Maryland Archeology Month 2021

The Archeology of Healing and Medicine

Small vials like these were used to hold medicinal compounds. These early 18th century examples (2.82" and 1.73" tall) were found in the filled cellar of a structure called the Priest's House at the Chapel site in St. Mary's City.

www.marylandarcheologymonth.org

You are cordially invited to join
Maryland Governor Larry Hogan
in celebrating April 2021 as
"Maryland Archeology Month"

The State of Maryland

Proclamation

From the Governor of the State of Maryland

MARYLAND ARCHEOLOGY MONTH
APRIL 1 - 30, 2021

WHEREAS, *Maryland's many remarkable archeological discoveries at such sites as St. Mary's City, London Town, Fort Frederick, Rosenstock, the Herman Barton Village, and the colonial capital of Annapolis are of state and national significance; and*

WHEREAS, *Archeology has revealed a record of the human treatment of disease through the use of medicine spanning thousands of years; and*

WHEREAS, *Archeological sites and artifacts provide a tangible link to at least 13,000 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 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, Jefferson Patterson Park and Museum, the Maryland Department of Transportation's State Highway Administration, Historic St. Mary's City, and other individuals and organizations to inform and involve the pubic 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, 2021 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 twenty-one*

Governor

Lt. Governor

Secretary of State

The Archeology of Healing and Medicine

When the Maryland Archeology Month Committee "met" (and we all know what it means to "meet" these days!) this past Fall our most important piece of business was to select the theme for the 2021 celebration. While this is a bit routine – choosing the theme is always the most important item on the agenda at our kick-off meeting – there was a difference this year. Try as I might to generate some debate (we had many excellent candidates), there really was no question that the Maryland Archeology Month theme for 2021 would echo the principal theme of these times: COVID-19. The Committee was clear, however, that the theme should reflect the hopeful and positive aspects of the current stage of the pandemic. By the time you read this we may be entering Dr. Fauci's "open season" when anyone can receive a vaccination. This is indeed hopeful and positive. At this rate Maryland Archeology Month 2022 may mark the return to the usual menu of in-person public-engaging events including lectures, workshops, public excavations, open labs, and more.

That was no typo. I meant 2022. This year will mark the second COVID-19 affected Maryland Archeology Month. The virus hit with a vengeance last March just as we were preparing to celebrate. We were all reeling from the changes the response to the state of emergency meant in our day-to-day lives, and for Maryland Archeology Month event sponsors this meant cancelations. Yet we persevered! Governor Hogan declared that April 2020 was Archeology Month in Maryland. The mailing went out as usual. Within the confines of the restrictions that were being put into effect, efforts were made to mark the celebration. Several blogs and video lectures were posted on the internet, and a web-based storymap was launched.

This year we have the added benefit of being able to *plan* with the pandemic as the controlling factor. We know that most in-person events will not be possible. As a result you can expect many more virtual events. An example will be video interviews with the authors of the eight essays presented in this booklet. These short and casual videos will be posted on the Maryland Historical Trust's YouTube channel with links provided on the Maryland Archeology Month website (*marylandarcheologymonth.org*) and the website of the Archeological Society of Maryland (*marylandarcheology.org*). There will also be a live-streamed webinar with three of the authors on Thursday April 22 at 2pm when each panelist will speak on their essay topic for 10 minutes, followed by discussion and audience Q&A. Several in-depth lectures are also planned. And you can expect written blogs and other online content. You're going to be busy this April! You'll want to watch the Maryland Archeology Month website (*marylandarcheologymonth.org*) closely!

I also hope you enjoy the essays presented in this booklet. They show how those who lived in this special place in the past faced health issues and healed through the use of medicine in very familiar ways. I hope something like the vials pictured on the cover of this booklet will soon be in your future!

Charlie Hall
Chair, Maryland Archeology Month Committee

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This year the ASM and the Maryland Historical Trust will conduct their 50th annual Tyler Bastian Field Session in Maryland Archeology on the grounds of the Billingsley House in Prince George's County. As of the printing of this booklet the dates of this much anticipated event, originally planned for late May of 2020 and ultimately canceled due to the COVID-19 emergency, have not yet been selected. Please watch the website of the Archeological Society of Maryland (*marylandarcheology.org*) for an expected imminent announcement, and plan to join the effort!

Cover photo credit Donald Winter for Historic St. Mary's City.

Health and Mortality in Early Maryland

Henry M. Miller, Maryland Heritage Scholar, Historic St. Mary's City

Insights about the topics of health and disease for people during the first century of European settlement in Maryland are not easy to acquire. Historical records are often silent or incomplete and fail to provide sufficient evidence. Many diseases are not expressed on the human skeleton; however, the efforts of historians and archaeologists have produced some insights on these topics.

Coming to Maryland was a gamble. One acquires immunities to the diseases in the region where you grow up and such immunity typically does not transfer when migrating to new areas. Maryland offered a different climate and disease environment and there was a substantial shift in both diet and work patterns. The consequences of this were severe, for people experienced a very high death rate and shortened life expectancy. Historians have found that a 20 year old male coming to Maryland could expect to live to about 45, if they were lucky. For comparison, a 20 year old going to Plymouth, Massachusetts in the mid-17th century could anticipate living into his late 60s. The data do not allow an accurate estimate of the experiences for women, but there is some suggestion that they lived longer if they survived their childbearing years. Children in Maryland also had a high death rate, with estimates that up to 50% did not reach the age of 20. The Chesapeake in general was an unhealthy place for colonists.

What were the causes of such high death rates? Research suggests that the greatest single factor was malaria. It had been inadvertently introduced to the Chesapeake by Europeans and probably Africans. By itself, it was not a major killer, but it weakened the individual and made them more susceptible to other diseases. Malaria was found throughout the tidal Chesapeake, everyone was infected and suffered the characteristic symptoms of fever and chills, headache, fatigue, and swellings. A classic description of it in Maryland comes from Ebenezer Cook in his The Sot-Weed-Factor (1708):

"I felt a Feaver Intermitting;

A fiery Pulse beat in my Veins,

From Cold I felt resembling Pains:

This cursed seasoning I remember,

Lasted from March to cold December."

All immigrants experienced what was called "the seasoning", the adjustment to the new environment and diseases, especially malaria. Many did not survive seasoning and it is estimated that about a quarter of the new immigrants died within their first year. The colder climate of New England seems to have made malaria a less significant factor there.

Recently a fascinating letter was found in England that provides a most striking description of the health challenges in early Maryland. Written by Ann Truman from a plantation on the Patuxent River in April of 1671, she states

> *"… our deare Nanny dyed june 19th & one of our servants a litle before, the rest of us (through mercy) seasoned (as they call it) well, most of us in the sumer (3 months of wch was hot) had an ague & fevor wch held us about a week or fortnight, but have had our healths this winter. I was delivered of a son jan. 16th who lived but 10 dayes…"*

This single plantation experienced two deaths from seasoning, another of a newborn child, and all suffered from "the seasoning." This is the only known letter about the subject from a female colonist, and it clearly expresses some of the hardship of migrating to Maryland.

But there were other causes of ill health in Maryland. These were described as "Agues", "malignant Feavers", "Swellings" and "Gripping of the Guts". Precise diagnosis with such vague terms is difficult, but it is believed that dysentery was as serious as malaria. Typhoid fever and even lead poisoning could have also caused intestinal pain. People weakened by malaria would also be more susceptible to communicable diseases such as influenza. Indeed, there are two periods of exceptionally high mortality in Maryland (1675-1677 and 1698-1699) vaguely described as "Infectious Times"; medical historians suggest that these were flu outbreaks. Smallpox arrived in the Chesapeake in the later 1600s but it seems to have had limited impact. Unlike places like Boston that featured close human contact and experienced repeated smallpox outbreaks, the dispersed settlement pattern in Maryland probably reduced its spread. Other documented causes of death are accidents, warfare, drowning, murder, death in childbirth, and suicide. Given the richness of the natural environment and effectiveness of food production, malnutrition or even starvation were not significant mortality factors in early Maryland, unlike early Virginia.

Archaeologists excavating burials inside the Chapel at St. Mary's.

Archaeology adds important insights to this subject. None of the diseases discussed above leave any evidence on the human skeleton. However, Smithsonian forensic anthropologists have identified broken bones, healed fractures, head trauma, abscesses, bone infections and evidence of both arthritis and osteoporosis on skeletons excavated from St. Mary's City. Skeletal analysis also found that most individuals engaged in hard physical labor during their lives, as evidenced by highly developed muscle markings on the bones, something to be expected in a tobacco economy that was totally reliant upon human labor.

Analysis of the remains of the 17th-century residents of Maryland continues, and one of the most affecting findings of all the skeletal research regards dentition. Examination of the teeth of the 17th-century settlers shows they had an almost total lack of dental care, aside from pulling a decayed tooth. Cavities on some individuals are massive and almost painful to look at. Perhaps the most egregious examples come from two of the highest status women in Maryland. One is Anne Wolesley Calvert, the first wife of Chancellor Philip Calvert. Anne was in her 60s at the time of death and she had lost 20 of her teeth and several of the remaining teeth were worn down to the roots. The other was Lady Anne Copley, the wife of Maryland's first Royal Governor. Although only 32 years old, Anne had already lost 8 teeth and four of the remaining had active decay. Wealth did not give protection from such decay and may have even enhanced it by giving greater access to sugar. But even indentured servants suffered from this problem. Perhaps the best example is a 17 year old male found by Al Luckenbach in Anne Arundel County. He was probably murdered. This young man had huge cavities in a number of his teeth and must have been in great pain. The only pain killer available was alcohol, to which he probably had limited access as a servant. Medicine has made extraordinary advances in the past four centuries. Dentistry is a field that is often overlooked, but in terms of health and well-being, its progress is equally remarkable. One of the principal contributions of archaeology is the ability to better understand the lives of past people in a direct way. At the same time, by revealing these long-forgotten people, archaeology gives the 21st-century a valuable perspective to more fully evaluate and appreciate the tremendous progress that has been achieved in health and medicine.

A Brief Overview of Personal and Tribal Health and Wellbeing of Maryland's Native Peoples Prior to European Colonization

Claude Bowen, President, Archeological Society of Maryland

Thomas Hobbes famously remarked in his classic book of political thought *Leviathan* that life in pre-modern societies was "…, brutish, nasty, and short." Archaeological investigation into cultures of indigenous peoples that once lived in Maryland tend to at least verify that for most, especially women, life was short. "Brutish" and "nasty" are adjectives with real but unmeasurable values that are essentially culturally determined.

The visual examination of bone fragments, soft tissue, teeth, and hair may, under some circumstances, be done in order to ascertain traces of those diseases that leave visual markers such as arthritis, tuberculosis, rickets, non-rickets vitamin deficiencies, and issues concerning early growth. The age of an individual can also be estimated by a visual examination of the skeletal remains.

Signs of periods of famine during youth can be determined by visual examination of the teeth. In the near future, archaeologists may be able to determine the diet of individuals with the examination of calculus or plaque from dental remains.

One of the greatest surprises from visual examination of teeth is the possibility that the introduction and widespread use of maize (roughly one thousand years ago) caused unintended and undesirable health issues and social changes.

Among women, signs of child bearing are also available to the researcher by visual examination of the pelvic region. Childbearing practices and dangers can be inferred by such non-destructive examinations as well.

Death was no stranger to the Native peoples of Maryland. It came in forms and types that can be ascertained from the human remains of those peoples as well as from assumptions about the general health of these populations. These assumptions include a high rate of malaria, tetanus, dental infections (becoming more common for all sexes and ages due to the high sugar levels found in maize), and a myriad of infections in other parts of the body.

Helen Roundtree's and Thomas E. Davidson's *Eastern Shore Indians of Maryland and Virginia, p*ublished in 1997 by The University of Virginia Press, list roughly 140 medicinal plants by the ecological zones in which each can be found. The authors are careful to note the sources from which the information was derived. They are also clear that they needed to seek information from sources outside of the study area due to the paucity of ethnographic sources that are Chesapeake specific. Only a very few sources pertain to Maryland, Delaware, and Virginia.

Shamanistic practices were undoubtedly part of individual and group prevention of sickness as well as part of the cure when an individual and/or multiple group members were ill. Shamans are said to have access to the spirit world during altered stages of consciousness; in this case possibly caused by the use of Indian tobacco. The spirits whose aid is requested may be those of ancestors, animals,

plants/trees, and those entities considered in the west as non-living. This access is used for a variety of purposes including healing.

One of the most important aspects of life in the Late Woodland period in Maryland is that one was almost never alone; with the possible exception of spirit quests undertaken by individuals. One was born into an extended family. One was also born into a clan. Research by Dr. Martin Gallivan and Dr. Bernard Means suggests that the introduction of circular villages, many of which were surrounded by log fortifications, were the optimal structure for groups that were highly dependent on each person doing their part, particularly in support for both non-intensive and intensive agriculture.

Although the clustering of groups of houses in a manner suggesting the inward focus of clan organization seems to suggest itself at first glance, the circular shape of the village ensures that everyone knows what everyone else is doing. In groups that remained egalitarian in structure, storage pits are found outside of houses where they were open to examination by all in the community.

Modern Non-indigenous Peoples tend to live much of their lives in self-imposed silos denoting class, education, profession, etc. These persons live in a world of self-imposed definitions that set fairly unyielding borders and limitations. For many, the sacred and the spiritual are swept into silos that separate these from all other aspects of modern life. Many Native Americans, however, tend to see the sacred and spiritual in almost all living creatures and non-living creation. This panoply of spirits and spiritual beings are called upon to protect and heal.

Many Maryland Native Americans subscribe to several of these practices and believe that their current practices bear a direct relationship to those in use prior to European colonization. It will be remembered that the same paucity of written records from this period bedevil attempts by Maryland Native Americans to verify these practices as it, likewise, bedevils academics attempting to understand the use of medicinal plants.

In order to fill this lacunae, some have adopted beliefs and practices from tribes that are extant or, at least, better documented than their own. However, none of this is proof that the Maryland Native Americans are substantially in error concerning the practices of their ancestors. The old chestnut that states that "absence of evidence is not necessarily evidence of absence" should be applied and the Indigenous Peoples should be taken at their word concerning the origins of their belief systems and practices.

To conclude, Native Peoples looked at their health and wellbeing from a variety of viewpoints tending to the integration of the individual and then his/her integration into the larger groups within the tribe and then into the entire tribal community. While Native American medicines had a varied efficacy in treating maladies, the social, spiritual, and inter-personal structures found in tribal life played an important and positive role in the health and wellbeing of the community and of the individuals that comprised it.

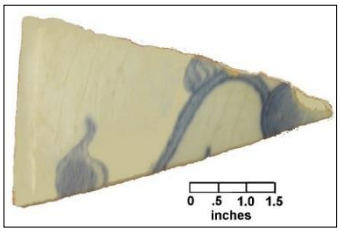
Medical Artifacts from St. Mary's City

Silas Hurry, Curator of Collections and Archaeological Laboratory Director, Historic St. Mary's City

Over the more than fifty years of archaeological excavations at the site of Maryland's first capital, numerous medical-related artifacts have been discovered. Never common, they represent tangible remains of people trying to be healed. One of the first excavations in the "modern" period at St. Mary's involved the John Hicks site. Excavated under the direction of Glen Little and Stephen Israel, the Hicks site represented an early 18th-century plantation assemblage. Notable from the Hicks excavations was the recovery of a fleam. A fleam is a device designed to open a vein to bleed an individual to help get their "humors" in balance. Fleams were also used to bleed horses.

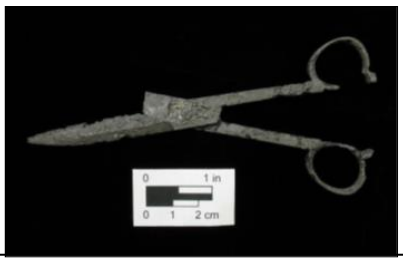
Copper alloy fleam from the John Hick's site.

The Tole-Tabbs site is located in what is known as North Field at the gateway to St. Mary's City. Excavated in 1971 and 1972, the site was occupied from the late 18th century into the 19th century. Excavation yielded a fragment of a tin glazed or delftware pill slab. Pill slabs were used to roll compounded medicines into long "snakes" which were then cut into individual pills. Pill slabs are completely flat and glazed on all sides. These medical and hygiene forms were the last expressions of the English delftware industry.

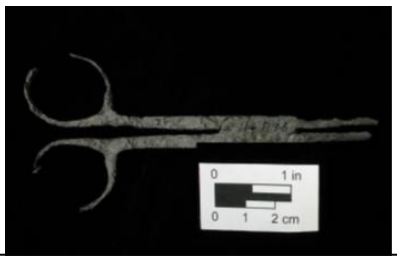


Tin-glazed pill slab

The St. John's site was explored by the museum beginning in 1972. The site dates from 1634 – ca. 1720. A vast array of artifacts was uncovered, including some tools used by barber-surgeons. Barber-surgeons preformed minor surgeries and bled individuals. Notable from this collection is a pair of barber scissors which have a distinctive extra tang extending from one of the finger loops. Also found at St. John's were a pair of forceps, possibly used in surgery or for dental extractions.



Iron barber's scissors, St. John's site.



Iron forceps, St. John's site.

The St. John's site also yielded an apothecary weight. Made of a copper alloy, the disk-shaped weight bears a series of marks. The weight is ¼ ounce avoirdupois which is the standard for apothecary weights. The proof marks include a crowned "I" for James the First (1603-1625), a dagger which signifies the City of London, and a ewer which serves as the mark of the Brass Founders' Guild. This weight was already nearly a decade old when the Maryland Colony was founded. Weights and scales occur regularly in probate inventories, mostly in estates of individuals who were not themselves physicians. Most treated their own maladies at home.

Copper alloy apothecary weight.

Some artifacts doubtlessly served many purposes. Gallipots or drug jars are relatively common objects on 17th-century sites, but they could be used to contain any number of materials. A completely intact, plain white tin-glazed specimen was recovered from the Van Sweringen site. Also found at the Van Sweringen site was a curious lead object with a white clay pipestem embedded in it. The working interpretation of this item is an improvised clyster pipe or enema tube.

Tin-glazed earthenware gallipot or drug jar.

Possible improvised clyster pipe

Medical devices are relatively uncommon artifacts but can provide some insight into past life experience. These can be greatly augmented by historical documents. Probate inventories provide great detail about what the medical practitioners were doing. Perhaps one of the greatest surprises from probate research is that electro-convulsive treatment was being used in the 1770s. Dr. Henry Jerningham who lived in Bushwood, Maryland, provided this service as well as smallpox inoculations. Both are mentioned in the Maryland Gazette.

THE Subſcriber will take another Company for Inoculation, Monday the 21ſt of *May*, and continue ſo to do every Fifth Week after, until *Chriſtmas*. (5w) HENRY JERNINGHAM.

Maryland Gazette, 1771.

Archeobotanical Evidence for the Universal Remedy — Tobacco

Justine McKnight, Justine McKnight Archeobotanical Consultant LLC

Tobacco agriculture defined Maryland's cultural heritage from the 17th through the 19th centuries. Historic accounts describe vast acreages planted in tobacco and enormous quantities of tobacco leaf produced for export and domestic use. Archaeologists have recovered abundant clay tobacco pipes, but curiously, a key artifact of Maryland's tobacco history has been elusive. Until recently, not a single tobacco seed had been identified from a Maryland archaeological site.

***Nicotiana rustica* (tobacco).**

Tobacco was introduced to Europe from the Americas by the early 15th century as an ornamental plant and was soon recognized to be a valuable medicinal. It quickly became wildly popular for its purported healing properties. By the end of the 16th century, tobacco was touted as a panacea to treat dozens of different ailments and was widely prescribed by physicians. Prepared as smoke, ointment, snuff, poultice, enema, tea, or syrup, tobacco was thought to be a universal remedy – from curing cancer, to "quieting fear".

Tobacco seeds, King's Reach site (18CV83).

Archeobotany is the study of plant remains recovered archaeologically, and archeobotanical data help us to better understand human-plant relationships in the past. While archeobotanists have identified a rich array of other farm products from Maryland sites, tobacco seeds were heretofore undocumented. But archeobotanists have recently found tobacco seeds using flotation – a technique that uses water to separate tiny organic materials from soil. Tobacco seeds are very small, hardly visible to the naked eye. They have now been identified at over a dozen Chesapeake sites, and, interestingly, many of the places where tobacco seeds have been found are associated with the homes and work spaces of enslaved Africans. Across the Chesapeake, tobacco was the driving factor behind the development of African slave labor. In Maryland, tobacco seeds have been recovered from the Kings Reach Site (18CV83) and the Smith's St Leonard site (18CV22) in Calvert County, Billingsley (18PR9) and Beechfield (18PR955) in Prince George's County, and Cloverfields (18QU868) in Queen Anne's County. While there is no way to know with certainty, the archeobotanical record suggests that tobacco was used therapeutically by enslaved people at these sites.

The Maryland tobacco discoveries align with results from sites in Virginia, Delaware, and New Jersey, and together the data tell a story about the potential importance of tobacco as a powerful plant with healing properties. Ongoing research and new discoveries may reveal details about the ways tobacco was historically used and valued by different communities across Maryland.

Thanks to Alex Glass (Applied Archaeology and History Associates) for her help in preparing this article.

The Strange Case of Excessive Bone Loss at the Patuxent Point Site

Julia A. King, Professor and Department Chair, St. Mary's College of Maryland

During the analysis of the skeletal remains of 19 individuals recovered from the Patuxent Point Site, a c.1658-1695 plantation settlement in lower Calvert County, Smithsonian Curator of Biological Anthropology Doug Ubelaker observed that many of the skeletons exhibited some form of bone loss, or inadequate bone mineralization.

Fully one-half of the skeletons recovered from the Patuxent Point cemetery show evidence of bone loss. Six of the 19 individuals exhibit generalized or focal bone loss, two have bowing of the leg bones, and one suffered from spina bifida. The ages of the afflicted individuals range from 1 to 60 years. While bone loss is not unexpected in older populations, its presence in younger individuals is surprising. Three of the affected individuals were under the age of 5 years at the time of death. Five were in their late 20s and 30s, ages at which bone mass in modern populations is at its highest. Only one individual, a female, was in her late 50s or early 60s.

Abnormal porosity (bone loss) on the vertebral centrum (vertebral center) of a 5-year-old child from Patuxent Point.

Twenty-first century doctors recommend exercise and diet to mitigate against bone loss. Most of the adult skeletons recovered from the site exhibit evidence of hard work which, while not exercise in the modern sense, nonetheless should have improved bone density. As for diet, historical documents and the analysis of animal bones from contemporary sites indicate that late 17th-century diets were nutritionally sufficient. Why, then, were a majority of these individuals suffering from bone loss?

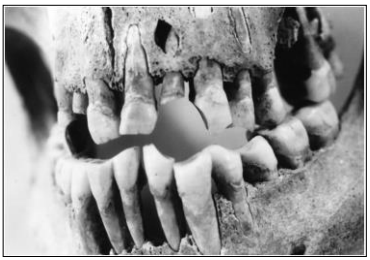
Thao T. Phung (St. Mary's College of Maryland '06) set out to answer this question by researching the causes of bone loss in modern populations. She found that the explanation likely lies in the excessive but culturally acceptable consumption of meat, alcohol, and tobacco by the Chesapeake colonists, including the Patuxent Point residents.

Historians estimate that, in the 17th century, an adult male would have consumed on average approximately 70 g of animal protein per day, well above today's recommended 60 g limit. Increased intake of dietary protein is associated with increased urinary calcium loss. The high acid content of animal protein creates more acidic blood. In an attempt to buffer this acid, the body brings calcium stored in bone into the bloodstream and more calcium is excreted through urination. This loss of calcium is not compensated by a proportionate increase in intestinal

calcium absorption since the high phosphorus content of animal meat competes with calcium for absorption in the digestive tract.

Alcohol consumption (although not drunkenness) was a common practice in 17th-century England and the colonies. Alcohol has a direct and toxic effect on osteoblasts, cells responsible for the formation of bone. Studies indicate that the consumption of more than just two to three ounces of alcohol per day compromises bone health and increases the risk of developing osteoporosis. The mechanical properties of bones, such as their elasticity, stiffness, load-carrying capacity, and toughness, are all negatively affected by the heavy consumption of alcohol, effects that cannot be reversed over time. Alcohol consumption also reduces the intestinal absorption of calcium by restricting the stomach's production of hydrochloric acid.

Tobacco consumption was ubiquitous in the 17th-century Chesapeake, certainly more prevalent than in England or elsewhere in Europe. The presence of pipe facets on the teeth of 7 individuals – including a 13-year-old! – suggests that the Patuxent Point residents were ready consumers of tobacco. Nicotine, a drug believed to be toxic to osteocytes (which are derived from osteoblasts), restricts blood flow to all tissues, especially newly forming tissues involved in bone repair and healing. Smoking appears to affect the body's ability to absorb calcium from the intestine, also impacting the amount of calcium available for bone repair. Smoking further causes the liver to metabolize estrogen faster, increasing the risk among women for developing osteoporosis.



Pipe-wear damage on the teeth of an adult European male from Patuxent Point. Note the abscess above one tooth and damage on two other teeth.

The skeletal evidence from Patuxent Point along with anecdotal evidence from other contemporary Chesapeake sites suggests that a significant portion of the Chesapeake English population suffered nutritional deficiencies to some extent and that the effects of these deficiencies are found inscribed on the skeletal remains archaeologists recover some 300 years later. The skeletal evidence suggests that, while documents and animal bones indicate an "adequate" diet, many 17th-century English colonists in the Chesapeake region were unable to absorb all of the nutrients they ingested due to the excessive consumption of animal protein, alcohol, and tobacco.

For further reading:

Phung, Thao T., Julia A. King, and Douglas H. Ubelaker
2009 Alcohol, Tobacco, and Excessive Animal Protein: The Question of an Adequate Diet in the Seventeenth-Century Chesapeake. *Historical Archaeology* 43(2):61-82.

Surgical Instruments from the U.S.S. Scorpion

Susan Langley, State Underwater Archeologist, Maryland Historical Trust

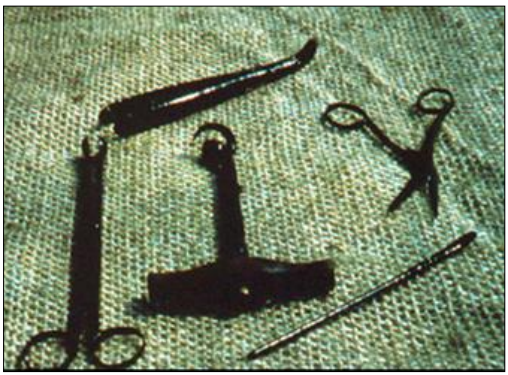
When Joshua Barney came out of retirement to command the mosquito fleet known as the Chesapeake Flotilla during the War of 1812, the vessels were a mix of older craft brought out of mothball, some which had been modified to update them, and a handful of new vessels. Likewise, his crews were a mixture of professional sailors, watermen, militia, and both enslaved and free men. The diversity in material and age of the artifacts recovered from the excavations of gunboats 137 and 138 in St. Leonards Creek reflect the fact that the crews provided their own kit. The surprise is that this seems to have carried over to medical equipment and supplies as well.

Barney's medical personnel consisted of Surgeon Dr. Thomas Hamilton and Surgeon's Mate A.C. Thompson. Although Hamilton's service enrollment was to be December 22, 1813 to April 6, 1814, which would mean that he was not serving when the Flotilla was scuttled on August 22, he is documented as having been at Barney's side when he was wounded at the Battle of Bladensburg on August 24. While Hamilton may have served ashore at a hospital camp at St. Leonard's Town for the month of June, it is clear he returned to Flotilla duty. Thompson began service with Barney on July 17, 1814 and remained through September 7, 1814.

During the formation of the Flotilla, the Secretary of the Navy, William Jones, informed Barney that he would receive the medical chest and surgical tools from the U.S.S. Ontario which was still under construction for his Surgeon's use. About this he instructed Barney, "which you will preserve in perfect order to be returned to the ship when prepared for service."* There is no list or description of what constituted the chest and tools but the illustration shows the kit of U.S. Navy Surgeon William Swift who served during the War of 1812 on the vessels Chesapeake and Syren, both captured by the British with Swift aboard. During 1980 excavations of a wreck that would prove to be Barney's flagship U.S.S. Scorpion, a decayed white pine box produced a tooth key, dental forceps, probes, including a bullet probe, surgical scissors, scalpels including some with tortoise shell handles, and cauterizers. Related materials nearby included apothecary jars, bowls and a plate as well as a spatula associated with the mixing of medicines and unguents. A chamber pot may also have been for the use of

Surgical Kit of William Swift, U.S. Navy 1812. Photo: Massachusetts Historical Society.

the injured as the able seaman would not be so accommodated. In 2011, another pair of surgical scissors was recovered from the same area of the vessel.



Selection of surgical instruments from the U.S.S. Scorpion when on display at Calvert Marine Museum. Clockwise from left: bullet forceps, forceps, scissors, suturing needle, tooth-key

Many of the surgical instruments bear maker's marks. The most common were variations on "Nowill" indicating the Sheffield, England firm of Hague and Nowill; founded by Thomas Nowill in 1700. Others bore the name Evans, reflecting manufacture by the older firm of John Evans and Company of London; founded in 1676. More valuable is the small crown over the Evans mark indicating it was the authorized manufacturer for the Royal Navy. This authorization was rescinded after 1813 which provides a terminus ante quem for these instruments. Questions these instruments raise include, why were they left behind when the fleet was scuttled and do they reflect more than the one surgical kit that was documented?

When Barney determined to scuttle the fleet, he left behind 103 sailors, all personal possessions, and all but 3 days provisions for the march to Washington. Leaving the apothecary ceramics and other cumbersome or weighty materials makes some sense but does not explain leaving the surgical kit. As kits were just that; a set of specific and consistent items, and these were produced by one manufacturer. The presence of at least two manufacturers indicates that pieces may have had to be replaced piecemeal or, more likely, Hamilton and/or Thompson, brought at least some instruments in a personal kit. It is possible that they created a more portable field kit to carry and left the remainder. Another possibility might be that the kit left aboard was intended for the use of invalids left behind, or in anticipation of skirmishes with the approaching British, and with the thought that the troops they would join would have full surgical kits. That it was left aboard the Scorpion when it was scuttled must be seen as an error.

Maker's Mark "Evans" surmounted by a crown on tortoise-shell handled scalpel Photo Tim Mihursky, Courtesy of Robert Hurry Calvert Marine Museum

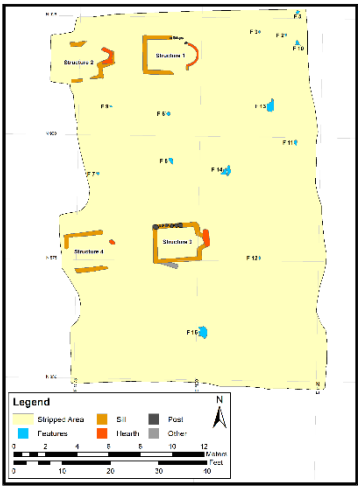
*Letter from Jones to Barney April 14, 1814. *Secretary of the Navy Letters to Officers*, 1814, Vol. II, 277, National Archives and Records Service.

Soldier Health at a Camp of Instruction for the U.S. Colored Troops in Charles County, Maryland

Matthew M. Palus, The Ottery Group

Camp Stanton was a major Civil War recruitment and training camp for African American infantry, most of whom had been taken out of slavery prior to statewide emancipation in Maryland occurring on November 1, 1864. The camp operated outside of Benedict in Charles County between October 1863 and March 1864. Nearly 9,000 African Americans were recruited by the Union in Maryland during the Civil War and more than a third of them were trained at Camp Stanton, forming the 7th, 9th, 19th, and several companies of the 30th U.S. Colored Infantry Regiments. The Ottery Group assisted the Maryland State Highway Administration in locating Camp Stanton and assessing the integrity of the site. Dr. Julie Schablitsky served as this project's Principal Investigator.

Fieldwork in 2011 and 2012 resulted in the discovery of four small rectangular shelters that housed recruits over the winter of 1863-1864. Structures are consistently eight by six feet in approximate interior dimensions, and three have distinct hearths on the east end of the structure. Joseph Califf, an officer at the camp described these structures in his 1878 memoir: "The tents first issued were… soon replaced by the "A", or common tent. These were raised upon… rails or timbers, which were plastered with mud. The chimneys were made of sticks laid up cob-house fashion, and treated to a coat of the same material, and surmounted by a barrel." This evidence, and also an assemblage of militaria resulting from metal detection survey, firmly established the former location of the camp. I link these finds with 19th-century discourses on race, and the anticipation of its transformation in new and emergent figures of freed men.



Plan of Archeological Remains of Winter Shelters at Camp Stanton discovered in 2021.

A farmer in Benedict named John Dent wrote in a diary, transcribed by historian Howard Post: "I saw last night two soldiers, who were just from Benedict, who told me that the Negroes were dying like sheep there - that they had some disease, he didn't know what, that killed them very fast." Illnesses plagued Camp Stanton and were a severe problem throughout the African American regiments recruited by the Union army, causing numerous deaths among recruits. Together, pneumonia and dysentery or diarrhea were the cause of 60 percent of deaths due to disease among African American Union troops. Pneumonia subsequent to measles infection was especially dangerous and accounted for nearly a third of all deaths from disease. Joseph Califf wrote in his memoir: "A great deal of sickness prevailed during the winter. The measles broke out in camp the latter part of November, and soon after congestive chills appeared, and together they made sad havoc in the command. The great mortality was no doubt attributable to a variety

of causes; to the radical change in the habits of life of the men; to the exposure they were subjected to during the building of the camp, and to the unhealthy location." Soldiers struck by illness were moved to a camp hospital in Benedict; those that did not survive were interred in a burial ground in Benedict, and later reburied at Arlington National Cemetery.

Much hinges on what is meant by "a change in habits" in these discussions. Is it referencing a shift in diet, from pork, corn and foraged foods to the beef and bread that fed the Union army? A shift from conditions under which recruits were quartered as enslaved men, to the experience of camp life and its crowding, potentially its filth? Does it comment on the transition to emancipated life that they may enjoy, should they live so long? Racial ideology always shaped the general understanding of illness in the United States, even among staunch abolitionists in command of the camp, and losses to disease reflected on the suitability of African Americans as soldiers and even free people in American thought and military doctrine. It was the general policy of the United States Army to keep African American infantry out of combat, with some important exceptions, and instead have them garrisoned and assigned to other duties during the Civil War. Because of this, most casualties resulted from disease, and the long term costs of infectious disease, malnourishment, and other circumstances of life at military garrison or camp represents a wastage of human potential that was likely consequential to the progression of the Civil War.

There was a deficiency of physicians available to treat the African American troops service-wide, and historian Margaret Humphries notes that many Union doctors observed that African American soldiers struck with illness grew hopeless when hospitalized, seeming to give up on their own recoveries and doubt the sincerity of care that they received. There were only ten African American physicians who served in the Union army, and one of these was assigned as a surgeon for the 7th Regiment trained at Camp Stanton. Doctor Alexander Augusta was born to a free woman in Norfolk in 1825 and earned his medical degree in Toronto in 1860. In 1864 as the 7th Regiment was preparing to depart from the camp, white physicians under Augusta's command petitioned for him to be removed from his commission, and he was detailed to a recruitment center in Baltimore for the rest of the war.

What knowledge regarding maintenance of health and overcoming disease did recruits at Camp Stanton bring out of slavery? The winter shelters and hearths, improvised and fueled through their own labor, should not be discounted as austere but important measures for preventing respiratory infection. The hearths maintained dry conditions inside of the shelters and gave recruits a chance of combating pneumonia, while remaining in the community of the camp and out of the camp hospital.

This essay draws heavily from Margaret Humphries book *Intensely Human: The Health of the Black Soldier in the American Civil War* (2008). Historian George Howard Post also shared personal research now published in his book, *Benedict on the Patuxent: From its Beginnings to its Tercentenary* (2014).

Free Neighborhood Clinics, Mid-Nineteenth-Century Style

Patricia Samford, Director, Maryland Archaeological Conservation Laboratory

This group of objects represents some of the medical artifacts recovered in 1980 from a mid-nineteenth-century privy at the Federal Reserve Site (18BC27) in Baltimore. Documentary research revealed that this privy was associated with the Southern Dispensary.

A dispensary supplied medicine and medical care for city residents who could not afford to pay for medical services. These facilities were funded by charitable donations and from fines levied upon "houses of ill repute". Although dispensaries were much more common in the 19th and early 20th centuries, a comparison today would be the free clinics located in select communities and subsidized by government entities.

A number of artifacts related to medical care were found in the privy (left to right): a "flea glass" simple microscope, a tin glaze salve jar, a pill tile, a medical mortar, and a tube believed to have been part of a stethoscope.

The Southern Dispensary, funded by charitable donations and a small appropriation from the city, was incorporated in 1847 and remained in operation until at least 1889. The dispensary offered both clinic and in-home health care and was a branch of the Baltimore General Dispensary, which operated as many as four facilities in the city.

The medical artifacts from the privy would have been types commonly found in a dispensary. A short iron casing containing an optical lens was identified as a flea glass. While often used by botanists and naturalists in the field to examine plants and insects (hence the name flea glass), this simple microscope could have also been used as a small magnifying lens in a medical setting.

Another diagnostic device was represented by a cylindrical brass tube. It may have been part of an early stethoscope, used to listen to the heart, lungs and bowels. Stethoscopes were in routine use in the United States by the mid-1800s.

A ceramic mortar, discarded because it had broken into two pieces, was traditionally used in pharmacies to crush various ingredients prior to preparing prescriptions. Also found in the privy was a flat, rectangular piece of glazed ceramic that was used as a pill tile—a surface upon which to roll pills by hand – a labor intensive process before automation.

Also discovered in the privy were a number of glass pharmaceutical bottles made to hold medicines for treating a range of medical maladies, including gout, tuberculosis and other illnesses not as familiar to modern patients. A St. Louis newspaper advertisement from 1851 for Dr. E. Easterley's family medicine store stated that Bartine's Lotion was kept in stock for the treatment of "rheumatism, sprains, cuts, wounds, ring-bone, pole evil, lameness, spavin, chilblains, sweeney, weakness of the joints, and many other diseases incident to both man and beasts". Sarsaparilla, a key ingredient in John Bull's extract, was an alleged miracle cure and used to heal an abundance of illnesses such as scrofula (tuberculosis) or "Kings Evil". The accuracy of these claims was largely irrelevant because people believed the elixir would work. The cylindrical tin-glazed earthenware ointment pot in the first illustration was used to hold medicinal salves.

With large populations living in close proximity, it was critical for cities to provide medical services. At various times during the eighteenth and nineteenth centuries, infectious diseases, including tuberculosis, cholera, yellow fever and smallpox, struck Baltimore. Clinics, like the Southern Dispensary, played key roles in treating infected individuals and preventing widespread epidemics.

The privy contained a number of glass medicine bottles. From left to right: John Bull Sarsaparilla bottle—used to treat tuberculosis, J. V. D. Steward bottle; a multi-sided pharmaceutical bottle (missing the shoulder, neck and finish), a Bartine's lotion bottle, and a small colorless medicine bottle. All examples date to the mid-19th century.

Archeology Volunteer Programs

Following are examples of programs in Maryland that offer opportunities to get involved in archeology. Please note that COVID-19 restrictions might apply. For more information about these and other similar programs visit *www.marylandarcheology.org*.

Jefferson Patterson Park & Museum · Public Archaeology Program

Fridays and Saturdays, September 3-25, 2021 · 9 am to 3 pm

Volunteers have the opportunity to work alongside archaeologists and excavate an actual site. Spend mornings excavating, sifting soil for artifacts and mapping remains of an 18th-century plantation on the park grounds, and afternoons either at the archaeological site or in the Maryland Archaeological Conservation Lab, doing hands-on archaeological activities, such as washing, sorting and labeling artifacts, photographing archaeological artifacts, touring the lab and more.

Public Archaeology is free and open to the public. Children under 15 must be accompanied by an adult. Register by visiting this webpage: *https://jefpat.maryland.gov/Pages/mac-lab/public-archaeology.aspx*

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*.

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

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

Experience Prince George's County history first-hand through volunteering with the Department of Parks and Recreation Archaeology Office. 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 Office at 301-627-1286 or email *archaeology@pgparks.com*.

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

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/CATprogram.html.

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

NOTICE*: The Archaeology Volunteer Program has been suspended due to COVID. If you contact us, we will notify you when the program reopens.*

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. For Volunteer Application contact Heather Bouslog by phone at 301.563.7530, by email at *Heather.bouslog@montgomeryparks.org*, or visit *www.ParksArchaeology.org.*

Archaeology Program
Needwood Mansion
6700 Needwood Road
Derwood, Maryland 20855

Maryland Historical Trust
Archeology Programs

The Maryland Historical Trust is committed to involving the public in archeology. The Maritime Archeology Program provides opportunities for volunteers in field activities. Participants need not be divers. Terrestrial archeological programs include an eleven-day annual Field Session, co-hosted with the Archeological Society of Maryland, that combines education with research. An Open Lab is held on most Tuesdays during the year teaching proper archeological lab techniques. 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
www.mht.maryland.gov/

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 Department of Research & Collections at HSMC, with St. Mary's College of Maryland, offers a Field School in Historical Archaeology from June 1 through August 6, 2021. While in the field, staff and students offer tours of the excavations to visitors. Visitors to the museum are also encouraged to explore the St. John's Site Museum, which provides insights into ways researchers use historical and archaeological 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 Saturday Workshop and an annual 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.

Howard County Department of Recreation and Parks
Archaeology Program

Come explore Howard County's hidden history through archaeological investigation! The Howard County Archaeology Program welcomes volunteers of all ages to participate in field and lab opportunities, following all Covid-19 safety precautions, during our 2021 public season! The Howard County Archaeology Program accepts Volunteers Wednesday through Sunday. Due to Covid protocol, reservations must be made prior to participation. To volunteer, please contact Kelly Palich at 410-313-0423 or *kpalich@howardcountymd.gov*. Volunteer opportunities for fieldwork, lab work, photography, illustration, research and more! For more information please visit *http://www.upperpatuxentarchaeology.com*

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A MUSEUM OF HISTORY & ARCHAEOLOGY AT MARYLAND'S FIRST CAPITAL

At **Historic St. Mary's City**, a museum of history and archaeology at the site of Maryland's first capital, learn the stories of how 17th-century society was built through the interactions of Southern Maryland Indians, European colonists, and people of African descent. Wander the reconstructed Yaocomico hamlet, explore a colonial tavern, and step aboard a tall ship. At the St. John's Site Museum, gain insight into the ways historians and archaeologists reconstruct the past, learn how slavery was introduced into Maryland society, and discover the 17th-century origins of religious freedom. Take an easy drive from the metro areas and discover one of the nation's most beautiful historic places in Tidewater Southern Maryland.

240-895-4990 *www.hsmcdigshistory.org/* 800-SMC-1634
Info@HSMCdigshistory.org

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Archaeology Office, The Maryland-National Capital Park and Planning Commission (M-NCPPC), Department of Parks and Recreation, Prince George's County. Since 1988, the Archaeology Office has been exploring the diversity of Prince George's County's archeological resources. Through excavations, exhibits, public outreach and cultural resource management, the Archaeology Office 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 Office office at 301-627-1286 or email *archaeology@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 Saturday Workshop and an annual 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 is committed to sustaining the balance between protecting our cultural resources and maintaining our transportation system.

MARYLAND DEPARTMENT OF TRANSPORTATION

For information, contact Dr. Julie M. Schablitsky, Chief Archaeologist/ Assistant Division Chief, Cultural Resources Section, at *jschablitsky@mdot.maryland.gov*.

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 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 *https://cfma-md.com/*, attend an event, and join us in exploring Maryland's past.

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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*.

The Maryland Archaeological Conservation Laboratory (MAC Lab) is the Trust's repository for archeological collections. Located at Jefferson Patterson Park and Museum (JPPM), the State Museum of Archaeology, the MAC Lab opened in 1998 as a state-of-the-art archeological research, conservation, and curation facility. The MAC Lab serves as a clearinghouse for archeological collections recovered from land-based and underwater projects conducted throughout the state. It is the MAC Lab's mission to make these collections available for research, education, and exhibit. The website for the MAC Lab/JPPM is *https://jefpat.maryland.gov*.

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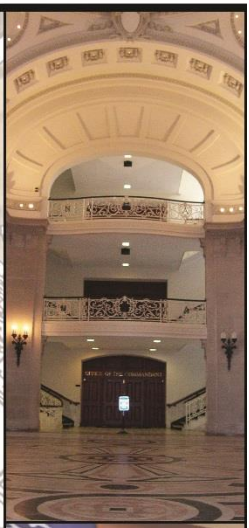

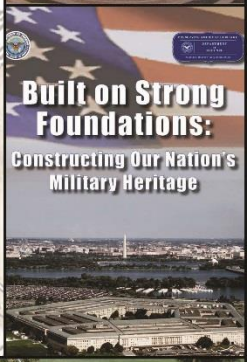

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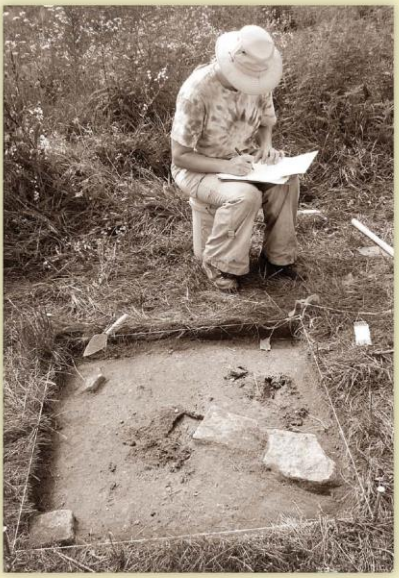

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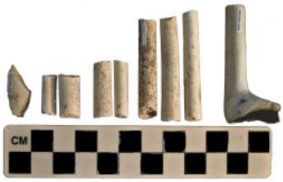

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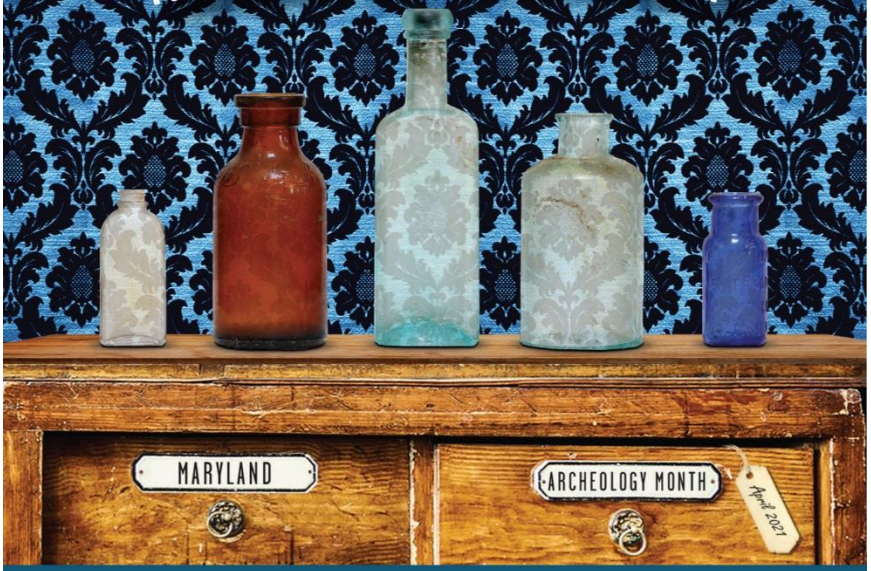

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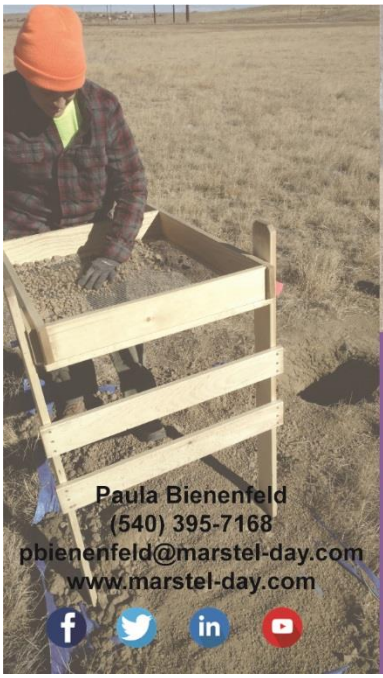

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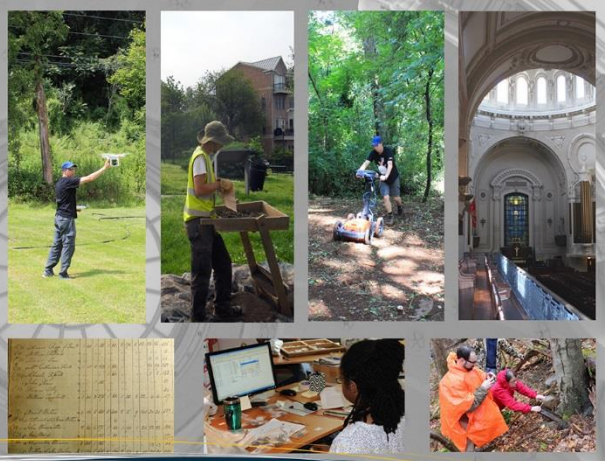

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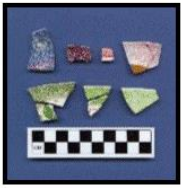

For more information, please contact:
Tim Sara — (301) 276-8040 — tsara@trccompanies.com — 4425-B Forbes Blvd, Lanham, MD 20706

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Disease. Insurrection. Civil Unrest. (2021)

Excavations at Camp Stanton, a Civil War training camp for the U.S. Colored Troops in Benedict, Maryland. See the essay by Matthew Palus for more about how the research provided insights into race, disease, and the lives of African American soldiers during a turbulent time in American history.

Disease. Racial Tensions. Civil War. (1863-1864)

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MARYLAND DEPARTMENT OF TRANSPORTATION

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