**Site Name:** Pooles Island Midden #1

**Brief Description:** Archaic-Woodland shell midden

**Site Number:** 18HA246

**Site Location and Environmental Data:**
- **Latitude:** 39.2852
- **Longitude:** -76.2701
- **Elevation:** 1 m
- **Terrestrial site**
- **Underwater site**
- **Physiographic province:** Western Shore Coastal
- **Ethnobotany profile available**
- **Maritime site**
- **Nearest Surface Water:** Chesapeake Bay
- **Site slope**
- **Site setting**
  - Site Setting restricted
  - Lat/Long accurate to within 1 sq. mile, user may need to make slight adjustments in mapping to account for sites near state/county lines or streams

**Topography:**
- Floodplain
- Hilltop/bluff
- Interior flat
- Upland flat
- Ridge top
- Low terrain

**Ownership:**
- Private
- Federal
- State of MD
- Regional/city
- Unknown

**Temporal & Ethnic Contextual Data:**
- **Paleoindian site**
- **Woodland site**
- **Archaic site**
- **MD Adena**
- **Early archaic**
- **Early woodland**
- **Middle archaic**
- **Mid. woodland**
- **Late archaic**
- **Late woodland**
- Unknown prehistoric context

**Nearest Surface Water:**
- **Saltwater**
  - Ocean
  - Estuary/tidal river
  - Tidewater/marsh
  - Swamp
  - Lake or pond
  - Spring
- **Freshwater**
  - Stream/river
- **Minimum distance to water is:** 1 m

**Ethnic Associations (historic only):**
- Native American
- Asian American
- African American
- Unknown
- Anglo-American
- Other
- Hispanic

**Site Function Contextual Data:**
- **Prehistoric**
  - Multi-component
  - Misc. ceremonial
  - Village
  - Rock art
  - Hamlet
  - Shell midden
  - Base camp
  - STU/lithic scatter
  - Rockshelter/cave
  - Quarry/extraction
  - Earthen mound
  - Fish weir
  - Cairn
  - Production area
  - Burial area
  - Black/metalsmith
  - Other context

- **Domestic**
  - Homestead
  - Farmstead
  - Mansion
  - Plantation
  - Row/townhome
  - Cellar
  - Privy

- **Industrial**
  - Mining-related
  - Quarry-related
  - Mill
  - Artisan/artisan

- **Urban/Rural?**
  - Other

- **Transportation**
  - Canal-related
  - Road/railroad
  - Wharf/landing
  - Maritime-related
  - Bridge
  - Ford

- **Education**
  - Church/mtg house
  - Ch support bldg
  - Cemetery
  - Sepulchre
  - Isolated burial

- **Military**
  - Battlefield
  - Fortification
  - Encampment

- **Townsite**
  - Church/mtg house
  - Ch support bldg
  - Cemetery
  - Sepulchre

- **Burial area**
  - Church/mtg house
  - Ch support bldg

- **Commercial**
  - Trading post
  - Store
  - Tavern/inn

- **Historic**
  - Furnace/forge
  - Other

- **Interpretive Sampling Data:**
  - Flotation samples taken
  - Historic context samples
  - Soils samples taken

<table>
<thead>
<tr>
<th>Prehistoric context samples</th>
<th>Soil samples taken</th>
<th>N</th>
<th>Historic context samples</th>
<th>Soil samples taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flotation samples taken</td>
<td>Other samples taken</td>
<td></td>
<td>Flotation samples taken</td>
<td>Other samples taken</td>
</tr>
</tbody>
</table>
**Phase II and Phase III Archeological Database and Inventory**

**Site Number:** 18HA246

**Site Name:** Pooles Island Midden #1

**Other name(s):**

**Brief Description:** Archaic-Woodland shell midden

**Prehistoric**

**Historic**

**Unknown**

---

### Diagnostic Artifact Data:

<table>
<thead>
<tr>
<th>Projectile Point Types</th>
<th>Clovis</th>
<th>Hardaway-Dalton</th>
<th>Palmer</th>
<th>Kirk (notch)</th>
<th>Kirk (stem)</th>
<th>Le Croy</th>
<th>Morrow Mtn</th>
<th>Guilford</th>
<th>Brewerton</th>
<th>Otter Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koen-Crispin</td>
<td></td>
<td></td>
<td></td>
<td>Piscataway</td>
<td>Calvert</td>
<td>Selby Bay</td>
<td>Jacks RI (notch)</td>
<td>Jacks RI (pent)</td>
<td>Madison/Potomac</td>
<td>Levanna</td>
</tr>
</tbody>
</table>

All quantities exact or estimated minimal counts

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### Prehistoric Sherd Types

<table>
<thead>
<tr>
<th>Marcey Creek</th>
<th>Dames Otr</th>
<th>Selden Island</th>
<th>Accokeek</th>
<th>Wolfe Neck</th>
<th>Vinette</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popes Creek</td>
<td>15</td>
<td>Watson</td>
<td>Mockley</td>
<td>Clemson Island</td>
<td>Page</td>
</tr>
<tr>
<td>Townsend</td>
<td>Cobourn</td>
<td>Sullivan Cove</td>
<td>Shenks Ferry</td>
<td>Moyaone</td>
<td>Potomac Cr</td>
</tr>
</tbody>
</table>

### Historic Sherd Types

<table>
<thead>
<tr>
<th>Ironstone</th>
<th>Astbury</th>
<th>Mound(s)</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffordshire</td>
<td>Jackfield</td>
<td>Storage/trash pit</td>
<td></td>
</tr>
<tr>
<td>Tin Glazed</td>
<td>Mn Mottled</td>
<td>Burial(s)</td>
<td></td>
</tr>
<tr>
<td>Whiteware</td>
<td>North Devon</td>
<td>Shell midden</td>
<td></td>
</tr>
<tr>
<td>Porcelain</td>
<td>Pearlware</td>
<td>Other</td>
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</tbody>
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### Other Artifact & Feature Types:

<table>
<thead>
<tr>
<th>Flaked stone</th>
<th>Mound(s)</th>
<th>Other fired clay</th>
<th>Storage/trash pit</th>
<th>Other</th>
<th>Dated features present at site</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground stone</td>
<td>Midden</td>
<td>Human remain(s)</td>
<td>Burial(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shell</td>
<td>Modified faunal</td>
<td>Ossuary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>stone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone bowls</td>
<td>Postholes/molds</td>
<td>Unmod faunal</td>
<td>Unknown</td>
<td></td>
<td></td>
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<tr>
<td>Fire-cracked rock</td>
<td>Palisade(s)</td>
<td>Oyster shell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other lithics (all)</td>
<td>House pattern(s)</td>
<td>Other</td>
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<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Lithic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceramics (all)</td>
<td>Hearth(s)</td>
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<td></td>
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</tr>
<tr>
<td>20</td>
<td>Lithic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rims/serds</td>
<td>Other</td>
<td></td>
<td></td>
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</tbody>
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### Radiocarbon Data:

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<tr>
<th>Sample 1:</th>
<th>+/- years BP</th>
<th>Reliability</th>
<th>Sample 2:</th>
<th>+/- years BP</th>
<th>Reliability</th>
<th>Sample 3:</th>
<th>+/- years BP</th>
<th>Reliability</th>
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</tbody>
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### Additional radiocarbon results available
In April 1995, Phase II archeological testing was undertaken at Site 18HA246. According to the Aberdeen Proving Ground Cultural Resource Management Plan discussed above, Sites 18HA1, 18HA19, 18HA77, and 18HA246 underwent Phase II evaluations. The results from the archeological testing on the 4 sites were presented in a separate volume from the APG Cultural Resource Management Plan called ‘Phase I of the Prehistoric Lifeways Project’. Although the report title refers to the ‘Phase I investigation’ at the sites and the later APG Cultural Resource Management Plan indicated that these were considered Phase II evaluations. Given this, these 4 sites are treated here as having been subjected to Phase II testing. The archeological evaluations of the sites were part of the APG’s ongoing process of identification and evaluation of cultural resources under its jurisdiction. The CRMP provided the framework for the ongoing assessments and as part of the process the army installation sponsored the Prehistoric Lifeways Project. The Lifeways Project was focused on gathering data regarding Native American subsistence and settlement patterns in the area of the installation before and during the time of European contact and settlement. The research design for the Prehistoric Lifeways Project hypothesized that shell midden sites would be found in association with non-midden historical sites. The above mentioned 4 sites were chosen for the Lifeways Project because they were known to be shell midden sites, which have the potential to provide data on prehistoric subsistence strategies and settlement patterns.
The field testing encountered a dense shell midden layer that measured approximately 8 m long and a more diffuse scatter of shell that continued north for an additional 13 m. The large midden was visible in the beach cut from 7-16 cmb. The shell layer was concentrated in the A horizon with only a few shells penetrating the B horizon. The midden had varying thickness (from 3 to 20 cm) and extended 18 m inland from the shoreline. In TU 4, the deposit lessened considerably from west-east and was concentrated in the southeast quadrant. In TU 2, a shell-less patch of soil appeared on the same level as the midden layer. Most likely, this represented a natural post-depositional disturbance as it corresponded to a natural dip in the ground surface.

The main midden terminated at its northern extreme in a second smaller (2 m wide) shell concentration at a depth of 24-34 cmbs in the B horizon. A difference in age or depositional event could not be determined between the larger and smaller middens. The remnant midden was concentrated along the shoreline extending inland for only about 1.5 m from the shoreline. The stratigraphic link to the main midden has eroded away, if it ever existed.

Four surface concentrations were observed extending beyond the boundaries of the midden. It was determined that the surface scatter was the result of the construction of the light tower and/or rodent burrowing and did not represent the subsurface extent of the midden.

Oyster morphometric analysis was conducted on 2,443 whole valves weighing 22,948 g recovered from 23 soil samples. A collection of shell fragments were disregarded for the purposes of the analysis. The goal of the analysis was to obtain information on the specific types of oysters harvested, the season the oysters were harvested, the method of procurement, and the preparation or butchering techniques employed. The analyzed oyster valves from the site fell into 3 categories: sand oysters, channel oysters and bed oysters, with the majority of the samples representing bed oysters. The occurrence of boreholes on only 52% of the valves indicated that the oysters grew in waters with a salinity of less than 10 ppt for at least 6 months per year. About 41% of the sample showed a predominance of small boreholes, thus indicating that they grew in waters with salinity below 15 ppt, above 20 ppt for 3 months of the year, and occasionally rises above 20 ppt. A prevalence of large boreholes in 7% of the sample indicated an environment where salinity rarely fell below 15 ppt and stayed above 20 ppt for most of the year. Damage caused by the worm Polydora, which are most common in subtidal areas with low salinity and muddy bottoms, was evident on 9% of the of the site sample. Barnacles were absent from all valves examined from the site sample. One valve showed evidence of damage by boring bivalves. Of all of the valves analyzed from the site, 9% of the valves had their ventral edge broken providing evidence of opening by cracking and 91% of the sample had no evidence of mechanical opening (i.e. breaking, cutting, and prying).

Paleobotanical analyses were conducted on 14 soil samples taken from the 4 test units: 11 light fractions, 2 heavy fractions, and 1 water-screened sample. The light fraction materials were weighed then sifted through a series of geological sieves. The heavy fraction materials were previously sorted. All non-botanical materials were removed from the heavy fraction and the <2 mm specimens were discarded; therefore, only the >2 mm botanicals were analyzed. If present, acorn nutshell and cuiltgens remains were removed from all fractions down to 0.71 mm portion of the light fractions. Seeds and seed fragments were collected from all fractions and identification was attempted. Wood identification was attempted on all charred wood that had a transverse section >4 mm.

Wood was the most common plant remain removed from the site (n=114) and was present in 100% of the samples. Only a single wood fragment tentatively identified as maple was large enough for identification. Seeds and seed fragments were observed in 33% of the samples. One whole and 1 fragmentary Poaceae (grass family) seeds were identified. Five other seed fragments were noted but were too distorted to allow reliable identification to the family level. A total of 24 unidentifiable plant remains, referred to as ‘unknowns’ in the report, were present in 50% of the botanical samples from the site. Many of the samples were unidentifiable because the sandy and dusty nature of the materials obscured characteristic surface features. There were 4 starly unknowns in the botanical assemblage, likely the remains from tubers or some other carbohydrate-laden foodstuff. There were also 17 fragments of general unknowns. A single peduncle was identified and thought to be a small fruiting stem from a grape. In addition, one fragment of charred fungus was recovered. The fungal body is relatively common in paleobotanical samples and may represent shell fungus attached to firewood.

Phase II testing at Site 18HA246 yielded a total of 39 prehistoric artifacts. There were 7 pieces of debitage (4 quartz, 1 quartzite, 2 chert) and 2 quartzite cores. The midsection of a broken quartz projectile point was recovered from just beneath the midden in TU 1. A note on the Site Survey form suggested that the point was possibly a Piscataway type or other Late Archaic point but with the fragment this could not be confirmed. The findspot below the midden also suggested the possibility of pre-midden activity at the site, but this could not be confirmed due to the lack of diagnostics in the assemblage. An early stage rhyolite biface was recovered from a flotation sample taken from TU 4. The excavators suggested that because the biface was very thick, it was not completed, and that it may have been used as an expedient tool after which it was discarded. Two other lithic items (hammerstones) and 3 fire-cracked rock (FCR) fragments were also collected. The hammerstones and the FCR probably represented the remains of shellfish processing. The FCR may have been the remnants of hearth features that were redeposited with the shell after processing or fires may have been directly on the midden, the remains of which have been removed during post-depositional processes. Two shell fragments (unmodified faunal) and 1 charcoal sample were also obtained.

A total of 20 prehistoric ceramic sherds were collected from the midden layer in TU 2. In the site report, 5 limestone tempered sherd were identified as possible Accokeek Ware. The remaining 15 fragments contained limestone and gneiss-like metamorphic rock temper and were identified as possible Dames Quarter Ware. If these types were rightly identified, then an Early Woodland date of occupation is suggested. Dames Quarter is more commonly found in the southern Delmarva and its presence at Poole's Island would be unusual. Accokeek, on the other hand, is found throughout the Coastal Plain of Maryland. In addition, limestone tempered Accokeek and Dames Quarter sherd would be atypical. The excavators proposed a date of occupation from the late Early Woodland period to the early Middle Woodland period based on the artifacts; however, a date in the first part of the Early Woodland is the generally accepted date for the given ceramic types. On the Site Survey Form located in the Site File, the sherd were described as gray and shell, rather than limestone, temper. If this is the case, then the sherd may be dated to the Middle or Late Woodland periods when shell-tempered ceramics were common. Only a re-evaluation of the sherds would clarify this matter. Therefore, a general date in the Woodland period has been applied to the site.

Three historic artifacts (1 wire nail and 2 mortar fragments, recorded as architectural items in the table above) were also collected from the site. The nail fragment was recovered from the upper layer in TU 2 and was probably discarded with the construction of the light tower. The 2 mortar fragments were recovered from a flotation sample taken from the midden concentration in TU 4. They probably represent remnants of mortared cement blocks which were used for erosion control on the island. The fragments were very small and could have easily reached the top of the midden through bioturbation.

Poole's Island Midden #1 (18HA246) is an Early Woodland period shell midden site, a date based on tentatively identified ceramic types. The research design for the Prehistoric Lifeways Project hypothesized that the shell midden would be found in association with a non-midden occupational site. Although limited archeological material was collected from the immediate surroundings of the midden, it was suggested that an associated site did once exist and has since eroded into the Chesapeake Bay. However, the midden may represent a single depositional event. Based on the dearth of artifacts, it is unlikely that the midden was much larger. The site has been severely impacted by the construction of a light tower and no discernable subsurface features were encountered.
<table>
<thead>
<tr>
<th>Site Number:</th>
<th>18HA246</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Name:</td>
<td>Pooles Island Midden #1</td>
</tr>
<tr>
<td>Other name(s)</td>
<td></td>
</tr>
<tr>
<td>Brief Description:</td>
<td>Archaic-Woodland shell midden</td>
</tr>
</tbody>
</table>

The minimal artifact assemblage and the disturbed nature of the site lack the quality of significance to be eligible for listing on the National Register of Historic Places. No further work is recommended at the site.

**External Reference Codes (Library ID Numbers):**

00000796, 00005354, Site File