



Volume 64 ♦ Number 03 ♦ March 2018 ♦ A monthly newsletter for and by the members of MAGS

# MAGSters Travel the World

*South America and Iceland*

*March Program*



**Editor's Note:** *Look familiar? This was going to be the January program, but winter weather caused that meeting to be canceled.*

In the March program some MAGS Members will tell you about their recent travels to some interesting places. Carol and Matthew

Lybanon cruised South America from Buenos Aires around Cape Horn to Santiago. Debbie and Alan Schaeffer visited the land of fire and ice, Iceland. Here is a preview.

Carol and Matthew: We followed some of the route Darwin took when he visited

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## BE INVOLVED—IT'S MORE FUN

Thanks to those Members who have already signed up. Look for more emails from SignUp Genius about volunteering for the Memphis Mineral, Fossil, and Jewelry Show. We hope every Member will consider signing up.

We need volunteers for Friday, Saturday, Sunday, and Monday (April 27-30).



## CAROL LYBANON

The shifts are set up in two-hour blocks; please sign up for more than one shift.

If you don't have email or are having a problem signing up, call Carol [(901) 757-2144]. **We need every Member to support the Show, so please volunteer.**

# MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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

## 2017-2018 MAGS BOARD

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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: [www.theearthwideopen.com](http://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](mailto:lybanon@earthlink.net).

### March DMC Field Trip

WHERE: Clarksville, GA (fee site, \$10/person)

WHEN: Saturday, March 10, 10:00 A. M.

COLLECTING: Kyanite, mica, graphite

INFORMATION: Jay Batcha, (478) 957-5002 (cell) or (478)  
784-1965 (home)

### 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)

*MAGSters Travel the World* South America  
*Continued from P. 1*

the early 1830s. We saw beautiful beaches, volcanos, glaciers, relics of the last Ice Age, enormous dinosaurs and other fossils—and had a good time. Our talk will also show some of what we saw on another visit to South America: one of the most impressive collections of waterfalls in the world. We saw many natural wonders, as well as big cities and small towns.

We visited more than just the South American continent. Remember the Falklands War? In 1982 Margaret Thatcher's England fought Argentina for control of the Falkland Islands, South Georgia, and the South Sandwich Islands. We spent some quality time with some of the Falklanders; some of them spoke English while others didn't speak at all.

*Debbie and Alan:* Iceland is a unique geological site. It was formed by volcanic eruptions along the Mid-Atlantic ridge. Iceland's landscapes include rift valleys, geysers, hot springs, rhyolite mountains, columnar basalt formations, lava fields, and lunar-like craters. It is estimated that about one-third of all lava eruptions since 1500 have occurred in Iceland. During the last Ice Age, Iceland was buried under ice resulting in the numerous glaciers that still make up a large percentage of the landscape.

Iceland is the only place on earth where you are able to stand on the ridge between two plates on dry land. Because it straddles the Mid-Atlantic Ridge, heat and magma come close to the surface of the

earth and provide enormous geothermal resources for Iceland. Driving around the south part of Iceland it is common to see steam rising from colorful, mineral rich pools and mud formations.

Dinosaurs, volcanos, glaciers, tectonic plate boundaries, waterfalls, rhyolite mountains, ... You won't want to miss this program, MAGS Members.



🎵 **March Birthdays**

- 3 Debi Stanford
- 7 Kristin Erickson  
Payne Wilson
- 9 Jalynn Flores
- 10 Kathleen A. Eglsaer
- 11 Nancy Folden
- 14 Danny Baker
- 16 David Loyd
- 17 Bob Cooper
- 18 Laura Brem
- 24 Kalissa Bearden
- 28 Hudson Hebert
- 30 Hisami McNeil
- 31 Hunter Hill

🎵 **Da Winnah**

Kathy Baker won the prize for renewing her MAGS membership on time. The prize is a unique specimen of calcite and pyrite. Congratulations, Kathy.

🎵 **Hospitality**

Thanks to all who signed up to work hospitality at the Membership Meetings. You make that part of the meeting work better.

The duties are simple:

1. Before Meeting: Arrive around 6:30. Help set up and organize tables. All items are located in a rolling cabinet.
2. Monitor snacks, drinks, ice
3. After Meeting: Clean up, put all items back in cabinet.
4. Two Members per meeting.

Here is the schedule for the next three months:

*March 9:* **Sherri Baldwin** (need one more volunteer)

*April 13:* **Mary Kratz** and **Cornelia McDaniel**

*May 11:* **Aaron** and **Sherri Jones**

🎵 **Show Meeting**

The last Show Committee Meeting before the 2018 Show will be on April 2, 6:30 P. M., in the Agricenter board room.

🎵 **Upcoming Events**

*March 17:* Show grab bag packing at the storage shed, 10:00 A. M..

*March 24-25:* Field trip to Missouri, collecting druzey quartz

*April 7:* Nonconnah Creek cleanup with the Nonconnah Creek Conservancy

*April 27:* Show move-in

*April 28-29:* Show

More details concerning these events will be presented at the March 9 Membership Meeting.

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MAGS Notes

Continued from P. 3

Adult Programs

Here are the programs for the next three months:

March 9: "South America (Lybanons) and "Iceland" (Schaeffers)

April 13: MAGS History and "15 Days to the Show"

May 11: The Amazing Crosswords to Gem Trees Race

President's Message

Hi, everyone. As I write, we have 59 days until Show time. I hope everyone is getting ready for the big event; I know it is on my mind all the time. On a personal note, I usually have a display set up for the Show, but not this year. This year I will be working with the other volunteers who collectively make our Show a success. Year after year we have great Show after great Show, and I want to thank everyone who has volunteered in the past. I would also like to encourage everyone reading this to volunteer for our 2018 Show. This will be another exceptional show, put together and staffed by great people.

I would also like to talk about springtime safety. In the pursuit of our passion, we have to go where the rocks are. In this part of the country, that is mostly waterways or gravel pits. When we are in waterways during these rainy spring months, let's be mindful of rising water in the creeks and on the roads. When creeking, always watch up river. If heavy rain starts, get out and get out now. While driving, if you see wa-

ter flowing across the road, turn around; don't drown.

Lastly, we will soon be seeing snakes, which come out every spring. The insects are already out and biting. Don't let any of these things keep you home. Get out there and find some rocks! Just stay mindful, be prepared, and stay safe.

Charles

Recipes of the Month

The first two recipes are from Emily Fox-Hill. Diana Polle-reuter sent in the third.

Potato Yeast Bread

- 1 pint (2 cups) milk, scalded\*
1 stick margarine or butter
Add margarine to scalded milk and cool.
2 packages yeast
1/4 cup warm water
Soften yeast in water and mix well.
2 eggs, beaten
1 1/4 cup of mashed potatoes, cooled
1/3 cup sugar
Add to yeast mixture and mix well.
1/2 teaspoon soda
1/2 teaspoon baking power
3 teaspoons salt
7 cups flour, sifted
Sift all dry ingredients together.

Add milk mixture to yeast and potato mixture and beat. Add flour to this mixture, one or two cups at a time, mixing well after each addition. Let rise until dough has doubled in bulk. Knead on floured board for 10 minutes.

Fold in additional flour (approximately 1 cup) to make a dough that is not sticky. Divide into thirds for 9" x 5" pans and allow to rise in floured bread pans, or use five 8" x 4" pans. Bake at 350° for 30 minutes until dark gold.

\*To scald milk, cook until a skim forms on top, but don't boil.

Hershey Bar Toffee

Line cookie sheet with buttered foil.

- 1/2 pound butter (good grade of butter, i. e., Land of Lakes, etc.; not margarine)
1 cup sugar
1/4 to 1/2 cups sliced or chopped almonds
4 almond Hershey bars

Place half of the almonds on the foil. Break two Hershey bars on top of the almonds. Break other bars and set aside. Put sugar and butter in cold pan. Place on high heat and bring to a boil, stirring constantly, approximately 5 minutes until mixture is caramel colored.

Immediately pour on bars and cover with remaining bars and nuts. Refrigerate until hard. Break into pieces.

The crock pot is great to come home to after a hard day of fun rockhounding with the club.

Mexican street tacos: one pork butt or equivalent, one jar green tomatillo sauce. Low for 6-8 hours. Shred with forks. Serve with tortillas, cilantro, chopped onion, fresh lime wedges. Cabbage salad made the day before pairs well for the veggie.

**Fabulous Tennessee Fossils**

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

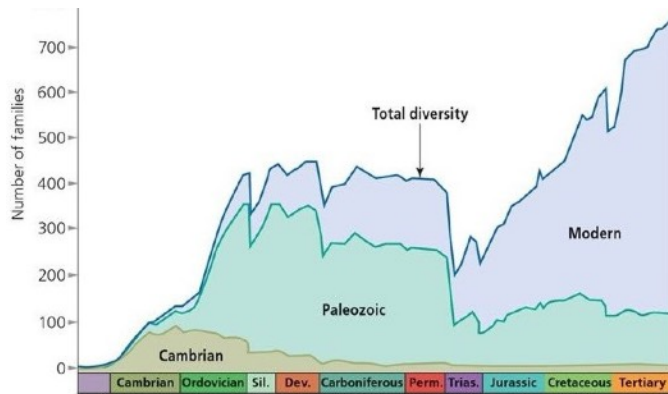
**FTF 38**

**Marine Evolutionary Faunas Part 2: Tennessee EF**



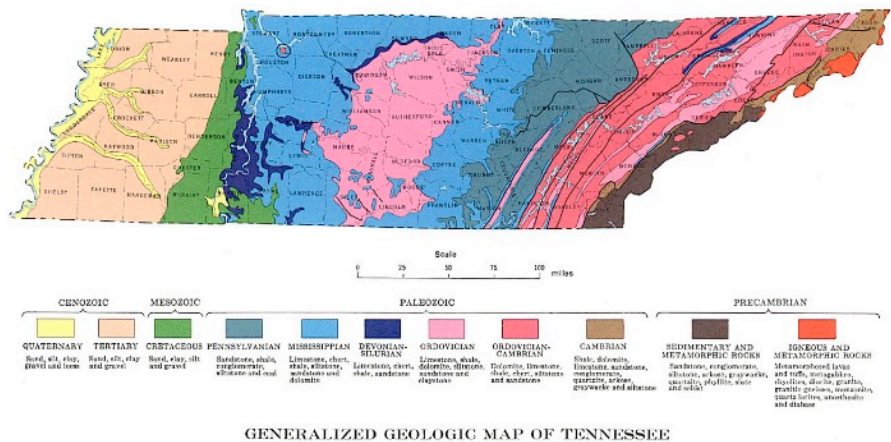
Last article, I explained the late Jack Sepkoski's "Evolutionary Faunas" concept that has been so important to paleontology unraveling the patterns of extinction and origination of life on Earth (EF, Fig. 1). Essentially, we can subdivide the overall develop of marine life during most of the last 700 million years (the Neoproterozoic and Phanerozoic eons) into three (four using later modifications after Sepkoski's death) evolutionary faunas that all originated together near the Cambrian Period, and diversified through time with increasing diversity, but succeeded one another as world dominants only after extinction decimated the previous group. I asserted that the patterns of marine biotic diversity that are so prevalent in the Sepkoski's EF to organize our own personal (and university) fossil collections so that they are not only aesthetically pleasing, but also reflect the three grand divisions of Tennessee visible in our state flag.

First, we need to take a look at the Tennessee geologic map (Fig. 2) and understand how it is organized. Notice that Tennessee can be divided into its typical three "grand divisions" that are repre-



**Figure 1.** The Jack Sepkoski Marine Evolutionary Fauna diagram (modified from [https://earthstep-files.wordpress.com/2016/06/f2o\\_1.png](https://earthstep-files.wordpress.com/2016/06/f2o_1.png)). Refer to last month's article for more detailed explanation of the diagram.

sented by the three stars in the Tennessee flag: east, middle and west. The boundaries between each division are marked by geological features (e.g. faults and rivers). Notice that the colors and color pattern shapes for each division are somewhat different, with West Tennessee being the most different from the other two. On a geologic map, color represents the geologic age of rock or sediment, and to some degree the lithology. The shape of the color patterns are clues to the geologic structures and deformation history of an area (basin, dome, anticline, etc.). Tennessee



**Figure 2.** Geologic map of Tennessee. Colors indicated geologic age of strata and color shapes result from geologic structures. Progressively older geologic formations are exposed by erosion. (Map courtesy of Tennessee Geological Survey).

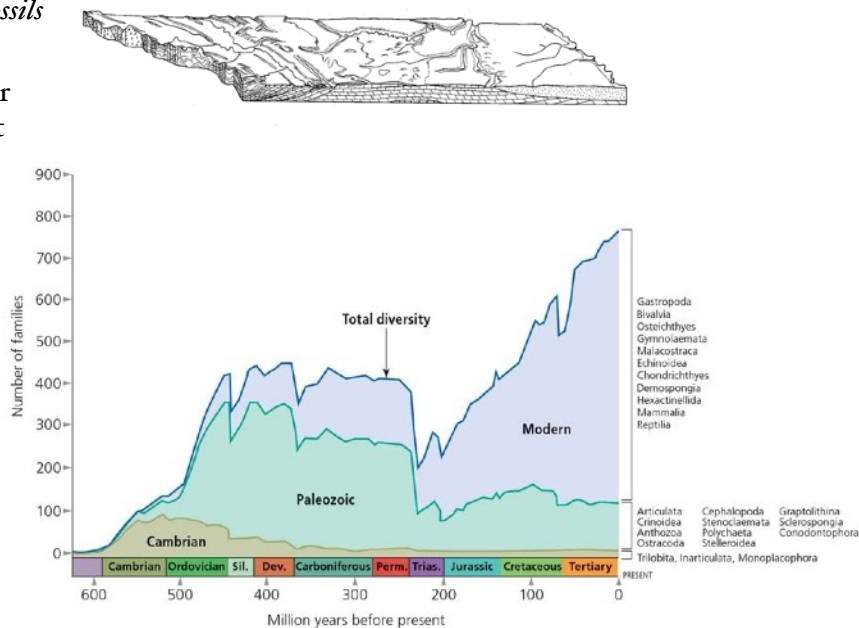
sented by the three stars in the Tennessee flag: east, middle and west. The boundaries between each division are marked by geological features (e.g. faults and

thus shows a continuity of colors, but a progressive change from east to west across the state with older rocks to the east.

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*Fabulous Tennessee Fossils*  
Continued from P. 5

Our first star, or grand division, East Tennessee, is dominated by faulted and folded very ancient rocks (Neoproterozoic) found within the Smoky Mountains to the farthest east in the state. As we proceed west, the pattern changes into the northeast-southwest oriented striped pattern of the valley and ridge area, exposing rocks of Paleozoic age (pinks to blues; Ordovician and Mississippian). The Cumberland Plateau is dominated by latest Paleozoic age rocks, except where the Sequatchie valley has sliced a deep valley to reveal the earlier Paleozoic, pinks to blues again, that underlie the tableland. Middle Tennessee is the next star and is overwhelming pink (Ordovician) with a surrounding blue (Mississippian) Highland Rim. Our west star grand division is again striped, but the color is different (green-taupe; Cretaceous to Neogene), with wider stripes than in the east, that run nearly north-south. Note the general overall trend is for rocks to be oldest in the far eastern part of Tennessee and get progressively younger to the west, with the youngest strata occurring



**Figure 3.** Relationship of Sepkoski Evolutionary Faunas to Tennessee’s three grand divisions and geology. The Tennessee map is reversed from regular view with East Tennessee to the left and West Tennessee to the right (map made by Richard Stearns). Relative ages of both the map and the diagram increase from left to right (compare with Figure 2). Note that fossil occurrence in Tennessee thus parallels the pattern represented by Sepkoski’s EF diagram show below the map.

locally on the Mississippi River floodplain and slightly older Chickasaw Bluffs.

The topography of Tennessee cannot be overlooked and influences the ages of rocks we see. A basic tenet in geology is the Principle of Superposition, which states that in a normal, undisturbed sequence of sedimentary strata, the oldest bests will be on the bottom and ages will progressively “young” upwards. Also important is the fact that erosion removes top layers of strata to expose what is beneath (thus erosion exposes progressively older rocks – the deeper the erosion level, often the older the rocks). Of course this general trend is altered by

mountain building events, like in the Smokies, but holds pretty true for the Cumberland Plateau westward across the rest of Tennessee.

Now, back to the Sepkoski EF diagram, which also progresses from older to younger. If we reverse the geologic map of Tennessee (Figure 3), we can see that, in general, the age distribution (and hence enclosed fossil distribution) of Tennessee rocks and fossils roughly matches the progression of the evolutionary faunas in the EF

diagram. So, the overall geologic history of Tennessee from east to west chronicles the history of marine life from east to west across Tennessee, too! Interestingly enough, this same trend works for land plants and land animals, as well as for marine fauna. In the next FTF I will summarize the general patterns of the distribution of Tennessee fossils by physiographic province and grand division. Combined with the information from the Sepkoski EF, this makes a great way to organize your fossil collection and truly represents the history of life on Earth, Tennessee style.



**Show Business**

**2018 Memphis Mineral, Fossil, and Jewelry Show  
Who's Coming to the Show**

<p><u>DEALERS</u></p> <ol style="list-style-type: none"> <li>1. Stones and Bones-North Carolina</li> <li>2. Arkansas Gems &amp; Bead-Arkansas</li> <li>3. McNeil Minerals-Mississippi</li> <li>4. Volunteer Gems-Florida</li> <li>5. JR Rocks-South Carolina</li> <li>6. Javed's-Georgia</li> <li>7. Rock Barrel-Tennessee</li> <li>8. Eagle's Nest-Mississippi</li> <li>9. Geode Gallery-Illinois</li> <li>10. Fantastic Stones-Louisiana</li> <li>11. Nature's Bazaar-Georgia</li> <li>12. Custom Creations-Mississippi</li> <li>13. Blue Duck Gem and Minerals-Tennessee</li> <li>14. Amber America-New York</li> <li>15. Imperial Gem-Georgia</li> <li>16. Fall Creek-Missouri</li> <li>17. Duncan Lapidary Shop-Tennessee</li> <li>18. Super Bead Mart-Texas</li> <li>19. Old Fairview Store-Texas</li> <li>20. Planetary Parts-Georgia</li> <li>21. Designer Cabs-Missouri</li> <li>22. LK Enterprise-Missouri</li> <li>23. EKS-Arkansas</li> <li>24. Earthcrafts-Tennessee</li> <li>25. Caveny Creations-South Carolina</li> <li>26. MS Enterprises-Alabama</li> <li>27. Db Opal-Wisconsin</li> <li>28. Boxed Rocks-Arkansas</li> <li>29. Atomic Perfection-Colorado</li> <li>30. John Be Crystals-Arkansas</li> </ol>	<p><u>DEMONSTRATIONS and DEMONSTRATORS</u></p> <ol style="list-style-type: none"> <li>1. Mike Baldwin-fluorescent minerals</li> <li>2. Sherri Baldwin-fossil cleaning and prep</li> <li>3. Deedee Goossens-Crystals</li> <li>4. Cornelia McDaniel-earrings-Make it and Take it</li> <li>5. Charles Hill.-gemstone spheres</li> <li>6. Mildred Schiff-wire wrapping</li> </ol> <p><u>EXHIBITS and EXHIBITORS</u></p> <ol style="list-style-type: none"> <li>1. Delta State University</li> <li>2. University of Mississippi</li> <li>3. University of Memphis</li> <li>4. Central Arkansas Gem, Mineral and Geology Society</li> <li>5. C. H. Nash Museum at Chucalissa</li> <li>6. North Mississippi Gem and Mineral Society</li> <li>7. Memphis Stone and Gravel Company</li> <li>8. Nonconnah Conservancy</li> <li>9. Bill Prior, Arkansas state geologist</li> <li>10. 901Rocks</li> <li>11. The MAGS Collection:             <ul style="list-style-type: none"> <li>• The Frank Theobald Mineral Collection</li> <li>• Rock Food Table with complete menu.</li> <li>• Mineral and Rock Display Boxed Collection</li> </ul> </li> </ol>
<p><u>ROCKZONE- KIDS AREA</u></p> <ol style="list-style-type: none"> <li>1. Gem and Fossils Dig</li> <li>2. Rocks Around the Clock</li> <li>3. Geode Bowling</li> </ol>	<p><u>SPECIAL EVENTS</u></p> <ol style="list-style-type: none"> <li>1. Geode cracking, grab bags, T-shirts</li> <li>2. Door prizes every hour or more</li> <li>3. Grand Door Prize</li> <li>4. Show dinner</li> </ol>

**Show Hospitality**

*Debbie Schaeffer*

MAGS Show HOSPITALITY HELP NEEDED

We are in need of someone to help with hospitality during the Show weekend and Show Dinner. If you are interested in helping, please contact Debbie Schaeffer for more details. (901) 212-4439 or [dayday91@aol.com](mailto:dayday91@aol.com).

MAGS Show Dinner

The Show dinner will be Friday, April 27. The Show will provide dinner for the vendors and club members. Dinner will include barbecue, beans, slaw, barbecue spaghetti, and rolls. All club members attending are asked to bring either a side dish or dessert AND a case of water or sodas to contribute to the dinner. The water and sodas will be used throughout the weekend for the volunteers and vendors.

Vendor Hospitality Bags

Each year MAGS provides hospitality bags to our Show vendors. Please help us fill the bags by donating individually packaged snacks and fruit. If you would like to contribute you can start bringing these items to the March MAGS meeting. We will be making 40 bags. Any contributions will be greatly appreciated!

We need you to sign up for the Show. See P. 1 for details.



*Continued, P. 8*

# MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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

Show Business

Continued from P. 7

Pre-Show Volunteer Activity		
Date	Activity	Place
March 9	bring canned drinks and water	Membership Meeting
March 17	grab bag packing	Cooper Moving
April 13	bring snacks for vendors	Membership Meeting
April 27	bring a dish to share	Show Dinner



## January Board Minutes

Mike Baldwin

Called to order at 6:30. Present: Charles Hill, W. C. McDaniel, Bob Cooper, Bonnie Cooper, James Butchko, David Clarke, Kim Hill, Matthew Lybanon, Mike Baldwin.

**Secretary:** December minutes distributed earlier via email. Hard copies of the minutes distributed tonight. Minutes approved without revision. January *Rockhound News* printed and mailed.

**Web:** Website ready to be uploaded to our server. W. C. will send Mike a copy of Nina Riding's soon-to-be-published document to be posted on the website, with permission from the author.

**Membership:** One new Member since last Board Meeting. Many current Members have paid 2018 dues. Bonnie and Bob have revised the membership application to make it easier for first time applicants to understand the prorated fees. Discussion followed concerning when most new members join. Consensus: most new memberships occur at the Show or the following month. There will be a drawing at the end of the January meeting to present a new calcite/pyrite specimen to a Member who has paid-up dues.

**Treasurer:** Bonnie distributed copies of the November and December financial statements. Rent has been paid for the next six months. Next week Bonnie will begin getting doc-

*Continued, P. 9*

5th Annual

## Dig It! Gem, Mineral & Fossil Festival

A fun family event

Amqui Station

Madison, TN

Saturday, April 7th, 2018

10 am to 4 pm



**FREE ADMISSION**

Educational Programs throughout the day



Lots of Activities for Children



For More Information and Updates

<http://www.rockhound.org/swap>

Or contact us at:

[swap@rockhound.org](mailto:swap@rockhound.org)

**FREE PARKING**

Rock, mineral, fossils, slabs, rough and gem vendors!

Amqui Station & Visitor Center

303 Madison Street, Madison, TN

Near the Nashville Public Library, Madison Branch





*January Board Minutes* **umentation**  
*Continued from P. 8* together for  
SFMS renewal

and insurance. Discussion followed concerning procedures for renewing our SFMS membership and insurance. The next big event for the treasurer will be filing IRS documents. Report approved with no revisions.

**Editor:** The schedule of programs for 2018 was published in the January newsletter. Matthew has not received any information about 2018 youth programs. Charles will contact Joseph Blodgett to check this.

**Programs:** January—travels to South America and Iceland, presented by the Lybanons and Schaeffers. February: Geology and Fossil Trivial Pursuit, similar to crossword puzzles. March: Treasure Hunting with Lou White. April: MAGS History and preparation for the Show. May: Memphis Metal Museum. June: Mt. Kilimanjaro, presented by Keith Riding. July: Minerals of South Africa with Jimmy McNeil. August: Indoor Rock swap and Picnic. September: Lonnie Looper Fossil Collection with Dr. Nina Baghai-Riding. October: Amber, presented by David Clarke. November: "Make It, Give It, or Take It". December: Annual Holiday Party.

**Field Trips:** January 20 to Parsons TN. Only 2 Members have signed up so far. Jim will send out a reminder to Members tonight. In February we will participate in Chucalissa Volunteer Day. The March/April trip will be to Potosi, MO. W.C. will handle details of the Potosi trip. Orange vests have been purchased.

**Show:** The next planning meeting will be this Monday night. Bob built a case for the Grand Prize. He will bring the Grand Prize to the Show meeting and transfer guardianship to Jim. Matthew notified the Agricenter that MAGS would like to renew our contract for the next three years. Rock donations for Kids Zone have been coming in regularly.

Kim attended the North Mississippi field trip to Nonconnah Creek. She reported that it was a very nice outing. She has several boxes of small plastic containers that were donated to the

club and will bring them to the Friday meeting.

**Old Business:**

- T-shirt: WC found a possible source for vector art on Shutterstock.
- Librarian: Leah cannot fulfill her board position as Librarian. Michael Montgomery was selected by the Board to assume the duties of Librarian until January 2019. Jane Brandon will become the Assistant Librarian. Charles will contact Michael and Jane to confirm that they will accept these appointments.

**New Business:**

- W. C. received a thank-you card from the Ronald McDonald House for MAGS's recent donation.
- During a discussion of holiday gifts for 2018, W. C. stated that he will purchase the gifts in Tucson at the end of this month.
- W. C. will also purchase the grand door prize in Tucson.

Adjourned 7:25.

**January Meeting Minutes**

*Mike Baldwin*

Due to icy roads and wintry weather, the January Membership Meeting was cancelled. Members were notified by email. The website was updated to reflect the cancellation.

**Jewelry Bench Tips** by

*Brad Smith*

MODIFYING PLIERS

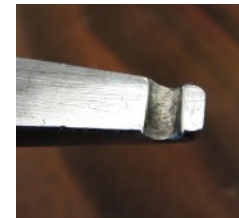


Sometimes a few changes to your tools can make work go faster and improve the quality at the same time. Stock tools need to be polished and can be customized using standard jewelry skills.

Here's an example:

While making a lot of chainmaile, I noticed I was ending up with a few scratched jump rings that required extra cleanup time before the chain could be polished. So I started looking into what I was doing wrong.

Making jump rings and weaving them into chainmaile designs involves a lot of opening and closing of the rings. I typically use two square jaw pliers to do this, one for each hand. The jaws of my pliers were pretty much scratch free because on a new tool I typically relieve any sharp edges, sand away any tool marks on working surfaces and give those areas a quick polish.



That helped but was not the whole problem. While making chain, rings would sometimes slip out of the pliers or slide within the jaws as I was trying to twist them open or closed. I noticed the jaws close at an angle, and gave me the idea of forming a groove at the end of the jaw that would grasp the ring gently without scratching it. Not only have these pliers worked well for chainmaile, but I've found several other problem jobs that this modification solves very nicely.



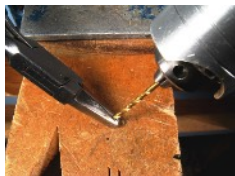
*Continued, P. 10*

*Jewelry Bench Tips* To make up  
*Continued from P. 9* what I needed,

I bought two inexpensive sets of square jaw pliers. My preference is for jaws that are about 3.5-4mm wide. This provides a good fit for the jump rings I use. You need to have enough metal at the tip of the jaws to be able to cut a groove that's deep enough. If your plier tips are too thin, you'll have to cut them back. Locate and mark the position on the jaw where the thickness is about 1.6-2mm.



Cut the tips off with a cutoff wheel or grind them off with a bench grinder. If using a cutoff wheel, be sure to brace and hold both the workpiece and the rotating handpiece securely. If either moves, you will break the abrasive disk. And remember when cutting any metal with a motorized tool, be sure to use good eye protection. A little piece of debris in your eye makes for a bad day.



Now to make the grooves round so they grasp the wire without distorting it, I close the jaws and run a drill through the opening formed by the two rough grooves. I start with a small drill and followed up with a drill just slightly smaller than the wire size I want to grip. In my case that was

14 gauge wire, so I chose a #53 drill.

Finally, the shape of the grooves needs to be refined. I used a coarse, knife edge, silicone polishing wheel on the flexshaft to polish off all marks left by the drill and to round off the outer edges of the groove.



Test for proper fit by laying a jump ring into each groove. In particular, inspect the way the edges of the groove contact the inside of the ring. You may need to widen the groove at this point to avoid the pliers leaving a nick. Do a final polish so the jaws will not scratches as they grip a ring. I used a medium grit, knife edge, silicone polishing wheel but a sewn buff with tripoli or Zam would also work well.

.....  
Learn New Jewelry Skills With  
Brad's How-To-Do-It Books  
[amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith).

It's getting close to Show time. If you were kind enough to take home some of the black tablecloths last year and have not returned them, please bring them to the March 17 grab bag packing or to the April meeting. Thanks so much for getting our tablecloths clean for the 2018 Show.

## Vulcan Field Trip



Another good trip to Vulcan Materials Company in Parsons, Tennessee. Can't wait to go back.  
Thanks,  
Vulcan.

## Druzing In Missouri

*W. C. McDaniel*



- March 24 and 25—Viburnum and Eminence area
- Collecting druzy quartz (abundant), barite, and calcite
- Field trip details available via email or at the March 9 Membership Meeting

## New Archaeology from Israel

*Matthew Lybanon, Editor*

Recent archaeological discoveries in Israel have provided new information about

*Continued, P. 11*

*New Archaeology from Israel* some of our early human ancestors. Scientists from the Israel Antiquities Authority (IAA) and Tel Aviv University excavated a “picnic spot” that may have been frequented by hominids even earlier than *Homo sapiens* (it isn’t known whether they followed the “paleo diet”). And scientists from Tel Aviv University and the University of Haifa may have found evidence of the earliest modern humans outside of Africa.

Archaeologists excavating an ancient river bed in Israel uncovered a vast prehistoric site where, half a million years ago, early humans created a hoard of elaborate flint tools that suggest their cognitive abilities were much closer to our own than previously thought. Along with typical bifacial hand-axes there were flint tools produced using an early form of a different, much more complex technique. Hundreds of thousands of artifacts have emerged since archeologists first stumbled upon the site last year while surveying an area slated to become a new neighborhood in the nearby Arab-Israeli town of Jaljulia.

Since that discovery, in November 2016, the IAA and Tel Aviv University scientists have been conducting a massive salvage excavation in a mad dash to learn as much possible from the site before construction work is greenlighted. Mounds of sediments have been removed over an area of about a hectare, uncovering at least six distinct sub-sites along the once-marshy banks of a stream that flowed through what is today the

West Bank and central Israel. Based on the tools found at the site and early tests on the paleomagnetism of the sediments, the site has been tentatively dated to around half a million years ago, and attributed to *Homo erectus*, the species of hominid most likely to have that inhabited the area then.

*Erectus* was most probably our direct ancestor, and is believed to have been the first hominid to leave Africa around 1.8 million years ago and spread through Eurasia. Firmer proof of the timing of the Jaljulia site awaits the results of dating tests for the layers of human habitation using optically stimulated luminescence, a method that can tell how long quartz grains have been out of sunlight (i. e., when they were buried).

Previous discoveries in Israel caused paleoanthropologists to think that modern humans migrated from Africa as early as the beginning of the Late Pleistocene, 120,000 years ago. But a more recent discovery in Israel suggests that early modern humans were already present outside of Africa more than 55,000 years earlier. During excavations of sediments at Mount Carmel, Israel, researchers found a fossil of a maxilla and associated dentition at Misliya Cave, dated to 177,000 to

194,000 years ago, which suggests that *Homo sapiens* left Africa earlier than previously thought.

“This finding completely changes our view on modern human dispersal and the history of modern human evolution,” said Prof. Israel Hershkovitz of Tel Aviv University Sackler Faculty of Medicine’s department of anatomy and anthropology. Hershkovitz led an international team of anthropologists that included Prof. Mina Weinstein-Evron of the University of Haifa’s Zinman Institute of Archeology, who discovered the ancient adult upper jawbone at one of the prehistoric cave sites in the area.

The fossil evidence lends support to genetic studies that suggested modern humans moved from Africa far earlier than had been suspected. The Middle East was a major corridor for hominin migrations. The discovery suggests an earlier demographic replacement, or genetic admixture, with local populations than previously thought.

“All of the anatomical details in the Misliya fossil are fully consistent with modern humans, but some features resemble those found in the remains of Neanderthals and other human groups,” Hershkovitz said. “This suggests that while Africa was the origin of our species, some of our traits must have evolved, or been acquired, outside of Africa.”

**Ref:** *Israel Hershkovitz et al., The earliest modern humans outside Africa, Science 26 Jan 2018: Vol. 359, Issue 6374, pp. 456-459 DOI: 10.1126/science.aap8369*





# MAGS At A Glance

## March 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
25	26	27	28	1 Board Meeting, 6:30 pm, St. Francis Hospital	2	3
4	5	6	7	8	9 Membership Meeting, 7:00 pm, "South America" and "Iceland"	10 DMC Field Trip, Clarksville, GA
11	12	13	14	15	16	17 Grab bag packing for Show (and return tablecloths), storage shed, 10:00 A. M.
18	19	20	21	22	23	24 MAGS field trip, Missouri
25 MAGS field trip, Missouri	26	27	28	29	30	31

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