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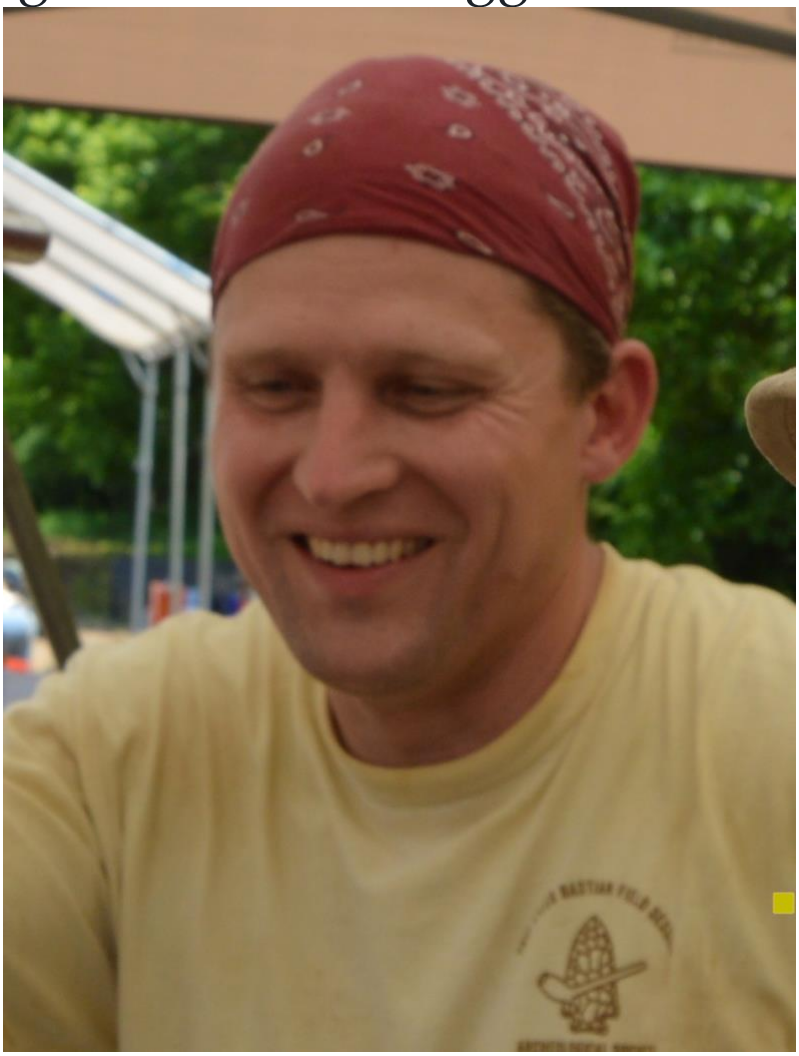
Meet Matt McKnight, new Trust digger-in-chief



Matt McKnight took over this year as Maryland's top terrestrial archeologist at the Maryland Historical Trust, replacing Dennis Curry. In an effort to let ASM members know more about him, his background and his plans, he agreed to answer some questions for the newsletter. *Story on Page 3*

Upcoming events

September 7: ASM Board meeting. Heritage House, Columbia. 9-noon. All members welcome,

September 21: the Pre-Columbian Society of Washington, DC looks at "Ancient Mesoamerica through 21st Century Science," an all-day seminar. To register see the group's website (www.pcswdc.org). Lower registration rate for students.

October 5: ASM Annual Meeting, Veterans Park, Charles County. All day.

Volunteer opportunities

The following volunteer opportunities are open to CAT participants and other ASM members:

ASM Volunteer Lab, most Tuesdays: The lab in Crownsville. Contact Charlie Hall at charles.hall@maryland.gov or Louise Akerson at lakerson1@verizon.net It is currently working on cataloging artifacts form the Levering Coffee House Site, Baltimore (a mostly late 18th/early 19th Century site).

The Smithsonian Environmental Research Center seeks participants in its Citizen-Scientist Program in archeology and other environmental research programs in Edgewater. Field and lab work are conducted Wednesdays and on occasional Saturdays. Contact Jim Gibb at jamesggibb@verizon.net

Montgomery County for lab and field work volunteers, contact Heather Bouslag at 301 563 7530 or Heather.Bouslog@montgomeryparks.org

The Anne Arundel County Archaeology Program and the Lost Towns Project welcome volunteers in both field and lab at numerous sites. Weekdays only. Email volunteers@losttownsproject.org or call 410 222 1318.

Mount Calvert. Lab work and field work. 301 627 1286.

Jefferson Patterson Park invites volunteers to take part in its activities, including archeology, historical research and conservation. Contact Ed Chaney at ed.chaney@maryland.gov or 410 586 8554.

The Archaeological Institute of America provides an online listing of fieldwork opportunities worldwide. Call up www.archaeological.org/fieldwork to get started.

UPAG/Howard County Recs and Parks invites volunteers interested in processing collections and conducting historical research to contact Kelly Palich at Kpalich@howardcountymd.gov or 410-313-0423.

CAT corner:

Patricia Samford and Becky Morehouse will be leading the Historic Ceramics Overview/Basic Lab Procedures workshops on Saturday, August 24. The Historic Ceramic Overview will be in the morning followed by the Basic Lab procedures in the afternoon at the MAC Lab in Calvert County (10515 Mackall Road - St. Leonard). Becky has also offered a tour of the Lab after the afternoon workshop for anyone interested. Space is limited to 10 participants. Sign up at https://signup.com/go/tNsxdsr.

For other information on the CAT program, contact Sarah Grady at sarahgrady11@gmail.com

Marye award deadline is fast approaching

Time is running out to nominate someone for this year's William B. Marye Award, the Society's highest honor. The award, given for "outstanding contributions to Maryland archeology," has been presented since 1983. A list of past winners is on the nomination form accompanying this newsletter.

Do you know someone who should be added to the list? The winner need not be a Marylander or even an archeologist. Now is your chance to make it happen. Submit the name and the reasons the person deserves the award (specifics, not generalities help the award committee decide). Past nominations are not kept so people must be re-nominated to be eligible. The form must be received by committee chairman Maureen Kavanagh by August 17. Her address is on the form.

Meet Matt McKnight, new Trust digger-in-chief

1. How did you get interested in archeology?
I grew up in the Midwest. My father is a professional land surveyor, but always had a strong interest in American history as well as Native American cultures. Growing up, most of our family vacations involved a visit to some historical site, re-enactment event or battlefield. So, by the time I went to college, I had already made up my mind. I registered my major as anthropology that first semester.

2. What is your academic background?
I graduated from college in 1999 with a bachelor's degree in anthropology from Southeast Missouri State University (and a minor in historic preservation). I then went on to grad school to get my master's degree (2001) and Ph.D. (2007) from Penn State University where I studied with Dean Snow and George Milner.

3. Where did you work before coming to the Trust?
My first job straight out of grad school was with the Trust. Prior to that I worked part-time as a graduate instructor in the anthropology department at Penn State as well as the PSU World Campus (online). That first job at the Trust was as a contractual employee to get the Archeological Synthesis project up and running. The Synthesis project makes capsule summaries of Phase II and III archeological reports available to the public and the professional community. I've always viewed it as a digital finding aid for archeological data that is housed here at the MHT library. You can read more about the Synthesis Project and run a few queries by visiting https://mht.maryland.gov/archeology_synthesis.shtml

4. Do you have a specific area of interest?
Several. Lately, I've been most interested in the Late 17th-early 18th Century contact between indigenous people and the English settlers of Maryland.

5. What was your favorite experience and/or your favorite dig?
I've enjoyed every dig I've ever been on. Actually, no! I can think of a couple I'd rather forget, but they pre-date my time in Maryland. Two stand-out experiences for me are the recovery of the relatively intact Keyser vessel from that first year at Biggs Ford, and the discovery of a cache of "killed" quartz blades at Pig Point. In both cases, those units had been worked by someone else earlier in the day. In each case maybe an hour or so after that person left I ended up uncovering these amazing finds. I didn't plan it that way...I swear!

6. What are the strengths and weaknesses of Maryland archeology?
We have a lot of areas of the state that suffer from a lack of survey. Part of that is due to the lack of development pressure (not necessarily a bad thing), but part of it is also due to a lack of willing and able partners in those areas. I'm hoping that over the next several years we can build up a network of regional partners that we can work with to get some archeology done in those areas. Maryland Archeology's greatest strength is its cadre of volunteers, who are always ready to lend their assistance to help fill in the gaps in our knowledge about the state's past.

7. Archeology has changed a lot in the past few years. What do you think is in store for the future?
I've made the very deliberate decision to move the Trust's research program in the direction I think the field is going. Let's call it "surgical archeology". Remote sensing, followed by "surgical" excavation of identified anomalies is rapidly becoming the norm in Europe and especially in the UK. The technology just keeps getting better and better, as well as cheaper! I think we are going to see GPR, gradiometry, magnetic susceptibility and other techniques become a routine part of the early project planning stage and it will be used to inform research questions and design the excavation strategy. I know we at MHT will be moving in that direction.

Matt lives in Howard County with his wife Dee, daughter Clara, 12, and son Julian, 9.

Divers find Revolutionary War cannon

By Michael E. Ruane

Condensed from the Washington Post, June 25, 2019

GLOUCESTER POINT, Va. — Josh Daniel emerged from the murk of the York River holding in his hand a fragment of blackened wood as if it were a piece of sunken treasure.

"John!" he called to John D. Broadwater. "Check that out. What is that? I can't see it through my mask."

Broadwater, a veteran underwater archeologist, took the fragment. He examined it. He smelled it. "That definitely looks like a piece of burnt wood," he said. "That is just awesome."

It was a tiny but potentially important clue that Daniel had found near what appeared to be the two, maybe three, encrusted cannons that the team had discovered on the bottom earlier in the day.

And it recalled a dramatic episode here during the Revolutionary War when French gunners blasted a British warship, HMS Charon, which caught fire and drifted ablaze across the river, setting two other ships alight before all three sank.

It was all part of the climactic battle of the war, in which the United States, with the help of the French army and navy, besieged and defeated the British at Yorktown in 1781 — and ensured American independence.

And on this warm, humid day, divers Daniel, 37, Broadwater, 75, and Bill Waldrop, 64, along with backup Mike Nusbaum, 69, were digging through the mud and oyster shells for remnants of the battle.

The nearby wreck of the Charon had been located and studied extensively years ago, but details about the other two ships are scarce, Broadwater said. The charred wood fragment, along with the newly found suspected cannon, could be from one of the others, he said.

As the second of a two-day dive began, Waldrop plunged in and dived about 23 feet. He was just starting to feel around when his knees bumped against something protruding slightly from the bottom.

It felt round, like the barrel of a cannon. "I'm like, I'm not that lucky," he said

The more he dug, the more excited he became. "This is iron, and this is big," he said he thought.

The suspected cannon, about seven feet long, is "almost certainly British," Broadwater said. "It's not big enough [to be from] a warship. It's probably [from] one of the merchant vessels that was here. Almost all of them were armed, with anywhere from three-pounders to four- or six-pounders."

The find was huge, he said.

"We knew that HMS Charon … was set afire by red-hot cannon balls [from] a French battery," he said. The Charon carried 44 guns and was the biggest ship the British had on hand.

Later in the day, another suspected cannon was located on the bottom, as well as an object that could be a third.

Broadwater said the team hopes to reassemble later this year for further dives and investigation of the site. The men have to clear away more bottom debris and see whether they can identify the "trunnions," the shafts that protruded from the sides of such guns, as well as the muzzles, to confirm that they are indeed cannons.

"Raising small guns of this size is not difficult," he said in an email. "But we'd have to apply for permission and we'd have to secure an agreement with someone to properly conserve it and provide long-term curation and storage."

Broadwater, a retired chief archeologist with the National Oceanic and Atmospheric Administration, first studied the York River shipwrecks in the mid-1970s. There are believed to be scores of them in the river.

Broadwater said he has never stopped researching the wrecks. He has also worked on the massive project to recover the turret of the sunken Civil War ship the USS Monitor, off North Carolina's Cape Hatteras, in 2002.

Many accounts focus on the land battle at Yorktown, Broadwater said. "You only get half the story, because the other half of the battlefield is out here," he said as he sat on the dive boat. "Without the naval aspects, the . . . siege of Yorktown could never have taken place," he said, adding, "We're trying to tell that part of the story."

"Our goal is to try to actually get financial backing to do another major excavation out here," he said. "There are several wrecks that we know of," he added, potentially revealing "tons of artifacts and information on the battle. "There's no place else to get that information," he said.

How long did it take to build Serpent Mound?

By Brad Lepper

Condensed from the Columbus Dispatch, June 16, 2029

Whenever I give presentations about the amazing earthworks built by Ohio's ancient American Indian cultures, a frequently asked question is, "How long did it take to build them?"

In a new article, Jamie Davis, Jarrod Burks and Elliot Abrams answer this question using Ohio's Serpent Mound as an example. As a first step, they created a 3D model of the Serpent – about 1,300 feet long and three feet high -- using drone imagery and gauged the mound's volume, arriving at 42,500 cubic feet.

There is debate over whether the Adena culture built Serpent Mound more than 2,000 years ago or whether the Fort Ancient culture built it around 1,000 years ago, but Davis, Burks and Abrams chose to focus on the Adena.

The Adena lived in small hamlets widely scattered across the landscape, each with 12 or so residents. To build something as large as Serpent Mound, people from many hamlets came together to share the labor.

The Adena built a few really big mounds, such as Miamisburg Mound, but they built them in stages over centuries. Serpent Mound was different. The evidence suggests it was built in a matter of days.

The Adena certainly could have done it. Assuming each laborer dug up and moved 60 cubic feet of earth per day, Davis, Burks and Abrams calculated that 259 people from 65 hamlets could have built the mound in "a five-day ceremonial event." But there is no evidence that the Adena ever built another animal-shaped mound or, indeed, any mound as large in such a short period of time.

What if the Fort Ancient culture built the Serpent? Their model can be used to estimate that number.

There was a Fort Ancient village next to Serpent Mound. An early archeologist determined there were 20 houses there, which represent 140 to 260 people, with only about half of those able to contribute to mound construction those 70 to 130 workers could have built Serpent Mound within 10 to 20 days.

Building Serpent Mound was an extraordinary achievement regardless of who did it, but particularly so if it was the Adena. They had to get many widely dispersed hamlets to come together to build a one-off monumental masterpiece.

The Fort Ancient villagers, on the other hand, could have built Serpent Mound on their own. It's also worth noting that they built other animal-shaped mounds, such as Licking County's so-called Alligator.

Though archeologists may never know for sure which group of people built the Ohio landmark, a tool like architectural energetics helps us understand the human labor costs behind such monumental architecture and contemplate scenarios' plausibility.

Heating arctic threatens archeological sites

Condensed from July 24, 2019

COPENHAGEN (AFP-Jiji) — In Greenland, climate change isn't just a danger to ecosystems but also a threat to history, as global warming is affecting archeological remains, according to a study published July 11.

There are more than 180,000 archeological sites across the Arctic, some dating back thousands of years, and previously these were protected by the characteristics of the soil.

"Because the degradation rate is directly controlled by the soil temperature and moisture content, rising air temperatures and changes in precipitation during the frost-free season may lead to a loss of organic key elements such as archeological wood, bone and ancient DNA," the report, published in the scientific journal Nature, stated.

The team behind the study, led by Jorgen Hollesen, has been examining seven different sites around the vast Arctic territory's capital Nuuk since 2016.

In addition to organic elements, such as hair, feathers, shells and traces of flesh, some of the sites contain the ruins of Viking settlements.

"Our results show that 30 to 70 percent of the archeological fraction of organic carbon (OC) could disappear within the next 80 years," Hollesen told AFP.

This means that these remains, some of which provide a unique insight into the lives of the first inhabitants of Greenland from around 2,500 BC, are at risk.

When comparing their findings with previous surveys of the sites they found evidence of degradation already ongoing.

"At some sites we did not find any intact bones or pieces of wood, suggesting that these have disintegrated within the last decades," Hollesen said.

Hollesen added that remains of organic material are being broken down by microbes, but their activity could be slowed down if precipitation increased.

"More rainfall would be good and less rainfall bad," he said explaining that "if the organic layers remain wet less oxygen will be available for the microbes that degrade the organic materials."

In other Arctic regions, such as Alaska, hundreds of ancient artifacts have recently emerged as the permafrost, the layer of earth that is frozen all year, thaws due to rising temperatures.

3,400-year-old palace by Tigris pops up in drought

Condensed from CNN, June 30, 2019

A 3,400-year-old palace has emerged from a reservoir in the Kurdistan region of Iraq after water levels dropped because of drought.

The discovery of the ruins in the Mosul Dam reservoir on the banks of the Tigris River inspired a spontaneous archeological dig that will improve understanding of the Mittani Empire, one of the least-researched empires of the Ancient Near East, the Kurdish-German team of researchers said in a press release.

"The find is one of the most important archeological discoveries in the region in recent decades," Kurdish archeologist Hasan Ahmed Qasim said in a press release.

Ivana Puljiz, an archeologist from the University of Tübingen's Institute for Ancient Near Eastern Studies, describes the palace, known as Kemune, as a carefully designed building with mud-brick walls up to 6.6 feet thick.

Some of the walls are almost seven feet high, and various rooms have plastered walls, she added. The team also found wall paintings in shades of red and blue, which were probably a common feature of palaces at the time but have rarely been found preserved.

Ten clay tablets covered in cuneiform, an ancient system of writing, were also discovered. High-resolution photos of the texts have been sent to Germany for translation.

Continued on next page

"From the texts we hope to gain information on the inner structure of the Mittani empire, its economic organization, and the relationship of the Mittani capital with the administrative centers in the neighboring regions," Puljiz told CNN.

Archeologists first became aware of the site in 2010 when water levels in the reservoir were low, but this is the first time they have been able to excavate. However, the site was submerged shortly after the dig, Puljiz said, adding: "It is unclear when it will emerge again."

Unexploded WW2 bombs found at Pompeii

By Sarah Cascone

Condensed from Artnet news, July 10, 2019

Archeologists are still discovering new wonders at Pompeii nearly 2,000 years after the site was engulfed in ash by the eruption of Mount Vesuvius. But there's more to be unearthed than historic frescoes and upper-class Roman architecture: the popular tourist attraction is also home to 10 unexploded bombs dropped by Allied forces in World War II.

In 1943, Allied air forces dropped 165 bombs on the Italian historical wonder during nine air raids, reports the Guardian. Pompeii was targeted due to reports — which ultimately turned out to be false — that German forces were encamped in the ruined city.

Many explosives were removed from sites across the country after the war, but, according to statistics from the Italian defense ministry, thousands of old bombs are still defused in the country every year.

At Pompeii, 96 bombs have been located and deactivated already, according to the Italian newspaper Il Fatto Quotidiano. The remainder of the bombs are in an area that has not yet been excavated. The paper notes that "many of them were defused or had already exploded. But at least 10 of those explosives are still there." (That figure, according to Ars Technica, is based on the assumption that an estimated eight to 10 percent of bombs dropped during the war failed to detonate.)

Documents from the National Aerial Photographic Archive show a map of the Pompeii bombing runs, which took place on August 24 — coincidentally, the day that Vesuvius was believed until recently to have erupted in the year 79. (That belief was debunked in 2018 when archeologists found ancient graffiti on the site dating to almost two months later, October 17 of that year.)

As for the World War II-era bombs, the Archaeological Museum of Pompeii claims there is no risk of an explosion. The areas of the site that are open to the public are among the 44 acres that have already been carefully searched.

"A bomb went off 30 years ago but that is impossible now under the [new] regulations," Massimo Osanna, the director of the Pompeii Archaeological Park, told the Telegraph. "Under the law, before any excavations can be carried out, we must work together with military engineers to clear the site."

Frank & Ernest **by Thaves**

New evidence found near Norse colony in Canada

Condensed from CBC News, July 23, 2019

L'Anse aux Meadows, the site of a Norse colony founded a millennium ago and where indigenous tribes once hunted and gathered, is already famous as an archeologist's dream — and the area is not yet done revealing history's secrets.

A team of archeologists from Memorial University in St. John's, led by Paul Ledger, has discovered a new layer of evidence of human occupancy while they were searching for something else.

"We were there to do a study of the environmental change of the site in relation to the human occupation of the site, Ledger told *CBC Newfoundland Morning*.

The key to finding that information? Digging through peat.

"Peat accumulates at a rate of a millimeter a year, effectively. And as it's doing that it records micro-fossils and things from the environment — things like pollen or charcoal that's in the air, or other living matter. And it incorporates that into the peat so as you go down through the peat, you go back in time."

Ledger's original aim was to collect the samples and then analyze them in the lab. Instead, his team found much more. They were about 35 to 40 centimeters deep, about 30 yards from the Norse ruins, when they found what appeared to be cultural material that carbon dating identifies as coming from the late 12th to mid-13th Century,

"It had some charcoal in it, some wood chips. They looked like woodworking debitage [debris], basically, so they were sort of unusual angles and they look like they've been cut," said Ledger. "Some of it looks like it's been split with an axe or maybe a stone tool.

"We don't know what culture produced these things. They just look like they've been worked."

There were also insect remains found in the peat, which could help them better understand the history of the site.

Véronique Forbes, an archeological professor who was a member of the dig team, found two species of insects that were believed not to have appeared in Canada until much later.

"So the assumption there is that these things … came after the 16th Century, so sort of post-John Cabot," she said. "So it's interesting that they're there in the 12th Century."

Ledger isn't confident in declaring exactly what it all means: "We're not 100 per cent sure what it is. It's cultural. We don't know who laid it down or what exactly it is."

But for those looking to discover a deeper Norse connection in Newfoundland, Ledger says not to get your hopes up. "This is almost certainly probably not associated with Europeans," he said.

Chapter News

Most chapters are now in hibernation.

In addition to the listed chapters, ASM has chapters at Hood College and the Community College of Baltimore County and a club at Huntingtown High School in Calvert County, run by Jeff Cunningham; visit its website, http://hhsarchaeology.weebly.com/

Anne Arundel

Anne Arundel Chapter will be meeting at the Schmidt Center at SERC, the second Tuesday of each month, 7 to 9 p.m. Parking in front of the venue. For information, contact Jim Gibb at JamesGGibb@verizon.net

Central Chapter

Meets the third Friday every other month at the Natural History Society of Maryland at 6908 Belair Road in Baltimore. Business meeting begins at 7, talk at 7:30. For information contact centralchapterasm @yahoo.com or stephenisrael2701@comcast.net or 410-945-5514. Or www.facebook.com/asmcentralchapter or http://asmcentralchapter.weebly.com or Twitter @asmcentral

Charles County

Meetings are held at 7 p.m. on the second Thursday (September–May) at the LaPlata Police Department. Contact President Carol Cowherd at ccasm2010@gmail.com. Website *ccarchsoc.blogspot.com* and Facebook *@ccasm2010*

Mid-Potomac

The chapter meets the third Thursday of the month at 7:30 p.m. at Needwood Mansion in Derwood. Dinner at a local restaurant at 5:30 p.m. Contact Don Housley at donhou704@earthlink.net or 301-424-8526. Chapter website: http://www.asmmidpotomac.org Email: asmmidpotomac@gmail.com Facebook: www.facebook.com/pages/Mid-Potomac- Archaeology/182856471768

Monocacy

The chapter meets in the C. Burr Artz Library in Frederick the second Wednesday of the month at 7 p.m. For more information, visit the chapter's web page at digfrederick.com or call 301-378-0212. The chapter does not meet in July or August.

Northern Chesapeake

Members and guests assemble at 6:30 for light refreshments. A business meeting at 7 is followed by the presentation at 7:30. Contact Dan Coates at 410- 273-9619 or dancoates@comcast.net Website: http://sites.google.com/site/northernchesapeake

St. Mary's County

Meetings are the third Monday of the month at 6:30 p.m. at the Joseph D. Carter State Office Building in the Russell Conference Room, Leonardtown. For information contact Chris Coogan at Clcoogan@smcm.edu

Upper Patuxent

Meets the second Monday at 7 p.m. at 9944 Route 108 in Ellicott City. Labs are the second and fourth Saturdays. On Facebook, www.facebook.com/pages/Upper-Patuxent-Archaeology-Group/464236446964358 or www.upperpatuxentarchaeology.com or try uparchaeologygroup@gmail.com

Western Maryland

Programs are the fourth Friday of the month, at 7:30 p.m. in the LaVale Library, unless noted. Contact Roy Brown, 301-724-7769. Email: wmdasm@yahoo.com Website: http://sites.google.com/site/wmdasm

The Archeological Society of Maryland Inc. is a statewide nonprofit organization devoted to the study and conservation of Maryland archeology.

ASM members receive the monthly newsletter, ASM Ink; the biannual journal, MARYLAND ARCHEOLOGY, reduced admission to ASM events and a 10-percent discount on items sold by the Society. Contact Membership Secretary Ethan Bean, 609 N. Paca Street, Apt. 3, Baltimore, MD 21201 for membership rates. For publication sales, not including newsletter or Journal, contact Dan Coates at ASM Publications, 716 Country Club Rd., Havre de Grace, MD 21078-2104 or 410-273-9619 or dancoates@comcast.net

Submissions. Please send to Myron Beckenstein, 6817 Pineway, University Park, MD. 20782, 301-864-5289 or myronbeck@verizon.net