that protects by intercepting or moderating adverse pressures or influences.” In thinking about Serpent Mound “pressures or influences” can be thought of as facilities, use, invasive species, etc.

According to *World Heritage Guidelines* “. . . buffer zones should include the immediate setting surrounding the inscribed property, important views and other areas or attributes that are functionally important as a support to the site and its protection. “

A buffer zone to prevent unwanted development at the site entrance and measures to protect significant view perspectives are identified in this plan in Section 7.

**6.0 MANAGEMENT SYSTEM**

**6.1 MANAGEMENT STRUCTURE**

Ohio History Connection – property owner and principal manager
800 E. 17th Avenue
Columbus, OH 43211

The Ohio History Connection, a 501(c)3 corporation, is by law the State of Ohio’s partner and steward in preserving and interpreting Ohio’s history, archaeology, and natural history. Through two previous organizational names to the present, the Connection has owned and managed Serpent Mound since 1900. The
Connection exists to collect and make available evidence of the past, and to provide leadership on furthering knowledge, understanding, and appreciation of the prehistory and history of Ohio and of the broader cultural and natural environments of which Ohio is a part. The Ohio History Connection’s mission is to “spark discovery of Ohio history!” and help people connect with Ohio’s rich past to understand the present and create a better future. In collaboration with local community groups, the Connection manages the operations of 57 historic, archaeological, and natural sites and museums.

Arc of Appalachia Preserve System – local on-site manager
7660 Cave Road
Bainbridge, OH 45612

Through a formal management agreement with the Ohio History Connection (Appendix E), the Arc has served as the on-site manager for Serpent Mound since 2009 as well as for Fort Hill Earthworks and Nature Preserve, which is also a Ohio History Connection archaeological site and located nearby. The Arc is a non-profit organization established in 1995. Its mission is to protect the rich diversity of life within North America’s Great Eastern Forest by acquiring and stewarding wildlands in the Ohio region, creating sanctuaries where people can connect with the natural world, teaching about the East’s forest heritage to inspire a global conservation ethic, and honoring, in its work and teachings, Native American legacies. Currently, the Arc has 17 project regions in southern Ohio, representing over 5,000 acres of natural landscapes. Five of the 17 sites managed by the Arc protect major Native American earthworks. Public services include three visitor centers, a large number of education courses on natural history and other topics, a residential education complex, and over 32 miles of hiking trails.

Management Agreements
In 2008, the Ohio History Connection embarked on a plan to transition day-to-day operations of most of its, then, 58 historic sites to local organizations. In these agreements, site partners in local communities manage staffing, programs and grounds keeping, and retail, while Ohio History Connection staff manages cultural and natural resources, as well as the collections and exhibits, and is responsible for major maintenance and capital improvements. The Ohio History Connection typically provides an annual stipend to the local management group and the local group retains earned income to support operation of the site. This local partnership program has been hugely successful and has proven to be a model for other state and regional history organizations with historic sites. Currently 51 sites and museums are managed under this arrangement.
6.2 STRATEGIES FOR MANAGEMENT

Ohio History Connection/Arc of Appalachia
Current management of the site by the Ohio History Connection and the Arc of Appalachia Preserve System has been in place through a management agreement since 2009. It is deemed to be an effective, cost-efficient, and successful partnership. It is fully anticipated that this management agreement will continue into the future. Moreover, once this plan is adopted by the Connection’s Board of Trustees, representatives of the two organizations will develop a master plan with priorities and budgets to advance the goals and objectives of this management plan, consulting with the site's stakeholders and other experts.

Serpent Mound Advisory Council
The Ohio History Connection will establish an advisory council to advise the Ohio History Connection and the Arc of Appalachia on development and operation of the site and to advance an increased public understanding and knowledge of Serpent Mound. Membership will include individuals who are representative of both the local community and region. Membership also will include individuals who are interested and actively involved in preserving and interpreting aspects of the state's heritage that are preserved and interpreted at the site. The advisory council will consist of members drawn from government, community institutions, business, site volunteers, educational and academic institutions, archaeological organizations, American Indians, and citizens interested in the well-being of the site.

Throughout the year, the advisory council will be consulted via meetings or through various other methods of communication to assist the Ohio History Connection and the Arc of Appalachia by working to:
- further the mission and vision of the site,
- provide input in the planning for projects, facilities and other development, research, and access at the site, and
- advocate for the site.

Partnerships
Ohio History Connection and the Arc of Appalachia will work to expand and develop new partnerships with other institutions and stakeholders. These associations will allow the Ohio History Connection and the Arc of Appalachia and their partners to accomplish mutual goals. Strategic partnerships give each partner access to a broader range of resources and expertise in order to achieve desired outcomes regarding the protection, promotion, research and
educational components of the plan. Potential partners include, but are not limited to:

- Friends of Serpent Mound
- Federally recognized tribes with Ohio ancestral homelands
- Adams County Travel & Visitors Bureau
- Adams County Commissioners
- Adams County Chamber of Commerce
- Adams County Community & Economic Development
- Adams County Historical Society
- Adams County Genealogical Society
- Adams County Agricultural Extension, Ohio Department of Agriculture
- Farmland Preservation Program, Ohio Department of Agriculture
- Bratton Township Trustees
- Village of Peebles
- Peebles Area Business Association
- Local churches and school districts
- Hopewell Culture National Historical Park
- Dayton Society of Natural History - Sunwatch Village and Fort Ancient Earthworks and Nature Preserve
- Ohio State University’s Newark Earthworks Center
- Ohio Archaeological Council
- Ancient Ohio Trail
- University of Cincinnati, Center for Electronic Reconstruction of Historic and Archaeological Sites
- Ohio Department of Transportation, District 9
- Ohio State Senator District 14
- Ohio State Representative District 90
- U.S. Representative to Congress, 2nd District
- U.S. Senators representing Ohio
- Hotels, motels, restaurants, and related associations
- The Nature Conservancy
- The Archaeological Conservancy
- Heartlands Earthworks Conservancy
- Archaeological Society of Ohio

7.0 BASIC PRINCIPLES for PLANNING and ACTION

Vision Statement
Serpent Mound will be a world-class historical site that instills pride in American Indians, in area residents, in people throughout the State of Ohio, and throughout the world. Its story will be told with authenticity, presented with dignity, and elicit an emotional connection from the visitor. Its facilities and
programs will generate substantial visitation and drive economic development through heritage tourism. Collaboration will be instrumental to achieve and sustain success throughout the development, maintenance, and operations of the site.

The Mission (Purpose) of the Serpent Mound site is to:

- preserve the geoglyph and associated cultural resources and the ceremonial and natural landscapes in which they are situated so they can be studied and appreciated by future generations,
- inspire wonder about its builders and their culture, its place in the world, and a sense of awe,
- provide a window to its builders and to the other ancient mound-building cultures that lived in what is now Ohio,
- provide a venue to increase understanding of the genius and life ways of the ancient people who developed and used the site,
- connect visitors, through experiential and educational means, to the site’s American Indian origins, and
- educate the public through museum exhibits, judicious use of interpretive signs, and publications about this remarkable American Indian achievement.

Guiding Principles for the Site
Using the Serpent Mound site as a recreational park, Putnam’s early vision, was implemented, and for almost 120-years people have used the site as a park as intended. Today, there is a much greater general understanding and awareness of these special places throughout a broad national and international community, wherein a recreational park is no longer the most appropriate management approach. In fact, potential World Heritage Site designation is a relatively new tool that calls for a management framework that preserves and interprets the outstanding universal value of the site, the serpent effigy, and associated tribal habitation and use.
All-encompassing public outreach was exercised during the planning process for this plan. These guiding principles represent consistent overarching values that were derived from that process, which included Steering Committee engagement through a planning charrette, meetings and reviews, one-on-one stakeholder interviews, consultation with Indian tribes, a two-day planning retreat, a public open house, and online public responses to the draft plan.

Perhaps the best definition of principle as thought of in this context is “a guiding sense of the requirements and obligations of right conduct.” The Ohio History Connection has prepared this plan making every effort to honor the public input received throughout the process. While all the feedback and suggestions received are valued, particular recommendations have been adapted to accommodate diverse perspectives, sequenced for implementation to account for incorporating best practices and development opportunities, or determined not appropriate for inclusion in the plan at this time.

**Revere and Maintain Outstanding Universal Value**

- Serpent Mound is recognized locally-to-internationally as a special place, a place of reverence, a sacred place to American Indians, and a place visited and respected by people of all ethnic origins, beliefs, and lifestyles.
- Serpent Mound is a place where people can profoundly experience this monumental ancient American Indian earthen sculpture and gain a broader understanding of its structure and history unimpeded by modern intrusions on the site, especially in the viewing of the effigy.
- It is paramount that the Serpent Mound and environs be preserved and protected, that natural and man-made threats are identified and addressed so that the mound is here to serve future generations.
- Serpent Mound is to be developed, managed, and interpreted commensurate with its national and international significance, whether or not inscription as a World Heritage Sites takes place.

**Site Preservation, Design, and Management**
• Preferred site design is one that is organic, with fewer objects, minimal signage, visual cues, maintain a tranquil, bucolic setting, and with buffer zones and space for contemplation.
• Planning for the desired and expected increase in visitors at the site will influence the size of facilities and infrastructure. Building near the Serpent Mound, burial mounds, and village habitations should be avoided whenever possible.
• It is important to create a continual sense of arrival and allow for reverence wherein the site generates an understanding and respect for American Indian cultural use and habitation.
• Entrance to the site is the first experience, the first impression for visitors. A buffer zone near the entrance at OH-73 is critically important, as is maintaining other open space in the valley, and the view perspective as seen from the mound.
• Acknowledge that increased visitation has the potential to negatively affect a visitor’s experience on-site if not planned for and managed.
• It is accepted that prudent tree trimming is necessary to retain visual corridors and certain celestial alignments, and, in some cases, removal of trees is necessary to eliminate invasive species or for reasons of visitor safety.
• Realize the historical importance of the WPA-buildings and the Observation Tower, but acknowledge that the Outstanding Universal Value for the Serpent Mound site does not include these facilities.

Interpretation
• It is imperative for visitors who arrive at the site when the museum is closed to have a site-sensitive, first-class orientation and interpretive experience available to them.
• This site merits a world-class museum/visitor center that stimulates the intellect, sparks the imagination, creates a heart-connection, and serves all ages and cultures – all of these being elements being integral to the creation of a world-class visitor experience.
• Design of any new museum/visitor center should complement or fit within the surrounding landscape of its location and draw inspiration from the art and culture reflecting the outstanding universal value of the site.
• It must be recognized that archaeological and natural resource research is invaluable in continuing to understand the Serpent Mound and the
other features, in sustaining interest and support of the site, in guiding site development and management decisions, and in protecting the site.

- Serpent Mound provides opportunities to conduct research so the history of this extraordinary American Indian geoglyph can be better understood.

**Respect and Engage Local Residents and Other Stakeholders**

- A sense of local ownership and pride has developed through over 100 years of operation and there is local awareness and respect for this site. It is understood that residents are proud of the natural and cultural resources in Adams County.
- World Heritage Site status presents an opportunity to further increase local awareness and advance community pride through the sites world-class recognition along with places like Stonehenge and Cahokia.
- Economic development through heritage tourism is acknowledged as crucial to the long-term viability of local communities; on-going engagement with local governments, businesses, chamber of commerce and tourism organizations, numerous other partners, and the citizens is desired and necessary to achieve and sustain success.
- Acknowledge that increased visitation has the potential to conceivably generate road safety issues and negative experiences in the community requiring education and outreach, and cooperation to address.
- Serpent Mound benefits from the collaboration of the many and varied stakeholders of the site, demonstrating that networking and partnership are instrumental in achieving and sustaining an optimal experience for the visitor and community.
- Awareness that Adams County does not, at present, have the food and lodging infrastructure to realize the full benefit economically from increased visitation to a World Heritage Site, and that community partnerships will serve to inform and advance appropriate private sector investment critical to bridge the gap.

### 8.0 PROTECTION of OUTSTANDING UNIVERSAL VALUE

Protecting the character and meaning of the site, the characteristics that make this site of outstanding universal value, is fundamental to the purpose of this management plan. Actions in this section address issues within the current site boundary and those that may require property expansion, or employ other acceptable tools to manage development off-site.

At present, there is no zoning tool in Adams County to manage development on private land holdings outside of the Ohio History Connection property. Moreover, it is not politically viable to institute land use controls in the
foreseeable future. Throughout the plan process, the feasibility of adopting land
use controls was explored and consistently deemed not practical at this time.

Successful negotiation with private property owners outside the site parcel
boundary is critical to success in securing buffer zones and the protection of view
perspectives. A small number of property owners control the properties and
efforts to educate and build positive relationships with these owners are critical
to success.

8.1 Buffer Zones Outside of Serpent Mound Site Property

Buffer Zone Near Site Entrance at OH-73
Due to changes over time in both the alignment of OH-73 and a new highway
bridge over Brush Creek, and a change in location of the Serpent Mound site entrance, the site parcel boundary does not include approximately 100 ft of the
site access road from OH-73 leading up to the ridge (see Appendix F). However,
due to highway right-of-way controlled by the Ohio Department of Transportation, and partial ownership of this area by the Connection — this effectively results in the ability to manage unwanted development on the east side of OH-73 near the entrance.

Action Items

● Establish additional buffer along the highway on the east side of OH-73
approaching the site entrance 100 feet deep, from a curve in the road
approximately 400 feet south of the entrance. This approach connects
with the existing site parcel boundary and secures a line-of-sight buffer
on this side of the road from a bend in OH-73 to Ohio Brush Creek.

● Establish a mirror image of this buffer on the opposite side of the road
adjacent to OH-73, in total approximately 430 m, 100 feet deep. An
agricultural easement on the property on this side of OH-73 may be a
realistic and more cost-effective method for securing a buffer than fee-
simple purchase (see agricultural easements recommendation in the next
component of this plan).

● While more specifically addressed in an upcoming section, Buffer Zones
within the Site, a possible scenario to relocate buildings and visitor
services to this area in the future should be considered with regard to
pursuit of an agricultural easement or fee-simple purchase. Acquisition
for site development in this area could deem moot purchase of an
easement as a buffer zone.
8.2 Protection of View Perspectives Outside of the Ohio History Connection Property

It is fully acknowledged that agricultural land in the valley below Serpent Mound has been in agriculture for many years, and furthermore owned and operated by proud farm families who intend to continue this rich tradition beyond the foreseeable future. Also, there is no sewer system in the area, which at least in the foreseeable future, inhibits major new development.

Adopted on June 27, 2011 the Adams County Land Use Plan, Section 1.0 Agriculture is devoted to goals and strategies to sustain farming, and specifically cites maintaining family farms as the first goal in this section of the plan. At the same time, the land use plan acknowledges aging farm families and loss of farmland in the county as a concern. Strategies in the County’s land use plan do not include zoning, or related land use measures.

It is presumed, but not really known, that at the time indigenous people were building Serpent Mound that they did so with views extant across the valley. The surrounding hills have been forested for the last 16,000 years, after being interrupted by some glacial interventions, before that the land was forested for at least 30 million years.

In ancient and historic times, people who built the mound and those that occupied villages at the site and in the surrounding area would have impacted the landscape. It is likely the Serpent Mound landscape for miles around was disturbed by humans. If the site supported a "substantial" Fort Ancient village, then there must have been a substantial agricultural landscape established and managed by those people.

There is little direct evidence, to date, for the degree of human disturbance at the Serpent Mound site proper, but there is regional literature supporting the view that the Ohio Valley and eastern North America as a whole were anything...

In contemporary times, the undeveloped nature of the agricultural valley bordering State Route 73 contributes to the pastoral ambience near the site’s entrance. The agricultural valley, the recovering young forests carpeting many of the surrounding hills, as well as Ohio Brush Creek that winds below the effigy mound, suggests to the visitor what the landscape might have looked like to indigenous people that built or visited the site for ceremonial purposes.

Today, forests in the vicinity of the site are at risk of being cut for various usage and/or cleared for development. Protection of the view perspectives includes forested views, in addition to the agricultural valley. These forests also provide a sound buffer. Property control of the forested view perspectives will allow these successional forests to continue to grow and mature.

**Action Items**

- Secure *agricultural easements* on agricultural land in the valley, and forested lands surrounding the existing parcel boundary that are preliminarily identified through plan mapping (see computer generated visualizations in Appendix G and contour mapping of ridge views in Appendix H). These properties are generally located variously in an arc clockwise from the southwest to the southeast of the ridge, where the Serpent Mound is located.
  
  0 More specifically the criteria used to identify view perspectives in the valley was pragmatically determined to be what is visible from the overlooks at the head and tail of the Serpent Mound. Additionally, the view from the overlook at the head of the effigy coincides with the summer solstice sunset alignment, thus, this view perspective is doubly important to protect.

- Promoting “land use preservation payments” is an identified strategy in the County’s plan and comparable to the Clean Ohio Agricultural Easement Purchase Program of the Ohio Department of Agriculture. Making use of this program to preserve view perspectives serves the dual
purpose of meeting Serpent Mound site plan goals and the County’s land use plan.

8.3 Buffer Zones within the Site Property
As stated in the PROTECTED AREA section earlier in this plan, the existing property boundary of the parcel owned by the Ohio History Connection provides for a sufficient buffer directly adjacent to the effigy. However, the property is not large enough to accommodate enhanced, or additional visitor services, or any needed or desired development as a result of World Heritage Site designation, and still provide an adequate buffer for the burial mounds and ancient village habitations. Moreover, at present, structures and hard surfaces for parking and traffic circulation intrude on the visual and spatial connections of the Serpent Mound to the burial mounds and village habitations.

In order to preserve the qualities that give this site’s OUV, and also meet other guiding principles for this plan – significant effort in the Master Plan process is needed to investigate options to reduce existing development in proximity to any of the cultural features that give the site OUV, and select suitable new locations for access, visitor services and education elements. A continued sense of arrival that reflects reverence for the site is not the present-day experience; instead a lack of orientation and various man-made facilities stand between the visitor’s arrival and their first experience in the presence of the mound.

Action Items
● Adjust or redirect any current plans or funding vehicles for facility or site improvements to accommodate the guiding principles and objectives of this plan wherein there are fewer buildings in the vicinity of the mound, and buildings and other facilities are farther away from the serpent effigy, the burial mounds, and ancient village habitations. (Note: the plan acknowledges that investments to improve the visitor experience in the interim may be necessary, e.g. improving the existing museum exhibit.)
● Direct scope-of-work for the Master Plan toward the following two scenarios for consideration and implementation:
  o 1) Develop a design alternative that removes most facilities and services on the ridge area, with the majority of facilities and services to be located in the valley adjacent to OH-73 near the site entrance. This would require acquisition of an additional land, a
single property owner owns a close to 100-acre parcel across from the current site entrance. An obvious downside to this approach is the use of agricultural land for development of Serpent Mound facilities rather than remaining in agriculture.

2) Develop a design alternative with the same goal, as number 2, but rather exploring and assessing properties adjacent to the existing site parcel to the east and to the south, and with access from either OH 73 or from Horner Chapel Road. The current access road at OH-73 could be returned to a more natural condition, or function as a one-way entrance. An advantage of this approach over number 1 is the ongoing preservation of agricultural land in this now pastoral agricultural valley.

It is essential for future development considerations within and outside the current site boundary that any new findings from research, or additional study are made available for consideration in the planning and management of the site. Moreover, it is paramount that targeted research be designed and conducted, as well as additional due diligence, to inform such decisions. Research needs could be archaeological, natural, historical, legal, etc.

8.4 Protection of View Perspectives within the Site Property

Areas surrounding the serpent effigy within the existing property boundary are now covered in forest, in spite of nearly complete clearing in the mid to late 1800’s. The large trees in the immediate area of Serpent Mound were likely planted as landscape trees in early park days. Putnam noted in 1883, verified through his photographs, that only two maple trees were extant in the vicinity of the Serpent Mound. Regardless, in some instances tree limbs are encroaching on views of the effigy, both at ground level and from the Observation Tower. It is recognized as important and appropriate to trim at minimum, and in some cases remove trees that are interrupting, or blocking view perspectives of the effigy mound.

Opening and maintaining the view perspective of the summer solstice sunset alignment has been consistently supported in the plan process, and the alignment is an attribute contributing to the outstanding universal value. At the same time, there has been, and likely will continue to be, some debate as to the number of solar, lunar, and planetary alignments that are to be recognized through delineation and interpretation at the site. Substantive changes in the
body of knowledge regarding other alignments will be incorporated into the site’s interpretation.

Adhering to the outstanding universal value entails limiting protection of view perspectives to that value, e.g. the summer solstice sunset. Moreover, opening view perspectives for multiple solar, lunar, and planetary alignments that have been variously presented for consideration would result in an inordinate number of openings in the surrounding forest, excessive limb or tree removal, or require essentially denuding the surrounding landscape, none of which is desirable.

Conversely because the landscape trees on the mowed park grounds were all planted within a few years of each other, and, due to the fact that they are growing in open conditions on thin poor soil, a significant number of the trees are currently in poor condition and/or dying. This condition needs to be addressed short term, as well as longer term.

**Action Items**

- Regularly trim tree limbs following professional horticultural practices, and trim at the appropriate time of year for any given species so that view perspectives of the serpent effigy at ground level and from the Observation Tower are maintained.
- Identify and remove aging unhealthy trees and other trees subject to wind-throw and catastrophic loss of the original fabric of the effigy and associated archaeological resources.
- Establish a monitoring plan and assess annually whether trimming limbs is sufficient to maintain the view perspective of the effigy mound or if tree removal is necessary. If tree removal is necessary, follow professional horticultural practices and grind stumps in vicinity of effigy or in view from area of the effigy. Again, extreme care should be exercised to avoid damage to the integrity of the mound.
- Regularly trim tree limbs or remove trees, following professional horticultural standards, in order to maintain view perspective outward along the summer solstice sunset alignment. Assess annually whether trimming limbs is sufficient to maintain the view perspective or if tree removal is necessary. If tree removal is needed, take extreme care not to damage the integrity of the serpent effigy or the stability of the bluff.
- Identify and remove invasive species on the ridge in the area of the Serpent Mound and throughout the developed areas and open spaces in
the site. Also remove any dead or hazardous trees which might be a public safety hazard, a potential threat to buildings and features, or an overall liability in this area. An arborist’s assessment is needed to identify invasive species and assess tree conditions, perhaps completed by a skilled professional from the Arc of Appalachia. All such activities are to be conducted following professional horticultural practices and taking care to protect all historic features and structures.

- Tree shade is critical for visitors’ enjoyment of the site, especially in the extremely hot and humid months of July and August. A landscape plan is to be prepared as a component of the master plan, the plan will consider:
  - Planting native tree species that are long lived, and can tolerate open windy conditions on relatively poor soils derived from site’s alkaline bedrock.
  - Native oaks are ideal choices for these purposes, especially the adaptable and long-lived white oaks, chestnut oaks, and chinquapin oaks (the latter evolving on limestone bedrocks). Black oaks are not long-lived enough, and red oaks prefer moderately moist sites.

9.0 MONITORING and QUALITY CONTROL

9.1 Steps Through the Tail of the Serpent Mound Effigy
A set of steps through the tail of the effigy were constructed during the Depression Era changes to the site. These steps are now considered an intrusion that affects the integrity of the effigy and is not in keeping with the outstanding universal value or the guiding principles in the plan.

In line with a circulation path and located where the tail begins to spiral – it is believed that the purpose of the steps was to provide visitors with access into the spiral area of the tail without having to walk on the mound. It is not difficult to imagine that without it visitors may walk over the mound to get into the spiraled space of the tail. However, it is preferable to restore the integrity of the mound in this area and educate the visitor with regard to staying off the mound and preserving its integrity.

Action Items
- Remove the steps in the tail area of the serpent mound effigy and restore the mound in consultation with archaeology expertise at the Ohio History Connection and other experts. Use existing contour of the mound and
previous research results to inform material fill, height, and shape when
restoring the mound after step removal.
- Provide an alternative means for viewing the tail so that school children
during educational programs and other visitors have the opportunity to
view and experience the coiled tail from a higher viewing angle. It is
critical that this respect the guiding principles.

9.2 Stability of the Bluffs and Ridge
Concern has been raised by several stakeholders regarding risk to the integrity of
the Serpent Mound due to instability of the bluff near the head of the serpent
effigy and generally in areas of the ridge near the effigy. These problems were
brought forward during the stakeholder engagement process of the plan and
determined to be of sufficient concern to warrant investigation. Concerns range
from stability of the limestone bluffs to hydraulic water movement in and
around the ridge to erosion and storm water control.

Action Item
Develop a scope of work to conduct a geologic and hydrogeologic study of the
bluff and the ridge to assess the above identified concerns, to determine level of
risk, and to secure recommendations for treatment on a priority basis assigned
to risk level, as needed. The study should include evaluating stability and safety
issues at the overlooks at
both the head and the
tail with regard to the
existing condition, and if
possible, identify the rate
of bedrock slump and
evaluate stormwater
management throughout
the site (assess the cost-
effectiveness of
mitigating problems in
the context of potential
major site changes in the
future).

9.3 Safety and Security
Inserting an unknown number of “orgonites” in Serpent Mound in 2013 to
“reactivate it” was an act of vandalism that staff was not aware of until later.
The ability of the individuals to carry out this vandalism undetected is a result of limited security systems and personnel at Serpent Mound. Vandalism of the mound is by no means acceptable to the Connection and the Arc.

At the same time, it is pragmatically reflective of resource limitations facing this site, other Ohio historic sites, and historic sites throughout the nation. World Heritage Site designation can serve to inspire low-cost monitoring of such behavior by fellow visitors and may lead to larger scale solutions made possible through increased funding associated with implementation of this plan.

Since visitors have vehicular access to the site 24/7 and the museum/visitor center has limited hours throughout the year (and more so in the off-season), there are blocks of time, periodically substantial blocks of time in any given day, when there are no on-site personnel to monitor visitors. Given the natural setting, motion sensors are not useful as a security tool. At this time, there are not enough financial resources to provide staff oversight around the clock throughout the year.

Heretofore, admission to the site is free of charge due to the deed restrictions transferring the property from Harvard College to the Ohio History Connection (see original deed language in Appendix I). However, since 1981 a parking fee has been charged for vehicles, and there is opportunity to charge admission fees that would generate greater revenue to assist with funding increased security at the site. Frederic Ward Putnam wrote prior to the transfer of the site to the Ohio History Connection: “So long as the place is respected and guarded by all who visit it, the park will be free to all, but should any vandalism be committed, an arrangement would at once be made to put a keeper at the place, and possibly entrance fees would have to be charged in order to pay the expense.” The deed restrictions reflect Putnam’s first idea, but it is now clear that the latter concept needs to be instituted.

**Action Items**
- Ohio History Connection will seek agreement with Harvard University to permit the charging of admission fees.
- Invest in a security camera system
- Incorporate messaging in visitor orientation that encourages visitor monitoring and reporting of vandalism, looting, and related inappropriate behavior.
9.4 Visitor Use of the Site and Site Design

Designation as a World Heritage Site will cause a paradigm shift in how Serpent Mound is viewed and used. From Putnam’s early vision of the site as a park with a planting of every native tree to Ohio, to an outline on a 1933-34 survey showing a planned, but never built “chicken park”, to the Depression Era improvements, to more contemporary reverence as a sacred place and renewed respect for the Native American cultural connection, the potential World Heritage Site designation will drive the ongoing evolution of how the site is used.

A significant number of visitors are of an age or health condition that limits their ability to circumnavigate the effigy. Moreover, compliance with handicapped-accessibility laws is required. A challenge during the development of the master plan will be to balance the overarching vision to reduce intrusions at the site while providing access to the site for people of all ages and physical ability. Site design is only one element of how to address access — providing appropriate, site-sensitive alternative modes of transportation, such as wheel-chairs with volunteers to push them, site-sensitive places to rest, or a self-operated camera location are a few alternative examples.

Since 1990, there have been numerous meaningful changes in the nation’s understanding, attitudes, and policies with regard to American Indians and sacred places. Results from those changes are no less than astounding when compared to the previous record. The relevance of discussing this in the plan is two-fold: 1) to ensure that the general public and key plan stakeholders, including American Indians, are aware of this paradigm shift, and 2) to serve to inform implementation of this plan, development of the master plan, and long-term site management. A few of the many examples of the referenced meaningful changes are:

- Lawetlat’la (Mount St. Helens) – listed on the National Register in 2013 for association of traditional beliefs of the Cowlitz Indian Tribe and Yakima Nation. It is significant to note that the acreage for the nomination boundary is 12,501 acres.
- Medicine Wheel/Medicine Wheel Mountain – designated as a National Historic Landmark in 2011. The National Register site of approximately 100 acres was expanded to a National Landmark of over 4,000 acres for association with traditional beliefs of numerous tribes.
- Heretofore non-existent, in December 2012, the Secretary of Agriculture, USDA Policy and Procedures Review and Recommendations: Indian Sacred Sites was published. It was prepared by the USDA Office of Tribal Relations and the U.S. Forest Service, and was the result of over 50
meetings (listening sessions) conducted with Tribal leadership, culture-keepers, traditional practitioners, and unaffiliated native descendants.

- Since 1990 there have been numerous reports, policy statements, funding vehicles, laws, guidebooks, trainings, executive orders, agencies and organizations that have contributed significantly to the identification, recognition, and protection of Native American culture (American Indians, Alaska Natives, and Native Hawaiians). Two early and significant examples being the 1990 Native American Graves Protection and Repatriation Act, and the 1992 amendments to the National Historic Preservation Act that made it possible for tribes to have their own preservation office similar to state entities like the Ohio Historic Preservation Office. To date, there are now 138 tribal historic preservation offices with $15 million in federal funding for FY 2014.

Many visitors to Serpent Mound who are not of American Indian heritage still honor the sense of sacred at this site and value the freedom to personally interpret the site in all religious, philosophical and spiritual realms. This management plan, within this breadth of experiential freedom, must protect the resources that create the Outstanding Universal Value of this potential World Heritage Site — no matter who may be the visitor.

**Action Items**

- **Event and Access Management – Serpent Mound Special Use Permit: Procedures and Policies** was prepared and adopted by the Arc with input from the Ohio History Connection in December 2014 (see Appendix J). In the future, assuming site visitation increases and with it requests for special events, it becomes a World Heritage Site, there is site expansion and changes in site design, and so on, that the policies and procedures will need to be reviewed and revised. It is also possible that outreach efforts and dialogue with American Indians could eventually result in more use of the site by tribes for spiritual practices. At such time, the following resources may be of value:
  - English Heritage’s *Stone Circle Access Application Form* and process for Stonehenge,
  - *Rock Art Site Etiquette* – A Visitor’s Guide, prepared by the Conservation and Preservation Committee, American Rock Art Research Association, Arizona State Museum, University of Arizona. It is a helpful handout that could be modified for use here.
  - NPS Management Policies, Section 8.5 - Use by American Indians and Other Traditionally Associated Groups – policy language here
that can be adapted to the Serpent Mound site and support Native American views and practices with regard to management.

- In preparing the *Master Plan*, the above resources may also provide beneficial information to meet an objective of this plan: to create a gathering place for ceremonies and celebrations near, but not at the effigy.

### 9.5 Associated Historic Resources

Depression Era buildings and structures and the Observation Tower are in all likelihood eligible for the National Register of Historic Places; the structures and buildings include the barn, museum and concessions building, the Overlooks, two comfort stations, the caretaker’s house, and the garage. The Observation Tower affords a view of the serpent effigy that enables the visitor to fully take in the breadth of the mound, and it represents a valued experience of memory through generations. It is also not handicapped accessible and difficult for many who are not legally handicapped but still physically limited to climb; it is at times hazardous and does not meet current safety standards; and it is perceived by many to be located too close to the effigy mound. Again, it is fully recognized that it is also the case that many visitors like the tower and think it is fine where it is.

These historic features have served the park-oriented nature of the site for decades and they are acknowledged elements of historic and experiential value. Nevertheless, their location is of another time and understanding. If such facilities were constructed today they would neither be located as close to the serpent effigy, burial mounds and village occupations, nor would they interrupt the visual and spatial relationship of these resources.

It is a long term goal of this plan for the ridge area of the site to someday be substantially devoid of buildings, parking facilities, and other man-made intrusions, as a result such visitor facilities, services, and amenities would be appropriately provided more physically removed from the resources that give the site its Outstanding Universal Value.

**Action Items**

- *WPA-built buildings in the vicinity of the Serpent Mound* – must be fully evaluated to determine their significance as historic buildings and their relationship to the reasons for the establishment of the site and the site’s resources giving it Outstanding Universal Value. These structures will be used until such time as they no longer serve a useful
purpose in site operations, require significant capital investment to maintain, or rehabilitate, or that the financial resources are available to relocate or remove specific buildings. The latter done would only be done in order to implement a fully-developed and funded redesign of the entire site to protect those resources that give the site Outstanding Universal Value and to create an experience commensurate with a World Heritage Site.

- **Observation Tower** – develop and assess alternatives to provide a viewing experience comparable to seeing the effigy at the height and perspective from the tower, and one that provides access to the experience for those of all ages and physical limitations. Consider a range of alternatives from moving and modifying the existing tower, to a new tower at a different location, to a viewing area constructed above the museum, to a remotely operated camera and monitor, and remain open to any creative solutions that may be generated in the process.

### 10.0 SCIENCE & RESEARCH

#### 10.1 Research Informs Management and Interpretation

It is fully recognized that research on both archaeology and natural history is invaluable for continuing to understand the Serpent Mound, the other cultural resources on the property, and the environment in which those resources are situated in order to sustain interest and support of the site, to guide site development and management decisions, and to protect the site. Research and study should not be purely academic endeavors carried out by professionals for a strictly professional audience, but rather an integral part of the protection, management, and interpretation of the site.

There is the “What if?” question that may be answered through research and study, wherein the answers may redefine the site boundary, management approach, and other plan parameters. To illustrate the point, “What if a new and widely-accepted date for construction of the Serpent Mound is discovered?” “What if the ridge to the north (which is a higher elevation than the Serpent Mound) through research findings suggests that the northern ridge was a place where indigenous people could view the entire effigy and important to them for ceremonies?”
10.2 Research Results from Existing Data

What stands out about Serpent Mound when conducting a review of existing research and publications is the range of contexts wherein Serpent Mound is identified or referenced. These research findings indicate that Serpent Mound is not just an archaeological/historical resource, but actually part of a much larger social fabric:

- Serpent Mound has been brought up as an early example of historic preservation in America (Lynott 2003; T. F King and Lyneis 1978), and it can be argued that Putnam’s efforts to save the site in the 1880s represents one of the first historic preservation efforts in Ohio and nationally. Its preservation predates the National Antiquities Act of 1906, and the establishment of the National Park Service by thirty years.

- Astronomical alignments have been proposed to account for key elements of the structure of Serpent Mound — although it is difficult to prove whether the alignments are intentional or not. Even more difficult to test is the provocative suggestion that Serpent Mound might be a representation of Halley’s Comet A.D. 1066 appearance (Pauketat and DiPaolo Loren 2005).

- Putnam’s work at Serpent Mound and subsequent curation of material also has been recognized as aiding in the national development of museum science in America (e.g., Dexter 1966).

- The site has been widely cited as an example of an ancient site that has spiritual or sacred significance for various modern audiences and is known worldwide (e.g., Brockman 2011). Serpent Mound is cited in several non-archaeological sources as well as an example of ancient death patterns, such as in the Journal of Death and Dying (Green 2001). Serpent Mound often is cited as a prime example of a sacred place of the Americas in European sources such as by Hunt (1991) in France and Wake (1873) in England. It often is cited as an example of ancient serpent worship as well (Irwin 1982).

- The Serpent Mound has been widely recognized as a work of art, both in an ancient and modern sense (e.g., (Doss 2011; S. Hodge 2006; J. King 1986). This includes viewing the Serpent Mound as part of a broader landscape (e.g., Bingham 2006) as well as a representation of various animal designs (e.g., Ballinger 2007). Serpent Mound has been cited as a high form of art in several European sources as well (e.g., Christinger 1980).
• The Serpent Mound, as a symbol of various things old and new, has been mentioned in several works of fiction (e.g., Allen 2010). It also was the main topic in a poem by noted poet Marge Piercy entitled *The Great Serpent Mound, Ohio* (Piercy 1987).

• Obviously, the Serpent Mound has been mentioned in a wide range of newspaper articles for many years and with a variety of storylines.

Despite all of these citations and previously-published materials in French, Croatian and English and Serpent Mound being identified in a recent exhibit at the British Museum and so on, the Serpent Mound has been the subject of considerable speculation, and there has been relatively-limited archaeological investigation at the site.

**10.3 Future Research at Serpent Mound**

Archaeological methods acceptable in the late 1800s are no longer appropriate today. Excavations conducted by Putnam at the Serpent Mound site would not be conducted today in the same manner and the majority of the work done years ago would not happen at all. Modern professional archaeological practice for burials and other archaeological sites is to preserve them in place, if at all possible, and to excavate and record only as a method of last resort. However, it is a reality that at some point in time general knowledge of the burial mounds would have undoubtedly presented a serious threat from looting. It is unlikely they would have survived looters, given their remote location and minimal security.

For present-day practices in the United States and elsewhere in the world, a professionally acceptable research design is a necessary precursor to conducting any archaeological research. For Serpent Mound and as is the case with other Ohio History Connection sites, research proposals may be submitted to the Curator of Archaeology at the Ohio History Connection for projects associated with archaeology and the
Curator of Natural History for projects related to the natural history of the site. Proposals are evaluated by the relevant staff and then reviewed by the Ohio History Connection’s Collections Management Team. If the relevant Ohio History Connection staff, including the Collections Management Team, determines the proposal has merit, it will be forwarded to the Director of Museum and Library Services for final review and approval (see Ohio History Connection Archaeological Survey/Excavation Permit in Appendix K).

In this process, outside peer reviewers may be consulted if Ohio History Connection staff feels they do not have the necessary expertise to evaluate certain aspects of the proposal. Successful applicants will be required to schedule all their activities on site with the Site Manager.

Guidance for conducting archaeological research at World Heritage Sites is most notably addressed in Timothy Darvill’s 2007 paper, *Research frameworks for World Heritage Sites and the conceptualization of archaeological knowledge*. Darvill states that following placement on the World Heritage Sites list “continued research is encouraged within the wider context of protecting, conserving and presenting cultural and natural heritage, and giving it a function in the life of the community.”

For his archaeological research at Stonehenge in 2005, Darvill established that archaeological research should:

- underpin curatorial work in relation to the management of the archaeological resource in the area, allowing decisions to be firmly based and fairly judged;
- maximize the return in terms of archaeological knowledge and insight that arises from routine land-management works, property development and land-use change;
- stimulate dynamic and innovative approaches to the study of archaeological deposits and materials in the area through problem-orientated and curiosity-driven research initiatives in order to expand the knowledge base and increase public understanding and awareness of the past; and
- inform the presentation and interpretation of the World Heritage Site to the public.

Darvill’s paper later goes on to identify types of knowledge of value derived from archaeological research that is particularly relevant to World Heritage Sites:

*Narrative knowledge* - Linear and non-linear accounts, stories, discourse, explanations and understandings of how things were in the past, as viewed from the present. Scientific knowledge. Foundationalist or coherentist/ naturalistic knowledge. Shared.
Strategic knowledge - Perspectives, opinions, and judgments of an executive kind providing the basis of guidance for management and conservation measures and decision-making. Views about the ‘rightness’ or acceptability of an opinion, position, or approach based upon conformity or match with approved or accepted value systems and ethical codes. Shared.

Indigenous knowledge - Accounts, explanations and understandings of how things were in the past as brought into the present from earlier traditions. Including: folklore, memories and elements of intangible heritage. Shared.

Contemplative knowledge - Beliefs and understandings that provide a basis for attachment to a place or time or event and/or establishing an identity. Insights gained by thinking through and rationalizing the implications of direct sensual engagements with aspects of the real world. Personal.

All of the above information in this section of the plan is intended to provide a context for understanding and appreciating the value and role of archaeological research in the management of the site, and to guide the identification of research priorities and research design for the Serpent Mound that informs management and interpretation longer term. All field research should be guided by a conservation ethic.

Research Priorities

- Baseline Inventory
  - Assess the structural integrity of the bluff where the Serpent Mound is located - this action was identified as urgent in both the Preservation Committee and the Research Committee during the two-day planning retreat for this plan and it is specifically addressed elsewhere in the plan.
  - Assemble existing research results from various investigations that are not presently compiled; some examples include research in the area associated with Section 106 and 4(f), various previous research at the serpent effigy, archaeological investigations for the restroom improvements in 2011-2012, and installation of a new water line across the property in the early 1990s. There have been rumors of a burial site discovered at the park entrance when OH-73 was relocated. However, an extensive records search was conducted and this finding could not be validated.
- Prepare a Composite Map (exercise appropriate professional caution and standards with regard to sensitive data) – At present, archaeological deposits are not well mapped. The most common map (Putnam 1887) was produced during Putnam’s excavations and has never been geo-referenced with modern maps. A modern composite map is needed that would include digitizing Putnam’s map onto a modern backdrop (GIS), and a secondary effort could entail geophysics to determine the exact locations of past excavations, e.g. gradiometer survey.

- Baseline Inventory of natural resources with a focus on the paleo-environment

- Working with the Ohio Archaeological Council, develop a formal process for consultation with outside experts for major research projects at the site.

- Research Questions and Priorities
  - What is the age of Serpent Mound?
  - How was it built? What is its structure?
  - Define and describe all cultural occupations at the site
  - Establish a local/regional context
  - Identify and clarify how Serpent Mound fits into a global context

- Factors to consider and guide research:
  - Encourage research into all aspects of Serpent Mound and foster an inclusive and collegial intellectual environment
  - All research results should be made more accessible to a wider set of audiences (while still respecting sensitive data)
  - All research projects should include some public education component, and for Adams County residents especially
  - Research should inform interpretation of the site, and be informed by the questions asked by the public and other audiences, especially American Indians.

- Research at Serpent Mound needs to be a priority for funding. Work with the Ohio History Connection’s Office of Institutional Advancement to find opportunities for raising the awareness of the needs and to seek grants and gifts from potential funders. Work with the Friends of the Ancient Ohio Earthworks, which were established under the auspices of the Ohio History Connection to support the nominations of Serpent Mound and the Ancient Ohio Earthworks as World Heritage Sites, to support the sites' needs following inscription.

- Artifacts from previous and future research projects should be incorporated as appropriate in exhibits at the site. These artifacts will come from collections owned by the Ohio History Connection and
borrowed from other museums. New facilities will need to be designed to provide conditions acceptable to loaning institutions.

11.0 INTERPRETATION and EDUCATION

11.1 Interpretation/Education Framework
Education or interpretation is not simply about providing information, but rather establishing a context in time and place, explaining the meaning of an object or event, making a personal connection, and changing someone’s understanding of an action or event. Education and Interpretation are at times used synonymously in this plan. However, there is an effort to distinguish that education in this context is primarily focused on educating the public about World Heritage Sites and World Heritage goals. Interpretation’s primary focus is on the telling of the stories and making meaningful connections to the Serpent Mound site’s history for the visitor. Certainly there are times when the message naturally fits in both areas and meets mutual goals.

Research, addressed in Section 10 of this plan, is critical to informing the management of the site, and education and interpretation goals. Research findings create an inherent need for flexibility in the management and interpretation of the site to accommodate new discovery.

At this phase in the process for developing the management plan, interpretation recommendations are in the interpretive plan stage. Decisions regarding media type, storylines, sign and kiosk content, design and location, exhibit design, website content, use of social media, and so on will be accomplished as site planning and development progresses.

It is worthwhile to note that in addition to other components of the public input process, considerable interpretation guidance was received during the two-day planning retreat conducted to inform this plan. In large group sessions, and in all four of the committees in small group work sessions comments and recommendations were made with respect to interpretation. A few points were made resoundingly clear throughout the retreat: 1) respect for Native American cultural connection, 2) the effigy mound is to be a place of reverence with minimal sign and design intrusion, and 3) a world-class museum and interpretation of the site should be developed.
The natural landscape is extremely important to provide a pastoral, rural ambiance, protect view perspectives, and provide sound buffering, and it is also important to the interpretive story as the forests once served many needs of the indigenous people. The forest is especially important to western visitors and international visitors who come with a knowledge and appreciation of the southern Ohio landscape.

An over-arching dynamic facing Serpent Mound with regard to interpretation is the breadth of visitor demographic and belief systems. It is not possible, not abiding by our nation’s Constitution, and not the American Way to dictate, or otherwise limit how people encounter a place in a religious manner. Crater Lake, Devil’s Tower, Medicine Mountain, Casa Grande, Chaco Canyon, Little Bighorn Battlefield (formerly Custer Battlefield), Fossil Beds National Monument, Trail of Tears National Historic Trail, and Serpent Mound – these sites and so many others have association with American Indian history and culture. It is a well-known reality that many non-Indians also consider these places sacred. Different American Indian tribes, as well as different people, will experience these places in diverse ways. Special use permits at Serpent Mound do not place limits on how groups may interpret the site.

Thus interpretation at Serpent Mound will provide opportunity for various experiences, no matter how unusual, or considered by some, atypical. At the same time, it is not the intention of this management plan to prescribe the promotion or interpretation of all natural and cultural components and all possible stories and beliefs.

It is also essential to realize and appreciate that not all spiritual sites speak to all people, but the visitors to Serpent Mound can be touched by the history, the feat of construction, the beauty, and more.

11.2 Interpretive Themes

1) Serpent Mound is a very ancient ceremonial site built and designed by American Indians to represent their beliefs in the context of the surrounding cultural and natural environment.

2) The Serpent Mound site was used over thousands of years by different American Indian cultures and represents a piece of the
puzzle in the understanding of the mound building tradition over time.

3) Experiencing Serpent Mound involves an exploration of how we know what we know and what questions and mysteries still remain.

4) Serpent Mound holds special significance to present day American Indians and many other people of various backgrounds, all having an opportunity to be active stewards of the site through time, including all who visit every day.

11.3 Interpretation Guidance and Recommendations

- **What is Serpent Mound?**
  - When was it built, who built it, for what purpose?
  - How it was used in ancient times, what did people do there?
  - Role of natural environment to site and use
  - Solar alignment, other recognized alignments
  - Accept, celebrate value of unknown, the mystery

- **Explore the layered history of the site**
  - Visitor able to visualize the mound in time and context
  - Understanding of mound building tradition and evolution
  - Relevance today as American Indian sacred place

- **Site Design**
  - Get people away from their vehicles, but accommodate handicapped and aging visitor population
  - Provide places to linger and to contemplate in the area of the serpent effigy - places sacred, places common
  - Change material of the pathway to something more organic
  - Consider aligning the pathway with the curves of the effigy while maintaining a respectful distance
  - Use minimal, unobtrusive signage close to the effigy
  - Replace current-style markers with ground-level signage
  - Take down markers when there is something better to put up
  - Consider relocating the bronze plaque
  - Relocate the granite monument away from Serpent Mound
Re-evaluate all monuments/signs/markers for location & content

Generate a feeling, a mood, a state of being
- Sense of mystery, awe as to uniqueness, spirituality
- Universal human experience, family, loss
- A sense of wonder, desire to learn more

Create a World-class interpretation and operation experience
- Facilities, displays, staff professionalism, gift shop
- Mediated and unmediated experiences available
- Better define audience and audience needs (multi-lingual)
- Employ best practices for age groups and multi-cultural visitors

Convene an interpretation/education roundtable that would further develop messages, themes, storylines, media selection, etc.

11.3 Specific Issues and Recommendations

Gift Shop Merchandise – provide items that educate the public and interpret the site with regard to its Outstanding Universal Value
- Educational material and products of the site’s owner, the Ohio History Connection, the Arc of Appalachia, and other World Heritage Sites are appropriate
- Comply with the Indian Arts and Crafts Act of 1990 (P.L. 101-644), which is the law that prohibits misrepresentation in marketing of Indian arts and crafts products within the United States (see Appendix L).

Interpretation on the Grounds vs. Museum Alternatives
- Experiential at the site, invest in interpretation on site before any major museum/visitor’s center expansion
- Correct deficiencies in current museum exhibits knowing that in the future new facilities will be located away from the serpent effigy, the mounds and the habitation areas
- Low physical impact, high emotional/intellectual impact
- Tell a comprehensive story outside at the site (at least the primary themes, details could be found in the museum and on-line)
- Kiosk located at the beginning of the pathway in an area near where visitors are approaching the visitor center/museum
● Web content and links to supplement consistent themes and messaging throughout all interpretive media

- **Museum/Exhibits**
  - An upgraded museum facility is needed with regard to climate control and security in order to secure loans from the Peabody Museum or other significant depositories holding Serpent Mound artifacts
  - Consult with American Indian tribes regarding sensitive subjects and material.

- **Periodic Loans** – periodic loans or permanent transfer of Serpent Mound artifacts housed at the Peabody would greatly improve the ability to interpret the site.

### 11.4 UNESCO World Heritage Education Goals

World Heritage sites are educational sites intended to convey UNESCO’s goals and ideals to the public. Per *World Heritage Site Guidelines* (Ringbeck), the following questions should be addressed in developing education programming for Serpent Mound:

- How can knowledge about the World Heritage idea best be communicated in the World Heritage site itself?
- How can important target groups and multipliers be reached?
- How can knowledge pertaining to the requirements for protection and conservation best be communicated?
- How can enthusiasm for the topic, especially among young people, be triggered?

The communication strategy, therefore, should convey both the idea of the World Heritage program and the outstanding universal value of the World Heritage site as well as the resulting responsibilities and opportunities. The international dimension calls for a multilingual approach.

Educational partnerships will substantively advance these goals; working with the Hopewell Ceremonial Earthworks World Heritage Tentative List Sites in Ohio is a natural approach, along with the Ancient Ohio Trail, federally-recognized tribes, academic institutions, and school systems.
12.0 TOURISM & VISITOR GUIDANCE

Visitation at the Serpent Mound site is estimated to be approximately 30,000 a year over the past few years. The site is located in a rural county, within a rural region. As identified in the recent Adams County Economic Development/Tourism Study, October 21, 2014, the county has a small population that is spread out and with slow growth (see Appendix M).

Visitation numbers at Serpent Mound to date and for the next several years are likely to be comparable to the 30,000 figure, and the number of visitors is not seen as a risk to site integrity in the near term. At the same time, it is recognized that with World Heritage Site inscription, implementation of this management plan and the master plan and increased public relations and marketing efforts that visitation will increase. Increasing visitation is a desired end provided that additional visitors can be accommodated without negatively impacting the resources. It is fully acknowledged that the site within the present parcel boundary has inherent limitations and likely does not have the capacity to reconfigure the site to ensure the preservation of those cultural resources which give the site its Outstanding Universal Value, and make associated improvements to develop a world-class visitor experience. Other components of the plan address these issues.

This section of the plan is focused more on tourism, successful heritage tourism and area-regional capacity to meet visitor needs, and guide a successful visitor experience and positive local resident experience. The recommendations are drawn from the public input received throughout the public engagement process.
Significant opportunities for tourism potential were identified in the above-referenced economic development/tourism study for Adams County; there were also significant needs for marketing and tourism amenities identified. Serpent Mound as a World Heritage Site and related educational and tourism goals fit nicely with the study's conclusions and in meeting identified needs.

Action Items
- Ohio History Connection, the Arc, and the Serpent Mound Advisory Council ensure that effective communication methods are in place so that Adams County businesses and residents may fully realize the benefits of World Heritage designation, and so that citizen concerns are brought forward to be addressed. Goals and objectives to achieve effective communication:
  - Approach Adams County residents with the appreciation that most people in the county have a feeling of ownership and respect for the site,
  - Continually acknowledge that healthy community relationships are deemed important to short- and long-term success,
  - Recognize the need to maintain a consistent and accurate Website presence for the site by all primary stakeholders,
  - Conduct public education meetings in various self-identified communities; include education regarding World Heritage Sites and understanding and accommodating world travelers,
- Embrace that it is critical to present to the public that through any expansion of the site that the land will be used responsibly,
- Explore partnerships and interest with nearby counties — Ross County, Highland County, Scioto County, Warren County, and Hamilton County/City of Cincinnati, and potential regional partners
- Need to periodically revisit what defines success for Serpent Mound as a World Heritage Site, for Adams County, for other critical stakeholders, and the visitors. Ask visitors over time, are they getting the right “take-aways?”
- Adams County needs more visitor amenities:
  - Dine-in, sit-down restaurants that can feed busloads of visitors,
  - Need another hotel or two, at the time this plan was prepared the Comfort Inn is 70-80% capacity,
  - A reality that Adams County will always be rural, a limited population, and that Adams County culturally is about people dealing with people more in person than through other means
- Additional resource for communities and heritage tourism - the Heritage Tourism Program, of the National Trust for Historic Preservation – publishes a survival toolkit for communities, and other publications, and offers guidance on communities and successful heritage tourism efforts.