



Phase II and Phase III Archeological Database and Inventory

Site Number: 18BC88

Site Name: Pawley Stoneware Kiln

Prehistoric

Other name(s)

Historic

Unknown

Brief Description:

mid-19th century stoneware kiln and commercial/industrial building

Site Location and Environmental Data:

Maryland Archeological Research Unit No. 14

SCS soil & sediment code Ub

Latitude 39.2847

Longitude -76.6179

Physiographic province Eastern Piedmont

Terrestrial site

Underwater site

Elevation 3 m

Site slope 0-5%

Ethnobotany profile available

Maritime site

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
- High terrace
- Hilltop/bluff
- Rockshelter/cave
- Interior flat
- Hillslope
- Upland flat
- Unknown
- Ridgetop
- Other
- Terrace
- Low terrace

Ownership

- Private
- Federal
- State of MD
- Regional/county/city
- Unknown

Nearest Surface Water

Name (if any) Middle Branch of Patapsco

Saltwater

Ocean

Estuary/tidal river

Tidewater/marsh

Freshwater

Stream/river

Swamp

Lake or pond

Spring

Minimum distance to water is 305 m

Temporal & Ethnic Contextual Data:

Paleoindian site

Woodland site

Contact period site ca. 1820 - 1860

ca. 1630 - 1675 ca. 1860 - 1900

Archaic site

MD Adena

ca. 1675 - 1720 ca. 1900 - 1930

Early archaic

Early woodland

ca. 1720 - 1780 Post 1930

Middle archaic

Mid. woodland

ca. 1780 - 1820

Late archaic

Late woodland

Unknown historic context

Unknown prehistoric context

Unknown context

Ethnic Associations (historic only)

Native American

Asian American

African American

Unknown

Anglo-American

Other

Hispanic

Y=Confirmed, P=Possible

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
- Unknown
- Other context

Historic

Urban/Rural? Urban

Domestic

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

Industrial

- Mining-related
- Quarry-related
- Mill
- Black/metalsmith

Furnace/forge

Other pottery kiln,

Transportation

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

Educational

Commercial

- Trading post
- Store
- Tavern/inn

Military

- Battlefield
- Fortification
- Encampment

Townsite

- Church/mtg house
- Ch support bldg

Burial area

- Cemetery
- Sepulchre
- Isolated burial

Bldg or foundation

Possible Structure

Post-in-ground

Frame-built

Masonry

Other structure

Slave related

Non-domestic agri

Recreational

Midden/dump

Artifact scatter

Spring or well

Unknown

Other context

commercial building

Interpretive Sampling Data:

Prehistoric context samples

Soil samples taken

Flotation samples taken

Other samples taken

Historic context samples

Soil samples taken

Flotation samples taken

Other samples taken



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Diagnostic Artifact Data:

Projectile Point Types		Koens-Crispin	
Clovis	<input type="checkbox"/>	Perkiomen	<input type="checkbox"/>
Hardaway-Dalton	<input type="checkbox"/>	Susquehana	<input type="checkbox"/>
Palmer	<input type="checkbox"/>	Vernon	<input type="checkbox"/>
Kirk (notch)	<input type="checkbox"/>	Piscataway	<input type="checkbox"/>
Kirk (stem)	<input type="checkbox"/>	Calvert	<input type="checkbox"/>
Le Croy	<input type="checkbox"/>	Selby Bay	<input type="checkbox"/>
Morrow Mtn	<input type="checkbox"/>	Jacks Rf (notch)	<input type="checkbox"/>
Guilford	<input type="checkbox"/>	Jacks Rf (pent)	<input type="checkbox"/>
Brewerton	<input type="checkbox"/>	Madison/Potomac	<input type="checkbox"/>
Otter Creek	<input type="checkbox"/>	Levanna	<input type="checkbox"/>

Prehistoric Sherd Types

Marcey Creek	<input type="checkbox"/>	Popes Creek	<input type="checkbox"/>	Shepard	<input type="checkbox"/>	Keyser	<input type="checkbox"/>
Dames Qtr	<input type="checkbox"/>	Coulbourn	<input type="checkbox"/>	Townsend	<input type="checkbox"/>	Yeocomico	<input type="checkbox"/>
Selden Island	<input type="checkbox"/>	Watson	<input type="checkbox"/>	Minguannan	<input type="checkbox"/>	Monongahela	<input type="checkbox"/>
Accokeek	<input type="checkbox"/>	Mockley	<input type="checkbox"/>	Sullivan Cove	<input type="checkbox"/>	Susquehannock	<input type="checkbox"/>
Wolfe Neck	<input type="checkbox"/>	Clemson Island	<input type="checkbox"/>	Shenks Ferry	<input type="checkbox"/>		
Vinette	<input type="checkbox"/>	Page	<input type="checkbox"/>	Moyaone	<input type="checkbox"/>		
				Potomac Cr	<input type="checkbox"/>		

Historic Sherd Types

Earthenware		Ironstone		Staffordshire		Stoneware	
Astbury	<input type="checkbox"/>	Jackfield	<input type="checkbox"/>	Tin Glazed	1	English Brown	<input type="checkbox"/>
Borderware	<input type="checkbox"/>	Mn Mottled	<input type="checkbox"/>	Whiteware	80	Eng Dry-bodie	<input type="checkbox"/>
Buckley	<input type="checkbox"/>	North Devon	<input type="checkbox"/>	Porcelain	4	Nottingham	<input type="checkbox"/>
Creamware	1	Pearlware	30			Rhenish	<input type="checkbox"/>
						Wt Salt-glazed	<input type="checkbox"/>

All quantities exact or estimated minimal counts

Other Artifact & Feature Types:

Prehistoric Artifacts		Other fired clay	
Flaked stone	<input type="checkbox"/>	Human remain(s)	<input type="checkbox"/>
Ground stone	<input type="checkbox"/>	Modified faunal	<input type="checkbox"/>
Stone bowls	<input type="checkbox"/>	Unmod faunal	<input type="checkbox"/>
Fire-cracked rock	<input type="checkbox"/>	Oyster shell	<input type="checkbox"/>
Other lithics (all)	<input type="checkbox"/>	Floral material	<input type="checkbox"/>
Ceramics (all)	<input type="checkbox"/>	Uncommon Obj.	<input type="checkbox"/>
Rimsherds	<input type="checkbox"/>	Other	<input type="checkbox"/>

Prehistoric Features

Mound(s)	<input type="checkbox"/>	Storage/trash pit	<input type="checkbox"/>
Midden	<input type="checkbox"/>	Burial(s)	<input type="checkbox"/>
Shell midden	<input type="checkbox"/>	Ossuary	<input type="checkbox"/>
Postholes/molds	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
House pattern(s)	<input type="checkbox"/>	Other	<input type="checkbox"/>
Palisade(s)	<input type="checkbox"/>		
Hearth(s)	<input type="checkbox"/>		
Lithic reduc area	<input type="checkbox"/>		

Lithic Material

Fer quartzite	<input type="checkbox"/>	Sil sandstone	<input type="checkbox"/>
Jasper	<input type="checkbox"/>	Chalcedony	<input type="checkbox"/>
Chert	<input type="checkbox"/>	Ironstone	<input type="checkbox"/>
Rhyolite	<input type="checkbox"/>	Argilite	<input type="checkbox"/>
Quartz	<input type="checkbox"/>	Steatite	<input type="checkbox"/>
Quartzite	<input type="checkbox"/>	Sandstone	<input type="checkbox"/>
		European flint	<input type="checkbox"/>
		Basalt	<input type="checkbox"/>
		Unknown	<input type="checkbox"/>
		Other	<input type="checkbox"/>

Dated features present at site

Historic Artifacts		Tobacco related	
Pottery (all)	269	Activity item(s)	14170
Glass (all)	477	Human remain(s)	<input type="checkbox"/>
Architectural	433	Faunal material	<input checked="" type="checkbox"/>
Furniture	<input type="checkbox"/>	Misc. kitchen	649
Arms	<input type="checkbox"/>	Floral material	<input type="checkbox"/>
Clothing	7	Misc.	43
Personal items	2	Other	<input checked="" type="checkbox"/> kiln furn.

Historic Features

Const feature	<input checked="" type="checkbox"/>	Privy/outhouse	<input type="checkbox"/>	Depression/mound	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
Foundation	<input checked="" type="checkbox"/>	Well/cistern	<input type="checkbox"/>	Burial(s)	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>
Cellar hole/cellar	<input type="checkbox"/>	Trash pit/dump	<input type="checkbox"/>	Railroad bed	<input type="checkbox"/>	kiln base, kiln furn.	
Hearth/chimney	<input type="checkbox"/>	Sheet midden	<input type="checkbox"/>	Earthworks	<input type="checkbox"/>		
Postholes/molds	<input checked="" type="checkbox"/>	Planting feature	<input type="checkbox"/>	Mill raceway	<input type="checkbox"/>		
Paling ditch/fence	<input type="checkbox"/>	Road/walkway	<input type="checkbox"/>	Wheel pit	<input type="checkbox"/>		

All quantities exact or estimated minimal counts

Radiocarbon Data:

Sample 1: +/- years BP Reliability Sample 2: +/- years BP Reliability Sample 3: +/- years BP Reliability

Sample 4: +/- years BP Reliability Sample 5: +/- years BP Reliability Sample 6: +/- years BP Reliability

Sample 7: +/- years BP Reliability Sample 8: +/- years BP Reliability Sample 9: +/- years BP Reliability

Additional radiocarbon results available



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External Samples/Data:

Collection curated at MAC

Additional raw data may be available online

Summary Description:

The Pawley Stoneware Kiln (18BC88) is a mid-19th century stoneware kiln and industrial structure in the Camden Yards area of downtown Baltimore. The site was situated in Block #925 at what was formerly the intersection of Russell and Cross Streets, but today is the site of the Baltimore Ravens' football stadium (also known as M&T Bank Stadium). Most of the area surrounding the site is heavily developed today. Soils mapped for the area are classified as "Urban Land" meaning that 80% of the surface is covered either by buildings or by impervious surfaces such as asphalt or concrete.

Baltimore Block #925, in which the site is located, was annexed to the city in 1783. By the end of the 18th century, property lines and streets had been established in this area. A 1792 survey of the area reveals that at least two dwellings occupied lots in the eastern and western halves of Block 925.

During the early 19th century, five individuals owned portions of this block including several brick potters. An 1838 Tax Assessment lists James W. Pawley as the owner of a "brick pottery" on a 66 X 155 ft lot at Russell and Cross Streets. Pawley's operation produced primarily stoneware. Archival records suggest that it was typical of the small, individually owned, single kiln operations of the time. Though, it was one of only two kilns producing stoneware.

The kiln at 18BC88 was a round structure of the "updraft" type. In updraft kilns, heat rose through pottery stacked in the firing chamber, and exited through one or more openings in the kiln roof. Mr. Pawley was a business man involved in import and retail sales of English ceramic and pottery wares. In an arrangement typical of the early stoneware industry, he owned but did not actually operate the kiln. He employed one or more unknown potters, craftsmen, and apprentices, who produced the stoneware for his retail operations. These potters generally were itinerant, moving periodically from one kiln to the next. The potters in Baltimore were well known for their migratory tendencies.

By 1858, John and George Berry had acquired all of Block 925 except for Pawley's lot and by the 1870s, the Berry's enterprise dominated the entire block. The Pawley property was subdivided and developed during the middle and late 19th century. By 1845, the still intact lot contained a three storey brick dwelling, but the stoneware and brick kiln was gone. By 1858, Herman Thaye had purchased the 25 X 66 ft lot at the corner of Cross and Russell Streets, and Ruth Ann Pawley owned the three storey brick dwelling and the remaining 66 X 130 ft lot where the 1838 stoneware pottery kiln probably had been located. During the next decade, the Pawley lot was subdivided further into six single residential lots, and a single larger commercial lot at 536 West Cross Street. The commercial lot first was used as a wood yard and later was converted to an automobile service facility. The remainder of Block 925 was developed as a residential neighborhood after the Berry Brick Company vacated the block between 1890 and 1901.

The site was first examined archeologically in 1989 during a Phase I study at Baltimore's Camden Yards. The 85 acre project area incorporated a 71-block portion of the former Camden Yards Industrial Park, the site of the (then) planned Oriole's Park at Camden Yards, and of a second stadium: a planned professional football stadium for the Baltimore Ravens. At that time the Ravens were a newly formed NFL team created by relocating the former Cleveland Brown's franchise to the city of Baltimore. The project was conducted in compliance with Maryland Historic Preservation Legislation, Article 83B, Sections 617-618.

The survey covered a large swath of the Camden Yards area. It was examined through a combination of pedestrian survey, the mechanical excavation of 88 test trenches, and the hand excavation of 5 formal test units (Apparently 1 X 1 m in size). The excavation of "Trench 81" led to the discovery and excavation of a stoneware kiln at 18BC88. Formal test units were laid out over the exposed kiln feature and hand excavation was undertaken to determine its extent and integrity. These test units were excavated in 10 cm levels, or in stratigraphic layers where possible. All hand-excavated soils were screened through hardware mesh. Forms maintained on each excavation level contained information on the depth and thickness of the level, and on the color and texture of the soils. The presence or absence of additional features was indicated, along with the type and density of artifacts recovered. Notations concerning the matrix in which the feature was located included the presence and content of fill, or the nature of any undisturbed soils. Recordation also included 35 mm black and white prints and color slides, along with plan and profile drawings of features and stratigraphy.

Where appropriate, soil samples were taken from each excavation level. These samples were retained for additional analysis of features or their contents. These samples, a minimum of 1 liter for each ten centimeter level, were retained in clean plastic bags labeled with pertinent provenience data.

The excavations revealed a circular stoneware kiln foundation, 3 m in diameter. Archeological deposits in the kiln mouth, firebox, and within the interior of the kiln included large quantities of kiln furniture, wasters (primarily stoneware), brick, and charcoal that overlay the brick floor of the kiln. On each side of the kiln mouth was a square post hole and mold. The post holes contained brick fragments. The post mold, which represented the position of the decayed or extracted post, was filled with kiln furniture. These posts may have supported a roof, to provide shelter near the mouth for loading, unloading, and cooling vessels.

The kiln contained such vast quantities of debris that only a sample of kiln furniture was retained. Kiln furniture (considered in the table above to be "activity items") refers to the containers, separators, and other objects used by the potter to support, separate, and protect the vessels while they are being fired in the kiln. Many of these items, such as saggars, rings, and discs were premade and reused, while others, such as props and separators, were made from available materials as necessary, usually as the kiln was being loaded. The sample contained 8,664 pieces of kiln furniture, including saggars, rings, discs, props, and other types of separators. Fifteen pieces of slag (here counted as an activity item), 12 fragments of kiln brick (counted as architectural), 103 bisque fired sherds, and 588 fragments of wasters (or misfired/broken vessels) were also collected.

No archeological evidence of any additional, related structures or features was encountered. However, small portions of the lot, north and south of the kiln were not examined due to the presence of landscape features present at the time, such as fences, sidewalks, and a concrete access road. Based on the findings from the kiln foundation and the possibility of additional intact features in these unexplored areas, Phase III data recovery was recommended.

Researchers returned to the site in 1996 to conduct Phase III data recovery prior to the construction of the new Baltimore Ravens' Stadium. Field investigations consisted of completing the excavation of the kiln base, and examination of adjacent areas for evidence of related structures and features. The clean fill above the feature was removed through hand excavation to expose the entire kiln. Materials in the overlying historic fill were sampled. Once exposed and cleaned, the feature was photographed and mapped, and feature plan views and cross-sections were drawn.



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Unknown

The remaining half of the ca. 3 m diameter kiln was hand excavated using a series of three 2 X 2 m blocks. The interior of the kiln contained little soil. The fill was instead composed primarily of broken stoneware kiln furniture and vessel wasters. Feature fill was removed in two levels, and screened separately through hardware cloth. Artifacts collected from each level were bagged separately and the pedological attributes of the soils (color and texture) were recorded on standardized forms.

A typology of kiln furniture was developed based on earlier investigations. Kiln furniture was sorted according to the typology and counted in the field. Only a 0.5% sample of previously documented types was retained. A 10% sample of new forms was retained for analysis and addition to the typology. All vessel fragments or wasters were retained for analysis.

In addition, 10 X 20 m areas immediately north and south of the kiln, between Russell Street and a parking lot, were examined for features or deposits related to the kiln. The 1823 Sanborn Fire Insurance maps indicated the presence of two small buildings within this portion of the block. These were the only structures shown in the vicinity of the kiln, and were potentially related to its operation. These portions of the site area were not subjected to testing during initial investigations due to the presence of paved lots and fences, and other landscape features, as well as some evidence of prior disturbance. To test these areas, a series of 3 X 3 m areas were mechanically cleared of fill materials to expose the original ground surface at the level of the kiln. This surface was then cleaned and examined for evidence of features or deposits related to the kiln operations. A 0.5% sample of materials from the overlying fill episodes was retained for laboratory analysis. No soil samples were retained from the fill.

Additional potentially intact or significant features were present, and a strategy for testing and sampling those resources was developed in consultation with MHT and the Maryland Stadium Authority. This strategy consisted of recordation and hand excavation of a portion of each feature in six 1 X 1 m test units following standard excavation procedures.

The removal of overlying fill materials exposed a series of historic architectural and landscape features that included foundation walls, soil stains, post holes, and historic utility trenches. The investigation of these features revealed that the brick foundation walls were related to rowhouse construction along West Cross Street, after the operation of the kiln was discontinued. In addition, the related features were remnants of soil features and yard patterns related to the occupation and subsequent destruction of the rowhouses. These features contained a variety of materials related to kitchen activities, especially food preparation. Animal bone and 19th century ceramics composed the majority of artifacts collected from these features.

A total of 1,009 artifacts were recovered from these non-kiln related contexts. The assemblage consisted of 44 activity items, 186 architectural artifacts (including 102 window glass fragments), 5 clothing items (3 buttons and 2 straight pins), 2 personal items (mirror glass and a tortoise shell comb), 733 kitchen related objects (1 creamware sherd, 6 pearlware sherds, 1 ironstone sherd, 1 slipware sherd, 2 porcelain sherds, 31 whiteware sherds, 5 yellowware sherds, 2 redware sherds, 27 stoneware sherds, 36 container glass fragments, 619 faunal objects, and 2 nut/seed/pits), 2 ball clay tobacco pipe fragments, and 37 miscellaneous objects.

Further research reveals that after 1850, most of the residents of the immediate area of the Pawley property worked in a variety of industrial occupations, and rented their homes. Residents included both African-American and white residents. Whites primarily were first or second generation immigrants from Northern and Western Europe. The materials from the features and excavation units also reflected the economic nature of the neighborhood. These included a variety of glasswares and ceramic types typical for urban contexts in the late 19th and early 20th centuries.

The additional work within the kiln base and in areas immediately surrounding it revealed an extensive deposit of brick fragments adjacent to the west side of the kiln, and a series of post holes approximately 1 m west of the kiln base. Although interrupted by a later utility trench, the remnants of an additional fire box were found on the southwest side of the kiln base, within the rubble deposit. The materials and configuration of this opening were similar to the configuration of the firebox on the opposite side, and composed a small brick-lined opening in the kiln accessed by a basin-shaped pit dug into subsoil. Like the opposite opening, this pit had been filled with broken kiln furniture and brick rubble. Testing in the rubble feature confirmed its origin with the destruction of the kiln. Discarded brick fragments and kiln furniture filled the excavated pit and fire box. The series of three overlapping postholes immediately west of the kiln had been impacted by later disturbance, and their relationship to the kiln was unclear. Only the base of the postholes remained and these were filled with destruction debris from the kiln. These may represent posts which supported a roof or shed that also were removed when the kiln was demolished.

A total of 2,494 artifacts were recovered from the kiln base feature itself during the 1996 study. The assemblage included 2,080 objects related to the operation of the kiln (1,309 wasters and 771 pieces of kiln furniture). In addition, some 414 non-kiln related materials were encountered. The non-kiln related objects were 13 activity items, 235 architectural objects (including 160 pieces of window glass), 2 clothing items (buttons), 149 kitchen related objects (including 1 tin-enamelled earthenware sherd, 24 pearlware sherds, 2 porcelain sherds, 5 ironstone sherds, 49 whiteware sherds, 4 yellowware sherds, 4 redware sherds, 1 unidentified ceramic sherd, 179 pieces of container glass, 8 animal bones, 2 clam shells, and 19 oyster shells), 9 tobacco pipe fragments, and 6 miscellaneous objects.

The kiln structure was identified as a brick bottle or updraft kiln, common to early urban potteries. The kiln was constructed with approximately the bottom two feet of the structure below ground, and two fire boxes on opposite sides. These apparently were closed with cast iron doors, and may have had some type of protective roof or covering supported by wooden posts. Access to the kiln for filling and firing was through these fire boxes. Some kilns were constructed with interior dividers or retaining walls to better direct the flow of heat in the kiln. Mr. Pawley's kiln included a channel that circled the interior perimeter, as well as a central channel that crossed the center of the structure, from one opening to the other. There is no evidence that fuel or fire was placed directly in this area. This interior flue system may have aided in controlling and directing the flow of heat from the exterior fire boxes. The interior channels of the base of the kiln were filled with vessel wasters and kiln furniture. This deposit was partially primary (originating during operation of the kiln), and partially secondary (re-deposited after the kiln was dismantled and filled).

A total of 876 objects were retained from the kiln-related features outside of the kiln base. These included 713 vessel wasters and 163 fragments of kiln furniture. Kiln furniture included saggars and rings in a variety of sizes, as well as spools, coils, pattys, and props used for separation of vessels. An additional 1,890 fragments of kiln furniture were cataloged in the field, but not retained.

Site 18BC88 was clearly a significant archeological resource. The data recovery in 1996 and the preceding work adequately documented the site and resulted in the collection of a representative sample of material culture from the site. The construction of the Baltimore Ravens stadium resulted in the destruction of any remaining components of the site. Thus, the only avenue for additional research on the site will be re-examination of the existing collection.

MARYLAND
HISTORICAL



TRUST

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00005647, 00005693