



ROCK-N-ROSE



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VOLUME 35

TYLER, TEXAS

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SEPTEMBER 2009

Coming Shows, 2009

OCTOBER 10-11
TEMPLE, TX
SCFMS SHOW
Tri-City G & M Soc.
Mayborn Civic Center

OCTOBER 23-25
AUSTIN, TX
Austin G & M Soc.
Palmer Events Center

NOVEMBER 13-15
HUMBLE, TX
Houston G & M Soc.
Humble Civic Center

NOVEMBER 21-22
MESQUITE, TX
Dallas G & M Soc.
Resistol Arena Exhibition Hall

DUES ARE DUE!!!

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PRESIDENT'S MESSAGE

Had a good meeting and auction. Attendance was down a little due to the holiday but still brought in over \$800 for the club. Some nice items were sold and some "horse trading" occurred after the auction was over as well. Susan B should soon be able to send out the monthly newsletter via e-mail so, if you want to receive it in this format please make sure she has your current e-mail address. You can e-mail her at rocknroseeditor@hotmail.com. The more people that take the newsletter via e-mail the lower the cost of producing it and we should be able to keep our dues affordable. Still need for members to be looking for a permanent home for the ETGMS in the Tyler area. It's important for the club that we have a place where members can teach new members their special skills in lapidary and allow us to carry on our educational mission in the community. A workshop would allow us to provide classes for members and allow them to explore various aspects of the lapidary arts. Keep your eyes and ears open. It's also time to be thinking about electing officers for next year. The current ones are doing a good job but may need a break. I have found the past officers to be very supportive of the current officers and willing to step in to help whenever necessary. Along those same lines, everyone in the club has some special talent or area of expertise. Please consider sharing this with the rest of us by putting on one of the monthly programs. You can do it with another member or by yourself. Or you can even bring in an outside expert to present the program. Remember, our club is what we make it. Thanks and hope to see you all at the next meeting.

Rip Criss



September Meeting Minutes

The East Texas Gem and Mineral Society meeting was called to order by President Rip Criss at 7:00 p.m., September 7, 2009, Labor Day, in the meeting room of the Discovery Science Place on Broadway Street in Tyler, TX.

First order of business was a motion, duly seconded and unanimously approved, to accept the minutes of the August 2009 meeting as published in the Rock-N-Rose newsletter. A total of 25 club members were present

Treasurer Jeri Kitchens gave the monthly financial report. Keith Harmon reminded everyone that he and Charlotte have a huge backyard rock sale scheduled for Sept. 12 & 13.

There were no field trip reports and none scheduled.

Rip said that he has received information about Fossil Fest, Austin, Dec. 5th and 6th at Old Settler's Park in Round Rock. He promised to have hand outs with details at the next club meeting.

Door prizes were awarded and a short break was called at 7:10.

Following the break and arrival of newsletter editor, Susan Burch, was the discussion to purchase an updated version of Microsoft Publisher software to enable the Rock-N-Rose Newsletter to be emailed to members who wish to receive them electronically. Motion to purchase the new software was made by Keith, seconded by Jeri and unanimous vote. Lester Langston offered to pay more annual dues in order to have his newsletter mailed to him but the consensus was to keep the dues low for everyone with the savings on postage generated by utilizing email delivery for those who want it.

Next item for discussion was the purchase of a grand prize for the club show in January. Following general discussion, questions and comments, members agreed to an expenditure of approximately \$250 for a Labradorite or other large specimen for the adult's prize. The prize for the children's age group was set at \$100-\$150 range with both items being purchased by Keith Harmon, show chairman. Motion to approve the expenditures was made by Ed Wheeler, seconded by Becky Whisenant and approved by the members present.

The annual club auction action began at 7:28 p.m. with Keith acting as auctioneer, Rip recorded winning bids and Becky placed items on winner's numbers. Keith got the bidding going so spiritedly that Susan Orvitz even bid against herself a couple of times and Ed Wheeler got so into the fun that he bid twice in a row. Rocks, minerals, fossils, books, jewelry and some lovely cabochons went home with new owners. Profits from the auction are used to purchase large ticket items for the club.

When the last item was gone from the tables, Keith and Rip adjourned the official meeting at 8:45 but members milled around comparing purchases and laughing over bidding for another hour or so.

Respectfully submitted by
Penny Hawkins, Club Secretary



LETTER FROM THE EDITOR

Well fellow Rockhounds allot has been happening in our great club. Our September program was one of the highlights of the year in entertainment, Keith did it again with our annual auction! Now when I walked in (yes I was late, lol), I did not think there was all that many items, but found as the night went on, that some were hidden behind others. What we brought in for the club was none too shabby, and there were many great finds to be had by all. A few pieces enticed the members to amp up the bidding a bit....a couple of members just had to bid against themselves they were so excited to get that special treasure. Keep in mind, this editor has become wise to our friend Keith's tricks...so did not take the bait when being led to go a dollar or so over my own bid (He'd gotten me several times in the past with that one). However, among other things (yay, I got some of the cabs), I did bid on a piece of petrified wood just to bring in a little more for the club, but it all goes to the cause.

On the newsletter front, I've purchased the newer version of the program I had been using (it's supposed to allow for emailing the newsletter) at the club's request and I've been a studyin' it hard, trying to figure all the in's and out's. So really soon we should have the option of having the newsletter emailed to you. Please, if at all possible, send me an email with your current email address and a request that you get the newsletter via email instead of snail mail...that way I can update my list and make sure those who want the newsletter delivered that way will get it in a timely manner. Those of you who wish to keep receiving a printed copy don't have to do anything unless your information has changed, you will remain on my mailing list. If your info changes during the year, please let Jeri Kitchens AND myself know....that way there is less likelihood of you falling out of the loop for the newsletter.

It's that time of year again, annual dues are due. As a club we are hoping most will sign up for the newsletter to be delivered electronically to keep the cost of printing and postage down, and to keep the clubs dues reasonable for everyone. They remain at \$10 per individual, \$2.50 per child, or \$20 per family. These dues are much less than any other club that I know of...so let's keep the costs down where we can. Please, make sure to get me your e-mailed request by the 15th of October if at all possible.

October 10th-11th is the Tri-City G & M Soc. Show, they will be hosting the SCFMS show also...that means it's time for the annual Editor's Breakfast, where it's been hinted we have brought in a few certificates and a trophy for the article, poem or newsletters that were entered for last year. No matter how hard I tried I could not drag the info of which places we had won out of the pertinent parties, so guess I will be attending this year to find out. The results will be announced in next months issue...with a big YEE HAA from me.

Susan Burch



Fossil Preparation by Marc Behrendt

You have been collecting really great fossils all day. You get home, set the box on a chair, and spread your treasure onto the kitchen table to look at it closer. It's pretty neat stuff, but wouldn't it look better if all that mud and rock still stuck to it were gone?

Fossil preparation or cleaning can be done in the home or in a fancy lab. Sometimes all it takes is a toothbrush and water. If the fossil is sturdy, like coral and many brachiopods, this method will remove all the mud and loose matrix. However, if your fossil has any cracks in it, if it is fragile, or if it sits on soft shale, do not try to brush it off with water. Fossils like trilobites, bones, and fragile brachiopods will dissolve or fragment and leave you with an empty rock and memories. To make something fragile look better, you need a different method to clean your specimen.

If you have access to the right equipment, you are in good shape. Or you could send your specimen to a fossil preparation lab. Let's assume you have a complete trilobite and would like it cleaned. Part of it is buried in the rock and part is exposed but covered with a thin layer of shale.

The first step is to stabilize the specimen. When the rock dried after it was dug up, all the water evaporated, leaving countless microscopic cracks both in the rock and in the fossil. Apply super-thin super glue under a microscope by dipping the tip of a pin into a drop, then touching the pinpoint to a crack which sucks up the glue instantly. The glue hardens, filling in the crack and holding everything together. If too much glue is used, such as with a single regular drop, then the glue will have to be cleaned away before the matrix can be cleaned from the trilobite.

Now the fun begins! To expose the buried portion of the trilobite, pneumatic hammers will be used. These are just like the loud jackhammers road workers use to dig holes through the roads, except fossil preparing hammers are so small they must be used under a microscope. Ever so carefully the hammer's pounding chips away tiny fragments of the matrix hiding the trilobite. Usually the matrix touching the trilobite shell pops right off after most of the upper matrix is removed. Great care must be taken not to touch the trilobite with the hammer, because a hole in the fossil is not pretty.

Before micro-air hammers were used, fossils were exposed using small steel picks like dentists use (this process is still used in many labs today). The method works very well, as you can see in any older museum collection, but it takes a long, long time to accomplish what an air hammer can do in a short time!

Okay, the trilobite has been totally exposed, but is still covered by a thin layer of shale. It is time to pull out the micro-sandblaster. Also known as air-abrasive machines, these instruments, using high air pressure, shoot a tiny regulated amount of powder through a hose and nozzle onto the fossil, eroding the soft rock away while leaving the harder trilobite shell intact.



Depending on the type of rock and the hardness of the fossil, changes can be made to the air pressure, the amount and type of powder, and the size of the nozzle to meet the situation. Imagine this—you have a big rock, and you want to break it in half. You first choose your hammer. Will it be small and delicate, or big and heavy? Should it be made of rubber or metal? Then, do you swing it really hard, or gently tap the rock? Too much hammer or too much swing and your rock is dust. Too little hammer or tiny taps may crack the rock in a day or two. The right hammer with the right swing will cause the right impact to break the rock in a controlled manner in a short time. The same concept is used with the air abrasive machine. With experience or careful experimentation, the air pressure and powder flow are adjusted to remove the matrix from the fossil without “burning” the trilobite’s shell away along with the rock. All the work is done under a microscope with the watchful eye of the preparer, who is alert for new or previously unnoticed cracks in the shell that will need to be stabilized.

Although it is important to clean the entire trilobite carefully, the eyes need special attention. Many kinds of trilobites have the lenses still in the eyes, and these are very fragile. With delicate and precise micro-sandblasting, the entire eye is cleaned so each lens is perfectly exposed without being damaged!

Finally, the rock itself is spruced up. All the chisel marks from the hammers are ground away using either a combination of air hammer and air abrasive, or with a grinder like a Dremel tool. The matrix is shaped into a form that best displays the trilobite. Occasionally, new fossils are discovered under the matrix during this step. These are cleaned up and make nice surprise additions for the piece. When it’s all done, sit back and admire your trilobite. It’s no longer grey and covered with rock—it is a beautiful black or brown color, looking like it will crawl off the rock any moment.

There are many other techniques available for preparing fossils. Several books are available that describe these different methods. Three of the many are:

Paleotechniques edited by Rodney M. Feldmann, Ralph E. Chapman, and Joseph Hannibal. published by the Paleontological Society at the Department of Geological Sciences, The University of Tennessee, Knoxville, TN 37996.

Handbook of Paleo-preparation Techniques by Howard H. Converse Jr. published by Florida Museum of Natural History, University of Florida, Gainesville, FL 32611

Fossil Preparation Manual by Tom Whiteley and Gerry Kloc. published by the authors, 1995. Volume 51 Issue 9 May 2009.

<http://www.fossilnews.com/1999/prep/prep.html> ;via Pick & Shovel 5/2009, via The Backbender’s Gazette, August 2009; via Gritty Greetings 09/09



**Gemstone Of The Month
Labradorite
by**

Les Connally – Tri-City Gem & Mineral Society

There is a whole family of gemstones that go by this general name; namely, Albite, Moonstone, Labradorite, Larvikite, Sunstone, and Spectrolite. All of these are forms of Plagioclase and have a rhombohedral cleavage.

First of all lets address the Larvikite: This is a trade name for polycrystalline Labradorite and is used extensively for headstones, building panels, and countertops. It is also known as Norwegian Moonstone and comes from the area of Larvik. The material is composed of randomly distributed Labradorite crystals, providing a significantly blue schiller.

Next lets look at Moonstone: Moonstone typically is a translucent variety of Albite, and comes in shades of blue, gray, silver, and peach. Some recent stones on the market are called Rainbow moonstone and are quite striking. The Shiller or Chatoyancy is definitely oriented and special attention must be paid to the orientation when cutting to obtain the beautiful floating cats-eye available in the material.

Next is Sunstone: This material can take on several forms, but like moonstone is generally translucent. Golden sunstone, although rather soft, will facet nicely. Oregon sunstone can and frequently contains small flecks of either native copper or hematite, (there is much speculation as to which), that gives the stone a red or green tinge which is very desirable for faceters. These inclusions make the material a little pricey, but impart a great property to the stone.

Then there is Labradorite itself, which may be massive or in large crystals. It usually has green to yellow shiller, and sometimes blue. Again the shiller or chatoyancy, is specifically oriented, and must be carefully cut to fully exploit the beauty.

Spectrolite is the Labradorite that has all the yellow, green, blue, and sometimes red or violet shiller and makes some fabulous cabs.

All these Plagioclases have a mohs hardness of 6 and a specific gravity of 2.6. Crystal formation is Triclinic, Pinacoidal class, with a Rhombohedral cleavage. The Chemical formula is basically $\text{NaAlSi}_2\text{O}_8$. Trace amount of other elements cause the various colorations. They are abundant all over the world, with Larvikite primarily coming from Norway, although it is found elsewhere. Some Labradorite comes from the Hooking valley near lake Buchanan, Texas. Other sources are Mount Etna, Romania; Sweden; Greenland; Labrador; Adirondack Mountains of New York; Wichita Mountains, Oklahoma and Arkansas.¹

Reference

1. Mineralogy by Kraus, Hunt & Ramsdell, Fourth Edition, 1951, McGraw-Hill Book Company, pp. 397,398.
via Rock Prattle 09/09



Free Online Gemology Course

If you're interested in learning about gemology from a scientific (rather than a commercial or artistic) viewpoint, then you might enjoy this website:

<http://www.bwsmigel.info>.

Included there is a series of lessons developed by Barbara Smigel, PhD, GG, and Emeritus Professor at the College of Southern Nevada. You don't need to register to use the materials contained on the site, however you can opt to register and take the full distance learning, online course for college credit.

Web lectures include the following lessons:

Lesson 1: Basic Terms

Lesson 2: Naming and Measuring Gems

Lesson 3: Physical Properties of Gems

Lesson 4: Optical Properties of Gems

Lesson 5: Magnification and What it reveals

Lesson 6: Optical Phenomena in Gemstones

Lesson 7: Gem Fashioning

Lesson 9: Synthetics and Simulants

Lesson 10: Gem Formation

Also included on the site are Web Essays that are one topic, pictorial essays with information on specific rocks and minerals. You can follow a link to "Ask the Teacher" specific questions and actually receive an answer in response. There's also an audio pronunciation guide, and A-Z Survey of Gemstones downloadable as a PowerPoint presentation, and suggested textbooks and reading assignments if you're interested in learning more. Simply visit:

<http://www.bwsmigel.info/>

and check it out!

~From Rockhound Rambling 7/07, via Blue Agate News 3/09, Rockcollector 5/09, The Calgary Lapidary Journal, 6/09; via Stone Chipper 09/09

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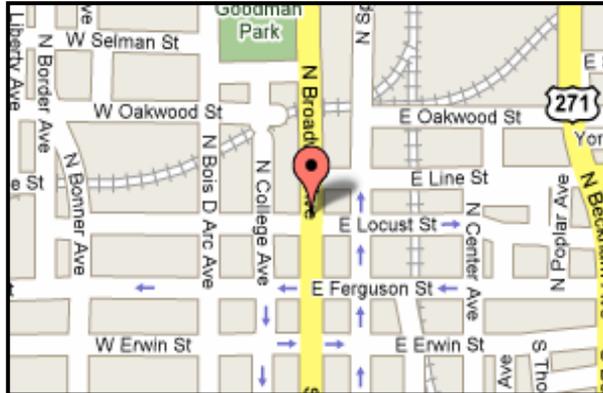
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THE EAST TEXAS GEM AND MINERAL SOCIETY MEETS ON THE FIRST MONDAY OF EACH MONTH, UNLESS THAT DAY IS A HOLIDAY, THEN THE MEETING IS MOVED TO THE SECOND MONDAY. WE MEET AT THE DISCOVERY SCIENCE PLACE, 308 NORTH BROADWAY, JUST NORTH OF DOWNTOWN TYLER, TEXAS. MEETINGS BEGIN AT 6:45 P.M.

NOTE TO EDITORS

Feel free to use contents and graphics for non-profit newsletters. Give credit when and where due.

**Purpose of the East
Texas Gem & Mineral
Society**

Is to promote the study of geology, mineralogy, fossils and the lapidary arts. The public is always invited to attend all club meetings.

Annual dues are \$10.00 for adults and \$2.50 for juniors.

Please send any info or articles to be included in the newsletter to the Editor by the 15th of the month. Please keep your address, phone and email information up-to-date, so that we can get the newsletter to you in a timely manner. Out-of-date information costs the club time and money in returned newsletters.

Thank you... SB



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