Phase II and Phase III Archaeological Database and Inventory

MARYLAND HISTORICAL TRUST

Site Number: 18CH654 **Site Name:** D-1 Prehistoric ☑

Other name(s) Rocky Meadow, Philip's Meadow Historic ☐

Brief Description: Early, Middle & Late Archaic and Early & Late Woodland short-term camps Unknown ☐

Site Location and Environmental Data:

Maryland Archaeological Research Unit No. 11 SCS soil & sediment code Pu,GmD,GmF

Latitude 38.6401 Longitude -77.0184 Physiographic province Western Shore Coastal Terrestrial site ☑ Underwater site ☐

Elevation m Site slope 0-40% 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) Unnamed tributary of Matta

Saltwater		Freshwater	
Ocean	☐	Stream/river	☑
Estuary/tidal river	☐	Swamp	☑
Tidewater/marsh	☐	Lake or pond	☐
		Spring	☐

Minimum distance to water is 52 m

Temporal & Ethnic Contextual Data:

Paleoindian site		Woodland site		Contact period site		ca. 1820 - 1860	
Archaic site		MD Adena		ca. 1630 - 1675		ca. 1860 - 1900	
Early archaic	Y	Early woodland	Y	ca. 1675 - 1720		ca. 1900 - 1930	
MIddle archaic	Y	Mid. woodland		ca. 1720 - 1780		Post 1930	
Late archaic	Y	Late woodland		ca. 1780 - 1820			

Unknown prehistoric context Unknown context Unknown historic 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?

Domestic	☐	Furnace/forge	☐	**Military**	☐	Post-in-ground	☐
Homestead	☐	Other	☐	Battlefield	☐	Frame-built	☐
Farmstead	☐	**Transportation**	☐	Fortification	☐	Masonry	☐
Mansion	☐	Canal-related	☐	Encampment	☐	Other structure	☐
Plantation	☐	Road/railroad	☐	**Townsite**	☐	**Slave related**	☐
Row/townhome	☐	Wharf/landing	☐	**Religious**	☐	**Non-domestic agri**	☐
Cellar	☐	Maritime-related	☐	Church/mtg house	☐	**Recreational**	☐
Privy	☐	Bridge	☐	Ch support bldg	☐	**Midden/dump**	☐
Industrial	☐	Ford	☐	**Burial area**	☐	**Artifact scatter**	☐
Mining-related	☐	**Educational**	☐	Cemetery	☐	**Spring or well**	☐
Quarry-related	☐	**Commercial**	☐	Sepulchre	☐	**Unknown**	☐
Mill	☐	Trading post	☐	Isolated burial	☐	**Other context**	☐
Black/metalsmith	☐	Store	☐	**Bldg or foundation**	☐		
		Tavern/inn	☐	Possible Structure	☐		

Interpretive Sampling Data:

Prehistoric context samples		Soil samples taken	Y
Flotation samples taken	Y	Other samples taken	Protein residue

Historic context samples		Soil samples taken	
Flotation samples taken		Other samples taken	

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Diagnostic Artifact Data:

Projectile Point Types

Clovis		Koens-Crispin	
Hardaway-Dalton	2	Perkiomen	
Palmer		Susquehana	
Kirk (notch)	4	Vernon	41
Kirk (stem)		Piscataway	5
Le Croy	2	Calvert	1
Morrow Mntn	7	Selby Bay	
Guilford	2	Jacks Rf (notch)	
Brewerton	1	Jacks Rf (pent)	
Otter Creek	2	Madison/Potomac	4
		Levanna	

All quantities exact or estimated minimal counts

Prehistoric Sherd Types

Marcey Creek		Popes Creek	1	Shepard	
Dames Qtr		Coulbourn		Townsend	
Selden Island		Watson		Minguannan	
Accokeek		Mockley		Sullivan Cove	
Wolfe Neck		Clemson Island		Shenks Ferry	
Vinette		Page		Moyaone	
				Potomac Crk	

Keyser	
Yeocomico	
Monongahela	
Susquehannock	

Historic Sherd Types

Earthenware

Astbury		Ironstone	
Borderware		Jackfield	
Buckley		Mn Mottled	
Creamware		North Devon	
		Pearlware	

Staffordshire	
Tin Glazed	
Whiteware	
Porcelain	

Stoneware

English Brown	
Eng Dry-bodied	
Nottingham	
Rhenish	
Wt Salt-glazed	

Other Artifact & Feature Types:

Prehistoric Artifacts

Flaked stone	30165	Other fired clay	
Ground stone	9	Human remain(s)	☐
Stone bowls	3	Modified faunal	1
Fire-cracked rock	9546	Unmod faunal	
Other lithics (all)	121	Oyster shell	☐
Ceramics (all)	13	Floral material	☑
Rimsherds		Uncommon Obj.	
		Other ☐	

Prehistoric Features

Mound(s)		Storage/trash pit	☐
Midden	☐	Burial(s)	☐
Shell midden	☐	Ossuary	☐
Postholes/molds	☐	Unknown	☐
House pattern(s)	☐	Other	☑
Palisade(s)	☐	old creek bank, basins	
Hearth(s)	☐		
Lithic reduc area	☐		

Lithic Material

Fer quartzite	☐	Sil sandstone	☐		
Jasper	☑	Chalcedony	☑	European flint	☐
Chert	☑	Ironstone	☐	Basalt	☐
Rhyolite	☑	Argilite	☑	Unknown	☐
Quartz	☑	Steatite	☑	Other	☑
Quartzite	☑	Sandstone	☑	andesite	

☐ **Dated features present at site**

Historic Artifacts

Pottery (all)		Tobacco related	
Glass (all)	4	Activity item(s)	
Architectural	1	Human remain(s)	☐
Furniture		Faunal material	☐
Arms		Misc. kitchen	
Clothing		Floral material	☐
Personal items		Misc.	1
		Other ☐	

Historic Features

Const feature	☐	Privy/outhouse	☐	Depression/mound	☐
Foundation	☐	Well/cistern	☐	Burial(s)	☐
Cellar hole/cellar	☐	Trash pit/dump	☐	Railroad bed	☐
Hearth/chimney	☐	Sheet midden	☐	Earthworks	☐
Postholes/molds	☐	Planting feature	☐	Mill raceway	☐
Paling ditch/fence	☐	Road/walkway	☐	Wheel pit	☐

Unknown	☐
Other	☐

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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Brief Description: Early, Middle & Late Archaic and Early & Late Woodland short-term camps Unknown ☐

External Samples/Data: Collection curated at MAC

☐ Additional raw data may be available online

Summary Description:

Site 18CH654 is a multi-component site in northern Charles County, Maryland that represents a series of Middle-Late Archaic and Early Woodland short-term camps. The site is known by a number of different names, including the D-1 Site, Rocky Meadow, and the Philip's Meadow Site. It is situated on a low terrace overlooking an unnamed tributary of Mattawoman Creek and nearby wetlands. The site area is wooded and the underlying soils are Rumford and Aura gravelly sandy loams.

The site was first discovered in 1997 during Phase I/II survey and testing of a proposed subdivision along Mattawoman Creek. Survey and test excavations at that time consisted of systematic shovel testing at 5-meter intervals. Shovel test pits (STPs) measured 35 cm in diameter and were excavated to a minimum depth of 40 cm below surface or 10 cm into culturally sterile subsoil, except where ground conditions prevented complete excavation. In areas in which buried cultural deposits were suspected, shovel tests were excavated to a minimum depth of 60 cmbs or 20 cm into culturally sterile subsoil. Soil was removed according to natural stratigraphic horizons and screened through hardware cloth.

The 77 positive STPs (of 90 total excavated within the site boundaries) recovered a total of 1,057 prehistoric artifacts and 6 historic artifacts (1 piece of plastic, 4 machine-made bottle glass shards, and 1 cut nail). The prehistoric assemblage included 4 points, 1 drill, 5 preforms, 6 other bifaces, a bifacially chipped netsinker, 14 cores, 4 unifaces (including 2 endscrapers), 825 flakes, 21 hammerstones, 2 abraders, 1 celt, 171 pieces of fire-cracked rock, and 1 prehistoric ceramic sherd. Diagnostic artifacts recovered included 1 Holmes point and 1 Orient Fishtail point, indicating occupation during the latter portion of the Late Archaic (6,000-3,000 BP). In addition, a single sand-tempered ceramic sherd was found that was tentatively characterized as either an Early Woodland Accokeek or Popes Creek ware sherd (ca. 1000 BC-AD 200). Based on these findings, the investigators concluded that the predominant occupation of 18CH654 site was during the Late Archaic timespan.

Fieldwork showed that the site dimensions measured roughly 217 X 210 meters across. Stratigraphy across the site area consisted of a 30 to 35 cm thick clay loam or loamy sand plowzone (Ap) overlying a B horizon. Upwards of 20% of the prehistoric artifact sample was recovered from below the plowzone. Debitage analysis showed that the sample of 825 debitage fragments included 79 primary flakes, 225 secondary flakes, and 135 pressure flakes, documenting early through late-stage lithic reduction. Thirteen lithic raw material types were recorded in the tool and debitage sample. Locally available quartz and quartzite dominate the inventory, although non-local materials (jasper, chert, chalcedony, rhyolite, sandstone, andesite, slate, and shale) are also present.

Although the presence of large quantities of debitage and hammerstones indicate that lithic reduction was clearly an important activity at the site, the recovery of other tool types (fire-cracked rock, a ground stone adze/celt, a net sinker, and unifacial and bifacial tools) indicates a range of other site activities associated with food procurement and processing. The presence of fire-cracked rock, in-particular, suggested the potential for encountering cultural features. In addition, hammerstones were found on the riverine terrace portion of the site, while they were absent in the upland terrace area. This suggested the possibility of identifying discrete activity areas within the site. Based on the Phase I/II investigations in 1997, researchers recommended that the site undergo Phase III data recovery prior to the construction of the new subdivision.

Phase III work was carried out in 2000 in the northern portion of the site where the proposed housing development would directly impact the site. The researchers involved in the Phase III study defined six research topics, including site chronology, site integrity, subsistence, settlement patterning, technology, and environmental adaptation. The data recovery work began with the use of a hand-operated bucket auger to identify site stratigraphy and to probe for buried cultural horizons. A single bucket auger test was placed in the northern area where excavation would take place. The cultural horizon was identified through probing, as were Holocene soils of sandy loam at a depth of 30 cm below surface. Pleistocene sands were encountered at a maximum depth of approximately 1½ meters.

A 5 X 5 meter gridded block was laid out and tied to a permanent datum. This block was divided into 25 excavation units, each measuring 1 X 1 meter. The excavation units were excavated consecutively, starting with Unit 1 in the southwest corner, and ending with Unit 25 in the northeast corner. Because of a desire to preserve several trees growing within the block, Units 4, 18, and 19 were not excavated. Instead, three replacement units were excavated adjacent to the east side of the block, where diagnostic artifacts were encountered. Each unit was divided into quadrants to facilitate analysis of horizontal artifact spatial patterning.

Excavation started in the southwest quadrant of each unit and continued in a clockwise pattern. In Test Unit 1, the southwest quadrant was excavated to a culturally sterile level. This quadrant then became the marker for stratigraphic changes throughout the site. Units were excavated both stratigraphically and in 10 cm arbitrary levels when possible. Arbitrary levels were excavated within each stratum to provide a basis for analyzing vertical spatial patterning of artifacts. Excavation continued 10 cm into sub-plowzone soils to verify cultural sterility. Initially, soils were dry-screened through hardware cloth. However, the sandy clay soils with high gravel content were difficult to screen, making recovery of tertiary flakes and prehistoric pottery difficult. After excavation and screening of the first 2 units, archeologists switched to water screening with a garden hose attached to a fire hydrant.

The 25 contiguous 1 meter test units revealed no cultural features, but produced 2,318 lithic artifacts and 2 vessel fragments. The entire Phase III assemblage consisted of 5 projectile points, 13 bifaces, 15 cores, 22 cobbles, 328 flakes, 1,125 pieces of shatter, 3 hammerstones, 3 grinding stones, 1 pestle, 774 pieces of fire-cracked rock, a steatite stone vessel fragment and a small steatite-tempered ceramic sherd. Four of the five projectile points are diagnostic and date from the Middle to the Late Archaic (approximately 6,000 to no later than 3,000 BP). Two Halifax points, 1 Brewerton eared-triangular point, and one Bare Island were recovered. The ceramic sherd is either Marcey Creek or Selden Island, but is too small and lacking in vessel form features to identify definitively (and thus, has been left out of the artifact tally table above). These ceramic types are both indicative of Early Woodland occupation and fit nicely with the diagnostic lithics and the steatite stone vessel.

From the standpoint of addressing the Phase III research issues, the limited excavation encountered no datable features, but did yield several diagnostic artifacts to shed light on chronology of the occupation in this part of 18CH654. This portion of the site seems to date to the period between 6,000 and 3,000 BP. Geomorphological analysis of stratigraphy in the limited area subject to data recovery investigation showed that this part of the site contained a deflated soil profile consisting of a plowzone over a B subsoil horizon, indicating reduced site integrity. While this conclusion was at odds with the Phase I/II study assessment, geomorphological investigations along the southern margin of the site indicated that Mattawoman Creek and its tributaries had been actively depositing sediment, which might have buried deposits.

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The Phase III investigation of Site 18CH654 produced no formal or botanical remains relevant to the issue of prehistoric subsistence. Quantities of FCR recovered may reflect cooking or food preparation, and the grinding stones and pestle that were found could relate to preparation of seeds or nuts. With regard to technology, the Phase III researchers suggested that one of the major activities at the site was the exploitation and processing of cobbles into formal stone tools. The site was thought to represent a seasonal or transient hunting camp for groups processing these materials. These Native American groups probably had base camps located elsewhere.

The site was examined yet again in 2004 when another Phase I survey was undertaken at the site (and elsewhere) as part of a liquefied natural gas (LNG) pipeline project in Calvert, Charles, and Prince George's Counties. The proposed construction work involved the installation of a 36-inch pipeline over 48 miles of right-of-way, as well as construction of ancillary facilities (e.g. pipeyards and access roads). As such, Phase I and, in some cases, Phase II work was conducted throughout the pipeline right-of-way and in other areas that might be impacted by the construction.

The proposed LNG pipeline right-of-way traversed the southern margin of the terrace where Site 18CH654 was originally identified. The site was initially tested with the implementation of a systematic shovel testing survey during the 2004 work, which was supplemented with additional shovel testing in 2005. In 2004, three transects at 15 m intervals were excavated across the low terrace in the area of the previously recorded site. Sixteen consecutive STPs, found in all 3 transects, were positive, yielding 239 prehistoric lithic artifacts. These positive STPs documented a southern extension of the site boundary. In April of 2005, supplementary Phase I STPs were excavated at 15 m intervals north and west of the 2004 STP transects to determine if an avoidance route for the pipeline could be found north of the previously investigated area. Of the 22 STPs excavated, 19 positive STPs produced 74 additional prehistoric lithic artifacts, for a total Phase I assemblage of 313 artifacts.

This work indicated that the full extent of the artifact distribution within the proposed project ROW measures 45 m X 165 m, and confirms that the artifact distribution represents the southern extension of Site 18CH654. Further, positive shovel tests extend roughly 35 meters north of the proposed centerline, confirming that an alternative pipeline route immediately north of the originally proposed centerline would not successfully avoid the site. Based on the 2004 Phase I shovel testing, stratigraphy appears to consist generally of an A(Ap)-B1-B2 soil horizon sequence. The silt loam A horizon overlies a silt loam B1 horizon and a sandy loam or clay loam B2 horizon. The horizon in most STPs ranges from 9 up to 40 cm thick, raising the possibility that some portions of the site in the pipeline right-of-way may have been plowed in the past, or alternatively, that there has been slope wash accumulation from elevations immediately to the north. Artifacts were recovered from both the A and the B1 horizons.

The Phase I shovel testing produced 313 prehistoric lithic artifacts including 6 bifaces, 1 endscraper, 1 retouched flake, 3 cores, 239 pieces of debitage, 2 hammerstones, 1 groundstone object, and 60 pieces of fire-cracked rock. No diagnostic artifacts were recovered during this work. Raw material analysis indicates that the assemblage is largely manufactured from quartz and quartzite. The sample of 6 bifaces consists of 4 late-stage bifaces and 2 intermediate biface fragments. One of the late stage bifaces may be a Guilford point, suggesting the possibility of a Middle Archaic component in this southern area. The assemblage reveals abundant evidence for stoneworking as well as other activities, including scraping and possible food preparation, in the context of multiple prehistoric Native American encampments.

From November of 2006 to June of 2007 another Phase III data recovery project was carried out at 18CH654. The work was, again, related to the adverse effects from construction of the LNG pipeline. The ROW for the pipeline would intersect with the southern portion of the site, on which data recovery had not previously been conducted. Section 106 compliance was triggered due to the requirements for a Federal Energy Regulatory Commission permit.

The 2006-2007 study entailed a staged program of field investigations, including: (1) close-interval shovel testing within the pipeline project ROW to characterize internal artifact distributions, (2) test unit excavation with eighty 1 X 1 m test units to comprehensively sample artifact concentrations revealed by shovel testing, and (3) soil stripping of 1,750 m2 in targeted portions of the project area to expose, map, and excavated additional cultural features at the base of the topsoil. The total area of Phase III investigations measured 1.129 acres.

STPs were excavated at 5 m intervals within the 23 m (75 ft) ROW. Shovel tests measured approximately 50 cm in diameter, and were excavated in natural soil horizons to sterile soils. Excavated soils were screened through hardware mesh for systematic artifact recovery. For each STP, researchers recorded provenience data, depth of soil horizons, soil horizon characteristics, and a list of recovered artifacts on standardized field forms. The locations of all shovel tests were recorded on working field project maps and artifacts were bagged and labeled with appropriate provenience information.

Close-interval shovel testing recorded a nearly continuous distribution of prehistoric stone artifacts, and determined the full east-west extent of the Philip's Meadow site in the ROW of roughly 200 m. The highest artifact counts were found in the STPs in the east-central part of the site. Subsequent test unit excavation was initially distributed across the entire site, but ultimately was focused in this higher density east-central sector.

The 80 test units were 1 X 1 m in size and were hand excavated, typically by arbitrary 10 cm levels within natural and cultural soil horizons (except for plowzone). They were dug to 10 cm below the last recovered artifact in subsoil. Excavated soils were screened through hardware cloth and recovered artifacts were placed in bags labeled with the appropriate provenience information. Diagnostic artifacts found in situ were point provenienced and bagged separately. Standardized forms were completed for each test unit level and completed units were documented photographically and by preparing measured profile drawing of two adjoining walls. As with STPs, test unit locations were plotted on site maps before being backfilled.

Potential cultural features exposed during test unit excavations were troweled clean to clearly determine boundaries. Feature locations were plotted on the appropriate levels forms and on the site map. In addition, pertinent data was recorded on a feature form and a feature map was prepared. For soil anomaly features, the feature was cross-sectioned for profiling, typically involving bisection along the long axis. At least 3 liters of feature fill was collected as a flotation sample and (when appropriate) charcoal was hand-collected for potential radiocarbon sampling. The remainder of the feature fill was screened through hardware cloth. Features were also documented photographically.

Following completion of the shovel testing and test unit excavation, a subcontractor removed standing trees from those areas of the site which, based on fieldwork, exhibited greater potential for containing cultural features, and thereby warranted plowzone stripping. Following tree removal, these areas were subject to plowzone mechanical stripping, first by machine removal of the topsoil, followed by shovel skimming of the remaining plowzone/topsoil by archeological technicians. As stripping of site sectors was completed, archeologists mapped and investigated exposed cultural features using the same methodology employed during feature excavations within test units.

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It should also be noted that 12 column samples were collected by a soil scientist/geomorphologist for assistance in reconstructing the landform evolution and site formation processes.

The topsoil stripping focused primarily in two areas of higher artifact density in the eastern portion of the study area (described as Areas 1 and 2, representing 400 m2 and 975 m2 respectively), as well as a third location (Area 3 – 375 m2), to sample an area of lower artifact density in the western portion of the study area. In total, test unit excavations and topsoil stripping identified only 6 cultural features within the ROW. The 6 features had subcircular to suboval outlines in planview with basin-shaped profiles and gently sloping walls. In two of the 6 cases, feature fill consisted of two strata and the features produced multiple, very different diagnostic lithics. Taken together, the artifact content of these features, in combination with a lack of in-place burned soil in the matrix suggested that they may represent large prehistoric pit excavations that were left open following abandonment by the Native American occupants. By this scenario, the majority of the artifacts contained in these pits may represent materials that slumped into these depressions through slop wash action. Hence, the artifact content of these features may not be a direct product of their function, and rather only a general reflection of activities that took place in the vicinity. The small number of preserved subplowzone features encountered likely reflects the disturbance of this site from the long-term effects of historic cultivation.

Botanical remains recovered from 14 flotation samples consisted of 182 fragments of wood and 81 fragments of nutshell. In addition, 7 charred botanical objects (not wood or nutshell) were recovered. At least 7 native tree taxa were identifiable, including oak (both red and white - 28), pine (17), hickory (8), maple (1), honey locust or Kentucky coffeetree (1), and ash (1). Among the 81 nutshell fragments recovered, a majority were thick-shelled hickory (69). Eroded, amorphous fragments identifiable only as hickory/walnut family (12) are most likely also hickory, since no other examples of black walnut or butternut were recovered. The ratio of nutshell to wood (0.4:1) is extremely low for an Archaic site. Based on cumulative evidence from across the Eastern Woodlands, hickory nuts were the critical plant-based resource for most Archaic populations. However, harvesting and processing of nut masts do not seem to have been important subsistence activities during the series of Archaic occupations at 18CH654.

Although samples were collected from the various features for radiocarbon analysis, ultimately it was determined that none of the cultural features comprised good candidates for C-14 dating.

The 2006-2007 data recovery resulted in the recovery of 36,197 prehistoric artifacts. The assemblage consisted of 522 bifaces, 56 unifaces, 141 cores, 26,828 pieces of debitage, 6 groundstone tools, 1 steatite stone bowl fragment, 89 cobble tools, 1 mineral fragment, 8,541 fire-cracked rocks, 1 calcined bone, and 11 ceramic sherds. Within the biface assemblage, 224 objects could be classified as projectile points and 106 of those were chronologically diagnostic forms. The projectile point assemblage included 2 Dalton, 4 Kirk corner-notched, 2 LeCroy points, 3 Stanly-like points, 1 Guilford, 2 Morrow Mountain I, 5 Morrow Mountain II, 2 Otter Creek, 1 Calvert, 16 Clagett, 2 Holmes, 1 Lamoka, 4 Savannah River, 41 Vernon, 6 narrow-bladed contracting stemmed points (probable Late Archaic), 5 narrow-bladed side-notched points (also probably Late Archaic), 5 Piscataway, 4 Potomac/Madison points, and 118 indeterminate forms. A sample of 25 of the projectile points was submitted for blood protein residue analysis. Of these, only two specimens produced positive results. Two of the Clagett points produced positive reactions: one for cat and one for dog antisera. A positive reaction for cat antiserum could represent an identification for either bobcat, cougar, or lynx and the positive reaction for dog antiserum could reflect protein residue of either coyote, wolf, or domestic dog. Groundstone tools in the collection included 3 grooved axes and 2 celt fragments, while the cobble tools were an anvil stone, 80 hammerstones, 1 metate, 2 pestles, and 5 other tools. The ceramic sherds were all body sherds or crumbs and included 1 probable Pope's Creek sherd.

The data recovery plan developed for the 2006-2007 study presented a series of research questions for structuring data recovery (see cover sheet). Geomorphological studies were primarily focused on addressing site formation issues. This work confirmed that the host landform for 18CH654 is a T1 terrace, formed from an alluvial fan originating from the upper reach of an unnamed tributary valley of Mattawoman Creek. Particle size analysis (PSA) of soil column samples from three test units on the T1 terrace at 18CH654 confirm the alluvial origin of sediments at this landform, and test units on the Ta terrace typically encountered an A-Ap-Bt-BC soil horizon sequence. Degrees of pedogenesis observed in test unit profiles (i.e. occurrence of the Bt horizon), combined with the recovery of early Early Archaic projectile points (Dalton, Kirk, Le Croy) with minimum end dates of circa 9900-8300 BP, indicate a probable Early Holocene age for the soil profile and the host landform T1 Terrace in the ROW.

Data recovery investigations in the ROW indicate that this portion of 18CH654 was occupied during the Early Archaic, Middle Archaic, Late Archaic, and Early and Late Woodland, with heaviest occupation during the Late Archaic as indicated by large numbers of Vernon and Clagett bifaces. Regarding prehistoric subsistence, four of the six cultural features yielded carbonized nutshells (including hickory) suggesting limited processing and consumption of mast resources by the Late Archaic inhabitants. Only one calcined bone fragment was recovered during data recovery investigations. Protein residue analysis reveals utilization of dog and cat species.

Recovery of 36,185 lithic artifacts permitted consideration of research issues on prehistoric technology. For virtually all time periods of occupation, Native Americans at the site relied overwhelmingly on a lithic technology based on locally collected cobble toolstone of quartz and quartzite. Tool classes are dominated by discarded projectile points, unfinished bifaces, and cores, suggesting that tool manufacture, particularly for replacement of projectile points, was a major site activity, consistent with the large quantity of flaking debris recovered. Although unifacial tools are not common, a number of distinctive quartz endscrapers were recovered, documentinig processing activities represented by this tool class. Groundstone tools record on-site woodworking activities, and the cobble tool inventory (dominated by hammerstones) appears largely representative of toolstone reduction. Analysis of the assemblage provides the basis for modeling technological organization of the Philip's Meadow site inhabitants, viewed as largely representative of Late Archaic practices.

Turning to questions of settlement, spatial analysis documents repetitive occupations of this ecotunal setting fronting the Mattawoman wetlands, and data on lithic raw material use argues for reduced settlement mobility in this part of the Western Shore region, perhaps during early and middle portions of the Archaic, as well as during the Late Archaic. Similar data from nearby sites in the Mattawoman Valley (see 18CH358 synopsis) support this scenario.

An extensive amount of research has been conducted at 18CH654. Despite the large amount of work (in the north in 2000 and in the south in 2006-2007), there may still be intact site deposits in the central part of the site. A detailed map showing both areas of Phase III data recovery is not available at this time. Careful review should still be used if future development projects are planned for this area.

External Reference Codes (Library ID Numbers):

00005812, 97000332, 97002596, 95000548