



Phase II and Phase III Archaeological Database and Inventory

Site Number: 18WA486

Site Name: Lock 38

Prehistoric

Other name(s)

Historic

Brief Description:

Early 19th-early 20th century C & O Canal lock & ruins, prehistoric lithic scatter

Unknown

Site Location and Environmental Data:

Maryland Archaeological Research Unit No. 19

SCS soil & sediment code

Latitude 39.4419

Longitude -77.7947

Physiographic province Great Valley

Terrestrial site

Underwater site

Elevation 90 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) Potomac River

Saltwater

Ocean

Estuary/tidal river

Tidewater/marsh

Spring

Freshwater

Stream/river

Swamp

Lake or pond

Spring

Minimum distance to water is 5 m

Temporal & Ethnic Contextual Data:

Paleoindian site

Woodland site

Contact period site

ca. 1820 - 1860

Y

Archaic site

MD Adena

ca. 1630 - 1675

ca. 1860 - 1900

Y

Early archaic

Early woodland

ca. 1675 - 1720

ca. 1900 - 1930

Y

Middle archaic

Mid. woodland

ca. 1720 - 1780

Post 1930

Late archaic

Late woodland

ca. 1780 - 1820

Unknown historic context

Unknown prehistoric context Y

Unknown context

Ethnic Associations (historic only)

Native American

Asian American

African American

Unknown

Anglo-American Y

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

Furnace/forge

Other

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

canal lock

Interpretive Sampling Data:

Prehistoric context samples

Soil samples taken N

N

Flotation samples taken N

Other samples taken

Historic context samples

Soil samples taken N

N

Flotation samples taken N

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 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"/>	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 Crk	<input type="checkbox"/>		

Historic Sherd Types

Earthenware		Ironstone		Staffordshire		Stoneware	
Astbury	<input type="checkbox"/>	Jackfield	<input type="checkbox"/>	Tin Glazed	<input type="checkbox"/>	English Brown	<input type="checkbox"/>
Borderware	<input type="checkbox"/>	Mn Mottled	<input type="checkbox"/>	Whiteware	92	Eng Dry-bodied	<input type="checkbox"/>
Buckley	<input type="checkbox"/>	North Devon	<input type="checkbox"/>	Porcelain	7	Nottingham	<input type="checkbox"/>
Creamware	4	Pearlware	50			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	3	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 checked="" type="checkbox"/>	European flint	<input type="checkbox"/>
Rhyolite	<input type="checkbox"/>	Ironstone	<input type="checkbox"/>
Quartz	<input checked="" type="checkbox"/>	Basalt	<input type="checkbox"/>
Quartzite	<input type="checkbox"/>	Argilite	<input type="checkbox"/>
		Unknown	<input type="checkbox"/>
		Steatite	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		Sandstone	<input type="checkbox"/>

Dated features present at site

Historic Artifacts		Tobacco related	
Pottery (all)	249	Activity item(s)	22
Glass (all)	1402	Human remain(s)	<input type="checkbox"/>
Architectural	1156	Faunal material	<input checked="" type="checkbox"/>
Furniture	<input type="checkbox"/>	Misc. kitchen	347
Arms	<input type="checkbox"/>	Floral material	<input type="checkbox"/>
Clothing	<input type="checkbox"/>	Misc.	248
Personal items	1	Other	<input type="checkbox"/>

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 checked="" 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"/>	C&O Canal Prism Lock 38	
Hearth/chimney	<input type="checkbox"/>	Sheet midden	<input type="checkbox"/>	Earthworks	<input type="checkbox"/>		
Postholes/molds	<input 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 NPS

Additional raw data may be available online

Summary Description:

Site 18WA486 is a cluster of archeological remains associated with Lock 38 of the Chesapeake & Ohio (C&O) Canal across the Potomac River from Shepherdstown, WV, in Washington County, Maryland. The site is situated within the C&O Canal National Historic Park, on the outer floodplain of the eastern bank of the Potomac River. The landscape is largely wooded with sycamore, maple, box elder, green ash, and slippery elm with cattails and various willow species common in depressions and along wetland edges. Soils at the site are primarily Combs fine sandy loam and Downsville gravelly loam.

The tiny, historic community of Bridgeport, MD was once situated in the general location of the site. These lands were originally part of the Ferry Hill Plantation. The community sprung up around the eastern side of the ferry crossing from Shepherdstown established during the late 1760s. A ferry house, or tavern, was reportedly constructed on the eastern terminus of the ferry by the 1770s. The structure was a timber-framed structure with brick end chimneys. The ferry house was later used as a residence by the W.H. Knode family and its descendants until 1938, when it was purchased by the Maryland State Road Commission. Left vacant for a little more than 3 decades, the ferry house was finally destroyed by fire in 1973.

In addition to the ferry house, two extant dwellings on the north side of Canal Road, the Stone Cabin (MIHP# WA-II-0383) and an adjacent Stone House (MIHP# WA-II-0384), are believed to have been the only buildings in Bridgeport that may have predated the construction of the C&O Canal there in the 1830s. It is surmised that the Stone Cabin was used for commercial purposes associated with the ferry and canal until the late 19th century, when it was converted to a dwelling.

With the construction of the Chesapeake and Ohio Canal in the 1830s and a toll bridge by 1850, additional buildings and structures were constructed in the small community. A ca. 1867 map depicts several buildings in Bridgeport, including a canal lockhouse, two outbuildings a short distance from the lockhouse, a feed store (at least one member of the Knode family ran a feed store at Lock 38 in the 1870s, when the C&O was at its busiest), the earlier ferry house, and possibly the Stone Cabin mentioned above. After the Civil War, Bridgeport remained a tiny town clustered around the toll bridge and canal lock. An 1877 map depicts 9 buildings, presumably excluding smaller outbuildings. By 1877, the two storey brick Knode House (MIHP# WA-II382) had been constructed on the south side of Canal Road.

Interest in canals as a means for transporting goods between inland areas and ports began toward the end of the Colonial period. The possibility of competition from the business interests of Baltimore spurred Benjamin Franklin to call for canal construction in Philadelphia in 1772. George Washington similarly proposed improvements to the Potomac and James Rivers (including canal development) two years later. Although the events that led to the Revolutionary War prevented an immediate response to Washington's proposal, his renewed efforts after the war led to the founding of the Potomac Company and the James River Company in the 1780s. The former, the predecessor of the Chesapeake and Ohio Canal Company, improved navigation on the Potomac by means of short canals to bypass falls and rapids on the river.

Dozens of other canal companies were formed in the United States between the end of the Revolutionary War and the beginning of the 19th century. The success of the Erie Canal (constructed between 1817 and 1825) spurred residents of the region around the District of Columbia and the Upper Potomac River Valley to press for canals that would benefit that area.

The C&O Canal Company was chartered by the State of Virginia in 1824. Originally, the canal was intended to connect DC with the Ohio River at Pittsburgh some 342 miles away. Within two years, however, Maryland's support for the project diminished because of the perception that it would not benefit a large section of the state, including Baltimore. The result was the founding of the Baltimore and Ohio (B&O) Railroad in 1827. The C&O Canal Company and the B&O Railroad both broke ground on July 4, 1828.

In its totality, the C&O Canal extended 297 km from Georgetown in DC to Cumberland, MD. Construction began in 1828 and was put in service in four sections. It reached Seneca Rocks in 1831, Harpers Ferry in 1833, Hancock in 1839, and Cumberland in 1850. The canal company abandoned its original plan to continue past Cumberland to the Ohio River. The B&O Railroad had already reached Cumberland by 1842.

The C&O Canal required the construction of locks, dams, aqueducts, culverts, and other structures. Construction of Lock 38 in the vicinity of the ferry crossing from Shepherdstown, WV to Bridgeport, MD began in mid-1832. The canal company hired the firm of Gibson & Company, which had also built Lock 37. Lock 38 was completed in late 1833. It was later extended at its lower end. The canal company also built lockhouses for occupancy by its keepers and their families. The first lockhouses that were commissioned in 1828 were built of stone. The canal company built later houses of brick, wood frame, and logs. The standard size was 9.1 m wide by 5.5 m deep. The house at Lock 38, built between November 1837 and October 1838 by James H. Elgin, was a two-storey, side-gabled I-house with interior end chimneys and centered entry. It had a two storey board-and-batten side gabled addition to its right elevation. Known records do not indicate the construction dates of the addition or the attendant outbuildings. The lockhouse was apparently of substantial construction, as the initial attempt to demolish it in 1838, using dynamite, failed.

In addition to the lockhouse, the canal required the construction of small bridges at Lock 38. The canal company built two wood bridges that crossed Lock 38 and the Shepherdstown Outlet Lock in the 1830s. The former was a pivot bridge. Both bridges deteriorated and were rebuilt the following decade. The span over Lock 38 was replaced with a wider, higher structure in 1850, in association with the construction of the first bridge crossing the Potomac River at Shepherdstown. The wood bridge that had spanned Lock 38 was burned by Federal troops during the Civil War (July 1864). It was rebuilt, raised in 1866, and rebuilt again in 1884. That span, or a later wood bridge on its site, remained until 1936, when it was destroyed in the same flood that carried away the last toll bridge that crossed the Potomac at Shepherdstown. Other canal features associated with Lock 38 included a bypass culvert/weir, a wooden crib lock extension, and a work area on the towpath side of the lock. The immediate vicinity of Lock 38 also included the abutment and first pier of the first three bridges that crossed the Potomac River between Bridgeport and Shepherdstown.

The C&O Canal Company encountered various problems as it built and began to operate the canal. These included difficulty in obtaining building materials, raising a skilled work force, competition with the B&O Railroad for right-of-way, conflicts (oftentimes fatal) between gangs of workmen, as well as maintenance expenses and loss of revenue that resulted from repeated flooding. Failing to extend beyond Cumberland and being unable to transport goods as quickly or reliably as the B&O Railroad, by mid-century the canal settled into a role as a regional transporter of non-perishables. It relied heavily on western Maryland coal, and also transported iron, building materials such as stone and cement, and flour.



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In addition to the canal, roads constructed in the area by 1838 gave residents increased access to locally important communities such as Harper's Ferry, Hagerstown, and Frederick, as well as to centers of industry and government such as Baltimore, Harrisburg, Cumberland, and Wheeling. The construction of these roads, the C&O Canal, the B&O Railroad, and the Winchester and Potomac Railroad through the area provided increased opportunities for movement of people and goods and made farming more profitable.

During the post-Civil War period, the C&O Canal continued in its role as a regional carrier of coal and other non-perishables. Immediately after the war, the canal company embarked on a four-year program to repair damage inflicted by both armies. The company also repaired flood damage and attempted to make the canal more resistant to future floods. The canal remained open during that time, and shipping along it increased annually. The canal turned a profit each year between 1870 and 1874. Use of the canal peaked in 1875, when it shipped 973,805 tons of goods, 93% of which was coal.

The canal company's optimism about the canal's economic and physical viability was dashed in 1877, when the Potomac flooded to record levels. A boatman's strike that same year deprived the canal of even more revenue. Similar economic and natural disasters took place over the next several years, and by the mid-1800s, coal tonnage on the canal declined by 2/3 from the level of the mid-1870s. Much of the canal's coal trade was lost to the Baltimore & Ohio Railroad, by then its rival for 6 decades. The canal company entered 1889 staggering under heavy debt incurred by attempts to repair flood damage from the previous few years. In May 1889, the Potomac flooded to even higher levels than it had in 1877. Although the canal company began repairs, it soon depleted all of its funds. The B&O Railroad (the bankrupt canal company's rival and creditor) received title to the canal in court proceedings in 1890.

The B&O repaired the entire C&O Canal, and operated it as a subsidiary, the Canal Towage Company, beginning in 1892. Most of the canal's cargo during that time was coal mined by the Consolidation Coal Company (another B&O subsidiary). The railroad's purchase and operation of the canal was intended to prevent a court-ordered sale of this attractive right-of-way to a competing rail carrier. Although the Baltimore and Ohio enjoyed more operating capital than the canal company ever had, it was reluctant to invest further in the canal after the 1891-92 repairs, and maintenance lagged.

Major floods in March and May 1924 caused substantial damage and ended shipping on the canal. The B&O Railroad continued to own the canal after the floods. It made minor repairs and assured government officials that the canal could be placed in service again if needed. On March 18, 1936, following four days of heavy rain and warm temperatures, the Potomac River rose to historic levels at Shepherdstown and surrounding communities. The flooding resulted in the destruction of the third toll bridge that connected Shepherdstown with Bridgeport. Observers reported that the bridge stood until the waters reached its safety rail, at which point floating debris that had become lodged in the rail dragged the bridge off its piers.

Many structures in and around Bridgeport were either totally destroyed or severely damaged. The lockhouse was flooded with water nearing the top of its second-floor windows and sustained heavy damage. The ferry house and bridge tollhouse on the Shepherdstown side of the Potomac were also damaged, but survived. Other effects of the flood in this vicinity included the destruction of the small wooden bridge that spanned the former C&O Canal, the wood frame feedstore building (which was being utilized by the early 1900s as a bath house), the lockhouse's wood frame kitchen addition, and a detached "garage" also associated with the lockhouse.

During the three years after the 1936, the closest roadway crossing the Potomac for Shepherdstown residents was located at Martinsburg. Temporary cable ferry service between Shepherdstown and Bridgeport was reinstated in 1937, and continued until 1939. The ferry operators constructed approaches on both sides of the river. The approaches included the rebuilding of the old road on the Shepherdstown side, the construction of a new right-of-way that crossed the canal at the lock site on the Bridgeport side, and the construction of ramps on each side.

The State Road Commissions of West Virginia and Maryland began planning to rebuild the bridge at Shepherdstown by the end of April 1936. Construction of the new span began in 1938. Factors contributing to the two-year delay included high construction bids and the refusal of the Virginia and Maryland Bridge Company to relinquish its land or bridge operation center. Bridge construction operations included the demolition of the 100-year-old lockhouse occupying the approximate site of a new pier.

The James Rumsey Bridge, the fourth bridge linking Shepherdstown and Bridgeport, was dedicated July 15, 1939. The new bridge was located 79 m upstream from the site of its first three predecessors. It was also the first bridge in this location that was toll-free.

The federal government purchased the C&O Canal from the B&O Railroad in 1938, with the intent of conveying it to the National Park Service. Authority to purchase the canal came from the National Industrial Recovery Act of 1933, intended to relieve unemployment. The purchase also acknowledged the canal's historic and recreational value. Additional flooding during World War II left the waterway in poor condition again. After the war, the government began to restore the canal, concentrating on its southernmost locks and lock-houses. In the early postwar period, the National Park Service opposed a proposal to dam the Potomac, which would have flooded it between Georgetown and a point several miles upstream of Lock 38. The Park Service, however, supported a proposed parkway that would have run along part of the canal. A citizens group that included Supreme Court Justice William O. Douglas successfully opposed both the dams and the parkway during the 1950s. The entire length of the canal became the Chesapeake and Ohio National Historical Park in 1971. In 1980, Ferry Hill Place, the manor house of the old Ferry Hill plantation (by then under the ownership of the National Park Service), was designated the Park's headquarters.

Lock 38 was first examined archeologically in 1999 during the course of a Phase I survey for the (then) proposed replacement of the James Rumsey Bridge over the Potomac. The replacement project was being carried out by the West Virginia Department of Transportation, and in accordance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulations, an archeological survey of the Area of Potential Effects (APE) needed to be completed. On the Maryland side of the river, specifically within the C&O Canal National Historic Park, the APE included a 30 m zone upstream and downstream of the bridge to account for all of the various alternative designs.

Archeological work consisted of a pedestrian reconnaissance of the entire area and the systematic excavation of shovel test pits (STPs) in areas with a potential for containing intact archeological remains. Temporary transect lines were shot in with tape and compass to allow for changes in the direction of the right-of-way limits. Areas with slopes of 20 percent or less were shovel tested to locate archeological sites. No areas exhibited sufficient exposed ground surface to warrant surface collection as opposed to probing. STPs were positioned at 15 m intervals along the grid points spaced 15 m apart. STPs were not excavated systematically in those areas that exhibited extensive modern disturbance or excessive slope.

A total of 31 STPs were excavated. All STPs measured approximately 50 cm in diameter, and were hand excavated in natural levels into the culturally sterile



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subsoil. Soil profiles were drawn for all excavated probes. These profiles depicted observed depths of strata, soil colors, texture, and composition. All excavated soils were screened through hardware cloth to ensure artifact recovery. Notes and photographs of the test areas were taken and site maps were created.

A cut bank of the Potomac River was also excavated within the C&O Canal Park to assess local stratigraphy and sediments. The cut bank was approximately 3 m in height and the profile was excavated 50 cm wide. A complete sidescan sonar survey was also completed in the Potomac River.

Soil profiles exposed by the 31 shovel tests and the naturally exposed Potomac River cut bank demonstrated a historically documented pattern of periodic flooding. Furthermore, the shovel tests revealed multiple areas of modern fill and other ground-altering disturbances. An assemblage of 345 artifacts (342 historic and 3 prehistoric pieces of lithic debitage) was recovered. The historic assemblage included an iron bar, 57 nails (28 cut, 29 wire), 2 pieces of hardware, 94 window glass fragments, 28 brick fragments, 51 ceramic sherds (5 pearlware, 28 whiteware, 2 porcelain, 11 redware, 3 yellowware, and 2 semi-vitreous sherds), 38 kitchen glass fragments, 48 can fragments, 12 faunal specimens (7 mammal bones and 5 oyster shells), and 11 metal sheet fragments. No intact cultural strata or features were encountered during Phase I investigations.

Phase II investigations were carried out for the bridge replacement project in the summer of 2001. The work was limited to areas within the site boundaries where subsurface disturbance related to construction of the bridge would occur. Phase II investigations at 18WA486 consisted of the systematic excavation of shovel tests at each of the grid intersection points on the 5 m interval site grid (exceptions being the existing tow path and NPS access road) and the excavation of three 1 X 1 m units. A total of 152 STPs were excavated and methods of excavation followed the same procedures as were used during the Phase I study. Where appropriate, photographs were taken of STPs profiles.

In addition to these STPs, six shovel tests were placed 75 cm west of the eastern wall for Lock 38 itself. These were excavated to an average depth of 85 cm below ground surface. The methods used for these STPs were otherwise identical to the other shovel tests.

The placement of the three 1 X 1 m test units corresponded to areas of artifact concentrations defined by the Phase II shovel tests. These units were excavated in arbitrary 10 cm levels following natural stratigraphy. The units were excavated by skim shoveling and troweling. The soil was screened through hardware mesh cloth. A 2.5 liter soil sample was taken from each level and soil stratum for flotation. Photographs were taken at the base of each level and plan view drawings were drawn where applicable. All of the units were excavated down to a depth of 125-145 cm below ground surface. Once the specified depths were reached, units were cleaned, and soils, profiles, artifacts, possible features, and other cultural details were recorded. Black-and-white and color slide photographs were taken of the north and west profiles, with the exception of one unit which had all four walls photographed due to the complex soil stratigraphy.

Excavation of the 6 STPs along the lock wall revealed a highly stratified stratigraphic profile due to alluvial deposition. This finding was not unexpected due to the fact that the canal bed and lock structure have been silted in over the many years of non-use. If any information on the lock structure itself was to be gained, testing would have to be taken down approximately 2 or more meters.

Soil profiles uncovered by the other shovel tests demonstrated a historically documented pattern of periodic flooding. Furthermore, the STPs intercepted multiple areas of modern fill and other modern/historic disturbances. An assemblage of 2,891 artifacts (2,597 historic, 7 pieces of prehistoric debitage, and 287 faunal remains) were recovered. The temporal range for the recovered historic artifacts was the late 18th to well into the 20th century. One feature, a possible well, was discovered beneath a fill slope. No excavations were conducted on the well itself due to the instability of the surrounding ground surface. The well are would not be impacted during the construction phase of the James Rumsey Bridge Replacement Project.

Excavations within the general vicinity of the former Lock Keeper's house failed to pinpoint the exact location and dimensions of the former brick structure. Soil profiles exposed in this area exhibited high velocity alluvial deposition consisting of thick concentrations of river cobbles. Brick rubble was encountered at various depths in three of the STPs. However, no definitive link between the brick rubble and the former Lock Keeper's house could be ascertained.

Shovel testing revealed two areas with concentrations of historic artifacts. The first one was in the immediate vicinity of a bypass flume and a former feedstore. The second area was along the edge of the current fill slope in the confines of the Knode/ferry house foundations and just east of the current Ferry Hill trailhead. No subsurface features were uncovered in conjunction with the artifact concentrations. Limited testing (STPs only) was conducted within the confines of the Knode/ferry house. Due to the extreme compactness and undetermined fill content at this location, it was proposed that the use of machinery (i.e., a bobcat) would facilitate the excavation process at this location. Maryland SHPO was agreeable to the use of extraction machinery at this location in order to strip off the overburden. However, the NPS was not agreeable to this scenario, therefore no stripping took place and no further testing was completed in the tavern/ferry house area. Currently, no impact to the tavern/ferry house areas was to occur during the construction phase of the James Rumsey Bridge Replacement project.

The three 1 X 1 m units were placed in a grassy area adjacent to the canal bypass flume (2 units) and in an area east of the Ferry Hill Trail (1 unit) where late 18th-19th century artifacts and prehistoric material was uncovered during shovel testing. A total of 1,045 artifacts were recovered from the three 1 X 1 m units. Fourteen different soil strata were observed during the excavation of these units.

Test Units 1 & 3 were situated near the bypass flume. Excavation of Unit 1 revealed a mixed temporal context in the immediate vicinity of the head of the bypass flume. Temporally diagnostic artifacts such as cut sponge decorated whiteware, wire nails, semi-vitreous sherds, and purple transfer-printed whiteware sherds were recovered at the same depth as creamware and pearlware sherds. Soil disturbances were also noted in the wall profiles of Unit 1, none of which displayed any degree of uniformity. These disturbances were caused by high-energy volume alluvial deposition and construction activities for the canal and corresponding bypass flume. However, no subsurface features were encountered during excavation of Unit 1. Unit 3, by contrast, revealed a fairly uniform stratigraphic arrangement in which a slight mixing of cultural deposits (by temporal range) was noted. The recovery of artifacts from a level below 40 cm of culturally sterile soil could be the result of water percolation or other means such as bioturbation. The artifacts were recovered immediately below an intrusive lense. No subsurface features related to the canal or the 19th century feedstore were encountered during the excavation of this unit.

Test Unit 2 (east of the Ferry Hill Trail) revealed a potential buried "A" horizon soil with a semi-intact cultural deposit that was capped by a modern fill episode. The fill episode probably correlates to the construction of the James Rumsey Bridge in the 1930s. The temporally diagnostic materials recovered from this soil horizon correspond more directly to the construction and early operations of the C&O Canal and the occupation of the land by operators of the ferry in the late 18th and early 19th century. Exact correlation between the artifacts and the temporal assignment could not be made due to the lack of subsurface features.



Phase II and Phase III Archaeological Database and Inventory

Site Number: 18WA486

Site Name: Lock 38

Prehistoric

Other name(s)

Historic Brief
Description:

Early 19th-early 20th century C & O Canal lock & ruins, prehistoric lithic scatter

Unknown

The full Phase II historic assemblage consisted of 11 pieces of lamp chimney, 10 automobile headlight fragments, 252 brick fragments, 86 window glass fragments, 424 wire nails, 6 wire spikes, 190 cut nails, 17 cut spikes, 198 ceramic sherds (4 creamware, 45 pearlware, 2 Chinese export porcelain, 3 other porcelain, 64 whiteware, 8 semi-vitreous earthenware, 61 redware, 1 yellowware, 3 buff-bodied stoneware, 6 stoneware, and 1 terra-cotta sherd), 5 tableware glass fragments, 1,149 pieces of container glass, 287 faunal objects, a porcelain cow figurine (counted as a personal item in the table above), 9 kaolin tobacco pipe fragments, 142 miscellaneous metal objects, 30 unidentified glass fragments, and 65 miscellaneous objects. The Phase II prehistoric objects were 3 quartz and 4 chert flakes.

Although the Phase II investigations of Lock 38 (18WA486) recovered a moderate amount of historic artifacts, the majority of the recovered materials occurred within a mixed temporal context. Testing in this site confirmed a documented history of land use at the site embracing multiple flooding episodes, bridge construction, and intensive destructive use of the site by its occupants and transients. No archeological features associated with the canal and lock structure as well as the associated structures (e.g., the Lock Keeper's house and the feedstore) were identified during the Phase II investigations.

The portions of the site examined in 2001 were recommended as ineligible for listing in the National Register of Historic Places. Other portions of this very large site may, however, be in a less disturbed state. The site should still be considered a potentially significant archeological resource.

External Reference Codes (Library ID Numbers):

97000280, 97001553