A "DELMARVA ADENA" MORTUARY COMPLEX AT PIG POINT

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Abstract

The discovery of a mortuary complex related to the "Delmarva Adena" at the Pig Point site (18AN50) in Anne Arundel County, Maryland has shed significant light on one of the Middle Atlantic region's greatest archeological mysteries—the extensive presence of elaborate Ohio Valley artifactual materials at a small number of mortuary sites in Delaware and Maryland. The existence of these exotic sites has been described as "an enigma of the highest order" (Dent 1995:232) and has been the subject of extensive speculation in the archeological literature for over seventy years.

Pig Point represents the first major Delmarva Adena site discovered in over half a century, and the first ever investigated by an experienced team of professionals. After years of debate on the meaning and significance of this complex, the site provides some of the first good contextual data bearing on issues like the exact nature of the mortuary behavior involved, ceramic associations, and absolute chronology.

Introduction

In the 1930s the first recognized discoveries were made on the Delmarva Peninsula of exotic artifacts whose origins could be traced to the mound-building Adena culture from the Ohio Valley. Despite the almost total lack of good contextual data associated with their discovery, the presence of these exotics has generated intense archeological speculation on the meaning of these finds since they were first made.

Weslager (1942) interpreted the phenomenon as the spread of a mortuary cult which involved the importation of exotic grave furniture. Later Webb and Baby (1957) suggested that the actual physical occupation of these sites by Adena populations may have taken place. This theory was vigorously supported and expanded by Ritchie and Dragoo (1959, 1960) who saw in these finds evidence of an actual migration in response to the subsequent rise of the Hopewell mound-building culture in the Ohio Valley. Although Griffin (1961) challenged this assertion, direct population movements were strongly supported by Dunn (1966) and de Valinger (1970) who injected terms like migration, invasion, and colonization into the discussion.

In the 1970s, the rise of environmental determinism led to the wholesale abandonment of migrationist paradigms in archeological theory. At that time Thomas (1969, 1970) began advocating that the Delmarva Adena phenomenon was simply an outgrowth of pre-existing trade networks which served to add exotic artifacts to local elaborate mortuary practices. This position was expanded and defended in detail by Custer (1984, 1987). Stewart has addressed this issue in a number of works and has conducted regression analyses with the exotic artifacts to determine that a type of focused trade was involved (see Stewart 1989, 1994, 2004). He also assumed an *in situ* development of the complex involving what he describes as the "most spectacular expression of long distance trade in the…Middle Atlantic" (Stewart 1989;58).

Custer (1987) also concluded that grog-tempered Coulbourn ceramics dating from the first two centuries A.D. could be used as indicators of Delmarva Adena habitation sites. Expanding on Gardner's (1982:71) assertion that individuals responsible for trade may have had control over the distribution of exotics and therefore achieve differential social ranking, Custer (1987:40) further suggested that the exotic mortuary items may be indicative of cultural complexity which had attained the level of "big man" incipient chiefdoms.

Lowery (2012) provides the most recent synopsis of the Delmarva Adena drawing on the further analysis of existing artifact collections. He sees the mortuary sites and isolated finds as being indicative of a "primary trade corridor" between the Ohio Valley and sources of fossil shark's teeth and sea shells (marginella and whelk) in the Middle Atlantic.

Although the existence of such Adena-related sites in the Middle Atlantic region has been recognized for at least eighty years, surprisingly little good contextual data on this important complex exists. This is especially true in regards to mortuary contexts. The two largest known sites, Sandy Hill (18DO30) near Cambridge, Maryland, and Frederica (7KF2) in Delaware, were discovered during sand and gravel operations and were essentially excavated by looters. The same story applies to the smaller sites of Killen's Pond (Cubbage 1941) and Brown's Branch (Weslager1968) on the Murderkill River in Delaware. A small Adena feature was found eroding from a cliff on the Miles River in Talbot County, Maryland (18TA233) and is described by Lowery (1989). Lowery has also discovered another such feature eroding from a bank at Paw Paw Cove (18TA212c).

Of the eight previously known Delmarva Adena

sites displaying the full complement of classic associated traits, none had undergone professional archeological investigation. By far the most carefully excavated site was the West River site (18AN18) salvaged by the Archeological Society of Maryland in 1955 from a severely eroding cliff (Ford 1958, 1959, 1976). The only other systematically excavated site, the St. Jones River Site (7KD1) in Delaware, was dug by non-professionals in 1960 led by a member of the state museum (de Valinger 1970; Thomas 1976). The Pig Point site, therefore, represents the first major Delmarva Adena site discovered since 1960, and the first ever investigated by professional archeologists.

Other sites in the region have been associated with the Delmarva Adena Complex despite their lack of a full complement of classic traits. Prominent among these is the still unpublished Nassawango site (18WO23) (Wise 1972), which, like the recently discovered Colton's Point site in St. Mary's County, Maryland (Lowery, personal communication) is aberrant for being completely devoid of the classic Adena style blades made of Midwestern flint. Even though these sites do contain copper beads, gorgets, and pipes, the true nature of the association of these two sites with the larger, classic Delmarva Adena complex is currently speculative. Lowery (2012:29) suggests that Nassawango may be "on the fringe" of Ohio Valley influence. The same issues might be said to apply to the location and chronology of the Adena-related finds made at the Rosencrans site in New Jersey (Kraft 1976).

The Pig Point Site (18AN50)

Between 2009 and 2011, three field seasons at the Pig Point site had already established it as one of the most important prehistoric sites in Maryland (Figure 1). The discovery of stratified cultural deposits five to seven feet deep (Figure 2) that had been continuously occupied for at least 10,000 years—along with a full sequence of associated C-14 dates—has provided an excellent context for the study of nearly the entire extent of local prehistory along

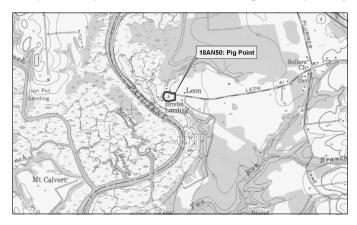


FIGURE 1. Location of the Pig Point site (18AN50).

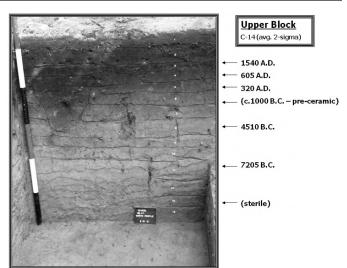


FIGURE 2. Upper Block profile (scale in feet).

the Patuxent River (see Luckenbach et al. 2010; Sperling and Melville 2011).

During the 2012 field season, a dark oval feature discovered in the newly opened North Block at Pig Point was sectioned. The feature had appeared immediately below a shallow historic period plow zone in a small area bounded on four sides by modern asphalt driveways. The feature ultimately proved to contain "killed" Adena Robbins blades made of a variety of exotic Midwestern materials, killed tube pipes made of Ohio pipestone, copper beads, and fragmentary human skeletal remains. The human remains were clearly represented by selected parts given the predominance of long bones (especially femurs) and skulls (Doug Owsley, Smithsonian Institution, personal communication, 2012). These remains had also clearly been universally and systematically "killed" and indiscriminately mixed as part of some previously unreported, staged mortuary ritual, the full extent of which is not yet known.

While sampling was proceeding at the pit feature, a ten foot grid of shovel test pits and ground penetrating radar transects was continued on the adjacent bluff areas. These subsequently resulted in the discovery of four more large, Adena-related pit features containing copper beads, tube pipes, Ohio flint, and small bone fragments. Despite the fact that large areas of the bluff were not available for testing, it was clear that a significant mortuary complex once covered most of the hilltop.

Pig Point Pit 1

In May of 2012 permission was obtained to sample the portion of the Pig Point site which lay to the north of Wrighton Road. A block of four 5- x 5-foot units was laid out in a seemingly undisturbed area bounded on four sides by asphalt driveways. Upon the removal of what appeared

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to be a shallow historic plow zone, a large, dark, vaguely oval feature immediately became apparent. A sectioned excavation of this feature began which was considerably slowed by the presence of occasional fragmented and poorly preserved bone. About two weeks into the excavation, three isolated molar teeth were recovered which suggested that the bone was, in fact, human.

At this point, formal permission was obtained from the Maryland State's Attorney's Office to temporarily exhume human remains for study, and the noted forensic anthropologist Dr. Douglas Owsley of the Smithsonian Institution was enlisted to assist with the analysis. At the suggestion of Rodney Little, the Maryland State Historic Preservation Officer, and with the assistance of Dr. Julia King of St. Mary's College of Maryland, contact was made with Rico Newman of the newly recognized Piscataway tribe. Mr. Newman agreed to assist with the eventual re-deposition of the human remains at the site after a full analysis had been completed.

During the 2012 season, an excavated sample of approximately one third of the pit was obtained, part in the northern section, and part in the south. The entire extent of the oval pit was roughly 22- x 15-feet and its depth exceeded 56 inches from the current ground surface. The pit has a vague northeast/southwest orientation.

As the excavations and profiles indicate, the pit had been repeatedly reused (Figure 3). A very complicated stratigraphy seemed to indicate excavation episodes of differing sizes, slumping, deposition, and what appears to be capping.

As stated, the most intriguing aspect of the human remains recovered from the pit was the fact that they had been universally and deliberately broken into small fragments before deposition, and that certain body parts were disproportionally represented. Portions of long bones and skulls made up a vast majority of the shattered remains.

The artifactual remains from the pit will be described in more detail later. As stated, killed blades made from Midwestern materials, killed tube pipes made of Ohio pipestone, and copper beads were the obvious intentional components. A variety of flakes, fire-cracked rocks, potsherds and even a few projectile points were present, but it is less clear that these were intentionally placed in the pit. Notable among the projectile points were two examples of quartzite Fox Creek/Selby Bay types (Figure 4) which have

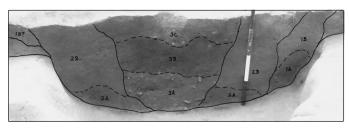


FIGURE 3. North profile of Pit 1 (scale in feet).



FIGURE 4. Fox Creek/Selby Bay quartzite bifaces from Pit 1.

important interpretative and chronological significance.

In addition to the complex ritual behavior demonstrated by the pit feature and its contents, it was apparent that a variety of specific activities had occurred around the pit margins. Numerous small fire pits containing occasional artifacts and fire-cracked rock were discovered around this pit. The pit edge also produced evidence of an abundance of molds from driven posts, which perhaps served to somehow demarcate the ritual area.

A complete trapezoidal gorget (see cover, *this issue*) was recovered from the northwest edge of the pit. This classic Adena style gorget (or pendant) was made of Huronia banded slate from Ohio, and was most notable for being the only Adena-related artifact recovered that had not been killed (see Melton and Luckenbach, *this issue*). Not far away a broken incised steatite disc was excavated (Figure 5); this object seems to be without parallels in the Midwestern Adena trait list (Mark Seeman, Kent State University, personal communication, 2012) or in the Delmarva manifestation.

Perhaps the most intriguing ritual behavior observed outside the pit came from a small fire-reddened area to the north. In this spot a cache of killed quartz lanceolate blades was discovered (Figure 6). Their orientations suggested that the broken pieces may have been contained



FIGURE 5. Engraved steatite disk.



FIGURE 6. Quartz blade cache in situ.

in a bag or other container. These quartz blades were of a distinct type that has been recovered at virtually all classic Delmarva Adena sites, although not always in an obviously "killed" condition. An in-situ cache was recovered (and photographed) at St. Jones (de Valinger 1970:30). Lowery (2012:38) considers them to be a "hallmark" of the complex. Unlike the blades from Pig Point made of Midwestern materials (which universally displayed radial

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FIGURE 7. Quartz blades reconstructed.

fractures caused by a central blow), the quartz lanceolate blades displayed transverse medial fractures caused by snapping (Figure 7). Since portions of the killed quartz blades were missing from the cache, the breakage had obviously occurred elsewhere leaving only a portion of the behavior for analysis.

Pig Point Pits 2-5

As stated, the shovel test pit survey on accessible areas of the hilltop indicated that at least four other pits were present, each containing the same mix of "killed" exotic artifacts such as Midwestern flint blades, tube pipes, and copper beads, along with intermittent smashed bone fragments. Since only a limited area was available for testing, it is presumed that more of these large pit features are present on the hilltop.

The presence of this many major ritual mortuary features indicates that Pig Point must have held enormous importance to the local prehistoric populations. In any attempt to reconstruct the behavior these remains might represent, the first and most obvious question involves dating. Are the large pits sequential, representing periodic ritual gatherings (like the Huron Feast of the Dead or Piscataway ossuaries), or are they in use simultaneously—a conclusion which would require a far more complicated social or functional explanation?

In an effort to resolve the "sequential versus simultaneous" question a preliminary excavation strategy was devised involving the placement of single 5- x 5-foot units in Pits 2-4 with one primary goal—the extraction

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of charcoal sufficient for dating. In each case these tests achieved their purpose.

Chronological Results

A total of six C-14 dates were obtained from four of the large pit features discovered in 2012. All analyses were done by the Beta Analytic Laboratory in Florida (see Table 1). The samples were all from wood charcoal, and all produced a uniform, small uncertainty of plus or minus 30 years.

Two different fill episodes from the southern portion of Pit 1 were conventionally dated at 20 B.C. (avg. 2-sigma A.D. 20) and A.D. 100 (avg. 2-sigma A.D. 160), suggesting reuse of this pit over at least a century. Since numerous excavation and fill episodes were delineated, it would take a significant number of C-14 analyses to adequately document the sequence of events in just this single pit.

A small, shallow feature in the northern portion of Pit 1 (Feature 246) returned the surprisingly late result of A.D. 620 (avg. 2-sigma A.D. 680). This feature contained Mockley ceramics, a rhyolite flake, bone chips, and pipestone tube pipe fragments. Feature 246 was quite discrete, but was clearly within the bounds of Pit 1 (see Figure 8), and appears to suggest a deliberate, recurrent use of the pit area over six centuries after its initial creation. However, it was also clearly a much smaller event, and the interpretative significance ultimately remains unclear.

Using the unit sampling procedure described above, single C-14 dates were obtained from each of the pits designated 2-4. Pit 2 returned a conventional date of 210 B.C. (avg. 2-sigma 230 B.C.), while Pit 3 was dated at A.D. 200 (avg. 2-sigma A.D. 305), and Pit 4 produced a 150 B.C. (avg. 2-sigma 120 B.C.) date. As stated, Pit 5 has not yet been sampled for dating purposes.

Together the C-14 dates from these three pits encompass the two dates obtained from the main body of Pit 1, thus strongly indicating reuse of the hilltop with multiple pits for a period of at least four hundred years—or perhaps eight hundred years depending of the significance of Feature 246. Using conventional dates, the four hundred year

TABLE 1. Radiocarbon results.				
<u>Вета #</u>	<u>CONTEXT</u>	<u>RCY</u>	ŧ	<u>C13/12</u>
327617	Pit 1	1850	30	25.7
328505	Pit 1	1970	30	24.9
330133	Feat 246	1330	30	26.7
332406	Pit 3	1750	30	24.6
334761	Pit 4	2100	30	n/a
336994	Pit 2	2160	30	25.3

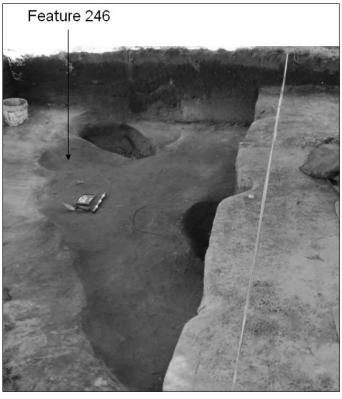


FIGURE 8. Feature 246, within Pit 1.

period would be roughly from 210 B.C. to A.D. 200, while using the average 2-sigma dates produces a five hundred year period from roughly 230 B.C. to A.D. 305. Perhaps not surprisingly, the results do not conclusively resolve the question of "sequential versus simultaneous."

Having established that ritual behavior that can be tied to the Delmarva Adena complex continued at Pig Point for around half a millennium, it is useful to reconsider previously existing data and speculation on the chronology of this phenomenon. There are currently no C-14 results available from five of the nine classic Delmarva Adena sites—Sandy Hill, Miles River, and Paw Paw Cove in Maryland, and Brown's Branch and Killen's Pond in Delaware.

In the Delaware drainage, a single date was obtained during the 1960 dig at St. Jones, Delaware which returned a conventional result of 380 B.C. \pm 80 (de Valinger, 1970; Thomas 1976). At Frederica two bone samples were analyzed decades after the sample collections were made. Custer et al. (1990:200) report a conventional date of A.D. 335 \pm 45, while Lowery's (2012:42-43) deer bone sample assayed at 338 B.C. \pm 40. As will be seen, the span of over seven centuries represented by these three dates—the source of considerable conjecture—is now made more a more plausible reality through the results from Pig Point.

In the Chesapeake drainage a series of eight C-14 dates were run (on seven samples) as a result of the 1955

excavations at West River, Maryland (Ford 1976). The conventional dates obtained ranged from 360 B.C. to A.D. 320, a span of 680 years, but their high uncertainty calculations (\pm 200 years) cast doubts on their results. Since Ford interpreted his two pits to be stages of a single ritual behavior, it is interesting to note that one pit produced a range of 360 B.C. to A.D. 250 (610 years), while the second produced a range from 350 B.C. to A.D. 320 (670 years).

In light of the results obtained from the pits at Pig Point, the long time spans reported for the Delmarva Adena complex might be viewed with less suspicion than in the past. In fact, the total range of preexisting dates available from classic sites—380 B.C. to A.D. 455 (835 years)—makes the inclusion of the results from Feature 246 at Pig Point seem more plausible. The comparable Pig Point conventional results would then stand at 210 B.C. to A.D. 620 (830 years).

In considering ranges in excess of eight centuries a number of previously published chronological conceptions will clearly have to be altered to reflect these findings.

Artifactual Remains from the Pits

"Adena" Blades

Each of the blades made of Midwestern materials recovered from the pits had been ritualistically "killed" by impact at a central point (Figure 9). All fragments exhibited signs of radial fractures, and most showed clear evidence of heating—sometimes extremely intense heating. It was apparent that they had all originally been classic, large Delmarva Adena "Robbins" blades that had probably averaged about 6-7 inches in length, but that each had been reduced to small fragments by impact. Mends were few, perhaps suggesting that they had been broken elsewhere and that only a percentage of them had been deposited in the pit.

One of the notable characteristics of the killed blades was not only the totally exotic nature of the materials employed in their manufacture, but also the diversity of materials involved. A vast majority were made of the highly variable Flint Ridge flint and chalcedony from Ohio, but Upper Mercer flint (represented by vernacular types such as "Coshocton Blue," and "Nellie Chert"), and even Wyandotte chert (Indiana/Kentucky Hornstone) were present. Given the extensive variation seen even among the Flint Ridge examples, an overall visual impression of material diversity is manifest.

Copper Beads

A large number of copper beads (over 130) were found scattered throughout the fill of the pits, and some were found in surrounding soils outside of the Pit 1 (see Gollup and Luckenbach, *this issue*). All had been cold

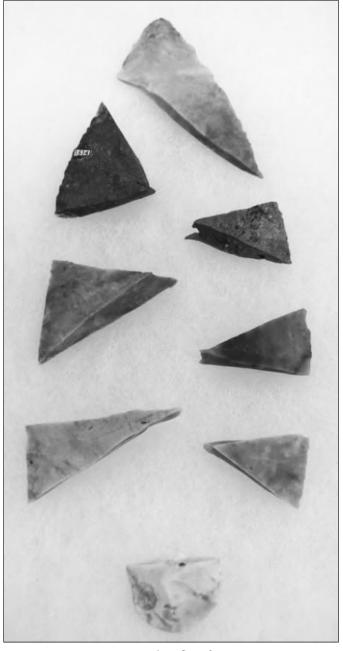


FIGURE 9. Ohio flint fragments.

hammered into small strips and then rolled into beads (Figure 10). At Pig Point, most were found in isolation, but occasionally two to six beads (most often three) were found still attached to each other through the action of copper salts. In rare instances, these copper salts were also found to be preserving the suspension mechanisms. In the examples found so far, the beads clearly seem to have been strung on strips of leather rather than twine. Although this does not preclude their use in bracelets or necklaces, it does raise the possibility that they were suspended from fringe on things like bags, deerskin shirts, or other garments.



FIGURE 10. Hammered copper beads.

Stone Tube Pipes

The feature fill of the five pits contained occasional small fragments of straight, block end, tube pipes in the classic Adena style. All had been apparently fashioned from Ohio pipestone. Two tube pipe fragments discovered in the Lower Block during the previous seasons at Pig Point had been submitted to the University of Illinois for source analysis. Both proved to originate at the Fuert Hill Quarry in the Scioto River Valley of Ohio (Luckenbach 2011). The pipe fragments from the North Block feature all appear to be made of identical material.

As was the case with the blades, the tube pipes were once large objects (8-10 inches) that had been consistently reduced to small pieces (under 2 inches) (Figure 11). Again, mends were few, perhaps indicating that breakage occurred elsewhere and only partial deposition of the fragments was made in the features.

A single example of the pebble stopper from a tube pipe was recovered from Pit 1 (Figure 12). It has been shaped into an almost perfect sphere, and appears to be made of some limestone-related material—presumably of Midwestern origin.

Paint Cups

A fragmentary hematite paint cup was recovered deep in Pit 1 (Figure 13) while in Pit 3 a fragmentary serpentine cup was recovered. Paint cups are a classic Adena-related trait. At other sites they are made from a variety of materials including copper.

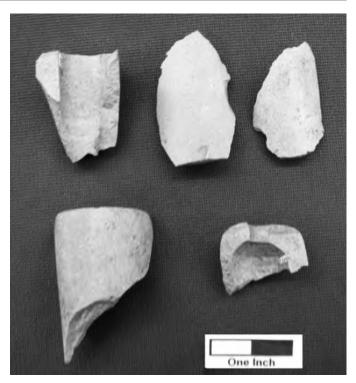


FIGURE 11. Tube Pipe fragments.



FIGURE 12. Tube pipe stopper.

Ceramics

One of the most important material culture artifact classes discovered at the Pig Point mortuary complex is the presence of pottery both within the pits and in the areas around them. The question of what pottery types should be associated with the Delmarva Adena complex has been the subject of intense debate. In the Delaware region a paradigm has developed that grog-tempered Coulbourn ceramics dating from the first two centuries A.D. are the likely candidates (see Custer 1989; Dent 1995; Petraglia et al. 2002), however since this pottery type is not generally present on the Maryland side of the Delmarva, nor on the Western Shore of the Chesapeake Bay (including Pig Point), there are obvious problems with this construct.

An analysis of the ceramics recovered from the pits is presented by Luckenbach and Sharpe (*this issue*).

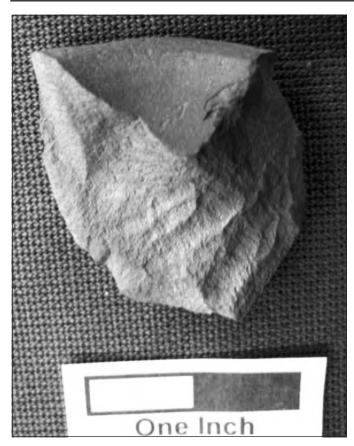


FIGURE 13. Hematite paint cup fragment.

Skeletal Remains

Analysis of the skeletal remains from Pig Point is being undertaken with the assistance of Dr. Doug Owsley of the Smithsonian Institution. These studies are only in their most preliminary stages, but even at this point a number of interesting observations can be made.

As already described, fragmentary human remains were found scattered throughout the various fill episodes of the pits. Although occasional denser pockets of bones were encountered these clearly represented mixed parts from multiple individuals rather than individual bundle burials. Bones calcined through cremation were encountered in low numbers, and were never present in concentrations that might suggest individual burials.

Long bones were disproportionately represented in the assemblage, particularly leg bones. Some had clearly been "chopped" into smaller sections (Figure 14), but all had been broken in some fashion. Skulls had been broken into pieces no larger than a few square inches, and all mandibles were represented by small broken sections. In a sense these findings suggest a kind of mortuary processing seen in different contexts at Salts Cave, Kentucky (Seeman 1986:568), where broken human bone is mixed with animal

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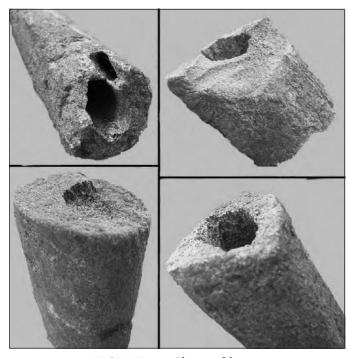


FIGURE 14. Chopped bone.

bone in the cave's entryway.

Impressionistically, the population represented seems to lack young children and people of advanced age (Owsley, personal communication). They seem to be shorter than the Native American populations that Dr. Owsley is generally familiar with, and there is evidence that they did a considerable amount of walking.

A most interesting example of altered bone is represented by a portion of human skull that had been deliberately shaped into a circular object, and appeared to have at least one drilled suspension hole. It was recovered near the bottom of Pit 1 in an area with a high concentration of red ochre, and ochre staining was evident on the interior of the bone artifact (Figure 15). This quite clearly seems to be an example of the "skull cups" which are a common trait found in Adena and Hopewell mortuary contexts in the Ohio Valley that have their origins in the earlier Archaic period (see Speal [2006] for a discussion of these objects). It is possible that other fragmentary examples of such cups are also present at Pig Point.

Discussion

The northern sections of the Pig Point site afford an opportunity to examine a major complex related to the Delmarva Adena that has not presented itself to the archeological community for over half a century.

The existence of this cultural phenomenon, first recognized in the middle of the twentieth century, has

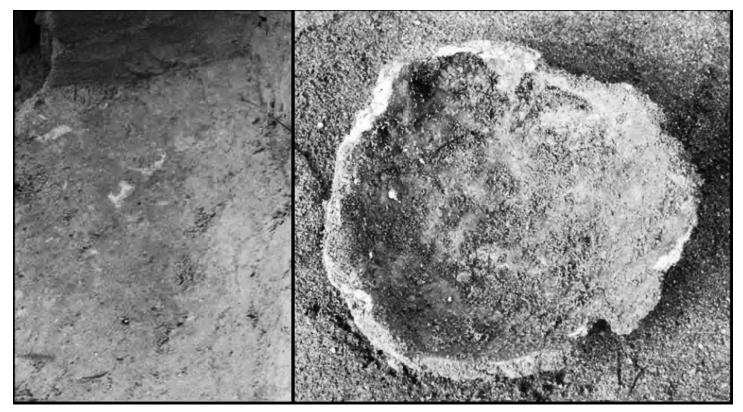


FIGURE 15. Red ochre staining near bottom of Pit 1 (left), which contained an ochre-stained human skull "cup" (right).

been the subject of extensive speculation which can be seen as reflective of the popularity of various archeological explanatory models. Migrationist models involving the direct movement of Adena populations from Ohio to the Chesapeake espoused by Ritchie and Dragoo (1959, 1960) gave way to economic explanations involving trade (Griffin 1961; Thomas 1976; Stewart, 1970) and the cultural elaboration of local societies (Custer 1987, 1989). The question remains whether such trends are, in fact, data driven, or whether they simply reflect shifting theoretical paradigms.

Only two sites, the St. Jones site in Delaware, and the West River site, provide sufficient information on horizontal and vertical context for comparative purposes. Here the limitation is largely derived by the early (1955 and 1960) and avocational nature of their excavations and the early limitations on the radiocarbon assay results they obtained. The West River Site, excavated by the Maryland Archeological Society in 1955, was certainly done to contemporary professional standards, but had other limitations represented by poor bone preservation (Ford 1976:64) and natural site destruction through cliff collapse.

It is clear that both West River and St. Jones contained mortuary complexes quite similar to Pig Point in that they were represented by multiple large pits grouped in a prominent location. In this sense they are reflective of the Late Woodland ossuaries described in detail by Curry (1999:68), although the large temporal gap between the two leaves any lineal relationship purely speculative. It should be noted that there is also a large conceptual gap between the bundle burials placed in Late Woodland ossuaries and the complete loss of the individual as a unit seen at Pig Point.

Only two partial pits remained at West River at the time of excavations. That others must have once existed can be demonstrated by the fact that the landowners had collected artifacts—which had fallen down a large cliff to the beach—between 1929 and 1955. Previous examples of such erosional destruction may have gone unnoticed during earlier historic periods. A later investigation by Anne Arundel County archeologists ascertained that no other features remain at the site.

It would be difficult to understand what was discovered at the St. Jones site were it not for the careful reexamination of the available information conducted by Thomas (1976). Although feature boundaries were not noted by the excavators in 1960 (de Valinger 1970), Thomas' work makes it clear that up to a half dozen mortuary pits once existed, which appear comparable to those found at Pig Point. Thomas (1976:92) assigns them the term "loci" and illustrates them as roughly oval areas.

Both Ford and Thomas asserted differences between pit contents. With two partial pits, Ford (1976) concluded that one was a "ceremonial pit" and one a "reburial pit" largely based on artifactual differences and differences in the density and frequency of calcined bone deposits. However, given that both contained killed blades and pipes, and that both contained cremated bone fragments, this distinction seems rather facile. Unfortunately, both of the pit functional labels applied by Ford have held sway in the published literature ever since.

Thomas (1976:107) concludes that if "careful excavation of the loci" had occurred it would have been possible to reconstruct various stages of mortuary activities involving primary burial, exhumation and preparation, and secondary internment. So far, this assertion cannot be similarly supported by the finds at Pig Point. Since all of the body parts are not present at Pig Point it seems more likely that all the pits could represent a single part of a staged mortuary ritual where the other stages are more geographically separated. Such behavior has been asserted at the Williams Cemetery and the Sidecut Crematory in northwestern Ohio (see Stothers and Abel [1993:73] for a larger discussion of this phenomenon).

De Valinger's rather extemporaneous excavation techniques (hiring the teenagers who had been looting the site) involved the extraction of blocks of earth containing bone concentrations which he describes as "bundle burials." The earthen blocks were then transported to the Smithsonian in cardboard boxes which after a decade of neglect lost many of their labels prior to the analysis conducted by an intern. T. Dale Stewart then characterized the remains in a 1970 publication before discarding them. Interestingly, the intern seems to have been Doug Ortner who went on to have a long career at the Smithsonian. After his death in 2012, Dr. Ortner's office was found to contain a single box labeled "Delaware Adena" which contained all that appears to remain of the St. Jones skeletal material.

Although de Valinger considered his earthen blocks to contain bundle burials, it is clear from Stewart's descriptions of the material that they were composed of the same broken and jumbled material seen at Pig Point, albeit in notably denser concentrations. At two points in his paper he describes the bones as "deliberately broken." It is only the poor preservation and excavation techniques which prevented the extensive nature of the "bone killing" phenomenon in Delmarva Adena from being recognized at this site. Lowery (personal communication) states that his interviews with participants in the Frederica recoveries seem to suggest that the same phenomenon was present at this site as well.

The ritual behavior documented at Pig Point has clear similarities to the West River and St. Jones discoveries, but there are also some apparent differences. In particular, the ritual "killing" of bones and artifacts at Pig Point seems to have been done in a far more thorough fashion than that reported at these other sites. Also, the low frequency at which bone fragments were discovered at Pig Point would not have allowed the type of "bundle burial" excavation practiced at St. Jones. West River may have been more similar to Pig Point, but the lack of bone preservation (other than calcined) at the former leaves such an inference speculative. Meanwhile, both West River and St. Jones produced flint blades of Midwestern materials that were either unbroken or only "slightly killed," while both the blades and tube pipes at Pig Point were consistently reduced to relatively small fragments.

There is no indication at Pig Point to support the contention made by Ford at West River and Thomas at St. Jones that the different pits represent different stages of mortuary ritual. At Pig Point all pit contents so far seem to indicate rather identical behavior. Although slight variations in beads and lithic debitage contents appear to exist, these can easily be attributed to temporal variability given the fact that at least four or five centuries are represented by the four different pits sampled so far.

Conclusions

To summarize, the 2012 excavations done at Pig Point have discovered at least five large ceremonial pits occupying a prominent hilltop overlooking the Patuxent River and what is currently a huge freshwater tidal marsh. The site clearly demonstrates a variety of recurring ritual behaviors taking place both within the pit features and on the ground surfaces around them. The site provides a rare opportunity to document such particularistic socio-cultural events, and forces a reevaluation of many of the unusually elaborate finds made in the southern portions of the site during three previous field seasons (see Luckenbach 2009, 2011; Luckenbach et al. 2010).

Many of these ritual behaviors seem previously unreported. The presence of copper beads, as well as "killed" blades made of Midwestern lithic materials and killed pipes made of Ohio pipestone are all well known, classic "Delmarva Adena" traits, but the completely thorough nature of their destruction seen at Pig Point may, in fact, be distinctive. In a similar fashion, the treatment of skeletal remains at the site seems so far unique in the literature. The selective nature of the bones (with the trunk of the body virtually missing), and the thoroughness of their destruction leads to the conclusion that blades, pipes, and bones (and perhaps even ceramic pots) are all being similarly "killed" and deposited in the pits at Pig Point.

The end product of these destructive actions result in the loss of the concept of the individual to a degree not seen in classic bundle burials (including ossuaries) or presumably cremation burials. Interestingly, the question of whether this behavior is done at Pig Point to revered ancestors, war captives, or perhaps even as sacrifices to the gods, remains purely speculative at this point (see Speal 2006:119). The apparent lack of very young or very old individuals might have an important bearing on this question.

Another concept which defies easy explanation is the motivation behind the exclusive use of Ohio Valley pipes and blades in this ritual behavior. Local substitutes do not appear to have been an option despite their availability. The stark differences in mortuary behavior between the Middle Atlantic and the Midwest seem to argue against population movements, and yet the need to include these "Adena-related" objects centuries after they are no longer manufactured in the "heartland" remains a profound mystery.

Even at this preliminary point, Pig Point has made substantial contributions to our understanding of the chronology of the Delmarva Adena phenomenon. The presence of Mockley ceramic types in all five pits, and the lack of grog-tempered wares at the site, are both of critical importance—as is the presence of quartzite Fox Creek/ Selby Bay points deep in Pit 1. Lowery (2012:38) has noted this Fox Creek association in existing collections and asserts the overlapping relationship of Delmarva Adena and the Carey Complex.

Equally critical is the availability of six modern C-14 dates with small associated uncertainties. These clearly show that, starting in the third century B.C. and continuing for at least a half millennium, recurrent ritual behavior involving Adena-related materials took place at this site. In fact, the results from Feature 246 in Pit 1 suggest that not only did this area remain a locus of ritual activity into the seventh century A.D., but that the location of Pit 1 had not been lost to the participants through a time span of over eight centuries.

Although many new insights have already been made from the excavations conducted so far, the opportunity to study centuries-long religious practices associated with the Delmarva Adena available at the Pig Point site complex clearly has great future research potential. Ron Thomas (1970:58) once stated, the "many questions posed" by the existence of this seemingly exotic complex "will not be satisfactorily answered until several of these sites have been carefully excavated and studied." As the first major site discovered since that statement was made, Pig Point represents a central key to understanding the origins and meaning of this greatest of all Middle Atlantic prehistoric mysteries.

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