

# TWO DATED ARCHAIC PERIOD HEARTHIS FROM PIG POINT (18AN50)

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## Abstract

The delineation of two Early Archaic hearth pits originating deep in the Pig Point site stratigraphic column have provided adjusted C-14 dates of roughly 8000-8500 B.P. The fact that these radiocarbon dates can be associated with a Kirk component, as well as floral and faunal remains, makes them some of the earliest in Maryland to derive from good associative contexts.

## Introduction

The first season of excavations at the Pig Point site (18AN50) in Anne Arundel County, Maryland (Figure 1) revealed a deeply stratified site with cultural deposits ranging from the Early Archaic to the Late Woodland and Historic periods (see Luckenbach et al. 2010; Sperling and Cox 2009). In its deepest sections 17 artifact-bearing strata were encountered, reaching a depth of roughly seven feet (Figure 2).

Diagnostic prehistoric artifacts from these excavations, including ceramics and projectile points, were capable of projecting an understandable sequence encompassing roughly 10,000 years of prehistory from Kirk/Palmer points of the Early Archaic to the Late Woodland. After the first field season a total of ten C-14 dates were obtained, with results ranging from A.D. 1540 to 350 B.C. Layers and features below those that produced these dates did not have sufficient charcoal preservation to allow chronological analysis.

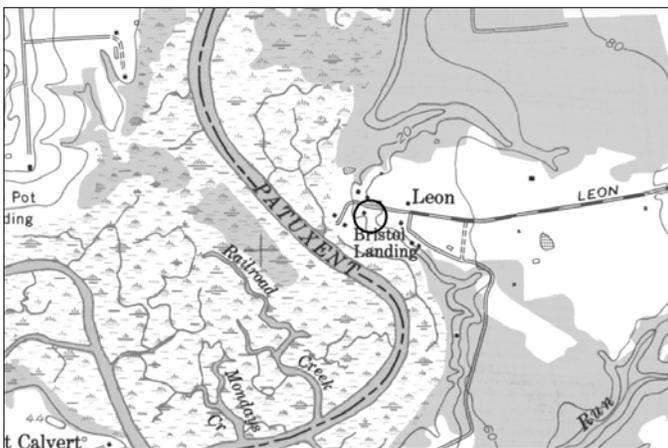


FIGURE 1. Location of the Pig Point site.



FIGURE 2. Stratigraphic profile at the Pig Point site.

## The “Lower Block South”

In 2010, during the second field season, two new units were opened to the south of the original 10 x 10-foot “Lower Block” excavated the previous year. Units 33 and 34 consisted of two 5 x 5-foot squares which extended the original block in the direction of a relic colonial road which once led to a landing on the Patuxent River (Figure 3).

As with the original excavation block, the stratigraphic sequence of these new units again began with four layers (Strata 1-4) which contained mixed historic (mostly 17<sup>th</sup> and 18<sup>th</sup> centuries) and prehistoric components. Presumably these disturbed layers were somehow related to the construction and maintenance of the adjacent colonial road. Undisturbed prehistoric strata below this were assigned alphabetic designations (Strata A-M; see Figure 4).

Fourteen layers below the ground level, Stratum J exposed an active living surface with numerous flakes, fire-cracked rocks, and a single diagnostic projectile point. The point appears to be a rhyolite Kirk corner-notched style—although a minority opinion considers it to be a possible

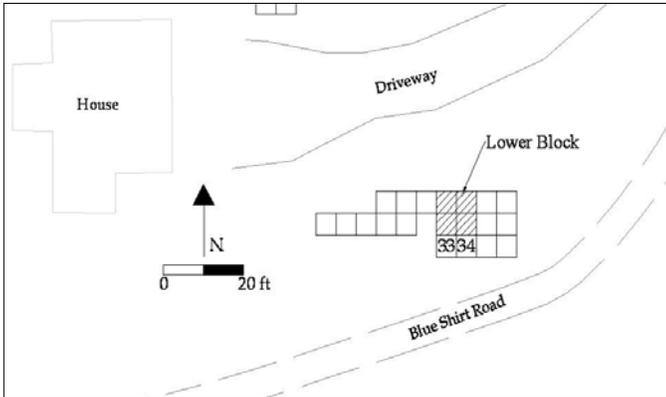


FIGURE 3. Units 33 and 34 in the Lower Block in relation to the former colonial road.



FIGURE 4. Excavation of Units 33 and 34, showing the stratigraphic sequence.

MacCorkle point (Figure 5). Kirk points are conventionally thought to date to about 8000-10000 B.P. in the Middle Atlantic region (see Egloff and McAvoy 1990).

The living surface consisted mostly of quartz and quartzite flakes and fire-cracked rocks, although the presence of a chert cobble (pot-boiler?) and a notable component of chert flakes was an unusual occurrence for the Pig Point site.

In addition to the artifacts, the exposed Stratum J surface displayed two circular pits which were darker than the surrounding soils due, in part, to the presence of abundant flecks of charcoal, ash, and heat alteration of the soils (Figure 6). Presumably hearths, these pits were designated as Features 111 and 112.

The two hearth features were bisected and excavated (Figure 7). All soils were floated. In addition to



FIGURE 5. Rhyolite Kirk corner-notched projectile point from Stratum J.



FIGURE 6. Hearth Features 111 and 112 exposed in Stratum J.

flakes and fire-cracked rocks, Feature 111 produced a single diagnostic. This was a large rhyolite point or blade which generally fit the conception of a Guilford style spear point (Figure 8). Although radiocarbon dates with good Guilford associations are practically non-existent, they are generally thought to date to around 6000 B.P. Other professionals were consulted on this point type attribution. Interestingly, two independently concluded (and without reference to the Stratum J point) that the tool was in fact a heavily resharpened Kirk point (Keith Egloff and Darrin Lowery, personal communications, 2010). Obviously this interpretation would provide a better fit with the rhyolite



FIGURE 7. Features 111 and 112 during excavation.



FIGURE 8. Rhyolite Guilford (or heavily resharpened Kirk) projectile point from Feature 111.

Kirk recovered from the surrounding Stratum J living surface. It is notable that while a majority of debitage from the stratum and pits was quartzite (or chert), both projectile points were made of rhyolite exotic to the locale.

## Dating

Fortunately, sufficient charcoal was obtained from each of the two pits to enable C-14 dates to be run. In addition, Feature 111 contained charred hickory nut fragments which were also submitted (to Beta Analytic in Florida) for radiocarbon assay. The charcoal from Feature 112 produced a conventional date of  $7320 \pm 40$  (5370 B.C.) while that from Feature 111 came out to  $7290 \pm 50$  (5340 B.C.). The Feature 111 nuts assayed at  $7530 \pm 50$  (5580 B.C.). The four 2-sigma corrections calculated from the three dates ranged from 6050-6460 B.C. These adjusted dates of roughly 8000-8500 years ago provide a reasonable fit for an Early Archaic Kirk component. It should be noted that Kirk style points have often produced comparable dates in the Northeast that are slightly younger than those obtained from other parts of North America (Justice 1987:71).

## Feature Contents

The soils from both pits were floated in their entirety, and those from Stratum J were water-screened. The recovered materials contained two fish vertebra, scales, and other small fish bones (including a possible otolith fragment), small pieces of eroded mammal bone, as well as additional charcoal, nuts, and possible carbonized seeds. None of the latter could be firmly classified. Tiny, unidentifiable fragments of what are presumably freshwater mussels were also recovered in quantity.

The mammalian bone fragments are uniformly small and rounded (Figure 9). If not simply a preservation issue, this “eroded” state may be indicative of their use in stews or soup-like dishes. None are identifiable as to species.

A fish scale (Figure 10) of the ctenoid type from Feature 111 has been identified as coming from a member



FIGURE 9. Eroded mammalian bone fragments recovered from the hearth features at Pig Point.

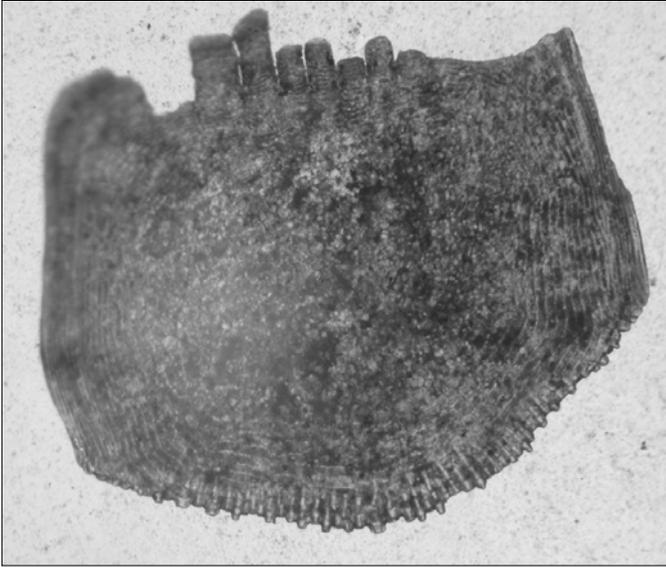


FIGURE 10. White perch fish scale from Feature 111.

of the Moronidae family of perciform fishes, specifically the white perch, *Morone Americana*, while the two fish vertebrae (Figure 11) from Feature 112 have been tentatively been identified as yellow perch, *Perca flavescens* (Wayne Starnes, personal communication, 2010). Both types of perch are common in Atlantic Coastal drainages from Maine to the Carolinas and both are still an important native presence at Pig Point.

The nut fragments from Feature 111 had interiors of uniform density indicating that they were from the walnut family (Juglandaceae) with smooth surfaces indicating hickory nuts (Justine McKnight, personal communication, 2010).

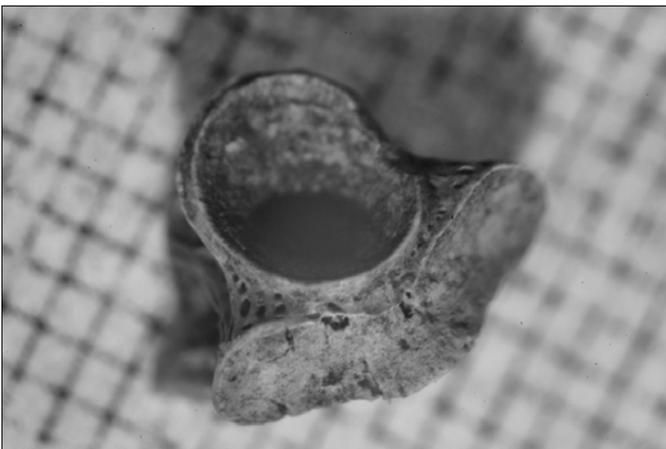


FIGURE 11. Yellow perch vertebra from Feature 112.

## Conclusion

The three C-14 dates obtained from these two pits at the Pig Point site represent some of the earliest yet obtained from good associative contexts in Maryland and the oldest from Anne Arundel County. The association of one, or possibly two, Kirk-style spear points with the adjusted radiometric dates of circa 8000-8500 B.P. is in fairly good conformity with other Kirk dates from the northeastern part of North America. That these two facts can be associated with pits containing floral and faunal remains is extremely rare in the Middle Atlantic region. It is interesting that, despite their early chronological placement, these pits indicate a dramatic consistency in local subsistence practices. Freshwater mussels, white and yellow perch and hickory nuts have been found throughout the prehistoric sequence at Pig Point, and all can be readily obtained from the adjacent Patuxent River environment to this day.

## References Cited

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