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RESEARCH

Drums Along the Scioto: Interpreting Hopewell Material Culture Through the Lens of Contemporary American Indian Ceremonial Practices

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ABSTRACT

The Seip-Pricer Mound was one of the largest mounds in the Hopewellian world. Among the many features at the mound's base, there was a massive, clay-lined, oval basin known as the "Burnt Offering." This basin contained a large quantity of artifacts that had been subjected to intense burning. Five small spheres of black steatite were among the remarkable objects recovered from this deposit, each of which had been engraved with abstract designs. Shetrone interpreted these objects as marbles. More recently, Carr suggested they were shamanic paraphernalia. We propose an alternative interpretation based on the premise that conversations with contemporary, indigenous descendant communities may provide improved contextualization of archeological materials. Our conversation involving traditional Shawnee people and their ceremonial practices suggests a more parsimonious identification of the Seip-Pricer Mound spheres. The Shawnee drum uses spherical stones to attach the drum head to the shell. In contemporary practice, these stones are not engraved, but similarities between the Shawnee drum stones and the Hopewell steatite spheres, including size, color, and number, suggest the intriguing possibility that the Hopewell spheres were parts of a drum. This would be the first direct evidence for a drum in the Middle Woodland period, and our proposed interpretation is strengthened by the fact that it derives from firsthand knowledge of the ceremonial practices of an indigenous Eastern Woodlands tribe that could be among the direct descendants of the Hopewell culture.

Résumé: Dans l'univers des Hopewell, le monticule Seip-Pricer est un des plus grands. À sa base se trouvait, entre autres éléments, un immense

bassin ovale revêtu d'argile que l'on appelait « Burnt Offering » (Offrande brûlée). Ce bassin contenait plusieurs artefacts ayant été intensément brûlés. Cinq petites sphères en stéatite noire faisaient partie des objets remarquables récupérés à l'intérieur de ce dépôt, chacune comportant des motifs abstraits gravés. Shetrone a déclaré que ces objets étaient des billes. Plus récemment, Carr a suggéré qu'il s'agissait d'objets chamaniques. Nous proposons une interprétation différente fondée sur le principe que des conversations avec des communautés autochtones descendantes contemporaines pourraient placer ces matériaux archéologiques dans leur juste contexte. Nous avons donc discuté avec des représentants du peuple Shawnee traditionnel et leurs pratiques cérémonielles suggèrent une identification plus parcimonieuse des sphères du monticule Seip-Pricer. La tête des tambours Shawnee est fixée au baril à l'aide de pierres sphériques. Ces pierres ne sont plus gravées dans les pratiques actuelles, mais des similitudes entre les pierres de tambour Shawnee et les sphères en stéatite de Hopewell, notamment la taille, la couleur et le nombre, suggèrent l'intrigante éventualité que ces dernières étaient utilisées dans la construction de tambour. Il s'agirait ici de la première preuve directe de l'existence d'un tambour du Sylvicole moyen et notre interprétation proposée est renforcée par le fait qu'elle dérive des connaissances personnelles d'une tribu autochtone des forêts de l'Est, possiblement descendante directe de la culture Hopewell, sur les pratiques cérémonielles concernées.

Resumen: El Túmulo de Seip-Pricer era uno de los mayores túmulos de la cultura Hopewell. Entre los muchos elementos hallados en la base del túmulo había una gran pila oval revestida de arcilla que se conoce como el « Holocausto » . Esta pila contenía gran cantidad de objetos que habían sido sometido a una intensa quema. Entre los excepcionales objetos recuperados de este yacimiento había cinco pequeñas esferas de esteatita negra grabadas con diseños abstractos. Shetrone interpretó estos objetos como canicas. Más recientemente, Carr sugirió que eran parafernalia chamánica. Proponemos una interpretación alternativa basándonos en la premisa de que las conversaciones con las comunidades contemporáneas descendientes de los indígenas pueden ayudar a contextualizar mejor los materiales arqueológicos. Nuestras conversaciones sobre el pueblo Shawnee tradicional y sus prácticas ceremoniales sugieren una identificación más parca de las esferas del Túmulo de Seip-Pricer. El parche del tambor shawnee se une al armazón con piedras esféricas. En la actualidad, estas piedras no están grabadas, pero las similitudes entre las piedras del tambor shawnee y las esferas de esteatita Hopewell, como son el tamaño, el color y el número, sugieren la intrigante posibilidad de que estas esferas fueran

piezas de un tambor. Esta sería la primera prueba directa de la existencia de un tambor en el periodo Silvícola Medio y nuestra interpretación propuesta se refuerza por el hecho de que se deriva del conocimiento de primera mano de las prácticas ceremoniales de una tribu indígena de los Bosques Orientales que podría ser uno de los descendientes directos de la cultura Hopewell.

KEY WORDS

Hopewell culture, Seip Earthworks, Shawnee Tribe, Musical instruments

The Seip Earthworks (Figure 1), a component of Hopewell Culture National Historical Park located in Ross County, Ohio, is one of the most iconic of the monumental geometric enclosures created by the Hopewell culture of southern Ohio. The Hopewell culture inhabited much of southern Ohio and Indiana from around A.D. 1–400. They lived in small, dispersed hamlets and periodically assembled at large earthwork complexes, such as the Seip Earthworks, for unifying religious observances centered on mortuary ceremonialism (Lepper 2014).

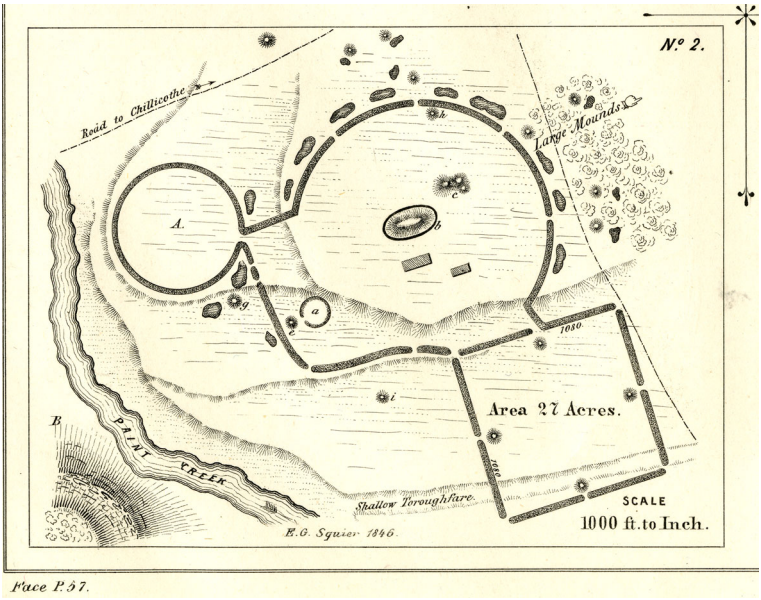

Figure 1. Ephraim Squier and Edwin Davis (1848: Plate 21, No. 2) map of the Seip Earthworks. Courtesy, Ohio History Connection

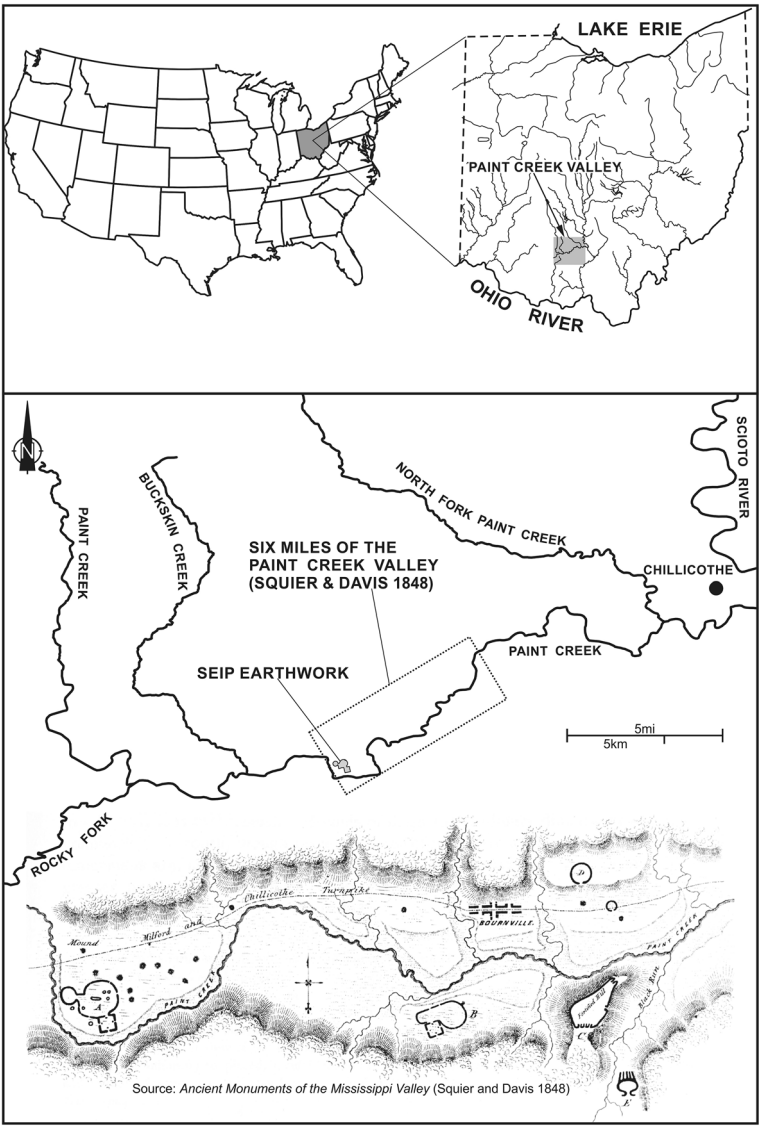

Figure 2. Map showing the location of the Seip Earthworks, including an inset map of "a section of six miles of the Paint Creek Valley with its ancient monuments" from Squier and Davis (1848: Plate 3, No. 1). Courtesy, Kevin Nye, Professional Archaeological Services Team

Situated within a broad meander of Paint Creek (Figure 2), a tributary of the Scioto River, the Seip Earthworks consist of a large circular enclosure connected to a smaller circle, and a square (Greber 1998). Near the

center of the large circle is a substantial loaf-shaped mound variously and confusingly referred to as the Pricer Mound (Mills 1909: 271), Seip Mound No. 1 (Shetrone and Greenman 1931: 354), and the Seip-Pricer Mound (Greber 1997: 210).

The excavation of the Seip-Pricer Mound produced an assemblage of diverse artifacts of extraordinary artistic quality that often have been interpreted based on analogies with superficially similar objects from European cultural traditions. Among the most interesting artifacts recovered from the Seip-Pricer Mound are five engraved steatite spheres, which the original excavators interpreted as marbles. We propose that a better analog for these artifacts may be found in the contemporary material culture and ceremonial practices of the American Indian tribes formerly indigenous to eastern North America.

Seip-Pricer Mound

The Seip-Pricer Mound (Figure 3), located within the largest circular enclosure at the Seip Earthworks in Ross County, Ohio, is 76 m long by 9.5 m high, making it the third largest Hopewell culture burial mound in the Ohio valley. Ohio Archaeological and Historical Society (now Ohio History Connection) archeologists Henry Shetrone and Emerson Greenman directed the excavation of this enormous mound from 1925 to 1928. The team recovered an assemblage of iconic Hopewell artifacts, but just as importantly, Shetrone and Greenman documented details of the structure of the mound and the Big House (Figure 4), sometimes referred to as a charnel house, that preceded the erection of the mound over the site. Our use of the term "Big House" follows Greber (1983: 26–27). It is not

Figure 3. Photograph of Seip-Pricer Mound, Courtesy, Ohio History Connection

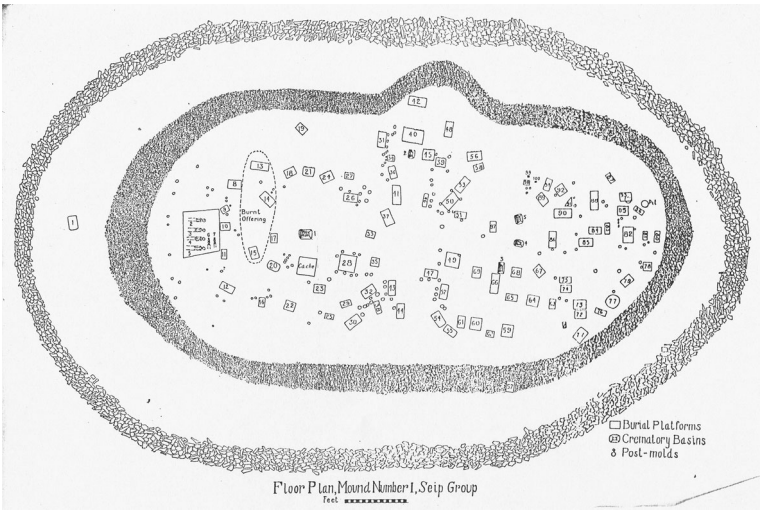

Figure 4. Shetrone and Greenman's floor plan of the Seip-Pricer Mound, which they referred to as Mound Number 1. Note the location and size of the Burnt Offering. Courtesy, Ohio History Connection

intended to connote a specifically Lenape ceremonial structure, but more a generic large building used as a place of ceremony that included, but was not necessarily limited to, mortuary ceremonialism.

The Seip-Pricer Big House was a massive structure more than 45 m long and nearly 20 m wide with a floor plan that Greber and Brose (1979: 27) have characterized as tripartite with a large, subrectangular chamber at its western end, a somewhat smaller subrectangular chamber in the middle, and a much smaller, round chamber at the eastern end. The three chambers of the Big House may reflect the same socio-political units that appear to be represented in the tripartite outline of the Seip Earthworks (Greber and Brose 1979: 27). This wooden structure may have been used for a variety of civic-ceremonial activities, but ultimately the floor was covered with at least 90 burial platforms (Shetrone and Greenman 1931: 485). Eventually the building and its mortuary facilities were decommissioned and buried beneath the enormous mound. According to N'omi Greber, the use of the Big House dates to around A.D. 300 (1650 yrs B.P.) (Greber 1998: 753).

Burnt Offering

The largest deposit of artifacts from the Seip-Pricer Mound was the so-called "Burnt Offering" (Shetrone and Greenman 1931: 377–380). Shetrone and Greenman (1931: 377) describe it as "an irregularly oval depression in

the floor which contained a large quantity of artifacts in various stages of reduction by heat.'' Based on the published floor plan of the mound (Figure 4), the basin was approximately 12 m long (north to south) by 4 m wide. In an unpublished manuscript written near the end of Shetrone's career, he gave the dimensions of this feature as ''some 30 feet [9 m] long, ten feet [3 m] wide and not more than nine inches [23 cm] at its greatest depth'' (Shetrone 1947: 109). The basin had been lined with clay, which had been so thoroughly baked by intense heat that it was ''the color and hardness of soft brick'' (Shetrone 1947: 109). Shetrone and Greenman (1931: 377) wrote that it resembled a gigantic ''crematory basin.'' At some point after the burning event, the entire artifact-filled basin was sealed beneath a layer of clay (Shetrone and Greenman 1931: 377). Later still, three cremation burials were installed over this portion of, what had by this time become, the floor of the Big House.

The entire Burnt Offering deposit included more than 5000 objects, including thousands of shell beads, copper breastplates, canine teeth of bears and mountain lions, alligator teeth, shark teeth, flint points, ceramic sherds, ''a considerable quantity of charred fabric'' (Shetrone 1926: 77), and fragments of leather. There were several animal bones, including numerous deer astragali, but human remains were conspicuously absent. Shetrone and Greenman (1931: 378) observed that ''nearly all the materials found elsewhere in the mound were represented in this deposit.''

Shetrone and Greenman (1931: 379) argued that any ''interpretation of the meaning of this deposit must take into consideration the abundance of artifacts, the artistic excellence of many of them and their situation on the floor of the mound only a few feet from the Multiple Burial.'' The ''Great Multiple Burial'' was a group of six extended burials laid out upon a ''clay and gravel platform'' between one and 1.2 m in height (Shetrone and Greenman 1931: 372). This platform was encased within a ''chamber of logs'' that had been ''covered with a canopy of woven fabric'' (Shetrone and Greenman 1931: 369). Shetrone and Greenman (1931: 370) stated that

> in size, in the variety of materials used in its construction and in the complicated nature of the structure, this chamber exceeded all other inclosures [sic] around burials in the entire mound. This fact, together with the richness and abundance of the artifacts which were placed with the burials, points to the conclusion that the individuals here represented were of extraordinary importance in the lives of those who built the mound.

Shetrone, in his field notes written while he was still excavating the Burnt Offering, expressed the firm conviction that the Burnt Offering was clearly ''intentional, and not merely refuse matter'' and moreover that it was ''an important ceremonial or sacrificial deposit'' (Shetrone 1926: 76).

Figure 5. Photograph of the five steatite spheres from the Seip-Pricer Mound Burnt Offering. Courtesy, Ohio History Connection

He later described it as "a community or tribal offering" (Shetrone 1947: 110).

Although this deposit was in close proximity to the Multiple Burial as well as several cremation burials, Shetrone recovered no human remains from the Burnt Offering itself. Byers (2011: 325) has argued that "megadeposits" of exceptional artifacts, such as the Seip-Pricer Mound Burnt Offering, represent the disposal of regalia that had been used in the enactment of a major ceremony. We think it plausible to suggest that this regalia was employed in a ceremony related in some way to the elaborate Multiple Burial. At the conclusion of that ceremony, this regalia was placed in the large basin, burned, and then sealed beneath the floor of what was, or more likely what would become, the Big House, which, in its turn, was decommissioned, disassembled, and buried beneath one of the largest mounds built by the Hopewell culture.

Steatite Spheres

The focus of this paper is on five engraved steatite spheres, which Shetrone (1947: 110) regarded as the "most interesting of all artifacts in the offering" (Figure 5). These spheres are made from black steatite and range from 18.8 to 19.5 mm in diameter and weigh between 10 and 11 g each. Each of the spheres is engraved with a unique abstract design (Figure 6). The style of the designs is similar to motifs incised on bones from the Hopewell Mound Group (see Greber and Ruhl 1989: 245) and the Turner Mound (Putnam and Willoughby 1896: 9–10) and stamped onto ceramics of the Hopewellian-era Swift Creek culture of the southeastern USA (Williams 1998). The steatite from which the spheres were made likely came from the Swift Creek culture area although it has yet to be tested to determine its source.

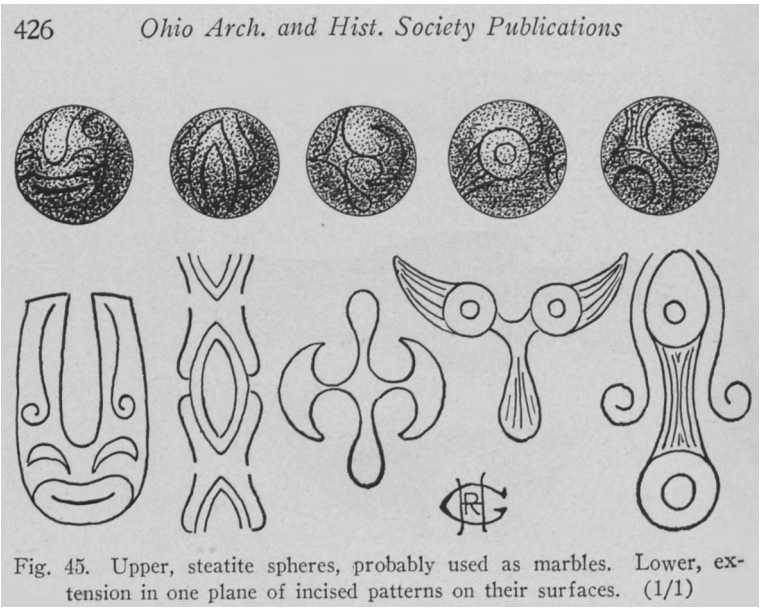

Figure 6. Drawings of the five steatite spheres showing the entire engraved designs. Courtesy, Ohio History Connection

Shetrone and Greenman (1931: 424), in their final report on the Seip-Pricer Mound excavations, stated that

> the five steatite spheres… were found in the Burnt Offering, adjacent to Burial 13, which was the cremation of a child ["of approximately 6 years" (Shetrone 1926: 76)] on a poorly constructed platform. This coincidence suggests that these engraved spheres were used as marbles and that they had been intended for the remains of the child.

Shetrone elaborated upon this interpretation in an account of the Seip-Pricer Mound excavation included in his book *The Mound-Builders*, which was published a year before the site report (Shetrone 1930):

> In another grave of the same mound were found the remains of a youth of nine or ten years. The skeleton was accompanied by the usual diminutive personal possessions and in addition by a number of stone spheres, … in shape and size exactly resembling present-day marbles… It was impossible to determine the sex of the youth… but the interpretation of the unusual burial offered by a laborer on the mound may not be far wrong. It was, he facetiously declared, the burial of the champion boy marble player of the com-

munity; when his promising career was cut short by death, his favorite marbles were buried along with him (1930: 103).

The steatite spheres unquestionably resemble marbles. The Hopewell spheres average 19.3 mm in diameter, slightly larger than the three-quarter inch [19.05 mm] size "shooter marble" approved by the National Marbles Tournament (2016). The idea that these Hopewell steatite spheres actually represent marbles is, however, problematic for at least two reasons. First, they were not associated with a child's burial. Shetrone indicated in his field notes that three of the so-called "marbles" were recovered "from the deposit *beneath* Burial 14" (1926: 77; emphasis added). The other two marbles were unearthed 7 days later from "the burned area" "immediately adjacent to the east side of Burial 14" (Shetrone 1926: 79). None of the spheres, therefore, was found in association with Burial 13 as Shetrone claimed in both the published report and his book. Burial 14 was a cremation for which neither the age nor sex of the individual could be determined. A separate set of field notes written by an unidentified participant in the excavation (Anonymous 1926–27) confirms that the excavators recovered the stone spheres in the vicinity of Burial 14. Burial 14 appears from the published floor plan of the mound to have been about 4.5 m south of Burial 13. Therefore, there was no close association of the "marbles" with the burial of the child. Moreover, as Shetrone and Greenman acknowledged, "Burials 13, 14 and 15 rested upon the surface of [the Burnt Offering]… but were not otherwise related to it" (1931: 378). Therefore, there is no reason to think that the stone spheres had any direct connection with Burial 13.

Second, as Shetrone acknowledged, the game of marbles "does not appear in the complex list of games of the native Americans of historic record" (1930: 103). Many Eastern Woodlands tribes, however, have games that use counters similar to dice. One example is the peach seed dice game described by Howard (1981: 298–301) among the Shawnees of Little Axe, Oklahoma. The counters are "six peach stones… filed and sanded smooth, then painted blue on one side and red on the other" (Howard 1981: 298). In all cases, including the possibly related Aztec game of patolli (Voorhies 2012), the counters are two-sided resulting in only two possible outcomes for the throw of a given counter. This is distinctly different from the spherical marble-like stones from the Seip-Pricer Mound.

Regardless, the interpretation of the Seip-Pricer steatite spheres as marbles, in particular, is untenable because the game of marbles has no documented analog in the pre-contact indigenous cultures of eastern North America. Moreover, Shetrone and Greenman's assertion that the spheres were funerary offerings associated with the burial of a child is, at best, an error of misattribution.

Christopher Carr (2008: 155) and Carr and Case (2005: 515) have interpreted the stone spheres as "shamanic paraphernalia" likely used for divination. Indeed, Carr and Case (2005: 236) considered this identification to be "fairly obvious." Specifically, Carr (2008: 200) listed "marbles" with artifacts such as obsidian and quartz crystal bifaces, shark teeth, and raw galena and copper nuggets as objects that may have served in "Hunt or War Divination or Sending or Pulling Power Intrusions, Other Divination, and Non-shaman-Like (?) Public Ceremonial Leadership." This interpretation evidently is based on Carr et al. (2008) comprehensive survey of ethnohistoric accounts, which are compiled in supplementary appendices included on a CD that accompanies Carr and Case (2005). However, in the sources referenced by Carr, Weeks, and Bahti, the objects used in shaman-like activities invariably are single pebbles, not sets of multiple, carefully rounded marble-like stones. When such sets of rounded stones are mentioned, they are exclusively gaming pieces, including the game of marbles, which was introduced during the contact period. And while games utilizing marbles might have been played in social contexts that had a predominantly ceremonial function, such as a Seneca wake described by David Boyle (Culin 1907: 350), they were not a part of the religious ceremonies, but were "mere pastime[s]" intended "to comfort in some measure the bereaved ones." Therefore, neither Carr (2008) nor Carr and Case (2005: 203) provided convincing evidence for the supposed shamanic nature of these objects. Nevertheless, they included "marbles" in a table of artifact classes (Carr and Case 2005: 206–207) that they asserted "clearly shows the working of shamanic or shaman-like practitioners in Ohio Hopewellian societies." (Carr and Case 2005: 205). We do not dispute that Hopewellian societies included individuals who served a shaman or shaman-like role, but reject the claim that the steatite stones spheres, can be identified unambiguously as shamanic paraphernalia.

Shawnee Drum

We propose an alternative interpretation of these stones, one that initially emerged from a casual conversation we had about the traditional Shawnee drum during a brief break in a consultation meeting held on 24 June 2014 at the Eastern Shawnee Bluejacket Complex in Oklahoma. During an unplanned conversation around an exhibit that featured a ceremonial drum, Barnes, a member of the White Oak Shawnee religious community, mentioned to Lepper that spherical, black stones were a component of the Shawnee water-drum (Figure 7). Lepper mentioned the steatite spheres from Seip-Pricer Mound. We wondered whether there might be a connection.

The water-drum, as used by the Shawnees of both the White Oak and Little Axe ceremonial communities, serves as the primary device by which worship can occur within the Bread Dance, War Dance, Green Corn and other dances. Without the water-drum, there could be no ceremony. The White Oak Shawnee water-drum includes features that speak to the symbols of essential elementalism and an understanding of a world that is uniquely Shawnee: the bringing together of water, fire, air, life, and spirit to guide celebrants in the dances of the Shawnee.

In preparation for the White Oak Shawnees' religious ceremonies, seven black, spherical stones, approximately 20 mm in diameter, are used to affix a water-soaked, brain-tanned leather hide to the drum body so it will serve as the drumhead. A small amount of water and a small number of hot coals are placed into the vessel before the drum head is attached (Howard 1981: 236). One of the elder men traditionally cares for the drum and after years of practice and a great amount of skill, ties the first of the small, black stones between the damp hide and the body of the drum. The Shawnee drum keeper then takes a length of cordage and ties it around the protrusion created by the stone from under the hide and proceeds around the rim of the vessel with the stones placed equidistant from each other, each in turn secured by the bight created from loops of cordage as he proceeds around the vessel.

The drum keeper then tightens the drumhead down to the body of the drum by taking the working end of the cordage, tying it to the standing end from the first stone, and proceeding underneath from the first stone

Figure 7. Shawnee Water-drum assembled by Ben Barnes

to the space between the two stones on the far side. The elder then takes the working end of the cordage and threads it through the cordage on the far side between the evenly spaced stones and with a constant, downward pressure applied he stretches the hide downward creating a watertight seal between the hide and drum body. Because of the extreme tautness of the drum head, a fid of antler or bone is often used to create a working space between the cordage and the body of the drum. Because of the nature of the cordage-work, the cordage always goes from one side of the drum to the other, creating a star pattern from the cordage-work on the bottom. A man's skill at tying the drum can be measured by the perfection of his star pattern.

When the cordage has traversed between all of the spaces between the drum stones, the working end of the cordage is then wrapped in a circular fashion around the protrusions created by the stones, always in an alternating over-under-over-under manner. If the stones were not of an odd number, this securing of the stones to the rim of the drum would result in this final bit of cordage-work failing, as the rope would arrive at the last stone with both the standing and working ends of the cordage on the top of two consecutive stones. Thus, the importance of having an odd number of stones. Finally, the drum is turned upside down to re-wet the hide and the drum keeper then places his lips to the upright surface of the drum hide forcing his breath into the drum, creating a pressure which forces water through the porous, tanned hide.

Erminie Wheeler-Voegelin had an opportunity to visit the Shawnees at White Oak and observed the creation of the water-drum for a ceremony. Perhaps the Shawnee male-gendered activity of drum making did not permit Wheeler-Voegelin anything more than a casual observation of the tying of the Shawnee drum as she reported that a staggering "15 or 20 pebbles… are inserted at equal intervals all around under the buckskin" (Voegelin 1941: 471–472). In contrast, James Howard accurately observed and recorded the practice of the Shawnee water-drum as tied by the late and greatly revered Bill Shawnee as having "seven round stones or marbles" (Howard 1981: 235–236).

Hopewell Drum

We can be fairly certain that drums were a part of the ceremonial lives of Hopewell people, in spite of the fact that no other physical traces of a drum have been documented previously. Cheryl Claassen (2015: 249) suggests drums, including water-drums, may have been in use as early as, or even earlier than, the Archaic period and that music was used in rituals and was "useful for spreading ideology." In addition, she wrote, "it can

create a sense of self and of collectivity through rhythms, lyrics, and group participation… and in some cases would have been at the core of new cults…" (Claassen 2015: 249).

The oldest documented physical traces of a drum in the western hemisphere are wooden objects interpreted as drum-rim fragments from a 4500-year-old Arctic Small Tool Tradition site in western Greenland (Grønnow 2012). The general absence of evidence for drums in the archeological record is therefore not likely attributable to the absence of drums in the pre-contact indigenous cultures of North America. One possible explanation for the extreme rarity of drums in the archaeological record is that they were for the most part made from perishable materials, which simply are not preserved under normal circumstances. Another suggestion by Solveig Turpin "is that drums were made of materials whose function is not evident once the instrument has been discarded or dismantled" (Turpin 2015). Ceramic and wooden vessels, for example, could be either water-drums or vessels used for other purposes, such as serving food.

Drums occasionally are mentioned in the earliest historical accounts for eastern North America, often in the context of warfare. The Gentleman of Elvas, one of De Soto's chroniclers, documented the use of drums in battle by Chickasaw and Alabama warriors during the spring of 1541 (Robertson 1993: 107, 110). John Smith (1907: 70) described what appears to have been a water-drum used in warfare by Algonquian-speaking tribes in the early 17th century. De Liette, a captain in the French colonial army in the late 17th century, wrote an account of a water-drum used by young men of the Illinois in their ceremonial preparations for war: "they usually use an earthen pot, which they half fill with water and cover with a buckskin, which they stretch as tight as they can, and they turn the pot upside down from time to time to moisten the skin, which gives it a better sound" (Pease and Werner 1934: 386–387).

James Smith, an adopted member of a Mohawk (Iroquois) Indian community in mid-18th century Ohio, described a water-drum used in conjunction with a "war dance": "they has [sic] a short hollow gum close in one end, with water in it, and parchment stretched over the open end thereof, which they beat with one stick, and made a sound nearly like a muffled drum" (Barsotti 1978: 33). The Moravian missionaries David Zeisberger, quoted in Hulbert and Schwarze (1910: 18) and John Heckewelder (1881: 208) described the use of drums in Delaware dances in late 18th century Ohio. Zeisberger described the drum in common use as "a thin deer-skin stretched across a barrel, or, in lieu of this, a kettle" (Hulbert and Schwarze 1910: 18). John Tanner, a European American raised as an Ojibwe, described two kinds of drum in use by his tribe: one made from "a hoop of bent metal like a soldier's drum" and another made from "a portion of the trunk of a tree, hollowed by fire, and having the skin tied over it" (Tanner 1994 [originally

published in 1830]: 122). Kinietz (1965: 178) reported that Miami drums "were earthen pots half full of water and covered with deerskins." They were used "by the young men in their dances before their departure for war" (Kinietz 1965: 178). An early 18th century account of the Ottawa describes drums being used in a healing ceremony (Kinietz 1965: 305). Finally, in the late 19th century, Johann Kohl recorded the use of a drum in healing and mourning ceremonies in an Ojibwe village on Madeline Island in what is now Wisconsin (Vennum 1982: 32). In addition to those Eastern Woodlands tribes already mentioned, water-drums are known to have been used by the Creek, Cherokee, Seminole, and Yuchi (Riemer-Weller 2017).

One reason why a water-drum would have been especially useful in warfare, as well as for large ceremonial events, is that according to Reginald and Gladys Laubin (1977: 102), "such a drum, although seeming not to make much noise, has such penetrating vibrations that it can be heard for two or three miles through a woodland and as much as ten miles across open water."

Wooden Bowl

Is there any additional archeological evidence from Seip-Pricer Mound that might corroborate the interpretation of the steatite spheres as components of a water-drum? Is it possible that other components of the drum were preserved and went unrecognized by Shetrone and his excavation team?

Shetrone and Greenman (1931: 449) reported that they recovered "a total of 37 pieces of wood" from Seip-Pricer Mound, "some of which were in sufficient state of preservation to enable recognition of the original object," including "several fragments of a wooden bowl or plate, from the Burnt Offering" (Shetrone and Greenman 1931: 449). They provided no more specific information regarding the provenience of this bowl; however, Shetrone included a postscript in his field notes that suggests it was found in proximity to the stone spheres.

Two days after finding the last of the steatite spheres, Shetrone was "working over several boxes of charred material taken from the deposit on the floor" and identified "a number of minor objects of interest" (Shetrone 1926: 80). Among the alligator teeth, shark teeth, raccoon bacula wrapped with copper bands, and other "minor objects," he mentioned the "fragments of a large wooden bowl or dish" (Shetrone 1926: 80). It is not possible to determine the relationship of these wooden fragments to the steatite spheres, but the fact that the wooden bowl was identified in boxes of charred material from the Burnt Offering within 2 days of the discovery of two of the stones is consistent with the possibility that they may have been spatially associated, especially since the excavations for the 2 days preced-

ing the examination of the accumulated material from the Burnt Offering had been focused on the areas adjacent to Burials 14 and 17 and the spheres were recovered below and adjacent to Burial 14. We suggest that this large wooden bowl could have been the shell of the water-drum to which the five steatite spheres were attached. The fire would have consumed the cordage fastening the spheres to the leather of the drum head if not the drum head itself—although fragments of leather were also found in the Burnt Offering. This would have separated the steatite stones from the drum and, given the way in which the deposit was excavated, any association between the stones and the bowl would have been lost.

Unfortunately, the fragments of the wooden bowl were never cataloged and, so far, have not been located in the collections of the Ohio History Connection. It is, therefore, impossible to evaluate its suitability to have served as a shell for a water-drum. Nevertheless, based on Smith's description of an early Algonquian water-drum as "a great deepe [sic] platter of wood" covered "with a skin" and tied at each corner with a walnut (Smith 1907: 70), it is conceivable that this fragmentary large wooden "bowl or dish" was the shell of a Hopewell water-drum that formerly had been associated with the five steatite spheres.

Conclusion

In conclusion, we propose that the five steatite spheres that Shetrone and his team recovered from the Burnt Offering beneath Seip-Pricer Mound may have served as components of a Hopewell water-drum. They are very similar to contemporary components of a Shawnee water-drum and, although such spheres are not invariably associated with indigenous North American water-drums, the use of small spherical objects is consistent with the earliest historic accounts of water-drums in eastern North America. They were found in proximity to fragments of wood and ceramic sherds either of which could have served as the shell of a drum and drums are a not unexpected part of Hopewell material culture. If we are right, these five engraved stones constitute the earliest direct evidence for a drum in the Eastern Woodlands of North America.

Shetrone's argument that they are shooter marbles that were part of the funerary offerings of a young child is not and never has been credible. Carr's suggestion that the spheres are shamanic paraphernalia used in divination is not supported by any convincing evidence that sets of spherical stones ever served an indigenous North American society in such a capacity. Drums commonly were used by American Indian shamans (Pratt 2007), so it might be argued that even as drum stones, these objects qualify as shamanic paraphernalia. Perhaps, but drums are used in a variety of

contexts in American Indian cultures and there is no evidence to suggest that the Seip-Pricer drum was used exclusively or even at all by a shaman.

What can we say about how the Hopewell people would have used such a drum? As with the contemporary Shawnee Tribe, the drum would have been an essential element to many Hopewell ceremonies. The penetrating rhythms of the water-drum could have contributed to providing a powerful sense of collectivity much needed by Hopewell leaders to sustain their corporate endeavors (Claassen 2015: 249). The Seip-Pricer drum may have been one component of the regalia used in the performance of the ceremonies that dedicated or even activated what would become one of the great religious centers of the Hopewell world and the drum was burned and buried with the rest of the regalia to form a kind of cornerstone to that sacred Big House. As Jay Miller (2015: 122) suggests, the Hopewell may have believed that such deposits of regalia along with the "rhythmic songs and stomps of men and women" (2015: 23) infused spiritual power into the mound such that it would serve as "a charged battery releasing vitalities over eons" (2015: 3).

There are, however, at least two problems with the proposition that the Seip-Pricer stone spheres represent Hopewell drum stones. First, if these stone spheres are from a Hopewell drum, then it is unlikely that this was the only Hopewell drum. So, where are the others? Why haven't other drum stones been found at Hopewell sites? Actually, this is a problem for any interpretation of these objects. If they are marbles, then where are the marbles belonging to other children? If they are shamanic paraphernalia used for divination, then why weren't other Hopewell shamans using similar devices?

Second, these spheres are elaborately incised with decorative designs. If they were wrapped in leather to attach a drum head to its shell, then those designs would not have been visible when the drum was in use. So, why go to the trouble of engraving the designs on the stones when they would be wrapped entirely in the leather drum head? Also, drum stones used by contemporary Shawnee and other Eastern Woodlands tribes are not decorated in this way.

It is possible that the engraved designs represent esoteric information, such as clan or elemental symbols, that were meant to be known only to certain initiates. There may have been a particular significance attached to each design, and it may be that there was a prescribed sequence to their attachment to the drum. The fact that modern drum stones are not decorated with such designs simply may be related to the broad changes that led to a large number of cultural practices being discontinued or altered with the end of the Hopewell culture (Lepper 2014: 3487).

One possible explanation for why no other similar stone spheres have been documented is that typically the spheres were not engraved and exca-

vators in the nineteenth and early twentieth century did not recognize them as artifacts. Out of context, they simply may have appeared to be unusually rounded pebbles not worth carrying out of the field.

Another possibility for why drum stones are so rare at Hopewell sites is that they were, at the time, an unusual method for attaching the drumhead to the shell. Other methods, such as using a wooden hoop or a rawhide ring (Voegelin 1941: 471) may have been more commonly employed. In this context it is worth pointing out that drums, in general, "are virtually absent from the archeological record" likely because they "were made of materials whose function is not evident once the instrument has been discarded or dismantled" (Turpin 2015: 1). Yet, since "drums play an important ceremonial role in Native American societies from the Arctic Circle southward throughout the continents" (Andrus 2005: 249), and have been documented at sites dating back at least 4500 years (Grønnow 2012), it is safe to conclude that drums were an important component of Hopewell ceremonies in spite of the absence of reliable evidence for their use.

It would be worthwhile to go through existing museum collections to see if spheroidal stones of similar size are present in collections of Hopewell as well as both earlier and later material. And, of course, in future investigations at Hopewell sites investigators should be aware of the potential significance of spheroidal pebbles, particularly when they are black and about the size of modern marbles. The only definitive test of the proposition that such sets of stone spheres represent drum stones will be the recovery of similar stones in an archeological context that could establish a more definitive connection between the stone spheres and the other components of a drum.

The identification of a possible Woodland period drum, the earliest direct evidence for a drum in the Eastern Woodlands, is of course a significant contribution to our understanding of the Hopewell culture and the history of the drum in the ceremonial lives of the indigenous people of eastern North America. What makes this hypothesis even more significant, however, is that it derives from active collaboration between an archeologist and a leader of the Shawnee Tribe—one of the tribes indigenous to eastern North America and whose ancestors, while they may or may not have been directly involved in the ceremonies that took place within the Seip Earthworks 2000 years ago, surely participated to one extent or another in the widespread Hopewell Interaction Sphere (Lepper 2006). We believe our conclusions demonstrate the great potential of such collaborations for gaining new insights into ancient American Indian material culture.

The possibility that similarities between the Seip-Pricer stones and the drum stones used today in the ceremonies of many contemporary American Indian tribes, including the Shawnee, might indicate a fundamental

continuity between the ancient Hopewell culture and these tribes is meaningful to both co-authors of this paper, but especially to Barnes, because, if our interpretation is correct, a central aspect of his personal religious identity would be reflected in these 2000-year-old artifacts from a valley that was home to his people before their forced removal in the 19th century. We recognize that there is a long interval of time separating the Hopewell steatite spheres and the Shawnee water-drum and that there is little or no evidence of similar stones within that temporal gap. Nevertheless, the explanations of these artifacts proposed heretofore by archeologists have proven to be untenable and we therefore offer this alternative interpretation based on insights gleaned from the experience of a Shawnee tribal member's participation in a ceremonial community whose traditions reasonably can be assumed to have been derived ultimately from Hopewell-era ceremonial practices—with, of course, some changes over time. We suggest that this gives our interpretation particular salience and that it warrants consideration as a prominent hypothesis to be tested in future analyses of Hopewell, as well as both earlier and later, material culture. The Seip-Pricer spheres may or may not be drum stones, yet Occam's Razor suggests this is a more plausible interpretation of these objects than any previously advanced. Regardless of whether future work supports or refutes this identification, our collaboration demonstrates the potential benefits of archeologists and tribal communities working together. Such conversations need to continue and to become more commonplace. Te-Moak Shoshone historian Ned Blackhawk (2005: 13) declared that the "gauging [of] the experiences of the first Americans now remains a critical component in today's historical universe" and archeology must become part of the historiography of indigenous peoples.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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