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March 19, 2010

UN#10-065

Mr. J. Rodney Little
Director/State Historic Preservation Officer
Maryland Historic Trust
100 Community Place
Crownsville, MD 21032-2023

Subject: Cultural Resources Protection Guidance
Calvert Cliffs Nuclear Power Plant Unit 3
Calvert County, Maryland

Attn: Dr. Dixie Henry

Reference: Certificate of Public Convenience and Necessity, In the Matter of the Application of UniStar Nuclear Energy, LLC and UniStar Nuclear Operating Services, LLC for a Certificate of Public Convenience and Necessity to Construct a Nuclear Power Plant at Calvert Cliffs in Calvert County, Maryland. Case No. 9127, June 2009.

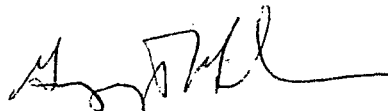
The Certificate of Public Convenience and Necessity (Reference) stipulates in Condition 56 that UniStar Nuclear Energy submit to the Maryland Historical Trust (MHT) a copy of training programs, or guidelines that will be provided to applicant inspectors or contractors, to identify and/or protect unforeseen archeological sites that may be revealed during construction of the project. Please find enclosed the Cultural Resources Protection Protocol, including a Cultural Resources Training Guide, a Cultural Resources Decision Tree, and a figure depicting the cultural resources project area.

The enclosure provides materials that satisfy CPCN Condition 56.

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Page 2

If you have any questions concerning the attached documents, please call Mr. Dimitri Lutchenkov at (410) 470-5524.

Sincerely,

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a long horizontal flourish extending to the right.

Greg Gibson

Enclosure – Protocol for the Protection of Cultural Resources, Calvert Cliff 3 Nuclear Project,
Calvert Country, Maryland

cc: Kathy Anderson – US Army Corps of Engineers
Woody Francis - US Army Corps of Engineers
Susan Gray – Power Plant Research Program
Laura Quinn – NRC Project Manager, Environmental Projects Branch 2

UN#10-065

Enclosure

**Protocol for the Protection of Cultural Resources,
Calvert Cliff 3 Nuclear Project
Calvert County, Maryland**

PROTOCOL FOR THE PROTECTION
OF CULTURAL RESOURCES
Calvert Cliff 3 Nuclear Project

1.0 Purpose

This document provides guidance for performance of activities at UniStar Nuclear Energy's Calvert Cliff 3 Nuclear Project in order to ensure protection of Archaeological, Cultural, and Historical (AC&H) Resources encountered during the execution of assigned work.

2.0 Applicability

This protocol is applicable for all activities within the property boundaries of the UniStar site that involve land-disturbing activities or movement of earth. Specific activities include:

- Excavation
- Landscaping
- Reforestation
- Tunneling or boring
- Grading, including road grading
- Building erection, including temporary building/trailer erection or placement
- Asphalt and concrete cutting or demolition work that disturbs the supporting material below the asphalt or concrete
- Any other piercing or movement of earth.

3.0 Definitions

Archaeological, Cultural, and Historical (AC&H) Resource: Remains of human activity or occupation and the physical setting immediately surrounding those remains. These resources may include but are not limited to graves, ruins, architecture (i.e. remnants of structures), works of art, pottery, tools, weaponry, and other implements, ritual artifacts, and discarded materials (i.e. glass, metal, chipped stone artifacts, shells, animal bone). Items are typically 50 or more years old and can be found both above and below the surface of the ground.

Archaeological Feature: A feature consists of archaeological remains that cannot be removed and collected intact in their entirety. Examples of prehistoric features include: fire hearth, post mold/post hole represented by a soil stain, prehistoric living surface represented by a soil stain, sub-surface storage pit represented by soil stain. Examples of historic period features include: remains of stone foundation, refuse dump, builders trench, pipe trench, stone-lined well.

Isolated Find: Is a location where archaeological, cultural, or historical resources are discovered in very low densities (fewer than 5 artifacts in a 50 foot radius with no cultural features) and are determined not to be part of an archaeological site.

Land-Disturbing Activities: Activities that involve grading, construction of buildings, excavations, reforestation, landscaping, placement of any fill or spoil, or other ground disturbance.

4.0 References

Cultural Resources Training Guide - Calvert Cliffs 3 Nuclear Project. Calvert County Department of Planning and Zoning. February, 2010.

Technical Report, Phase I Cultural Resources Investigations and Phase II National Register Site Evaluations. GAI Consultants, Inc. March 2009.

Revised Letter Report, Second Supplemental Phase Ib Cultural Resources Investigation, Calvert Cliffs Nuclear Power Plant. GAI Consultants, Inc. February 2009.

Calvert Cliffs Nuclear Power Plant Unit 3 Unanticipated Discoveries Plan, Draft October 2008.

Memorandum of Agreement Among the U.S. Army Corps of Engineers, the Maryland State Historic Preservation Officer, and Calvert Cliffs 3 Nuclear Project, LLC (as Concurring Party) Pursuant to 36 CFR 800 and 33 CFR Part 325 Appendix C Regarding the Calvert Cliffs Nuclear Power Plant Calvert County, Maryland.

5.0 Responsibilities and Requirements

5.1 Contractors

- 5.1.1 Prior to initiation of work activities, ensure that all workers involved with Land Disturbing Activities receive UniStar approved training on AC&H resource identification utilizing Attachment 1, Cultural Resources Training Guide - Calvert Cliffs 3 Nuclear Project.
- 5.1.2 During the course of Land Disturbing Activities, any work to be done in the vicinity of previously identified NHRP eligible AC&H resources must be coordinated with the Onsite Environmental Coordinator. Included are four architectural resources and one archaeological resource: Camp Conoy (CT-1312), Baltimore and Drum Point Railroad (CT-1295), Parran's Park (CT-58), Preston's Cliffs (CT-59), and Site 18CV474. Refer to Attachment 3, CC3 Cultural Resources Project Area for resource locations. No work may be done within the boundaries of these resources without the approval of the Onsite Environmental Coordinator in consultation with the Environmental Coordinator.
- 5.1.3 During the course of Land Disturbing Activities, ensure that if a previously unidentified AC&H resource is discovered, work is halted in the immediate vicinity of the site and the UniStar Onsite Environmental Coordinator is immediately notified per the notification process as depicted in Attachment 2, Cultural Resource Protection Decision Tree.

Section 6.0 of this Protocol contains contact information for key internal and agency contacts.

- 5.1.4 Provide an identifiable protective perimeter around the previously unidentified AC&H resource, as determined by the UniStar Environmental Coordinator in association with a qualified archaeologist. Preclude activities within the protective perimeter until released to do so by the UniStar Environmental Coordinator.
- 5.1.5 For Isolated Finds and previously identified and evaluated AC&H resources that were determined ineligible for the National Register of Historic Places, any artifacts found should be recovered, bagged, and labeled with the following information, and provided to the UniStar Onsite Environmental Coordinator on a daily basis:
- Exact location
 - Depth at which artifact was found
 - Description of material/items discovered
 - Estimate of areal extent of materials found.

Attachment 3, CC3 Cultural Resources Project Area denotes location of previously identified and evaluated AC&H resources.

5.2 UniStar Onsite Environmental Coordinator

- 5.2.1 Ensures previously identified and evaluated AC&H resources eligible for the National Register of Historic Places are protected from construction activity impacts.
- 5.2.2 In consultation with the Environmental Coordinator, ensures that the necessary requirements of the MOA referenced in Section 4.0 have been completed and approvals obtained prior to any AC&H resources being impacted by project construction activities.
- 5.2.3 Responds in a timely manner to Contractor notification of previously unidentified potential AC&H discoveries.
- 5.2.4 In conjunction with GAI Consultants, or other Maryland State Historic Preservation Officer (MD SHPO) approved qualified archaeologist, evaluates potential AC&H resources inadvertently discovered during earth moving activities and contacts UniStar Environmental Coordinator as needed for assistance as per the attached figure depicting the notification process. Section 6.0 of this Protocol contains contact information for key internal and agency contacts.
- 5.2.5 Receives any Isolated Finds of artifacts from the Contractor and provides to GAI Consultants, or other MD SHPO approved qualified archaeologist, in a timely fashion. Provides GAI and Environmental Coordinator with daily updates on artifacts found.
- 5.2.6 In the event human remains are discovered during construction, coordinates with the UniStar Environmental Coordinator to ensure that both the State Police, the State's Attorney's Office, the MD SHPO, and Calvert County Planning and Zoning are notified.
- 5.2.7 Ensures that the suspected burials are protected from vandalism.

- 5.2.8 Works with the UniStar Environmental Coordinator and with MD SHPO, State Police, the State's Attorney's Office, Calvert County Planning and Zoning, and U.S. Army Corps of Engineers (Corps), as necessary, to coordinate the proper removal of the remains once all permitting and authorizations have been completed.

5.3 UniStar Environmental Coordinator

- 5.3.1 Coordinates communications between UniStar, Calvert County, the Corps, and the MD SHPO as necessary as per the notification process (See Attachment 2, Cultural Resources Protection Decision Tree) and utilizing the contact information contained in Section 6.0.
- 5.3.2 Ensures that the MD SHPO and the Corps are notified within five (5) working days of any previously unidentified AC&H resource discovered during construction activities.
- 5.3.3 Coordinates the evaluation by the MD SHPO or a SHPO approved qualified archaeologist of any previously unidentified AC&H resource discovered during construction activities.
- 5.3.4 Ensures that within fifteen (15) working days of first notifying the MD SHPO, the National Register eligibility of the AC&H resource is assessed in consultation with the MD SHPO and the Corps.
- 5.3.5 Ensures that if the discovered AC&H resource is determined to meet National Register eligibility criteria, that appropriate avoidance, protection, and/or treatment measures are implemented in accordance with the Memorandum of Agreement (MOA) referenced in Section 4.0.
- 5.3.6 Ensures that if human remains are discovered during construction and determined not to be of recent origin, that the MD SHPO is notified and consultation is undertaken. Also ensures that the Corps and Calvert County Planning and Zoning are notified and kept informed during the consultation process. All applicable permits and authorizations must be obtained from the local police, State's Attorney's Office, MD SHPO, Calvert County, Native American representatives as appropriate, and the Corps prior to removal from the site of the remains.
- 5.3.7 If human remains are discovered and determined by the MD SHPO and the Corps to be ineligible for inclusion in the National Register of Historic Places, ensures proper removal of the remains through coordination with the State Police, the State's Attorney's Office, the MD SHPO, Calvert County, and the Corps.

5.4 GAI Consultants

Support UniStar as requested with technical information and analysis. GAI will direct responses to the UniStar Environmental Coordinator.

6.0 Contact Information

UniStar Onsite Environmental Coordinator

TBD

UniStar Environmental Coordinator

Yvonne Abernethy
yvonne.abernethy@constellation.com
(803) 644-0146 ext. 225
803 617 9379 (cell)

GAI Consultants

Barbara Munford, Principal Investigator
b.munford@gaiconsultants.com
(412) 476-2000 ext. 1203
Ben Resnick, Cultural Resources Group Manager
b.resnick@gaiconsultants.com
(412) 476-2000 ext. 1200

MD SHPO

Dixie Henry, Preservation Officer
DHenry@mdp.state.md.us
(410) 514-7638

US Army Corps of Engineers

Woody Francis, Regulatory Project Manager
WOODY.FRANCIS@usace.army.mil
(410) 962-5689

Calvert County Planning and Zoning

Kirsti Uunila, Historic Preservation Planner
uunilak@co.cal.md.us
(410) 535-1600 ext. 2504

State's Attorney's Office

(Prince Fredrick)
State's Attorney Laura Martin
martinll@co.cal.md.us
(410) 535-1600 ext. 2369
(301)855-1243 ext. 2369

Maryland State Police

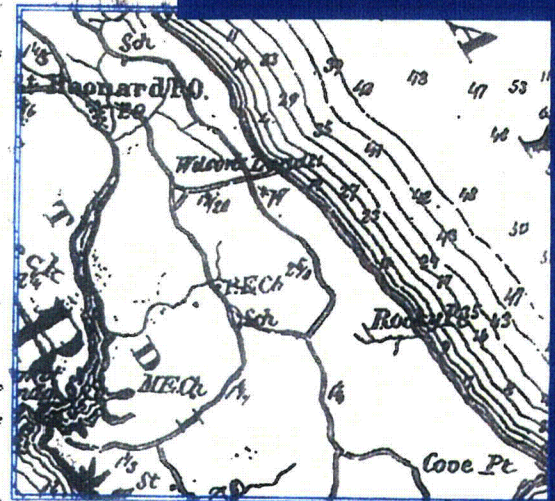
(410) 535-1400

7.0 Attachments

Attachment 1, Cultural Resources Training Guide - Calvert Cliffs 3 Nuclear Project
Attachment 2, Cultural Resource Protection Decision Tree
Attachment 3, CC3 Cultural Resources Project Area

Cultural Resources Training Guide for the Calvert Cliffs Nuclear Power Plant

*Calvert Cliffs
Unit 3 (CC3)
Construction
Project*



Martenet map of Calvert County, 1865

*Calvert County
Department of
Planning & Zoning*



Rev. 0. 02/2010

This Cultural Resources Guide was prepared as a training aide for those working on the Calvert Cliffs Unit 3 (CC3) Construction Project. It contains information to assist in the identification of cultural resources that may be encountered during site preparation and construction activities.

Though a cultural resource survey of the Calvert Cliffs Unit 3 (CC3) Project Site is complete, unanticipated discoveries of archaeological sites are possible. This guide provides a brief introduction to the kinds of cultural resources that have been found at the CC3 Project Site and shows examples of artifacts that could possibly be encountered.

Archaeology Basics

Archaeology is the study of past, human life through material remains. Artifacts, remnants of shelters, and food remains are some types of evidence we look for in understanding the details of life that may not have any written record.

Humans have lived in the Chesapeake Region for nearly 12,000 years. Before Europeans arrived in this part of Maryland, the land was visited by Native peoples who left behind traces of their activities. From the late 17th century until well into the 20th century, farming was the prevalent occupation of the area's inhabitants. Tobacco barns are a visible reminder of these endeavors. Additional information can be found beneath our feet. Remains from past occupation are typically found on the ground or near the surface. Erosion and ground disturbing activities can sometimes bury artifacts deeply, but they can generally be found within a foot or two of the ground surface.

Location Matters

In archaeology, where an object is found is at least as important as what the object is. It is very important to know exactly where an object is found.

Key Concepts

Provenience - pro • ve'nience

Refers to the specific location an object is found.

Archaeological Context -

Is the physical setting, location and cultural association of artifacts in an archaeological site.

The following pages show sites on the Calvert Cliffs property and examples of artifacts that may be encountered in the field.

Historic Sites at Calvert Cliffs

Conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, the CC3 Project site was surveyed to identify archaeological sites and architectural resources over 50 years of age. Sixteen archaeological sites and five architectural properties were found and evaluated. One of the archaeological sites and four architectural resources were determined eligible for listing on the National Register of Historic Places (NHRP).

Preston's Cliffs (CT-59* and 18CV7*)

Located just north of Calvert Cliffs Units 1 and 2, Preston's Cliffs is one of the eligible architectural properties. Also known as Charles' Gift and the Wilson Farm, this property includes ruins of a 17th century house (see photo below) and three former tobacco barns. These structures along with the archaeological components of this site will be protected from construction project impacts.

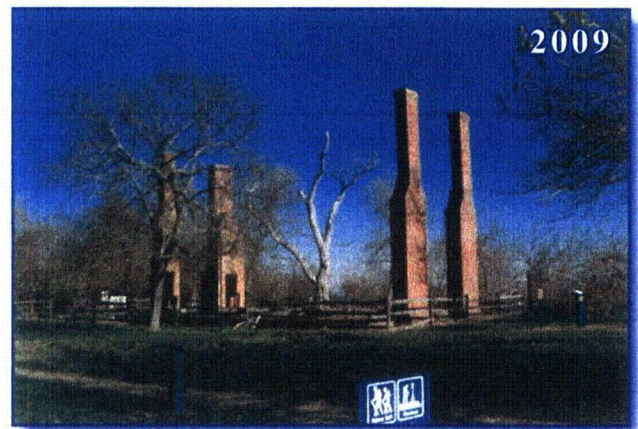


Photo credit: GAI Consultants

*CT-59 is the architectural/historical resource number. "CT" refers to Calvert County and "59" means it is the 59th architectural resource recorded in Calvert County.

*18CV7 is the site number. '18' refers to Maryland, which is 18 in an alphabetical list of states. 'CV' refers to Calvert County, and '7' means that it is the 7th site recorded in Calvert County.

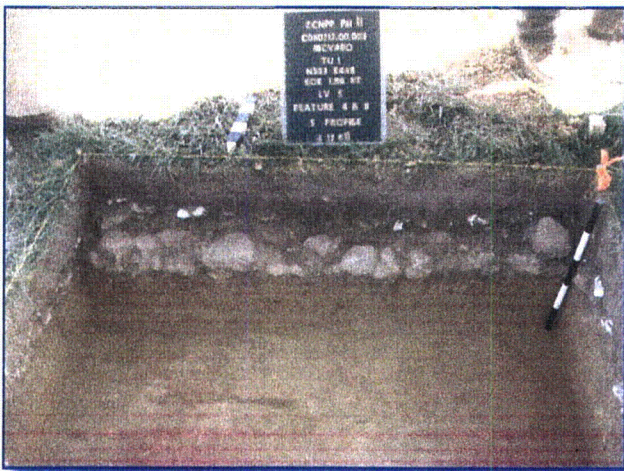
Parran's Park (CT-58 and Site 18CV480)

Located on the western side of the property near Maryland Route 2/4, Parran's Park was a farmstead occupied from the mid-19th through the mid-20th century. Parran's Park includes both architectural elements (CT-58) and archaeological remains (site 18CV480). The old aerial photo below (1) shows part of the farm. Most of the farm buildings, including the house, were torn down years ago. Three gable-roof tobacco barns (photo 5, bottom right) remain and constitute one of the NRHP eligible architectural properties.



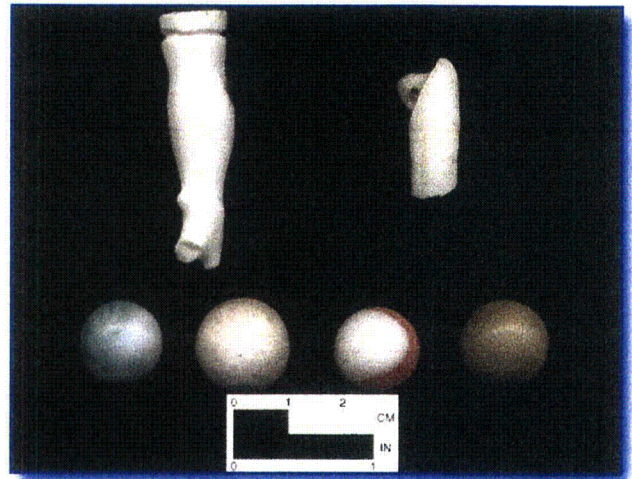
1

Taken at Parran's Park, photo 2 below is a good example of the kinds of resources that are often buried under plowed fields. Under the loamy layer you see a midden layer of shell. Below that is a dry laid stone wall.

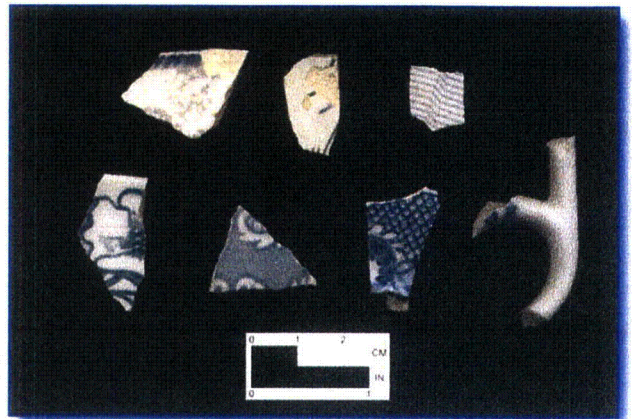


2

Below are some examples of artifacts that were found during archeological investigations at Site 18CV480 (Parran's Park). The top photo (3) shows porcelain doll parts and marbles. The bottom photo (4) shows some representative ceramic fragments. The majority of the Parran's Park archaeological component was disturbed by previous activities and was determined not eligible for listing on the NRHP.



3



4



5

19th Century Cabin (Site 18CV474)

This previously unrecorded site is a 19th century cabin site that was not disturbed by plowing and showed no evidence of 20th century refuse. Remnants of the house foundation and chimney base can be seen in photos 1 and 2 below.

This site was evaluated and determined to be eligible for listing on the NRHP. Impacts from construction cannot be avoided at this site so a data recovery is planned as mitigation.



1



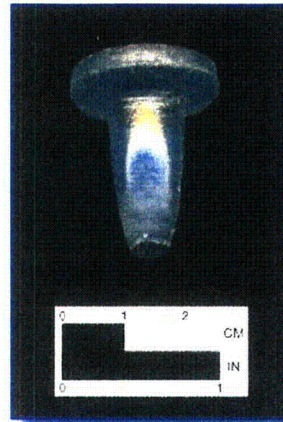
2

Photo 3 below shows excavation activities during the Phase II investigation. See artifact photos at right.



3

Among the artifacts found during the Phase II investigation excavation were a bottle stopper (photo 4), button (photo 5), and pipe bowl fragment (photo 6).



4



5



6

Additional Examples of Finds

Midden Deposits

You may encounter midden deposits in grading. These deposits may be extensive and relatively thick - consisting of trash, rubble, building ruins, etc. Photo 1 below shows midden deposits; photos 2-4 show frequent ingredients of middens.

Photo 1: Midden deposits

Photo 2: Oyster shell - is an upland setting as result of human activity

Photo 3: Plaster and Mortar - are difficult to tell apart in the field

Photo 4: Brick - may have been used in a foundation, hearth, chimney or for a whole building



1



2



3

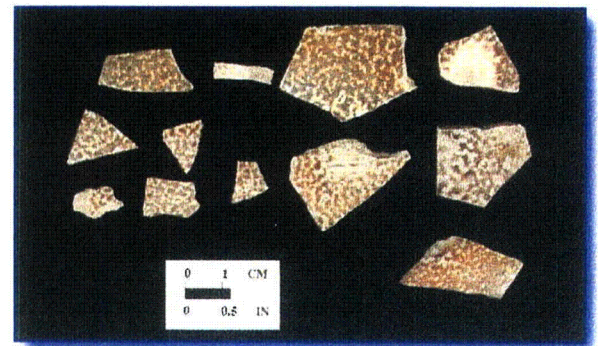
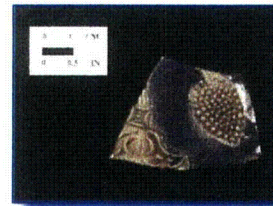
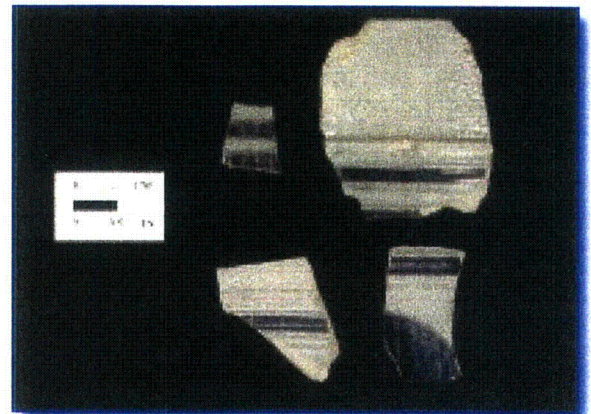


4

Historic Ceramics Overview

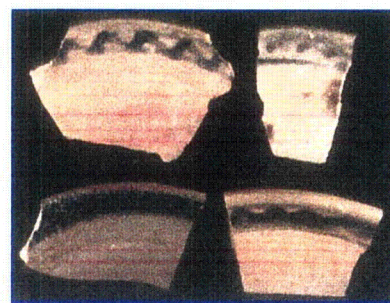
RHENISH - Stoneware.

Rhenish may be gray or brown and may have cobalt blue and manganese (purplish) decoration. The stoneware shown below was found on 17th and 18th century-sites in Calvert County.



Other Types of Stoneware

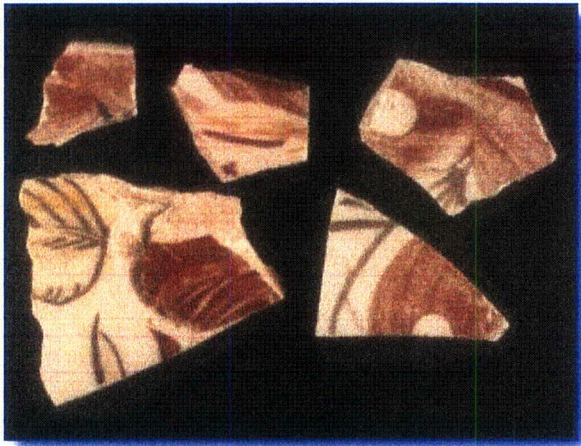
Other types of Stoneware maybe glazed or unglazed and may come in a variety of colors and decorative motifs.



Stoneware is still manufactured, often in forms and styles that first appeared centuries ago.

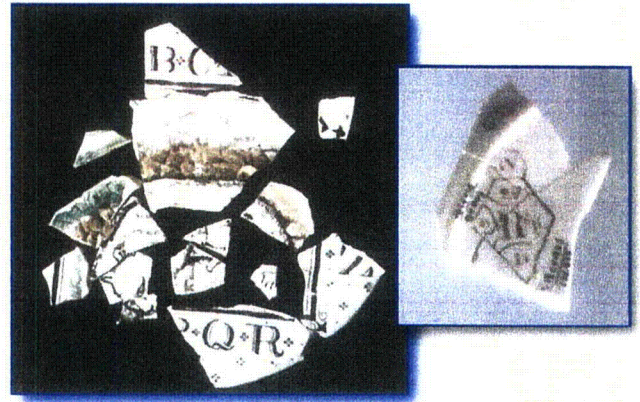
Historic Ceramics Overview cont'd

Hand-painted creamware 18th century

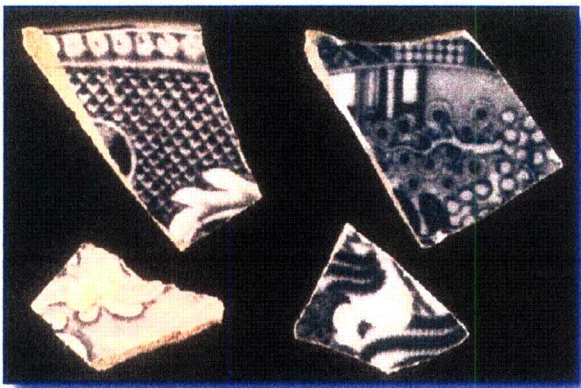


Child's alphabet plate

The fragments below were pieced together to reveal the registry mark (photo below, right) encoded with the actual date of manufacture, September 29, 1882.



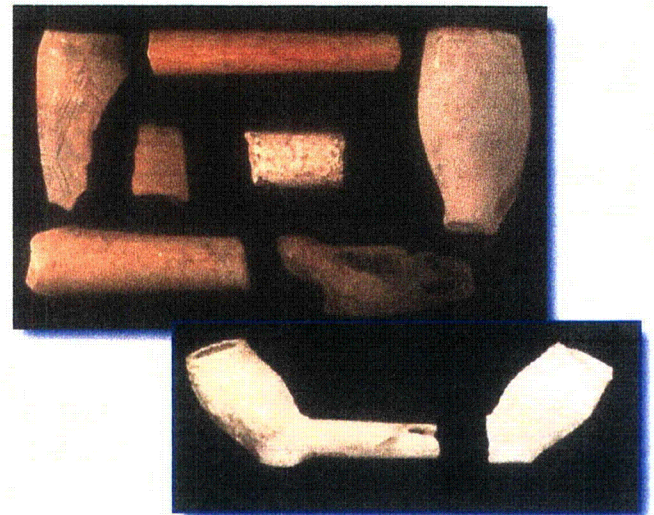
Blue-on-white porcelain



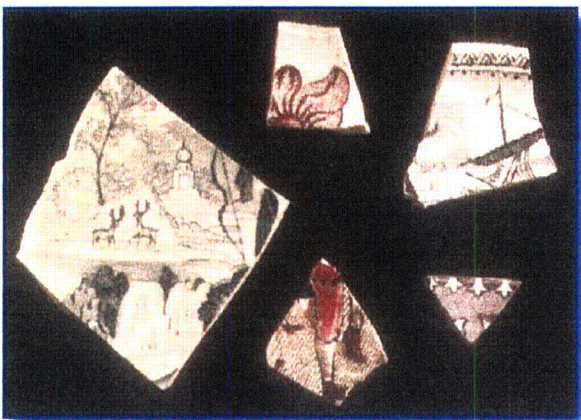
Tobacco Pipes Overview

Tobacco pipes were typically made of clay up into the early 20th century.

White clay is commonly associated with colonial - period sites, where red clay pipes may also be found.



Transfer-printed earthenware; 19th century



The molded pipe bowl at left was made to insert a reed for a stem. This kind of pipe was manufactured from the mid-19th century into the early 20th century.

Historic Glassware Overview

Historic, wine-bottle glass is dark olive green and may turn a variety of surprising colors buried in the soil. These whole bottles were recovered from a well at the Oxon Hill site in Prince Georges County.



Wine bottle seals are not uncommon on 18th century sites in Calvert County. They often bear the initials of the property owner (photo below).



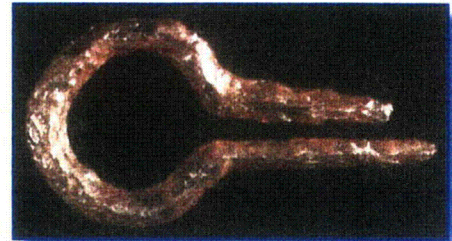
Odd bits of glass may be elements of fine tableware.



Other Historic Artifacts

Jaw harps

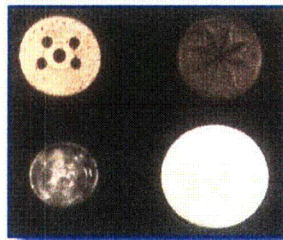
They are found on many sites; the iron loop is usually all that remains.



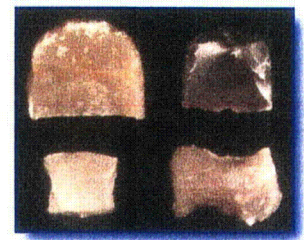
Slate pencil fragment



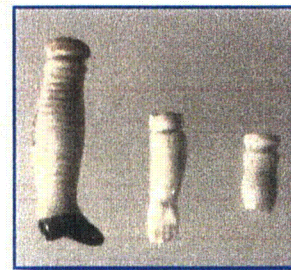
Buttons



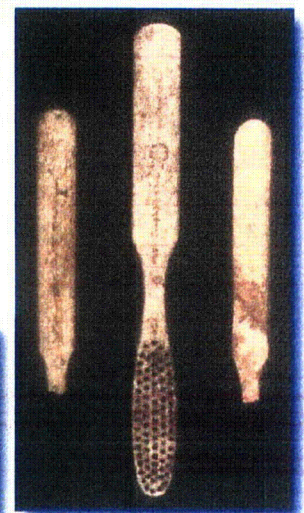
Gun flints



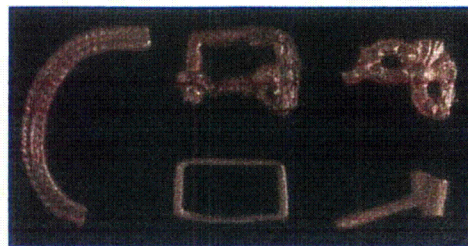
Porcelain doll parts



Bone toothbrushes; 18th-19th century



Buckles



Indian Artifacts Overview

Stone Tools

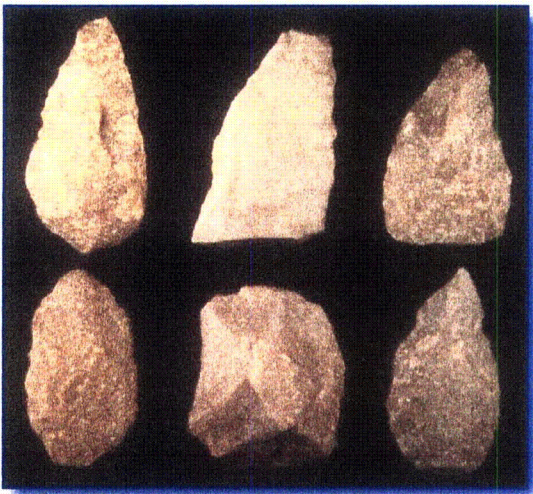
Chipped stone, bifaces (i.e. stone that is worked on both sides), projectile points, knives, stone tools used to make these other tools and the stone flakes generated in the course of making the blades, points, etc.

Photo 1: Bifaces

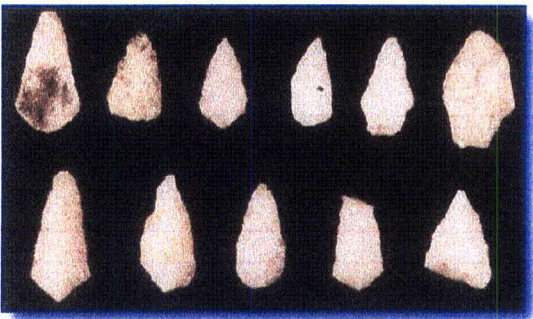
Photo 2: Quartz points

Photo 3: Triangular points

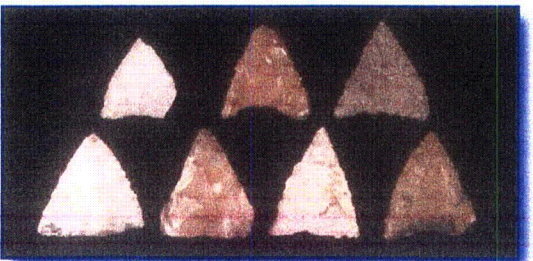
Photo 4: Otter Creek points



1



2



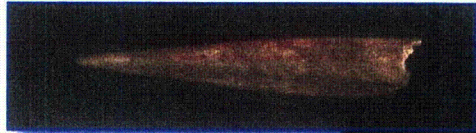
3



4

Photo 5: Bone awl

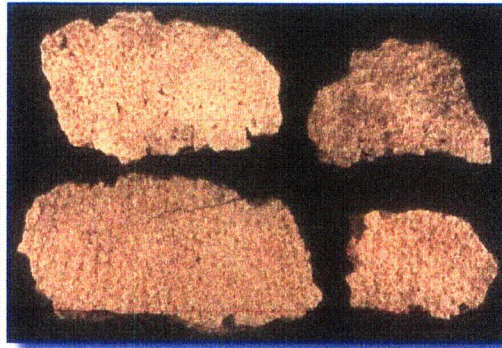
Photo 6: Shell bead



5



6



7

The surface of the pottery in photo 7 was marked by a net fabric.



8 The pottery in photo 8 was tempered with shell and impressed with fabric. The surface treatment may have assisted in manufacture, in addition to providing a decorative element.

Indian Artifacts Overview cont'd

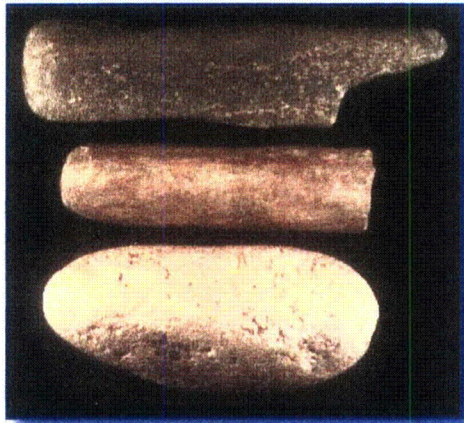
Photo 1: Hammerstone

Photo 2: Pestles - grinding stones for grains

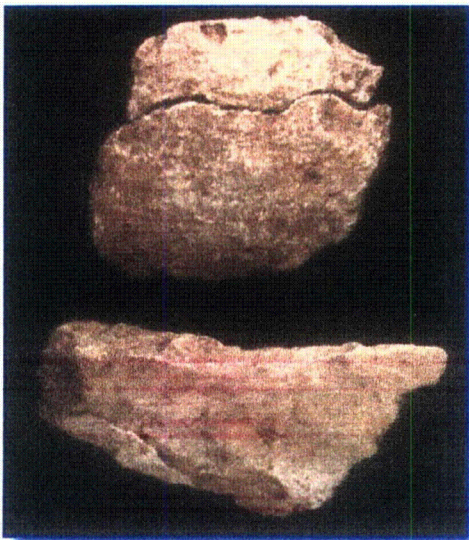
Photo 3: Steatite (soapstone) bowl fragments; before Native people began using pottery, they manufactured vessels out of steatite.



1



2



3

Other Information

CC3 Construction - Archaeological Resource Protocols and Contact Information

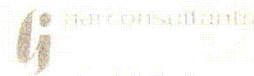
Personnel must refer to the Calvert Cliffs Unit 3 Cultural Resource Protection Protocol for direction and contact information when encountering potential archaeological resources during the course of CC3 construction.

Credits and Thanks

A very special thank you goes to Kirsti Uunila, Historic Preservation Planner with Calvert County Planning and Zoning, for her enthusiasm and efforts in developing this guide.

Many of the images in this guide were taken from the web pages of the Maryland Archaeological Conservation (MAC) Laboratory located in St. Leonard, Maryland. Special thanks go to the MAC Lab staff, especially Director of Research Ed Chaney and Curator of State Archaeological Collections Rebecca Morehouse, for its assistance.

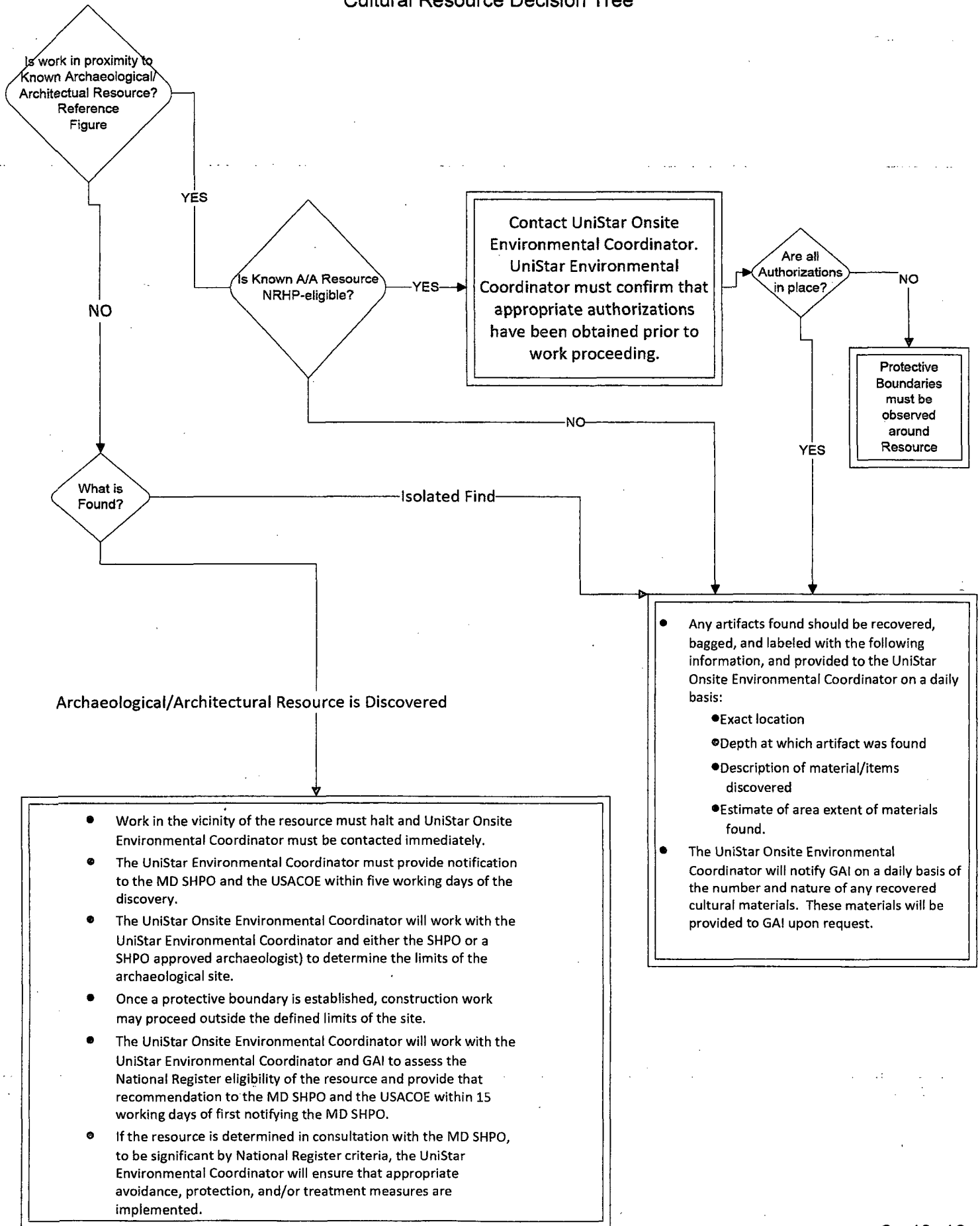
Images and technical expertise were also provided by GAI Consultants. We appreciate the professionalism and commitment they bring to the project.



Field Team,

**Thank you for your help in recovering
the past in Calvert County!**

Cultural Resource Decision Tree



Attachment 3 – Figure showing locations of cultural sites on the CC3 site is withheld per section 34 of the National Historic Preservation Act and Title 36 of the Code of Federal Regulations Part 800.11(c)