



ROCK~N~ROSE



NEWSLETTER OF THE EAST TEXAS GEM & MINERAL SOCIETY

PAGE 1

VOLUME 42

TYLER, TEXAS

ISSUE 4

APRIL 2016

Coming Shows, 2016

April 30-May 1, 2016
Waco, TX
Waco G&MS
Extraco Events Center

*SCFMS Convention
May 7-8, 2016
Lubbock, TX
Lubbock Gem & Mineral Soc.
Lubbock Civic Center*

May 21-22, 2016
DeRidder, LA
DeRidder G&MS
Beaugard Parish
Fairgrounds
506 West Drive

May 28-29, 2016
Fort Worth, TX
Fort Worth G&MS
Will Rogers Mem. Center



INSIDE THIS ISSUE

2. April Meeting Minutes
3. Lapidary-Jewelry Group / Cab of the Month
4. Clock is Ticking / Fieldtrip Report
5. Leaverite Poem / Lost & Found
6. Earth's Most Abundant Mineral
7. Abundant Mineral Continued / Congratulations
8. Officers and Directions

MESSAGE FROM THE PRESIDENT

Spring has definitely sprung. Trees putting out their leaves, garden planted, and plenty of outdoor activities. We had a nice turnout for the Arkansas Quartz Crystal field trip. And it looks like a nice Hourglass Selenite Crystal field trip coming up this month.

We are still scheduling Cabochon Making classes. I say classes, because this will be a one on one class for those interested. The classes will be given at Terry Roberts' or my shop, whichever you prefer. Just let either one of us know that you want to take the class, and we will schedule a time and date that fits your schedule.

There was a great turnout for our April club meeting. We had another great program on Amethyst crystals, from a DVD brought by Mike Howe. The May meeting Program will be presented by David Russ. If you are willing to present the program for our June meeting, please contact me.

The SCFMS Convention is May 7th, and is in Lubbock this year. If you are looking for a weekend getaway that involves rocks, you might want to attend the Lubbock Show. Maybe I'll see you there.

I want to take a little time, this month, to talk about safety. Lot of times when operating equipment in our workshops, we remember a lot of the usual safety equipment, eye protection, gloves and apron. And we sure wouldn't stick our hands in a saw blade or grinding wheel. But accidents usually occur when you least expect them. One common safety rule is don't wear loose fitting clothing when working around machinery. This rule is the one that I want to address. You don't want anything loose that might get caught up in moving parts, including long hair. The other day Vicky was running the slab saw, wearing the proper safety equipment, adjusted and started the saw. About that time I asked her to take a look at the slab she just cut. When she turned around to look, her long hair managed to touch the auto feed drive shaft on the saw. You can probably guess what happened next, as it started rolling up on the shaft, and pulling her toward the floor. Luckily I was there to shut the saw off before she was scalped. She had operated this saw for years, without a problem. And this happened when someone was nearby. Please be vigilant when it comes to safety, and be safe out there.

Kinney Polve





APRIL MEETING MINUTES

President, Kinney Polve called the meeting to order on April 4, 2016 at 6:50 p.m.

Kinney welcomed new members: Ryan Royce, Catherine Clark , Victoria Clark, and Clayton Carter.

Two silent auction items were up for bid and door prize tickets were available for 25 cents each.

Minutes from the last meeting were approved as printed in the newsletter. The motion was made by Penny Hawkins and seconded by Jack Shull.

Treasurer, Trish Hamilton gave a treasurer’s report.

Lapidary Arts Group: The group did not meet in March due to illness. The April meeting will be on Saturday the 9th. The 2:00 pm meeting will be an open forum at Terry Roberts workshop. Bring your work for show and tell. Put your name on the sign up sheet if you are interested in learning to make a cab. The time and location will be planned to fit your schedule. Terry can teach one at a time at his workshop. Kinney can teach two at a time at his workshop.

Mineral and Fossil Group: David Russ will lead this group. If this is your interest please place your name on the sign up sheet. He is open to activities that interest the group. One activity will be identification of materials. He will also work with Fred Mahaffey on field trips for collecting.

Field Trip: Chairman, Fred Mahaffey told that the March trip to Arkansas was fun because other people were finding neat crystals. He has planned a trip to Great Salt Plains State Park Oklahoma for April 23rd and 24th to find Rare Hourglass Selenite Crystals. If you would like to join this group contact Fred so he can add you to the headcount and provide you with updates should they occur. If there is time and interest a stop could be made at Lake Texhoma or North Sulfur River on the way back. He also needs to know if you want to carpool or share a hotel room. If you have field trip suggestions let Fred know. **Newsletter:** Fred Mahaffey has “The cab of the month”. It is his first. Who is ready for the challenge to be the next? Susan Burch would like to have your help with articles in the newsletter. Send her news and pictures about your work.

Social Media: Remember to send news and pictures about your work to Kinney Polve. He will put this out for others to see what our club members do.

Announcements: Kinney has pins, patches, and vests if you would like to make a purchase.

· April 16th is the Makers Fair from 9:00 to 5:00 at the Discovery Science Center. If you would like to volunteer Kinney will be happy to add you to the list.

· Brad Martin, Randy Harmon, and Kinney Polve will be helping with the Boy Scout Jamboree at Durango Canyon in Tyler.

· Randy Harmon will be setting up a display at the Lindale Library in May. He would appreciate donations of polished rocks to give away at the display.

Old Business: No old business was brought to our attention.

New Business: A motion was made by Keith Harmon to send a \$500 contribution to the American Federation Scholarship fund. It was seconded by Susan Burch and passed by vote of those attending.

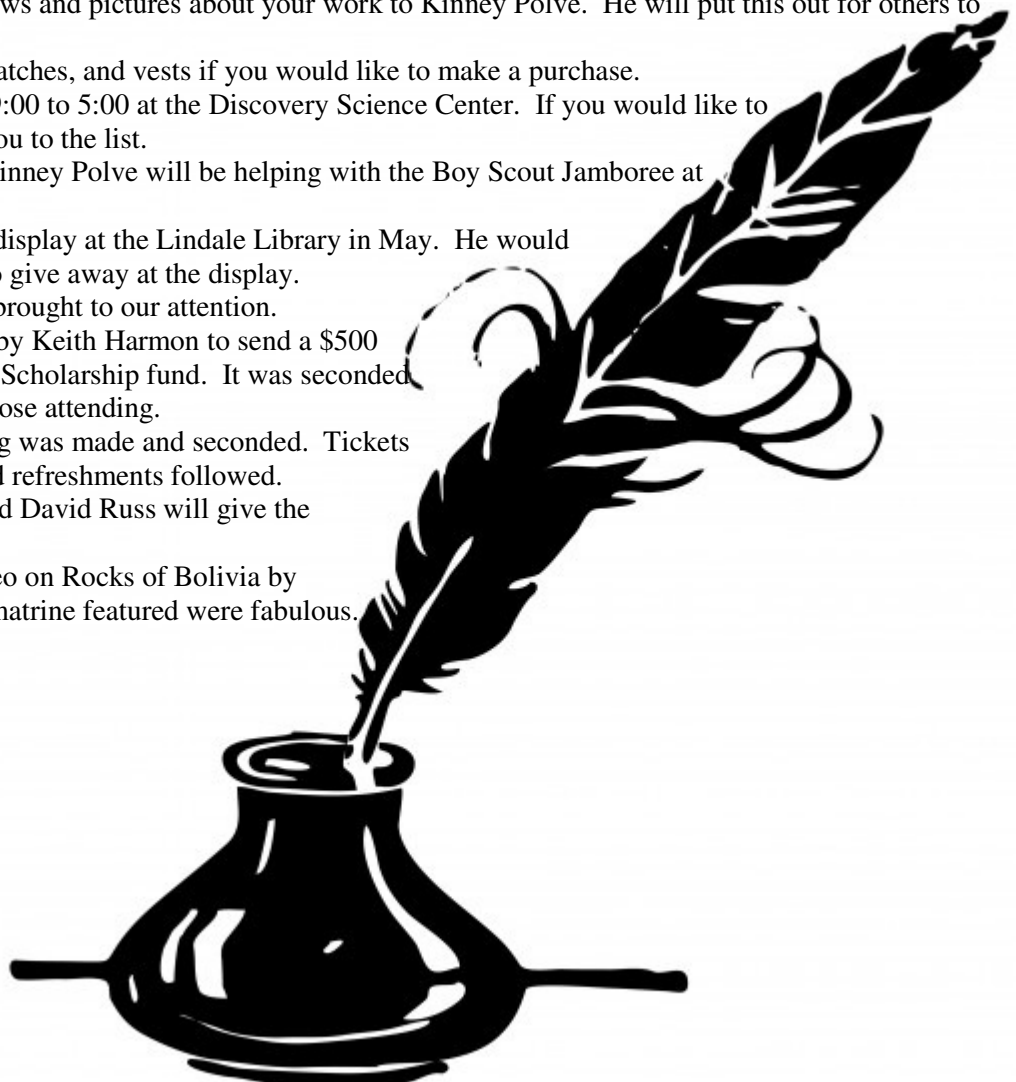
A motion to adjourn the business meeting was made and seconded. Tickets were drawn for door prizes. Visiting and refreshments followed.

The next meeting will be May 2nd and David Russ will give the program.

The program was an entertaining video on Rocks of Bolivia by Mineral Explorers. The amethyst and ametrine featured were fabulous.

Respectfully submitted,

Carolyn Davis





LAPIDARY/JEWELRY GROUP

Hi Folks: The April meeting of the L/J Group was at my house on April 9 starting at 2:00 p.m. where seven members attended. Everyone brought their latest project/creations or works in progress to show the other members and talked about what they did. Most brought some beautiful cabs to show the group, but in addition to 3 Riker boxes of cabs, John Schulz showed the group some of the silver jewelry he completed and one copper bracelet on his wrist. After the show and tell was finished, Terry led the members outside to sort through some slabs that he had stored for them to take home to work on. Richard Armstrong showed the group some cat's eye opal slabs that he had purchased. He asked Terry to cut a cab from one of the slabs and polish it for Richard's collection. The group discussed some techniques for polishing cabs and making jewelry and Elsa Jerger demonstrated how to make a quick wire wrap for a rock to one of the members. Everyone had a good time at the meeting.

Kinney and I would like to offer a cabbing class to the group for the new members, as well as some of the old members, to learn or polish up on their cabbing skills. However, because we have so few cabbing machines available (only one at my house and one at Kinney's; but, he will have another machine available as soon as he can get some new wheels for it), we will have to offer the classes on a one on one basis outside the normal L/J Group meetings. So, if you want to learn how to make cabs, please give either Kinney or me a call to set up an appointment to come by and use our machines under our guidance. Since Kinney and I live on opposite sides of Tyler, you might want to consider which residence is closer to you when calling one of us.

If you have a skill that hasn't been discussed or have some new and innovative techniques in the lapidary or jewelry field, we would very much like to hear about them. Also, please don't hesitate to let us know if you would like to teach a class in something near and dear to your heart.



CAB OF THE MONTH

We are graced with several offerings for Cab of the Month. Pictured top left is Imperial Jasper by Kinney Polve.



Top right is from a slab cut from a nodule collected on the Walker Ranch near Alpine, TX. The cab is unique because it contains two different features, each of which was created by what must be a different process. The top of the freeform cab is composed of very dense black plume agate, while the bottom of the cab is composed of small, colorful oolites, otherwise known among collectors as peanut agate or jasper.

I'm sure this combination of features in one nodule will provide some interesting discussions among Geologists who are interested in agate/jasper formation in the same cavity of a volcanic basalt flow. This cab is by Terry Roberts.



We have already started up our individual cabbing classes. Fred Mahaffey was the first to learn some new skills to make a cabochon. It looks like he gets an A+ for this cab pictured bottom left. Good job Fred!



The Clock is Ticking... Tick... Tock... Tick... Tock

by Cheryl Neary, Endowment Fund Chair



The 2016 AFMS Convention is being held in late July of 2016. So what does that mean to you? Hopefully, it means you will purchase your tickets (yes, you need to be in it to win it!) before July for the AFMS Endowment Fund drawing! Why the raffle? The money collected is for the AFMS Endowment Fund. The interest from the monies generated is used for AFMS special projects, such as, junior badges, judges training, digitizing of slide programs, to name a few. Before the clock runs out – why not Purchase tickets? You can also donate an item or two! Why not both options!

The tickets are \$5.00 a piece or \$20.00 for five! What a bargain!! Where can you purchase tickets? Great questions- you can always send me a request for the tickets at my email at ciervo.neary@gmail.com

I will send you an email version of the tickets and I will fill in all the details on the original ticket, once I receive the money for the tickets. Or better yet- you can purchase them from your Federation’s representative! All pictures are on the website (amfed.org) for all of the donations to date.

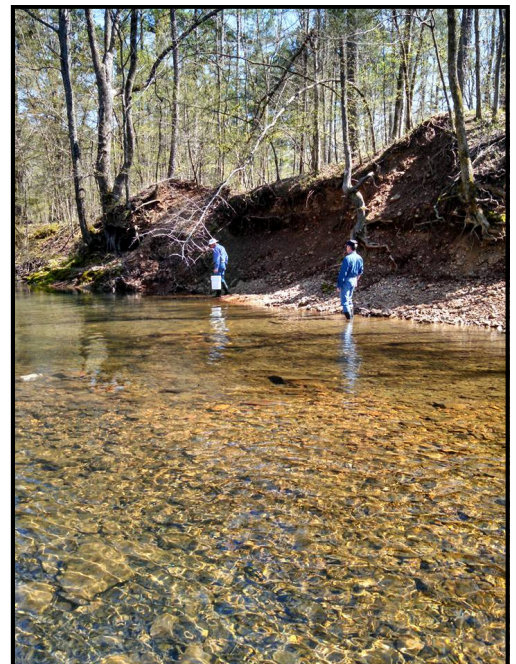
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FIELDTRIP TO ARKANSAS FOR QUARTZ



On the way we stopped at a creek to hunt the elusive pyrite crystals known to dwell in this creek. One of the group thought that the water looked so inviting she decided to see how refreshing a cool clear Arkansas stream is in March. Oops! Allen Brown one of our new members found a perfect iron pyrite cube. Unfortunately he will need a micro mount to display it. Turns out you have to dig about 3ft down in the middle of the creek to find the good crystals. Then we took off to one of the local rock shops before heading to our motel. Saturday morning started out beautiful! We even got to ride in an old army transport to the bottom of the mine. In the pictures that is where the boat is. After many hours of hunting



crystals a few were found. But, I think the general consensus is to try a different mine next visit. Then we finished out the trip with a beautiful sunset.

The Next Fieldtrip is scheduled on April 23rd and 24th to Oklahoma for Hour Glass Selenite. PS there are more pictures on the Facebook page. Fred Mahaffey



LEAVERITE
By Kinney Polve

I think we all know, what I'm talking about,
The rocks we brought home, but we should have threw out.
What was the cause, was it maybe the light,
Was it some distraction, or just poor eyesight?

Sometimes we don't know, how they get to our house,
I really don't know, but I blame my spouse.
It must be her fault, that we brought them all home,
Because I won't pick them up, I'd leave them alone.

What is it about them, what did we see,
Was it the color, or a pattern maybe?
When I'm there collecting, I pick up the best,
Because rocks are so heavy, I leave all the rest.

It had to be someone else, it couldn't be me,
I wouldn't pick them up, I wouldn't you see.
When you get back home, does this happen to you,
The rocks you brought back, don't have to same view?

Where did nice ones go, you picked up on the trail,
Where did they go, I never can tell.
Did something happen, what could it be,
Is somebody playing, a trick on me?

It isn't a trick, it's just Leaverite,
You need to know, how to identify it right.
I know there's a reason, it changes this way,
It depends on the light, and the weather that day.

There are many factures, which come into play,
There may be more, I really can't say.
If this doesn't help you, I will beg your pardon,
Just throw them all out, into your rock garden.

Lost & Found

Lost & Found

I was going through some rocks in my rock garden and came across this pom pom agate that I had forgotten after placing it in the rock garden in 2012. I collected the rock at Needle Peak close to Big Bend National Park in West Texas but didn't know it was a pom pom agate at the time. It measures 7" long x 3" wide x 3.5" high. I decided to leave the open faced side as is and sliced off the back side to expose the pom poms on that side and polished the face. The first picture shows the unpolished rock face and the second picture shows the polished side. I guess I ought to go through the rest of the rocks in my rock garden to see if I've buried some other hidden beauties there. Terry Roberts

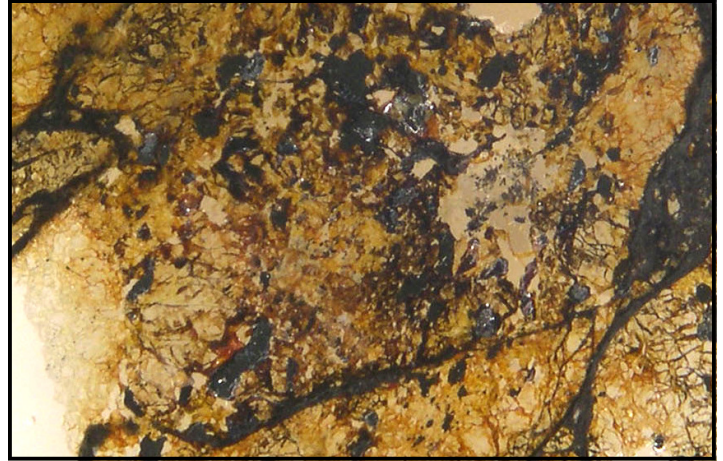




EARTH'S (REALLY) MOST ABUNDANT MINERAL

Quick: What is earth's most abundant mineral? Do you think it's calcite (i.e., limestone)? Maybe quartz? Perhaps something in the feldspar group? Hmm...surely, it must be some sort of silicate. Wait a minute! I read my January Conglomerate! It's ice! Well...ice may be the most abundant mineral on the surface of the earth, but what about the earth itself? There's a lot more to the earth than just its surface (crust). Give up yet?

It's bridgmanite! Huh? Never heard of that mineral? Don't have a specimen of it in your collection? Haven't seen it on eBay, at a mineral show, on a mineral dealer's website, or even in a museum? Can't find it in the latest edition of Fleischer's Glossary? Well...don't feel too bad. Until a couple of years ago, no one else had seen it, either, at least not as a natural sample. But (you ask) if it's the most abundant mineral, how could it have remained unseen for so long?



This mineral is believed to make up about 38% of the earth's total volume, representing about 93% of the mantle of the earth. That's right—the mantle, the layer between the crust and the core, which has never been directly sampled or observed. In 1962, it was hypothesized that the lower mantle at depths of 400-1800 miles consisted primarily of a high-density form of magnesium-iron silicate with the chemical formula $(\text{Mg,Fe})\text{SiO}_3$ crystallizing in the perovskite structure. (It would be dimorphous with akimotoite, another high-pressure mineral.) Knowing the properties of this “silicate perovskite” would add to our understanding of material and heat transfer within the earth. Its properties were studied indirectly by measuring changes in earthquake waves as they travel through the earth, and high-pressure studies had been performed on synthetic samples. However, since a natural (i.e., non-synthetic) sample of the material had never been observed or studied, it could not be submitted to the IMA Nomenclature Committee to give the mineral an “official” name.

Enter a team of scientists headed by Oliver Tschauner from the University of Nevada at Las Vegas and Chi Ma at CalTech. They reasoned that if this mineral phase was only stable under conditions of high pressure and temperature (it's believed that the pressure in the mantle is about 240,000 times the pressure at the surface of the earth, at a temperature of about 2000°C (3700°F)), then it could have formed at the earth's surface as a result of the high temperatures and pressures created by a meteorite impact and then “frozen” when the meteorite cooled suddenly. In 1969, a high-pressure form of olivine (the mineral ringwoodite) was discovered in the Tenham meteorite (an L6 chondrite which was the first meteorite fall confirmed in Australia (Queensland, 1879), and this meteorite is also the “type locality” for akimotoite (1997), so they reasoned that might be a good place to search for “silicate perovskite” as well. Previous studies on other meteorites had used high-energy electron beams, but these were powerful enough that any of this substance which might have been present would have been decomposed. Therefore, to do their search, they used X-ray crystallography (which is less energetic than electron beams) to determine the structure, and electron microprobe analysis to determine the composition. Since the grains of “silicate perovskite” they found ended up being smaller than 1 micrometre (.00004 in), and are very sparsely scattered throughout the sample, a special micro-focusing apparatus had to be used. It took about five years of painstaking collection of data using these techniques to convince them that they had indeed confirmed the presence of this high-pressure mineral.

Once they were convinced, they submitted their evidence to the IMA Nomenclature Committee, which approved the name bridgmanite on June 2, 2014 (it's IMA 2014-017; type specimen is USNM 7703 in the Smithsonian collection), and their results were published in the November 28, 2014 issue of the journal *Science*. The name was chosen in honor of Percy Williams Bridgman, who received the Nobel Prize in Physics in 1946 for his pioneering studies of materials (especially minerals) under extremely high pressures. The natural sample had a slightly different composition than the synthetic ones (more iron in its +3 state, along with some sodium), giving them a better “model” to use in studies of the properties of the mantle. Some scientists believe that some inclusions in/on diamonds are marks left on them when



Continued from Page 6.

bridgmanite from deep in the mantle changed to its low-pressure form during the diamond's trip from the mantle through the crust.

So...the earth's most abundant mineral now has an "official" name. (Unfortunately for Micromounter's Hall of Fame member John Ebner, who collects mounts of minerals prepared by the person for whom the mineral is named, he won't be able to add this one to his collection, since Bridgman passed away in 1961.)

(Note: even though you can't buy a specimen of bridgmanite per se on eBay, it is possible to purchase small bits of the Tenham meteorite from sellers there. Might one of these fragments contain some bridgmanite grains? Guess you'd just have to study them the same way Tschauer, et al. did to find out!) Via The Conglomerate, 02/15.



LOCAL JEWELRY APPRAISER ELECTED TO CERTIFIED MEMBER STATUS IN THE NATIONAL ASSOCIATION OF JEWELRY APPRAISERS

Richard D. Armstrong of Armstrong Gemology, Flint, was recently elected to membership in The National Association of Jewelry Appraisers.

Richard is an independent gemologist and jewelry appraiser. He holds the titles of Registered Gemologist Appraiser from the International School of Gemology, Graduate Gemologist, Graduate Pearls and Accredited Jewelry Professional from the Gemological Association of America. Besides his membership in The National Association of Jewelry Appraisers he holds memberships in the Association of Independent Jewelry Valuers, the American Gem Trade Association, the Gemological Association of Great Britain and the East Texas Gem and Mineral Society.

**Congratulations
Richard Armstrong!**



**DEADLINE FOR THE MAY 2016
NEWSLETTER WILL BE MAY 15, 2016**





Check us out on the web: WWW.ETGMS.COM

THE EAST TEXAS GEM AND MINERAL SOCIETY

Purpose of the East Texas Gem & Mineral Society: Is to promote the study of geology, fossils and the lapidary arts. The public is always invited to attend all club meetings.

MONTHLY MEETING:

First Monday of the month unless a holiday, then the second Monday, at 6:45 p.m.

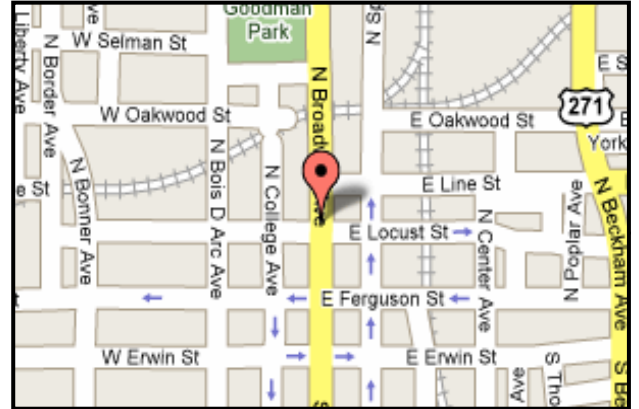
WHERE:

The Discovery Science Place
308 N. Broadway
Tyler, Texas

ANNUAL DUES:

- Adults: \$10.00
- Juniors: \$2.50 with adult membership
- Family: \$20

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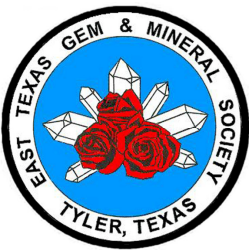
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