



Volume 63 ◊ Number 08 ◊ August 2017 ◊ A monthly newsletter for and by the members of MAGS

Join The Fun!



The annual MAGS Indoor Picnic and Rock Swap will take the place of the August 11 Membership Meeting. To make sure we have a good variety of good food, please bring a dish based on the initial letter of your last name. Everyone think picnic food.

- A-G** Desserts
- H-N** Appetizers/Side Dishes
- O-Z** Main Course Dishes

This event will also be a rock swap, so bring your own table if you have things to sell or swap.

See you there.

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FABULOUS TENNESSEE FOSSILS

The Conodont *Icriodus woshemidti*

I often use pop culture references in my lectures to help students relate to some point or organism I am trying to teach. I am also a great fan of monster movies, being a “monster kid” (yes, this is a real term) who grew-up in the 1960s watching the TV resurgence of the

FTF 31



DR. MICHAEL A. GIBSON, UT MARTIN

Universal Monsters (*Frankenstein, Dracula, Wolf Man, etc.*). I never grew out of that phase of my life and continue to enjoy anything involving monsters. So it isn't surprising that I would use the creature from the famous *Alien* series from 1979 (the newest installment in theaters now is *Alien: Covenant*) to

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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 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

MAGS Show Website: www.theearthwideopen.com

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 15th of the month is the deadline for next month's issue. Send material to lybanon@earthlink.net.

August DMC Field Trip

WHERE: Propst Farm, Lincoln County, NC (fee site, \$25)

WHEN: Saturday, August 26. 8:30 A. M.-4:00 P. M.

COLLECTING: Corundum, magnetite, quartz

INFORMATION: Lorell Dunlap, (704) 692-1272, or
Lorell_Dunlap@yahoo.com

Links to Federation News

- ➔ AFMS: www.amfed.org/afms_news.htm
- ➔ SFMS: www.amfed.org/sfms/
- ➔ DMC: www.amfed.org/sfms/dmc/dmc.htm

Texas Supershark

*Bob Williams
Dallas Paleontological Society*



“A Pennsylvanian ‘supershark’ from Texas,” John G. Maisey, Allison W. Bronson, Robert R. Williams & Mark Mckinzie., has passed review and been accepted for publication by the *Journal of Vertebrate Paleontology*. In the acknowledgments Dr. Massey says “The Dallas Paleontological Society is recognized and thanked for its encouragement and support of paleontological research in Texas, without which this material might have gone unnoticed.”

This was a collaborative effort by the Society. Mark McKinzie recognized the fossil I found for what it was and donated another one that he also found at Jacksboro. Don Fagerstrom did the prep work on it and Lance Hall suggested I have it looked at by an expert. Roz Morgan had the contact information for Dr. Massey because of her donations of fish material to the collection he oversees at the American Museum of Natural History.

You can read the paper if you have access to the *JVP*, or I have a limited number of copies I can provide a link for. Here is a link to an online article about the find

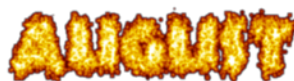
from 2 years ago:

<http://www.amnh.org/explore/news-blogs/research-posts/ancient-supershark-fossils-found-in-texas>

Editor’s Note: *MAGSters who went on one of the ammonite-hunting trips to Texas will remember Bob Williams as the trip leader who took us to those great collecting sites. Bob has some other credits to his name, one described in this article. The supershark discovery was first reported to MAGS in “Way To Go, Bob!”, MAGS Rockhound News, November 2015.*

August Birthdays

- 2 Marvin Stockwell
- 3 Mike Coulson
Jane Brandon
- 6 Leah Gloyd
- 11 Paul Sides
- 12 Ron Brister
David Murray
- 13 Emelia Blodgett
George Krasle
- 14 Jade Flores
Rommel Childress
- 16 Diana Poppelreuter
George Loud
Letitia Brister
- 17 Sophia Coulson
Christine Lemons
- 18 Wain Poole
- 22 Joseph Blodgett
Idajean Jordan
- 23 Stephanie Blandin
- 24 William Childress
- 25 Ellie Hsueh
Sherri Baldwin
Lenora Murray
- 27 Ricardo Ortiz
- 28 Beth Day



Chucalissa Volunteer Day

Volunteer Day at Chucalissa is the third Saturday each month. The next Volunteer Day is August 19, 9:00–1:00. Help is needed for artifact sorting—no experience required. This is a fun way to learn about artifacts excavated at the Chucalissa site and to meet other people with a passion for archaeology. For more information contact chucalissa@memphis.edu.

Field Trips Past and Future

Jim Butchko



MAGS Members had a great field trip to the Belz Museum in downtown Memphis on July 15. Everyone was dazzled by the huge intricate displays of Jade and other material mostly from China.



On August 12, we will go to the Hedger Brothers Quarry near Jonesboro, Arkansas, to collect agates, petrified

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Valley of Fire

Susan (Dee Dee) Goossens

I have a short story of my birthday (July 5) morning trip to Valley of Fire State Park in Nevada. I was awestruck by the majestic views and colors—and my first **petroglyphs**. I only saw a small area as heat wave warnings were everywhere. So no camping or hiking were allowed at that time. Yes, it was HOT!

I made notes of the minerals that were present:

- ✓ limestone
- ✓ sandstone
- ✓ gypsum
- ✓ conglomerate
- ✓ quartz (which is half of the valley)
- ✓ fossil coral
- ✓ fossil animal shell
- ✓ petrified wood
- ✓ calcite

and **desert varnish** (the top rock in the bottom left picture shows desert varnish), which I was curious about and researched.

A micropaleontologist named Randall Perry found that desert varnish is made mostly of silica, which falls from the atmosphere and leaches from the rocks themselves. Over time, the silica breaks down into a gellike form and hardens. It can entomb insects—like amber—so they will be looking for this very closely in the future in Mars samples!

The area was under water 500 million years ago, and occupies 42,000 acres.

Editor's Note: *More information on Valley of Fire geology at <http://skywalker.cochise.edu/wellerr/students/valley-of-fire/project.htm>. Thanks, Dee Dee, for this article. Lots of MAGSters travel to interesting places. Send me an article—with pictures.*



Origami Meets Geology

Matthew Lybanon

In June geologist Mike Howard talked to us about using an inexpensive microscope to look at tiny crystals (“Collecting and Viewing Tiny Crystals,” *MAGS Rockhound News*, June 2017). Mike introduced us to a whole new world of mineral collecting. But he didn’t mention a microscope **this** cheap.

Manu Prakash, an assistant professor of bioengineering at the Stanford School of Medicine, developed a device (don’t let the word make you think of your smart phone) he calls the Foldscope. The idea for the Foldscope crystallized when Prakash was in Thailand, in 2011. “I found myself at a field station that had a really expensive microscope,” he said. “Everyone was afraid of it. It was worth five times the salary of the person trying to operate it. It just made no sense, out there in the jungle.”

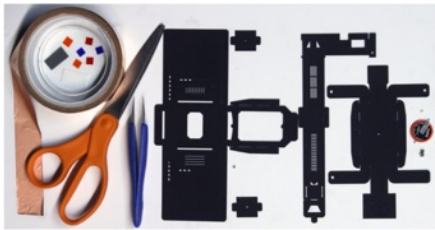
It’s the 21st century, so of course Prakash went to Kickstarter (and other sources) to raise funds to develop his idea. Here is the description of his idea from his Kickstarter page (<https://www.kickstarter.com/projects/276738145/foldscope-the-origami-paper-microscope>):

“The Foldscope, a portable and versatile microscope made mostly out of paper (water-proof), magnifies the wonders of the microscopic world, without the bulk and expense of a conventional research microscope. Foldscope is designed to bring microscopy out of science laboratories and into the hands of people around the world.”

The description goes on: “Foldscope is a real microscope, with magnification and resolution sufficient for imaging live individual cells, cellular organelles, embryos, swimming bacteria and much more. Because the Foldscope is so affordable and can be used anywhere, it brings

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Origami Meets Geology science to your daily life, whether that means looking at what's growing in your flower pot or watching bacteria from your mouth or analysing the bee stinger that got your thumb. Our goal is to encourage and enable the curious explorer in each of us and make science happen anywhere, anytime.”



He didn't mention microcrystals—after all, he's a bioengi-

neer, not a geologist. But he raised enough money to make the Foldscope a reality. From the *PLoS ONE* paper (see reference at the end of this article): “The Foldscope is an origami-based optical microscope that can be assembled from a flat sheet of paper in under 10 minutes. Although it costs less than a dollar in parts, it can provide over 2,000× magnification with submicron resolution, weighs less than two nickels (8.8 g), is small enough to fit in a pocket (70×20×2 mm³), requires no external power, and can survive being dropped from a 3-story building or stepped on by a person.”

With a grant from (Intel co-founder) Gordon Moore's philan-

thropic foundation, Prakash and some of his students mailed 50,000 Foldscopes to people in more than 130 countries, who had volunteered to test them. Recipients shared their results on the [Foldscope Explore](#) website. (Put “crystal” in the search box near the bottom of the home page. Some people reported on viewing crystals.)

The Foldscope is scheduled to be available to the general public in August 2017. Look for more information on the [Foldscope](#) website.

Ref: *Cybulski JS, Clements J, Prakash M (2014) Foldscope: Origami-Based Paper Microscope. PLoS ONE 9(6): e98781. <https://doi.org/10.1371/journal.pone.0098781>*

Fabulous Tennessee Fossils illustrate some fossil organism. You recall how the creature kills from the movie? The alien menacingly opens its mouth, situated on a long narrow rounded jawed snout, to display teeth, only to have a second set of long narrow toothy jaws extend from the mouth to attack the helpless victim...what a way to go! What does this have to do with real fossils on Earth?. This type of jaw structure is referred to as a “pharyngeal jaw” in which a second set of toothy jaws occurs within the pharynx region in the throat of an animal. The most familiar examples today would be the moray eel and the cichlid fish we put in aquaria.

One of the more biostratigraphically important fossils found in rocks of Tennessee belong to a group of extinct organisms

collectively called “conodonts” (“cone teeth”). These enigmatic fossils are now known to be the

nearly microscopic teeth of the earliest fish. They were first described by H. C. Pander, a Russian paleontologist, in 1856, but no one knew they were fish. E. O. Ulrich and Ray S. Bassler (see FTF 22) were the first to recognize the biostratigraphic utility of conodonts, even if the actual conodont animal was unknown. Later in 1934, Schmidt and Scott realized conodonts actually occurred as an apparatus, rather than single teeth. At this point the idea that conodonts were the jaw structure of some primitive animal, probably fish,

Kingdom Animalia
Phylum Chordata
Class Conodonta
Order Ozarkodinida
Family Gnathodontidae
Genus <i>Icriodus</i> Branson & Mehl, 1938
Species <i>Icriodus woshcimidi</i> Zeigler, 1960

became well-established. By the 1960's, conodont biostratigraphy became the cornerstone of correlating

Paleozoic rock strata and remains a major dating technique to this day, made possible by the composition of the fossils and their rapid evolutionary speciation rates. In the 1980's, the actual conodont animal was identified from a series well-preserved specimens and the fish affinity finalized. The hunt to identify their biological affinity is an excellent story in how paleontology works as a science (often slowly with many initial missing directions) that is nicely chronicled in *The Great Fossil Enigma: The Search for the Conodont Animal* (2012) *Continued, P. 6*

Fabulous Tennessee Fossils by Simon J. Knell.
Continued from P. 5

Conodonts, which ranged from the Cambrian through Triassic periods (one of the rare groups to survive the Permian extinction event), are common in Tennessee rocks, but hard to find due to their small size and difficulty in extracting. The Late Devonian Chattanooga Black Shale is the best rock for collectors to scour in hopes of finding specimens because of the fine-grained nature of the shale. Unaltered specimens appear amber-colored as they are made of CaPO₄ (apatite) and altered specimens appear more white. Four basic forms are recognized within the jaw apparatus: simple cones, blades, bars, and platforms. One important taxon of conodont in West Tennessee is *Icriodus woschmidti woschmidti* (Figure 1). Yes there are three names here as this taxon is subdivided into a subspecies. The genus was coined by geologists Edward Branson and Maurice Mehl for specimens found in the Keyser Formation of Virginia and West Virginia. In 1960, the great German biostratigrapher W. Ziegler erected the species *I. woschmidti*. Today the first occurrence of this species defines the boundary between the Silurian and Devonian periods, which is well-exposed in the Parsons Vulcan Materials Quarry. My PhD advisor at UT Knoxville, Dr. Thomas Broadhead, and my fellow graduate students, identified and tracked the first appearance (FAD from earlier FTF on biostratigraphy) of *Icriodus* north to south along the outcrop belt from Savannah to Paris, Tennessee. The first-appearance of *Icriodus* is at a

different level in the Decatur Limestone and overlying Ross Formation (of Birdsong Shale fame) from south to north, indicating the Silurian-Devonian boundary is “diachronous” (different times) across the outcrop distribution. The boundary indicates that the Ross was deposited at the beginning of the Early Devonian near Parsons, but deposited during the Late Silurian (earlier) near Savannah. This indicated that the Ross Formation (Rockhouse and Birdsong) transgressed south to north across ancestral Tennessee as sea level rose.

So, this little “alien” tooth apparatus held the key to not only the age of these formations, but also the location of the famous Silurian-Devonian boundary in Tennessee and the nature of sea level change that produced our famous fossil hunting grounds. The evolution of conodont fish resulted in a strange feeding apparatus as useful to the paleontologist as it was the animal itself. For me the 1960s monster kid, now professional paleontologist, I get to show in class a scary photo of Ridley Scott’s science fiction monster sensation and have an actual paleontology lesson attached to it! And if that wasn’t fun enough, in a later FTF I will tell you how I use a “face-hugger” from the movie to teach students about taxonomy in paleontology. And perhaps later, how I fit Godzilla into another lesson. Who said science is boring?

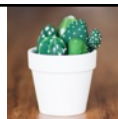


Figure 1. A Nixillustration reconstruction of conodont animal showing location of pharyngeal teeth apparatus (<http://alphynix.tumblr.com/post/141046119830/for-many-years-paleontologists-were-finding>). Conodonts are common in Tennessee rocks and often used in biostratigraphy.

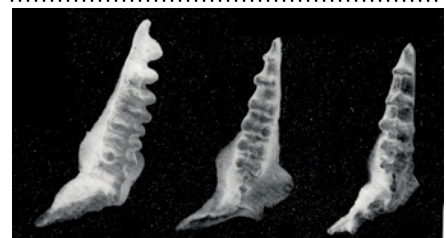


Figure 2. *Icriodus woschmidti* Pa elements from Broadhead, T. W. and R. McComb. 1982. Paedomorphosis in the conodont family Icriodontidae and the evolution of *Icriodus*. Fossils and Strata, No. 15, p. 149-154.

Field Trips ... wood, fossils,
Continued from P. 3 and just about anything else.

If it looks like rain, go anyway. We will just be cooler. On September 9 we will go to Nonconah Creek in Memphis to collect fossils and agates.

The Hiddenite Mine in South Carolina seems to be producing some great finds. If there is enough interest, I will schedule an overnight trip to the east in the fall. Contact me if you are interested.

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Field Trips ... Also available
Continued from P. 3 any time of year
is a trip to my
backyard. Here you can pick up
rocks from all over the continent
that have been donated to the
Club for use in the Show or what-
ever the Club decides. If you
clean a bucket and return it before
the Show, I will give you a nice
specimen or yard rock to keep.

Also note that you can display
the Show rocks you clean until the
next Show. I look at this as get-
ting a new display every year. Isn't
every rock collection really "on
loan" temporarily? My collection
changes every month. Come on
over, help the Club and see what I
mean. High grade your collection
and donate the runts to the grab
bag or gem dig.

Solar Eclipse

Tina Walker

The solar eclipse is coming on
August 21st. It will make its path
across the United States from
coast to coast. The last time this
occurred was in 1918, almost 100
years ago. The path of totality will
include Marion, Kentucky. Mar-
ion is also, the home of the Ben E.
Clement Mineral Museum. So, if
you want to see the total eclipse
and love minerals too you might
consider viewing it from Marion.
To celebrate the eclipse the
museum will have extended hours
on August 18th, 19th, and 20th
(Friday-Sunday) from 10 A. M.-5 P.
M. On Saturday, we will have
special children's activities. The
museum will be closed on Monday,
August 21st, so we can enjoy the
eclipse too.

Editor's Note: *Tina Walker is*

*Director, Ben E. Clement Mineral
Museum. You can reach her at (270)
965-4263 or
www.clementmineralmuseum.org.*

September Programs

The Indoor Picnic and Rock
Swap will be the August program
(see P. 1). Here is the September
schedule:

- ➔ **Adult**—Barry Gilmore, Opals
- ➔ **Junior**—Matthew Lybanon,
Magnetism

June Board Minutes

Mike Baldwin

Called to order 6:32. Present: Charles
Hill, Mike Baldwin, Bob Cooper,
Bonnie Cooper, Leah Gloyd, Carol
Lybanon, Matthew Lybanon, W. C.
McDaniel, Kim Hill, James Butchko.

Secretary: Minutes were distributed
electronically, hard copies provided at
meeting. Minutes approved with
revisions.

Membership: Three new members
have joined since last meeting. One
renewal received.

Treasurer: Rent will be paid this
month. We are having a few bank
problems. Bonnie received notifica-
tion today that as of tomorrow we
earn \$14.69 on each CD. Discussion
followed concerning bank issues: the
club bank statements are being routed
to Matthew instead of Bonnie.
Treasurer's Report accepted.

Field Trips: We had a very successful
field trip to Arkansas, especially the
trip to Wegner's Mine. The 20-Mile
Creek field trip turned out to be a
nice one. The water was a little high
but everyone found shark's teeth. In
July, we are going to tour Belz
Museum, the day after the July
meeting. W. C. will confirm details of
the museum visit. James is trying to
schedule a trip to tour Razor Rock

Quarry in Jonesboro, Arkansas, for
later this year.

Adult Programs: June program by
Mike Howard on micro-crystals,
including a guide to photographing
minerals via a microscope. July—
Belinda Fish, Director of the Belz
Museum of Asian and Judaic Art.
Discussion followed about how we
should honor all of the Show volun-
teers. August—indoor rock swap.

Youth Programs: Charles Hill will
present June Program, on where to
find silver and gold, including panning
techniques. The First VP will take
over responsibilities of running the
adult program when Charles goes to
the back to present the youth pro-
gram. Mike Baldwin will present a
program in July on Earth Science
experiments.

Library: New library procedures
have been printed and laminated.
Leah has new library book cards. She
also bought a book, *Gems and Crystals*,
for the library. Everything is going
well. Leah will email book return
reminders.

Rock Swaps: June 17 swap will be at
W. C. McDaniel's. Anyone who wants
to participate will get some Play-Doh
to create faux-minerals; prizes will be
awarded for most original and most
realistic models. Hours will be 10:30
to 2:30. August—indoor rock swap
and picnic. October—Bartlett Park.

Show: All money collected for
Idajean Jordan is in the Show account.
Matthew wrote a check for the full
amount and W. C. will deliver it to
her this week. Mike received a check
for the fluorescent tent frame.

Newsletter: June newsletter went
out today. Will be posted on the
website tonight, hard-copies mailed
tomorrow.

New Business:

- Carol will take notes next Friday for
Mike if he is not back in town. Next
Saturday is the date

Continued, P. 8

June Board Minutes for the Fossil Roadshow in New Albany, Mississippi. There is also a show in Murray, Kentucky, that weekend.

- Leah is seeking new ways to add books to the library.
- Discussion followed concerning how Show volunteers will be honored at the June meeting. Names will be drawn for prizes.

Adjourned 7:13.

June Meeting Minutes

Mike Baldwin

Called to order 7:00. Two visitors. No June field trip. James would like everyone to come to his house on June 24. He has about 50 buckets of rocks in his backyard. Two weeks from tomorrow, come by his house and take some home to clean. Come by on June 24, any time before dark. Belz Museum will be the next field trip [the day after the July meeting]. Our August trip will be to one of the quarries in Arkansas. Mike Howard suggested a trip to the museum in Piggott, Arkansas.

Mike Howard speaks tonight. July—Belinda Fish will talk about carving jade. September—Barry Gilmore. The June 17 rock swap will be at W. C. McDaniel's, 10:30 to 2:30. We have some Show volunteer prizes tonight. Everyone's name who signed up on SignUp Genius was placed in a hat and names drawn. The Show is the club's biggest source of income, gives us new members, and presents us to the community. 12 prizes were presented. Some Member Show Tickets are still outstanding. June newsletter is out.

Youth were dismissed to attend their program on mining. Mike Howard, Arkansas geologist, presented the adult program on collecting and viewing micro-minerals. Adjourned 8:27.

Jewelry Bench Tips by *Brad Smith*

FIND THE BALANCE POINT

With odd-shaped pendants or earrings it's often difficult to find the right place to attach a bail or loop so that the piece is balanced and hangs straight. A quick way to make a tool for this is to modify a set of tweezers. Any set of tweezers will work. Spread the tips, sharpen them with a file, and bend the tips at a right angle to point towards each other. To use the tool suspend the pendant or earring between two sharp points to see how it will hang.



DRILL BREAKAGE

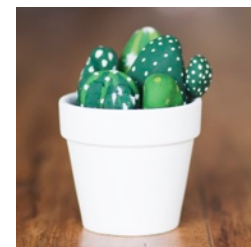
Using a small drill is difficult for a beginner, especially if it is hand held in a flexshaft or Dremel. They are easily broken if you push too hard or if you tilt the drill while it's in the hole.

Most problems, however, are the result of buying cheap drills that suffer from poor quality steel or inaccurately ground cutting edges. A good drill from jewelry supply companies is well worth the price.

Remember that drilling always goes easier with lubrication. A little wax or oil is all you need. Almost anything will work—THREE-IN-ONE, beeswax, mineral oil, injection wax, car oil, olive oil, or one of the commercial cutting waxes. The lubricant helps to move chips out of the hole and reduces friction of the drill against the side of the hole, keeping the drill cooler.

See all Brad's jewelry books at [Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith).

What's this?



Come to the Indoor Picnic/ Rock Swap and find out.

Junior Finds Rare Fossil



"I was running farther up and I tripped on part of the tusk," said 10-year-old Jude Sparks, who had been hiking in the Las Cruces desert in New Mexico with his parents and testing walkie-talkies with his brothers when he came face-to-face with a fossil. "My face landed next to the bottom jaw. I looked farther up and there was

Continued, P. 9

Area and Federation News

GEM, MINERAL, & FOSSIL SHOW

August 26 & 27 2017
Sat. 9am-6pm Sun. 9am-4pm

Baxter County Fairgrounds
1507 Fairgrounds Drive
Mountain Home, AR. 72653

Gems, Minerals, Fossils, Displays,
 Kids games, Demonstrations,
 Geodes/cracking, unique jewelry,
 Hourly door Prizes, Grand prize
 drawing, KTLO live radio broadcast
 Sat. Concession available & provided by
 the Clarkridge Fire Dept.



**Admission: \$4. Kids 12 yrs. & under
 and Scouts in uniform FREE!**
 (Bring in this flyer and get \$1. off admission).

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For more information call 417-274-8712

Wildacres Workshop July Session

August 21-27, 2017

<http://sfmsworkshops.com/>

SFMS Member Tuition \$370

Full descriptions of class and instructors on website



Boot Camp in Metals and Fire – Linda Searcy

The focus on essential jewelry fabrication techniques and is a great place to jump start the absolute beginner metalsmith. Using silver and copper, we will cover sawing, soldering, filing, texturing, and much more. We will fabricate rings and pendants – create simple bezels to set stone cabochons. Ring and pendant blanks will be created with the hydraulic press and pancake dies. Hand held butane torches will be used to solder pieces together. If time permits, we will cover tube setting small faceted gemstones. Lab / Material Fee \$185



Casting – Bill Harr

This class will teach silver casting for beginner and intermediate silversmithing. The emphasis will be on production centrifugal casting, meaning techniques for high reliability. The class will teach centrifugal and vacuum casting, wax modeling, spruing, investing, burnout, casting, finishing and polishing, rubber mold making and wax injection. Steam casting will be covered if there is interest. Waxes will be available, and students will learn to inject their own. Lab Fee: \$80 Estimated Material Costs: \$0 - \$100



Beginning Chain-Maillé Jewelry – Roy Deere

This class will provide the student with an introduction to one of the popular and fastest growing areas of jewelry making. Students will learn the proper way to open/close jump rings, basic patterns of linking the rings to form intricate chains, and finishing techniques to make the chains into wearable jewelry. The class will consist of a couple of pre-selected projects to teach the basic techniques followed by other projects. A lab fee of \$50 covers the 2 beginning kits. Total cost of the class can range from \$50 to \$150.



Intermediate Chain-Maillé Jewelry – Roy Deere

The class will introduce the student to such advanced techniques as non-round jump ring shapes, jump rings made from different wire shapes, beaded enhancements, mixed metals, dangles, drapes, and many other enhancement techniques that can be applied to traditional designs. The class will consist of one pre-selected project utilizing non-round jump rings and other projects the student can select. A lab fee of \$40 covers the non-round project kit. Total cost of the class can range from \$75 to \$250 depending upon the projects.



Fused Chain-Maillé Chain-Maillé Jewelry – Roy Deere

In the Fused Chain-Maillé class we will explore the construction of necklaces, bracelets, and earrings which have all of their ends "soldered" together. All of the work will be done with Argentium wire. Argentium silver can be fused. This allows us to join the ends of a ring without having to fool with solder. It only requires smooth ends on the ring and heat on the joint. A lab fee of \$100 covers the first project kit. Total cost of the class can range from \$100 to \$300 depending upon the projects.

Junior Finds Rare Fossil another
Continued from P. 8 tusk.”

It was a mostly intact 1.2 million year-old stegomastodon skull. The Sparks family contacted New Mexico State University (NMSU) biology professor Peter Houde in November after seeing him interviewed in a YouTube video about a similar fossil found several years ago in a Mesquite quarry about 10 miles south of campus.

After the family contacted Houde, the jaw and two pieces of tusk were taken to the Vertebrate Museum at NMSU. In May, the family joined a team of students and professors who worked for about a week to carefully unearth

the skull. It took some months to get permission to dig on the property from the landowner, who requested the site remain a secret. It also took time get the special chemicals needed to properly preserve the fossils.

During the weeklong extraction process, 10 to 12 people helped at different times with the excavation of the specimen, which may be only the second complete stegomastodon skull found in New Mexico. After the skull was unearthed, the NMSU team carefully coated the fossil with plaster and placed wood braces to protect and support it. The skull was lifted from the dig site by a front-end loader and placed on a

flatbed truck for the trip back to the university.

While the process to study and reconstruct the skull, jaw and tusks will take years to complete, Houde says the stegomastodon fossil will eventually go on display. “I have every hope and expectation that this specimen will ultimately end up on exhibit and this little boy will be able to show his friends and even his own children, look what I found right here in Las Cruces.”

Editor’s Note: *This article was based on a NMSU news report, <https://newscenter.nmsu.edu/Articles/view/12599/nmsu-experts-dig-up-las-cruces-boy-s-million-year-old-fossil-find>*

MAGS At A Glance

Solar eclipse
August 21



August 2017

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
30	31	1	2	3 Board Meeting, 6:30 pm, St. Francis Hospital	4	5
6	7	8	9	10	11 Membership Meeting, 7:00 pm, Indoor Picnic/Rock Swap	12 MAGS Field Trip, Hedger Brothers, Jonesboro, AR
13	14	15	16	17	18	19 Chucalissa Volunteer Day
20	21 Wildacres Session begins	22	23	24	25	26 DMC Field Trip, Lincoln County, NC/OESC Show
27 OESC Show	28	29	30	31	1	2

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