

The Metal Museum

Madison Miller

July Program



As the only institution of its kind in North America, and one of only a few in the world devoted exclusively to metalwork, the Metal Museum leads the way in the celebration, recognition, and promotion of the field of fine metalwork.

The Metal Museum achieves its mission to preserve, promote, and advance the art and craft of fine metalwork through four inter-related programming areas—rotating exhibitions of historic and contemporary metalwork; the

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JULY & AUGUST FIELD TRIPS

July is a great month to be indoors so the MAGS July 22nd field trip is to an air conditioned museum. At 10:00 A.M. we will meet in the parking lot of the Ornamental Metal Museum at 374 Metal Museum Drive, Memphis, TN 38106. This is down by the old bridge (I-55), which they are working on. If you have Google Maps, look it up because there is construction at that intersection and some roads may be

closed on certain days.

Admission to the event is \$10 but MAGS pays half. To get this discount, you must sign up in advance and be at the site by 10:00 A.M. and pay the field trip leader (Jim Butchko) \$5 cash per head. We will be guided on a tour lasting about 45 minutes, then set free to roam the grounds and gift shop.

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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 Membership Meetings are at 7:00 P. M. on the second Friday of each month May-October, and 10:00 A.M. on Saturday after the second Friday November-April. The meetings are held in the Fellowship Hall of Shady Grove Presbyterian Church, 5530 Shady Grove Road, Memphis, Tennessee.

MAGS Website: memphisgeology.org

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



Please contribute articles or pictures on any subject of interest to rockhounds. The 20th of the month is the deadline for next month's issue. Send material to lybanon@earthlink.net.

Go to <https://www.southeastfed.org/sfms-field-trips/dmc-field-trip-program> for the DMC field trip schedule and other information.

Links to Federation News

- ➔ AFMS: www.amfed.org/afms_news.htm
- ➔ SFMS: <https://www.southeastfed.org/>

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President's Message

Memphis Archaeological and Geological Society

Club meeting and event schedules for the remainder of 2023

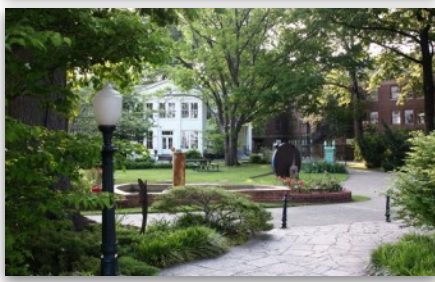
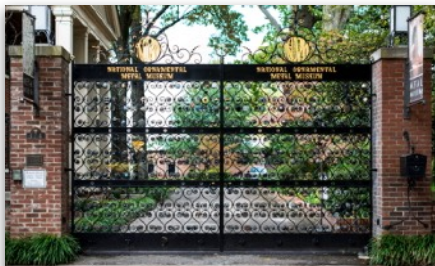
Updates will publish in newsletter, email and membership meetings, Questions, contact WC at (901) 490-3575

Date	Day or Event	Details
July 14	Friday Night 7-9	Membership meeting <ul style="list-style-type: none">• Adult Program-Metal Museum• Junior Program Archaeological Sites around the Globe
July 22	Field trip	Metal Museum tour
August 11	Friday Night 7-9	Membership meeting <ul style="list-style-type: none">• Indoor Rock Swap and Picnic
August 12	Field trip	Field trip to Crow Creek, Arkansas Members choice
September 4	Monday Labor Day Rock Sale	Rock sale at Lou White's
September 8	Friday Night 7-9	Membership meeting <ul style="list-style-type: none">• Adult Program Josh Anderson -TBA• Junior Program-TBA
September 15-17	Field trip	Quartz crystal collecting Mt, Ida area
October 13	Friday Night 7-9	Membership meeting <ul style="list-style-type: none">• Adult Program -Minerals with Jimmy McNeil• Junior Program TBA
October 15 (Sunday)	Rock Swap	Rock swap at the McDaniels
October 21-22	Field trip	Field trip, Geodes and Fossils. East Tennessee Tentative
November 11	Saturday Day 10-12	Membership meeting <ul style="list-style-type: none">• Lapping and leaning• Hands on Activities• Demonstrations Educational
November 18	Saturday Date to TBA	Members will decide Local Area
December 9	Saturday Day 10-12	Membership meeting <ul style="list-style-type: none">• Holiday Party

W. C.

The Metal Museum Permanent Collection of objects, books, folios, and archives; the Metals Studios comprised of a Blacksmith Shop, Foundry, small metals lab, and design lab that provide educational opportunities for metal-smiths through artistic creation; and vibrant community education and engagement programming for learners of all ages. This broad, yet dedicated, focus attracts visitors, artists, and patrons from all 50 states and from across the globe to the Museum each year. Thousands more are served during off-site programming and community events across Shelby County through the Mini Mobile Metal Museum.

The Metal Museum has established itself as the center for metal arts—a place that promotes artists and their work through award-winning exhibitions and a dynamic permanent collection, contributes to teaching the next generation of artists through its Metals Studios, and advances the education of the public through innovative community engagement activities.



MAGS
Mid-Summer Indoor Rock Swap and Picnic
Friday, August 11, 7:00 P.M.
Shady Grove Church

The Picnic

- MAGS will provide the main meat.
- MAGS Members: provide your best and bragging stuff to eat, share, and show off.
- MAGS will provide cutlery, table decorations, and drinks.

The Swap

- If selling bring your own table and donate a nice prize for the door prizes.
- If buying bring your own money. Some sellers accept cards.
- If swapping bring your stuff.

Other things

- Door prizes
- Games
- Auction/Raffle
 - ✓ Slab of Polished Gemstone Dino Bone—donated by Robert Duncan
 - ✓ Jewelry made from found items from the Pipkin Building floor (post show). Made and donated by Beth Day.
- Wear your most colorful summer attire or favorite Rock Theme Outfit.
- Help set up and clean up after the swap/picnic.

July & August Field Trips
Continued from P. 1

Come to the monthly MAGS Meeting July 14 to hear more.

On August 19, we will venture outside again to Crowe Creek over by Forrest City, Arkansas. When we went in the Spring, the water was high and cold so we didn't wade more than 100 yards upstream. Hopefully we'll be able to go further and get some of the big agates, wood, fossils, and iron concretions that Crowe Creek is known for.

Jim Butchko

Field Trip Director

text (901) 921-3096 or email j.butchko@yahoo.com



Petra's Stone Collection

Matthew and Carol Lybanon



Recently most of our family took a trip to Iceland. We drove the Ring Road, a 1,322 km long road (two lanes with many one-lane bridges) that encircles the whole country near its perimeter.

You read that right: about 820 miles to go around the entire country. Iceland is one of the world's smallest countries (approximately 103,000 sq km, while United States is approximately 9,833,517 sq km, nearly 95 times bigger), with the world's northernmost national capital (Iceland's northern boundary almost touches the Arctic Circle). But there's a remarkable variety of things to see and do in Iceland.



MAGS is a rock and fossil club. So you don't want to read about encounters with sheep, or waterfalls, or collecting glacier ice

on the beach, or how to pronounce words like. Eyjafjallajökull (fortunately everybody in Iceland speaks at least two languages, one of them English). You want to read about **rocks**.

Just about all of us have a house full of rocks. Maybe too many; what are we going to do with all those rocks, and will anybody want to inherit them? But this article is about a lady who had more rocks than you—guaranteed. And she found something to do with them, something good. Don't be put off by the Icelandic names. This is a good story.

Ljosbjörg Petra María Sveinsdóttir always had a keen interest in rocks and minerals. As a child she started to collect the ones she found beautiful, however the opportunity to show them to others didn't arrive until 1946, when she and her husband Jón Lúdvik Ingimundarsson ("Nenni") moved into the house where we saw her collection. When he was not at sea, Nenni enjoyed outings with his family gathering rocks.



All of Petra's stones come from Iceland and most of them were collected in east Iceland, mainly in Stöðvarfördur (a village in east Iceland which is part of the municipality of Fjarðabyggð and has less than 200 inhabitants). Most of the stones in the collection are local because before 1960

Stöðvarfördur had no roads connecting it to neighboring villages.

In 1974, after the passing of Petra's husband Nenni, Petra decided to open up her home for anyone wishing to admire her collection. Hundreds of thousands of people have visited Petra. Understandably, this has affected the daily life of her family.

Petra's guests come from all over the world. She had a number of memorable visits. One time a group of 12 cyclists from Italy arrived. They had been travelling around Iceland for a few days when they were drenched in a rainstorm. Petra took them in, gave them food and shelter, and dried all their clothes before they continued on their journey. There are many stories similar to this one in her guest books. Many years ago three tired young Americans called in and Petra invited them to sit down with her family and have supper, and then offered them a bed to sleep in through the night.



People come here for all kinds of reasons: because of the beauty of the minerals, because of their interest in geology, or because they believe that the stones possess some energy or power. Many guests come here repeatedly, for example a geology professor who visited Petra over 20 times along with his graduate students, and a

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Petra's Stone Collection group from a German institution for the blind.

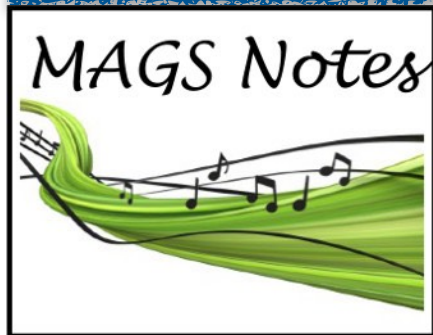
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Many of her guests who come here to view her stones fail to realize that they are visiting a private home. The house and garden, especially in the last few years, have taken the shape of a nature museum, but nevertheless Sunnuhlíð was primarily Petra's home. She didn't mind the inconvenience because she felt it very rewarding to be surrounded with all these people.

Petra passed away on January 10, 2012, six weeks after a book about her life was published. But you can still visit her collection, and you can read more about her at <https://www.steinapetra.is/> and on Facebook.



The red circle shows a quarter, put there to show the specimen's size.



July 22: Ornamental Metal Museum
August 19: Crowe Creek
September: TBA

21 Angelina Wang
 23 Lydia New
 26 Devin George
 Renee Lasater
 28 Max Dempsey
 Drew Buchner

July Birthdays

- 1 Francie Collins
- 2 Braden O'Hare
Adam Featherston
- 3 Wayne Williams
- 4 Raven Burks
- 5 DeeDee Goossens
Clay Crumpton
- 8 Owen Rambin
David Day
Jorge Leal
- 9 Christine McManus
- 10 Nannett McDougal-Dykes
Jonte Bouchard
- 12 Vicki Caudle
- 13 Sarah Siegel
- 14 Sue Nicholson
Susan Vaughn
- 19 Gwen Parish

Adult Programs

July 14: Memphis Metal Museum
August 11: Indoor Rock Swap and Picnic
September 8: Josh Anderson, TBA

Junior Programs

July 14: Archaeological Sites Around the Globe
August 11: Indoor Rock Swap and Picnic
September 8: TBA

Field Trips

June Meeting Program



Thanks to Christine McManus for this picture of the June Membership Meeting program's speaker, Jeremy Veldman, President of the Memphis Astronomical Society. He told the club about a total solar eclipse that will occur on April 8, 2024. He told us how best to view the eclipse and went into the science involved in eclipses.

Fabulous Tennessee Fossils

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

FTF 101

Colin Sumrall—UT Tennessee Knoxville Paleontologist



In FTF 99, I introduced you to Dr. Alycia Stigall, the new Jones/Bibee Professor and Department Head of the Department of Earth and Planetary Sciences at The University of Tennessee, Knoxville. UTK has had a long tradition as being a major “paleontology university” since the 1950s. Whereas most universities will have one or two paleontologists on staff, UTK generally has several faculty that are either paleontologists directly, or at least have strong involvement in paleontology as part of their other geology expertise. Echinoderms have always been one of the taxonomic groups in which UTK paleontologists have specialized, partly due to the echinoderm-rich Paleozoic rocks that the Tennessee has fossilized. In earlier FTF, I have mentioned my own Ph.D. advisor Dr. Thomas Broadhead (who will get his own FTF introduction soon), Kenneth R. Walker, and Michael L. McKinney, but in this essay I want to introduce you to the prodigious Dr. Colin Doyle Sumrall.

Colin Sumrall’s studies include investigating the geographic and evolutionary radiation of echinoderms, primarily from the Paleozoic Era. He also uses his beloved echinoderms to improve the science of paleontology by understanding how geographic sampling bias can affect our interpretations. Seeking to understand mecha-



Figure 1. University of Tennessee, Knoxville echinoderm paleontologist Dr. Colin Sumrall (photo provided by Paleontological Society)

nisms of organic evolution, Sumrall uses echinoderms for phylogenetic reconstructions and echinoderm ontogeny (life stages) to elucidate pathways of morphological change through time. He is on the forefront of technology usage with fossils and also a major player in the genetic sequencing of the group.

Colin attended Arizona State University from which he earned his B.S. (1989). His advisor was Robert Lundin, who some of you may know conducted numerous studies of ostracods from the Silurian and Devonian of West Tennessee in the 1980s and 1990s. Colin’s interest in echinoderms was solidified when he then moved to the University of Texas at Austin to work under the legendary James Sprinkle (who also has many Tennessee ties and will

receive his own FTF this coming year) for both his M.S. (awarded in 1991) and his PhD (awarded in 1996). After short stints at Tulane University (1997), the University of Cincinnati (1999-2004 and as Curator at the Cincinnati Museum Center from 1998-2002), and a brief time at the University of Iowa (2000-2001), Colin was hired by the University of Tennessee in 2002, accompanied by his sedimentologist wife Linda Kay (who replaced the then retiring Kenneth Walker, also a UTK paleontologist and sedimentologist mentioned in earlier FTF articles). Colin Sumrall’s accolades and accomplishments are too many to list here. He is an incredibly active paleontologist who serves on numerous national committees and is involved in dozens of research initiatives (good thing he mentors a lot of graduate students to help with all of that work). Over his career, he has received many awards and plenty of grants. He has named several new taxa of echinoderm and he has an international reputation. I do not know if he has a favorite group of echinoderm, but I am pretty sure that he finds the Paleozoic crinoids, blastoids, and lately, the edrioasteroids as his primary focus of work.

I chose this time to introduce Colin, whom I mentioned in FTF 59 (2019) when he published a new species of sponge

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Fabulous Tennessee Fossils from East Tennessee called *Allosacus pedunculatus* out of the Lenoir Formation, because he and his students have another “Tennessee first” that you will hear about in the future! We sent Colin sediment samples to process out of our Coon Creek Formation and they found a few small plates of another type of echinoderm called a “brittle star”. This find represents the first brittle star find from the Coon Creek Formation and their preservation state is incredible. It looks like we will be expanding the taxonomic list for the Coon Creek Formation in the near future! Thank you, Colin Sumrall. I will leave you with one more interesting fact about Colin. He is an avid bird watcher. One of his topics for public lecture is on the origin of birds (and we all know that means dinosaurs too). Maybe we can get another MAGS visit to the Coon Creek Science Center and have Colin Sumrall as a guest lecturer on birds. We will call it A Night of Birds and Fossils with Colin Sumrall.

Fossil Road Show

Each year the Union County Heritage Museum in New Albany, Mississippi, holds a Fossil Road Show. June 10 was this year’s date. Guest speaker and paleontologist George Phillips educated visitors with his Plant Fossil Talk, and, as usual, MAGS was a participant. Here are a few photos (thanks, Nannett).

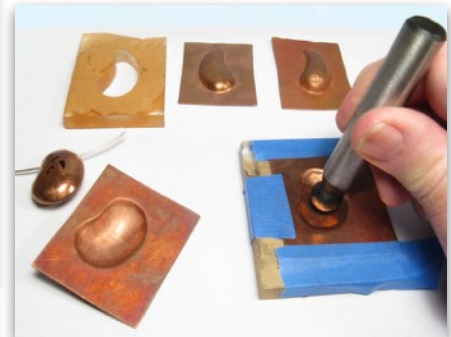


Here are Nannett’s comments:

Amazing time at the Museum there were 214 rocks painted and out the door everyone had an amazing time and I was thanked a lot for all of us coming down and doing this today. W.C. and others said this is the Biggest attended event in the last 12 years. ... Great to hear..

Jewelry Bench Tips by Brad Smith

ONE PART DIE FORMING



An easy way to make large and strong components for your jewelry designs while keeping the weight of precious metal to a minimum is done with simple tools in a process called one-part die forming. Complex 3-D shapes can be made quickly from thin gauge sheet with just a piece of plastic and a dapping ball.

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Jewelry Bench Tips I make a forming die by sketching the shape I need on a piece of thick plastic. Then drill a hole and saw out the shape with a jeweler's saw and a coarse blade. When sawing, try to keep edges straight up and down. Refine the cut as needed with a sanding drum or file. Select a thickness of plastic that is just a little more than the amount of doming you want.

> **Note:** I tend to use 1/4 inch or 3/8 inch plastic that I get as scraps from a local plastics shop.

To use the die, cut a piece of sheet about 3/8 inch wider than the hole in the die on all sides. Anneal the sheet and tape it down on the plastic. Use a dapping ball and hammer to create the domed shape. When the taped down edges begin to warp, planish them flat on the top of the die. Finally, if the sheet is to be domed deeply, you will need to anneal the metal occasionally.

One nice feature of this technique can be seen in the top and left of the picture. If the sawed walls are straight up and down, the hole on the bottom is a mirror image of the hole on the top. This allows you to produce a mirror image shape as needed to make left and right earrings or both sides of an irregular shaped bead as shown.

OCHRE APPLICATOR

Yellow ochre is used when you want to be sure the solder won't flow on an area of your piece while you're soldering another area. The only problem with ochre is coming



up with a good way to store and apply it.

I use recycled nail polish bottles. They seal well and have a built-in brush applicator. Just clean them out with a little acetone or nail polish remover, and they're ready to go.

See Other Tips in my Smart Solutions for Jewelry Making Problems <http://amazon.com/dp/B0BQ8YVLTJ>

Ancient Giant Amphibians

Matthew Lybanon, Editor

Researchers have uncovered proof of an ancient giant amphibian that predates the time of the dinosaurs. The new fossils were discovered at Dave Green palaeosurface, in the KwaZulu-Natal Province of South Africa. They provide evidence that ancient 2m-long amphibians swam like crocodiles long before true crocodiles existed (50 million years before the crocodile evolved).

During the Late Permian Period, just over 250 million years ago, South Africa was home to *rhinesuchid temnospondyls*, large predato-

ry amphibians with bodies similar to crocodiles or big salamanders. These extinct animals are known mainly from skeletal remains, but in this study, researchers describe an exceptional set of trace fossils which provide insight into how these animals moved through their environment.

Researchers analyzed seven body impressions (resting traces) and a number of tail-marks (swimming traces) inferred to have been made by a *rhinesuchid temnospondyl* that was about two meters long. Based on the spatial arrangement of these traces, the researchers interpret them to have been made by one or two animals swimming from one resting spot to another, perhaps while searching for food.

The sinuous shape of the tail-marks suggests these animals propelled themselves through the water with continuous side-to-side tail motions like modern crocodiles and salamanders. The shape of the body impressions, as well as a relative lack of footprints alongside the traces, suggests these amphibians tucked their legs against their bodies while swimming, also similar to crocodiles. Not only did the rhinesuchid temnospondyls swim like a crocodile, but it also appeared to have hunted through the water similarly.

The locality can be explored on an interactive platform here: <https://kuula.co/post/NS8d2>

Reference: Groenewald DP, et al (2023) Unique trackway on Permian Karoo shoreline provides evidence of temnospondyl locomotory behaviour. PLoS ONE 18(3): e0282354. <https://doi.org/10.1371/journal.pone.0282354>

MAGS At A Glance

July 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
25	26	27	28	29	30	1
2	3	4 	5	6 Zoom Board Meeting, 6:30 pm	7	8
9	10	11	12	13	14 Membership Meeting, 7:00 pm, "Metal Museum"	15
16	17	18	19	20	21	22 MAGS Field Trip to Metal Museum/DMC Field Trip
23	24	25	26	27	28	29
30	31	1	2	3	4	5

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