



Volume 68 ♦ Number 09 ♦ September 2022 ♦ A monthly newsletter for and by the members of MAGS

# Life at the Interface:

*Microbes, Volcanoes, and Culture*

*Dr. Jennifer Gifford*



September program

A myriad of geological features are found across the globe and while Earth science curricula cover as many of these features as possible through textbooks, lectures, and labs, a thorough understanding of many aspects of geology is best gained through tactile experi-

ences on field trips. Being located in northern Mississippi, unfortunately, limits most field trip opportunities to local river-dominated landscapes and floodplains. While long-distance field trips are difficult to incorporate into a course, they can be *Continued, P. 9*

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## SUMMER FUN

Matt and I spend summer and winter in Venice, Florida. Venice is a lovely community with at least nine different beaches within 25 minutes of where we live.

Recently we joined the Manasota Fossil Club. The Club has been in existence for several years and is now in the midst of a restart. We've attended a few



## CAROL LYBANON

meetings, and this month I offered to present a kids program—I think their first. The kids made “Beaches in a Bottle” (see pictures on P. 4). They seemed to enjoy the activity and I hope they learned a few things.

We named the shells, fossil shark teeth, pufferfish mouth plates, fossil turtle shell, sting ray mouth plates, and *Continued, P. 4*

# MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

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## MAGS AND FEDERATION NOTES

Memphis Archaeological and Geological Society,  
Memphis, Tennessee

The objectives of this society shall be as set out in the Charter of Incorporation issued by the State of Tennessee on September 29, 1958, as follows: for the purpose of promoting an active interest in the geological finds and data by scientific methods; to offer possible assistance to any archaeologist or geologist in the general area covered by the work and purposes of this society; to discourage commercialization of archaeology and work to its elimination and to assist in the younger members of the society; to publicize and create further public interest in the archaeological and geological field in the general area of the Mid-South and conduct means of displaying, publishing and conducting public forums for scientific and educational purposes.

MAGS General Membership Meetings and MAGS Youth Meetings are held at 7:00 P. M. on the second Friday of every month, year round. The meetings are held in the Fellowship Hall of Shady Grove Presbyterian Church, 5530 Shady Grove Road, Memphis, Tennessee.

MAGS Website: [memphisgeology.org](http://memphisgeology.org)

MAGS Show Website: <https://earthwideopen.wixsite.com/rocks>

We aren't kidding when we say this is a newsletter for and by the members of MAGS. An article with a byline was written by a MAGS Member, unless explicitly stated otherwise. If there is no byline, the article was written or compiled by the Editor. Please contribute articles or pictures on any subject of interest to rockhounds. If it interests you it probably interests others. The 20th of the month is the deadline for next month's issue. Send material to [lybanon@earthlink.net](mailto:lybanon@earthlink.net).

### September DMC Field Trip

WHERE: Steven C. Minkin Paleozoic Footprint Site

WHEN: Saturday, September 24 8:30 A.M.

COLLECTING: Fossil Tracks and Pennsylvanian Fossils

CONTACT: Daniel Miller, (423) 273-0487,  
[daniel.miller@jtekt.com](mailto:daniel.miller@jtekt.com)

### Links to Federation News

- AFMS: [www.amfed.org/afms\\_news.htm](http://www.amfed.org/afms_news.htm)
- SFMS: [www.amfed.org/sfms/](http://www.amfed.org/sfms/)
- DMC: [www.amfed.org/sfms/dmc/dmc.htm](http://www.amfed.org/sfms/dmc/dmc.htm)



## Field Trips

*Jim Butchko*

Now that the weather is so nice, let's get out and get some rocks. On September 10, MAGS will go to the Big Muddy Mississippi River at Richardson's Landing. If the water level gets too high we'll go to Nonconnah Creek. At either place we will find agates, pet wood, fossils, and just about anything you can imagine.. On October 21, we can go to some other nearby places on Nonconnah Creek or Crow Creek, if enough people are interested.

Betty Marler, a longtime friend and field trip leader to MAGS, is having her "retirement field trip" during the first week of November. Betty turned 90 in April and has taken MAGS on trips spanning three decades. We will be going to several sites. Details to be announced .

The weekend after that, November 12, MAGS will have the opportunity to go to a Memphis Stone & Gravel site somewhere around Memphis. Go to this one if nothing else as most quarries are getting real tight on safety and security and not allowing any more visitors.

You must be a paid-up Member to attend field trips. And remember, details may change as the date of a field trip approaches. Call, text, or email me at (901) 921-3096 or [j.butchko@yahoo.com](mailto:j.butchko@yahoo.com).

**Editor's Note:** *We aren't trying to scare you—well, maybe just enough to remind you to be careful—but we could all pay more attention to safety. The following article, reprinted from*

*our November 2015 issue, has some valuable tips to keep in mind now that we're getting back to taking field trips—and cleaning and preparing some of the stuff we find. The author, MAGS Member Dr. Alan Schaeffer, is an ophthalmologist. One thing has changed. Since November 2015, the hospital charges Alan mentions in the article have definitely increased.*

## The Necessity Of Eye Protection

*Alan Schaeffer, M.D.*

The call came at 1:00 A.M. on Saturday. It was the emergency room. Why do people always wait till the wee hours of the morning to go to the ER? "Dr. Schaeffer, we have a patient with a foreign body in their eye. They were doing something stupid and have foreign material in their cornea that will not come out. We have tried everything!" In addition to waiting 6 hours in the ER waiting room there will be a \$300+ ER bill.

While a foreign body to the eye is very painful it is rarely sight threatening. If a lash in the eye is uncomfortable imagine how a foreign body feels. Even an abrasion to the eye hurts like hell. Unfortunately, other more serious injuries can occur. Lacerating the cornea or sclera needs immediate treatment to suture the eye back to its anatomic position. Foreign bodies in the globe need to be removed, and then the globe needs to be repaired. Individuals often lose sight or even their eyes from these more serious injuries. The \$300 ER bill is minuscule compared to surgical charges and loss of sight.

So, how do we keep from waking Dr. Schaeffer up at 1:00 in the

morning? I am not suggesting you call me when it happens, although that is a preferable option. You should wear eye protection whenever you are hammering, chiseling, nailing, or drilling. Eye protection can range from safety glasses with sides to goggles. You can buy goggles for less than \$2 at Harbor Freight or Walmart. Safety glasses can be obtained at most optical offices. The small cost of protection can save not only dollars but also your sight.

## The Crowley Lake Columns Mystery

*Matthew Lybanon, Editor*



After California's Crowley Lake reservoir was completed, strange column-like formations were spotted on the water body's eastern shore. Crowley Lake is a reservoir on the upper Owens River in southern Mono County, in east central California 15 miles south of Mammoth Lakes. The lake was created in 1941 by the building of the Long Valley Dam by the Los Angeles Department of Water and Power, as storage for the Los Angeles Aqueduct and for flood control.

Theories on the origins of the columns were wide-ranging. Some believed they were just portions of rock that were eroded away to form the perfect, rising spirals and

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# MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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## Summer Fun

Continued from P. 1



fossil horse teeth. All of these can be found on the local beaches.

We decorated the bottles with sea glass, bone shards, and shiny things. I even brought some iron pyrite to add. The club doesn't have much experience with minerals so we are adding some information about that.

It was great fun for me and I hope that the group will continue with the youth programs. I promised to bring projects for December and January when we return.

### *The Crowley Lake Columns Mystery Continued from P. 3*

arches. Others believed the columns had a connection to the area's volcanic past.

Geologists at the University of

California set out to investigate. Using a number of different methods and equipment, including X-ray analysis and electronic microscopes, the researchers have found there are tiny spaces throughout them. These are cemented into place by minerals that are resistant to erosion, and appear to be related to a large volcanic explosion that took place about 760,000 years ago.

Scientists say that the blast was more than 2,000 times larger than that of the eruption of Mount Saint Helens, and created the Long Valley caldera that holds the Crowley Reservoir today. Researchers believe that falling snow melted on top of the tuff rock deposits left after the eruption. This still heated porous material caused the melted snow to boil, which

created the even spaces between the columns that exist today. Estimates hold that there are up to 5,000 of the columns within a 2- to 3-mi.<sup>2</sup> area to the east of Crowley Lake.

For more information, and some great pictures, check out the video in this *Los Angeles Times* article:

<https://www.latimes.com/science/la-me-adv-volcanic-columns-mystery-20151115-story.html>

## October Rock Swap

The next rock swap is at Lou's White's House on October the 8th from 9:00 A.M.-2:00 P.M.

3805 Melanie June Drive  
Bartlett, TN 38135

Dealers should set up a little earlier.



# Remembering

## Kim Hill

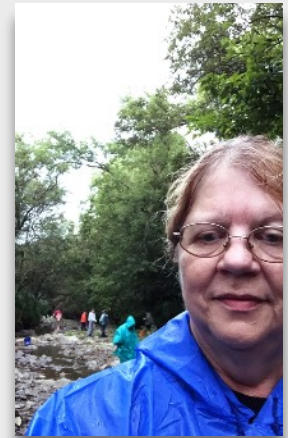
Our friend Kim Hill, one of our valued Members, passed away on the morning of Saturday August 13, 2022. Take time to read her obituary

<https://www.rollerfuneralhomes.com/memorialpage.asp?id=63716&locid=21>

You'll be glad you did. There is also a GoFundMe page, *In Memory Of Kim Hill ( Nanu )*. From that page: "All donations will go directly to funeral costs and excessive medical bills from before her passing." Here is the link:

<https://www.gofundme.com/f/in-memory-of-kim-hill-nanu?qid=4c02debf9dc810dcd06e5dd4cf6adc7>

We will miss her.



## Fabulous Tennessee Fossils

*Dr. Michael A. Gibson,  
University of Tennessee at Martin*

### FTF 91

#### Common Fossils in the Holston Marble



You probably know that the Official State Rock of Tennessee is limestone. It was not the original rock that was chosen to be the state rock. That rock was agate, suggested in 1969. Unfortunately, agate is technically a mineral, so not a rock, and the introduced legislative measure was never officially passed into law, thus agate was considered an “informal” state rock. In 2009, agate became the state mineral after limestone had assumed its rightful elected role as Tennessee’s official state rock in 1979. Limestone as our state rock was the result of intense lobbying efforts by Mrs. Wilbur (“Jenny”) Vaughan’s Martin Junior High history class and resulted in a packed legislative chamber gallery to debate the measure, which included such West Tennessee notables as House Speaker (later governor) Ned Ray McWherter and Senate Majority Leader Senator Milton Hamilton Jr. active in the debate (in support of the resolution). One of the more famous limestone formations, the Holston “Marble” discussed below, was the architectural ornamental backdrop for the Speaker of the House that day as he stood in the chamber.

Tennessee has many limestone formations, but there is one limestone formation that has historical significance nationally as well as locally – the Holston “Marble”, commonly referred to as Tennessee Marble. The first thing to

know about the Holston “Marble” is that it is not a marble in the strict geological sense. Marble is a metamorphic rock (limestone is sedimentary) formed when limestone is subjected to intense heat and pressure causing the minerals to recrystallize and recombine. During metamorphism, original crystalline structure, bedding, sedimentary structures, and fossils are destroyed as new calcite crystals grow and the rock changes form (metamorphoses). Why is the Holston limestone called a “marble”? The term marble is also used by dimension stone quarriers to indicate limestone that has been cut and highly polished. The Holston “Marble” is a famous formation due to its beautiful colors and internal features, all related to its original deposition and fossil content, not due to any metamorphism. In 2017, the late UTK geologist Don Byerly and artist Susan Knowles successfully navigated the establishment of the Holston Limestone (the correct geological term for this rock formation) as a “Global Heritage Stone Resource”, the only formation with this designation from Tennessee.

The Holston Limestone formation is a Middle Ordovician (470-458 million years ago) white to red, stylolitic, coarse-grained limestone that is well-exposed in the Valley and Ridge province of East Tennessee. The formation

contains many reef-like rock masses that are dominated by ubiquitous bryozoan colonies, pelmatozoans (stems of crinoids – see FTF 9), with localized accumulations of straight-shelled (“orthocone” because the cone-shaped shell is straight) nautiloid cephalopods, lesser brachiopods, gastropods, and some bivalves. The limestone is mostly lime mudstone interbedded with cross-bedded calcarenite (calcite sand) that accumulated along the edge of the ancient shallow carbonate shelf that was East Tennessee during the Ordovician. Holston “marble” has been used in sculptural work and for major building interiors and exteriors in at least 35 U.S. states and Canada and continues to be used today. A few notable locations outside of Tennessee include the J.P. Morgan building and Grand Central Station in New York City and steps leading to the basement of the Natural History Museum of the Smithsonian Institution. It is also used to make marble-topped dressers (Figure 1), marble walls, and at UT Martin, it makes the privacy walls in bathrooms (as it did the bathrooms in the old G&G building that housed geology on the UTK campus) and windowsills of many buildings, including my office windowsill next to where I am currently typing this essay.

The next time you are sitting in a bathroom stall

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*Fabulous Tennessee Fossils*  
Continued from P. 6



Figure 1. Marble-topped hallway stand in the Cheshire Hotel in St. Louis, Missouri. The “marble” is Ordovician Holston limestone and abundantly fossiliferous. (MAG photo, 2019).

that uses Tennessee marble as wall dividers for privacy, ignore the graffiti and take time to consider that the little white hemispherical masses (Figure 2) you see in the strawberry-colored rock are the fossilized remains of hundreds of bryozoan colonies, each with hundreds of individuals living in each colony. Take a hand lens with you to study them up-close while you relax on your seat. You will be able to see the internal tube structures (zoecia) of each individual bryozoan due to the high “marble” polish this rock takes on. Bryozoans in the Holston are tiny (<1mm) colonial marine organisms



Figure 2. Close-up of Holston “marble” in the rotunda walls of Brehm Hall on the UT Martin campus showing “ramose (branching) colonies of bryozoans (white masses) within a strawberry-colored matrix (scale in cm, MAG photo, 2022).

that built low to the seafloor, but aerially extensive reef formations (unlike reefs of today with corals making-up the framework of a reef). There are three genera that dominate the Holston Limestone that can usually be recognized based upon their overall colony growth form (zoarium): *Coeloclema* (ramose growth form) and *Constellaria* (encrusting and lamellate growth form) are found in the muddier portions of the Holston and *Stictopora* (ramose shape), which is usually found in the more coarse-grained sandy portions of the Holston. These low reef-building bryozoans were well-suited to the high-energy wave- and storm-dominated marine environments in which they lived. Bryozoans are extant, but less conspicuous in the marine world today, unlike their heyday in the Ordovician. The Holston bryozoan genera are all extinct today. Most colonies are found as broken fragments and



Figure 3. Photo of the writer at the podium in the Legislative Chamber of the Tennessee Capital. Note the wall in the background, which is composed of Tennessee Marble that contains numerous large nautiloid cephalopods along with the typical bryozoans (MAG photo, 2018).

oriented in any conceivable direction within the rock, attesting to the energetic currents and waves that these colonies had to endure during life and after death.

Also in the Holston are the stems and disarticulated plates of crinoids; referred to as “sea lilies” due the resemblance of a stalked flowering plant when in fact these animals were suspension feeding animals that lived gregariously and disarticulated quickly upon death. Their plates and stem fragments (pelmatozoans) made up a significant portion of the bioclastic sand of the Holston seafloor. You will recognize them as rounded to oval single calcite crystal fragments that may show a central hole (like a life-saver candy).

As is typical of Paleozoic limestone, brachiopods are relatively common. More rare, but abundant locally when they do occur, are orthocone, segmented or chambered, nautiloid cephalopod mollusks. Figure 3 is a photo of me standing at the podium in the Legislative Chamber of the Capital building in Nash-

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*Fabulous Tennessee Fossils*  
Continued from P. 7



Figure 4. Close-up of a polished slice of Holston Marble showing chambered cephalopods and other marine invertebrates. The chambered elongate specimens are slices longways down the shell; whereas, the rounded spiraled unchambered specimens are gastropods. This piece is an unusual occurrence for the Holston as it is gray in color and lacks the strong reddish hues (scale in cm, MAG photo from UTM Collection).

ville where Ned Ray McWherter presided as Speaker years ago. In the background is a polished wall of Holston that is dominated not by the bryozoa, but by large nautiloids that was probably an accumulation of individuals that the Ordovician ocean currents accumulated after some cataclysmic event that killed the population, such as a storm. Figure 4 is a close-up of a polished slab in the UTM collections showing various cuts through numerous nautiloids such that you can see the internal septa partitions and chambers, with mineral infill much like geodes form, along with a few coiled gastropods. What causes the distinctive pink, strawberry, and other reddish tints in the Holston limestone? The red is oxidized iron that has become a staining of some of the bioclastic grains that make-up the original bioclastic

sand of the unit, as well as, within some of the mud-sized layers within the formation.

The Holston “Marble” is a common building stone and found in many places in Tennessee and across the nation. Keep an eye out for its distinctive strawberry and white appearance and abundant fossils. I have noticed that antique stores that have furniture made with our “marble” generally sell those pieces of future at higher prices than similar furniture with other types of stone tops. Clearly our Tennessee Marble from the Holston Formation is a sought-after commodity.



**Adult Programs**

September 9: Dr. Jennifer Gifford, (U. Mississippi), “Life at the Interface”

October 14: TBD

November 11: Alan Parks, TBD

**Junior Programs**

September 9: Wire Wrapping Introduction

October 14 & November 11: TBD

**Rock Swap**

October 8: Lou White’s residence, 9:00 A.M.-2:00 P.M.

**New Member**

Michael Parry

**September Birthdays**

- 1 Wayne Pinner  
Fred Walsh
- 2 Eric Marbury
- 3 Alex Jonkus
- 4 William Anderson
- 5 Richard Hill  
Emily Fox-Hill
- 10 Alishia Parks
- 13 Sarah Taylor Stout
- 14 Jane Coop
- 17 Janne Lambert  
Jeremy Bowen
- 19 Matt Dempsey  
Patricia Hewitt  
Shirley Hawkins
- 22 Joshua Houck
- 23 Park Noyes  
Ulisia Gonzalez  
Mildred Schiff
- 27 Shane Ashurst  
Leah Fryar
- 28 Elmer Stout  
Bonnie Cooper
- 30 Kelly Buckholdt

**Want to Be a Member?**

To become a MAGS Member, just go to our website at [www.memphisgeology.org](http://www.memphisgeology.org) and print out an application form. There is a prorated fee schedule for new Members only. Mail the completed application along with the dues payment to the Membership Director shown on the form. If you are unable to print the application, you can pick one up at the sign-in desk at any of our Friday night Membership Meetings, or simply join at the meeting.

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*Life at the Interface*  
*Continued from P. 1*

extremely beneficial for our students, especially when a wide variety of geological features can be observed at a single location. Such is the case with the Hawaiian Islands.

In the winter of 2022, a research-centric field course that was designed to illustrate “life” that occurs at the intersection of biology, geology, and human culture was taught by the University of Mississippi. The course: (1) focused on the importance of microbes, volcanoes, and soil to

Earth processes and how human values and customs shape our relationships with these entities, and (2) explored the relationships between volcanoes, early Earth processes, the origins of life, and the capabilities of modern-day microbes. Students sampled and worked with microbes and sediments (e.g., lava, soil) from several natural Hawaiian sites to complement their content knowledge of the importance of these to life on our planet. We spent a lot of time in the beautiful Hawaiian setting

of the “Big Island,” Hawaii, and students enjoyed: learning about the geology of volcanoes, collecting lava specimens, and participating in a collaborative research study on lava-associated microbes; participating in research about microbes associated with soil and tea plants, picking tea leaves (and we got to roast our own tea at Big Island Tea); learned how to cultivate microbes; hiked geologically important landscapes, and experiencing the beaches of Hawaii; snorkeling.

**MAGS Notes** Visitors are always welcome at our Membership Meetings but membership is required to attend our field trips.  
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The most important benefit of being a MAGS Member is getting to know and make friends with other Members who have similar interest in rocks, minerals, fossils, and archaeology. All new Members will receive a New Member Packet, a MAGS ID card, and a monthly newsletter via email. Members are entitled to go on our monthly field trips and get free admission to our annual Show.



## Glossopetrae

*Matthew Lybanon, Editor*

When some strange objects were first discovered embedded in rocks their origin was a mystery. The Roman naturalist and author Pliny the Elder (AD 23–79) speculated that the curious triangular objects were meteorites that rained from the sky during lunar eclipses. In the Middle Ages people believed that they were the tongues of serpents that had been turned to stone by Saint Paul. According to this story, Saint Paul was shipwrecked on Malta and bitten by an adder. He shook the snake off and cast a curse on all

the snakes on the island, turning their forked tongues to stone. As a result, the triangular objects came to be called *glossopetrae* (Latin, borrowed from Ancient Greek: *glōssa*, “tongue” and *pétra*, “stone”), or ‘tongue stones.’

Glossopetrae were widely believed to have medicinal properties. The finest were thought to come from Malta, and they were exported from the island in large quantities. Tongue stones were thought to act as an antidote to snakebites and poisons if touched to a bite or dipped in a poisoned drink. They might be mounted in silver and worn as

*Continued, P. 10*

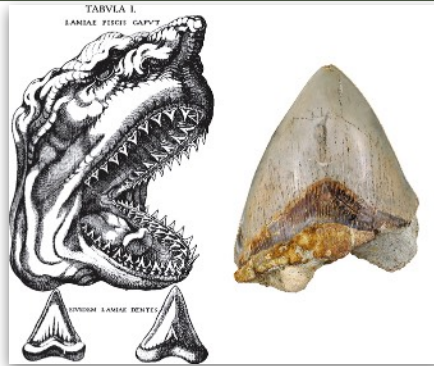
*Glossopetrae* pendants, carved, or sewn into pockets.

Or powdered and sold as remedies for plagues, fevers, poxes, labour pains, epilepsy, and even bad breath (an interesting twist on “snake oil”).

If one day in history had to be picked as the birth of paleontology, it might be the day in 1666 when two fishermen caught a giant shark off the coast of Livorno in Italy. The local duke ordered that this curiosity be sent to Niels Stensen (better known as Steno), a Danish anatomist working at the time in Florence. As Steno dissected the shark, he was struck by how much the shark teeth resembled “tongue stones.”

Steno wasn't the first to correctly identify shark teeth, and he didn't even state with certainty what they were, but his published illustrations left little doubt. Today, most MAGS Members would instantly think that the tongue stones were giant petrified shark teeth, but in 1666 such an idea was a tremendous leap. How could living matter be turned to stone, and beyond that, encased in solid rock—especially if the rock were well above sea level?

Steno made the leap and declared that the tongue stones indeed came from the mouths of once-living sharks. But he still had to account for how they could have turned to stone and become lodged in rock. Naturalists of Steno's day were becoming convinced that matter was composed of different combinations of tiny “corpuscles”—now we call them molecules. Steno argued that the



corpuscles in the teeth were replaced bit by bit, by corpuscles of minerals. The teeth didn't lose their overall shape as they turned from tissue to stone.

But how could fossils end up deep inside rocks? In answering this question Steno arrived at much of modern-day geology. His most famous contribution is now referred to as Steno's Law of Superposition. He proposed that rocks and minerals were originally fluid, and when they solidified they created horizontal layers, with new layers forming on top of older ones. As the rocks formed, they could trap animal remains, converting them into fossils and preserving them deep within their layers. Those horizontal layers represent a time sequence with the oldest layers on the bottom and the youngest on top, unless later processes disturbed this arrangement.

Steno argued for the first time that fossils were snapshots of life at different moments in Earth's history and that rock layers formed slowly over time. It was these two facts that served as the pillars of paleontology and geology in future centuries. And fossils ultimately became some of the key evidence for how life evolved on Earth over the past four billion

years. So when you dig out shark teeth in 20 Mile Creek, or pick them up on the beach, show a little respect.



Thanks, Cornelia McDaniel, for this picture from the August Membership Meeting.

**Editor's Note:** The June and July Board Meetings were combined, and the minutes from that meeting were approved at the August 4 Board Meeting. Those minutes are summarized (below) in this issue.

### June-July Board Minutes Mike Coulson

Zoom meeting called to order at 6:34. Present: W.C. McDaniel, Mike Baldwin, Dave Clarke, James Butchko, Nannett McDougal-Dykes, Melissa Koontz, Kathy Baker.

**New Business:** None.

**Adult Programs:** June 24 program will be an activities meeting: amber cleaning, working with agates, making pendants, metal-working demo, metal detecting demo, artifact identification, ice cream sundae making and consuming. W.C.

mentioned that we *Continued, P. 11*



*June-July Board Minutes* will need supplies for each activity. *Continued from P. 10*

ty. Nannett will bring beverages. July 8: Timothy Poole, Park Manager, Pinson Mounds State Archaeological Park. August 12: Rock Swap, TBD. September 9: Dr. Jennifer Gifford, Associate Professor, University of Mississippi. October 14: Talking with Lionel Crews.

**Field Trips:** Trip to Hot Springs, Arkansas, coming up this weekend, June 18. Very few people have signed up.

**Youth Programs:** July 15: Fossil Polishing

**Web:** Website has been updated and newsletter for June added

**Show:** Ready to close out 2022 Show with a \$19,000-\$20,000 balance. Price quote from the Agricenter shows an increase for next year. Planning for the 2023 show will begin soon. Beginning to compare prices between the Agricenter and other locations.

**Rock Swaps:** Not sure if there will be an August swap. September swap will be at the home of Lou White. Work has begun on the October Picnic.

**Library:** Books are being returned on time. Library is looking good.

**Old Business:** None.

Adjourned 6:54.

**Meeting Minutes**

*Mike Coulson*

**June:** Our June Membership Meeting had an activities-based program. There was good attendance, 30+ members participating in hands-on activities such as wire wrapping, magnet making, agate cleaning/polishing, amber cleaning, as well as demonstrations on metal detecting, metal working, and artifact identification. One big attraction was building and consuming an ice cream sundae. Everyone

enjoyed that and some went back for seconds!

**July:** The featured speaker for the July Membership Meeting was Timothy Poole, Park Manager, Pinson Mounds State Archaeological Park.

**Jewelry Bench Tips** by *Brad Smith*



SHARP KNIVES FOR CUTTING MOLDS

Cutting molds is easier and more precise with a sharp blade. A new Xacto blade is sufficient for cutting RTV molds but is usually not sharp enough for vulcanized rubber. For that it's best to use scalpel blades available from most jewelry supply companies.



USE YOUR THUMB

When using multiple bits in a Foredom, we often have to deal with several different shaft sizes—the usual 3/32 inch burs, the larger 1/8 inch shafts sizes and of course the many different sizes of drills. For some reason I really dislike

having to turn the key multiple times to open or close the jaws of the handpiece chuck.

So I have two ways to speed up that task. For opening up the jaws, I just remember "four", the number of turns I have to make to open the chuck just enough from the 3/32 bur shaft size to the larger 1/8 bur shaft size.

For closing the jaws around a smaller shaft, there's a neat trick. Hold the new bit in the center of the open jaws of the chuck, put your thumb lightly onto the outer toothed collar of the chuck, and gently start up the Foredom. As the chuck turns, it will naturally tighten the jaws around the bur shaft or the drill bit. Then all you have to do is a final tightening with the key.

Learn New Skills with Brad's "How To Do It" Books

[amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

**Quick Guide:**

Cleaning With Oxalic Acid

There are two main methods of cleaning. The first is mechanical, which involves removing what is not the specimen by physical means—shaking, washing, using a dental pick. The second is chemical, which involves dissolving what is not wanted and so removing it, without harming the specimen.

Oxalic acid is one of the most popular chemicals to use for this (best with quartz). These videos give a lot of helpful details.

<https://www.youtube.com/watch?v=iOpGFrjpuhk>

[https://www.youtube.com/watch?v=NEq3\\_4h\\_Do8](https://www.youtube.com/watch?v=NEq3_4h_Do8)

**MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY**

MAGS Rockhound News ♦ A monthly newsletter for and by the members of MAGS

# MAGS At A Glance

## September 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	29	30	31	1 Zoom Board Meeting, 6:30 pm	2	3
4	5 	6	7	8	9 Membership Meeting, 7:00 pm, Dr. Jennifer Gifford, "Life at the Interface"	10 MAGS Field Trip, Richardson Landing
11	12	13	14	15	16	17
18	19	20	21	22 	23	24 DMC Field Trip, Steven C. Minkin Paleozoic Footprint Site
25	26	27	28	29	30	1

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