Maryland Archeology Month 2017

At the Water's Edge: Our Past on the Brink

You are cordially invited to join
Maryland Governor Larry Hogan
in celebrating April 2017 as
"Maryland Archeology Month"

The State of Maryland

Proclamation

From the Governor of the State of Maryland

MARYLAND ARCHEOLOGY MONTH
APRIL 1 - 30, 2017

WHEREAS, Maryland's many remarkable archeological discoveries at such sites as the Zekiah Fort, the U.S.S. Scorpion, St. Mary's City, Piscataway Park, Fort Frederick, Jefferson Patterson Park and Museum, and the colonial capital of Annapolis are of national and international significance; and

WHEREAS, The coordinated efforts of State and local government, avocational organizations, and individuals, to effectively assess and monitor those archaeological sites endangered by natural hazards are having increasingly meaningful results; and

WHEREAS, Archeological sites and artifacts provide a tangible link to at least 12,000 years of human occupation in Maryland, deepen our understanding of the state's diverse history and culture, and reveal otherwise unavailable information about the origins of our communities and traditions; and

WHEREAS, The protection, study and interpretation of these unique and irreplaceable links to the past provide educational, scientific, and economic benefits for all citizens; and

WHEREAS, The Maryland Department of Planning's Maryland Historical Trust has combined forces with the Prince George's County Department of Parks and Recreation, the Archeological Society of Maryland, the Council for Maryland Archeology, the State Museum of Archaeology at Jefferson Patterson Park and Museum, the Maryland State Highway Administration, Historic St. Mary's City, St. Mary's College of Maryland, and other individuals and organizations to inform and involve the public in the excitement of archeological discovery in our state.

NOW, THEREFORE, I, LAWRENCE J. HOGAN, JR., GOVERNOR OF THE STATE OF MARYLAND, do hereby proclaim APRIL 1 - 30, 2017 as MARYLAND ARCHEOLOGY MONTH in Maryland, and do commend this observance to all of our citizens.

Given Under My Hand and the Great Seal of the State of Maryland, this 1st day of April Two Thousand and seventeen

Governor

Lt. Governor

Secretary of State

At the Water's Edge: Our Past on the Brink

Water is inexorable. It sculpts the Earth. Taking away here, adding there. Soil. Stone. It doesn't matter; in the end all material bends to its will. When combined with an energizing force such as gravity, tide, or wind, water's effects on the Earth are intensified. Maryland's coastal plain, composed of unconsolidated sediments, is especially susceptible to the power of water. Real estate has vanished before landowners' eyes. Whole islands – perhaps as many as 400 in the Chesapeake Bay – have disappeared since Captain John Smith's 1608 voyages of discovery. In recent years the rampage of water has accelerated. Whether as a result of more frequent and more intense storms, with their accompanying tidal surges and enhanced wave energy, or through coastal subsidence and sea level rise, loss of shoreline is taking an ever greater toll on Maryland's coastal landscape.

Water is also a human attractant. People are drawn to it, and have been for as long as people have been people. Water is a necessity of life, both for us and for the food that sustains us. The shore has always been prime real estate.

When accelerating shoreline loss is coupled with the gravitational effects of water on human settlement throughout time, the inevitable result is tremendous destruction of archeological sites. Archeologists are familiar with this type of loss. Early Holocene Paleoindian sites likely line the banks of the ancestral Susquehanna River beneath the waters of the Chesapeake Bay, while innumerable shell middens are visible along its eroding shorelines. The spotlight of superstorm Sandy (2012), following on the heels of more locally impacting hurricane Isabel (2003) and tropical storm Lee (2011), has illuminated a inescapable truth: Maryland's archeological heritage is under full-on assault.

What can be done about it? A number of Maryland archeologists are hard at work researching this question. They are studying the mechanisms of shoreline loss, predicting the spatial distribution and extent of its future effects on archeological sites, and designing and testing strategies to mitigate them. Many of these researchers have written essays for this booklet. I invite you to consider their experiences, their stories, and their plans.

You can also become involved in Maryland archeology. Join the Archeological Society of Maryland, whose goals are to discover, investigate, and conserve Maryland's archeological resources. Volunteer on archeological investigations in both the field and lab. Attend lectures, workshops, site tours (see the events listing on page 23 and the Calendar of Events on the Maryland Archeology Month website, *www.marylandarcheology.org*). Learn all you can about Maryland's past as revealed through archeology. By doing this, you and Maryland archeology will benefit!

Charles L. Hall
Chair, Maryland Archeology Month Committee

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The cover photo, by Jason Tyler, is a view of the Calverton Site, 18CV22, on Battle Creek near its confluence with the Patuxent River. Eroding shell midden material can be seen near the surface of the eroding bank. Site of the first seat of government in Calvert County (1668-1725), erosion has resulted in more than 40 meters of documented landward migration over the past 150 years. With the colonial town decidedly oriented toward the shoreline of Battle Creek this has undoubtedly led to some site loss. This year the Archeological Society of Maryland and the Maryland Historical Trust will conduct their annual Tyler Bastian Field Session in Maryland Archeology at Calverton between May 26th and June 5th. Visit www.marylandarcheology.org for more information, and plan to join the effort!

New Threats to Archeological Sites, and the New Normal

Jen Sparenberg, Maryland Historical Trust

Traditionally the largest threat to archeological sites has been man, whether through looting, development, or terrorism. However human-caused threats may soon be eclipsed by even larger threats: natural hazards and climate change. Archeological sites across the state are vulnerable to natural hazards and climate change whether they are in upland settings, in freshwater marshes, along riverine floodplains or located on the bay. These new threats will require archeologists to rethink methods for prioritizing and protecting vulnerable archeological resources. One way this can be achieved is through integrating archeology into the hazard mitigation planning process to ensure that sites are protected as valuable community assets.

Extreme precipitation events and coastal hazards, such as tropical storms and hurricanes, cause storm surge and exacerbate erosion along streambanks and in coastal areas. Storm surge can remodel and scour the bay's floor and riverbeds. Saltwater intrusion is slowly killing freshwater marshes and wetlands are migrating further inland. Coastal areas that were once dry are now experiencing intermittent flooding and areas that flooded occasionally are now flooding on a more frequent basis. Conversely, drier summers may cause intermittently wet areas and permanent wetlands to become dry. Drought, brought on by a warmer climate, can intensify erosion after a rainstorm and may also cause an increase in wildland fires. Climate change may result in migrating flora and fauna as native species give way to invasive and other species more adapted to the new climate.

Sandbagging protecting a prehistoric site along a river in Queen Anne's County.

The effects on archeological deposits will be devastating. Archeological sites that were once dry or only intermittently wet will be subject to longer or permanent inundation. During spells of extreme heat and drought, sites that are wet will dry out. Coastlines will be remodeled by storm surge and scoured by increasingly higher tides, eroding coastal sites until nothing remains. Riverine-oriented sites will fare no better than their coastal counterparts and they too will be eroded away as precipitation events cause flash flooding. Although the impacts of coastal storms on submerged and partially submerged archeological resources has not been fully studied, it has been shown that storm-induced scour and redeposit of sediment reveals previously covered artifacts and disrupts the integrity of submerged stratigraphy, albeit to an unknown degree. Uncovering buried submerged sites can accelerate decay by altering the environment of the site, or by causing collapse or shifting of artifacts.

As the new normal emerges, protecting sites by avoiding them and leaving them undisturbed in situ may no longer be the best approach. Archeologists are rising to the challenge by developing new methods for identifying and prioritizing sites vulnerable to natural hazards and raising awareness of the vulnerability of sites and their need for protection, however this to might not be enough to protect sites. Archeologists also need to step outside of their discipline and work with nontraditional partners, like emergency managers, floodplain managers and environmental planners, who are involved in planning to protect communities from natural hazards and climate change.

Currently, archeological sites are only considered during a compliance review when a hazard mitigation project, like raising a house above the predicted flood level, could damage or destroy a site. Archeologists need to become more engaged with local government, mainly emergency managers, when a local (usually a single county) hazard mitigation plan is developed. These plans describe the vulnerability of various assets, like housing, roads, or schools, to natural hazards (e.g. flood, winter storm, tornados, etc.) and set forth goals, objectives, and projects to protect those assets from the hazards.

In order for a local government to be eligible to receive grant funding from FEMA, a local government must have an updated, FEMA-approved hazard mitigation plan. Local plans must be consistent with the goals and objectives in their state hazard mitigation plan. The State of Maryland's mitigation objectives are supported by actions the state would like to encourage local jurisdictions to take to protect their assets. The current State Hazard Mitigation Plan contains three mitigation actions pertaining to archeology:

- Conduct survey and evaluation of archeological and cultural resources in high hazard coastal areas.
- Develop a hand-held digital collector flood risk assessment tool for archeological sites.
- Survey State-owned land and waters in selected high hazard areas.

Those three mitigation actions if incorporated into a local hazard mitigation plan could potentially be funded using FEMA grants: a source not typically open to archeological investigations before a disaster strikes.

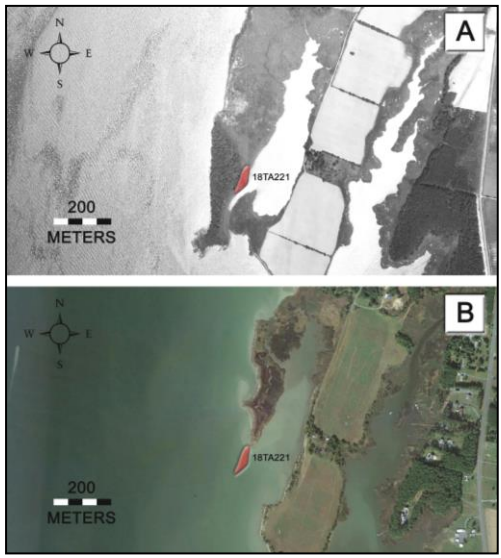
How can archeologists become involved in hazard mitigation planning? Be an advocate. Find out when your local plan is due to be updated (plans are updated every five years). Meet with the emergency manager who will lead the planning effort. Join the planning team and make the team aware that Maryland's archeological heritage is an asset endangered by natural hazards and worthy of protection. Remind the team that including actions to identify and protect vulnerable archeological sites is consistent with the State's plan and work to get them included in your local plan. Participate in the public outreach surrounding the plan's creation. Become part of planning and preparing for the new normal before it arrives: the longer we hesitate, the more we'll lose.

Erosion and Archeological Site Loss Adjacent to the Chesapeake Bay and the Atlantic Coast

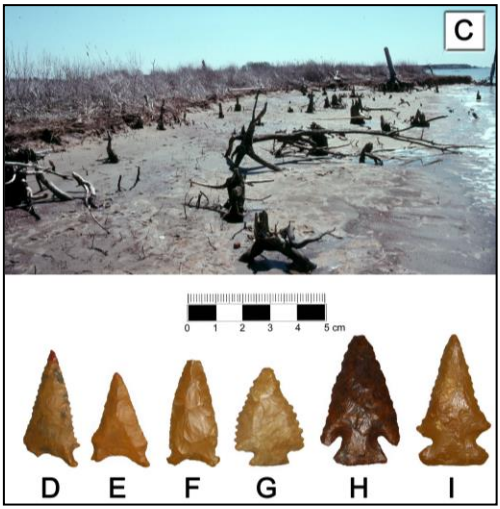
Darrin Lowery, Chesapeake Watershed Archaeological Research, and Smithsonian Institution

As a child growing up on Tilghman Island, I became acutely aware of shoreline erosion at a very early age. Most of my childhood was spent walking the coastal margins where land and water intersect. In the early 1970s, I began finding prehistoric artifacts, mainly projectile points, along the coastline at discrete locations. I later recorded these locations as archeological sites and ultimately published information about these ancient encampments. Unfortunately, many of the sites I found as a child no longer exist. Development did not destroy these sites and they did not sink! The sites were "bulldozed" or eroded away by the regular onslaught of wind, wave, and tidal action. Some of these sites contained irreplaceable evidence about ancient cultures that lived within the Chesapeake Bay watershed at times when sea level was markedly lower and the Northern Hemisphere climate was noticeably different.

Crane Point (18TA221a) was an archeological site that provided a rare glimpse into the human use of the Chesapeake coastal plain between 11,500 and 9,800 years ago, or during the early Holocene. When the site was occupied, relative sea level varied between 43 meters (~141 feet) and 28 meters (~91 feet) below present and the encampment was situated near a first-order spring-fed stream adjoining a drainage divide. However, when my father and I discovered the site in 1976 (see figure, A), its setting was an eroded point of land, which consisted of a forested hummock and a tidal marsh. The site was wedged between a small tidal creek and the Chesapeake Bay. As erosion dismantled the subsoil of the site, my father and I observed numerous exposed archeological features including stone tool clusters, hearths, and concentrations of flake debris from tool-making. Over the years, I watched this unique site and its archeological features rapidly disappear into the Chesapeake Bay. Today, nothing remains of this site (figure, B) and the original site boundary lies within an insignificant portion of open Chesapeake Bay water. I can only presume that any remnant stone tools not collected from this location have been transported southward and eastward as a result of littoral wave energy. These displaced artifacts are now nothing more than flotsam and particles in the bay bottom sediment.



Crane Point site in 1976 (A) and today (B).



Crane Point site in 1989 (C) when investigated, and a sample of the recovered projectile points (D - I).

In 1989 (C), along with faculty members from the University of Delaware, I salvaged a few of the intact archeological features from the intact portion of this grand prehistoric encampment. Our investigations revealed diagnostic projectile points and knives (D-I), hide-working tools, and carbonized nutshells, seeds, and wood from a hearth. Many years have passed since the Crane Point site was lost to erosion. Over this period of time, I have recorded an additional 1,800 archeological sites in the region. I have repeatedly asked myself whether another site comparable to Crane Point exists here. Unfortunately, the answer to this question so far is "no!" Any more stories that Crane Point might have told are now lost. The circumstance observed at Crane Point is repeating itself along many coastlines associated with Delmarva's Chesapeake Bay and Atlantic shorelines. For example, 35 of the 243 coastal archeological sites recorded along Virginia's portion of the Delmarva Peninsula have disappeared over the past 15 years as a result of shoreline erosion.

Most people confuse sea level rise with coastal erosion, but these are actually quite different geologic processes. As a coastal geologist, I recognize that sea level change occurs on a centennial or millennial time scale and is expressed by the formation of tidal marsh over former upland land surfaces. In contrast, fetch-related wave erosion occurs on an hourly or daily time frame and is manifest in the landward retreat of the shoreline and the rapid removal of sediment. With respect to Crane Point, the tidal marsh noted at the site was created as a result of sea level rise. However, the loss of the Crane Point site was a byproduct of shoreline erosion.

In summation, the single greatest threat to the archeological sites adjacent to the Chesapeake Bay is the Chesapeake Bay itself. Realizing this, I remain ever hopeful that cultural resource managers, concerned government agencies, and elected representatives will begin to address the magnitude of archeological site loss along the region's coastlines. Some information about these threatened coastal sites is better than no information.

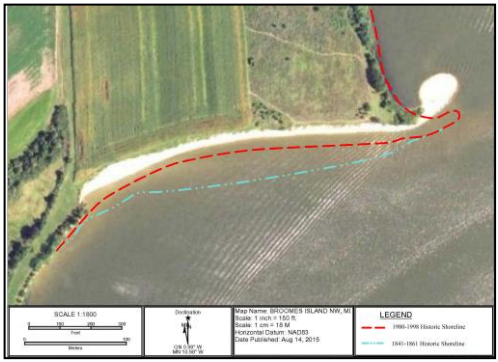
A Return to Calverton, or What's Left of It

Jason Tyler, Applied Archaeology and History Associates, Inc.

With sea level rise within Maryland projected to be twice the global average, its coastal zone is vulnerable to shoreline erosion, coastal flooding, episodic storms, storm surge and inundation. Given the potential impact of such events on existing cultural resources along Calvert County's 143 miles of shoreline, the county has prioritized documenting some of the most threatened areas. In November 2015, Applied Archaeology and History Associates, Inc. (AAHA) embarked on a survey of the shoreline of Battle Creek, Calvert County. Working on a contract for Calvert County, AAHA was tasked with identifying archeological resources along the banks of the creek. Aboard a canoe, Jason Tyler and Katie Boyd spent three days examining the banks of the coves and inlets lining the creek in search of recorded and unrecorded sites.

The survey was an unmitigated success. Thirteen new sites were identified and mapped, while the locations of five previously identified sites were also georeferenced and mapped. All of these sites were then compared with the Maryland Department of Natural Resources (DNR) projections for potential inundation from rising sea level; it should be noted that the DNR projections do not account for the additional effect of erosion on the sites. Utilizing these projections, six sites were forecast to be at the greatest immediate risk from rising sea levels, including four of the newly identified sites.

The survey also brought attention to the plight of the Calverton site, the seat of County government during the late 17th century, but now a large, grassy field which is rapidly being eroded by wave action near the mouth of the creek. During the mid-1980's the site was declared one of the most important within Calvert County, but attempts to preserve it were derailed.



The Calverton site with projected historic shorelines indicated.

The remains of Calverton have continued to be impacted by rising sea levels and shoreline erosion, with the DNR's data indicating that over the past 30 years the shoreline has receded by as much as an additional 12 meters (40'). While there is some way to go before the site fully succumbs, it should be noted that the archeology of this very important site continues to be threatened by the impacts of sea level rise on the shoreline of Battle Creek. Given the importance of Calverton, it is recommended that steps be undertaken to protect the site. If it is deemed not possible to safeguard from the effects of sea level rise, steps should be taken to excavate and record the archeology of Calverton, to preserve this important chapter in Calvert County's early history for future generations.

Protecting Eroding Sites at Jefferson Patterson Park and Museum

Ed Chaney, Maryland Archaeological Conservation Laboratory

Jefferson Patterson Park and Museum (JPPM) is situated along the Patuxent River, at the mouth of St. Leonard Creek. We have 2.5 miles of waterfront, and nearly 70 identified archeological sites. As you might expect, many of them are located on the shoreline and have long been subjected to erosion from storms and tides. At one of those sites, the Late Woodland period Stearns Site (18CV17), numerous features – including large trash pits – were disappearing into the water. Some of the earliest excavations at JPPM were designed to salvage the sites that were washing away. The picture to the left shows work being done in the 1980s on an eroding trash pit at the Stearns Site. The pit was perched on the edge of a collapsing bluff, 6 or 8 feet above the river.

Excavating an eroding Late Woodland pit at the Stearns Site.

But JPPM, under former director Mike Smolek, wanted to do more than just salvage sites, so we took aggressive steps to protect them. Earlier efforts, such as dumping riprap on the shoreline, had not proved effective. In the late 1990s, we began building artificial beaches and substantial breakwaters along much of our Patuxent River waterfront. The picture below shows the Stearns Site today. The green vegetation marks the original shoreline, with the new beach – planted with sea grass – to its right. Over the last 15 years we have gone through several hurricanes without losing ANY of our Patuxent shore to erosion. The sites located there are now completely protected. As an added bonus, the new beaches provide nesting habitat for terrapins. So everybody wins! Obviously, erosion control projects like this are not cheap, but when they are viable, they are definitely effective at protecting archeological resources.

The Stearns Site shoreline today.

The Creeping Threat: Development, Sea Level Rise, Erosion, Subsidence, and the Archeological Resources in St. Mary's County

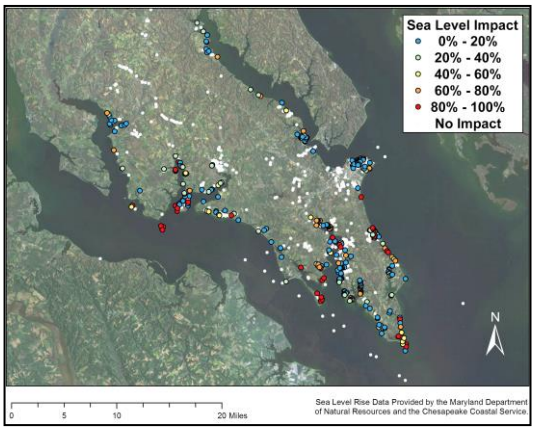
Scott Strickland, St. Mary's College of Maryland

Over-development of land was once considered the foremost threat to archeological resources. This was the thinking of the St. Mary's County Historic Preservation Commission (HPC) when its members recommended a study to analyze and evaluate the county's existing archeological resources. Southern Maryland in general has been one of the fastest growing regions in the state. St. Mary's County, often called the "Mother County" of Maryland, is devoid of any formal ordinance or review related to the documentation and preservation of archeological resources.

The highest rate of development in St. Mary's County lies within the St. Mary's River watershed. Between 2001 and 2011 this watershed saw an increase in developed land area of 11.64 percent, while the rest of the county saw an increase between 0.02 and 3.73 percent. The St. Mary's River watershed includes portions of Great Mills, Lexington Park, and California – the most highly populated districts in the county.

Measuring the impact of this development on archeological resources was done using available land use spatial datasets within a Geographic Information Systems (GIS) framework. Land use data consists of broad classifications of land into predetermined categories (such as developed land). While broad, these classifications can give a sense of areas posing the greatest threat to archeological resources. Approximately 12.6 percent of recorded sites are located within developed lands.

But what was most revealing about the study is the impact sea level rise is having on archeological sites in the County. A total of 27.9 percent of sites are impacted by wetlands (or marshes and other wet areas). Rising sea levels due to human-influenced climate change have been impacting archeological sites. Rising sea levels are converting previously dry low-lying land into marshes and other wetlands. While it is not known how many sites currently within wetlands were dry in the recent past, future impacts can be reasonably estimated.



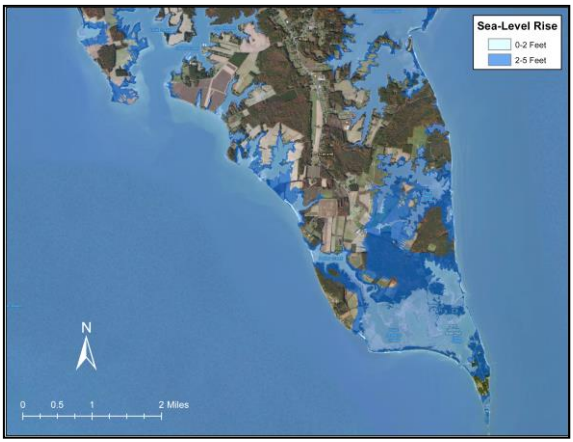
Percent inundation of recorded archaeological sites due to 2-ft sea level rise.

Projections for the State of Maryland estimate that, by the year 2050, sea level will rise between 0.9 and 2.1 feet with a best estimate at 1.4 feet. By the year 2100, the projected range is between 2.1 and 5.7 feet, with a best estimate of 3.7 feet. It is reasonable to conclude that

within the century water levels will rise at least 2 feet. These projections are based on multiple data sources such as CO_2 emissions projections, global temperature monitoring, and local studies on tidal changes and rates. Tidal gauges installed on Solomons Island in Calvert County between 1937 and 1999 have measured an average rate of rise of 1.08 feet per century. In addition, land subsidence (or sinking) rates for the county are estimated at 0.66 feet per century.

A total of 310 sites – fully one third of presently recorded sites – will be impacted in some way by a 2-foot rise in sea-level. Nearly 10% of sites within the county are at risk of having 50% or more of their total site area under water. This rise is of inundation only, not the conversion of lands to forested wetlands or marshes. These sites include all time periods, but consist primarily of prehistoric shell middens and lithic scatters at water's edge.

The area most at risk is the south part of the county. Of the 13 recorded sites at Pt. Lookout State Park, half will be inundated by a 2-foot rise in sea level. Areas directly along the Chesapeake Bay and near the mouth of the St. Mary's River are especially at risk. Some areas have seen an erosion rate of upwards of 12 feet of inland shoreline loss a year with few areas in the county that experience rates of accretion or land gain. Erosion itself is not always a slow-going, gradual, sustained and predictable process. Storm events such as hurricanes and Nor-Easters have damaging effects that make up the bulk of erosion events. With rising global temperatures, the frequency of these types of storms is ever-increasing.



Extent of sea level rise inundation around Point Lookout.

Threats from development to archeological resources can be controlled when local governments and the public proactively support an ordinance and review process. What cannot be controlled is the threat from sea-level rise and erosion. This creeping threat has already impacted known sites and will continue to do so. It becomes important now to gather as much information as possible from areas that could be gone within a generation.

Consumer Desire, Historical Archeology, and the Anthropocene

Julia A. King, St. Mary's College of Maryland
Phil Levy, University of South Florida

Many scientists argue that we are now in the Anthropocene, a new epoch highlighting humankind itself as a geological force. While there is debate about the inception of the Anthropocene, an important catalyst has to be the global spread of European ideas, bodies, and material culture beginning in the mid- to late 15th century. European expansion, the dispossession of indigenous lands, the rise of consumerism, and an energy-demanding capitalism (animal, human, and, soon enough, fossil fuel) fostered the conditions hastening anthropogenic climate change over the last 500-plus years.

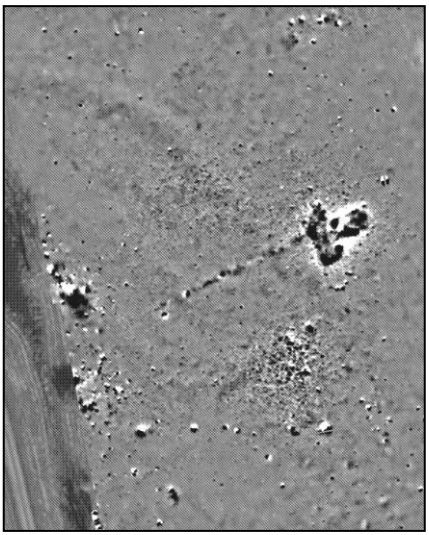
Archeology, a discipline immersed in the study of human history, ecology, and landscape with an unparalleled ability to explore "deep history," has an important role to play in understanding the Anthropocene. In particular, historical archeology is the subfield of archeology concerned with the emergence of the modern world beginning in the 15th century, including the development of European colonialism. As indigenous landscapes (in Maryland and elsewhere) were remade into sites of resource extraction (or plantations), material goods piled up in homes and, eventually, in archeological deposits. This consumerism spread among all classes of people, if at different rates, and became and remains a defining feature of the modern world. Understanding the origins, histories, and historical impacts of consumer culture can provide a necessary context for confronting the problems we face in the 21st century.

Early colonial artifacts recovered from archaeological sites located in the lower Potomac River valley (St. Mary's College of Maryland).

Today, the term, "carbon footprint," is used to document carbon emissions in an effort to measure energy use. Carbon footprints include both direct energy uses (heating a home, for example) and indirect uses (the energy it takes to produce and deliver goods to a consumer). The rise of "consumer desire" and not just "consumer need" literally fueled the demand for these goods – goods that were used to shape personal identity, facilitate social intercourse, and shape social categories that insured these goods could be produced and delivered.

While some culture historians date the emergence of consumer desire to the early 20th century, Maryland archeologists (along with their colleagues throughout the world) recover the broken and discarded objects of consumerism beginning in the 17th century. This raises the question, then: can archeologists develop an analogous concept for 'carbon footprint' for the sites we dig, developing a method for measuring environmental impacts in the past? We are already using faunal, floral, and sediment analyses to assess ecological changes.

Can we go farther and add to this database by quantifying the environmental footprints of past households?



Results of magnetometer survey at Notley Hall; the house is reflected as the black T-shaped block with the drain shown as a linear feature from the house to the Wicomico River (Tim Horsley).

In southern Maryland, tobacco – an important good in this emerging new world – built the fortunes that encouraged the adoption of new expressions of status and identity. By the end of the 17th century, the Calverts, their relatives, and their friends led the way by which all sorts of new and fashionable goods, exchanged for tobacco, became an integral part of the social and political scene in early Maryland. For example, archeological excavations at Mattapany, the third Lord Baltimore's fortified plantation at the mouth of the Patuxent River, revealed a two-and-a-half-story brick house on a fashionably new raised basement with rubbed brick window or door jack arches. Baltimore's close friend and deputy governor, Thomas Notley, built his eight-room brick mansion on the Wicomico River (St. Mary's County), complete with a buried brick drain carrying waste into the adjacent river. Today, both Calvert's and Notley's brick houses would be classified as having a greater "footprint" than the typical earthfast houses dotting the landscape. Timber houses are considered renewable; brick houses much less so, although the expected longer life of a brick house can have an ameliorating effect.

Few people in 17th- or 18th-century Maryland could afford a brick house. Nonetheless, ceramics, clothing, food, and other artifacts represented perhaps more affordable choices for expressing status and identity, and these goods each came with their own environmental impacts. Evolving notions of comfort focused on heating and illumination also led to increased demands for fuel with impacts on the landscape. Livestock also transformed landscapes, often with particularly devastating consequences for indigenous communities. Perhaps most important, the satisfaction of comfort and consumer desire led to the forced migration of enslaved Africans, giving rise to social structures still deeply embedded in culture.

Developing quantifiable measures for the environmental impact of colonial households, through time and across space, when coupled with faunal and floral data and detailed studies of consumer artifacts, can spur an appreciation of the origins of the Anthropocene and its ecological and social impacts. Addressing the immediate challenges of anthropogenic climate change in the 21st century should include the study of how we arrived at this point in history.

Stemming the Tide: A View from the Shoreline

Claude Bowen, Archeological Society of Maryland

When faced with the complexity of the naturally occurring destruction of cultural resources along Maryland's thousands of miles of tidal waters, it is natural to find oneself overwhelmed by the enormity of the problem posed by the sheer number of sites and the kinds of decisions that will need to be made before any comprehensive approach to mitigation can be put in place.

If "winning" is defined by saving or salvaging every archeological site that is endangered, it is clear that those of us who care about this for ourselves and our children cannot win this battle. It is also apparent that some means of triage based on imperfect information will be necessary to make determinations about why some sites are more important than other sites to preserve or salvage. Having said this, I am fully cognizant of the problems and quicksand-like dangers of this kind of decision-making. For example, historians' entire written record of the barbarian invasions of the Western Roman Empire in the fifth century CE comes from only one copy made by a nameless medieval monk of a work by a late Roman historian. A different decision by a monk nearly a thousand years ago could have greatly diminished our understanding of western history.

However, the perpetual scarcity of available resources will make it necessary for the archeological community in Maryland to develop systems, models, and protocols to address these problems in a meaningful manner and to routinely take the risks mentioned above, even with the full knowledge that some mistakes will be made.

The first tides that we must stem are not routine tidal depredations, rising sea levels, or the more violent destruction by storms. The first tide that needs to be stemmed is public indifference. It is a first tenet of economic theory that human (read public) needs or desires are inexhaustible while the resources available to meet those needs are always limited. In the keen competition for private and public resources, it is clear that archeology finds itself rather low on the list of priorities.

This "relevancy deficit" is complicated and not amenable to simple solutions. However, I am going to offer three thoughts which may be of help in partially ameliorating or, at least, clarifying the problem.

Brick cellar foundation along shore of the Chesapeake Bay revealed by erosion caused by Hurricane Isabel.

First, the archeological community must once again become adept in telling vibrant stories about the past. The 19th and first half of the 20th centuries were the age of great archeological story tellers. Howard Carter, who discovered the tomb of Tutankahmun, is but one example from this period. Dr. Henry Miller of St. Mary's City is a current example of someone who can make archeology tell stories about the past that fascinate the public while doing no harm to truth.

Second, let's restrain our public enthusiasm for deconstruction of the "truth" into multiple stories about the past; each of which may be considered as "true." While there are perfectly good ontological and epistemological reasons for such thinking about the past, it is hardly reassuring to a potential funder or elected official not trained in archeological theory.

Third, it will be helpful for all of us in the archeological community to give careful thought to the question of relevancy. Relevancy must consist of reasons that go beyond our own interests and research agendas to reasons that will better resonate with the general public. The key to greater relevancy for the public at large must begin with greater accessibility of stories that tell the non-archeologically informed compelling stories about the past based both on work completed and proposed.

Why should the public and private sources of funding continue to support saving threatened sites, especially since our best efforts may only result in rescuing a few cultural resources and, perhaps, not even the most important of the threatened sites since "importance" can only be determined through survey, testing, and excavation? In other words, the archeological community has to make educated guesses and expend resources before it is sure that a site is more important and, therefore, more deserving of resources than other sites. It is hard for me not to think of this as analogous to a gambler in a high stakes game being forced to play with too small of a bankroll. Yet, this is where we find ourselves.

The late Dr. Robert Stephenson (of the famous Accokeek Creek site report) once told a group of Archeological Society of Maryland members that he believed that Chesapeake/Middle Atlantic prehistoric archeology was, for the most part, repeatedly finding what was already known about the prehistoric past and that there was little left to learn from further work in the field. Changes in technology, methodology, and new discoveries (such as the Pig Point site in Anne Arundel County, Maryland) have proven Dr. Stephenson to have been a poor prophet. Even if his statement is partly true, the nuanced changes emerging from new work in the field enrich the story of the past and make it more accessible to the professional archeologist, the avocational archeologist, and the public.

Those of us actively involved in archeology in Maryland must take responsibility to convince the public that preserving its endangered cultural resources is so critical. The urgency created by climatic conditions is real and the time to make even modest progress is probably much shorter than we would like to believe.

Using Old Maps & Computer Technology to Save Archeological Sites

Anastasia Poulos, Cultural Resources Division, Anne Arundel County

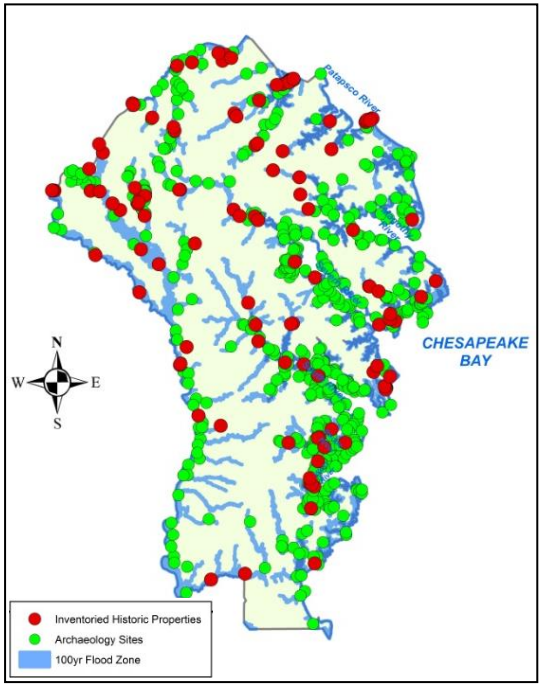
The Chesapeake Bay's waterfront has been intensely used by historic and prehistoric populations for thousands of years. In Anne Arundel County alone, evidence of this long cultural heritage is found in the over 1500 recorded archeological sites and more than 2000 historic structures recorded on the Maryland Inventory of Historic Places (MIHP). These sites include Native American sites, colonial homesteads, 19th – 20th century farmsteads, cemeteries, historic structures and districts. With more than 500 miles of shoreline, erosion is a pressing concern in Anne Arundel County. Historic aerials and historic maps, in particular the US Coastal Survey of Anne Arundel County's Chesapeake shoreline in 1845-1847, show clearly that large parts of the coastline have eroded away. In fact, whole islands, such as Parker's Island in Shady Side, have completely disappeared!

2016 Aerial of Parker's Creek (left, courtesy of Anne Arundel County), and with 1848 Coast Survey overlaid (right) showing location of Parker's Island.

In 2011, Anne Arundel County's Office of Planning and Zoning completed a 2-year study to better understand the impacts of sea level rise and climate change on its resources, people, economy, and infrastructure, which resulted in the publication of a strategic plan to begin addressing those threats. The County's Cultural Resources Division, with a 25-year tradition of local archeology research and preservation, made sure that historic resources were part of the discussion, and zealously lobbied that often over-looked archeological resources were included in the evaluation and planning process within the larger County-wide study. That study resulted in concrete recommendations, and proposed strategies to address the adverse effects sea level rise, climate change and the related extreme weather patterns are having on a County that has more than 500 miles of shoreline. A striking percentage of historic and archeological resources lie within FEMA's 100-year flood zone, with the result that 10% of the historic structures on the MIHP and a staggering 35% of recorded archeological sites are vulnerable to flooding and sea level rise. And these numbers only include the sites we know about.

Just a few months after the report was completed, Hurricane Sandy impacted the Chesapeake Bay, and suddenly, this abstract study became a practical guidebook on how to mitigate and address damage and loss of the County's rich archeological heritage. Since that study launched six years ago,

many more archeological sites and historic properties have been discovered. As climate change and sea level models are refined, it is becoming clearer that large areas of the County have not been surveyed and are vulnerable. So, what is the answer to approaching such a large problem when you have limited resources to survey and excavate? The first step in the process starts at your computer. Geographic information systems (GIS), powered by software such as Esri ArcGis, or Qgis, allows for the spatial analysis of multiple datasets all at once, including environmental information, archeological site information, satellite and other remote sensing data, and historic maps! By assembling this data into one interactive map platform, we are able to quickly assess which sites are in vulnerable areas, as well as develop predictive models for areas that have archeological potential.



Anne Arundel County's cultural resources within 100 year flood zones.

In a 2005 publication, FEMA advises that the best methodology for dealing with hazards to historic resources is to first take an inventory of resources and to then assess their risk, which allows one to prioritize the most important sites among the most vulnerable. Anne Arundel's GIS database is a powerful tool for developing a priority list of action items. Tremendous amounts of information are obtained before we even get to the field survey. In an instant, we can answer questions such as is a potential survey area disturbed by development? Has this area been surveyed previously? Do historic maps indicate the presence of historic homesteads? With archeological site location data, hot-spots (or high-density areas) can easily be mapped using computerized algorithms that calculate instantaneous statistics. While the task of evaluating vulnerable archeological and historic sites is formidable, these powerful computer databases are invaluable in helping us chart our course of action in the face of the rising waters.

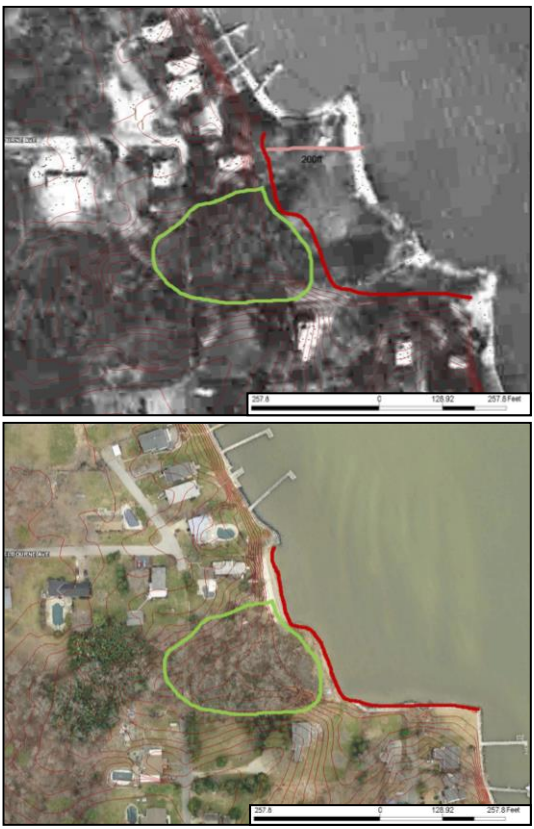
In its fight for the preservation of these endangered cultural resources over the past several years, Anne Arundel County has implemented key strategies and recommendations in partnership with Federal and State Agencies, local organizations, professional archeologists, and volunteers, which C. Jane Cox, the County's Chief of Historic Preservation, will share below.

What Can We Do to Preserve our History?

C. Jane Cox, Cultural Resources Division, Anne Arundel County

The County's Sea Level Rise Strategic Plan (discussed above by Poulos) resulted in thoughtful consideration for what actions and policies our local historic preservation office could undertake to address the threats archeological resources are facing. That research identified three possible responses to sea level rise which could be applied for all types of resources, which include ~Retreat~, ~Adapt~, or ~Fortify and Preserve in Place~. We then evaluated how each response might be tailored to effectively save archeological sites and data.

To fortify an archeological site so it can be preserved in place, bulk-heading and installation of rip-rap may be suggested, though these methods often cause more damage than the root cause might. Adaptation, as in elevating an historic building on pilings on its original location, presents unique challenges for archeological resources. Proactive soft shoreline construction before a site is substantively impacted might borrow the site a few years, and a coffer-dam might offer temporary protections -- but the adaptations that would be required to achieve longer term protection 'in place' would require constant monitoring and ongoing expenses, which makes this unlikely to offer a long-term solution. Retreating for an historic house might take the form of relocating it to safer place, or simply abandoning the house and letting nature take its course. The archeological equivalent when site destruction is inevitable would be to undertake aggressive data recovery. Such efforts at mitigation will ensure the information a site contains is preserved for the future, when it is not feasible to stop the rising tide.



Aerial views of Chesapeake shoreline near Friendship in 1970 (above) and 2015 (below) illustrate the effect of bulk-heading on adjacent shoreline.

Since the 2011 report was completed (see Poulis, above), the County Cultural Resources Division, in partnership with Federal agencies, the Maryland Historical Trust, Preservation Maryland, local preservation organizations, and several talented consulting archeologists, has started the work of saving archeology sites from Mother Nature--- and as importantly, recovering the data they hold from the rising tides. That report offered the following recommendations on how to systematically address archeological issues related to sea level rise and climate change impacts, including:

- Refine and update the "vulnerability assessment" to prioritize cultural resources based on their significance and level of threat, and to undertake regular monitoring of site conditions for the highest priority sites;
- Undertake Phase III level mitigation (excavation) of archeological sites when a significant site is imminently threatened; and
- Develop a community stewardship program to create a partnership between private property owners of culturally-significant properties and the County for the purpose of monitoring periodic and ongoing occurrences of flooding, inundation and erosion of these properties and ensuring action is taken before significant resources are lost.

We have been fortunate to find financial support, grant funding, and able partners to help implement a few of these recommendations; the Lost Towns Project, Archeological Society of Maryland, and the Anne Arundel County Trust have secured grant funding to undertake data recovery and site sampling and to address adverse effects on several significant archeological sites in the County, some of which were impacted by Hurricane Sandy. Currently, the Anne Arundel County Trust for Preservation, Inc. is supporting efforts to update and refine the vulnerability study completed in 2011, and is conducting survey efforts in previously un-surveyed areas within the 100 foot critical area buffer in three select communities under the Maryland Historical Trust Cultural Resources Hazard Mitigation Grant Program.

It is the community stewardship component however that has been perhaps the most effective tool to support efforts for long-term site monitoring. Through public outreach and community engagement, we have enlisted the feet and eyes of local citizens and community members who function as local stewards of our archeological heritage, alerting our office when a major storm has caused erosional damage, or when artifacts are observed on the beach during a "blow-out" (and extreme low tide). We can then better allocate staff resources, consultants, and a trained volunteer corps to recover data that is in peril and would otherwise be lost. Stephanie Sperling, will share a few of the more interesting sites that the team has worked on in the last few years.

Excavating and Monitoring Archeological Sites along the Chesapeake Bay

Stephanie T. Sperling, Anne Arundel County Archaeology Project

I have personally watched the waves and tides destroy our history. Like ripping out pages from an old diary, once it's gone you can never get it back. Countless archeological sites, some thousands of years old, have been wiped away by rising sea levels and relentless coastal erosion. If you live near the coast, you've probably seen it, too. I've heard so many stories – "This land used to extend out hundreds of feet further. Now it's all gone." Or, "We used to have a beach down there. Now you can't see it most days." But the good news is archeologists and historic preservationists are working very hard to save what we can while there's still time. And we're finding out some fascinating things about people who once lived along the Chesapeake Bay.

Selection of Projectile Points from River Farm.

Take the River Farm site, for instance. This spit of land on the Patuxent River was home to generations of Native Americans as early as 8,000 years ago. These ancient peoples hunted and fished and celebrated along the banks of Jug Bay and our recent excavations found places where they constructed unusual buildings, stored food underground, and lit enormous bonfires right on the beach. We also found out that enslaved people or tenants lived in the exact same spot before the Civil War, hundreds of years after the Native people were gone. Most of this site is lowlying and it is threatened by rising sea levels washing in from above and the groundwater rising in from below, not to mention a steady rate of erosion. We are trying to find funding to return to River Farm soon in order to discover more.

A 200 Year Old Brick Fireplace Erodes into Jug Bay.

Another intriguing site is called Aldridge. It's located right on the Chesapeake Bay near a spot that was once teeming with a gigantic oyster reef. Our recent dig proved that Native Americans first came here to gather oysters around 1,000 B.C., although a local resident found artifacts on the beach that date back thousands of years before that. By enlisting the help of the local community, our team has been able to monitor the stunning rate of erosion on this oyster shell midden, or heap of ancient, discarded shells. Old photographs show that we have lost at least 200 feet of shoreline since the 1970s and historic

maps suggest at least 600 feet of coastline has disappeared since the 1860s. The collective efforts of the archeological team and local residents have proven that the local Indians were trading with people as far away as Ohio, buried their dead in the area, and used the oyster shells for making pottery. While we were in the middle of our Aldridge excavation and uncovering a 3,000 year old campsite, an "extreme" high tide forced us to postpone the dig and destroyed a large part of the site. Coastal floods like this are becoming more commonplace, and community members report that another 5 feet of the midden has washed away just in the last year.

A whole "pinch" pot from Aldridge.

It is only through partnerships like this, however, that we can keep an eye on coastal archeological sites before they are washed away. A team of Anne Arundel County professionals are now looking for new sites to record and reaching out to community members to join our efforts to preserve and record history. We cannot do this alone and need your help! If you want to get involved with saving our past or know about a site that is washing away (or even one that is long gone), contact me at pzsper64@aacounty.org. We cannot stop the waves and tides but we can work together to document what's left while there's still time!

A Coastal Flood Destroys a 3,000 Year Old Camp Site under the shell midden at Aldridge.

Calvert County, Where Land and Water Meet

Kirsti Uunila, Calvert County Community Planning and Building

Calvert County, a small sock-shaped peninsula in Southern Maryland, is surrounded and dissected by tidal waters. The county contains 220 square miles and 101 miles of shoreline. The Chesapeake Bay defines Calvert's eastern edge and the Patuxent River is its boundary to the west. At its widest, the county is nine miles across. Along its 30 miles of length, it harbors many tidal creeks. Calvert's citizens enjoy, appreciate, and respect the water around them. Calvert's planners consider the effects that rising and dynamic water may have on the land.

Calvert County environmental planners have worked on hazard mitigation and preparedness plans and integrated them into as many larger-scale plans as possible. They have crafted vulnerability assessments for residential communities using grant funds administered by the Department of Natural Resources. Within the past two years, such assessments have begun to consider cultural resources within those communities. County-wide, at least 78 structures on the Maryland Inventory of Historic Properties are threatened by inundation of 0-5 feet and more than 125 archeological sites have been recorded in areas that are vulnerable by the same measure.

When funds have allowed, the county has done more intensive engineering studies to mitigate specific problems for historic architectural resources. For example, the historic Lore Oyster House in Solomons, part of Calvert Marine Museum, experiences so-called nuisance flooding so frequently that it must close for a period on nearly half the days that it is open. In this case, an engineer

Lore Oyster House exhibit flooding.

found that installing a valve to restrict the inflow of water from the adjacent creek and other measures would dramatically decrease flooding in the building. This solution cannot address flooding from other sources such as may occur from storm events or unusual high tides, but it will mean the building may be open for educational tours more often. Mitigation of archeological sites is not so clear.

Threats to archeological sites cannot be assessed merely by reference to projected inundation levels. Ongoing erosional processes in addition to increases in wave height owing to sea-level rise and subsidence of the land make sites far above surface water susceptible to loss. Shore-erosion inhibiting structures and data recovery are the principal means of mitigating threats to archeological sites.

Shell-filled pit eroding at 18CV22, Calverton.

In the last two years, using grant funds administered by the Maryland Historical Trust, Calvert County has conducted shoreline studies to specifically address the vulnerability of archeological sites to rising water, storm surge, wave action, and, when possible, changes in the water table. In 2016, 13 new sites were recorded on Battle Creek and previously recorded sites were assessed. Owing to immediate threats posed to one of the sites, 18CV22, this Spring the Archeological Society of Maryland (ASM) will hold their annual Field Session investigating a portion of the Calverton Site, the 17th century Calvert County seat.

Mapping site 18CV22, Calverton.

Archeology Volunteer Programs

Following are examples of programs in Maryland that offer opportunities to get involved in archeology. For more information about these and other similar programs visit *www.marylandarcheology.org*.

Archaeology in Annapolis
Department of Anthropology, University of Maryland College Park

Archaeology in Annapolis is a research project that has explored the heritage of Maryland's capital since 1981 and has worked on Maryland's Eastern Shore since 2000. Opportunities to participate are available throughout the year, including a weekly public laboratory in Easton. Fieldwork will be conducted from May 30 to July 7, 2017 during a field school offered by the Department of Anthropology, University of Maryland, College Park. The public lab is open to the public and the field school is offered as a class for undergraduate or graduate credit, or a workshop for non-students. For more information, contact Tracy Jenkins at *thjenk@umd.edu*, or call (301) 405-1429.

The Maryland-National Capital Park and Planning Commission
Prince George's County Department of Parks and Recreation

Experience Prince George's County's history first-hand through volunteering with the Archaeology Program. Individuals, 14 years and up, can learn how archeologists investigate the past and assist them with excavations and lab work. Volunteer registration is required through *www.pgparks.com*. For information call the Archaeology Program office at 301- 627-1286 or email Kristin Montaperto at *Kristin.Montaperto@pgparks.com*.

Archaeology Program
Natural and Historical Resources Division
8204 McClure Road
Upper Marlboro, Maryland 20772

Anne Arundel County's Archaeology Program

The Anne Arundel County Archaeology Program works with the non-profit The Lost Towns Project to promote archeological research and public education programs. We seek dedicated volunteers and interns, no experience required, to help with all aspects of field and lab work. Join us to discover history at a variety of dig sites across the County or to process artifacts at our lab in Edgewater. To learn more, please email volunteers@losttownsproject.org or call 410-222-1318.

Anne Arundel County's Archaeology Laboratory
839 Londontown Road
Edgewater, Maryland 21037
By appointment

Jefferson Patterson Park & Museum: Public Archaeology Program
Smith's St. Leonard Site; May 9 - July 1, 2017

Join Jefferson Patterson Park & Museum archeologists in the excavation of early 18th century buildings at the Smith's St. Leonard Site. The program runs from May 9 through July 1. Tuesdays and Thursdays are "Lab Days," while Wednesdays, Fridays, and Saturdays are "Field Days," weather permitting. Contact Ed Chaney at (410) 586-8554 or *ed.chaney@maryland.gov* to register.

Jefferson Patterson Park & Museum
10515 Mackall Road
St. Leonard, Maryland 20685
Ph: 410.586.8501 *www.jefpat.org/publicarchaeology.html*

The Maryland-National Capital Park and Planning Commission
Montgomery Parks Department, Park Planning and Stewardship

Join the Montgomery Parks' archeology program in uncovering Montgomery County's past through the investigation and analysis of sites that cover the entire 12,000 year history of the County. There are opportunities for fieldwork and labwork. Volunteers are welcome on Mondays and Wednesdays. Contact Heather Bouslog by phone at 301.563.7530, or email at *Heather.bouslog@montgomeryparks.org*, or visit *www.ParksArchaeology.org.*

Archaeology Program
Needwood Mansion
6700 Needwood Road
Derwood, Maryland 20855

Historic St. Mary's City: A Museum of History and Archaeology

Historic St. Mary's City (HSMC) is the site of the fourth permanent English settlement in North America, Maryland's first capital, and the birthplace of religious toleration in America. The archeology department at HSMC, with St. Mary's College of Maryland, offers an annual Field School from May 30 through August 5 in 2017. While in the field, staff and students offer tours of the excavations. At Tidewater Archaeology Weekend (July 30 – 31) the public can discover what it's like to be an archeologist and take a special tour of the archeological laboratory. The St. John's Site Museum provides insights into ways researchers use historical and archeological evidence. Contact HSMC 240-895-4990, 800-SMC-1634, or *Info@HSMCdigshistory.org*. For a list of events visit *www.hsmcdigshistory.org/events.html*.

Historic St. Mary's City
Museum of History and Archaeology
P.O. Box 39
St. Mary's City, MD 20686

Archeological Society of Maryland
Field and Laboratory Volunteer Opportunities Statewide

One of the Archeological Society of Maryland's main goals is to involve the public in field and lab events throughout the year and across the State. To meet this goal, ASM hosts a Spring Symposium and an annual Fall meeting, and co-hosts with the Maryland Historical Trust a Spring Workshop and a late spring field/excavation session. ASM's local chapters also conduct meetings and provide opportunities for members and the general public to participate in field and laboratory activities. Visit our website at *www.marylandarcheology.org* to learn about upcoming events, view the latest edition of our monthly newsletter (ASM Ink), and link to our chapters' websites.

Maryland Historical Trust
Archeology Programs

The Maryland Historical Trust is committed to involving the public in archeology. The Maryland Maritime Archeology Program provides opportunities for volunteers in field activities on a seasonal basis. Participants need not be divers. Terrestrial archeological programs include an annual Field Session co-hosted with the Archeological Society of Maryland. This eleven-day field investigation combines education with research, and provides unparalleled professional-avocational interaction. Additional field projects occur throughout the year. An Open Lab is held on most Tuesdays during the year teaching proper archeological lab techniques. Presentations, displays, publications, and internships are also offered. To learn more contact State Terrestrial Archeologist Charlie Hall at *charles.hall@maryland.gov*, or State Underwater Archeologist Susan Langley at *susan.langley@maryland.gov*.

Maryland Historical Trust
100 Community Place
Crownsville, MD 21032
http://mht.maryland.gov/

Certificate and Training Program for Archeological Technicians

The Archeological Society of Maryland, Inc. (ASM), the Maryland Historical Trust, and the Council for Maryland Archeology offer a Certificate and Training Program for Archeological Technicians (CAT Program), providing an opportunity to be recognized for formal and extended training in archeology without participation in a degree program. Certificate candidates must be members of the ASM, and work under the supervision of a mentor. A series of required readings and workshops is coupled with practical experience in archeological research. For information about the CAT Program, and application forms, visit the ASM web site at *www.marylandarcheology.org*.

HISTORIC ST. MARY'S CITY
A MUSEUM OF HISTORY & ARCHAEOLOGY AT MARYLAND'S FIRST CAPITAL

At **Historic St. Mary's City**, a museum on the site of Maryland's first capital, explore an un-ordinary ordinary, help a planter tend his fields, and step on board a tall ship. Discover the world of the Yaocomaco people and the place where Roman Catholics first worshipped in the British colonies. At the St. John's Site Museum, gain insight into ways historians and archeologists reconstruct the past and the ways Lord Baltimore's design for Maryland foreshadowed the First Amendment rights guaranteed by our Constitution. Take an easy drive from the metro areas and discover one of the nation's most beautiful historic places in tidewater Southern Maryland.

240-896-4990 www.hsmcdigshistory.org/ 800-SMC-1634
Info@HSMCdigshistory.org

Parks & Recreation M-N C P P C
live more, play more
pgparks.com

The Maryland-National Capital Park and Planning Commission (M-NCPPC), Archaeology Program, Natural and Historical Resources Division (NHRD), Prince George's County. Since 1988, the NHRD Archaeology Program has been exploring the diversity of Prince George's County's archeological resources. Through excavations, exhibits, public outreach and cultural resource management, the Archaeology Program supports the M-NCPPC's numerous museums and historic sites. Hands-on volunteer programs and student internships provide opportunities for citizens and students to discover the past by participating in excavations and artifact processing and analysis. For information call the Archaeology Program office at 301-627-1286 or email Kristin Montaperto at *Kristin.Montaperto@pgparks.com*.

The **Archeological Society of Maryland**, Inc. (ASM) is a 501(c)3 not-for-profit organization dedicated to the investigation and conservation of Maryland's archeological resources. ASM members are professional, academic, and avocational archeologists. The Society sponsors publications, research, and site surveys across the State as well as hosting a Spring Symposium and a Fall general meeting and co-hosting with the Maryland Historical Trust a Spring Workshop and late spring field/excavation session where members and the public work along side professional archeologists. In addition, ASM has eight chapters representing most of Maryland's geographic regions, each with its own local meetings and activities. All ASM and chapter activities are open to the public. Visit us at *www.marylandarcheology.org* to learn more about our activities.

Maryland Department of Transportation's State Highway Administration (SHA) is committed to sustaining the balance between protecting our cultural resources and maintaining our transportation system.

For information, contact Dr. Julie M. Schablitsky, Chief Archeologist/Assistant Division Chief, Cultural Resources Section at *jschablitsky@sha.state.md.us*.

Founded in 1976, the **Council for Maryland Archeology** is an organization of professional archeologists whose mission is to foster public awareness and support for the preservation of archeological resources in the state. Our membership is composed of over 30 professional archeologists either working or conducting research in Maryland. We are proud to sponsor Maryland Archeology Month and encourage one and all to visit our website *www.cfma-md.org*, attend an event, and join us in exploring Maryland's past.

The **Maryland Historical Trust** (Trust) is a state agency dedicated to preserving and interpreting the legacy of Maryland's past. Through research, conservation, and education, the Trust assists the people of Maryland in understanding and preserving their historical and cultural heritage. The Trust is an agency of the Maryland Department of Planning and serves as Maryland's State Historic Preservation Office (SHPO). Visit us at *www.mht.maryland.gov*.

St. Mary's College of Maryland is Maryland's Public Honors College. It is a four-year liberal arts college that promotes experiential learning within a collaborative learning environment. Located at St. Mary's City, the college is dedicated to exploring the connection between Maryland and the Atlantic World. Housed in the Anthropology Department, our archeology program focuses on how indigenous Native American and African communities interacted with and reacted to the arrival of Europeans throughout the Atlantic era. Our students have participated in field programs in southern Maryland, West Africa and the Caribbean. For information visit *http://www.smcm.edu/anthropology/.*

Cultural Resources Management Services

- Phase I, II, and III Archaeological Investigations
- Historic Research
- Artifact Conservation
- Archaeobotanical Analysis
- Human Osteology Analysis
- Faunal Analysis
- Nautical Archaeology
- HABS/HAER Recordation
- Native American Consultation
- Terrestrial and Marine Remote Sensing
- Cemetery Delineations
- Condition Assessment Studies
- Hazardous Waste Site Investigations
- Architectural History Surveys
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Cultural Resource Services

As one of the region's largest cultural resource firms, TRC has worked with a broad range of public- and private-sector clients to identify and address vital cultural resource concerns. We have maintained long standing relationships with local, state, tribal, and federal regulatory agencies, which allow us to guide our clients' projects through the review process swiftly and successfully.

Our cultural resource services include:

Management Services

- Cultural Resource Compliance Planning
- National Register of Historic Places (NRHP) Evaluations
- Historic Preservation Plans
- Tribal Consultation
- Memoranda of Agreement and Reburial/Repatriation Agreements

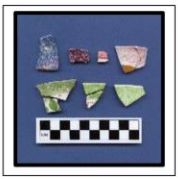
Field Studies

- Archaeological Surveys
- Site Evaluation and Mitigation
- Historic Structures Surveys
- Cemetery Delineations
- Traditional Cultural Properties and Ethnographic Surveys
- HABS/HAER Documentation

Archival and Laboratory Studies

- Historic Background Studies
- Ceramic Analysis
- Lithic Analysis
- Faunal Analysis
- Historic Artifact Analysis
- GIS Mapping and Data Analyses



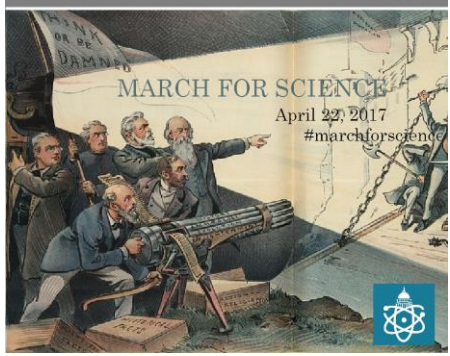



For more information, please contact:
Tim Sara – tel. 301-276-8040 – tsara@trcsolutions.com
4425 Forbes Blvd., Lanham, MD 20706

IN MEMORIAM
ERIC E. VOIGT (1953-2017)

Archaeologist in Maryland, Virginia, West Virginia, and beyond. He is dearly missed by his friends and colleagues.
Resquiat in pace.

S. Katz



Maryland Archeology Month Events

Numerous special events celebrating the archeology of Maryland will be held throughout the State during the month of April. These include museum displays, talks and lectures, workshops, and archeological lab and field volunteer opportunities. Please visit the Maryland Archeology Month website often at ***www.marylandarcheology.org*** to learn of other events – the list of events there will be updated throughout the month!

Here's a sampling of the many free events:

Event:	*Discovering Archaeology Day*
What:	Interactive learning and fun, including an archeological dig for kids, archeological site and lab tours, exhibits, games, and crafts.
Sponsor:	Jefferson Patterson Park and Museum
Location:	JPPM, 10515 Mackall Road, St. Leonard, MD
Day/Time:	April 22, 2017, 10:00 A.M. – 4:00 P.M.
Contact:	Sherwana Knox, 410-586-8501, *sherwana.knox@maryland.gov*

Lecture:	Mrs. Elizabeth Thurston-Skipworth-Coale-Chew: The Life (and Many Husbands) of a Prominent 17th Century Quaker Woman.
By:	Jane Cox
Sponsor:	The Lost Towns Project
Location:	Historic London Town, 839 Londontown Rd., Edgewater, MD
Date/Time:	April 8, 2017, 6:30 P.M. – 8:30 P.M.
Contact:	Amelia Chisholm, 410-222-7965, *pzchis48@aacounty.org*

Lecture:	*Tracing Piscataway Indian History on the Ground*
By:	Julia A. King, Francis Gray, and Mario Harley
Sponsors:	Jefferson Patterson Park & Museum
Location:	JPPM, 10515 Mackall Road, St. Leonard, MD
Day/Time:	April 6, 2017, 6:00 P.M. – 7:00 P.M.
Contact:	Kate Dinnel, 410-586-8538, kate.dinnel*@maryland.gov*

Exhibit:	*Archaeology Exhibit at Rockville Science Day*
Sponsor:	Mid-Potomac Chapter, Archeological Society of Maryland
Location:	Montgomery College, Rockville Campus
Day/Time:	April 23, 2017, noon. to 5:00 P.M.
Contact:	Don Housley, 301-424-8526, *donhou704@earthlink.net*

There is a small fee for attending some events held during Maryland Archeology Month. Here's an example:

Field Work:	Archaeology at a 17th Century Quaker Home
Sponsor:	The Lost Towns Project
Location:	Skipworth's Addition – 4558 Bayfields Rd., Harwood, MD
Date/Time:	April 8, 2017, 10:00 A.M. – 2:00 P.M.
Contact:	Amelia Chisholm, 410-222-7965, *pzchis48@aacounty.org*
Fee:	$20.00 for the general public

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