UNCOILING SERPENT MOUND'S "SLITHERY VIBE": REFUTING MODERN MANIFESTATIONS OF THE MOUNDBUILDER MYTH

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Abstract

Serpent Mound is the most recognizable ancient American Indian earthwork in eastern North America. It is a National Historic Landmark, is on the United States' Tentative List of sites to be considered for nomination to the UNESCO World Heritage List, and it has graced the covers of many a professional archaeology book. It has also been featured in many widely popular pseudo-documentaries such as *Ancient Aliens* on History Channel and *Ancient Apocalypse* on Netflix. We first review the archaeological history of the site and then provide several examples of how this history has been ignored or distorted by people with varying agendas, but which all serve to perpetuate a clearly racist, settler colonialist agenda.

Keywords: Public Archaeology, Serpent Mound USA, Moundbuilder Myth

Serpent Mound (33AD01) is undeniably the most recognizable ancient American Indian earthwork in eastern North America (Figure 1). It is arguably the most well-known Indigenous mound in the world. It is a National Historic Landmark that is on the United States' Tentative List for potential consideration for nomination to the UNESCO World Heritage List and has graced the cover of many a professional archaeology book (e.g., Lepper 2005; Milner 2005; Thomas 2000). Simultaneously, Serpent Mound has also been the focus of more wild claims, alternative visions, and passionate misrepresentation than any other heritage site in the world.¹

To paraphrase Christopher Chippindale's (1986:39) attempt to find something positive in "the continuing dispute over contrary visions of Stonehenge," the only consolation we can find in this situation "is a wry astonishment" that an ancient American Indian earthwork "of unknown

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function and purpose, can generate such passions in the contemporary world" (Chippindale 1986:40).

Among the competing alternative views about the origin and purpose of Serpent Mound is the notion that it was built by "biblical giants called the Nephilim" (Feder 2019:153). Others believe it was built by ancient aliens in order "to somehow mark a fueling station for extraterrestrial spacecraft" (Feder 2019:154). More dangerous, at least to the physical integrity of Serpent Mound, are the "self-proclaimed 'light warriors" who vandalized the snake effigy in 2012 by burying their own version of ceremonial objects in and near the mound (Feder 2019:



Figure 1. Aerial photo of Serpent Mound along Brush Creek in southern Ohio (photo by Timothy E. Black/Newark Earthworks Center; <u>https://earthworks.osu.edu/research/serpent-mound-nomination</u>)

2019:153; see also Garner 2023). We see each of these proposals as modern-day manifestations of the pernicious Moundbuilder Myth, which represents a dangerous "denial of the capabilities of Native Americans" (Feder 2019:154). Our use of the word "dangerous" here may require some clarification. The danger posed by the Moundbuilder Myth in all its permutations is this: it is based on the fundamental assumption that American Indians somehow lacked the intelligence or initiative to create these sophisticated earthworks on their own. Given the overwhelming archaeological, anthropological, ethnohistoric, and historical evidence that definitively establishes this claim is false, that assumption is not just ethnocentric, but also racist. In addition to alleging that American Indians are somehow lesser humans than Europeans, such claims also erode the credibility of and public support for evidence-based knowledge in general upon which much of our modern civilization is based.

Why is Serpent Mound the focus of so much attention from the purveyors of contemporary variations on the Moundbuilder Myth? In his 2019 book entitled *Archaeological*

Oddities: Forty Claims of Lost Civilizations, Ancient Visitors, and Other Strange Sites in North America, Kenneth Feder suggested that it's simply because it's a snake, and "for whatever reason snakes just don't get a lot of love from most people." Thanks to the Garden of Eden story, many people view snakes as evil. Others find their "whole slithery vibe" to be "powerfully alien" (Feder 2019:154). As a result, Feder proposed that people tend to reject the interpretation that the mound is a Native American masterpiece of deep ritual significance. We do not necessarily disagree with Feder's suggestion, but here we argue that there are deeper and darker reasons for these interpretations of Serpent Mound.

From colonial to contemporary times the American landscape has been shaped, literally and figuratively, by settler-colonists, and American Indians have been all but completely removed from the narrative. Early on, this was a physical removal to western lands that was justified in large part by the Moundbuilder Myth (e.g., Colavito 2020; Feder 1990). This myth proposed that Eastern North America was originally peopled by a race of civilized, and therefore probably white-skinned, Moundbuilders who were driven out or slaughtered by 'savage' hordes of late-coming American Indians. Champions of this notion found support in the work of nineteenth century anthropologists, (discussed below) who argued that cultures around the world generally progressed through a series of stages (Savagery, Barbarism, Civilization) largely defined by improvements in technology. Any culture that fell short of others along this illconceived spectrum of unilineal development was viewed as backward or child-like in comparison to others higher up the ladder of development. And, of course, the proponents of this theory naturally regarded themselves, Europeans in general and the English in particular (Spencer 1896 [first published in 1876]), as being at the top of this ladder. American anthropologists also adopted versions of these racist views (Morgan 1877), and the most egregious was the so-called "American School" of Physical Anthropology (ca., 1830-1865) that claimed non-Europeans were not fully human (Harris 1968:92; see also Bush et al. 2022). The dominant strand of American anthropology as espoused by Franz Boas, however, righted the ship by countering such ethnocentric and racist thought (Harris 1968). By that time, however, the damage inflicted on American Indians through forced removals and land dispossessions was largely done.

Although Cyrus Thomas definitively disproved the Moundbuilder Myth more than a century ago, it nevertheless lives on in many alternative and, unfortunately, popular interpretations of American Indian sites (Thomas 1894). And, for reasons that are not altogether clear, Serpent Mound has become the nexus for a variety of these extraordinary claims. This paper serves as a case study of the perplexingly widespread and apparently growing attempts to deny that ancient American Indians were capable of designing and building Serpent Mound and other Indigenous wonders of the world, and more importantly, explains why this wholesale appropriation of their past matters.

Others before us have addressed these issues. In addition to Feder's (2019) brief assessment of three of the most prominent false claims about Serpent Mound, Sandra Garner reviewed a series of overlapping "examples of the contestation over the legitimate ownership of the sacred symbology of the mounds" (Garner 2023:105).²

In her 2016 book A Serpent's Tale: Discovering America's Ancient Mound Builders, Lorett Treese also draws much needed attention to many issues directly related to the focus of this paper. But she is not so much interested in debunking fantastic claims about Serpent Mound or even in reporting the "wisdom currently prevailing," as she is in chronicling "how we came to think what we do" about it (Treese 2016:22). Regrettably, she refers to the scholarly consensus that "the civilizations of the Western Hemisphere developed completely independently of those of the Eastern Hemisphere, with no significant contribution of tradition or technology prior to 1492" as the "orthodox dogma among American archaeologists and anthropologists" (Treese 2016: 251-252, emphasis added). Treese also refers to Ross Hamilton (discussed below) as a "scholar" (Treese 2016:18) that she somehow was not able to dismiss "as some crackpot" due to "the sheer volume of his research" (Treese 2016:16-17), which is an assessment that seems to confuse quantity with quality. Given that Hamilton's research has included finding "the various symbols of the Greek alphabet among the serpent's curves and angles" (Treese 2016:17), one would expect her to have concerns about the quality of his work. To Treese's credit, however, she does express reservations about "Hamilton's theory" (Treese 2016:22) and supports the archaeological consensus that "Serpent Mound is a good fit with what is known about Fort Ancient society" (Treese 2016:15).

Clearly, others before us have considered some of the same issues we will be addressing. We feel strongly, however, that as archaeologists who have devoted years to the study of this remarkable landscape—which includes not just the Serpent Mound but also three burial mounds and remnants of a large Fort Ancient village overlying a smaller Adena occupation—we have a unique perspective to offer. In addition, we have been working with representatives of federally recognized tribes with histories that link them directly to this landscape (e.g., Barnes and Lepper 2021), and have been directly engaged with debunking false claims related to ancient American Indian archaeological sites, including Serpent Mound (Lepper 2021).

Site Preservation and Professional Archaeology

In September 1883, Frederic Ward Putnam, considered by many to be the father of American archaeology, stated that his first experience of Serpent Mound overwhelmed him with a "singular sensation of awe and admiration" (Putnam 1890:871). On his second visit to the site in 1885, he came away believing that the destruction of the Serpent Mound "was inevitable unless immediate measures were taken for its preservation" (1890:872). He negotiated with the landowner, John Lovett, for the purchase of the portion of the property that encompassed Serpent Mound and the narrow plateau on which it was situated. With help from his colleague Alice Fletcher, they raised the necessary funds, and in 1886 the Harvard Peabody Museum purchased the property making Serpent Mound Park the first privately funded archaeological preserve in the nation (Lepper 2001:12-13). In response, the Ohio State legislature passed "the first law for the protection of archaeologic monuments" in the United States (Putnam 1890:873). A decade later, Harvard University transferred the property to the Ohio State Archaeological and Historical Society (now the Ohio History Connection).

The history of Serpent Mound is to some extent the history of North American archaeology. The first mention of this gigantic earthen sculpture was in Ephraim Squier's and

Edwin Davis's 1848 Ancient Monuments of the Mississippi Valley, the very first publication of the Smithsonian Institution. The first comprehensive archaeological investigation of Serpent Mound and its surrounding landscape was undertaken by Frederic Ward Putnam between 1883 and 1889. According to a respected historian of this era, "Putnam's fieldwork in Ohio marks the beginning of scientific excavations" in the region (Barnhart 2005:247) and "the investigations undertaken by the Peabody Museum represent a significant chapter in the history of American archaeology" (Barnhart 2015:387). The singular achievement of which Putman himself was most proud was the preservation of Serpent Mound.. Finally, James Giffin's book entitled *The Fort Ancient Aspect* (Giffin 1966 [1943]) considered by one reviewer to have been "the most comprehensive treatment of a single major North American archaeological cultural manifestation ever attempted" (Ritchie 1945:398), included, as a key component, his analysis of the ceramic collection from Putnam's Serpent Mound excavations.

After Squier and Davis (1848) published the first description and map of Serpent Mound (Figure 2), others followed with maps that showed features not recorded by them. In 1885, John MacLean published a map that showed a large wishbone-shaped mound, which MacLean interpreted as a separate effigy of a frog, along the western perimeter of the small oval enclosure that Squier and Davis had interpreted as an egg clutched in the jaws of the Great Serpent (Figure 3). In 1886, William Henry Holmes followed with a map that corroborated the features documented by MacLean. In 1890, Putnam followed Squier and Davis in excluding the wishbone-shaped mound from consideration (Figure 4), but he certainly noticed it and included it in his early field maps (Lepper et al. 2018:440). Putnam also did not include the projections along the neck of the serpent, which Squier and Davis as well as all other subsequent surveyors included (Lepper et al. 2018:443). Putnam's puzzling omission was perhaps partially a result of the fact that the trail that he installed surrounding Serpent Mound appeared to necessitate separating these low mounds from the body of the serpent since they extended to very nearly the edges of the bluff. Finally, in 1919, Charles Willoughby reviewed the previous work and produced his own map that included the wishbone-shaped mound as well as the projections along the neck as integral components of the mound (Willoughby1919:153-163).

Putnam (1887:187-190) conducted extensive excavations across the site, including a few trenches through the serpent effigy itself, the entirety of two conical Adena burial mounds and a small elliptical mound that contained Fort Ancient culture artifacts in association with human remains, and much of a large Fort Ancient village that was superimposed over a smaller Adena occupation. The next significant archaeological investigation at the site did not take place until late in the twentieth century when, between 1988 and 1994, the Ohio History Connection conducted salvage excavations along the path of a proposed waterline to the small museum (Cook and Roberts Thompson 2023:15-39). This work demonstrated that substantial portions of the Fort Ancient and Adena habitation sites had been preserved.

Archaeological investigations over the last three decades have focused mainly on determining the age of the original construction of Serpent Mound. In 1991, a collaboration of avocational and professional archaeologists developed a plan to obtain a definitive radiocarbon date for the construction of Serpent Mound. Using soil cores to identify one of Putnam's back-filled trenches, the team reopened the trench to expose an intact vertical profile from which they obtained two charcoal samples that produced identical dates of 920 ± 70 BP (Fletcher et al. 1996).

The team also obtained a date of 2920 ± 55 BP on a charcoal sample obtained from one of the soil cores at a depth well below the base of the mound. This was interpreted as charcoal likely from the pre-Serpent Mound Adena occupation of the site that had been introduced into the deep soil level through bioturbation.

In 2011, ASC Group, Inc. conducted archaeological investigations in areas that would be disturbed by the renovation of the rustic restrooms along the south edge of the parking lot at Serpent Mound (Schwarz 2020:5-37). This work recovered evidence of both Adena and Fort Ancient culture activity, including radiocarbon dates of 2340 ± 25 BP for the Adena occupation and 900 ± 25 BP for the Fort Ancient occupation (Schwarz 2020:21).

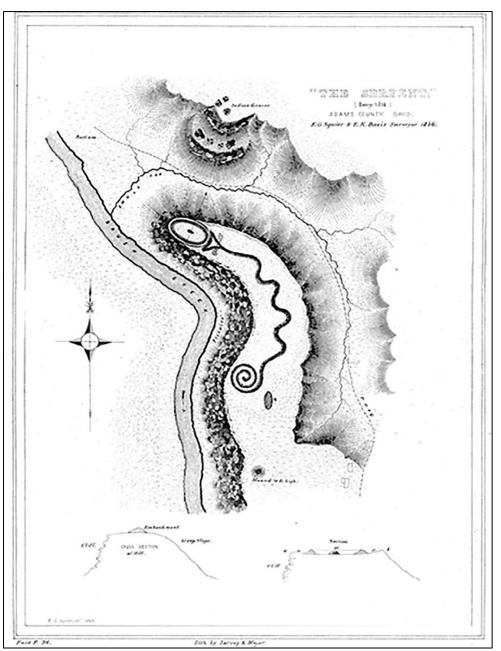


Figure 2. Early map of Serpent Mound (Squier and Davis 1848: Plate XXXV).

Also in 2011, Edward Herrmann and colleagues extracted a series of 18 soil cores along the length of Serpent Mound (Herrmann et al. 2014:117-125). The team subsequently submitted samples of organic sediments extracted from at or near the base of the mound, which yielded nine radiocarbon dates ranging in age from 2170 ± 30 BP to 2530 ± 30 BP. They proposed that Serpent Mound was "initially constructed 2,300 years ago during the Early Woodland (Adena) period" (Herrmann et al. 2014:124); although they acknowledged that, based on the available data, "the mound could have been constructed any time after 300 BC" (121). Romain and colleagues (Romain et al. 2017:201-222), however, were more confident in their team's results, and they claimed their radiocarbon dates definitively revealed Serpent Mound to be "more than two thousand years old" (2017:201).

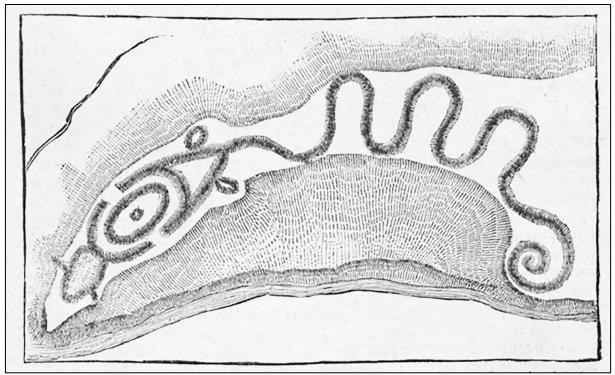
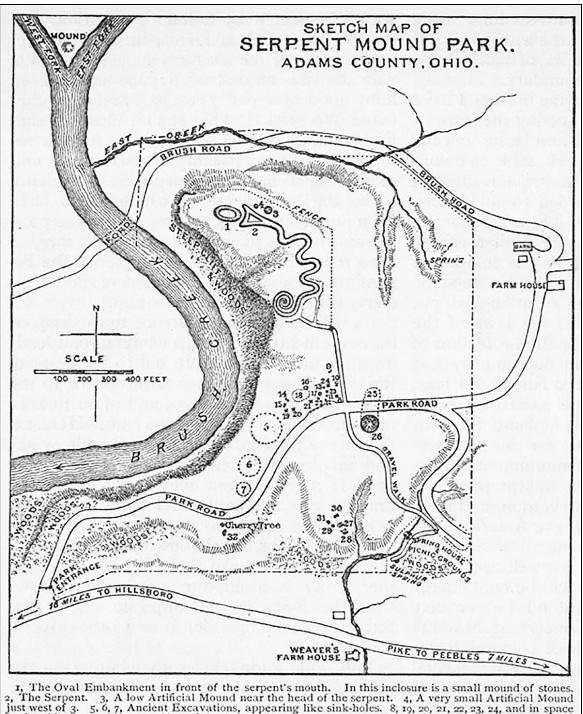


Figure 3. Early map of Serpent Mound showing the "frog" or horseshoe-shaped mound beyond the oval earthwork, which has often been ignored, and which Putnam chose not to restore (MacLean 1885).

Lepper and Tod Frolking (Lepper et al. 2018:62-75) extracted a series of soil cores in 2014 near the locations of the cores that Herrmann et al. had reported on in 2014. Close examination of these cores along with subsequent laboratory analyses of the soils, which had not been done by Herrmann and colleagues, established that in the locations sampled, the A horizon had been removed prior to the construction of Serpent Mound, which corroborated Putnam's (1890:875) original observations. Therefore, they argued that the age of any radiocarbon dates obtained from the soil at the base of the mound could potentially be much older than the age of the original construction of the mound (Lepper et al. 2018).



r, The Oval Embankment in front of the serpent's mouth. In this inclosure is a small mound of stones. 2, The Serpent. 3, A low Artificial Mound near the head of the serpent. 4, A very small Artificial Mound just west of 3. 5, 6, 7, Ancient Excavations, appearing like sink-holes. 8, 10, 20, 21, 22, 23, 24, and in space bordered by 18, 15, 20, 21, are Sites of Ancient Habitations. 9, Burnt Stones on the clay. 10, A recent Indian Grave over two graves. 11, Portions of Three Skeletons in a pile. 12, 13, Skeletons in the clay. 14, Grave with Two Skeletons. 15, Grave with Skeleton, over which was an ash bed. 16, Pieces of a large Clay Pot. 17, Small Burial Mound. 18, Several small Excavations in the clay, filled with dark earth. 19, 24, See above. This Village Site was afterwards found to extend 200 feet east and south. 25, Burnt space under the dark soil extending to the edge of large conical mound. 26, The Conical Mound, a monument over a single body. 27, 28, Cremation Places in the clay under the dark soil. 29, 30, 31, Very Ancient Graves deep in the clay: 32, Small Mound over four ancient graves in the clay.

Figure 4. Sketch map of Serpent Mound Park, Adams County (Putnam 1890).

These various age assessments were debated in a series of replies and rejoinders (e.g., Lepper 2018; Romain and Herrmann 2018; Monaghan and Herrmann 2019; Lepper 2020b; Lepper et al. 2019). While it is not our focus here to further evaluate the age of Serpent Mound, we will revisit the question in the larger context of the present paper where relevant (see below).

Between 2011 and 2016, Jarrod Burks with Ohio Valley Archaeology, Inc. conducted a comprehensive geophysical survey of Serpent Mound that included magnetometry, magnetic susceptibility, and ground-penetrating radar over nearly the entire landform (Burks 2017). He identified 425 geophysical anomalies of interest, many of which appear to be pit features associated with the Fort Ancient village. The combination of this information with information that was obtained from the installation of a waterline mitigated by the Ohio History Connection (1988-1994) led to the conclusion that there may well have been a sizeable circular Fort Ancient village near the coiled tail of the serpent (Cook and Roberts Thompson 2023). Burks also identified a large anomaly near the head of the serpent effigy that he declared to be "the most distinctive and arguably the most important anomaly found in all the magnetic data collected at Serpent Mound State Memorial to date" (87). Burks further states that this anomaly appears to represent a previously undocumented body segment of the serpent that was dismantled (or perhaps never completed) at some point during the mound's construction and subsequent use (85-88).

In 2017, the Ohio History Connection, in consultation with American Indian tribal nations, made the decision to remove the stone steps that had been installed over the tail of Serpent Mound. During the removal of the steps, intact mound fill was exposed, and the archaeologists removed a bulk soil sample to see if it contained dateable materials (Lepper 2020a:41; see also Pickard et al. 2018). Fragments of oak charcoal were recovered that yielded radiocarbon dates of 1263 ± 22 BP and 1300 ± 30 BP. In addition, a bulk soil sample yielded a soil humates date of 720 ± 30 BP. These more recent dates may be a result of the incorporation of charcoal from Late Woodland features associated with activities related to Intrusive Mound burials in the large Adena mound. The soil humates date is problematic for reasons discussed in Lepper (2020b) but does serve as an approximate minimum age for the mound's construction.

At least since Squier, scholars have recognized that the Serpent Mound was likely a representation of the large and powerful serpentine creature referred to in the traditions of "a large portion of the Indians of the Algonquin stock" (Squier 1851:227). William Henry Holmes agreed: "The use of the serpent by our aboriginal races has been well-nigh universal, so that we need not hesitate to class this specimen with other products of their religion…" (Holmes 1886:627). Willoughby (1919:153-163) argued that the preternatural being depicted in this monumental effigy mound was a god associated with the Upper World. Rather than thinking of the Great Serpent as a "god," however, we now understand that it is better understood as the Other-Than-Human-Person identified as the Lord of the Beneath World (Lankford 2007:107-135). Lepper and colleagues have affirmed this conclusion and identified correlative representations in contemporary rock art, portable art, and effigy mounds (Lepper 2018, 2020a; Lepper et al. 2018; Lepper et al. 2019; Lepper et al. 2022; Lepper et al. 2023). They propose that Serpent Mound represents a creation story best preserved in the traditions of the Dhegihan Sioux, but which may have been more widespread in antiquity. Based on this interpretation, the mound includes three separate components: the Great Serpent, First Woman (the wishbone-shaped

mound), and the symbolically enlarged vulva of First Woman (the oval earthwork once thought to be an egg (Lepper et al. 2018; Lepper 2020a).

It is important to note here that all these possible interpretations of Serpent Mound are based on American Indian traditional stories. But if one believes that the ancestors of American Indians were not the builders of Serpent Mound, then the door is open to whatever interpretation suits one's fancy.

Alternative Interpretations

A New Age Dawns

A New Age of cultural appropriation of the Great Serpent Mound was inaugurated on August 16 and 17, 1987. These were the dates for what was supposed to be a Harmonic Convergence that was predicted to be the optimum time for the creation of a "complete planetary field of trust" (Argüelles 1987, cited in Lewis 2004:588); Jim Berenholtz, one of the organizers of the event, identified Serpent Mound as one of "18 Mystery Schools: Centers of Knowledge." They were believed to be "places of original instruction, where we remember the wisdom of our ancestors" (Berenholtz 1987:30). Other sites on that list included Chaco Canyon, Machu Picchu, Delphi, and Rapa Nui.

According to reporter Paul Rapalus, organizer Gordon Franklin predicted that as many as 12,000 people would attend the Serpent Mound event and indicated that they "had been getting phone calls from New Jersey, Maine, and Pennsylvania," and one source called "to say there would be at least 1,000 people coming down just from Cleveland" (Rapalus:1987). In fact, closer to 3,000 people attended the event (Mason 1987). Despite the large number of



Figure 5. Photograph of Harmonic Convergence attendees lined up next to the Serpent Mound during the celebration (Columbus Dispatch).

visitors, it was reported that the crowd was well-behaved (Mason 1987). At one point during the two-day observance, participants were linked hand-to-hand around the mound" (Figure 5). A tree near the head of Serpent Mound served as a makeshift altar with flowers and crystals located under it (Mason 1987)" Vasiliy Yarosh, a.k.a. "the Rev. Praise," from the Friends United Church of Kindness, explained that the crystals helped to focus energy of the attendees so they could eliminate the possibility of the destruction of our planet in 2012, when the Mayan calendar ends(Mason 1987).

With Friends Like That

According to their Facebook account, the "Friends of Serpent Mound" was founded in 2004 as a spin-off of the original Adams County Travel and Visitors Bureau's "Serpent Mound Committee." Essentially, the group became an umbrella organization under which purveyors of a variety of New Age and other alternative perspectives, such as aficionados of crop circles, giants, and Bigfoot found acceptance. As of January 1, 2024, their Facebook account was being followed by more than 10,000 people (https://www.facebook.com/FriendsOfSerpentMound/). One impetus for the formation of this group appears to have been Delsey Knoechelman's discovery of a crop circle in a farm field across from Serpent Mound in 2003, and Jeffrey Wilson's subsequent investigation of this alleged paranormal phenomenon (Toncray 2003). Jeffrey and Delsey Wilson (the two subsequently married) are generally credited as being the founders of the Friends of Serpent Mound.

In 2009, due to the national financial crisis, the State of Ohio drastically reduced the amount of funding it provided to the Ohio History Connection, which meant that the organization would no longer be able to operate its extensive system of historic sites around the state. The administration considered closing the sites for the duration of the financial crisis, but eventually decided a better option would be to partner with local groups to keep the sites open. The local groups took over the day-to-day operation of the sites and the Ohio History Connection allocated the limited funds provided by the state to them. And the partner organizations retained any funds made through site admissions, gift shop sales, or special programs. The Ohio History Connection chose the Arc of Appalachia to manage Serpent Mound, and the Friends of Serpent Mound evidently were not pleased with the decision. Over the next decade they were vocal critics of the Arc of Appalachia's management of Serpent Mound, despite repeated efforts on the part of the Arc of Appalachia to accommodate the Friends.

Around 2005, the Friends of Serpent Mound began to hold a luminaria at the serpent effigy on the winter solstice. It was called the "Lighting of the Serpent" and over a thousand luminary bags were placed around the perimeter of the gigantic serpent effigy (Figure 6). It became their signature event and was extremely popular for many years, but in 2017 the Ohio History Connection, after consultation with several American Indian tribes, decided it was inappropriate, and the annual tradition came to an end. Steve Boehme, a contributing columnist for the Washington Court House *Record Herald*, argued that the Ohio History Connection was "applying a 'religious test' to visitors and events at the park, in violation of the First Amendment" and called on readers to contact their state legislators to urge them to reinstate the luminaria (Boehme 2017).

In 2011 the third season of the popular television series *Ancient Aliens* opened with a program focused on "Aliens and the Old West," which for some reason featured a segment on Serpent Mound. Ross Hamilton, another Friends of Serpent Mound member, appeared on the program and proclaimed that a large fragment of limestone that had spalled off the cliff on which Serpent Mound is situated was actually a carved stone obelisk, which he christened the "Serpent Mound Stone." He proposed that originally it had been placed within the oval earthwork by the builders of Serpent Mound to attract lightning, which somehow would have energized the mound. Hamilton surmised that, at some point in the past, people desecrated the monument by pushing this stone over the cliff. He also suggested that if this obelisk could be restored to its rightful location within the oval, it could reactivate Serpent Mound's mystic powers and help to restore the planet. This proposal has led to a misguided appeal for this entirely natural chunk of limestone to be installed in the oval earthwork.



Figure 6. Luminary bags outlining Serpent Mound during the "Lighting of the Serpent" celebration. (<u>https://columbusfreepress.com/article/ohio-history-connection-cancels-winter-solstices-lighting-serpent-once-again</u>)

Following in the wake of the Harmonic Convergence, supposed Mayan elder and priest Hunbatz Men came to Serpent Mound on October 29, 2011, along with thirteen crystal skulls, to perform a ceremony that included a procession around the mound. Kendall Morgan of Oracle Stone Productions in California, one of the event organizers, told the *Columbus Dispatch* that the idea was "...to gather as many skulls together in one location as possible. The prophecy is that they store information together, like a computer, and release this when they are together" (Weiker 2011).

The Friends of Serpent Mound were not officially involved in organizing the event, although many members of the group attended the ceremony, which was reported to have brought nearly 2,000 participants to the site. In addition, the event was promoted in numerous posts on the Friends' Facebook page. On October 11, 2011, co-founder Delsey Wilson shared a link to the "Wake Up World" webpage that included a notice that a group of Mayan Elders:

...will stop at specific power points to fulfill a prophecy which states that the time has come to reawaken the Spirit of the North American Continent so that it can reclaim itself as the sacred ground in whose soil would be sown the seeds for the enlightenment of all mankind. At each stop along the way ceremonial gatherings will be held to open the ground and raise the ancient energies that will fuel the Gateway Event in Los Angeles on 11:11:11 (Garrison 2011).

The highlight of that culminating event was to be a performance of the "Mayan Crystal Skull Ceremony," which had "always been kept within their inner circle" and "was last performed 26,000 years ago," but would now be open to the public (Garrison 2011).

The crystal skulls, however, are neither ancient nor Mayan. Indeed, it now seems clear that all the oldest crystal skulls were made in Germany during the nineteenth century and that the crystal from which they are made came from sources in Brazil and Madagascar, not Mesoamerica (Thadeusz 2011).

The people who attended the ceremonial gathering of crystal skulls at Serpent Mound appear to have been as well behaved as those who attended the Harmonic Convergence. Sadly, the same cannot be said for the self-described "light warriors" who vandalized Serpent Mound in September 2012.

A group identified as "Team Light," including five individuals variously referred to as "Light Workers" or "Light Warriors," posted a video on YouTube on September 10, 2012, entitled "Serpent Mound Reactivation 2012." The 37-minute-long video, which has since been removed from the site, showed members of the group running along and jumping upon Serpent Mound. It also included interviews with, presumably, the same five individuals who described what they did on the site over the course of at least two days.

In the interview, they indicated they made and used "orgone energy devices" to "reactivate" Serpent Mound. These devices, also referred to as "organites," are "little electromagnetic devices that harness the principles of metals and crystals in a polyester resin." Another member of the group described organite as a "fiberglass-based resin poured into a mold with quartz crystals and some form of metal." They claim an organite is "a little device that attracts, transmutes, and purifies energy." The group claims to have used them to clear up the electromagnetic smog of positive ions (supposedly the source of negative energy), readjust the ley lines, and restore the "energetic balance" of the sacred mound. One of the members of the group claimed that "orgone energy devices were used heavily for our protection and for lighting up the space." In the video, the perpetrators do not refer directly to digging or putting anything into the ground but say instead: "We made quite a few pieces -- and uh Serpent Mound is now blessed by those pieces." A subsequent search of the site by archaeological staff of the Ohio History Connection recovered three of these organites, one of which was embedded in the top of the mound at the head, one was found in the opening of an animal burrow and the third was found resting on the surface of the ground. It is not likely that this accounts for all these objects deposited at Serpent Mound as the group was on site for at least two days. Feder (2019:153) refers to this as "just another attempt to appropriate a Native American site for the perpetrator's purposes"

In 2018, *Indian Country Today* published a review of how New Age theories "threaten Serpent Mound [and] demean Native heritage." The author, Mary Annette Pember, journalist and Wisconsin Ojibwe, proposed that "ironically, Serpent Mound's strange role as repository for outlandish activities and beliefs may be partially due to the lack of Natives in Ohio" (Pember 2018). Pember quoted Marti Chaatsmith, Associate Director of the Newark Earthworks Center at The Ohio State University, as saying "since there is no public information tying Serpent Mound to contemporary Native tribes, many people freely bring their own interpretations to the mound" (Pember 2018; see also Garner 2023).

They Must Be Giants

Based on a mélange of naïve interpretations of ancient artistic depictions, myths, legends, nineteenth century newspaper accounts, and the Biblical claim that "there were giants in the earth in those days" (Genesis 6:4, KJV), more people than you might think have come to believe that a race of giants once lived alongside humans in Ohio and elsewhere. Jeffrey Wilson, cofounder of the Friends of Serpent Mound, in addition to his interest in crop circles, is a proponent of the idea that giant skeletons have been found in Ohio's Indian mounds and particularly in the large Adena conical mound located south of Serpent Mound (The Strange Road 2020). Wilson claims the skeleton that Frederic Putnam found on an ash bed at the base of the large conical mound near the Serpent Mound is from a male who was at least 8 feet 9 inches tall. His determination of this stature was based on using artifacts of known size that appeared in photographs of the burial and extrapolating from those the height of the skeleton. This approach does not consider the fact that neither the skeleton nor the artifacts were oriented precisely perpendicular to the camera so the estimations of their respective lengths will be inaccurate to an unknown extent. Moreover, the bones of buried individuals can spread apart as the muscles and ligaments decompose, and therefore the skeleton can appear to be taller than the actual height of the individual when alive.

To fact check Wilson's estimate, coauthor Lepper reached out to the Harvard Peabody Museum of Archaeology and Ethnology's (PMAE) Curator of Osteology and Paleoanthropology Dr. Michèle Morgan to request a measurement of the length of one of the femurs from this Indigenous ancestor. Femur length is known to provide a highly accurate basis for determining stature. Her response was that the bones of "the skeleton of the adult male from the ash bed 'at base of conical mound' at Serpent Mound... are rather large, though not remarkably so." She went on to provide the maximum length of both femora with the left being 465 mm and the right being 459 mm (email to Lepper, March 12, 2015). The Ohio History Connection's biological anthropologist and Lepper independently calculated the height of the male buried at the base of the large conical mound near Serpent Mound to be 170 cm, or 5 feet, 7 inches. Paul Sciulli and Brenda M. Hetland (2007:112) reported that the average length of femora for a sample of 24 males buried in Early Woodland period mounds was 463.8 mm, and the average stature (calculated based on maximum length of the femur) was 168.0 cm. So, the male buried at the base of the large Adena conical mound at Serpent Mound was, if anything, only slightly taller than the average Adena male buried in a mound. Interestingly, considering that proponents of the idea that giants were buried in mounds because of the prestige that their size conferred on them, Sciulli and Hetland (2007:111) found that "the Early Woodland Adena Mound sample exhibits male and female statures that are significantly smaller (limits do not overlap) than Late Archaic and Early Woodland Non-Mound samples: males approximately 2 cm shorter and females approximately 3 cm."

Lepper shared the stature data with Wilson, who subsequently presented a garbled and misleading account of the information in his interview for The Strange Road (2020):

Brad Lepper wanted to put the kibosh on all of that...And so he got a measurement...and he said the person wasn't taller than 6 feet. But here's the issue – I asked him which skeleton did they make the measurement from. They didn't tell him. There are at least ten skeletons that came out of the mound. So, we have this vague measurement of a femur of one of the ten skeletons that came out of the mound, and it turns out that person was 6 feet tall – roughly.

Based on the Harvard Peabody Museum correspondence with Lepper, Wilson's account can be dismissed. Furthermore, it is revealing that Wilson does not mention in his interview that Frederic Putnam (1890:880) provided his own estimate of the stature of this individual: "an adult man, nearly six feet tall."

One of the most problematic aspects of Wilson's assertion that archaeologists have excavated skeletons of giants from Ohio's mounds is the necessary conclusion that those archaeologists are lying when they deny the existence of such skeletons, and that institutions such as Harvard University's PMAE, the Ohio History Connection, and even the Smithsonian Institution are, in fact, hiding this evidence in secret vaults to prevent the public from discovering the supposed truth. These baseless accusations contribute to undermining the public's trust in professional archaeology as well as science in general, which makes them more susceptible to such conspiracy theories.

Give Me That Old Time Religion

In 1908, the Reverend Edmund Landon West wrote: "There is now, yet to be seen on the Earth's Surface, and near Lovett's Post Office, in Adams County, Ohio, the figured lesson of a large Serpent, which gives wonderfully clear and faithful testimony to the facts given by Moses" (West 1908, quoted in Wilensky-Landford 2011:48). According to E. O. Randall (1902:227) longtime secretary for the Ohio Archaeological and Historical Society (now the Ohio History

Connection), the "figured lesson" that the Rev. West believed Serpent Mound was intended to impart was of "man's disobedience, Satan's perfidy and the results of sin and death."

In 2021, on the day before the winter solstice, Dave Daubenmire, a conservative activist and leader of Pass the Salt Ministries in Hebron, Ohio, brought a group of his followers to Serpent Mound to cast out the demons that they believed inhabited the site. Daubenmire is reported to have claimed that "Ohio's earthworks were built by Nephilim, a race of giants some say are the offspring of fallen angels and human women" (Kruzman 2022). In the *Cincinnati Enquirer*, Cameron Knight wrote: "The leader of the prayer group says the mound is a place where dark energy is released into the world" (Knight 2021). In a revealing clarification, Daubenmire said "This has nothing to do with the Indians" (Knight 2021).

Daubenmire and his followers were confronted by a small group of protesters from the American Indian Movement of Ohio led by Philip Yenyo who claimed to be a Native American. However, Diana Kruzman, a reporter for *Earthbeat*, found that the Ohio group was "not sanctioned by the official American Indian Movement [AIM]" and that Yenyo is, according to AIM, "of Hungarian and Spanish Mexican descent" (Kruzman 2022). Regardless, the groups engaged in a shouting match culminating in a physical altercation. At that point, representatives of the Ohio History Connection called the Adams County Sheriff's Department. When deputies arrived, the confrontation ceased, and Daubenmire and his group departed from the site. Daubenmire later told the *Cincinnati Enquirer*: "There's a series of mounds like this all across the Midwest. We believe that these are, for lack of a better term, we believe these are dark places" (Knight 2021), which leaves the ominous impression that his crusade to drive out the demons from these ancient mounds is not finished.

Ancient Aliens

The idea that ancient aliens were needed to help construct the world's most spectacular ancient monuments (excluding, however, those built by Europeans who presumably did not need help [Feder 1980]) first became popular with the publication of Erich von Daniken's *Chariots of the Gods?* in 1970. Most of these ancient monuments were large stone structures, although a few, such as Peru's Nazca lines, seemingly would have required a less extraordinary amount of labor to construct. Regarding the Nazca geoglyphs, von Daniken (1970:34) asked "what can have induced the pre-Inca peoples to build the fantastic lines, the landing strips, at Nazca?...Their whole activity would have been senseless if the end product of their efforts had not been meant as signs to beings approaching them from great heights."

This is essentially the same argument offered by modern proponents of the idea that Serpent Mound was built by or for ancient aliens. Supposedly, Serpent Mound can only be appreciated from the air; therefore, it was a sign intended to attract the attention of aliens flying over eastern North America. This explanation for Serpent Mound was presented in 2011 in the previously mentioned episode of the History Channel's *Ancient Aliens*. Allegedly, the 300-million-year-old Serpent Mound Impact Crater within which Serpent Mound is located, contains large quantities of iridium, which, again supposedly, was a source of fuel for the spaceships of aliens cruising around our solar system. Feder (2019:154) summarized this proposition with his usual sarcasm:

Peebles, Ohio, in essence, was like a big self-service station for extraterrestrial fill ups. Maybe the extraterrestrials could grab a cup of coffee, buy a lottery ticket, and maybe pick up a packet of Slim Jims while they were fueling. But why the effigy mound? Simple; instead of a big, illuminated "Cheap Iridium Here" sign, they marked the spot by building a giant snake made of dirt. Yeah, that makes sense.

The premise that Serpent Mound can only be appreciated from the sky can be refuted by anyone who has spent more than 15 minutes at the site. Walking around the effigy provides a much more visceral experience of the giant snake winding its way along the top of this rocky bluff than any aerial image could provide. Also, the "ancient aliens" trope is just another variation on the theme that Indigenous Americans were somehow incapable of conceiving and building such impressive structures. Therefore, it must have been built by someone else such as Atlanteans, the Lost Tribes of Israel, giants, or even extraterrestrial beings. There is, however, an American Indian religious practice that might offer limited support to an interpretation that effigy mounds were sometimes viewed from above. Various authors have suggested that out-of-body experiences associated with shamanic trances by native builders could have been a factor in designing the earthworks (e.g., Brown 2006:483). Therefore, rejecting the baseless claim that ancient aliens built Serpent Mound need not imply that the premise of this argument, i.e., the idea that the effigy is best viewed from above, is entirely without merit.

Desperately Seeking Atlantis

The notion that Atlanteans might have built the Great Serpent Mound is championed by Graham Hancock in his book *America Before* and, if less straightforwardly, in his Netflix pseudo-documentary series *Ancient Apocalypse*.³ Hancock seeks to frame the Great Serpent Mound as the work of a mysteriously advanced ancient civilization that was obliterated in some sort of catastrophe and not as the work of American Indians. He refers to the peerreviewed and published archaeological research of a team of archaeologists that included coauthor Lepper (Fletcher et al. 1996; see also Lepper 2020), which provided empirical evidence that the effigy was built by the Fort Ancient culture at around AD 1100 as:

a fairy-tale castle of speculation conjured into being on the foundations of just two tiny fragments of charcoal. In the process, while being rendered less old, less venerable, and less mysterious, the sublime artistry, astronomy, geometry, and imagination expressed in Serpent Mound are snatched from one culture and handed to another by the so-called experts of a third! (Hancock 2019:27).

Hancock asserts that Serpent Mound was built 13,000 years ago during the Late Pleistocene Epoch. The only evidence he offers to support this extraordinary claim relates to the alignment of the Serpent's head to the summer solstice sunset. Hancock thinks the azimuth of the alignment is 302 degrees, which he believes would be 2 degrees off from an accurate alignment for a relatively recent (1,000-2,000 years old) Serpent Mound. He argued that the 302 degrees azimuth corresponds to what would have been a perfect alignment 13,000 years ago, when the Earth's axial tilt was different (Hancock 2019:44). Assuming that the builders intended to align Serpent Mound to the azimuth of the sunset on the summer solstice, Hancock concludes that the original construction must then have taken place 13,000 years ago. This wild surmise makes those "two tiny fragments of charcoal," which produced identical radiocarbon dates of AD 1100 look much more convincing. In any event, Hancock's preferred alignment is wrong. Fletcher and Cameron (1988:57) determined that the actual azimuth of the alignment was 300 degrees 5 minutes, which is consistent with an age of 1,000 years ago, and which is still accurate today.

In short, despite Hancock's belligerent bluster, he comes nowhere near confirming a 13,000-year-old age for Serpent Mound, so we don't have to rethink everything about global history or Serpent Mound. Sean Rafferty (2025:48) states what is becoming a consensus based on current evidence, that "Dating the monument has been somewhat contentious, but the most likely interpretation is that it was built between 1,700 and 1,800 years ago." Furthermore, Rafferty (2025:49) succinctly summarizes Hancock's overall strategy:

Take a site that [is] seemingly anomalous. Ignore any known archaeological context. Speculate wildly about age well outside consensus, or about mysterious, celestial alignments. All the better if the site is already difficult to date as then you can employ the argument from ignorance and insert whatever date fits your prior conclusion. Be sure, whenever challenged, to make baseless claims of the conspiratorial suppression of your ideas. (Rafferty 2025:49)

Discussion

We have focused here on some of the public uses and alternative interpretations of Serpent Mound, some of which clearly serve to perpetuate the Moundbuilder Myth. While the "slithery vibe" associated with the Serpent Mound can be traced at least as far back as the Reverend West's appropriation of this ancient American Indian sculpture as a representation of the primordial tempter of humans into sinful ways (Feder 2019:154), we view this as simply the first of many of such issues. We agree with Pember (2018) who argued that it is the absence of American Indian Tribal Nations in Ohio that is mainly responsible for the outlandish activities and beliefs that have been imposed upon Serpent Mound. The vacuum created by the forced removal of American Indians between 1830 and 1843 was made possible by the myth itself and it led to filling the void with ever more fantastic (sensu Williams 1991) interpretations that continue to remove American Indians from their heritage. We view the several and varied alternative interpretations of Serpent Mound as compelling evidence that the cancer of the nineteenth century Moundbuilder Myth was not cured but rather has metastasized throughout the body politic.

To illustrate this, as recently as April 2021, former U.S. Senator Rick Santorum told the Young America's Foundation that before Europeans arrived in America there was "nothing here." This astonishing claim echoes the response given by former Canadian Prime Minister Pierre Trudeau to First Nations' leaders who said that the land belonged to them. Trudeau

replied, "I don't see it written anywhere that the land is yours." Upon hearing this claim, Deborah Sparrow, a member of the Musqueam First Nation in Canada, thought to herself, "It is written in the earth. The evidence is everywhere that we have lived in the land. Anywhere that we open the earth, so are unveiled the messages from the past" (Barnes and Lepper 2021).

While professional archaeologists have not questioned whether the ancestors of contemporary American Indians originally constructed Serpent Mound (since the Moundbuilder Myth was overturned [Thomas 1894]), a major point of contention among them has been determining its age (see above). While this seems divorced from the main thrust of the current paper, there is a point to make. The fact is that Serpent Mound was long ago made widely accessible to the public and, in doing so, it was heavily reconstructed (Krupp 2020). This has made definitive statements about its age challenging. Putnam's restorations and the irrevocable decisions he made regarding what was part of the mound's original design and what was not, have had an undetermined impact on dating assays.

One of the biggest challenges to getting a definitive date for Serpent Mound is the inability to conduct large-scale multidisciplinary investigations. As we now know, it is often difficult to get accurate dates from soil cores (Lepper 2020b). What would be needed are several trenches at various points along the effigy, from which archaeologists and geoscientists could extract soil samples for flotation to obtain charcoal from clearly defined stratigraphic contexts. However, tribal partners would not likely approve of such an intrusive interrogation of the mound for obvious and entirely understandable reasons, which we respect. But the inability to conduct such research may have unintended and unfortunate consequences. For example, if archaeologists are unable to come to an agreement about something as basic as when Serpent Mound was built, then the general public may therefore think it perfectly reasonable to entertain Graham Hancock's assertion that it may be 13,000 or more years old.

The general public does not always understand how science works and, most importantly, that the answers to questions about the past are seldom definitive. The comedian Robin Ince made this point succinctly: "Science is not about this is right. It's about this is the least wrong version of events we have for the time being." The ultimate irony, therefore, is the humility of scientists combined with their disdain of having to address pseudoscientific claims forthrightly has had the unintended effect of perpetuating the Moundbuilder Myth. Certainly, as Chippindale (1986:54) has observed, archaeologists "have no grounds to ban alternative views," but we do have a responsibility "to persuade people not to waste their time with them." There are many means of persuasion available, but the successful effort of Flint Dibble (2024) in his debate with Graham Hancock to both undermine Hancock's false claims and show how archaeology works to uncover reliable knowledge of the past is an example of one effective approach. It all begins, however, by recognizing the threat posed by misinformation and exposing it whenever and wherever it raises its ugly head.

There are, of course, other factors involved in the general public's embrace of pseudoscience, which can make changing their minds more complicated. When people first visit a remarkable site such as Serpent Mound, they can become overwhelmed with a deep sense of awe and wonder that may not be satisfied by the annoyingly tentative explanations offered by archaeologists. But the "hidden truths" and alternative facts proffered by charlatans can exploit

that sense of wonder allowing believers to become, at least in their imaginations, exorcists, light warriors, or dashing raiders of lost or forbidden wisdom.

We propose then that the reason Serpent Mound is at the center of this vortex of alternative interpretations is not so much its "slithery vibe" as it is the deep sense of awe and wonder that it inspires. Serpent Mound's monumental size and elegant design have inspired modern landscape artists such as Robert Smithson and Maya Lin. It's a masterpiece of human creative genius. So, from the perspective of proponents of the Moundbuilder Myth, this mound, above all others, cannot be allowed to be an American Indian creation. It must, instead, be the work of Atlanteans, giants, aliens, or some lost race of mysterious Moundbuilders.

The problem with all of this is that such interpretations are built on the foundation of deliberate eighteenth and nineteenth century political efforts to dispossess American Indians of their lands and livelihoods (Colavito 2020). Whether the adherents of these various alternative views realize it or not, they make themselves complicit in a shameful history of ethnic cleansing. To be clear, there is nothing inherently wrong with people wanting to connect with ancient American Indian sites so long as that connection is also sensitive to the wishes of American Indian tribes.

The heart of the matter is that visitors to public sites such as this—including the equally popular Stonehenge in England—often find what Christopher Chippindale (quoted in Jeffries [2012]) describes as "a mirror which reflects back, more or less distorted, that view of the past which the onlooker takes there." This seems equally true for Serpent Mound. The Reverend West gazed into the mirror of Serpent Mound and saw his own theology reflected back at him. There is a lesson here for all of us who seek to understand the original purpose and meaning of Serpent Mound. It is indeed critical that we continue to diagnose and try to heal the cancer embodied in the pernicious Moundbuilder Myth if our goal is to understand the past and restore the narratives to the rightful owners. Otherwise, we will simply be perpetuating colonial settler inequalities.

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References Cited

Barnes, Ben and Brad Lepper

2021 Ohio's Serpent Mound – An American Indian Story Written in the Earth. <u>https://www.ohiohistory.org/ohios-serpent-mound-an-american-indian-story-written-in-the-earth/</u> (accessed 1/26/2024).

Barnhart, Terry A.

2005 Early Accounts of Ohio's Mounds. In *Ohio Archaeology: An Illustrated Chronicle of Ohio's Ancient Indian Cultures*, by Bradley T. Lepper, pp. 237-249. Orange Frazer Press, Wilmington, Ohio.

2015 American Antiquities: Revisiting the Origins of American Archaeology. University of Nebraska Press, Lincoln.

Berenholtz, Jim

1987 Major Sacred Sites. Document on file, Ohio History Connection, Archaeology Collection Facility, Columbus, Ohio.

Boehme, Steve

2017 "Landscape Lighting" at Serpent Mound. *Record Herald*, 11 December 2017; <u>https://www.recordherald.com/2017/12/11/landscape-lighting-at-serpent-mound/</u>

Brown, James

2006 The Shamanic Element in Hopewellian Period Ritual. In *Recreating Hopewell*, edited by D. K. Charles and J. E. Buikstra, pp. 475-488. University Press of Florida, Gainesville.

Burks, Jarrod

2017 Large-area Geophysical Survey at Serpent Mound State Memorial in Adams County, Ohio. OVAI Contract Report #2016-5, prepared for the Ohio History Connection. Report on file, Ohio History Connection, Historic Sites and Facilities Division, Columbus, Ohio.

Bush, Jennifer, Reba Kocher, and Bradley T. Lepper

2022 The Newark Holy Stones: Touchstones for the Truth. *The Public Historian* 44(1)5-6.

Chippindale, Christopher

1986 Stoned Henge: Events and Issues at the Summer Solstice, 1985. *World Archaeology* 18:38-58.

2012 Stonehenge Complete (fourth edition). Thames and Hudson, London.

Colavito, Jason

2020 *The Moundbuilder Myth: Fake History and the Hunt for a "Lost White Race"*. University of Oklahoma Press, Norman.

Cook, Robert A., and Amanda Roberts Thompson

2023 Introducing the Serpent Mound's Fort Ancient Village: A Preliminary Analysis of the Fort Ancient Component at Serpent Mound State Memorial, Adams County Ohio. *Journal of Ohio Archaeology* 9:15-39.

Dibble, Flint

2024 Why I Talked to Pseudoarchaeologist Graham Hancock on Joe Rogan. Sapiens. Sapiens.org; <u>https://www.sapiens.org/archaeology/graham-hancock-joe-rogan-archaeology/</u> (accessed 5/7/2024).

Feder, Kenneth L.

1980 Foolsgold of the Gods. *The Humanist* 40(1):20-25.

1990 Frauds, Myths, and Mysteries. Oxford University Press, Oxford.

2019 Archaeological Oddities: A Field Guide to Forty Claims of Lost Civilizations, Ancient Visitors, and Other Strange Sites in North America. Rowman & Littlefield, Lanham, Maryland.

Fletcher, Robert and Terry Cameron

1988 Serpent Mound a New Look at an Old Snake-in-the-Grass. *Ohio Archaeologist* 38 (1): 56-61.

Fletcher, Robert, Terry Cameron, Bradley T. Lepper, Dee Anne Wymer, and William Pickard 1996 Serpent Mound: A Fort Ancient Icon? *Midcontinental Journal of Archaeology* 21(1)105-143.

Friends of Serpent Mound

2022 Friends of Serpent Mound Hosting 3-day Summer Solstice Celebration. *Highland County Press*, June 8, 2022; <u>https://highlandcountypress.com/index.php/social/friends-serpent-mound-hosting-3-day-summer-solstice-celebration#gsc.tab=0</u>

Garner, Sandra

2023 Reinterpretation of "sacred space" at the Newark Earthworks and Serpent Mound: settler colonialism and discourses of "sacred." *Review of International American Studies* 16:87-114.

Garrison, Cal

2011 The Mayan Elders, the 13 Crystal Skulls, and the Importance of their Upcoming Ceremonial Pilgrimage across the USA. Wake Up World webpage; <u>https://wakeup-world.com/2011/10/20/the-mayan-elders-the-13-crystal-skulls-the-importance-of-their-upcoming-ceremonial-pilgrimage-across-the-usa/</u>

Griffin, James Bennett

1966 [1943] *The Fort Ancient Aspect: Its Cultural and Chronological Position in Mississippi Valley Archaeology*. Anthropological Papers No. 28. Reprint edition. Museum of Anthropology, University of Michigan, Ann Arbor.

Hancock, Graham

2019 America Before: The Key to Earth's Lost Civilizations. St. Martin's Press, New York.

Harris, Marvin

1968 The Rise of Anthropological Theory. Thomas Crowell, New York.

Herrmann, Edward W., G. William Monaghan, William F. Romain, Timothy M. Schilling, Jarrod Burks, Karen L. Leone, Matthew P. Purtill & Alan C. Tonetti

2014 A New Multistage Construction Chronology for the Great Serpent Mound, USA. *Journal of Archaeological Science* 50:117-25.

Holmes, William H.

1886 A Sketch of the Great Serpent Mound. Science 8:624-628.

Jeffries, Stuart

2012 Stonehenge enjoys a moment in the sun at summer solstice. *The Guardian*, June 21, 2012;

https://www.theguardian.com/culture/2012/jun/21/stonehenge-moment-sun-summersolstice#:~:text=It%20was%20also%20indicative%20of,Long%20may%20that%20conti nue; accessed February 7, 2025.

Knight, Cameron

2021 Christian Prayer Group and Native Americans Face Off at Ohio's Serpent Mound. *Cincinnati Enquirer*, December 21, 2022; Updated December 22, 2022; <u>https://www.cincinnati.com/story/news/2020/12/21/christian-prayer-group-and-native-americans-face-off-serpent-mound/3992503001/</u>.

Krupp, Rory

2020 New Deal, New Serpent: Public Works Projects at Serpent Mound State Memorial. *Journal of Ohio Archaeology* 7:56-83.

Kruzman, Diana

2022 How Ohio's Indigenous Sacred Sites became a Religious Flashpoint. *Earthbeat*; <u>https://www.ncronline.org/news/earthbeat/how-ohios-indigenous-sacred-sites-became-religious-flashpoint</u>

Lankford, George E.

2007 The Great Serpent in Eastern North America. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly III and James F. Garber, pp. 107-135. University of Texas Press, Austin.

Lepper, Bradley T.

2001 Legends of Archaeology: Saving the Serpent. American Archaeology 5(1):11-13.

2005 Ohio Archaeology: An Illustrated Chronicle of Ohio's Ancient American Indian Cultures. Orange Frazer Press, Wilmington, Ohio.

2018 On the Age of Serpent Mound: A Reply to Romain and Colleagues. *Midcontinental Journal of* Archaeology 43:62-75.

2020a The Mississippian Iconography of Serpent Mound. *Journal of Ohio Archaeology* 7:38-55.

2020b Why Bulk Sediment Dates on Serpent Mound are Problematic. *Current Research in Ohio Archaeology* 2020,

https://ohioarchaeology.org/images/Lepper_2020_Why_bulk_sediment_dates_from_Serp ent_Mound_are_problematic-final.pdf, accessed 22 September 2020.

2021 Ohio Serpent Mound must be remembered as American Indian monument. Newark Advocate, <u>https://www.newarkadvocate.com/story/opinion/2021/10/10/lepper-ohio-serpent-mound-american-indian-monument/6003693001/</u>, accessed 9 January 2025.

- Lepper, Bradley T., James Duncan, Carol Diaz-Granados, and Tod A. Frolking 2018 Arguments for the Age of Serpent Mound. *Cambridge Archaeological Journal* 28(3):433-450.
- Lepper, Bradley T., James Duncan, Carol Diaz-Granados, and John Soderberg 2023 Ohio Rock Art and Serpent Mound: Shared Iconography, Shared Stories. *Midcontinental Journal of Archaeology* 48(2):141-171.
- Lepper, Bradley T., Robert F. Boszhardt, James Duncan, and Carol Diaz-Granados 2022 Effigy Mounds and Rock Art of Midcontinental North America: Shared Iconography, Shared Stories. *North American Archaeologist* 43(1):3-48.
- Lepper, Bradley T., Tod A. Frolking, and William H. Pickard 2019 Debating the Age of Serpent Mound: A Reply to Romain and Herrmann's Rejoinder to Lepper concerning Serpent Mound. *Midcontinental Journal of Archaeology* 44(1):42-56.

Lewis, James R. (editor)

2004 Encyclopedic Sourcebook of New Age Religions. Prometheus, Amherst, New York.

MacLean, John P.

1885 The Great Serpent Mound. American Antiquarian 7:44-7.

Mason, Debra

1987 "New Age" Welcomed at Serpent Mound. *Columbus Dispatch* August 17, 1987; newspaper clipping on file, Ohio History Connection, Archaeology Collection Facility, Columbus, Ohio.

Milner, George

2005 *The Moundbuilders: Ancient Peoples of Eastern North America*. Thames and Hudson, London.

Monaghan, G. William and Edward Herrmann

2019 Serpent Mound: Still Built by the Adena, and Still Rebuilt during the Fort Ancient Period. *Midcontinental Journal of Archaeology* 44(1):84-93.

Morgan, Lewis Henry

1877 Ancient Society. Henry Holt and Company, New York.

Pember, Mary Annette

2018 Crazy Theories Threaten Serpent Mound, Demean Native Heritage. *Indian County Today*, June 6, 2013, updated September 13, 2018; <u>https://ictnews.org/archive/crazy-theories-threaten-serpent-mound-demean-native-heritage</u>

Pickard, William, Meghan Marley, Linda Pansing, Bradley Lepper and Karen L. Leone
2018 Stone Steps Removal at Serpent Mound: Site Maintenance Provides Additional
Radiocarbon Dates. Report on file, Ohio History Connection, Historic Sites and Facilities
Division, Columbus, Ohio.

Putnam, Frederic Ward

1887 Serpent Mound Saved. *Ohio Archaeological and Historical Quarterly* 1:187-190. <u>https://resources.ohiohistory.org/ohj/browse/displaypages.php?display[]=0001&display[]</u> <u>=187&display[]=190</u>

1890 The Serpent Mound of Ohio. The Century 39:871-888.

Rafferty, Sean M.

2025 *Mythologizing the Past: Archaeology, History, and Ideology*. Routledge, New York.

Randall, E. O.

1902 Ohio, the Site of the Garden of Eden. *Ohio Archaeological and Historical Publications* 10:225-231.

Rapalus, Paul

1987 Harmonic Convergence – New Age or Summer Madness? UPI Archives: <u>https://www.upi.com/Archives/1987/08/15/Harmonic-Convergence-new-age-or-summer-</u>madness/3486555998400/

Ritchie, William A.

1945 Book Review: The Fort Ancient Aspect: Its Cultural and Chronological Position in Mississippi Valley Archaeology, by James Bennett Griffin. *American Antiquity* 4:398-401.

Romain, William F., Edward W. Herrmann, G. William Monaghan, and Jarrod Burks 2017 Radiocarbon Dates Reveal Serpent Mound is More than Two Thousand Years Old. *Midcontinental Journal of Archaeology* 42:201-222.

Sciulli, Paul W. and Brenda M. Hetland

2007 Stature Estimation for Prehistoric Ohio Valley Native American Populations based on Revisions of the Fully Technique. *Archaeology of Eastern North America* 35:105-113.

Schwarz, Kevin R.

2020 Use and Continuity on the Plateau: Recent Archaeological investigations at Serpent Mound State Memorial, Ohio. *Journal of Ohio Archaeology* 7:5-37.

Spencer, Herbert

1896 Principles of Sociology. Appleton, New York.

Squier, E.G.

1851 *The Serpent Symbol and the Worship of the Reciprocal Principles of Nature in America*. George P. Putnam, New York.

Squier, Ephraim and Edwin Davis

1848 Ancient Monuments of the Mississippi Valley. *Smithsonian Contributions to Knowledge*, Volume 1. Smithsonian Institution, Washington D.C.

Thadeusz, Frank

2011 German Artisans Lay Claim to a Mysterious Tradition. Der Spiegel; <u>https://www.spiegel.de/international/spiegel/the-kingdom-of-the-crystal-skull-german-artisans-lay-claim-to-a-mysterious-tradition-a-790456.html</u>

The Strange Road

2020 Historic Landmark and Giants : Serpent Mound: Jeffrey Wilson. July 21, 2020; <u>https://www.youtube.com/watch?v=Qf83mhDYU6U</u> (accessed 2/24/2025).

2023 Crop Circle at Serpent Mound: Jeffrey Wilson. July 24, 2023; <u>https://www.everand.com/podcast/660801002/32-Jeffrey-Wilson-The-Serpent-Mound-Crop-Circle</u> (accessed 2/24/2025).

Thomas, Cyrus

1894 Report on the Mound Explorations of the Bureau of Ethnology. *Twelfth annual report of the Bureau of Ethnology*. Government Printing Office, Washington, D.C.

Thomas, David Hurst

2000 Exploring Native North America. Oxford University Press, New York.

Toncray, Marla

2003 Soybean Field a Bit Too Popular since Design Discovered. *The Ledge Independent*, September 18, 2003; <u>https://maysville-online.com/news/5583/soybean-field-a-bit-too-popular-since-design-discovered</u> (accessed January 29, 2024).

Treese, Lorett

2016 A Serpent's Tale: Discovering America's Ancient Mound Builders. Westholme, Yardley, Pennsylvania.

von Daniken, Erich

1970 *Chariots of the Gods? Unsolved Mysteries of the Past.* G. P. Putnam's Sons, New York.

Weiker, Jim

2011 13 Skulls Headed to Gathering. *Columbus Dispatch*, 29 October 2011; https://www.dispatch.com/story/entertainment/events/2011/10/29/13-skulls-headed-to-gathering/24135937007/

Wilensky-Landford, Brook

2011 Paradise Lust: Searching for the Garden of Eden. Grove Press, New York.

Williams, Stephen

1991 Fantastic Archaeology: the wild side of North American prehistory. University of Pennsylvania Press, Philadelphia.

Willoughby, Charles C.

1919 The Serpent Mound of Adams County, Ohio. American Anthropologist 21:153-163.

Endnotes

¹ See, for example, the History Channel's *Ancient Aliens* series and Netflix's *Ancient Apocalypse* pseudo-documentary series.

² The authors highly recommend Garner's paper which includes discussions of both Serpent Mound and Newark Earthworks.

³ In the documentary, Hancock claimed that the Ohio History Connection banned him from entering the Serpent Mound site. In fact, it was only his application to film at the site that was rejected. After discussions with site staff and tribal partners, it was decided that such an extended project would be disruptive to the visitor experience. Moreover, tribal partners and Ohio History Connection staff felt the project did not align with what we know to be

true about Serpent Mound, so it offered no educational benefit. Nevertheless, Hancock was always welcome to enter the site during its normal hours of operation.