



Phase II and Phase III Archaeological Database and Inventory

Site Number: 18AP79

Site Name: Site 7

Prehistoric

Other name(s) USNA Superintendent's Greenhouse, USNA Building 193

Historic

Brief Description:

Late 19th-Late 20th century military academy superintendent's greenhouse

Unknown

Site Location and Environmental Data:

Maryland Archaeological Research Unit No. 7

SCS soil & sediment code AuD

Latitude 38.9850

Longitude -76.5050

Physiographic province Western Shore Coastal

Terrestrial site

Underwater site

Elevation m

Site slope 5-15%

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) College Creek

Saltwater

Ocean

Estuary/tidal river

Tidewater/marsh

Freshwater

Stream/river

Swamp

Lake or pond

Spring

Minimum distance to water is 40 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 greenhouse/

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

garden hothouse

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 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	<input type="checkbox"/>	Staffordshire	<input type="checkbox"/>	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	<input type="checkbox"/>	Eng Dry-bodied	<input type="checkbox"/>
Buckley	<input type="checkbox"/>	North Devon	<input type="checkbox"/>	Porcelain	<input type="checkbox"/>	Nottingham	<input type="checkbox"/>
Creamware	<input type="checkbox"/>	Pearlware	<input type="checkbox"/>			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"/>

Dated features present at site

Historic Artifacts		Tobacco related	
Pottery (all)	26	Activity item(s)	<input type="checkbox"/>
Glass (all)	21	Human remain(s)	<input type="checkbox"/>
Architectural	133	Faunal material	<input type="checkbox"/>
Furniture	<input type="checkbox"/>	Misc. kitchen	2
Arms	<input type="checkbox"/>	Floral material	<input type="checkbox"/>
Clothing	<input type="checkbox"/>	Misc.	32
Personal items	<input type="checkbox"/>	Other	<input type="checkbox"/>

Historic Features

Privy/outhouse	<input type="checkbox"/>	Depression/mound	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
Const feature	<input type="checkbox"/>	Well/cistern	<input type="checkbox"/>	Burial(s)	<input type="checkbox"/>
Foundation	<input checked="" type="checkbox"/>	Trash pit/dump	<input type="checkbox"/>	Railroad bed	<input type="checkbox"/>
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 MAC Lab

Additional raw data may be available online

Summary Description:

Site 18AP79, also known as Site 7 or USNA Superintendent's Greenhouse, USNA Building 193, is the remains of a late 19th-late 20th century military academy superintendent's greenhouse. It is located near the Perry Center on Naval Support Activity (NSA) Annapolis property. Considerable evidence of disturbance in the vicinity of site 18AP79 is evident, largely from activities during the later 20th-century, including a number of buried and traces of an access road. Natural subsoil at Site 18AP79 consists of a compact, 10YR5/8 (yellowish brown) sandy clay loam that is free of artifacts or cultural inclusions such as flecks of brick or charcoal. The subsoil occurs between 0.27 m and 0.56 m beneath surface grade, and is generally encountered at greater depths on the northwestern portion of the site. This stratum is overlain by 10YR 5/6 (yellowish brown) to 10YR4/6 (dark yellowish brown) clay loam or silty clay loam soils, containing structural debris such as fragments of brick and cement, concrete, coal, ash, and flat (window) glass, sometimes in quantity adequate to definitively associate soils with demolition of the greenhouse. Intact portions of the eastern foundations of the greenhouse, including new construction from rehabilitation of the building in 1963-1964, are present in the easternmost portion of the site adjacent to the Gardener's Cottage.

The Superintendent's greenhouse was constructed sometime prior to 1893, according to available historic plans of the USNA, and the structure was expanded between 1921 and 1970. Where a historical photograph of the greenhouse in 1920 shows one east-west wing, as does a 1924 plan of the USNA, by 1938 the structure had two parallel wings running east-west. Historic cartographic analysis carried out corroborates the addition of a second east-west wing to the greenhouse during the 20th century. A plan approved in 1945 depicts three growing rooms, however these are likely contained by the existing structure depicted in the 1921 photograph, between the power plant for the greenhouse denoted by a circular chimney or smokestack, and the large glass wing at the right side of the photograph, so that the plan depicted does show the entire footprint of the greenhouse.

Available cartography for Annapolis between 1846 and the later 20th century characterize the development of the location of Site 18AP79 as a private estate associated with the Mackubin family, and later as part of the USNA facilities during the 19th and 20th centuries. The Superintendent's greenhouse appears on a 1970 aerial photograph of Annapolis available online, and is also depicted in the Master Plan Update for the USNA published in 1979, and that plan recommended no changes in the immediate area of the greenhouse. Therefore the structure was extant through at least 1979 and possibly into the 1980s prior to its demolition.

The purpose of the Superintendent's greenhouse is described in primary documentary sources originating with the Academy Superintendent and the Public Works Department responsible for maintaining the structure. Documents pertaining to the greenhouse or the activities of the gardener on file in the Special Collections & Archives Department of Nimitz Library, which holds Record Group 405 (Records of the United States Naval Academy) of the National Archives and Records Administration, span the period from 1934 to 1972. These records are mostly focused on the later part of the operation of the greenhouse, but they are highly specific about the function of the structure and the occupation of the Superintendent's gardener, and to a degree may be generalized to earlier periods of the greenhouse operation.

The Superintendent's greenhouse and by extension the gardener contributed to the observation of decorum as well as diplomacy at the USNA, at least during the post-World War II era. For instance one letter in the Superintendent's files from November 1960 recorded the gift of tulip bulbs offered by a Rear Admiral of the Royal Netherlands Navy at the Netherlands embassy in Washington, DC to Rear Admiral John F. Davidson, USNA Superintendent, writing "When the flowers are in bloom, I hope they will be a bright symbol of the long-lasting friendship between our two navies". Another letter, dated June 1967, records receipt of golden boxwood shrubs sent to the Academy Superintendent Draper L. Kauffman by Marjorie Merriweather Post, noting that the plants will be "truly a lovely addition to the center of the Superintendent's garden".

During the postwar period, the Superintendent's greenhouse provided thousands of cut flowers throughout the year, decorative and specimen plants for many facilities at the USNA: dining halls, chapels, and prominently, the Superintendent's home, as well as maintaining the formal garden at Buchanan House. It is not clear if the duties of the Superintendent's gardener were entirely shifted away from maintaining the formal garden at the Superintendent's dwelling, but the greenhouse was engaged intensely in production of cut flowers for decoration of facilities across the USNA. The volume and variety of horticultural products, mostly cut flowers, that the greenhouse produced is documented in a record spanning July 1968 and December 1972, titled "Record of Plant Material Production", which describes the date, plant variety, quantity, and destination of plant products provided from month to month. The suggestion of this record is industrial level production of cut flowers and other products for consumption at USNA facilities.

This volume of production is also revealed in a series of documents from the Public Works Department that respond to a 1955 regulation eliminating greenhouses and tree nurseries at Naval facilities, stating that the Navy should be buying from private nurseries. In response to this regulation, the continued existence of the Superintendent's greenhouse needed to be carefully justified. The USNA Public Works Department collated data on everything that the greenhouse produced annually, determined what cost the USNA incurred to produce that volume of plants (approximately \$7,525 in 1955), and then sought bids from four large private nurseries in the area. The USNA received no bids, as absolutely nobody in the region had the capacity to satisfy those demands on a year-round basis. This provided the rationale for the USNA to retain its greenhouse and gardener subsequent to the change of regulations.

Recognition of the need for rehabilitation of the Superintendent's greenhouse led to a proposal to replace the greenhouse in 1963-1964. A cost estimate produced in December 1963 included removal of two existing greenhouse foundation walls and footings, with dimensions of 32 x 69 ft, and 28 x 51 ft for the existing structures, and cleaning and site preparation for construction of two new aluminum frame and glass greenhouses with dimensions of 25 x 52 ft.

Papers on file from Public Works at USNA indicate that a different location was considered for the greenhouse, but since the structure persists in the location of Site 18AP79 throughout the 1970s, it seems likely that the original site was used for reconstruction of the building, if in fact this was carried out during the mid-1960s.

A series of efforts to identify and manage intact cultural resources at the USNA facilities in Annapolis took place during the 1990s, beginning with archeological evaluation carried out by the University of Maryland in 1993 and a broader investigation entailing early GIS and cartographic analysis, and oral history. R. Christopher Goodwin & Associates conducted intensive level archeological reconnaissance (ILAR) throughout the USNA facilities in preparation for development of an integrated management plan for cultural resources, as an outcome of these earlier studies that demonstrated the archeological potential and historical significance of the cultural resources present at the USNA. Site 18AP79 was identified in 1997 by a series of artifact-bearing STPs across the vicinity of the site and a visual inspection of the ground surface that showed evidence of the foundation for the greenhouse. Artifacts recovered from that survey included window glass, brick, mortar, coal, shell, and wire nails indicative of a late nineteenth and early twentieth century date of construction.

In 2019, the Ottery Group completed a Phase II evaluation of Site 18AP79 as part of compliance with Section 106 of the National Historic Preservation Act and other federal and state regulations prior to the proposed construction of a new headquarters for the U.S. Naval Academy Alumni Association and Foundation (USNAAAF). The Phase II testing of 18AP79 was conducted between March 11 and March 29, 2019. Sixteen shovel test pits were excavated at five-meter intervals within the former location of the Superintendent's greenhouse, avoiding buried utilities and disturbed soils, and two 1-x-1 meter test units were excavated within the portions of the site where in-situ structural brick was encountered during shovel testing.

The goal of the Phase II field investigation was to recover archaeological data in order to evaluate the integrity and eligibility of a site for inclusion on the NRHP, by determining the extent of archeological deposits, identifying historical associations and the appropriate context for interpretation of the archeology, and examining soils and their contents to characterize integrity of historical features and deposits, and describe research potential. Fieldwork was focused on



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identifying both site content (e.g., artifacts and features) and condition (e.g., extent to which the site has been physically impacted or damaged by demolition or other activities).

Research questions that have been relevant to this evaluation are:

What is the period of use/significance of Site 18AP79?

Does the site retain subsurface integrity (i.e., are below ground features or artifact deposits undisturbed)?

Do the artifacts and features at Site 18AP79 provide information on age, form, and function of the greenhouse?

What is the historical function of military greenhouses?

What archaeological evidence is present that reflects these functions?

What was the purpose or function of the greenhouse in day-to-day operations at the USNA?

A total of 32 shovel tests were laid out at 5-m intervals within an area measuring 20 m by 30 m, with the long dimension oriented with the adjacent parking area. A number of these were eliminated based upon the presence of buried infrastructure (a major storm water drain line crosses the study area diagonally, from north to south, as do sewer and other utilities), compacted, paved surfaces, or other ground conditions that prevent excavation with hand tools. Sixteen shovel tests were completed, which is indicative of the degree to which Site 18AP79 has been disturbed subsequent to the demolition of the greenhouse. Artifacts recovered during shovel testing consist of 150 objects comprised by fragments of brick (n=48; 32% of the assemblage from shovel testing), nails (n=44, 29%), slag (n=17; 11%), terra cotta flower pot sherds (n=15, 10%), flat glass (n=11, 7.3%), and smaller quantities of colorless container glass, coal, slate, oyster shell, construction tile (n=1) and porcelain (n=1). The majority of these artifacts, greater than two-thirds, were recovered from just two shovel tests in the westernmost portion of the study area, containing 37 and 68 artifacts or 105 artifacts between them. The preponderance of artifacts collected during shovel testing are presumed to be associated with disturbed and/or displaced soils, yet the presence of unglazed redware flower pot sherds indicates some association with the greenhouse and adjacent gardens, without indicating specific spatial patterning.

Shovel testing identified two locations in the eastern portion of the site where features associated with the former greenhouse are potentially intact, at the eastern limit of the former structure. Two shovel tests in this location exposed large fragments of mortared brick inferred to be greenhouse demolition debris, which was distinctive from more fragmented and pulverized debris found throughout most of Site 18AP79.

Two test units, designated TU1 and TU2, were placed in the eastern section of Site 18AP79 to further expose soils and brick debris where disturbance of the site following demolition of the greenhouse appears to be minimized. Intact brick footers from the greenhouse with one builder's trench occur within TU1, the northern of two units placed in this area. TU2 contains a large quantity of brick and brick fragments, and some mortared pieces of brick, but no intact structural evidence.

These two units yielded a total of 45 historical artifacts, mostly from upper soil strata consisting of fill deposited above structural remains in TU1 or comparable soil strata in TU2. Artifacts principally consist of nails (n=18), fragments of flat glass (n=8), and terra cotta flower pots (n=6), small fragments of plastic (n=5) and pieces of whiteware ceramic (n=3), brown container glass (n=1), and slag (n=1). Samples of brick and mortar were also collected. Artifacts recovered during stratigraphic test unit excavation are similar to those collected during shovel testing, and are presumed to have the same general associations, representing disturbed contexts and displaced materials in the upper soil column comprised by artifacts associated with the operation of the greenhouse and adjacent gardens, and likely other materials post-dating the demolition of the greenhouse. The seeming paucity of flat glass resulting from demolition of the greenhouse may indicate salvage of window glass from the structure prior to razing the building.

TU 1 included features associated with the former Superintendent's greenhouse, consisting of two brick footers or foundations (Features 1 and 2) and a narrow builder's trench associated with Feature 2, designated Feature 3. The sand mortar used in construction of Features 1 and 2 is similar, but the bricks are dissimilar. Brick utilized in Feature 1 is somewhat varied in size, color, and hardness, sometimes fashioned from marbled clay, with typical dimensions of 0.22 x 0.10 x 0.055 m. This irregularity suggests use of salvaged brick or brick from varied sources in construction of Feature 1. By contrast, Feature 2 has very uniform brick that is consistent in size, color and texture, measuring 0.18 long and 0.05 m high. The full width of bricks in Feature 2 was not exposed in TU1. Excavation of TU2 exposed no historic features, but uncovered a stratum of brick and mortar debris associated with the demolition of the Superintendent's greenhouse. The unit is situated somewhat west of TU1.

This interpretation of Features 1 and 2 in TU1 is corroborated by documentary evidence for partial or complete replacement of the Superintendent's greenhouse during the mid-1960s. Cost estimates produced in December 1963 (USNA Office of Public Works 1963a) included removal of two existing greenhouse foundation walls and footings, having the dimensions of 32 x 69 ft, and 28 x 51 ft, and cleaning and site preparation for construction of two new aluminum frame and glass greenhouses with dimensions of 25 x 52 ft. The variance between dimensions for the two greenhouse wings constructed before 1960, and the proposed new structures may explain adjacency of Features 1 and 2, the differences in their character, and just as importantly, the condition of the general archeology at Site 18AP79, with widespread deposition of demolition debris and rubble from razing of the greenhouse structure. The combined archeological and historical evidence suggests intensive modification of the site area during the mid-1960s, resulting in the demolition of the structure that was associated with the footer represented by Feature 1, and the installation of the footer represented by Feature 2 as part of the new greenhouse wing; subsequently, sometime after 1979, the greenhouse was entirely removed from the property in a second modification to Site 18AP79.

STP excavation within Site 18AP79 identified extensive disturbance of the site during the last quarter of the 20th century, resulting from the installation of underground utilities and modification of the surface grade for access road construction, all of which have impacted the integrity of the site. Intact archeology associated with the former greenhouse is confined to the eastern portion of the historical structure footprint, containing the large glazed hothouses on the east side of the building. The western portion of the greenhouse appears to be compromised. Vertically, the soils at Site 18AP79 consist of fill soil deposited following demolition and removal of the greenhouse after ca. 1979, and this rubble-bearing fill lies directly above intact structural features. Site 18AP79 has minimal potential to contribute additional information regarding the historical development of the USNA. The Ottery Group concludes that 18AP79 is not eligible for the NRHP under Criterion D. This conclusion is based on the assessment that a significant portion of the original site has been destroyed by previous activities going back to at least the mid-1960s. No further archeological investigation is recommended.

External Reference Codes (Library ID Numbers):

95003398, 18AP79 SF