



# Phase II and Phase III Archaeological Database and Inventory

Site Number: 18MO475

Site Name: Lock 24, C&O Canal

Prehistoric

Other name(s) Rileys Lock, 5180-06

Historic

Unknown

Brief Description:

19th century C & O Canal lock, lockhouse, aqueduct, & turning basins

## Site Location and Environmental Data:

Maryland Archaeological Research Unit No. 12

SCS soil & sediment code

Latitude 39.0695

Longitude -77.3366

Physiographic province Eastern Piedmont

Terrestrial site

Underwater site

Elevation 55 m

Site slope

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

### Ownership

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

### Nearest Surface Water

Name (if any) Seneca Creek

#### Saltwater

Ocean

Estuary/tidal river

Tidewater/marsh

Minimum distance to water is 0 m

#### Freshwater

Stream/river

Swamp

Lake or pond

Spring

## 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

Contact period site

ca. 1820 - 1860

Y

ca. 1630 - 1675

ca. 1860 - 1900

Y

ca. 1675 - 1720

ca. 1900 - 1930

Y

ca. 1720 - 1780

Post 1930

ca. 1780 - 1820

Unknown historic 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
- Village
- Hamlet
- Base camp
- Rockshelter/cave
- Earthen mound
- Cairn
- Burial area
- Misc. ceremonial
- Rock art
- Shell midden
- STU/lithic scatter
- Quarry/extraction
- Fish weir
- Production area
- Unknown
- Other context

### Historic

Urban/Rural? Rural

#### Domestic

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

#### Industrial

- Mining-related
- Quarry-related
- Mill
- Black/metalsmith
- Furnace/forge
- Other  canal lock
- Transportation
- Canal-related
- Road/railroad
- Wharf/landing
- Maritime-related
- Bridge
- Ford
- Educational
- Commercial
- Trading post
- Store
- Tavern/inn

#### Military

Battlefield

Fortification

Encampment

#### Townsite

#### Religious

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

canal lock, aqueduct

## 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  faunal analysis, M. Berber



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

Historic Sherd Types		Ironstone		Staffordshire		Stoneware	
<b>Earthenware</b>		Jackfield	<input type="checkbox"/>	Tin Glazed	<input type="checkbox"/>	English Brown	<input type="checkbox"/>
Astbury	<input type="checkbox"/>	Mn Mottled	<input type="checkbox"/>	Whiteware	10	Eng Dry-bodied	<input type="checkbox"/>
Borderware	<input type="checkbox"/>	North Devon	<input type="checkbox"/>	<b>Porcelain</b>	<input type="checkbox"/>	Nottingham	<input type="checkbox"/>
Buckley	<input type="checkbox"/>	Pearlware	<input type="checkbox"/>			Rhenish	<input type="checkbox"/>
Creamware	<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"/>
Midden	<input type="checkbox"/>
Shell midden	<input type="checkbox"/>
Postholes/molds	<input type="checkbox"/>
House pattern(s)	<input type="checkbox"/>
Palisade(s)	<input type="checkbox"/>
Hearth(s)	<input type="checkbox"/>
Lithic reduc area	<input type="checkbox"/>
Storage/trash pit	<input type="checkbox"/>
Burial(s)	<input type="checkbox"/>
Ossuary	<input type="checkbox"/>
Unknown	<input type="checkbox"/>
Other	<input type="checkbox"/>

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

Dated features present at site

mid-19th Century Canal lock/aqueduct and associated infrastructure

Historic Artifacts		Tobacco related	
Pottery (all)	23	Activity item(s)	<input type="checkbox"/>
Glass (all)	<input type="checkbox"/>	Human remain(s)	<input type="checkbox"/>
Architectural	<input type="checkbox"/>	Faunal material	<input type="checkbox"/>
Furniture	<input type="checkbox"/>	Misc. kitchen	<input type="checkbox"/>
Arms	<input type="checkbox"/>	Floral material	<input type="checkbox"/>
Clothing	<input type="checkbox"/>	Misc.	4955
Personal items	<input type="checkbox"/>	Other	<input type="checkbox"/>

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

Additional raw data may be available online

## Summary Description:

Site 18MO475 is the archeological remains of Lock #24 (or Riley's Lock) of the Chesapeake and Ohio (C&O) Canal near Darnestown in rural Montgomery County. The site is situated within the C&O Canal National Historical Park on a low floodplain terrace at the confluence of Seneca Creek and the Potomac River. This site consists of the structures and ruins of the C&O Canal lock, aqueduct, lockhouse, and turning basins. Most of the surrounding area is maintained in manicured lawn and landscape for park interpretive purposes. Soils at the site are Lindside silt loams.

The 185 mile C&O Canal was constructed between 1828 and 1850 to carry goods (primarily Allegheny mountain coal) between Cumberland, Maryland and Georgetown in Washington, DC. It was in operation for nearly 100 years from 1831 until 1924, providing more reliable and safer navigation than the adjacent Potomac River as well as improved ability to travel upstream. In order to negotiate the over 600 foot change in elevation over the course of the canal as well as other major landscape challenges, engineers had to design an elaborate system of 11 aqueducts, 74 canal locks, and 1 tunnel. In addition, significant infrastructure (lock houses, roads, towpaths, culverts, ect.) had to be installed to support the canal.

Lock #24, also known as Riley's Lock for the family that kept the Lock, was unique in its construction as it is both an aqueduct and a canal lock. Canal locks were installed in areas where major changes in elevation needed to be overcome. The lock is essentially an enclosable portion of the canal within which the water level can be raised and lowered by a system of lock gates. Aqueducts can be thought of as "flooded bridges" which are able to carry the water in the canal (and any boats in it) over larger rivers and streams. Engineers working on the C&O Canal were met with both a major change in elevation and the need to carry the canal over Seneca Creek.

One structure was built at 18MO475 which encompassed both a red sandstone aqueduct as well as lock gates to raise and lower the water level in the aqueduct. It was constructed between 1829 and 1832, along with a new lock keepers house and a large turning basin. The entire project cost approximately \$32,000. A massive flood in September of 1971 demolished the westernmost arch of the aqueduct, but much of the remaining infrastructure remained in place (albeit in a state of severe disrepair) by the time of the first archeological investigations in 1979.

In July and August of 1979 a Phase II testing program was carried out at Lock #24 in advance of (then) proposed plans to stabilize the structure and in compliance with Section 106 of the National Historic Preservation Act of 1966. The lock area has been subjected to recurrent flooding episodes and a significant quantity of flood-deposited silt had built up following the cessation of canal operations. The flood-deposited silt provided good soil for vegetation which was growing profusely throughout Lock #24 by 1979. Plans called for the de-silting of the lock and stabilization of the remaining structure.

The goals of the Phase II project were to 1) ascertain the material condition of the canal lock floor, 2) determine the amount of fill within the lock, and 3) assess the artefactual content of the fill.

Archeological work in 1979 entailed the excavation of two 1.524 X 1.524 m (5 X 5 ft) test units at the site. The excavation began after a pathway through the vegetation had been cut along the north wall of the structure. In the process, several lateral culvert, which had been filled-in with stone, were exposed. The first excavation unit was placed on the northwest corner of Lock #24, at the junction of the north wall with the breast wall. A concrete "floor", was uncovered after removing approximately 27.4 cm (10.8 in) of fill. A second excavation unit was placed ca. 11.4 m (37.5 ft) west of the downriver gate pocket and, upon removal of ca. 24.4 cm (9.6 in) of fill, a wooden floor was exposed. Evidence of repair attempts using asphalt and other materials was obvious when the lock floors were fully exposed. The fill above the floor was composed of one stratum of silt loam and the water table at the time was directly under the level of the floor. Water was apparent along the lock wall in the downriver test unit.

A total of 5,634 whole and fragmentary objects in varying states of disintegration were recovered during the 1979 Phase II investigation. The greatest proportion of objects were non-historic and related to recent park use rather than to past canal operation. Seneca Creek is a popular recreational area with a boat ramp and convenient public parking. Furthermore, access to the C&O Canal towpath is provided by the footbridge over Lock #24. It appears that visitors to the park were dropping their rubbish in the lock rather than in park garbage cans. Modern objects recovered during the excavation included many pieces of plastic wrappers from snack foods, bottle caps, soda bottles, and tin can fragments. The full assemblage consisted of 830 pieces of metal, 23 ceramic sherds (several whiteware), and 4,125 pieces of glass. All of the materials, with the exception of the ceramics, are cataloged in the table above as "miscellaneous" finds.

Archeological testing of Lock #24 met the major goals of the project. The floor of the lock was originally made of wood, portions of which were found to be present in a fair state of preservation. Repairs appear to have been made over time using asphalt, cement, concrete and other materials. The amount of fill above the floor is minimal, being less than 30.5 cm (1 ft). The artefactual content of the fill related more to 20th century discard practices by visitors to the canal than by people at the lock during the historic period. All features which were uncovered during the excavation relate to the construction of the lock, and are protected by the National Historic Preservation Act of 1966. Archeological monitoring of the desilting and stabilization of Lock #24 was recommended, but no report is available in the MHT library of such work.

Based on the Phase II work conducted at 18MO475, the canal lock would appear to be relatively intact and capable of answering research questions related to the construction of the lock, as well as how canal maintenance crews carried out periodic repairs to the infrastructure. The site should be considered a significant archeological resource.

## External Reference Codes (Library ID Numbers):

00006155