

Chapter 3

RESULTS

A. FIELD METHODS SUMMARY

Except where specified below, a standard fieldwork methodology was employed in the surveyed areas. Following the removal of crops as needed, each survey area was delimited with spray-painted six-foot wooden stakes. The defined area was then plowed and disked, usually by the tenant farmer, to expose the soils (Plate 3.1). After consecutive rains had made conditions suitable for surface collection, the area was systematically traversed. Keeping arms' length separation, the field team walked first in one direction and then crossed the area again on a path at 90° from the first traverse. It was also found to be important to walk both into and away from the sun.

Once artifact clusters had been noted these areas were walked repeatedly until it was felt all surface finds were located (Plate 3.2). A team of two then used a handheld Topcon GMS-2 data collector with a built-in sub-meter GPS unit to flag the artifacts with their locations. Selective shovel testing and excavation units were deployed judgmentally on the basis of the surface collection results and surface visibility. A provisional total of 20,303 artifacts were recovered from the new areas (Borrow Areas 2-4 and 6-11 and A&HC Survey Segments 1 and 5), with an additional 33 artifacts from Area 2, Section 17.

The aerial key map (Figure 3.1) shows the location of the areas examined in Section 1 under Agreement 1415, Task 12. A summary of supplementary investigations on Section 2, Area 17 follows. The overall work effort and artifact recovery for the survey is summarized in Table 3.1. This breaks

down artifact recovery by shovel test, excavation unit, GPS survey and, in specific instances, totals of materials collected as general provenience. This category was used for areas where artifact distributions were held to be insignificant because they reflected modern importation or fill.

Table 3.1 also calculates average artifact recovery per acre under this task order. This comes out at 184 artifacts per acre, with a mean of 135. This number applies to all methods of recovery. Average artifact recovery from surface collection alone is about 122 artifacts per acre. It might be informative to prepare these numbers for all the areas investigated to date to provide a basis for estimating future survey effort and results. Artifact totals and identifications are based on a detailed, assessment and are presented in the artifact inventory (Appendix B).

In the description for each area, a detailed table presents the artifact information from that area. The columns identify the excavation units, shovel tests and surface collection totals. The rows break down the information by broad category (historic or prehistoric) and by material and specific artifact type.

The area descriptions run chiefly from northeast to southwest along the proposed Route 301, Section 1 alignment. Refer to Figures 1.1 and 3.1 for locations.



Plate 3.1. Disking equipment (owned and operated by tenant Dennis Clay) in use on Area 9 on March 16th 2010 (Photographer: William Liebeknecht, March 2010) [HRI Neg.#10009/D1:008]

B. BORROW AREA 2, VILLAGE OF SCOTT RUN EAST (FIGURES 3.2 AND 3.3; PLATES 3.2 THROUGH 3.11; TABLE 3.2)

Archaeological Resources Assigned Delaware Site Numbers: Scott Run Historic Site [7NC-G178, N14540]; Scott Run Prehistoric Site 1 [7NC-G178, N14539]

1. Area-Specific Field Methods

Prior to the field survey a semi-mature wheat crop had to be cut and baled. The area was then plowed and disked. Rains over the next two weeks were infrequent and light. Surface visibility was about 90 to 100 percent, but the dry conditions made surface collection difficult. The entire area was walked from east to west and then from south to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing 42 shovel tests and one excavation unit measuring 2.5 feet by 10 feet. A total of 3,297 artifacts were recovered from this area.

2. Artifact Clusters

A large group of historic artifacts dating to the late 17th through mid-18th century was tightly clustered within a gentle basin-like depression at the top of rise overlooking an unnamed branch of the Scott Run in the northern reaches of the borrow area (Figure 3.2, Site Cluster 2A, Scott Run Historic Site [7NC-G178, N14540]).

Prehistoric artifacts were located along the first terrace overlooking two branches of the Scott Run in the western end of the borrow area (Figure 3.2, Site Cluster 2B). This is Site 2B, Scott Run Prehistoric Site 1 [7NC-G178, N14539].

3. Shovel Tests

Forty two shovel tests were excavated. Twenty eight of these produced historic artifacts. Prehistoric artifacts were recovered from six tests.

4. Excavation Units

Excavation Unit 1 (Plate 3.3) was placed in an area where the metal detector survey had revealed a cluster of red bricks at the base of the plowzone. The unit came directly down onto steps cut into the subsoil and leading into a red-brick-lined cellar hole. Shallow shovel tests, which only removed the plowzone in the immediate area, were successful in tracing out the dimensions of the cellar hole. The length of the cellar hole is projected to be 20 feet. The width is projected to be ten feet and the depth below the plowzone is three feet. The cellar has a red brick foundation one course wide suggesting a frame superstructure. The steps cut into the subsoil likely were covered with wood planks and a thin trace of wood near the cellar floor suggests it may have had a wooden floor. A thin layer of clay at the bottom of the cellar appears to have been purposely used as a sealant to keep the cellar dry. This may also be an indication that part of the cellar was used as a dairy. The cellar appears to have been deepened or cleaned sometime after it was fully constructed as the floor extends about three inches below the brick foundation.

Excavation Unit 1 produced over 1,700 artifacts from Context 1 and 2 (an active plowzone and former plowzone) and from subsequent fill levels of the cellar hole (Contexts 4, 6 and 11).



Plate 3.2. Area 2 – Field crew (William Liebeknecht, Glen Mellin, Wayne Mellin, and Tim Hitchens) surface collecting the plowed fields looking north. Flags in the center represent a cluster of early 18th century artifacts (Photographer: Joelle Browning, June 2010) [HRI Neg.#10009/D2:057].



Plate 3.3. Area 2 - Excavation Unit 1, partially excavated cellar hole looking north showing brick foundation and steps leading down into the cellar (Photographer: Glen Mellin, June 2010) [HRI Neg.#10009/D2:112].

5. Research from Phase IA

The Phase IA research was unable to trace the property back beyond 1844 when Kensey Johns was the owner (Archaeological & Historical Consultants, Inc. 2009, 2010).

6. Predictive Model Assessment

The initial sensitivity predictive model (A.D. Marble & Company 2006) rated this area as moderate for prehistoric sites within approximately 600 feet of Scott Run. The historic sensitivity rated this entire area as having low potential. On re-examination Hunter Research, Inc. felt this area had a high sensitivity for both prehistoric and historic sites, as portions are located on well-drained knolls and terraces above the Scott Run, itself a reliable source of water, which leads to the Delaware Bay. Initial inspection of this area noted mature walnut trees and day lilies along the wood line indicating the likely presence of a nearby historic site.

7. Key Artifacts

Table 3.2 identifies 2,967 historic and 330 prehistoric items from Borrow Area 2.

Prehistoric (Plate 3.4)

- Black chert narrow bladed projectile point with corner notches
- Two-banded rhyolite stemmed bifaces which are thoroughly exhausted
- The distal end of a gray chert projectile point re-hafted on the sides
- Crude narrow-bladed pebble jasper biface with serrated edges
- Black pebble chert teardrop shaped biface made on a flake

- Black chert narrow bladed contracting stemmed biface (awl?)
- Thermally altered rock fragments

Historic (Plates 3.4 through 3.11)

- Westerwald gray-bodied stoneware with cobalt blue and incised decoration
- White salt-glazed stoneware (dipped and slip cast molded tea cups and cans)
- Scratch blue white salt-glazed stoneware (tea bowls, and cups)
- Nottingham brown salt-glazed stoneware
- English two-tone brown salt-glazed stoneware
- Midlands mottled buff earthenware (tankard)
- Buff-bodied slip combed Staffordshire ware
- Tin-enameled, buff-bodied earthenware (buff and pink bodied, plates and an ointment jar)
- Redware (black glazed, clear lead glazed, manganese glazed, slip trailed, combed and copper oxide. One early pan exhibits a large folded rim. One vessel is a footed skillet in the Dutch style)
- Chinese export porcelain (blue under-glazed, red over-glazed and brown glazed)(brown glazed = Batavia ware, Kangxi period 1662-1722)
- One sherd of possible Colono-ware (burnished exterior surface)
- Two gray spall-type gunflints (musket size - possibly made on site)
- Two flint strike-a-lights made from ballast
- One gray flint core
- Olive green bottle fragments (onion and mallet types)
- Light forest green flask or Alpine spirits bottle
- Window glass pale aqua and pale olive (possibly from Wistarburg Glassworks in southern New Jersey)
- Clear glass paste “diamond”
- Wrought iron pintle
- Wrought iron strap hinge
- Wrought iron nails

- Wrought iron horse-shoe
- Small iron scissors/embroiderers snips with a brass pivot point
- Cast-iron buckle center pivot/tine
- An impacted lead musket ball (with a calculated diameter of 0.644", which would have been used in a gun with ~ 0.69" bore)
- Small circular flat lead piece - one inch diameter, possible bale seal
- Two lead window comes (opened, no dates)
- Lead (circular flat sheet which has been rolled, indeterminate function)
- Possible window came blank (unmarked , measures 2 ½ by 2 ¼ inches when unrolled)
- Small fragments of pewter (possible spoon fragments)
- Copper George I half penny dating to 1714-1727
- Brass sleeve link (very poor condition)
- Brass buttons
- Brass straight pins
- White clay tobacco pipe fragments (2 stamped RT for Robert Tippet II of Bristol)
- Red brick fragments (hand formed, some "glazed")
- Shell (oyster, clam and freshwater mussel)
- Bone gaming piece
- Fish bones and scales
- Turtle bones
- Bird bones (chicken with a range of other birds from small to large)
- Mammal bones (identified species include pig, cow, and sheep)
- A corncob with eight rows

8. Interpretation

Prehistoric materials from this area date from the Archaic through the Woodland II periods and suggest short-term hunting and/or possibly lithic procurement for pebble cherts and jaspers.

The historic artifacts are related to a previously unidentified house located in the northern portion of the borrow area, adjacent to an un-named tributary of the Scott Run. The artifact assemblage suggests an occupation beginning *circa* 1690 or possibly earlier, extending to *circa* 1750. Architectural artifacts from the site suggest that the structure was wood framed above grade with casement windows and decorative hardware. The building had a brick cellar foundation extending at least four feet below the surface, and measuring approximately ten feet by 20 feet. The cellar may have only been under half of the house. If this was the case then the building would have measured twenty feet square. The assemblage is rich in material culture with a mix of early British ceramics with probable Dutch utilitarian wares and fine Chinese tea wares. Items of wealth include sleeve links, a paste glass "diamond", gunflints (showing the ownership of muskets) and a possible lead bale seal indicating the occupant's ability to purchase materials in bulk. The variety of faunal remains exemplifies the means to raise, purchase or acquire many different types of domestic and wild animals.

9. Future Research

1. Further documentary research needs to be conducted concerning the ownership of this property in the second half of the 17th and 18th centuries. Records and deeds held in Maryland may be helpful.



Plate 3.4. Area 2 – Selected prehistoric artifacts. Top row (left to right): a black chert narrow bladed contracting stemmed biface, possible awl, a black pebble chert teardrop shaped biface made on a flake, a crude narrow bladed pebble jasper biface with serrated edges, a distal end of a grey chert projectile point re-hafted on the sides. Bottom row (left to right): A black chert narrow-bladed projectile point with corner notches, two banded rhyolite stemmed bifaces which are thoroughly exhausted (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:01].



Plate 3.5. Area 2 – Selected historic artifacts from the first half of the 18th century. Top row (left to right): brass straight pin with a hand formed head, brass sleeve link in very poor condition, a circular bone gaming piece, a white clay tobacco pipe bowl fragment stamped RT for Robert Tippet II of Bristol 1678 to 1720. Middle row (left to right): an impacted lead musket ball (with a calculated diameter of 0.644” which would have been used in a gun with ~ 0.69” bore), two lead window cames (no dates present), a circular flat sheet of lead which had been rolled, indeterminate function, small iron scissors/embroiderers snips with a brass pivot point (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:07].



Plate 3.6. Area 2 – Selected ceramic artifacts from the first half of the 18th century. Top row (left to right): English two-tone brown salt glazed stoneware tankard body sherd, Westerwald grey bodied stoneware incised decoration infilled with cobalt, white salt glazed stoneware with scratch blue decoration, slip-cast white salt glazed stoneware teacup. Middle row (left to right): tin enameled pink-bodied earthenware, Midlands mottled buff-bodied earthenware tankard base sherd, two buff bodied earthenware Staffordshire ware plate body sherds. Bottom row (left to right): two views of Chinese Batavia porcelain with red over-glazed interior and brown glazed exterior dating to the Kangxi period 1662-1722, a possible Colono ware sherd, burnished or lightly glazed on the exterior surface (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:02.



Plate 3.7. Area 2 – Two view of a red earthen ware pan or pancheon from Excavation Unit 1, Context 4, with a folded thickened rim exhibiting rodent gnawing marks on the unglazed exterior. The interior exhibits clear lead glaze (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:03].



Plate 3.8. Area 2 – Red earthenware “Dutch style” skillet rim/body and foot sherds from Excavation Unit 1, Context 4, with a line drawing of an excavated example from Norwich, England (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:13].

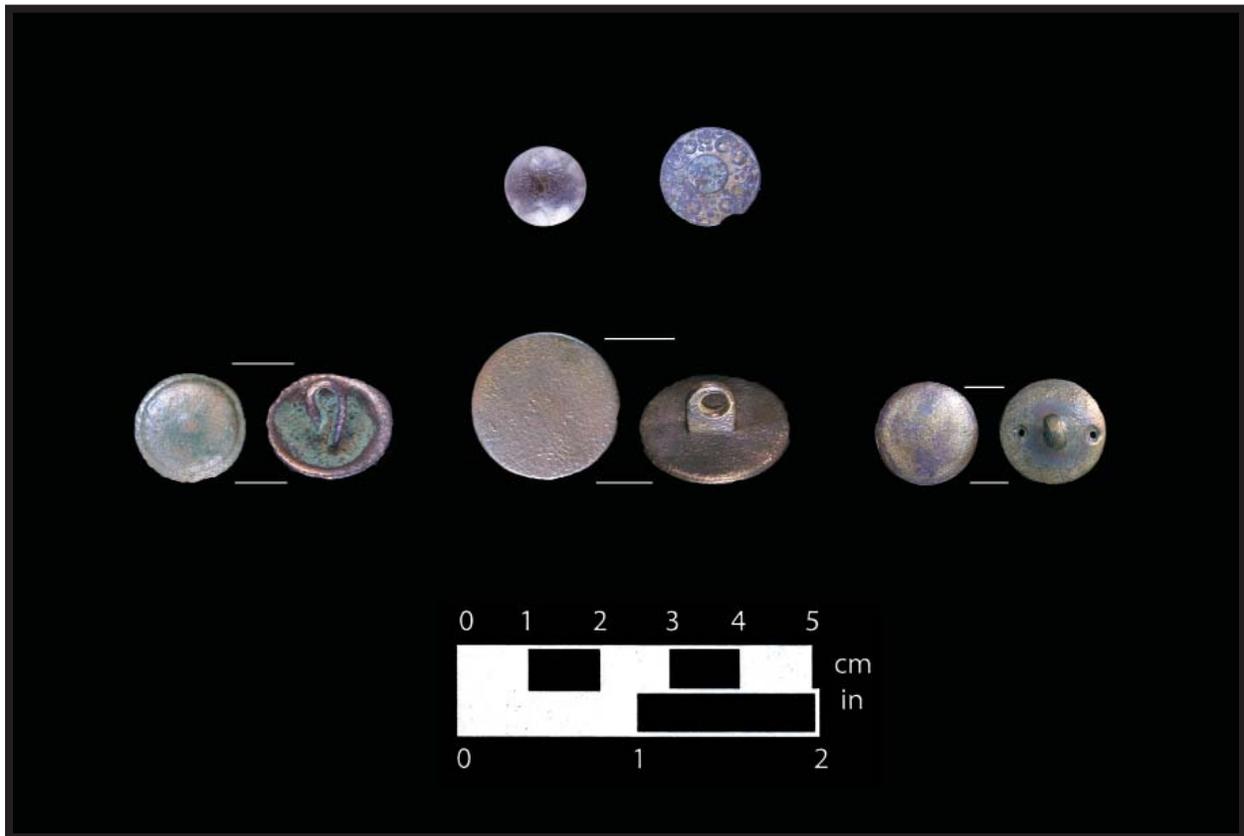


Plate 3.9. Area 2 – Selected buttons from the first half of the 18th century. Top row (left to right): a clear glass paste “diamond” from a ring, a decorative brass gilt button. Bottom row (left to right): two views of a brass button with an applied wire loop shank, two views of a cast brass button with a shank, two views of a hollow cast brass button with gas vent holes on the back side (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:04].



Plate 3.10. Area 2 – A door strap hinge from the first half of the 18th century from the plow-zone recovered during the metal detector survey. (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:05].



Plate 3.11. Area 2 – Flint artifacts from the surface and Excavation Unit 1: Top: two musket size spall-type gunflints made from a mottled grey flint. Bottom (left to right): Strike-a-lights or cores leftover from local gunflint production from ship’s ballast, grey flint exhibiting cortex and multiple flake scars, mottled grey flint, “honey” colored flint exhibiting cortex and multiple flake scars (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:06].

Table 3.2. Borrow Area 2: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity					
Historic	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Ball Clay	1725	369	873	2967	
smoking pipe	89	5	22	116	
	89	5	22	116	
Bone	644	3	6	653	
avian	18			18	
button	1			1	
chicken	2			2	
cow	58		2	60	
cow or pig	1			1	
fish	4			4	
large mammal	20			20	
mammal	512	3	2	517	
pig	23		2	25	
rodent	5			5	
Brass	5		2	7	
button	2		2	4	
pin	1			1	
straight pin	2			2	
Coarse Earthenware	415	337	572	1324	
brick	85	298	406	789	
brickand mortar	1			1	
mortar	19			19	
Red bodied slipware	56	5	12	73	
Redware	254	34	154	442	
Coarse Earthenware and ferrous metal	1			1	
brick	1			1	
Copper alloy			3	3	
cap/lid			1	1	
coin			1	1	
unidentified			1	1	
Corn cob	1			1	
eight row	1			1	
Earthenware	44	3	9	56	
Buff bodied slipware			1	1	
buff body	1	2		3	
Staffordshire buff body	16			16	
tin enameled, buff body	26		7	33	
tin enameled, pink body	1		1	2	
white body		1		1	
Ferrous metal	231	9	53	293	
bracket			13	13	
buckle	1		1	1	
handle	1			1	
hinge			1	1	
hoe			1	1	
horseshoe	1			1	
knife	3			3	
nail	219	8	35	262	
scissors	1			1	
spike	1			1	
straight pin	2			2	
tack	2			2	
unidentified		1	1	2	
washer			1	1	
Fish scale	3			3	
	3			3	
Flint	8		4	12	
	4			4	
	3			3	
debitage					
gun part			3	3	
strike-a-light	1		1	2	
Glass	80	7	101	188	
bottle	44	1	49	94	
bottle/jar	2		16	18	
curved	2	3	15	20	
Decorative			2	2	
flat			2	2	
jar			4	4	
jewelry	1			1	
lamp chimney	2	1		3	
slag			1	1	
tableware	5		1	6	
window	24	2	11	37	
Lead	6		3	9	
			2	2	
gun part			1	1	
sheet	1			1	
unidentified	3			3	
window	2			2	
Pewter	2			2	
	2			2	
Porcelain	3		1	4	
Chinese Export	2			2	
hard paste	1		1	2	
Refined Earthenware	3	1	28	32	

Table 3.2. Borrow Area 2: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity					
	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Buff bodied slipware			1	1	
buff body			1	1	
Ironstone			18	18	
Midlands Mottled	2			2	
Pearlware		1	4	5	
Staffordshire buff body	1			1	
Whiteware			3	3	
red-bodied			1	1	
Shell	119	3	32	154	
clam			2	2	
nacre	1			1	
oyster	118	3	30	151	
Slag			1	1	
			1	1	
Stoneware	50	1	36	87	
grey body	2		4	6	
Westerwald-type			5	5	
White salt-glazed	48	1	27	76	
Turtle/tortoise shell	2			2	
	2			2	
White Metal	2			2	
cufflink set	1			1	
unidentified	1			1	
Wood	17			17	
carbon sample	17			17	
Prehistoric	15	7	308	330	
Argillite			4	4	
biface			1	1	
blank			2	2	
core			1	1	
Chert	1		24	25	
biface			3	3	
core			2	2	
debitage			12	12	
flake tool	1		2	3	
projectile point			4	4	
tested cobble			1	1	
Granite			1	1	
tested cobble			1	1	
Jasper	1	1	11	13	
biface			1	1	
core			1	1	
debitage			5	5	
flake tool	1	1	2	4	
projectile point			1	1	
tested cobble			1	1	
Mica	2			2	
	2			2	
Quartz	2	3	34	39	
biface			7	7	
blank			1	1	
core			5	5	
debitage			18	18	
flake tool	2	2	2	6	
thermally-altered rock		1		1	
Quartzite	6	3	232	241	
cobble-based tool			3	3	
core			1	1	
debitage	1		2	3	
flake tool			1	1	
thermally-altered rock	5	3	225	233	
Rhyolite			2	2	
projectile point			2	2	
Unidentified	3			3	
	3			3	
Grand Total	1740	376	1181	3297	

2. As an example of a late 17th- and early 18th-century house site in a mid-peninsular setting, this site is clearly of considerable significance in a state and regional context. If avoidance of this site is not possible, a staged data recovery program based on a well contextualized research design would be the recommended treatment.

3. Research 18th-century occupations and landings along the Scott Run. The activities involving international trade along the western shores of the Delaware Bay is in need of additional research. Such research may also shed light on other similar 18th-century sites located adjacent to navigable waterways in other parts of Section 1 such as Areas 4, 6, 10, and in Section 2, Area 2.

4. The use of pale olive window glass is unusual and may indicate a link to the Wistarburg Glassworks located directly across the Delaware Bay in Alloway Township in Salem County, New Jersey. Research on vessels from the Wistarburg site has been on-going at the Winterthur Museum. Analysis of the window glass could provide a valuable link to inter-colonial exchange of goods.

5. The rich collection of faunal materials recovered from the single two and a half by ten foot excavation unit within a cellar hole indicates a significant assemblage which merits evaluation by a faunal specialist. The presences of cut (axe and knife) marks rather than saw marks may indicate on site butchering. Species and cuts may indicate ethnic preferences. If mature sheep and cows are being consumed it would indicate they were kept on the farmstead for their wool and milk before slaughter. Joanne Bowen (1994) has developed a method for analyzing faunal remains from a broader context. By analyzing herding systems and comparing the New England and the Chesapeake regions through the 17th and 18th centuries she demonstrates how two different English settlements

developed different strategies. The landscape in central Delaware differs from both of these regions and could provide a useful comparison.

6. The presence of window leads (which were used to hold small panes or quarries of glass in casement windows) helps to develop an image of what the house may have looked like. Studies of window leads are limited and in need of revision. Window leads are rare. A list of sites within Delaware (with marks when possible) should be compiled and placed within the larger colonial context. Glaziers are known to have been working in New York as early as 1638 (Wilson 1976:155).

7. Flint, found in the form of cores or strike-a-lights, flakes and gunflints, provides an interesting collection of artifacts possibly fashioned from ship's ballast. Core fragments are on two or possibly three different types of flint. Analysis of the type of flints may be used to trace European ports where ballast was acquired.

C. BORROW AREA 3, VILLAGE OF SCOTT RUN WEST (FIGURES 3.4, 3.5; PLATES 3.12, 3.13; TABLE 3.3)

Archaeological Resources Assigned Delaware Site Numbers: Scott Run Prehistoric Site [7NC-G177, N14538]

1. Area-Specific Field Methods

As in Borrow Area 2 prior to the field survey a semi-mature crop wheat had to be cut and baled. The area was then plowed and disked. Rains over the next two weeks were infrequent and light. Surface visibility was about 90 to 100 percent, but the dry conditions made surface collection difficult. The entire area was walked from east to west and then from south to north (Plate 3.12). Artifact



Plate 3.12. Area 3 - Field crew (Sue Ferenbach, Glen Mellin, Wayne Mellin, and Tim Hitchens) surface collecting the plowed fields looking northeast (Photographer: Joelle Browning, June 2010) [HRI Neg.#10009/D2:037].

clusters were then tested, employing 10 shovel tests. A total of 256 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were loosely clustered along the first terrace of the Scott Run in the northern portion of the borrow area and are defined as Site 3A.

Historic materials were widely dispersed and limited to the late 19th and early 20th century. No discernable historic clusters were noted.

3. Shovel Tests

A total of three shovel tests produced five prehistoric artifacts

4. Research from Phase IA

The Phase IA research was unable to trace the property back beyond 1844 when Kensey Johns owned the property.

5. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as moderate to low for prehistoric sites and low for historic sites. After an initial inspection of the borrow area, Hunter Research, Inc. felt this area, like Area 2, had a high sensitivity for both prehistoric and historic sites as portions are located on well-drained knolls and terraces above the Scott Run.

6. Key Artifacts

Table 3.4. identifies one indeterminate, 40 historic, and 128 prehistoric artifacts from Borrow Area 3. All but five of these were from surface collection.

Prehistoric (Plate 3.13)

- Narrow-bladed limonite projectile point with a contracting stem
- Dark gray chert triangular projectile point utilized as a hafted scraper
- Debitage
- Thermally altered rock fragments

Historic

None of special interest (late 19th and 20th century)

7. Interpretation

Prehistoric artifacts from this site are from the Woodland I and II periods. The tool kit is represented by a broken/ discarded projectile point, a projectile point reused as an engraving tool and an expedient cutting tool (made from a local jasper pebble),debitage (resulting from the production and curation of tools), with thermally altered rocks (for heating and cooking food). This type of assemblage suggests a series of repeated short term hunting camps positioned along the Scott Run.

8. Future Research

No future research recommended. Although this area is considered to denote a prehistoric archaeological site it is likely that better examples with higher quality data exist on the proposed alignment

D. BORROW AREA 4, HYETTS CORNER

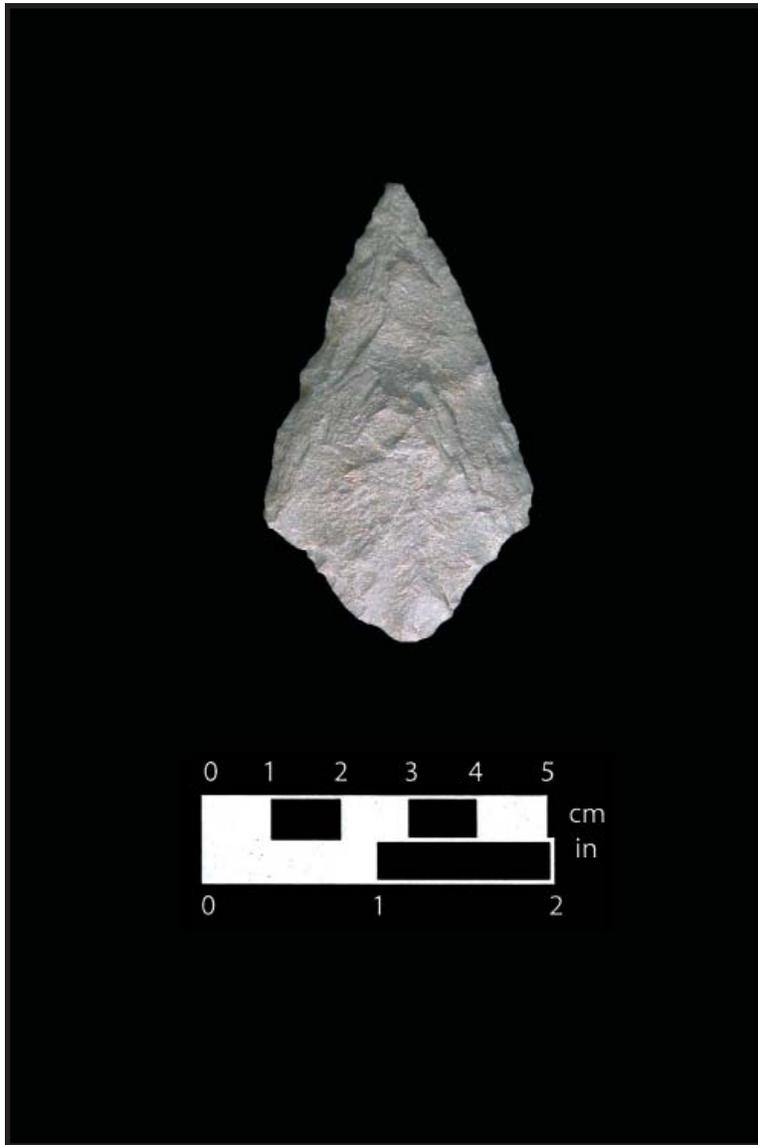


Plate 3.13. Area 3 – A limonite broad spear with a contracting stem (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:08].

Table 3.3. Area 3: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity			
	Shovel Test	Surface Collection	Grand Total
Historic		40	40
Coarse Earthenware		19	19
brick		12	12
Redware		6	6
Yellowware		1	1
Glass		12	12
bottle		2	2
bottle/jar		1	1
jar		1	1
window		8	8
Porcelain		4	4
hard paste		4	4
Refined Earthenware		5	5
Ironstone		3	3
Pearlware		2	2
Indeterminate		1	1
Granite		1	1
		1	1
Prehistoric	5	123	128
Chalcedony		1	1
projectile point		1	1
Chert		9	9
biface		3	3
debitage		4	4
tested cobble		1	1
tested pebble		1	1
Granite		1	1
cobble-based tool		1	1
Jasper	1	3	4
biface		2	2
debitage		1	1
projectile point	1		1
Quartz		55	55
biface		13	13
core		9	9
debitage		25	25
projectile point		2	2
tested cobble		1	1
thermally-altered rock		5	5
Quartzite	4	54	58
cobble-based tool		2	2
core		2	2
debitage		3	3
thermally-altered rock	4	47	51
Grand Total	5	164	169

**LLC (FIGURES 3.6, 3.7; PLATES 3.14, 3.15;
TABLE 3.4)**

**Archaeological Resources Assigned Delaware
Site Numbers: Scott Run Prehistoric Site 3
[7NC-F156, N14537]; Hyett's Corner Tenant Site
[7NC-G176, N14536]**

1. Area-specific Field Methods

Borrow Area 4 was roughly plowed and disked a few weeks prior to the Phase IB survey. Rains prior to the surface collection helped to level out the field and expose artifacts. Surface visibility was about 90 to 100 percent (Plate 3.14). The entire area was walked from east to west and then from south to north. Artifact clusters were then tested, employing 46 shovel tests and two excavation units measuring 2.5 feet by 10 feet each.

2. Artifact Clusters

Prehistoric artifacts were scattered across the northern portion of the borrow area at the confluence of the Scott Run and an un-named tributary along the first terrace of the western half of the borrow area (4B).

A loose linear cluster (4A) of mid-18th- to mid-19th-century historic materials was located within a protected shallow basin in the middle of the field directly east of a small un-named branch of the Scott Run.

3. Shovel Tests

Eight shovel tests produced 12 prehistoric artifacts and 16 shovel tests produced 64 historic artifacts.

4. Excavation Units

Excavation Unit 1 was placed centrally within the loose linear cluster of historic materials located in the middle of the field. Following the removal of the plowzone, Context 1, the sterile clay loam subsoil (Context 2) was encountered. A total of six historic artifacts were recovered from the plowzone. These artifacts consisted of redware, milk glass and small red brick fragments. Four prehistoric flakes were also found in the plowzone. No cultural features or artifacts were observed below the plowzone.

Excavation Unit 2 was placed near the wood-line along the western boundary of the borrow area in an area where thermally altered rocks had been observed on the surface. Following the removal of the plowzone, Context 1, the sterile silty clay loam subsoil (Context 2) was encountered. A total of two historic redware sherds were recovered from the plowzone. A total of six prehistoric flakes and ten thermally altered rock fragments were also found in the plowzone. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

The Phase IA research was unable to trace the property back beyond 1844 when Kensey Johns owned the property.

6. Predictive Model Assessment

The A.D. Marble & Company model rated this area as moderate to low for prehistoric sites and low for historic sites. This area lies directly adjacent to A&HC Survey Segment 25 in which low densities of both prehistoric and 18th-century



Plate 3.14. Area 4 - General view of the conditions of the plowed fields (Photographer: Joelle Browning, June 2010) [HRI Neg.#10009/D2:028].

historic material (creamware and white salt-glazed stoneware) were identified (Archaeological & Historical Consultants, Inc. 2009, 2010).

7. Key Artifacts:

Table 3.4 identifies 1000 artifacts from this area, 741 historic and 259 prehistoric. This excludes 459 artifacts from the modern fill area.

Prehistoric

- Thermally altered jasper biface (crudely corner notched)
- Quartz un-typed broad spear
- Chalcedony triangular projectile point (utilized as a graver on the distal end)
- High grade limonite broad spear (exhibits grinding along one lateral edge)
- Debitage
- Thermally altered rock fragments

Historic (Plate 3.15)

- White salt-glazed stoneware (dipped and slip cast molded tea cups and cans)
- Scratch blue, white salt-glazed stoneware (tea bowls and cups)
- Tin enameled buff-bodied earthenware
- Creamware
- Pearlware
- Redware (black-glazed, clear-lead glazed, manganese-glazed, clouded and slip-trailed)
- Olive green vessel glass
- Red brick (some “glazed”)

8. Interpretation

Prehistoric artifacts from this site range over time throughout the Woodland I and II periods. The tool kit is represented by a broken/ discarded projectile point, a projectile point reused as an engraving

tool and an expedient cutting tool (made from a local jasper pebble),debitage (resulting from the production and curation of tools), with thermally altered rocks (for heating and cooking food). This type of assemblage suggests a series of repeated short term hunting camps positioned along the Scott Run.

The historic artifacts may be related to an occupation located in the center of the borrow area at the head of an un-named tributary of the Scott Run. The artifact assemblage suggests an occupation between *circa* 1750 to1820. Historic material considered to be field scatter in Survey Segment 25 is likely related to the periphery of this site and should be included in the site boundaries.

9. Future Research

1. Further research needs to be conducted concerning the ownership of this property in the 18th century. Records and deeds held in Maryland may be helpful.

2. Research 18th-century occupations and landings along the Scott Run. The activities involving international trade along the western shores of the Delaware Bay is in need of additional research as well as research on sites of all types along first order streams. Such research may also shed light on other similar 18th-century sites located adjacent to navigable waterways in other parts of Section 1 such as Areas 2, 6, 10, and in Section 2, Area 2.

Table 3.4. Area 4: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity				
	Excavation Unit	Shovel Test	Surface Collection	Grand Total
Historic	6	70	665	741
Ball Clay			2	2
Brass			1	1
bracket			1	1
Coal		3		3
		3		3
Coarse Earthenware	5	16	410	431
brick	2	11	238	251
Red bodied slipware			6	6
Redware	3	5	165	173
terra cotta			1	1
Copper alloy		1		1
coin		1		1
Earthenware		1	3	4
Buff bodied slipware		1		1
tin enameled, buff body			1	1
Yellowware			2	2
Ferrous metal	5	5	30	35
	1	1	9	10
	1	1	2	3
bolt			1	1
cauldron			2	2
chain			1	1
fence post			2	2
hinge			1	1
horseshoe			1	1
nail		3	7	10
plow part			1	1
pulley			1	1
spike			2	2
window sash			1	1
wire			1	1
Glass		7	72	79
		1	1	1
bottle			27	27
bottle/jar			2	2
container			2	2
curved		6	26	32
unidentified			1	1
window		1	13	14
Granite			1	1
			1	1
Porcelain			14	14
hard paste			14	14
Refined Earthenware	1	32	122	155
Creamware		2	8	10
Ironstone		16	87	103
Jackfield-type		1		1
Pearlware			14	14
Redware			1	1
Whiteware	1	13	12	26
Stoneware		4	10	14
buff body			1	1
grey body		3	6	9
White salt-glazed		1	3	4
Prehistoric	18	10	231	259
Chalcedony			1	1
debitage			1	1
Chert	3		14	17
biface			1	1
debitage	2		12	14
projectile point			1	1
thermally-altered rock	1			1
Jasper	1	1	4	6
debitage	1		3	5
projectile point			1	1
Quartz	3	3	49	55
biface			2	2
core			4	4
debitage	2	3	32	37
projectile point			2	2
thermally-altered rock	1		9	10
Quartzite	9	6	163	178
cobble-based tool			1	1
core			2	2
debitage	2	1	8	11
tested cobble			2	2
thermally-altered rock	7	5	150	162
Rhyolite	2			2
debitage	2			2
Grand Total	24	80	896	1000

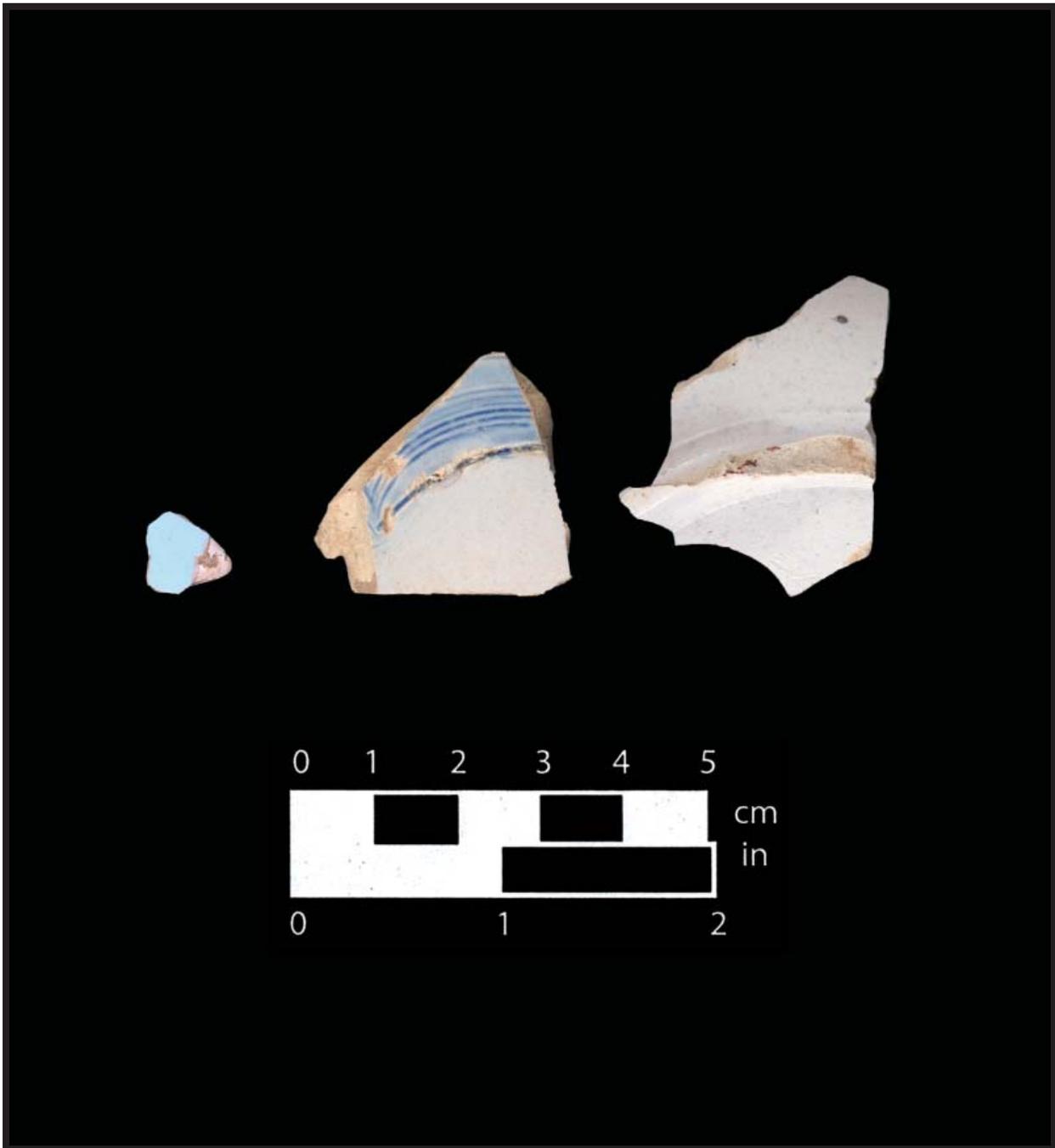


Plate 3.15. Area 4 – Selected mid-18th artifacts collected from the surface. Left to right: buff-bodied light blue tin enameled earthenware, White salt glazed stoneware hollowware base sherd with scratch blue decoration, White salt glazed stoneware hollowware base sherd, probable slop or punch bowl (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:09].

E. BORROW AREA 5, CHURCHTOWN MANOR NORTH

Archaeological Resources Assigned Delaware Site Numbers: None

This area was excluded from the present survey because of the Low Probability ranking assigned during the Phase IA investigations. At that time it was not apparent that the Reedy Island Cart Road passed through this area. In light of this information, coupled with the identification of sites on both sides of the cart road alignment in other locations, the ranking of this area should be reconsidered and adjusted to moderate to high for historic occupation. The prehistoric ranking of the bulk of this area was also regarded as low but should be adjusted to moderate to low in light of the presence of the bay-basin features located immediately to the southwest, the bordering streams, and the large amounts of prehistoric materials located in A&HC Survey Segment 7.

F. BORROW AREA 6, CHURCHTOWN MANOR SOUTH (FIGURES 3.8 – 3.10; PLATES 3.16 - 3.22; TABLE 3.5)

Archaeological Resources Assigned Delaware Site Numbers: Churchtown 4 Prehistoric/Historic Site [7NC-F155, N14535]; Churchtown 2 Prehistoric/Historic Site [7NC-F154, N14534]

1. Area-Specific Field Methods

Prior to the field survey this area had been plowed, disked and planted in wheat. Rains over the next two weeks initiated the wheat to sprout. Surface visibility was about 90 percent, but as time passed visibility declined to about 70 percent when the surface survey was completed. The entire area was walked from east to west and then from south

to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing shovel tests, and four excavation units each measuring 2.5 feet by 10 feet. A total of 3,431 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located all the way along the first terrace overlooking Taylor's branch to the east and the Spring Mill Branch to the south, with tighter clusters in the southwest corner of the borrow area and along the southern boundary in the center adjacent to the historic cluster described below (Figure 3.8).

A dense group of historic artifacts dating to the late 17th through mid-19th century was tightly clustered on a low knoll adjacent to a spring head overlooking the Spring Mill Branch in the southern portion of the borrow area (Figure 3.9).

A second cluster of historic artifacts was located on a rise overlooking the Taylor's Branch. This cluster extends into A&HC's Survey Segment 6 (Churchtown Sites 3 and 4) (Archaeological & Historical Consultants, Inc. 2009, 2010).

3. Shovel Tests

Of the 33 shovel tests excavated, 11 produced 20 prehistoric artifacts and eight produced 40 historic artifacts.



Plate 3.16. Area 6 - Field crew (Glen Mellin, Wayne Mellin, and Dan O'Toole and Dawn Chessaek) surface collecting the plowed fields looking west. Flags in the center represent a cluster of Late 17th and 18th century artifacts (Photographer: Joelle Browning, April 2010) [HRI Neg.#10009/D1:037].



Plate 3.17. Area 6 - Excavation Unit 2, partially excavated pit feature with thermally fractured rocks clustered along western edge. View looking north (Photographer: Glen Mellin, May 2010) [HRI Neg.#10009/D1:312].



Plate 3.18. Area 6 - Excavation Unit 4, partially excavated basin-shaped pit feature looking west (Photographer: Dawn Cheshaek, May 2010) [HRI Neg.#10009/D1:359].

4. Excavation Units

Excavation Unit 1 was placed in the second cluster of historic artifacts located on a rise overlooking the Taylor's Branch. Following the removal of the plowzone, Context 1, plowscars were evident in the top of the sterile subsoil (clay loam), Context 2. A total of seven historic and 16 prehistoric artifacts were recovered from the plowzone. Historic artifacts consist of one sherd each of redware and pearlware, one piece of curved glass, a red brick fragment and three fragments of encrusted iron. Prehistoric artifacts consisted of debitage (quartzite, quartz, chert, jasper and rhyolite) and thermally altered rock fragments.

Excavation Unit 2 (Plate 3.17) was placed in the southeast corner of the borrow area in an area where thermally altered rock fragments were scattered across the surface. Following the removal of the plowzone (Context 1), a prehistoric cultural feature (Context 3) cutting down into sterile subsoil (Context 2), became apparent. The feature appears to be a "D" shaped pit typically associated with pithouses in the Delmarva region. A total of 176 prehistoric artifacts (a biface, a scraper, a core, debitage and thermally altered rock fragments) were recovered from the plowzone alone. An additional 128 prehistoric artifacts (a bifacial tool, a quartzite core, an elongated hammerstone, debitage and thermally altered rock fragments) were found, and two vials of carbon were collected from the pit for future submittal of a radiocarbon date. Thermally altered rock fragments within the pit appeared to be clustered and likely represent the remains of a hearth.

Excavation Unit 3 was placed within the dense cluster of historic artifacts located on a low knoll adjacent to a spring head overlooking the Spring Mill Branch in the southern portion of the borrow area. The plowzone (Context 1) contained 322

historic artifacts consisting of ceramics (redware, stoneware, Jackfield, hard paste porcelain, creamware, pearlware and whiteware), vessel glass, window glass, nails and brick. A total of 67 prehistoric artifacts were also recovered from the plowzone consisting of a jasper drill, a battered stone, debitage, and thermally altered rock fragments. Following the removal of the plowzone, heavily disturbed subsoil (Contexts 2-6) was exposed. Three historic artifacts were recovered from the upper part of the subsoil: a small brick fragment, a nail and a pipe bowl fragment.

Excavation Unit 4 (Plate 3.18) was placed west of Excavation Unit 3 on a low knoll where a cluster of thermally altered rock fragments and debitage were observed on the surface. The plowzone (Contexts 1/2) contained 112 historic artifacts consisting of ceramics (redware, Chinese export porcelain, pearlware and whiteware), tobacco pipe stem fragments, vessel glass, window glass and brick. A total of 165 prehistoric artifacts were also recovered from the plowzone contexts, consisting of a chert triangular projectile point, one ceramic sherd, debitage and thermally altered rock fragments. Following the removal of the plowzone contexts, a circular pit feature (Context 3/4) became apparent. This shallow pit feature contained a hammerstone, debitage and multiple pieces of charcoal. The charcoal was sampled for future radiocarbon dating of the feature.

5. Research from Phase IA

The Phase IA research did not trace the property earlier than 1812, at which time it was under the ownership of the Houston family.

6. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as moderate for prehistoric sites within approximately 250 feet of the Spring Mill Branch. The historic sensitivity was low. Hunter Research, Inc. felt this area had a high sensitivity for both prehistoric and historic sites as it lies along the projected path of the Reedy Island Cart Road and is bordered by a reliable source of water leading to the Delaware Bay.

7. Key Artifacts

Table 3.5 identifies a total of 3,525 artifacts: 1,668 historic and 1,857 prehistoric.

Prehistoric (Plate 3.19)

- Limonite narrow bladed spear point with a contracting stem
- White quartz narrow bladed projectile point with an eared base
- Rhyolite narrow bladed projectile point with shallow side notches
- Reddish brown jasper narrow bladed side notched projectile point
- Gray chert triangular projectile point
- Black chert narrow bladed contracting stem biface
- Reddish brown jasper narrow bladed contracting stem biface
- White quartz middle stage biface
- Pebble jasper pentangular middle-stage biface chert
- Debitage
- Thermally altered rock fragments

Historic (Plates 3.20 – 3.22)

- Westerwald gray bodied stoneware with cobalt blue and incised decoration

- Westerwald gray bodied stoneware with repeating single circular sprig cobalt blue Decoration (*circa* 1640-1675 identical to specimens found in association with Susquehannock and Seneca burials [Wilcoxon 1987:74; Kent 1984:260]) (see also Nicolaes Maes painting of “Woman Plucking a Duck” *circa* 1655-56 and a painting by Johannes Vermeer of the “Milkmaid” *circa* 1658-1660)
- Rhenish brown salt-glazed stoneware (typical of Bartmann/Bellarmine bottles generally dated to the 17th century [Skerry and Hood 2010:6-29])
- White salt-glazed stoneware
- Scratch blue, white salt-glazed stoneware (tea bowls and cups)
- Buff-bodied, slip-combed Staffordshire ware
- Tin-enameled, buff-bodied earthenware
- Redware (black-glazed, clear lead-glazed, manganese-glazed, slip-trailed, combed and copper oxide)
- Jackfield ware
- Creamware
- Pearlware (blue transfer printed, blue and green shell edge, mocha, polychrome)
- Chinese export porcelain (one with a Canton border)
- One thermally altered gray, musket-sized gunflint
- Olive green bottle glass fragments
- One dark blue medium length tube glass trade bead (Kidd and Kidd type Ia19 which Fogelman [1991] dates to *circa* 1620 to 1750)
- Cast iron cauldron fragments (body and feet)
- Cast iron wheel bearing for a large cart or wagon
- Wrought iron nails



Plate 3.19. Area 6 – Selected Prehistoric Artifacts. Top row (left to right): a rhyolite narrow bladed projectile point with shallow side notches, a white quartz narrow bladed projectile point with an eared base, a reddish brown jasper narrow bladed side notched projectile point. Bottom row (left to right): a large limonite narrow bladed spear point with a contracting stem, a ceramic sherd with crushed quartz temper and exterior fabric impressed surface, coil construction (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:14].



Plate 3.20. Area 6 – Selected Historic Artifacts. Top row (left to right): an olive green bottle neck with a flared rim, probably the top of an early case bottle, a dark blue medium length tube glass trade bead, Kidd and Kidd type Ia19 circa 1620 to 1750, a thermally altered and fractured grey spall type gunflint, musket size. Bottom (left to right): a Rhenish brown salt glazed stoneware body sherd typical of Bartmann/Bellarmino bottle styles generally dated to the 17th century, a white salt-glazed stoneware body sherd with scratch blue floral decoration (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:15].



Plate 3.21. Area 6 – Westerwald stoneware circular sprig sherds with cobalt background compared to examples from a painting by Johannes Vermeer of the Milkmaid circa 1658-1660 and a vessel excavated from a Seneca-Iroquois site in New York circa 1660-1675. (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:16].



Plate 3.22. Area 6 – Selected 18th century iron artifacts. Left to right: cast iron cauldron body fragment, cast iron cauldron foot, wrought iron wagon or large cart wheel bearing (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:17].

Table 3.5. Borrow Area 6: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity					
	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Historic	457	69	1142	1668	
Ball Clay	9		18	27	
Brass			1	1	
button			1	1	
Coal		4		4	
		4		4	
Coarse Earthenware	264	19	804	1087	
brick	9			9	
Red bodied slipware	93	3	385	481	
Redware	6		20	26	
terra cotta	156	16	394	566	
Copper alloy	1		5	5	
	1			1	
Ferrous metal	20	2	58	80	
bar stock			12	12	
bit			2	2	
carriage part			1	1	
cauldron			1	1	
chisel			4	4	
hammer			1	1	
hook			1	1	
horseshoe			1	1	
latch			4	4	
nail			1	1	
plow part	18	2	20	40	
screw driver			1	1	
sheet strap	1		1	1	
spike	1		7	8	
wrench			1	1	
Flint			1	1	
			1	1	
			1	1	
Glass	28		47	75	
bead			1	1	
bottle			1	1	
bottle/jar	8		16	24	
button			3	3	
curved			1	1	
jar	8		1	9	
lamp chimney			2	2	
light bulb	2		1	3	
unidentified	1		1	1	
window	9		4	13	
Porcelain	4		21	25	
Chinese Export	2		2	4	
hard paste	2		19	21	
Refined Earthenware	127	43	173	343	
Creamware	35		53	88	
Ironstone	1		7	8	
Jackfield-type			1	1	
Pearlware	75	37	95	207	
unidentified	9			9	
unidentified hardware			4	4	
white body		3		3	
Whiteware	7	3	13	23	
Slag	1		1	2	
	1		1	2	
Stoneware	1		14	15	
grey body	1		4	5	
red body			2	2	
Westerwald-type			4	4	
White salt-glazed			4	4	
Tooth			4	4	
mammal			3	3	
rodent			1	1	
Unidentified	1	1		2	
curved	1	1		1	
unidentified	1			1	
Indeterminate		3	1	4	
Granite			1	1	
			1	1	
Limonite		3		3	
		3		3	
Prehistoric	654	22	1177	1853	
Argillite	4		3	7	
biface			1	1	
debitage			1	1	
projectile point	4			4	
Bone	1		1	1	
mammal	1			1	
Chalcedony			2	2	
biface			1	1	
debitage			1	1	

Sum of Quantity

	Excavation Unit	Shovel Test	Surface Collection	Grand Total
Chert	41	1	75	117
biface			6	6
core			4	4
debitage	38	1	55	94
flake tool			3	3
projectile point	1		3	4
tested cobble			3	3
tested pebble			1	1
thermally-altered rock	2			2
Cuesta Quartzite	29		10	39
debitage	16		1	17
thermally-altered rock	13		9	22
Gneiss	1			1
thermally-altered rock	1			1
Jasper	158	5	36	199
	2			2
biface	1			1
core			1	1
debitage	154	5	29	188
flake tool	1			1
projectile point			4	4
tested cobble			2	2
Limonite	30	2	1	33
	2	2		4
debitage	1			1
projectile point			1	1
thermally-altered rock	27			27
Mica			1	1
			1	1
Nut	2			2
carbon sample	2			2
Quartz	90	4	119	213
	1			1
biface	2		12	14
cobble-based tool			1	1
core			13	13
debitage	57	3	80	140
flake tool			1	1
projectile point			2	2
tested pebble			1	1
thermally-altered rock	30	1	9	40
Quartz/grit/sand temper	2			2
	2			2
Quartz/grog tempered			1	1
			1	1
Quartzite	223	10	927	1160
	5			5
cobble-based tool	2		6	8
core			3	3
debitage	23	3	9	35
tested cobble			1	1
thermally-altered rock	193	7	908	1108
Rhyolite	2		1	3
debitage	2		1	3
Schist	1			1
thermally-altered rock	1			1
Siltstone			1	1
debitage			1	1
Unidentified	1			1
	1			1
Wood	69			69
carbon sample	69			69
Grand Total	1111	94	2320	3525

8. Interpretation

Prehistoric materials from this area date from the Archaic through the Woodland II periods and once again generally suggest repeated short-term hunting camps. However, the exploratory excavation units also demonstrated preservation below the plowzone with one shallow basin-shaped feature of indeterminate function and age and one deeper pit with thermally altered rocks and debitage representing a potential pit-house also of indeterminate age.

The dense cluster of historic artifacts dating from the late 17th through mid-19th century located on a low knoll adjacent to a spring head overlooking the Spring Mill Branch appears to be a possible landing area where artifacts were lost or broken while unloading goods from vessels coming up the Drawyer Creek from the Delaware Bay.

A second cluster of historic artifacts dating to the second half of the 18th century located in the northeast portion of the site may be related to an otherwise unknown tenant/farm house located along the projected path of the Reedy Island Cart Road. This site extends into A&HC Survey Segment 7.

9. Future Research

1. Further research needs to be conducted concerning the ownership of this property in the second half of the 17th and 18th centuries. Records and deeds held in Maryland may be helpful.

2. In the light of some of the artifact types found here, a historic Native American connection should be explored for this property during the second half of the 17th century.

3. The potential importance of the early cart-road network for the understanding of the colonial settlement pattern in this part of the drainage divide is emphasized by the data from this area including A&HC Survey Segments 6, 7 and 8.

4. Research 17th- and 18th-century landings along the upper reaches of the Spring Mill Branch and the Drawyer Creek.

G. BORROW AREA 7, PLEASANTON EAST (FIGURES 3.11 AND 3.12; PLATES 3.23 – 3.31; TABLE 3.6)

Archaeological Resources Assigned Delaware Site Numbers: Reedy Island Cart Road Site 4 [7NC-F153; N14533]

1. Area-Specific Field Methods

Prior to the field survey the area was plowed and disked. Rains over the next couple of days increased the surface visibility from about 80 to nearly 100 percent. The entire area was walked from east to west and then from south to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing 39 shovel tests and four excavation units each measuring 2.5 feet by 10 feet. A total of 3,796 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were generally located along the northern and eastern perimeter of the borrow area along the first terrace of the Spring Mill Branch, a branch of the Drawyer Creek (Figure 3.11).



Plate 3.23. Area 7 - General view of the conditions of the plowed fields looking east. Flags in the center mark a cluster of 18th century artifacts (Photographer: Joelle Browning, May 2010) [HRI Neg.#10009/D2:005].



Plate 3.24. Area 7 - Excavation Unit 1, partially excavated cellar hole looking west showing corner of a brick foundation with a builder's trench (Photographer: Tim Hitchens, May 2010) [HRI Neg.#10009/D1:237].

Four distinct clusters of historic artifacts dating to the late 17th through late 18th century were clustered within the borrow area (Figure 3.11). Historic Cluster 1 is dominated by red brick fragments and redware with minor amounts of domestic debris. Historic Cluster 2 consists of a light collection of domestic artifacts dating to the mid-18th century. Historic Cluster 3 consists of a dense assemblage of domestic debris dating from the late 17th century to the late 18th century. Historic Cluster 4 represents another light collection of domestic artifacts dating to the mid-18th century.

3. Shovel Tests

Of the 39 shovel tests excavated, eight shovel tests produced a total of 11 prehistoric artifacts and 22 produced 110 historic artifacts.

4. Excavation Units

Excavation Unit 1 (Plate 3.24) was placed in Historic Cluster 3 near where the metal detector made several positive hits. This unit originally measured 2.5 feet by 10 feet, but was expanded to 15 feet long following the removal of the plowzone, at which point the edge of a cellar hole was encountered at the south end of the unit. Shallow shovel tests, which removed only the plowzone in the immediate area, were successful in tracing out the projected dimensions of the cellar hole. The length of the cellar hole is projected to be 20 feet, the width is projected to be 16 feet and the depth to floor below the plowzone is 3 feet. The cellar has a red brick foundation one brick's length wide, suggesting a frame superstructure. Excavation Unit 1 produced 1,069 artifacts from Context 1 (an active plowzone), the fill of the cellar hole (Context 5) and the builder's trench (Context 8). A shallow post-hole was located next to the foundation, three

feet from the southwest corner. Artifacts recovered from the fill of the cellar hole suggest it was filled prior to 1776, based on the absence of pearlware.

Excavation Unit 2 was placed in Historic Cluster 2, a cluster of domestic artifacts dating to the mid-18th century. Following the removal of the plowzone (Context 1), a sterile sandy loam subsoil (Context 2) was encountered. A total of 82 historic artifacts were recovered from the plowzone. These artifacts consisted of ceramics (redware, creamware, tin-enameled buff-bodied earthenware, white salt-glazed stoneware, vessel glass, bone, brick, nails and window glass). Although no physical evidence of a structure was observed, the number of architectural and domestic artifacts suggests a house was formerly located nearby. No cultural features or artifacts were observed below the plowzone.

Excavation Unit 3 was placed in Historic Cluster 1, a cluster of domestic artifacts dating to the mid-18th century. Following the removal of the plowzone (Context 1), a silty sand with gravel subsoil, Context 2, was encountered. A total of 69 historic and 16 prehistoric artifacts were recovered from the plowzone. A quartz contracting-stemmed projectile point and a single sherd of redware were recovered from the top of the subsoil and may be intrusive. Historic artifacts consist of creamware, redware, vessel glass, a tobacco pipe stem, wrought nails and red brick, suggesting a structure once stood in the general vicinity during the second half of the 18th century. Prehistoric artifacts consisted of a hammerstone, debitage and thermally altered rock fragments, suggesting lithic reduction or curation of stone tools took place here.

Excavation Unit 4 was placed in historic locus 4, a loose cluster of domestic artifacts dating to the mid-18th century. Following the removal of the plowzone (Context 1), the sterile clay loam subsoil

(Context 2) was encountered. A total of nine historic and eight prehistoric artifacts were recovered from the plowzone. These artifacts consisted of redware, creamware, vessel and window glass and red brick. Although no physical evidence of a structure was observed, the number of architectural and domestic artifacts suggesting a house was formerly located nearby. Prehistoric artifacts from the plowzone consisted of a flake tool, a chert core, debitage and a thermally fracture rock fragment. These artifacts reflect the reduction of local cobbles for the production of stone tools. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

The Phase IA research traced the ownership back to William Bird in 1780.

6. Predictive Model Assessment

The A.D. Marble & Company model rated this area as moderate for prehistoric sites within a range of approximately 250 to 350 feet of the Spring Mill Branch. Historic sensitivity was assessed as low. Experience on Section 2 suggested that these locations, especially those near water and adjacent to the Reedy Island cart road, were likely to have a higher sensitivity than the model suggested.

7. Key Artifacts

Table 3.6 identifies 3313 artifacts from this area: 2,829 historic and 484 prehistoric.

Prehistoric (Plate 3.25)

- Low grade gray chert narrow bladed projectile point with a contracting stem

- Banded dark gray chert triangular projectile point with basal notching known as an Eshback type (Late Archaic or Woodland I 3,230 BC to 1,500 BC, the margins exhibit grinding [Fogelman 1988])
- White quartz narrow bladed projectile point with a straight stem
- Red jasper narrow bladed projectile point with a basally notched straight stem (Neville/Stanley type *circa* 6,000 BC to 5,000 BC [Justice 1987])
- Yellow/brown jasper narrow bladed projectile point with a contracting stem
- Gray chert narrow bladed projectile point flat in cross-section with side notching and basal grinding (Meadowood like from the Woodland I period *circa* 1,000-385 BC [Fogelman 1988]).
- Black and gray chert narrow bladed elongated triangular projectile point flat in cross-section similar to Meadowood cache blades
- Dark brown jasper triangular projectile point reworked into a concave scraper
- Large chalcedony humped back scraper (possibly Early Archaic or late Paleo-Indian period)
- Debitage
- Thermally altered rock fragments

Historic (Plates 3.26 - 3.31)

- Brass Chinese coin with a square hole in the center (Marked “Kung Pu” or “Board of Public Works” in *Boo-Yuwan* [Peking/Beijing], it was initially thought to have been minted during the Qing/Ching Dynasty between 1662 and 1722, but the current identification suggests that it dates to the reign of later Qing/Ching Emperor Kao Tsung, between 1736 and 1795 [Calgary Coin and Antique Gallery n.d.; Sea Eagle Coins n.d.]
- Westerwald gray-bodied stoneware with cobalt blue and incised decoration (one sherd has purple manganese infilling)



Plate 3.25. Area 7 – Selected prehistoric artifacts: Top row (left to right): A red jasper narrow bladed projectile point with a basally notched straight stem, Neville/Stanley type circa 6,000 BC to 5,000 BC, a grey chert narrow bladed projectile point flat in cross-section with side notching and basal grinding Meadowood like circa 1,000-385 BC, a black and grey chert narrow bladed elongated triangular projectile point flat in cross-section similar to a Meadowood cache blade. Bottom: a large chalcedony humped back scraper (possibly Early Archaic or late Paleo period (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:18].

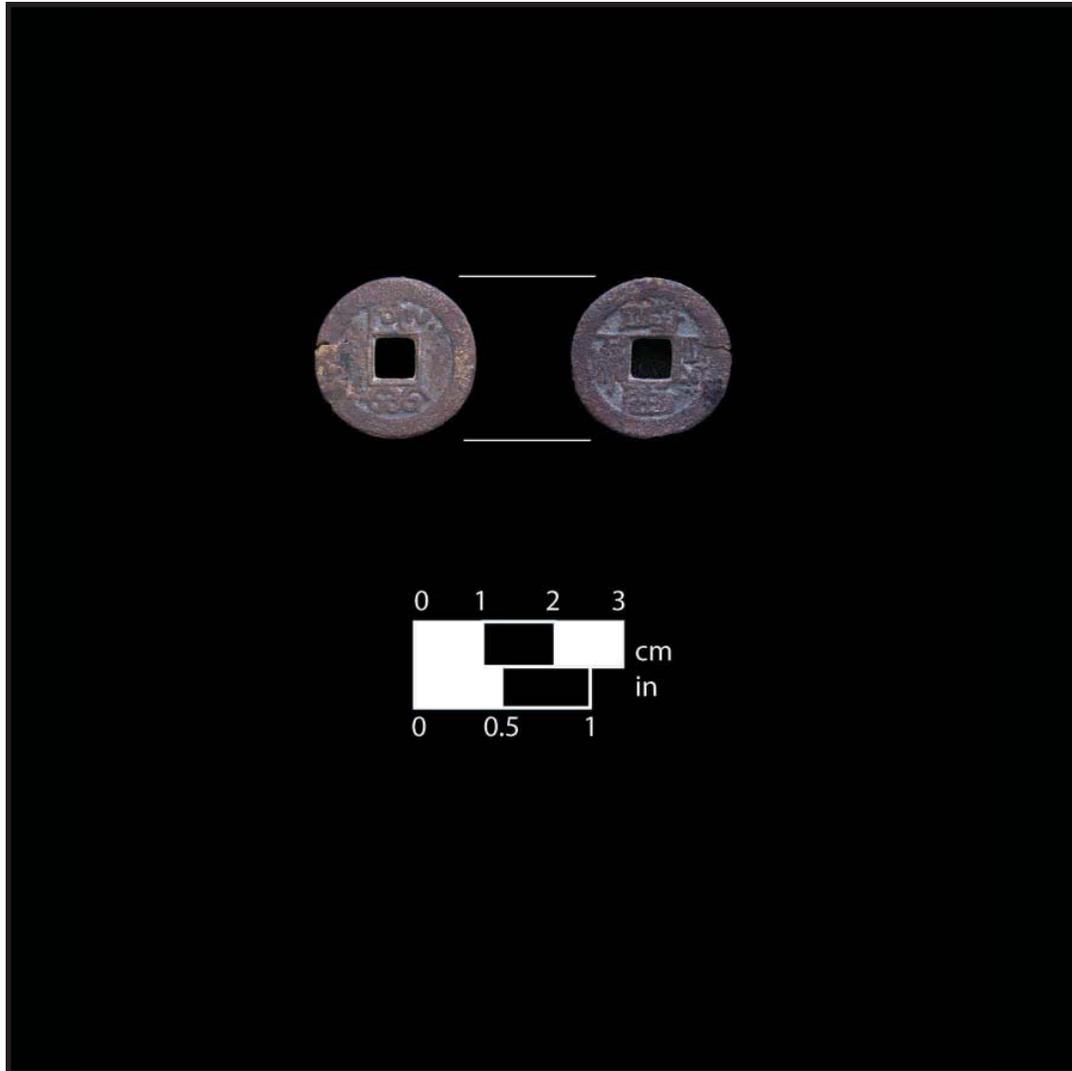


Plate 3.26. Area 7 – A brass Chinese coin with a square hole in the center, and marked Kung Pu (Board of Public Works) in Boo-Yuwan (Peking/Beijing). Initially thought to have been minted during the Qing/Ching Dynasty between 1662 and 1722 (Emperor Kangxi Tongbao), but the current identification suggests that it dates to the reign of later Qing/Ching Emperor Kao Tsung, between 1736 and 1795. (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:29].



Plate 3.27. Area 7 – Selected historic artifacts from the surface. Top row (left to right): Chinese porcelain hollow cast handle sherd with an applied scolded heart, a Westerwald grey bodied salt glazed stoneware body sherd with incised decoration infilled with cobalt and purple manganese, a white salt glazed stoneware tea bowl base sherd with scratch blue floral decoration. Bottom row: (left to right) a cast brass bulbous finial and a flint strike-a-light exhibiting cortex, made from ship's ballast (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:19].



Plate 3.28. Area 7 – Selected 18th century iron artifacts: Left: large cast iron cauldron body fragment with a casting seam. Right: (top) cast iron cauldron rim fragment with a horizontal casting seam, (bottom) cast iron cauldron “L” shaped ear (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:20].



Plate 3.29. Area 7 – An iron knife with a pewter guard and a decayed wooden handle from Excavation Unit 1, Context 8. A similar knife was recovered from a Lenape burial at the Pahaquarra site circa 1730-1750 (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:21].



Plate 3.30. Area 7 – Selected historic artifacts from Excavation Unit 1, Context 5. Left: an olive green mallet bottle shoulder/neck/rim fragment with an applied string closure. Right (top) a brass horse shield-shaped harness mount, (bottom) an agateware tankard base sherd to right): (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:22].

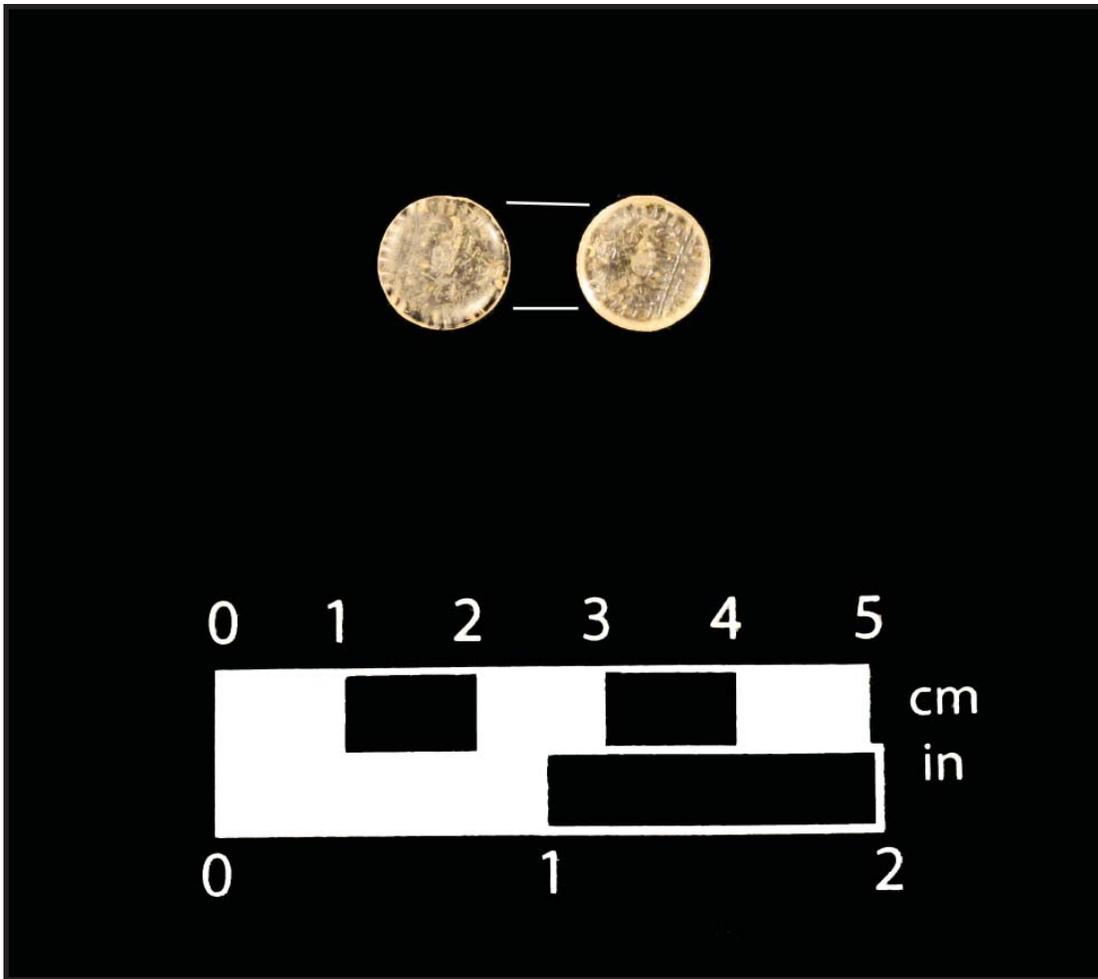


Plate 3.31. Area 7 – A clear glass intaglio from Excavation Unit 1, Context 5 also known as a “tassi” impressed with a small building, probably a church with a cross on the top (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:23].

- White salt-glazed stoneware
- Gray bodied salt-glazed stoneware
- Scratch blue white salt-glazed stoneware (tea bowls, cups and a punch or slop bowl)
- Buff-bodied slip combed Staffordshire ware
- Tin enameled buff-bodied earthenware
- Redware (black glazed, clear lead glazed, manganese glazed, slip trailed, combed and copper oxide)
- Jackfield ware
- Agateware
- Creamware
- Pearlware (blue and green shell edge)
- Chinese export porcelain (one handle sherd is hollow cast with an applied scrolled heart)
- White tobacco pipe stem fragments
- Clear glass intaglio (also known as “tassies” impressed with a small building, probably a church with a cross on the top. Intaglio’s were commonly made into rings so that you could press this into hot wax as a seal on a letter and to leave your initials or a design.)
- An iron knife with a pewter guard and a wooden handle
- One flint strike-a-light
- Olive green mallet bottle glass fragments
- Olive green case bottle glass fragments
- Pale aqua window glass fragments
- Pale aqua and pale olive window glass fragments (possibly from Wistarburg Glassworks in southern, New Jersey)
- Brass, shield-shaped harness mount
- Cast brass bulbous finial (two pieces)
- Cast iron cauldron fragments (body and ears)
- A cast iron trivet
- Wrought iron gudgeon strap hinge
- A wrought iron wedge (pin for a wagon or cart)
- Wrought iron nails
- Bone (pig and cow)
- Oyster shell
- Red brick fragments (some glazed)
- Mortar (sampled)

8. Interpretation

Prehistoric materials from this area date from the Late Paleo-Indian /Early Archaic through the Woodland II periods and suggest repeated short-term hunting camps over a long period of time.

The four clusters of historic artifacts dating from the late 17th through late 18th century suggest sequential occupation of this piece of land along the Reedy Island Cart Road. Current research perspectives suggest that one reason for this occupation was the use of the cart road for cross-peninsula illicit trade in which Chesapeake Bay tobacco was being exchanged for European goods. Some of the clusters may represent residential structures for indentured servants or slaves. The unusual wealth exhibited by this site and others along the cart roads demands explanation. The artifact assemblage currently suggests an occupation beginning *circa* 1690, or possibly earlier, and extending to *circa* 1790. Architectural artifacts from the site and data from Excavation Unit 1 demonstrate the identified structure had a brick foundation for a wood framed superstructure. The building had a cellar extending four feet below the surface, measuring approximately 16 feet by 20 feet.

9. Future Research

1. Further research needs to be conducted concerning the ownership of this property in the second half of the 17th and 18th centuries. Records and deeds held in Maryland may be helpful.

2. Further research needs to be conducted on Chinese coins on Colonial sites. An exact transcription should be undertaken by a professional numismatist. It may be noted that this coin was issued for a road building project. It is therefore interesting that it was found along an early cart

Table 3.6. Borrow Area 7: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity					
Historic	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Ball Clay	1122	98	1609	2829	
mammal	2		4	6	
pig	27			27	
Brass	1			1	
coin	1		4	5	
finial			1	1	
horse tack	1		2	2	
watch	1		1	1	
Brass alloy	1			1	
bushing	1			1	
Coal	2			2	
slag	2			2	
Coarse Earthenware	942	80	1397	2419	
brick	771	70	924	1765	
brick and mortar	6			6	
mortar	48			48	
plaster	3			3	
Red bodied slipware	12	1	36	49	
Redware	102	9	437	548	
Earthenware			5	5	
Staffordshire mottled glaze with buff body			3	3	
tin enameled, buff body			2	2	
Ferrous metal	23	2	60	85	
bail			3	3	
bar stock			1	1	
bit			1	1	
cauldron	1		1	1	
door part			9	10	
drop pin			2	2	
hinge			1	1	
hook			1	1	
horseshoe			3	3	
ladle			3	3	
latch			1	1	
nail	20	2	19	41	
sheet			1	1	
spike			4	4	
staple			1	1	
tack	1			1	
trivet			1	1	
unidentified	1		1	1	
washer			4	5	
wedge			1	1	
wrench			1	1	
Ferrous metal, wood and pewter	1			1	
knife	1			1	
Flint					
strike-a-light			1	1	
Glass	59	5	79	143	
bottle	17	1	37	55	
bottle/jar			2	2	
curved	4	2	18	24	
flat	1			1	
jar			1	1	
lamp chimney			1	1	
tableware	1			1	
tassie	1			1	
window	35	2	20	57	
Porcelain					
Chinese Export		1	11	12	
hard paste		1	4	5	
Refined Earthenware	34	8	30	72	
agate ware	1			1	
Creamware	21	5	16	42	
Ironstone	2		4	6	
Jackfield-type	2			2	
Pearlware	7	2	6	15	
unidentified	1	1		1	
white body	1			1	
Whiteware			4	4	
Shell	12			12	
mussel	2			2	
oyster	3			3	
unidentified	7			7	
Slag	1	2	1	4	
	1	2	1	4	
Stoneware	2		16	18	
grey body	1		1	2	
Westerwald-type			2	2	
White salt-glazed	1		13	14	
Tooth	6			6	
cow	1			1	
pig	5			5	
Unidentified			1	1	

Sum of Quantity					
	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
unidentified			1	1	
Wood	4			4	
carbon sample	4			4	
Indeterminate	1			1	
Quartzite	1			1	
thermally-altered rock	1			1	
Prehistoric	26	13	444	483	
Argillite			4	4	
biface			1	1	
debitage			2	2	
manuport			1	1	
Chalcedony			2	2	
core			2	2	
Chert	1	3	39	43	
biface			2	2	
core			2	2	
debitage	1	3	30	34	
flake tool			2	2	
projectile point			2	2	
tested cobble			1	1	
Cuesta Quartzite			1	1	
debitage			1	1	
Grit temper		1		1	
		1		1	
Jasper	8	1	29	38	
cobble-based tool			1	1	
core	1		3	4	
debitage	5	1	23	29	
projectile point			2	2	
thermally-altered rock	2			2	
Limonite			1	1	
debitage			1	1	
Mica	1			1	
manuport	1			1	
Quartz	4	2	62	68	
biface	1		4	5	
core			8	8	
debitage	1	2	40	43	
projectile point			3	3	
thermally-altered rock	2		7	9	
Quartzite	12	6	304	322	
cobble-based tool		1	4	5	
core			1	1	
debitage	1		1	2	
pebble-based tool	1			1	
tested cobble			1	1	
thermally-altered rock	10	5	297	312	
Rhyolite			2	2	
debitage			1	1	
side notched			1	1	
Grand Total	1149	111	2053	3313	

route during a new road construction project. The coin image could perhaps be used as a theme for public outreach initiatives for the U.S. Route 301 project.

H. BORROW AREA 8, PLEASANTON MITIGATION SITE (FIGURES 3.13, 3.14; PLATES 3.32 – 3.34; TABLE 3.7)

Archaeological Resources Assigned Delaware Site Numbers: Reedy Island Cart Road Site , [7NC-F-151, N14530]; Reedy Island Cart Road Site [7NC-F-150, N14531]; Jones-Mathews Historic Site [7NC-F149, N14529]

1. Area-Specific Field Methods

Prior to the field survey the area was plowed and disked. Rains over the next couple of weeks increased the surface visibility from about 80 to nearly 100 percent (Plate 3.32). The entire area was walked from east to west and then from south to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing 27 shovel tests and four excavation units each measuring 2.5 feet by 10 feet. A total of 1,740 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located on low knolls dispersed around the spring heads leading to an un-named branch of the Spring Mill Branch across the borrow area.

Historic artifacts dating from the mid-18th through the late 18th century were loosely clustered with some concentrations (Loci 1, 2 and 3) on well

drained soils parallel to the projected path of the Reedy Island Cart along the south portion of the borrow area (Figure 3.13, Site Cluster 8A).

Historic artifacts associated with Jones/Mathews farmstead *circa* 1850 to 1900 were observed in the northwest corner of the Borrow Area. This farmstead was bisected by the railroad. The domestic area is clearly represented by a stand of daylilies along the banks of the rail line (Figure 3.13, Site Cluster 8B).

3. Shovel Tests

Of the 27 shovel tests, eight produced ten prehistoric artifacts and 11 produced 26 historic artifacts.

4. Excavation Units

Excavation Unit 1 was placed in a cluster of historic artifacts dating from the mid-18th century to the mid-19th century located in the southeast portion of the borrow area. Following the removal of the plowzone (Context 1), a silty loam subsoil (Context 2) was encountered. A total of 164 historic and 19 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments with a lot of redware, and a small amount of whiteware, a pipe stem and two wrought nails. Prehistoric artifacts from the plowzone consisted of debitage and thermally altered rock fragments. The subsoil was cut by a shallow posthole Contexts 3/4. This feature was likely a 19th- or 20th-century fence post. Although no other physical evidence of a structure was observed, the number of architectural (in this case red brick) fragments and 30 redware sherds suggesting an outbuilding was formerly located in the immediate vicinity.



Plate 3.32. Area 8 - General view of the conditions of the plowed fields looking north (Photographer: Joelle Browning, April 2010) [HRI Neg.#10009/D1:007].

Excavation Unit 2 was placed in an effort to locate the suspected structure suggested by the artifact assemblage recovered from Excavation Unit 1. Stratigraphy was the same as in Excavation Unit 1. A total of 100 historic and 11 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted, once again, mainly of red brick fragments with a lot of redware, and a minor amount of creamware, pearlware and vessel glass. Prehistoric artifacts from the plowzone consisted of a possible hammerstone, debitage and thermally fracture rock fragments. No cultural features or artifacts were observed below the plowzone.

Excavation Unit 3 was placed in a linear cluster of historic artifacts dating from the mid-18th century to the early 19th century, located in the south-central portion of the borrow area. The same stratigraphy was encountered. A total of 45 historic and 2 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments with redware, creamware, pearlware, vessel glass and a wrought nail. Prehistoric artifacts from the plowzone consisted of two flakes. No cultural features or artifacts were observed below the plowzone.

Similar stratigraphy was encountered in Excavation Unit 4, which was placed (in an effort to locate a structure) on a slight knoll where historic artifacts dating to the second half of the 18th century had been observed on the surface. A total of 30 historic artifacts and 1 prehistoric artifact were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments with redware (one sherd with a clouded decoration), creamware, pearlware, window glass, wrought nails and a large cast iron cauldron fragment. Prehistoric material from the plowzone consisted of single quartz biface midsection. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

The Phase IA research traced the property to the ownership of William Bird in 1780.

6. Predictive Model Assessment

A.D. Marble & Company rated this area as having moderate sensitivity for prehistoric sites within approximately 250 to 350 feet of the Spring Mill Branch. The area was rated as having low potential. As with Area 7, Hunter Research, Inc. felt this area had a high sensitivity for both prehistoric and historic sites as it lies along the projected path of the Reedy Island Cart Road and is bordered by the Spring Mill Branch.

7. Key Artifacts

Table 3.7 identifies a total of 1,730 artifacts from this area: 1,483 historic and 247 prehistoric.

Prehistoric (Plate 3.33)

- Thermally reddened jasper narrow bladed projectile point with a cocked straight stem
- Yellow/brown jasper broad spear reworked into a hafted bifacial tool
- Rhyolite narrow bladed stemmed projectile point
- Rhyolite wide bladed straight stemmed projectile point (Fox Creek like)
- Argillite narrow bladed straight stemmed projectile point
- Black pebble chert narrow bladed straight stemmed projectile point
- Back chert triangular projectile point (Woodland II period)
- Black chert narrow bladed contracting stemmed project point with a fractured base re-hafted along the margins



Plate 3.33. Area 8 – Selected prehistoric artifacts. Left to right: jasper broadspear reworked into a hafted biface, two rhyolite narrow bladed straight stemmed projectile points with cocked bases (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:24].



Plate 3.34. Area 8 – Selected 18th century iron artifacts. Left to right: cast iron cauldron body fragment and a wrought iron shutter dog (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:25].

Sum of Quantity				
	Excavation Unit	Shovel Test	Surface Collection	Grand Total
Historic	314	29	1140	1483
Ball Clay	1			1
Coarse Earthenware	280	24	1013	1317
brick	191	17	811	1019
Buckley			1	1
Red bodied slipware	6	1	4	11
Redware	83	6	194	283
tile			3	3
Earthenware	1		1	2
white body	1			1
Yellowware			1	1
Ferrous metal	12	1	56	69
bolt	1		4	5
cauldron			2	2
fence post	1		7	8
horseshoe			4	4
machine			2	2
mower			2	2
nail	10		1	11
nut			15	25
pliers			3	3
ring			2	2
shutter dog			1	1
spike			1	1
stake			7	7
unidentified		1	1	1
wrench			3	4
			1	1
Glass	5	1	14	20
bottle		1	9	10
bottle/jar			4	4
curved	4			4
unidentified			1	1
window	1			1
Porcelain			3	3
hard paste			3	3
Refined Earthenware	13	1	43	57
Creamware	8	1	7	16
Ironstone	2		7	9
Pearlware	3		8	11
Whiteware			21	21
Slag	1		3	4
	1		3	4
Slate			1	1
			1	1
Stoneware			6	6
grey body			5	5
White salt-glazed			1	1
Tooth	1			1
mammal	1			1
Prehistoric	32	11	204	247
Argillite			1	1
projectile point			1	1
Chert	3		10	13
debitage			6	6
projectile point			3	3
tested cobble			1	1
thermally-altered rock	3			3
Jasper	7	5	16	28
debitage	7	5	14	26
projectile point			2	2
Quartz	6	2	21	29
biface			2	2
core			1	1
debitage	1	2	16	19
projectile point			1	1
thermally-altered rock	5		1	6
Quartzite	16	4	154	174
cobble-based tool			1	1
debitage	1	1	2	4
tested cobble			1	1
thermally-altered rock	15	3	150	168
Rhyolite			2	2
projectile point			2	2
Grand Total	346	40	1344	1730

- Debitage
- Thermally altered rock fragments

Historic (Plates 3.34)

- White salt-glazed stoneware
- Stoneware
- Creamware
- Pearlware
- Whiteware
- Ironstone granite china
- Porcelain (small hard paste fragments too small to determine origin)
- Yellowware
- Redware (black-glazed, clear, brown mottled, slip trailed, white grounds and clouded)
- Olive green bottle glass fragments
- A wrought iron shutter dog
- Cast iron cauldron body fragments
- Wrought iron nails
- Red brick fragments (some glazed)

8. Interpretation

Prehistoric materials from this area date to the Woodland periods and suggests transient short-term camps.

The occupation represented by the mid-18th-century cluster of historic artifacts appears to have gone by the middle of the fourth quarter of the 18th century. This suggests the site was only occupied for a single generation or possibly two. Located along the projected path of the Reedy Island Cart Road, the occupants may have provided services for the illicit trade of tobacco for European goods. The high proportion of white salt-glazed stoneware from this site is atypical for this area and this time period.

The Jones/Mathews farmstead, *circa* 1850 to 1900, was bisected by the rail line but continued to function up until the turn of the 20th century.

9. Future Research

1. Further research needs to be conducted to trace the ownership of this property back to the second half of the 17th and into the 18th century. Records and deeds held in Maryland may be helpful.

2. The potential importance of the early cart-road network for the understanding of the colonial settlement pattern in this part of the project area is once again emphasized by the data from this area.

I. BORROW AREA 9, PLEASANTON STOCKPILE (FIGURES 3.12 – 3.14; PLATES 3.35 – 3.37; TABLE 3.8)

Archaeological Resources Assigned Delaware Site Numbers: Reedy Island Cart Road Site 3 [7NC-F152, N14532]

1. Area-Specific Field Methods

Prior to the field survey the area was plowed and disked. Rains over the next couple of weeks increased the surface visibility from about 80 to nearly 100 percent. The entire area was walked from east to west and then from south to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing six shovel tests and two excavation units, each measuring 2.5 feet by 10 feet. A total of 2,158 artifacts were recovered from this area. One more recent historic cluster used to fill in the headwater wetlands was sampled and the perimeter mapped (see Figure 3.13).

2. Artifact Clusters

Near the northeast corner of Borrow Area 9, a dense cluster of historic artifacts dating from the mid-through late 18th century was located immediately south of the Pleasanton House yard. This site overlooks the headwaters of the Spring Mill Branch and is situated along the Reedy Island Cart Road area (Figure 3.13, Site 9A).

West of the Pleasanton site there is a 100-foot-wide band of historic refuse dating from *circa* 1870 to *circa* 1940 which had been used to fill in the headwater wetlands of the Spring Mill Branch.

3. Shovel Tests

Of the six shovel tests, one produced one prehistoric artifact and the six produced a total of 49 historic artifacts.

4. Excavation Units

Excavation Unit 1 was placed in the field directly behind the Pleasanton yard and garden in an area where artifacts dating to the mid-18th century had been collected from the surface. Following the removal of the plowzone (Context 1), the sterile clay loam subsoil (Context 2) was encountered. This was cut by a series of what appear to be animal-drawn (irregular linear shaped) plow scars. A total of 200 historic and 3 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments. Redware and a single sherd of tin-enameled buff-bodied earthenware sherd, olive and clear vessel glass fragments, window glass fragments, a glass button, a pale yellow glass trade bead and wrought nails were also recovered. Prehistoric artifacts from the plowzone consisted of a quartz flake and

two pieces of thermally altered rock. Although no physical evidence of a structure was observed, the number of architectural (in this case red brick) and domestic artifacts strongly suggests a structure was formerly located in the immediate vicinity.

Excavation Unit 2 was placed in the same area as Excavation Unit 1, in an effort to locate the structure predicted in the vicinity. The stratigraphy and plow-scar data was the same as in Excavation Unit 1. A total of 114 historic and four prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments. Redware and two sherds of a brown salt-glazed stoneware bottle, single sherds of white salt-glazed stoneware with scratch blue decoration, tin-enameled buff-bodied earthenware sherd, vessel glass fragments, window glass fragments, and wrought nail fragments were also recovered. Prehistoric artifacts from the plowzone consisted of three flakes and one piece of a thermally altered rock.

5. Research from Phase IA

The Phase IA research traced the property back to the ownership of William Bird in 1780.

6. Predictive Model Assessment

See Borrow Area 8.

7. Key Artifacts

Table 3.8 identifies a total of 1889 artifacts from Borrow Area 9, 1806 historic and 83 prehistoric.



Plate 3.35. Area 9 - General view of the conditions of the plowed fields looking southeast. Flags in the foreground represent a cluster of mid-18th century artifacts (Photographer: Joelle Browning, May 2010) [HRI Neg.#10009/D1:105].



Plate 3.36. Area 9 – Selected mid-18th century artifacts: Top: four white salt glazed stoneware sherds with floral scratch blue decorations. Bottom: a cast iron cauldron body fragment (Photographer: Lindsay Lee, July 2010) [HRI Neg.#10009/D3:26].

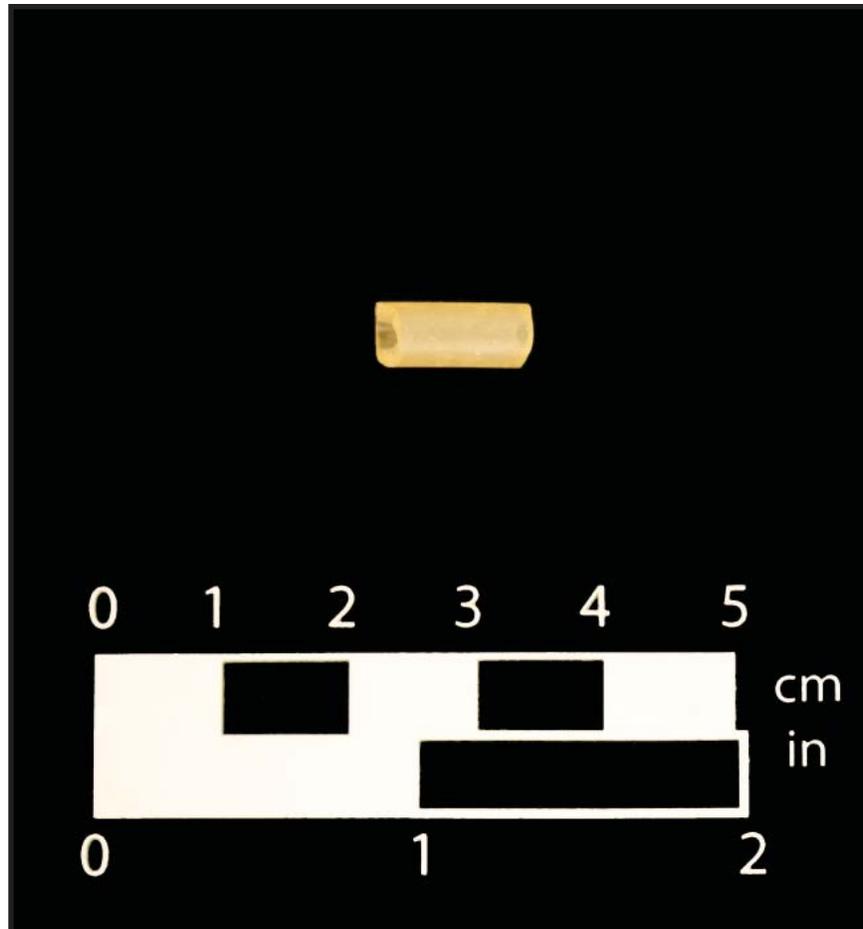


Plate 3.37. Area 9 – pale yellow glass tube trade bead, Kidd and Kidd type Ia7 circa 1650 to 1675 (Photographer: Lindsay Lee, July 2011) [HRI Neg.#10009/D3:27].

Prehistoric

- White quartz teardrop-shaped projectile point
- Debitage
- Thermally altered rock fragments

Historic (Plates 3.36 and 3.37)

- White salt-glazed stoneware
- Multiple sherds of scratch blue, white salt-glazed stoneware (tea bowls, cups and a teapot lid)
- Gray-bodied salt-glazed stoneware
- Tin-enamelled buff-bodied earthenware
- Redware (black-glazed, clear lead glazed, manganese-glazed, and slip-trailed)
- Creamware
- Chinese export porcelain
- White tobacco pipe stem fragments
- Olive green bottle glass fragments
- One pale yellow short length tube glass trade bead (Kidd and Kidd type Ia7 which Fogelman [1991] dates to *circa* 1650 to 1675)
- Nickel-silver plated Tombac coat button with a broken shank
- Cast iron cauldron body fragment
- Wrought iron nails
- Red brick fragments (some glazed)

8. Interpretation

Diagnostic prehistoric materials from this area date to the Woodland period and suggest transient short-term camps. The headwater setting may have provided an attractive location to camp.

The historic materials closely reflect the interpretation offered for Area 8.

9. Future Research

1. Further research should trace the ownership of this property back to the second half of the 17th and earlier 18th centuries. Records and deeds held in Maryland may be helpful.

J. BORROW AREA 10, PLEASANTON SOUTHEAST (FIGURE 3.15; PLATES 3.38 AND 3.39; TABLE 3.9)

Archaeological Resources Assigned Delaware Site Numbers: Spring Mill Branch Prehistoric/Historic [7NC-F148, N14528]

1. Area-Specific Field Methods

Prior to the field survey the area was plowed and then disked. Rains over the next couple of weeks increased the surface visibility was from about 80 to nearly 100 percent (Plate 3.38). The entire area was walked from east to west and then from south to north. A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing ten shovel tests and one excavation unit measuring 2.5 feet by 10 feet. A total of 981 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located along the first terrace overlooking Spring Mill Branch along the southern and western perimeters of the borrow area (Figure 3.15, Site 10A).

Table 3.8. Borrow Area 9: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity					
Historic	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Ball Clay	762	56	1806	2624	
unidentified	2		2	2	
Carbon			2	2	
battery part			2	2	
Cloth	2			2	
cotton	2			2	
Coal			3	3	
			3	3	
Coarse Earthenware	715	54	1436	2205	
brick	621	48	1188	1857	
Red bodied slipware	9		20	29	
Redware	85	6	225	316	
tile			3	3	
Earthenware	2		1	3	
tin enameled, buff body	2		1	3	
Ferrous metal	14		37	51	
bolt			1	1	
bracket			1	1	
cap/lid			1	1	
car			1	1	
cauldron			1	1	
file/rasp			1	1	
horseshoe			7	7	
legs			1	1	
nail	14		13	27	
plow part			1	1	
ring			1	1	
spike			3	3	
strap			1	1	
unidentified			4	4	
Ferrous metal and brass			1	1	
			1	1	
Glass	24		208	232	
bead	1			1	
bottle			88	88	
bottle/jar			50	50	
button	1			1	
curved	18		10	28	
Decorative			5	5	
jar			42	42	
lid			6	6	
mug			1	1	
tableware			1	1	
window	4		5	9	
Glass and plastic			1	1	
bottle and cap			1	1	
Granite			1	1	
unidentified			1	1	
Porcelain			21	21	
Chinese Export			2	2	
hard paste			18	18	
insulator			1	1	
Porcelain and wire			3	3	
hard paste			3	3	
Refined Earthenware		2	54	56	
Creamware		2	3	5	
Ironstone			50	50	
tin enameled, buff body			1	1	
Slag			1	1	
			1	1	
Stoneware	3		32	35	
buff body			7	7	
grey body	2			2	
white body			1	1	
White salt-glazed	1		24	25	
White Metal			1	1	
button			1	1	
White Metal and Ferrous metal			1	1	
unidentified			1	1	
Prehistoric	8	1	83	92	
Argillite			1	1	
projectile point			1	1	
Chert	1		3	4	
debitage	1		1	2	
flake tool			1	1	
projectile point			1	1	
Jasper			3	3	
debitage			3	3	
Quartz	2	1	11	14	
core			1	1	
debitage	2	1	5	8	
projectile point			1	1	
thermally-altered rock			4	4	
Quartzite	5		65	70	
debitage			2	2	
thermally-altered rock	5		63	68	
Grand Total	770	57	1889	2716	

A cluster of historic artifacts dating from the late 18th through mid-19th century were strewn along both sides of an incised gully which leads to the Spring Mill Branch in the center of the borrow area near the wood line (Figure 3.15, Site Cluster 10A).

3. Shovel Tests

Of the ten shovel tests, three produced five prehistoric artifacts, and five tests produced 35 historic artifacts.

4. Excavation Units

Excavation Unit 1 was placed in an area where a cluster of historic artifacts, dating to the late 18th through the first half of the 19th century, had been recovered from the surface. Following the removal of the plowzone (Context 1), the sterile silty loam subsoil (Context 3) was encountered in the northern half of the unit and a shallow historic disturbance (Context 2) in the southern half of the unit. A total of 123 historic and 16 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted mainly of red brick fragments. Smaller amounts of redware, creamware, whiteware, hard paste porcelain and curved glass were recovered. Prehistoric artifacts from the plowzone consisted of a low-grade chert projectile point mid-section fragment, and debitage.

5. Research from Phase IA

The Phase IA research traced the property to the ownership of William Bird in 1780.

6. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as low for prehistoric sites in the center of the borrow area and moderate for sites near the Spring Mill Branch. The historic sensitivity rated this entire area as having low potential. Hunter Research, Inc. felt this area had a moderate to high sensitivity for prehistoric after speaking to Mr. Pleasanton, who had collected the area along the woods with his brother 40 years ago. Hunter Research also felt the sensitivity was low for historic sites as it was off the projected path of the Reedy Island Cart Road and the Spring Mill Branch was thought to be too shallow to transport goods to a landing.

7. Key Artifacts

Table 3.9 identifies 713 historic and 266 prehistoric artifacts from this location, a total of 979.

Prehistoric

- Black and gray chert narrow bladed projectile point with a contracting stem
- White quartz narrow bladed projectile point with a contracting stem
- White quartz triangular projectile point with incipient basal notches
- White quartz narrow bladed projectile point with side notches and a concave base
- White quartz core
- Debitage
- Thermally altered rock fragments

Historic

- Creamware
- Pearlware
- Whiteware
- Ironstone granite china



Plate 3.38. Area 10- General view of the conditions of the plowed fields looking south. Flags in the center represent a cluster of mid-18th century artifacts (Photographer: Sue Ferenbach, May 2010) [HRI Neg.#10009/D1:113].



Plate 3.39. Area 10 – An 18th century brass kettle handle (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D310].

Table 3.9. Borrow Area 10: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity	Excavation Unit	Shovel Test	Surface Collection	Grand Total
Historic	114	32	567	713
Brass			1	1
Red bodied slipware	2		3	5
Redware	1		24	25
terra cotta			29	29
Ferrous metal	2		12	14
			1	1
backer plate			1	1
bolt			1	1
hatchet			1	1
horseshoe			2	2
nail	2		2	4
pin			1	1
plow part			2	2
spike			1	1
Glass	1		3	4
bottle	1		1	2
curved			2	2
Porcelain	1		1	2
hard paste	1		1	2
Refined Earthenware	9		4	13
Creamware			2	2
Ironstone			1	1
Pearlware			1	1
unidentified	2			2
Whiteware	7			7
Slag			2	2
			2	2
Stoneware			2	2
grey body			1	1
White salt-glazed			1	1
Prehistoric	18	5	243	266
Argillite			2	2
biface			2	2
Chert	3	1	15	19
biface	1		1	2
debitage	2	1	11	14
pebble-based tool			1	1
projectile point			1	1
tested cobble			1	1
Jasper	9		9	18
biface			1	1
core			1	1
debitage	9		5	14
thermally-altered rock			2	2
Quartz		1	27	28
biface			3	3
cobble-based tool			1	1
core			3	3
debitage		1	16	17
projectile point			3	3
thermally-altered rock			1	1
Quartzite	6	3	190	199
biface			2	2
cobble-based tool			5	5
debitage	5			5
tested cobble			1	1
thermally-altered rock	1	3	182	186
Grand Total	132	37	810	979

- Porcelain (small hard paste indeterminate origin, one domestic piece)
- Redware (black-glazed, clear lead-glazed, slip-trailed and brown mottled manganese)
- Olive green bottle glass fragments
- A cast brass kettle handle with a rounded spatulated attachment (Plate 3.39)
- Wrought iron nails
- Red brick fragments (some glazed)

8. Interpretation

It is difficult to assess the prehistoric use of this area since it was extensively collected by the former owner, who has lost track of the collection. Until further work is conducted on this site it can only be suggested the site possibly functioned as a repeatedly occupied transient short-term camp, possibly associated with a larger site located across the Spring Mill Branch to the west in Borrow Area 11 (see below).

The cluster of historic artifacts dating from the late 18th century to the mid-19th century appears to have been a possible landing off of the Spring Mill Branch or an attempt to fill in or stabilize a gully in a productive agricultural field with historic rubbish over time.

9. Future Research

Further research needs to be conducted concerning the ownership of this property in the second half of the 17th and the earlier 18th centuries. Records and deeds held in Maryland may be helpful.

K. BORROW AREA 11, PLEASANTON SOUTH (FIGURES 3.16 AND 3.17; PLATES 3.40 – 3.42; TABLE 3.10)

Archaeological Resources Assigned Delaware Site Numbers: Pleasanton South Historic-Prehistoric [7NC-F147, N14527]

1. Area-Specific Field Methods

Prior to the field survey the area had been plowed but not disked due to wet conditions which mired the farm equipment. Repeated rains over the next two weeks increased the surface visibility from about 80 to 100 percent, but the wet field conditions made surface collection difficult. The entire area was walked from east to west and then from south to north (Plate 3.40). A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing 21 shovel tests and three excavation units measuring 2.5 feet by 10 feet. A total of 2,266 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located along the first terrace overlooking Spring Mill Branch in the southern end of the borrow area adjacent to the wood line (Figure 3.16, Site 11A).

Clusters of historic artifacts dating to the second half of the 18th century were situated on low knolls adjacent to the wood line along the Spring Mill Branch in the southern portion of the borrow area (Figure 3.17, Site 11A).



Plate 3.40. Area 11 - Field crew (William Liebeknecht, Glen Mellin, Wayne Mellin, and Tim Hitchens, Joelle Browning and Dawn Cheshaek) surface collecting the plowed fields looking north. Flags in the center represent a cluster of early 18th century artifacts (Photographer: Sue Ferenbach, April 2010) [HRI Neg.#10009/D1:020].

3. Shovel Tests

Of the 21 shovel tests, six produced 40 prehistoric artifacts and ten tests produced 26 historic artifacts.

4. Excavation Units

All three excavation units were placed in the southern portion of the borrow area along the wood line within artifact clusters.

Excavation Unit 1 was placed in an area where a cluster of historic artifacts dating to the late 18th through the first half of the 19th century had been recovered from the surface. Following the removal of the plowzone (Context 1), a sterile clay loam subsoil (Context 2) was encountered. A total of seven historic and 55 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted of red brick fragments, pearlware, window glass and nails. Prehistoric artifacts from the plowzone consisted of the distal end of a jasper projectile point, a quartz biface, debitage, thermally altered rock fragments and single sherd of ceramic decorated with cord impression on the exterior and tempered with quartz. No cultural features or artifacts were observed below the plowzone.

Excavation Unit 2 was placed along the wood line in the center of the borrow area in an area where historic dating to the late 18th through the first half of the 19th century and prehistoric artifacts were clustered on the surface. Following the removal of the plowzone (Context 1), the remnants of a second buried plowzone (Context 2) was encountered. Below the buried plowzone was the sterile silty clay loam B-horizon subsoil (Context 3). The subsoil was cut (Context 5) by a circular pit extending beyond the excavation unit to the southwest. The fill (Context 4) of the pit contained a quartz flake tool and two quartzite flakes.

Excavation Unit 3 was placed along the wood line to the east of Excavation Unit 2 on low knoll where prehistoric materials clustered on the surface. Following the removal of Context 1 (the plowzone), the sterile silty clay subsoil (Context 2) was again encountered. The subsoil was disturbed by tree roots along the northern boundary of the unit. A total of four historic and 35 prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted of two small red brick fragments, one redware sherd and a piece of encrusted iron. Prehistoric artifacts from the plowzone consisted of a battered cobble probable hammerstone, a jasper flake tool, debitage, and thermally altered rock fragments. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

The Phase IA research traced the property back to the ownership of James Haughey in 1800. Research conducted for this area by Hunter Research, Inc. for Section 2 indicates this area was part of the John Taylor Tract (1680 to 1717). Owners critical to the understanding of the material culture are Alexander Armstrong (1739 to 1799), Cornelius Armstrong (1799 to 1824), and James Rogers (1824 to 1850).

6. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated most of this area as moderate for prehistoric sites with the areas away from the Spring Mill Branch rated as low. This entire borrow area was rated as low potential for historic sensitivity. Hunter Research, Inc. felt this area had a moderate to high sensitivity for prehistoric occupation, but a low sensitivity for historic sites as it lies away from the projected path of the Reedy Island Cart Road.



Plate 3.41. Area 11 – Selected prehistoric artifacts. Top row (left to right): a high grade black chert projectile point similar to those found at Turkey Swamp in New Jersey dating to the Late Paleo-Indian/Early Archaic period, a large yellow/brown jasper scraper, Late Paleo-Indian/Early Archaic period. Bottom row (left to right): a yellow/brown jasper narrow bladed projectile point with side notches and a flat ground base, a ceramic sherd with crushed nepheline syenite temper and an unidentified surface treatment (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:11].

7. Key Artifacts

Table 3.10 identifies 2,401 artifacts from this area: 1530 historic and 871 prehistoric.

Prehistoric (Plate 3.41)

- High grade black chert projectile point (similar to those found at Turkey Swamp in New Jersey dating to the Late Paleo-Indian/Early Archaic period)
- Large yellow/brown jasper scraper (Late Paleo-Indian/Early Archaic period)
- Pink/white quartz narrow bladed projectile point with a contracting stem
- Yellow/white quartz triangular biface with cortex on the dorsal surface
- Yellow/brown jasper Susquehanna Broad spear with the distal end heavily worn down or re-sharpened
- Large yellow/brown jasper broad spear base fragment
- Yellow/brown jasper narrow bladed projectile point with side notches and a flat ground base
- Yellow/brown jasper narrow bladed projectile point with shallow side notching (probable fishtail variant)
- Black chert narrow bladed projectile point with a contracting stem
- Gray/brown chert narrow bladed projectile point with a contracting stem
- Large tan/yellow jasper triangular projectile point
- Small tan jasper triangular projectile point (Woodland II period)
- Mottled yellow/brown jasper triangular biface
- Tan/pink quartz triangular bifacial knife
- Caramel colored jasper biface with serrated edges
- Limonite biface (possible drill)
- White quartz core
- Large black chert cobble core

- Ceramic sherd with crushed nepheline syenite temper and an unidentified surface treatment (9 mm thick)
- Debitage (limonite, Brandywine quartzite, cuesta quartzite, argillite and quartz)
- Very large piece of quarried argillite
- Thermally altered rock fragments

Historic (Plate 3.42)

- White salt-glazed stoneware
- Gray salt-glazed stoneware with a peach colored core (made from clays of the Raritan formation in New Jersey)
- Refined redware with interior white slip underglazed similar to engine-turned or Astbury redware
- Engine-turned redware
- Creamware
- Pearlware
- Whiteware
- Yellowware
- Redware (black-glazed, clear lead-glazed, manganese-glazed, -trailed and green copper oxide)
- Copper U.S. large cent (Coronet type)
- Wrought iron fragments
- Red brick fragments (some glazed)

8. Interpretation

Prehistoric materials from this area date from the Paleo-Indian period to the Woodland II period and suggest repeated short-term hunting and processing camps over a long period of time. The headwater setting may have provided an attractive location for gathering wetland plants and hunting animals.

The clusters of historic artifacts dating from the mid-18th century may possibly be part of a larger farmstead complex divided by the railroad tracks. The proximity of the site to the Armstrong/Rogers

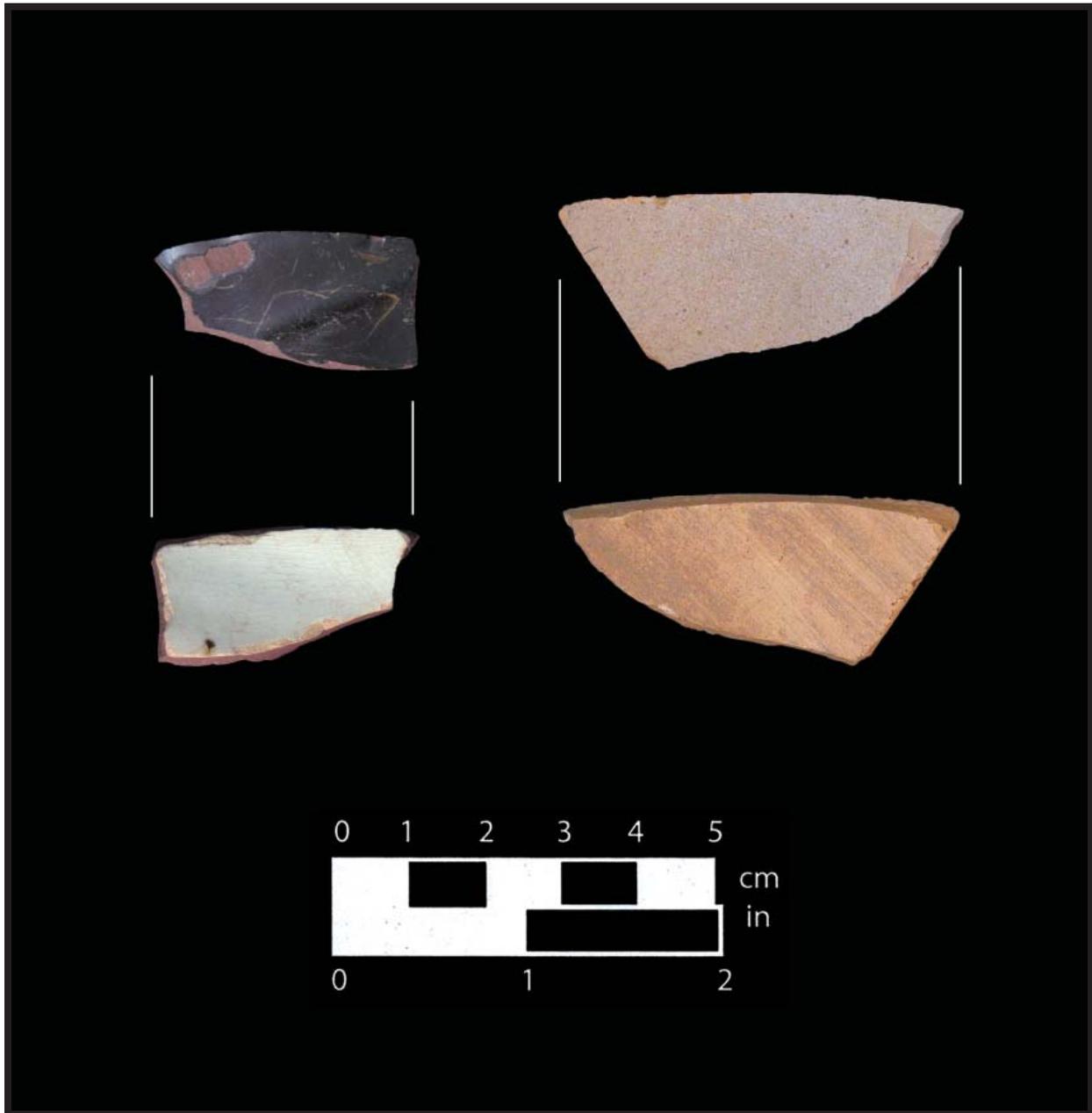


Plate 3.42. Area 11 – Selected historic ceramic artifacts: (left) a refined redware body sherd with interior white slip underglazed similar to engine turned or Astbury redware, (right) Grey salt glazed stoneware with a peach colored core made from clays of the Raritan formation in New Jersey (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:12].

Table 3.10. Borrow Area 11: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type

Sum of Quantity					
Historic	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
	33	25	1472	1530	
Bakelite			1	1	
			1	1	
Coarse Earthenware	19	16	1337	1372	
brick	16	13	818	847	
Red bodied slipware			10	10	
Redware	1	3	345	349	
terra cotta			164	164	
tile	2		2	2	
Copper alloy			1	1	
large cent			1	1	
Earthenware			4	4	
buff body			2	2	
white body			1	1	
Yellowware			1	1	
Ferrous metal	4	2	14	20	
axe			4	4	
clamp			1	1	
horse tack			1	1	
nail	4	2	4	10	
nut			1	1	
spike			1	1	
wedge			1	1	
Glass	3	3	37	43	
bottle		1	15	16	
bottle/jar			6	6	
container			3	3	
curved	1	1	4	6	
Decorative			2	2	
jar			4	4	
magnifying			1	1	
window	2	1	2	5	
Porcelain			10	10	
Chinese Export			2	2	
hard paste			8	8	
Porcelain and ferrous metal			1	1	
insulator			1	1	
Refined Earthenware	7	2	50	59	
Creamware			1	1	
Ironstone			7	7	
Jackfield-type			3	3	
Pearlware	3	2	24	29	
red bodied			1	1	
Red bodied slipware			2	2	
Red body			1	1	
Whiteware	4		11	15	
Slag		2		2	
		2		2	
Slate			7	7	
			7	7	
Stoneware			10	10	
grey body			5	5	
pink body			5	5	
Prehistoric	124	41	706	871	
Argillite	1		8	9	
biface			1	1	
core			1	1	
debitage	1		4	5	
manuport			1	1	
projectile point			1	1	
Chert	14	4	29	47	
biface			2	2	
core			3	3	
debitage	14	4	16	34	
flake tool			1	1	
manuport			1	1	
projectile point			2	2	
tested cobble			4	4	
Cuesta Quartzite			1	1	
debitage			1	1	
Jasper	40	10	34	84	
biface			4	4	
core			1	1	
debitage	39	10	17	66	
flake tool			1	1	
projectile point	1		9	10	
thermally-altered rock			2	2	
Limonite	8	3	3	14	
biface		1	1	1	
debitage	8	2	2	12	
tested cobble			1	1	
Quartz	33	8	127	168	
biface	1		17	18	
cobble-based tool		1	1	1	
core			14	14	
debitage	31	7	74	112	
projectile point			4	4	
tested cobble			4	4	
tested pebble			1	1	
thermally-altered rock	1		12	13	
uniface			1	1	
Quartz/grit temper	5			5	
	5			5	
Quartz/sand temper			2	2	
pot			1	1	
small pot			1	1	
Quartzite	23	16	502	541	
biface			1	1	
cobble-based tool			3	3	
core			1	1	
debitage	5	3	5	13	
pebble-based tool	1		1	1	
projectile point			1	1	
tested cobble			3	3	
thermally-altered rock	17	13	488	518	
Grand Total	157	66	2178	2401	

site in Area 19 of Section 2 suggests there may well be a connection between the two sites. The clusters in this borrow area may represent an earlier component of the site.

9. Future Research

No future research recommended.

L. SURVEY SEGMENT AHC 5 (FIGURES 3.12 AND 3.18, PLATES 3.43 AND 3.44; TABLE 3.11)

Archaeological Resources Assigned Delaware Site Numbers: Part of Reedy Island Cart Road Site 4 [7NC-F153; N14533]

1. Area-Specific Field Methods

AHC5 is a segment of the main alignment that remained to be surveyed after completion of the Phase IB survey of the Section 1 alignment (Figure 3.12). It lies immediately south of Borrow Area 7 (Pleasanton East).

The area had been plowed and disked a month prior to the field survey. Rains over the intervening time increased the surface visibility from about 80 to nearly 90 percent. The entire area was walked from east to west and then from south to north (Plate 3.43). Artifact clusters were then tested, employing 30 shovel tests and two excavation units each measuring 2.5 feet by 10 feet. A total of 771 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located along well-drained knolls overlooking Spring Mill Branch in the northeastern end of the corridor (Figure 3.12). Historic artifacts dating to the late 19th century were loosely scattered across the corridor near the standing Yaiser house (Figure 3.12).

3. Shovel Tests

Of the 30 shovel tests a total of six produced six historic artifacts. No prehistoric artifacts were recovered from shovel testing.

4. Excavation Units

Excavation Units 1 and 2 were located near the northeastern limits of Survey Segment 5 while Excavation Unit 3 was located south of the Yaiser farmhouse in the southwestern end of the segment corridor.

Excavation Unit 1 was placed over Shovel Test 523, where an unidentified soil anomaly had been encountered below the plowzone. Excavation of the plowzone recovered 19 historic artifacts consisting of redware, Jackfield ware, creamware, white salt-glazed stoneware with scratch blue decoration, vessel glass and wrought nails. Following the removal of the plowzone (Context 1), remnants of a second buried plowzone (Context 2) were encountered. The buried plowzone contained prehistoric debitage, thermally altered rock fragments and a biface. The only historic artifact recovered from this context was a wrought nail. The buried plowzone was cut by a historic fence post: the anomaly observed in Shovel Test 523. Below the buried plowzone the edge of a circular pit feature (Contexts 8/9) was located in the



Plate 3.43. A&HC Segment 5 - - General view of the conditions of the plowed fields looking southeast (Photographer: Joelle Browning, May 2010) [HRI Neg.#10009/D1:211].

northeast corner of the unit extending beyond unit boundaries, and a larger feature (Context 6) with an apparent straight edge running southeast and northwest extending out of the unit along that axis and to the south.

Contexts 6 and 8 were pursued using 14 informal shovel tests, with tests placed east, west and south of the unit to follow Context 6 and northeast of the unit to follow Context 8. In these informal tests only the plowzone was removed to check for disturbed subsoil below the plowzone. The disturbed soils were then examined using a split-spoon auger to record the depth of the disturbance. Context 8 is projected to be a circular pit with an approximate diameter of 5 feet.

Context 6 extended at least 20 feet southeast, 8 feet south and 15 feet northwest of the excavation unit. The area of disturbance has the appearance of heavy animal traffic and possibly wagon, cart or sleigh traffic. To further examine this anomaly, a larger 60-foot grid was aligned around the unit. Using a four-inch steel auger 16 additional tests were excavated, spaced every twenty feet along the grid. Disturbed subsoil was encountered in five tests spanning the grid. Since this area is on the alignment of the cart road it is possible that physical evidence of it may have been encountered here. It is recommended that an additional excavation unit be placed 30 feet away from Excavation Unit 1 along the projected edge of the disturbance.

Excavation Unit 2 was located to catch the edge of the disturbance encountered in Excavation Unit 1 and subsequent shovel and auger tests. Following the removal of the plowzone (Context 1), the remnants of a second buried plowzone (Context 4) was encountered as well as a trough-like feature (Contexts 2/3) near the south end of the unit, extending southeast and northwest. Excavation

of the trough-like feature revealed that it was flat bottomed, possibly hand dug, suggesting it may have served as a drainage ditch.

Excavation Unit 3 was placed south of the Yaiser family farmhouse where both historic and prehistoric artifacts were loosely clustered on the surface. Following the removal of the plowzone (Context 1), the sterile clay loam subsoil (Context 2) was again encountered. A total of 25 historic and two prehistoric artifacts were recovered from the plowzone. The historic artifacts consisted of red brick fragments, redware, pale violet vessel glass, clear glass lamp chimney and wrought nail fragments. Prehistoric artifacts from the plowzone consisted of a single jasper flake and a fragment of thermally altered rock. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

As in adjacent areas, the Phase IA research traced the property back to the ownership of William Bird in 1780.

6. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as low or nil for prehistoric sites and the entire area as low for historic sensitivity. Hunter Research, Inc. felt this area had a low to moderate sensitivity for both prehistoric and historic sites as it lies along the projected path of the Reedy Island Cart Road and is situated on well drained soils above the Spring Mill Branch.

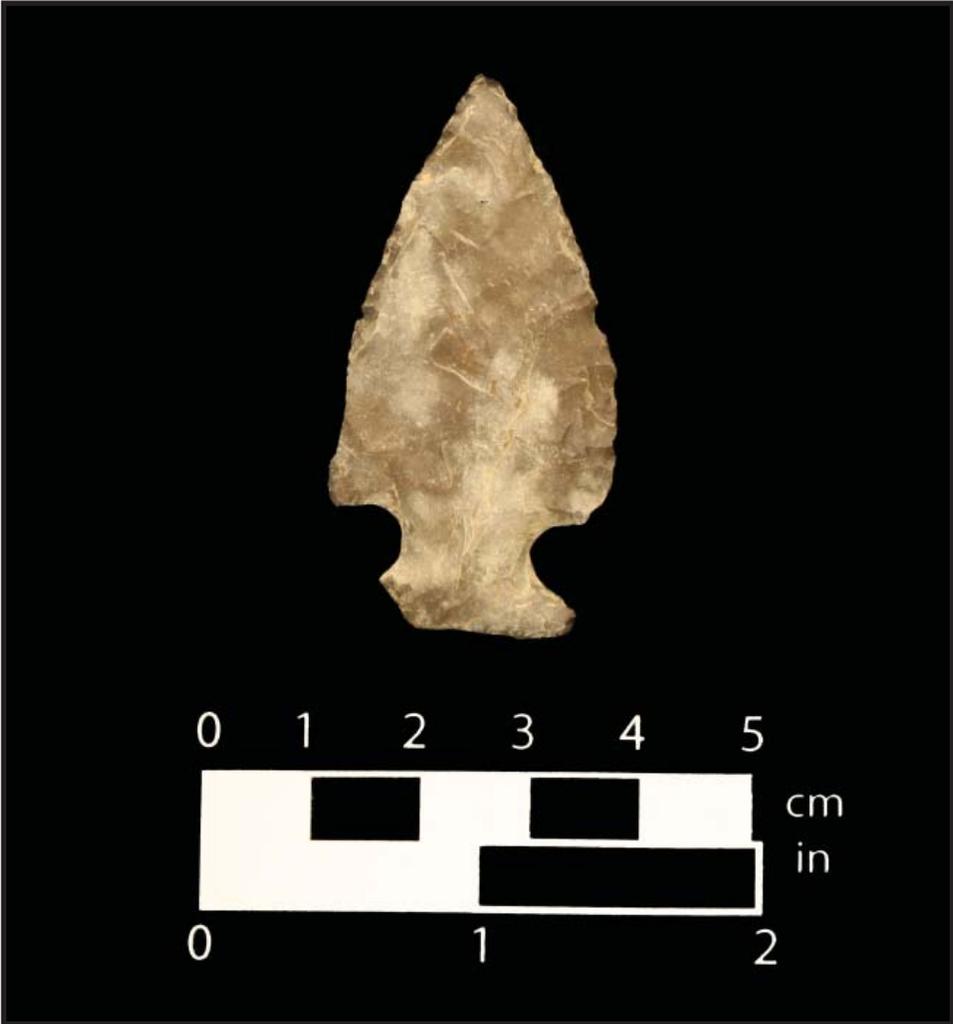


Plate 3.44. A&HC Segment 5 – A mottled dark and light grey narrow-bladed side-notched projectile point (Photographer: Melody Lee-Imhof, July 2010) [HRI Neg.#10009/D3:28].

Table 3.11. Area AHC 5: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type

Sum of Quantity					
Historic	Excavation Unit	Shovel Test	Surface Collection	Grand Total	
Coal	65	11	485	561	
Red bodied slipware		4		4	
Redware	9	1	75	85	
terra cotta			14	14	
Ferrous metal	23	2	30	55	
bolt			1	1	
curved			5	5	
handle			1	1	
hook		1	2	3	
horseshoe			5	5	
latch hook			1	1	
nail	23	1	8	32	
nut			1	1	
plow part			1	1	
pliers			1	1	
spike			2	2	
washer			1	1	
Ferrous metal and porcelain			1	1	
spark plug			1	1	
Glass	16	2	114	132	
bottle	5		39	44	
bottle/jar			11	11	
container	5		3	8	
curved	6	1	29	36	
jar			23	23	
window		1	9	10	
Plastic			1	1	
curved			1	1	
Porcelain			7	7	
Chinese Export			1	1	
doll part			1	1	
hard paste			5	5	
Refined Earthenware	2	1	30	33	
Creamware		1		1	
Ironstone			1	1	
Pearlware			14	14	
Whiteware	2		6	8	
Stoneware	1		12	13	
buff body			2	2	
grey body			10	10	
White salt-glazed	1			1	
Prehistoric	94		128	222	
Chert	17		13	30	
biface			2	2	
cobble-based tool			1	1	
debitage	17		3	20	
flake tool			2	2	
projectile point			4	4	
thermally-altered rock			1	1	
Gneiss	1			1	
debitage	1			1	
Jasper	31		11	42	
biface			1	1	
debitage	30		6	36	
Decorative	1			1	
flake tool			3	3	
projectile point			1	1	
Quartz	11		31	42	
biface			2	2	
cobble-based tool			1	1	
core			2	2	
debitage	10		20	30	
flake tool			3	3	
projectile point			2	2	
tested cobble	1			1	
thermally-altered rock			1	1	
Quartzite	34		73	107	
biface	1		1	2	
cobble-based tool	1		3	4	
debitage	5		3	8	
flake tool			1	1	
manuport	5			5	
thermally-altered rock	22		65	87	
Grand Total	159	11	613	783	

7. Key Artifacts

Table 3.11 identifies a total of 783 artifacts: 561 historic and 222 prehistoric.

Prehistoric (Plate 3.44)

- Gray chert, narrow bladed projectile point with side notching and flat ground base
- Low grade gray chert narrow bladed projectile point with a contracting stem
- Two white quartz narrow bladed projectile points with contracting stems
- Black chert narrow bladed projectile point with a contracting stem
- Two large black chert triangular projectile points
- Debitage
- Thermally altered rock fragments

Historic

- Creamware
- Whiteware
- Ironstone granite china
- Redware (black-glazed, clear lead-glazed, and manganese-glazed)
- Aqua bottle glass
- Red brick fragments

8. Interpretation

Prehistoric materials from this area date from the Woodland I and II periods and appears to be repeated short-term transient in nature occupations, possibly hunting camps.

Excavation Units 1 and 2, together with a series of informal shovel tests, has revealed a large area of historic disturbance not fully understood at this time. There is a possibility that it is the archaeological signature of the cart road.

9. Future Research

1. Further research needs to be conducted concerning the ownership of this property in the second half of the 17th and earlier 18th centuries. Records and deeds held in Maryland may be helpful.
2. The potential importance of the early cart-road network for the understanding of the colonial settlement pattern in this part of the project area is once again emphasized.

M. SURVEY SEGMENT AHC 1 (FIGURE 3.16 AND 3.17; PLATE 3.45, TABLE 3.12)

1. Area-Specific Field Methods

AHC 1 is the most southwesterly segment of the main alignment, extending to the rail line. Like the surrounding areas it had been plowed but not disked due to the wet conditions. Repeated rains over the next two weeks increased the surface visibility from about 80 to 100 percent, but the wet field conditions made surface collection difficult. The entire area was walked from east to west and then from south to north (Plate 3.45). A White's "Spectrum" metal detector was then employed to survey the areas where 18th-century historic artifacts were clustered on the surface. Artifact clusters were then tested, employing four shovel tests, and one excavation unit measuring 2.5 feet by 10 feet. A total of 493 artifacts were recovered from this area.

2. Artifact Clusters

Prehistoric artifacts were located on well-drained soils across the corridor (Figure 3.16).

Historic artifacts dating from the mid-18th through mid-19th century were clustered near the southern half of the defined corridor segment (Figure 3.17).

3. Shovel Tests

Of the four shovel tests, three produced five historic artifacts. No prehistoric artifacts were recovered from shovel testing.

4. Excavation Units

Excavation Unit 1 was placed in western portion of the segment corridor where historic artifacts were more heavily represented on the surface. Following the removal of the plowzone (Context 1), the sterile silty clay subsoil (Context 2) was encountered. A total of 55 historic artifacts were recovered from the plowzone. These artifacts consisted of ceramics (redware, pearlware, and whiteware), vessel glass, and brick. One prehistoric jasper flake was also found in the plowzone. Although no physical evidence of a structure was observed, the number of architectural and domestic artifacts suggests a one was formerly located nearby. No cultural features or artifacts were observed below the plowzone.

5. Research from Phase IA

The Phase IA research did not trace the property back beyond the ownership of James Haughey in 1800. Research conducted for this area by Hunter Research, Inc. for Section 2 indicates this area was part of the John Taylor Tract (1680 to 1717). Owners critical to the understanding of the material culture were Alexander Armstrong (1739 to 1799), Cornelius Armstrong (1799 to 1824), and James Rogers (1824 to 1850).

6. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as low or nil for prehistoric sites and the entire area as low for historic sensitivity. Hunter Research, Inc. felt this area had a low to moderate sensitivity for both prehistoric and historic sites as it lies along the projected path of the Reedy Island Cart Road and is situated on well drained soils above the Spring Mill Branch.

7. Key Artifacts

Table 3.12 identifies 368 artifacts from this area: 331 historic and 37 prehistoric.

Prehistoric

- Large limonite narrow bladed projectile point with a straight stem
- White quartz narrow bladed projectile point with a contracting stem
- Debitage
- Thermally altered rock fragments

Historic

- Tin-glazed buff-bodied earthenware
- Whiteware
- Ironstone granite china
- Porcelain doll foot
- Redware (black-glazed, clear lead-glazed, slip-trailed and manganese-glazed)
- Red brick fragments

8. Interpretation

Prehistoric materials from this area appear to part of a much larger multi-component site immediately to the south focusing on the Spring Mill Branch, (see Borrow Area 11).



Plate 3.45. A&HC Segment 1 - - General view of the conditions of the plowed fields looking northeast with Dan O'Toole recording the individual locations of artifacts found on the surface with a hand-held Topcon GMS-2 GPS unit (Photographer: Joelle Browning, April 2010) [HRI Neg.#10009/D1:024].

Table 3.12. AHC Area 1: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity				
	Excavation Unit	Shovel Test	Surface Collection	Grand Total
Historic	55	5	271	331
Bone			1	1
mammal			1	1
Brass			1	1
plow part			1	1
Coarse Earthenware	44	4	239	287
brick	35	4	106	145
Red bodied slipware			2	2
Redware	9		97	106
terra cotta			34	34
Ferrous metal			3	3
nail			1	1
plow part			2	2
Glass	2		6	8
bottle	1		3	4
bottle/jar			2	2
curved	1			1
lamp chimney			1	1
Porcelain			2	2
Chinese Export			1	1
hard paste			1	1
Refined Earthenware	9	1	17	27
Creamware	3			3
Ironstone			5	5
Pearlware	4	1	8	13
tin enameled, buff body			1	1
unidentified	1			1
Whiteware	1		3	4
Slate			1	1
			1	1
Stoneware			1	1
White salt-glazed			1	1
Prehistoric	1		36	37
Chert			2	2
biface			1	1
debitage			1	1
Jasper	1			1
debitage	1			1
Limonite			1	1
projectile point			1	1
Quartz			7	7
biface			1	1
core			1	1
debitage			3	3
projectile point			1	1
thermally-altered rock			1	1
Quartzite			26	26
cobble-based tool			1	1
debitage			1	1
thermally-altered rock			24	24
Grand Total	56	5	307	368

Table 3.13. Section 2 Area 17: Artifact Recovery Counts By Category (Historic/Prehistoric) and Type.

Sum of Quantity	Shovel Test	Grand Total
Historic	22	22
Coarse Earthenware	11	11
Ferrous metal	6	6
nail	6	6
Glass	3	3
bottle	1	1
jar	1	1
window	1	1
Refined Earthenware	2	2
Whiteware	2	2
Prehistoric	10	10
Chert	1	1
debitage	1	1
Jasper	6	6
debitage	5	5
pebble-based tool	1	1
Quartz	2	2
debitage	2	2
Quartzite	1	1
thermally-altered rock	1	1
Grand Total	32	32

The clustering of historic artifacts in this area also appears to be part of a larger farmstead complex bisected by the railroad.

9. Future Research

No future research recommended.

N. SECTION 2, AREA 17: SUPPLEMENTARY PHASE IB TESTING (FIGURE 3.19; TABLE 3.13)

1. Area-Specific Field Methods

A total of 40 shovel tests were placed within the grass-covered former horse corral after it had become accessible for testing.

2. Shovel Tests

Thirty-six tests were excavated along a 50-foot grid. The remaining four shovel tests were excavated as five-foot radial tests around Shovel Test 18. Shovel Test 18 yielded a small brick fragment and a jasper flake from the plowzone (Context 1) and a jasper flake and carbon flecking from Context 2 (a possible subsurface feature). Radial tests recovered an additional flake each from Shovel Tests 37 and 38 from the plowzone (Context 1). Historic artifacts were recovered from the plowzone in 14 shovel tests and prehistoric artifacts were recovered from the plowzone in six tests (a jasper flake tool, debitage and thermally altered rock).

3. Excavation Units

None

4. Research from Phase IA

The Phase IA research indicates this area was part of Noxon's Adventure (1734 to *circa* 1798). The ownership of African-Americans Samuel Dale (1854 to 1873) and his son William Dale (1873 to 1915) provide the focus of historical and archaeological interest.

5. Predictive Model Assessment

The sensitivity predictive model formulated by A.D. Marble & Company rated this area as moderate and low for prehistoric sites and high and low for historic sites, based on "S. Dale" depicted on the 1849 Rea and Price map. The Hunter Research, Inc. Phase IA report felt this area had high sensitivity for prehistoric sites near the creek and high sensitivity for historic archaeological sites because a pre-Civil War African-American homestead was documented in the vicinity.

6. Key Artifacts

A total of 32 artifacts were recovered: 22 historic and ten prehistoric.

- Jasper flake tool

7. Interpretation

Low density historic and prehistoric artifact scatter probably peripheral to nearby foci.

8. Future Research

None recommended at this specific location.