

Volume 67 ◊ Number 03 ◊ March 2021 ◊ A monthly newsletter for and by the members of MAGS

March Program Mike Baldwin

WHO ARE THE NATIVE AMERICANS AND WHERE DID THEY ORIGINATE?



Early Native Americans lived a nomadic life.

Before the first European explorers set foot on the shores of North and South America, there were people here. It is suggested that man appeared in Asia around 35,000 years ago. Further evidence

suggests that man arrived in North America around 14,000 years ago. Recently, new evidence has surfaced. We will talk about that and much, much more during the March MAGS Zoom meeting.

More pictures on P. 3

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WORKING IN THE SALT MINE

Thanks, James Johnson, for tipping off **MAGS Rockhound News** to this fascinating site.

In a recent survey, citizens of Kraków, Poland, voted the Wieliczka Salt Mine as their favorite thing about Kraków. And it isn't even in Kraków. It's in Wieliczka, a town 15 km away. The mine is a UNESCO World Heritage Site that has been popular for centuries and has been visited by famous people, from Nicolaus Copernicus and Johann Wolfgang von Goethe to Pope John Paul II and former U. S. president Bill Clinton.

The history of Wieliczka dates back to the Middle Ages, when it was proudly

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

All 2021 DMC field trips have been cancelled and rescheduled to 2022. The next MAGS-sponsored trip is currently scheduled for October 2024.

Links to Federation News

→ AFMS: <u>www.amfed.org/afms_news.htm</u>

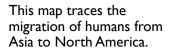
→ SFMS: www.amfed.org/sfms/

→ DMC: www.amfed.org/sfms/ dmc/dmc.htm

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March Program Continued from P. 1







Many Native Americans built their homes behind defensive walls.



Relics of the Native Americans.

President's MessageUpcoming MAGS events

- **1.** March 12: MAGS Zoom Membership meeting.
- 2. March 20: MAGS field trip to Blue Springs, Mississippi—fossil site.
- **3.** March 27/28: Fossil Fest at the Pink Palace.
- 4. April and beyond: As the weather improves and hopefully more meeting options we hope to get you busy.

W. C.

Field Trips

Jim Butchko, Field Trip Chair

Well, MAGSters, it looks like our long hard winter is over and it's about time to get out and dig. We'll start off at 10:00 A. M., March 20, 2021, at the fossil site near Blue Springs Mississippi. Cretaceous fossils like exogyra are easily found on the surface with just a little scratching and scraping. It's a fairly easy trip with plenty of parking and things to find just 100 yards from your car. So you can bring the kids, dogs on leashes, and even the old folks.

This is a MAGS-sponsored trip so is only available to Members. We will not require masks but I will be wearing one when I am near you and would appreciate the same. If you want to go you have to sign up: Call, text, or email j.butchko@yahoo.com, (901) 921-3096.

In April we may be able to go to a location about 150 miles east of Memphis to look for selenite but that is still pending. Let me know of other places you'd like to go and we'll start planning the rest of the year.

Roadcut

W. C. McDaniel

Several years ago I published an occasional column titled "Roadcut" The columns usually focused on a single topic. I am resuming the columns with the March newsletter.

The "MAGS AGATE"

Rarely have I met a MAGS Member who does not like agates and collecting them, especially on field trips. The most prevalent and popular agate will be explored by Roadcut.

- Names—The agate has been and still is called by many names, such as banded agate, fortification agate, river agate, Crowley Ridge agate, Mississippi agate, Louisiana agate, and now for this "Roadcut," MAGS AGATE. I have also referred it to as the Rodney Dangerfield Agate as it does not get much respect in the agate world.
- How did the agate make it into your collection bucket (beyond the obvious)? Located in marine sedimentary rocks the agate begins its long and meandering journey during the Paleozoic era between 250-550 million years ago. Beginning at the Nashville Dome of Tennessee the agates were eroded from their northern source and carried by streams of Pliocene and Pleistocene ages into the Midsouth and beyond. I will leave the nuances of those times to geologists.
- Locations—The agates appear to begin in Southern Missouri and extend down to southern Louisiana, appearing in all the states that have

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Working In The Salt Mine named Continued from P. 1 the Magnum Sal

—the Great Salt. In the 13th century it was known as the largest source of salt in Poland, and over the years it became crucial for the country's economy.

At the turn of the 11th and 12th centuries, when the salt springs began to weaken and disappear, an active search for brine was started through the construction of wells. In the 13th century, while one of the saline wells was being dug, the first lumps of rock salt were accidentally found. The discovery made it possible to obtain salt by mining.

Casimir III is the only Polish king who was called "Great." It is said about him that he found a Poland made of wood and left it made of stone. Rarer mention is made of the fact that he could not have done this if it had not been for the revenue from the salt extraction, which then constituted as much as one-third of the royal treasury's income.

Over the centuries, the size of the mine, and salt production, grew. Eventually, the mine grew to nine levels, with a maximum depth of 327 m. In 1964, the mining of rock salt in Wieliczka was completely discontinued in favor of the industrial production of evaporated salt using the wet mining method. Shortly before World War II, a system of leaching—obtaining brine by dissolving salt rocks with water—was developed. Though mining stopped, the awareness of the cultural significance of the site was growing. Since 1976, the underground



Underground Lake in the salt mine of Wieliczka, Poland.

Wieliczka has been listed in the register of monuments, and in 1994 it was declared a national Historic Monument by the President of the Republic of Poland.

The Wieliczka Salt Mine has a unique geological structure, not found anywhere else in the world. About 13.6 million years ago, the level of the oceans was much higher than it is today and much of today's Europe was underwater. Extending along the present-day arc of the Carpathian Mountains from Silesia in Poland to the Iron Gate in Romania was the Miocene Sea. As a result of the cooling of the climate, the level of oceans decreased by about 60 m and in the Carpathian Foredeep, between the Carpathian Mountains and the uplands of central Poland, a closed reservoir with very high salinity was created. Rock mass movements and subsidence caused the seabed to drop steadily.

After the sedimentation of rock salts, there were strong rock mass movements associated with the uplifting of the Carpathians. The tectonic activity of the Carpathian Mountains led to the folding of salt layers, separating them from the ground and shifting them at least a dozen km to the



St. Klinga's Chapel in the Wieliczka Salt Mine (all carved from salt).

north. As a result, the salts were lifted up to the surface, which enabled their early discovery and exploitation.

The Carpathians, acting as a large bulldozer moving rock masses, formed the deposit into a very unusual structure. It consists of two parts: the upper lump deposit and the lower bedded deposit. As the name suggests, the lump deposit is made up of lumps of rock salt, which are characterized by a variety of sizes, from the size of a basketball to huge blocks with a volume of up to 100,000 m³.

The bedded deposit that makes up the lower part of the deposit was folded and formed in the form of tectonic scales collapsing to the south. The salt layers that make up this part of the deposit are different from each other. The most valuable among them is the so-called fore-shaft salt deposit, exploited since the first decade of the 16th century.

Rock salt is a common name for halite, a mineral with the chemical formula NaCl. It is a rock which is characterized by an excellent cleavage, good heat conductivity, and easy solubility in water. The purest types of rock salt are transparent or almost transparent. However, the rocks with the admixture

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Working In The Salt Mine of claystones take on a green color—and such salt is the most common in the Continued from P. 4 Wieliczka Salt Mine.

Interested readers can find more details at the websites listed below.

Sources

https://www.wieliczka-saltmine.com/individual-tourist/about-the-mine

https://www.insider.com/photos-poland-ancient-wieliczka-salt-mine-and-its-incredible-stories-2020-5#st-kingas-chapel-even-features-a-version-of-leonardo-da-vincis-last-supper-carved-into-a-solid-rock-salt-wall-4

Roadcut the Mississippi Continued from P.3 River within or along their borders. Not sure how far west or east the agates have been found. They can be found in just about any mixture of gravel such as gravel bars/pits, waterways, or playgrounds/parking lots.

• What do they look like? At the

end of your collection day, you look down into your bucket and realize there is a lot of similarity in color, banding, and size/shapes, yet each one has its own distinct features. The colors are primarily brownish, creamy, tans, gray, shades of yellow/orange, and on a good day, red. Also, the intensity and richness of the

colors will vary. The banding is what you are looking for. The banding pattern is usually small, narrowly spaced, and concentric. The varying colors and intensity will provide some distinct contrast. Size will vary although estimate most are in 3–8-ounce size. They are more flat than round.

Next "Roadcut": Fossil Chert



From Nonconnah Creek, Memphis

Roadcut



From Nonconnah Creek, Memphis



From Crowley Ridge area (about 7 lb.)



Assortment from Memphis area locations

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Fabulous Tennessee Fossils

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

FTF 74

Biotic Interaction Analyses: Leptaena rhomboidalis

This series of essays is devoted to individual fossils from our collections that preserve interesting biotic interactions. The chart to the right lists the taxonomic information for a very common brachiopod that occurs within the Lower Devonian Ross Formation that many MAGS members collect out of in the Vulcan Materials Quarry near Parsons, Tennessee. Leptaena rhomboidalis (Figure 1) is strophomenid brachiopod with a squarish, or "semiquadrate", outline. It has the flattened shell growth form typical of most strophomenids, like the Leptostrophia from the last essay, which adapted it for living on relatively soft muddy substrates without sinking ("snowshoe effect"). L rhomboidalis is interpreted to be a stationary, epifaunal, suspension feeder. One major difference in this genus from Leptostophia is that Leptaena is also "geniculate", meaning the shell turns sharply upward at some point of the shell growth so that the margin of the shell grows upward at nearly a right-angel to the shell surface and away from the sediment surface. Consequently, rather than being completely epifaunal, L rhomboidalis has been described as being semi-infaunal or semi-epifaunal and was able to nestle into the substrate as it grew. This change in shell growth direction presumably coincides with the onset of maturity in this species. Alternatively, the change

Kingdom Animalia
Phylum Brachiopoda
Class Strophomenata
Order Strophomenida
Family Rafinesquinidae
Genus *Leptaena* Dalman, 1828 *L. rhomboidalis* (Whalenberg, 1818)

in growth direction may be triggered by the need to keep the commissure margin above the sediment as the size of the shell increases and it becomes heavier. The commissure is the part of the shell that opens and through with food and oxygen-rich waters enter the shell for filtering in the brachiopod's lophophore structure. analysis.

At least that has been the conventional wisdom or interpretation of the paleoautecology of this species. I should point out that there has been some disagreement among professionals in recent years as to which way stromphomenids actually lay and functioned on the seafloor (commissure facing up or commissure facing down). Several research papers looking at Ordovician strophomenids have provided strong arguments that at least some strophomenids defied conventional wisdom and were oriented with their feeding commissures downward into the mud! Does this mean that all strophomenids lived this way and for all geologic systems? Could they live either way? In the case of this particular Leptaena, I think I can infer



that the shell was geniculate downward (into the sediment), not upward, as has been traditionally postulated for most storphomenids, thus providing greater hydrodynamic stability on the seafloor, but requiring the brachiopod to maintain a "mote" around the commissure

"mote" around the commissure for feeding (by exhaling water and blowing away accumulating mud). When I and my fellow graduate students first began studying this fauna, we were convinced that geniculate commissure down was the wrong orientation. It is counterintuitive as you would think the organism would grow to keep its feeding structure above the sediment accumulating on the seafloor, not in the sediment! The specimen I am going to discuss below is one of many that I think supports this new view...at least for one specimen, based upon a biotic interaction analysis.

First, in terms of relationships, *Leptaena* is a host brachiopod with other epibionts or sclerobionts encrusting the shell (Figure 1). Ectoproct (bryozoans) are most commonly found; however, Spirorbis "worms", auloporid corals, and a few other taxa also occur. The taxa of bryozoan is not important to our discussion, but we would have to cut and thin-section the colony for a proper identification. Study Figures 1-3 closely; each shows the same specimen from different

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Fabulous Tennessee Fossils views, so I Continued from P. 6 will discuss each

figure separately.

In Figure 1, the view is downward onto the normally interpreted "upper" surface (pedicle valve) of the host Leptaena as if you were snorkeling over it on the seafloor. Notice there is a thickened bryozoan colony (B) that extends upward on the thin portion of the overlapping "lower" valve (brachial valve) to the commissure lip of the brachiopod, but does not over grow the top and commissure onto the flatter "upper" pedicle valve surface. You can see a distinct separation line (arrow) showing that the commissure maintains a break in the bryozoan. This is the line along which a brachiopod opened its shell, so must have been living at the time of the encrustation and prevented the bryozoan form growing over the commissure lip and onto the "upper" valve to spread its colony and get more surface area (in essence, halting the bryozoan colony's attempt to also practice the snowshoe effect). Clearly the bryozoan colony was growing first upward on the outer geniculate surface of the host shell and away from the muddy seafloor, toward the flatted upper surface of the brachiopod. The brachiopod prevented the continued growth as evidenced by the lack of bryozoan colony on the upper pedicle valve. Consequently, the bryozoan colony adjusted its future growth directly upward and outward to become thickened. We will see in Figure 3 that the bryozoan could only grow upwards off of the shell at this point and not grow encrusting along this upper surface.

Figure 2 depicts the interpreted "lower" brachial valve, which is the valve that many would interpret should have been the valve in the sediment as the animal grew, thus providing a wide growth surface across the sediment to retard sinking. On the right side of the specimen is a wide colony of the same bryozoan as in Figure 1 that has expanded across one-fourth of the valve, with the thickest and most extensive colony growth to the right-lower right and extending around and up the geniculate side of the brachiopod (it connects-up with the rest of the colony seen in Figure 1). Bryozoans can not grow in the sediment; they must be exposed to the water otherwise their filtering mechanism would clog, as would their living chambers. Most paleontologists would use the extensive growth of this colony on the interpreted "lower" surface of the brachiopod to be evidence that this animal died, was flipped over by currents or bioturbation to be hydrodynamically stable (like a low hump on the seafloor), and then the bryozoan encrusted the lower surface, which was now turned upwards into the water column. This would not be a biotic interaction, but an example of using a hard substrate only. But we have already seen from Figure 1 that there is strong evidence that the brachiopod was not dead at the time of the encrustation by the bryozoan. A commensalistic biotic interaction was occurring.

Figure 3 shows the same specimen looking downward from the hinge toward the encrusted outer margin of the shell. A little of the lower valve is visible at the bottom

of the photograph and the pedicle opening is visible in the middle of the hinge line. You can now see the bent geniculated nature of the shell very well; it is the flattened portion above the prominent line near the middle of the specimen with the word commissure on it. The commissure is again visible as a clear line that was not overgrown by the bryozoan (B). Notice the bryozoan colony was, at this point, growing upward and off of the brachiopod, becoming thicker, essentially growing on itself!

This single specimen is important not only because it can be demonstrated that the brachiopod host was alive and functioning at the same time that they bryozoan colony was growing (commensalism), but that the most extensive part of the colony was the earlier part of growth on the "lower" valve that most would have said should be in the sediment. This relationship negates interpreting the shell as a dead substrate and provides strong evidence that leptaenid strophomenids could have had life orientations similar to their ancestral stock groups. Without seeing that the host brachiopod was alive and interacted with the bryozoan, the opposite orientation indeed would have otherwise been the most parsimonious interpretation of life orientation for this specimen. Do other interpretations exist? Is there a way for this relationship to actually support the traditional view of geniculate-up? The only way would be for the Leptaena to only have one part of the shell in the sediment (the side that the bryozoan encrusted) throughout its later life and Continued. P. 8

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Fabulous Tennessee Fossils that the bryozoan actually grew in the overhang of the brachiopod's valve, like grow-Continued from P. 7 ing under a ledge. Possible for sure, but not parsimonious. So, this specimen demonstrates the importance that (1) biotic interaction analysis can play in paleoecology

and (2) that often one single specimen can be critical to fully understanding an ancient world. Each and every single fossil deserved saving for study!

Figure 1. Leptaena rhomboidalis "upper" pedicle valve view. The geniculate portion is to the outside of the shell and is turned upward to the viewer. B = bryozoan epibiont encrusting the lower brachial valve and growing up the geniculate margin to the commissure (the line that occurs under the "C" in the word commissure). The prominent bump area at the top of the specimen is the "beak" where the pedicle opening would occur and is the hinge along which the shell opens and closes. This orientation is the "traditional" orientation for living Leptaena on the seafloor. Notice there is a



distinct break or line at the commissure (arrow), indicating that the brachiopod halted the bryozoan from overgrowing its commissure by opening and closing the shell. This indicates that (I) the relationship between the two organisms is symbiotic and probably commensalistic. (UT Martin Paleontology Collection; Photo by MAG, centimeter scale in all three figures).



Figure 2. Leptaena rhomboidalis "lower" brachial valve view. The middle of the brachiopod is clearly raised upward and the lower part of the photograph is the downturned geniculate out margin. In the postulated newer interpretation of stropho-menid orientation, this would be the upper surface exposed to the water column, but it places the commissure down into the sediment. Notice the extensive bryozoan colony, the same one as in Figure 1, extending across the surface, meaning it had to be exposed to water during this growth time. Notice the colony is confined to the lower right of the specimen only and the colony appears to be eroded or broken on the left side of the colony, hence is incomplete.

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Fabulous Tennessee Fossils Continued from P. 8

Figure 3. View looking from the hinge downward across the "upper" valve to the upturned geniculate margin of that valve. The geniculation is almost a 90° turn, which begins at the prominent dark line that lightly curves across the middle of the shell. The bryozoan colony (B) is visible growing upward from the geniculated "lower" valve and the distinct commis-



sure line break is labeled. This is late-stage colony growth.

MAGS Shelter-In-Place Survival Kit

Editor's Note: Kathy Baker sent in recommendations for a book, a TV series, and a YouTube video (first three listed). Melissa Koontz also sent a TV series recommendation Thanks, ladies.

Book Fiction: *Dragon Teeth* by Michael Crichton

The novel tells the fictionalized account of historic 19th century Bone wars, a race between two paleontologists to unearth and claim dinosaur bones.

Amazon BBC Video series:

Detectorists

A comedy series about a metal detector club in Britain.

YouTube: "Mudlarking on the River Thames"

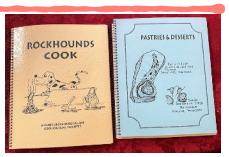
A mudlark is someone who scavenges in river mud for items of value—especially good on the Thames River because the items can be up to 2,000 years old. They get a permit to scavenge (not dig).

Some of the items found are pottery, coins, relics. This river was the major route and lots of things were lost or discarded.

My (Melissa) television recommendation is the crime drama television series, *Better Call Saul*. So far there are five seasons. It is a story following the transformation of a struggling lawyer, Jimmy McGill. He is very charismatic and creative; however, he struggles to maintain a respectable practice. The story takes place primarily in Albuquerque, New Mexico. It has received recognition for its writing, characters, acting, direction, and cinematography.

Adult Programs

Don't miss Mike Baldwin's presentation on March 12 (see P. 1). April's program is still TBD. In May, look for a presentation by Dr. Michael Gibson, Director UT Martin Coon Creek Science Center, on what's going on at Coon Creek.



Tostadas with Tofu

(Melissa Koontz)

Ingredients:

- Tostada Shells:
- ▶ 6 corn tortillas
- ▶ Salt
- Cooking spray
- Tofu:
- ▶ 2 tablespoons olive oil
- ▶ ½ diced yellow onion
- ▶ 2 minced garlic cloves
- ▶ 1 medium red bell pepper, seeds removed and diced
- ▶ 12 ounce firm tofu drained, pat dry then cut into ½ inch cubes
- ▶ 1 teaspoon chili powder
- ★½ teaspoon ground cumin (

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MAGS Cookbook Continued from P. 9

- ▶ Salt and pepper to your taste
- ▶ 1 lime, juiced
- ▶ ¼ cup chopped fresh cilantro
- Garnish:
- Grape tomatoes cut in half
- ▶ Avocado diced
- ▶ Fresh cilantro chopped
- ▶ Lime juice

Instructions:

- I.) First, make the baked tostada shells. Preheat the oven to 400°F. Spray each side of the corn tortillas with cooking spray. Season with salt. Place tortillas on a large baking sheet. Bake until tostadas are lightly browned and crisp on one side (3-5 minutes). Remove from the oven then flip the tortillas. Place back in the oven and cook until lightly browned and crisp on the other side, about 3-5 minutes. Set aside.
- 2.) Pour olive oil into a large heavy bottom skillet then place over medium high heat. Add onion, cooking until tender (5 minutes). Stir in the garlic. Cook for 2 minutes. Stir in the red pepper. Cook for 3-4 minutes.
- 3.) Add tofu. Season with chili powder, cumin, salt, and pepper, to your taste. Squeeze fresh lime juice over tofu. Cook until tofu is brown on each side, about 5 minutes. Stir in fresh cilantro.
- 4.) Place tofu mixture on top of a crisp tostada shell. Garnish with tomatoes, avocado, cilantro, lime juice-if desired.
- 5.) Add your favorite toppings to the tostadas, such as cheese, black beans, salsa, sour cream, and hot sauce.

Mini Geode Cupcakes



Make your favorite minimuffins recipe. When the muffins are cool, frost with your favorite buttercream frosting.

To make geode toppers you will need:

- ▶ Plastic paint palettes
- ▶ 12 oz. candy melts in bright white
- A small microwaveable bowl and spoon for mixing
- ▶ Rock candy in any color
- Sugar sprinkles in a lighter shade of the same color you're using for rock candy, and white sprinkles
- ▶ Edible gold dust
- ▶ A small plate
- ▶ Wax paper

Step 1: Melt The Candy Melts (reserve about ½ of the candy for Step 5)

Step 2: Fill The Molds (plastic paint palettes) about half full, making sure the sides of each cavity are covered (see picture).

Step 3: Place The Rock Candies and Sugar Sprinkles—Place a few rock candies in the center of each cavity and press them in so that they stick into the candy melts. Next, place a lighter color of sugar sprinkles on top of the rock candies to fill in the gaps, making sure you leave enough room for a white sprinkled edge. Finally, place the white sugar

sprinkles around the edge of each geode.



Step 4: Refrigerate. Leave in the refrigerator for five minutes, after which they should

be sturdy and release easily from the molds.

Step 5: Create The Sprinkled Edges—Melt the additional ¼ of the candy melts in the microwave according to the package instructions. Pour the gold dust onto a small plate. One by one, carefully dip the edges of each geode into the melted candy melts, then roll the edges in the gold dust. Set the finished geodes onto wax paper and let them set up at room temperature for 10 minutes before standing them on top of your cupcakes (see picture).

January Board Minutes

Mike Coulson

Zoom meeting called to order at 6:30. Present: W. C. McDaniel, Mike Baldwin, Carol Lybanon, Matthew Lybanon, Bonnie Cooper, Bob Cooper, Dave Clarke, James Butchko, Nannett McDougal-Dykes,, Mike Coulson, Melissa Koontz Jane Coop.

Old Business: Planning options for 2021 Show.

New Business: Board will review, meet, and give input on 2021 Show options.

Secretary: December minutes were distributed via email during the meeting. Minutes were approved.

Treasurer: Club finance report was presented to and approved by the Board.

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January Board Minutes Treasurer's Continued from P. 10 report for December:

Expenses that are coming up are:

- SFMS RENEWAL—The SFMS website still hasn't posted the 2021 SFMS Club Membership Renewal Form. Sent an email to Jason Hamilton who handled the 2019 renewals. No reply yet. Referred this to W. C.
- SFMS CLUB INSURANCE— Once the SFMS renewal problem is resolved, will do the 2021 club insurance.
- SFMS SHOW INSUR-ANCE—Once the SFMS renewal problem is resolved and we decide about the 2021 Show, then can work on this. W. C. sent an email to question if our 2020 Show insurance fee could be used towards the 2021 Show.
- WEB EXPENSES—Haven't received any bills for the AT&T web hosting and Earthlink domain name. These bills are mailed to Mike Baldwin who turns them in for reimbursement.
- CHURCH RENT—Paid the church for the January-March rental of the storage room. This payment used up our remaining running credit balance.
- FILE 2020 TAXES—Haven't looked to see if the e-file forms are online yet. The filing deadline is May.

Membership: No renewals or new Members. The January newsletter has been mailed out.

Field Trips: Board discussed several options for local field trips beginning in March. Possibly Melba Cole's site, Blue Springs. Jim will evaluate and get back with recommendations.

Adult Programs: Membership meeting on Zoom. W. C. will send out the link and information on the meeting. Members can watch even if they don't have a camera on their comput-

er. Upcoming Zoom presentations: January 8—Stacy Walbridge, collecting in the Sonoran Desert. February—Dr. William Jackson, Rocky Mountains. March—Mike Baldwin, Native American Anthropology. April—Mike Gibson, Coon Creek.

Junior Programs: On hold until further notice. No school talks or anything like that.

Library: Received 14 books on mining that will be added to the library.

Rock Swaps: None planned.

Editor: Everything comes to Matthew by email so send him any photos, reports, or stories. W. C. is working on an article

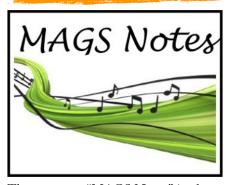
Web: Website has been updated for January.

Adjourned 7:15.

January Meeting Minutes

Mike Coulson

(Mike Coulson not present.) Stacy Walbridge presented a Zoom talk about collecting in the Sonoran Desert.



There was no "MAGS Notes" in the February issue due to space limitations, so this month we list both February and March birthdays.

🎵 Meetings

All will be Zoom meetings.

March 12: Mike Baldwin, "Who Are the Native Americans and Where Did They Originate?" April 9: TBD

May 14: Michael Gibson, "Coon Creek"

🎵 Field Trips

March 20: Blue Springs
April & May: TBD

∏ February Birthdays

- 2 Peggy Davis
- 3 Bill Price
- 4 Anne Pinkerton Brooklyn Coulson
- 5 Kevin Lasater
- 9 Vincent Mayer
- 11 Sandy Childress
- 12 Louis White
- 14 Aaron Van Alstine
- 15 Willow Wilson
- 17 Gary Sherman
- 19 David Vaughn
- 20 Kim Hill
- 23 Dominic Mitchell
- 24 Dakota Smith
 - Katie Waddell
- 25 Cecilia Hemme
- 26 Sara Carter Harrison Parks
- 27 Leigh Scott
- 28 Joy Ashurst

March Birthdays

- Debi Stanford
- 5 Walter Davis

3

- 7 Payne Wilson
- 11 Nancy Folden
- 13 Deborah McGraw
- 14 Danny Baker
- 15 Kay MacLaughlin
- 17 Bob Cooper
- 18 Laura Brem
- 23 Aubrey Smith
- 30 Jim Collins
- Hisami McNeil
- 31 Hunter Hill

MAGS Rockhound News $\, \Diamond \,$ A monthly newsletter for and by the members of MAGS

MAGS At A Glance March 2021

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	1	2	3	Zoom Board Meeting, 6:30 pm	5	6
7	8	9	10	11	Zoom Membership Meeting, 7:00 pm, "Who Are the Native Americans and Where Did They Originate?"	13
14 Daylight Saving Time begins/Pi Day	15	16	17 Happy ** St. Patrick's Day	18	19	Field Trip, Blue Springs/Spring begins
21	22	23	24	25	26	27 Fossil Fest at Pink Palace/Passover begins
28 Fossil Fest at Pink Palace	29	30	31	1	2	3

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