

TEMPORAL VARIABILITY IN DELMARVA ADENA COPPER BEADS AT PIG POINT

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Introduction

Investigations at the Pig Point Site (18AN50) on the Patuxent River in Anne Arundel County, Maryland have resulted in the discovery of at least five large ritual mortuary pits related to the Delmarva Adena phenomenon (see Luckenbach 2013). Each pit produced similar contents consisting of killed Adena blades made of exotic materials, killed tube pipes made of Ohio pipestone (see Luckenbach 2011), fragments of smashed human bone, and native copper—mostly in the form of beads. Varying degrees of sampling conducted in four of these pits have suggested a sequential utilization from 210 B.C. to at least A.D. 305.

This paper examines the copper associated with these pits and elsewhere on the site. The results clearly indicate that there is a previously unsuspected temporal variability in the bead assemblage associated with this ritual behavior.

Bead Typology

A number of authors have addressed the fact that copper beads seem to occur in a variety of manufactured styles (see McKnight 2007). One example, involving the Adena-related Early Woodland Boucher site, is Heckenberger et al. (1990) where the authors define three bead types. The most common, called Type 1, is “manufactured by rolling a strip of flattened copper back on itself” (Heckenberger et al. 1990:125). Type 2 beads are made from flattened sheets of copper rolled to create long tubes, while Type 3 beads are “generally similar to Type 1 beads” but are larger, and “apparently were either drilled or were large rolled varieties” (Heckenberger et al. 1990:125), and had previously been called “barrel shaped” by Loring (1985:101). Basically, this same three-type system has been adopted by Tasche (2011) in her work on Meadowood manifestations.

Kraft (1976:16-18), at the Rosenkrans site, defines similar types including “Ring Beads” which are basically Heckenberger et al.’s Type 1, “Tubular Beads” (Type 2), “Ball Beads” (Type 3), and adds a fourth type called “Nugget Beads” which are “solid spheres of copper centrally drilled.” Importantly, Kraft (1976:16) notes that a few of his ring beads “have the ends flattened.”

Pig Point Copper

Although no “nugget beads” have been recovered at Pig Point, all three of the previously defined numbered

types have been recognized. At Pig Point, the basic Type 1 bead can clearly be divided into two sub-types with one (Type 1b) having the distinctly flattened edges noted by Kraft (see Figure 1). The perception is that these may have been produced by first flattening a large sheet of copper and then cutting uniform strips to be rolled into beads—as opposed to Type 1a where individual strips appear to have been flattened and then rolled. The ability to discern this distinction is sometimes limited due to physical deterioration of the bead edges.

Only two examples of Type 2 tube beads have been recovered from Pig Point, neither of which approaches the large lengths reported from the Boucher site. Tube beads are defined here simply as beads whose length is at least double their width. Of the two examples one is clearly made of thicker copper material than the other (see Figure 2), implying that if more examples had been recovered, subtypes might have been appropriate.

A number of what appear to be Type 3 beads were

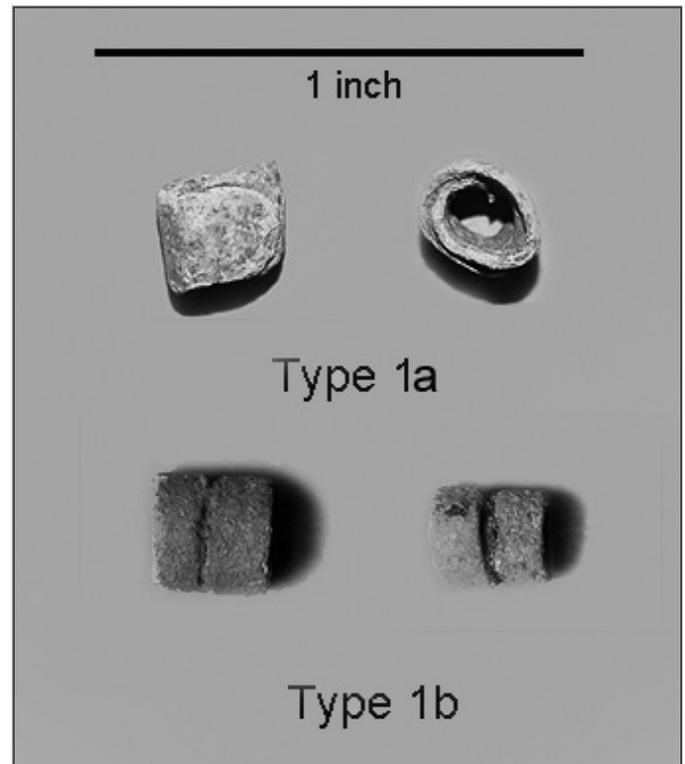


FIGURE 1. Type 1 rolled copper beads from Pig Point. Type 1a have been flattened, then rolled; Type 1b are strips cut from sheet copper, then rolled

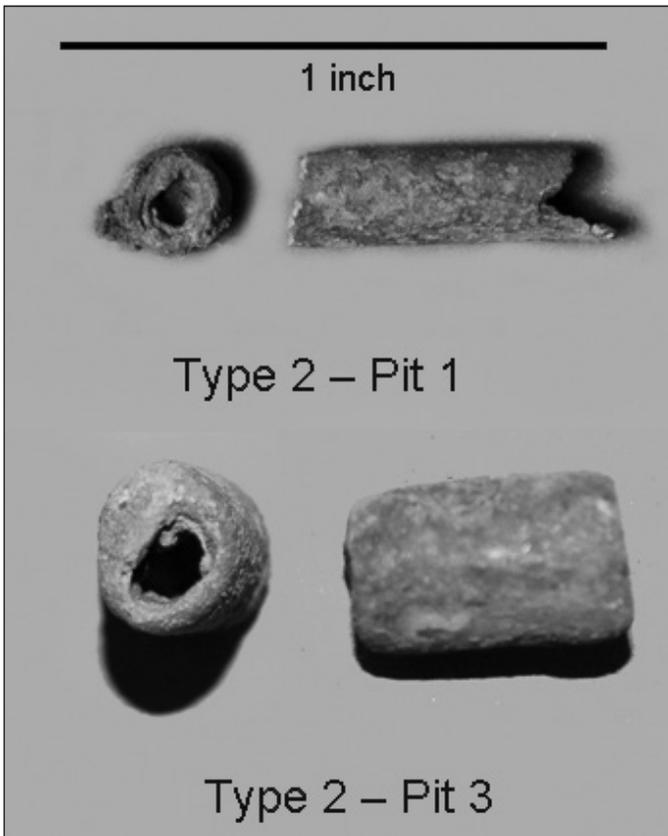


FIGURE 2. Type 2 copper tube beads from Pig Point.

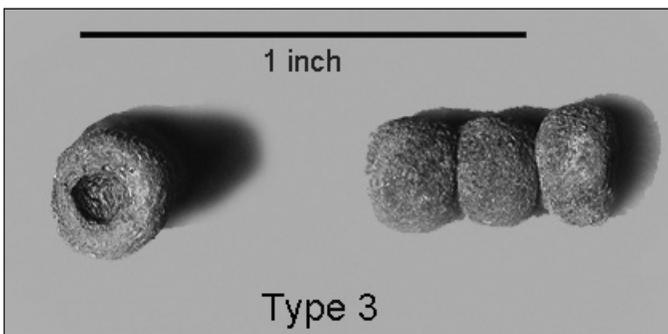


FIGURE 3. Type 3 copper "donut beads" from Pig Point.

also recovered at the site. Our colloquial terminology for this poorly defined type is "donut beads" because their edges have all been hammered to create distinctly rounded edges (Figure 3). The Type 3 beads at Pig Point are remarkably uniform in size and are fairly heavy in comparison to the other types.

Finally, three tiny copper beads were recovered at Pig Point whose construction method is obscure. These extremely tiny beads might be considered another subtype of ring beads, but here will be classified as Type 4 seed beads (Figure 4).

Other copper artifacts have been recovered which do not appear to be beads. Twenty artifacts have been iden-

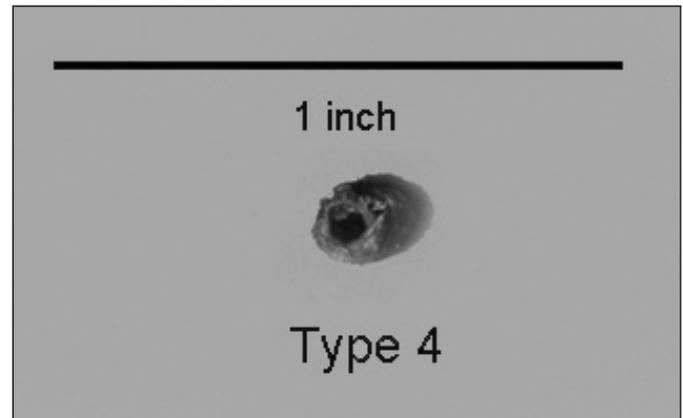


FIGURE 4. Type 4 copper seed bead from Pig Point.

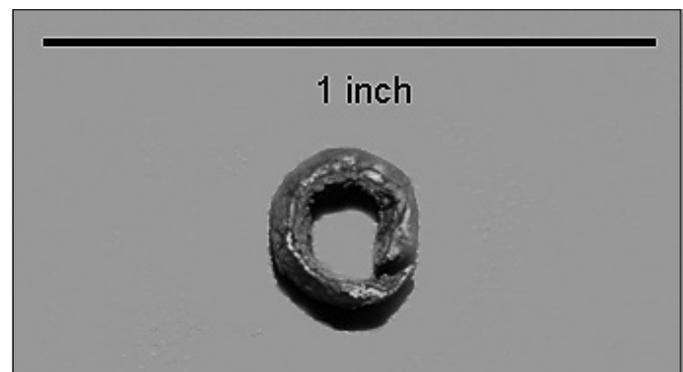


FIGURE 5. Copper ring bead from the southern part of Pig Point.

tified as copper sheet based primarily on the lack of any discernible curvature. Finally, a large number ($n=163$) of copper fragments too small to conclusively be identified as either beads or sheet copper are also present.

Copper outside of pit contexts is extremely rare at Pig Point. Most notable is the fact that only a single copper ring bead (Figure 5) was recovered during the first three years of excavation from either the original upper or lower excavation blocks in the southern part of the site (see Luckenbach et al. 2010). This bead is a typical ring bead found in Stratum C, a Middle Woodland context. The Lower Block also produced two tiny, unidentifiable copper fragments from a Stratum G, Late Archaic (Savannah River) context (see Figure 6).

In a 2013 excavation block to the north of the Adena pits (Area 22) a single copper bead and eight copper fragments were recovered. These are mostly out of disturbed contexts (sewer lines) and probably originated in either Pits 4 or 5.

Adena Pit Analysis

A total of five large ritual pits were discovered at Pig Point in the limited area available for testing. The amount of excavation conducted in each pit was quite

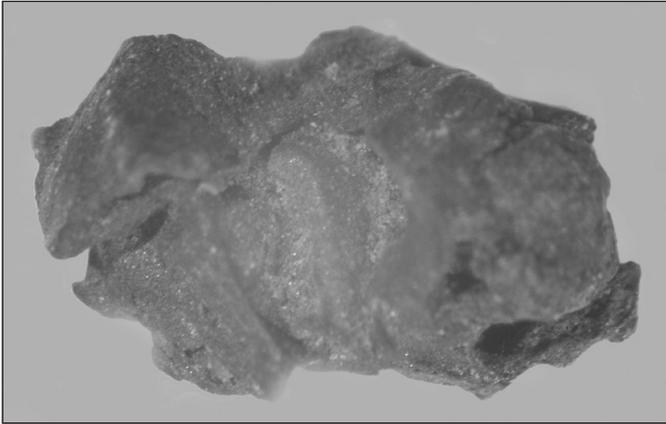


FIGURE 6. Unidentified copper fragment from a Late Archaic context at Pig Point. (length = 0.28 inches).

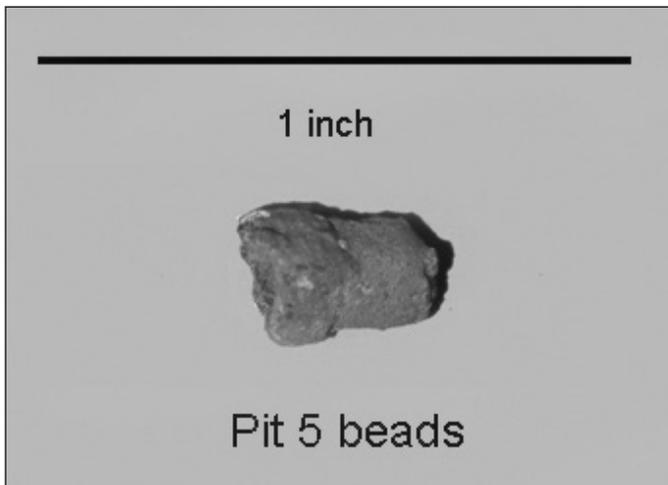


FIGURE 7. Two fused copper ring beads from Pit 5.

variable, since testing was constrained by the presence of existing structures, asphalt driveways, and different landowners. The pits were numbered 1-5 in the order they were discovered, but will be discussed here in their apparent chronological order as revealed by carbon-dating (see Luckenbach 2013:8).

Pit 5

Pit 5 is basically excluded from this analysis since it was only expressed in a single shovel test pit, produced only two fused ring beads, and no charcoal was recovered to allow for radiometric dating. The beads appear to be basic ring beads (Figure 7).

Pit 2 (230 B.C.)

Pit 2 was discovered in two shovel test pits, and was then sampled by a single 5x5-foot test unit. Although

this test unit achieved a depth of nearly four feet, the floor of the pit was not reached due to safety concerns. A single C-14 assay from Pit 2 returned an average 2-sigma date of 230 B.C. making it the earliest of the four dated pits. Only eight fragmentary copper beads were recovered from this pit, and only one of these was complete enough to allow measurements. This is a low number relative to the recoveries from the other pits and clearly carries some interpretational significance. The beads from Pit 2 all appear to have been basic, Type 1 ring beads.

Pit 4 (120 B.C.)

Pit 4 has produced a single C-14 date with an average 2-sigma of 120 B.C. This pit was also discovered in shovel test pits and subsequently sampled by a single 5x5-foot test unit. These excavations produced a total of 31 copper beads. Their average length and diameter both measured 0.14 inches. The beads from Pit 4 displayed little variation in either shape or size. Notably, the beads from this pit are overwhelmingly Type 1b beads with distinctly squared edges. This is the only pit in which this is the case.

Pit 1 (A.D. 90)

Although bordered on all four sides by driveways, the most extensive testing occurred at Pit 1, where the rough equivalents of eight 5x5-foot test units were excavated. These revealed a 22x15-foot oval pit reaching about five feet below the current ground surface. Two C-14 dates were obtained, returning average 2-sigma dates of A.D. 20 and A.D. 160 (avg. A.D. 90).

Pit 1 produced a total of 182 copper beads averaging 0.20 inches in length and 0.16 inches in diameter. The highest numbers were concentrated in the central part of the pit. Except for a single Type 2 tubular bead, all the beads from Pit 1 were Type 1 ring beads, of which 30% were Type 1b with hammered edges.

Pit 1 also contained a single fragment of sheet copper (Figure 8) found deep in the center of the pit. This presumably is a small piece of some larger object that has been ritually “killed.” Another isolated copper find remains a mystery as it decomposed almost immediately upon contact with the air. The unusual find presented an almost braided appearance (Figure 9).

Finally, it should be noted that copper staining was often encountered on human bone fragments, particularly calcined ones. Although this clearly implies contact with copper at some previous stage of the mortuary ritual, the exact mechanism remains unknown.

Pit 3 (A.D. 305)

With an average 2-sigma date of A.D. 305, Pit 3 is

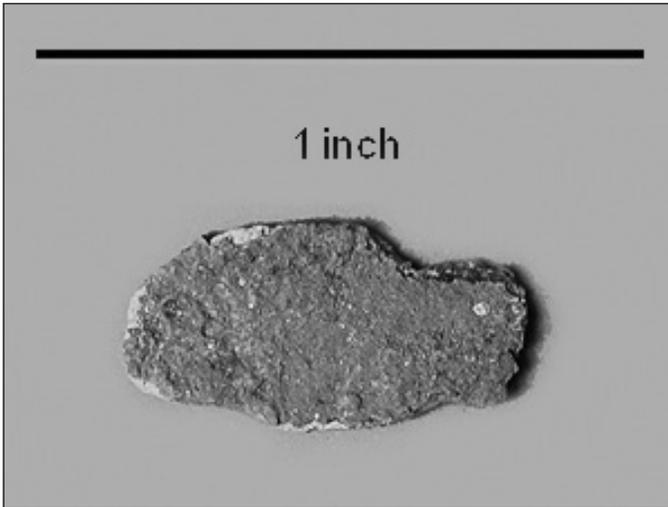


FIGURE 8. Fragment of sheet copper from Pit 1.

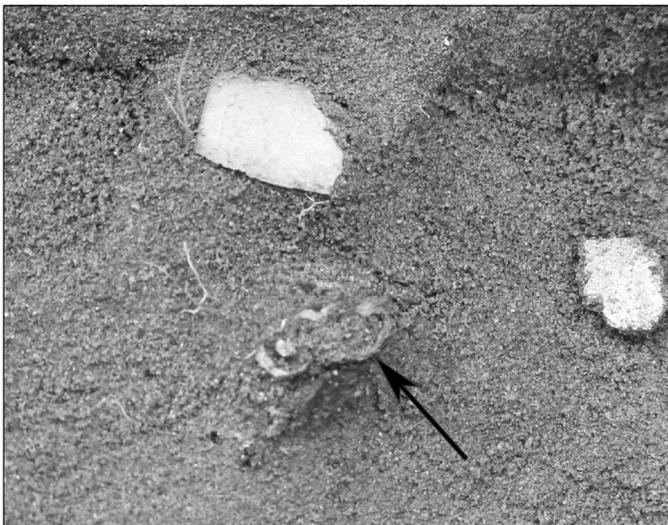


FIGURE 9. In situ "braided" copper from Pit 1.

the latest of the four dated pits by over two centuries. The location of this pit allowed a sampling area of 12.5x10-feet which was excavated to the pit floor. A total of 123 copper beads were recovered from this context, including 88 Type 1 ring beads, and one Type 2 tubular bead. Most notably, Pit 3 also contained 41 of the the donut-shaped Type 3 variety, the only appearance of this type at Pig Point. This is also the case for the tiny Type 4 seed beads, three of which were discovered in the pit.

The context of the Type 3 beads from Pit 3 also seems to have some significance. They were frequently found fused in groups of three, and never in the larger numbers seen with Type 1 beads in Pit 1 (see Figure 10). Given that the suspension mechanism for these beads is uniformly leather (see Figure 11) and not twine or hair, one might suspect that the triplets might have once decorated the fringe of leather bags, robes, or blankets.

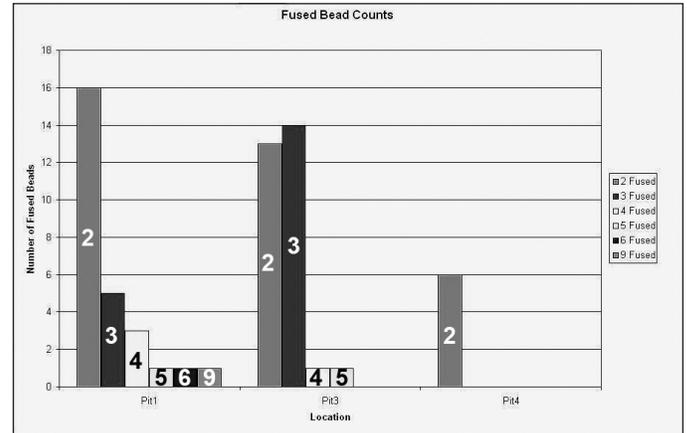


FIGURE 10. Distribution of fused copper beads.

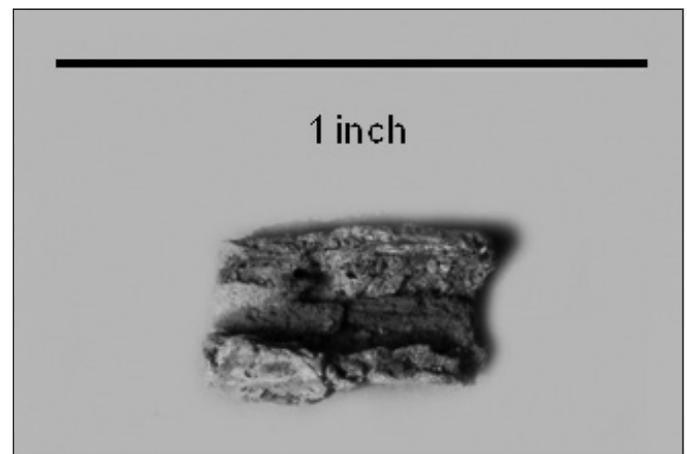


FIGURE 11. Fused copper beads with leather preserved.

Pit 3 also contained two impressively large copper beads. Both are basically Type 1 ring beads but are large enough to have possibly served as finger rings. The first measures 0.59-inch long and has a diameter of 0.36-inch (Figure 12), while the second is 0.64-inch long and has a 0.51-inch diameter (Figure 13).

The vast majority of sheet copper found at Pig Point was found in Pit 3. Nineteen of the 20 pieces were found spanning several strata of this pit. It is unclear what these pieces were used for as many are only small fragments, though it is important to note that both the Adena and Hopewell were known for utilizing hammered copper for pendants and breastplates.

Conclusions

It is noteworthy that three years of excavations in the southern part of the site produced only a single copper bead. It was only when the large, Adena-related pits further uphill were sampled that large amounts of copper were encountered. Despite the fact that the original upper and lower blocks are now interpreted as representing a

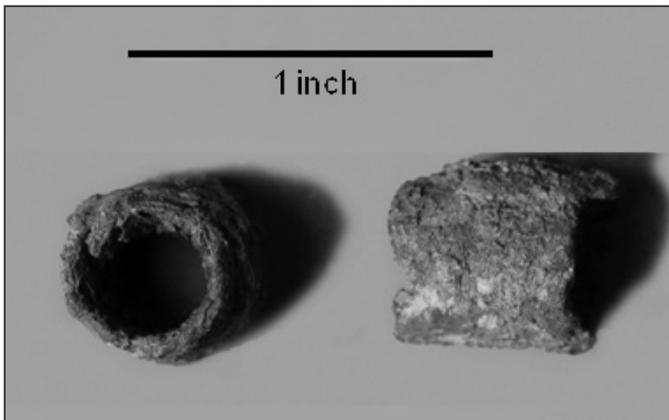


FIGURE 12. Large copper bead, possibly a finger ring.



FIGURE 13. Large copper bead, possibly a finger ring.

ritual structure area and a ritual feasting area, copper was apparently reserved for deposition in the mortuary-related pits.

Given the availability of firm radiocarbon dates from four of these pits, it proved possible to examine the bead assemblage from Pig Point in sequential fashion which clearly indicates change through time (Figure 14). While basic ring beads were present throughout the sequence, one of the earliest dated pits (Pit 4 – 120 B.C.) contained a majority of the Type 1b, ring beads with flattened ends. They were generally smaller and more uniform than the basic variety. By the time Pit 1 was being utilized (ca. A.D. 90), these flattened ring beads had been reduced to 30% of the assemblage and would be reduced to near zero by

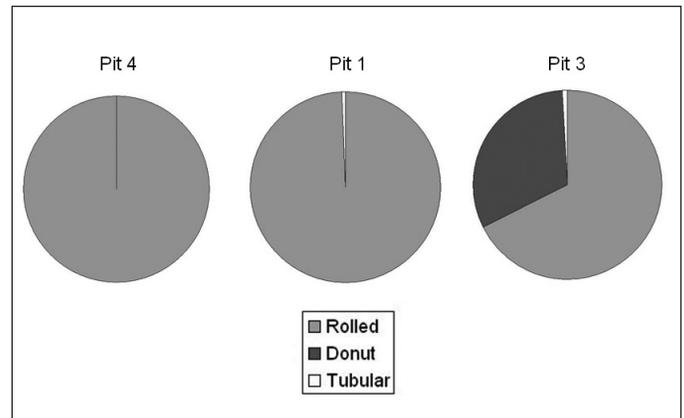


FIGURE 14. Copper bead types through time at Pig Point, ca. 150 B.C - A.D. 305.

the time of Pit 3 (ca. A.D. 305). These two later pits also contained the only single examples of tube beads and were the only pits to contain pieces of sheet copper. Sheet copper increased from a single fragment in Pit 1 to nineteen pieces in Pit 3.

Perhaps the most interesting results come from Pit 3. Its late chronological placement puts its use as a Delmarva Adena ritual activity well into what should be a Hopewellian time period. Although it contains the same blades fragments made of Midwestern lithic materials, Ohio pipestone tube pipe fragments, and even a killed green serpentine paint cup, there are other indications that this pit is slightly different from the others. Most notable in this regard is the presence of large amounts green Nomanskill/Coxsackie flint flakes not seen elsewhere—perhaps implying a shift in regional trade to more northern sources. The large jump in the presence of sheet copper fragments and the significant use of much heavier Type 3 donut beads further imply that the ritual use of copper has also changed somewhat by this period.

Despite the limited amount of testing that could be conducted on the Delmarva Adena ritual pits at Pig Point, the results seem to show a rare instance where changes in copper utilization—and especially bead types—occur through time. Obviously, much more information from an expanded data set would be required to fully substantiate these results, but these findings do represent an important beginning.

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