

ROCK N ROSE

Volume 47 Issue 2

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February 2021



Cover Photo: Julia Toombs

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ROCK N ROSE

THE EAST TEXAS GEM & MINERAL SOCIETY NEWSLETTER

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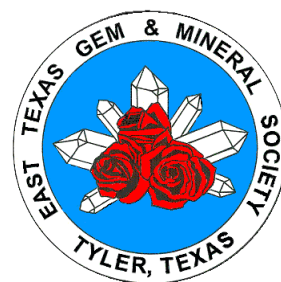
May 22 - 23, 2021

Tyler Gem & Mineral Show
East Texas Fair Grounds,
Building E
Tyler, Texas



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Rock-N-Rose
Newsletter

231 Scott Street
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May
1-2,
2021

KILGORE

GEEKEND

ETGMS is going to participate in Kilgore Geekend May 1&2, 2021. Downtown Kilgore.

We will need volunteers to help at the booth both days.

Contact Margaret Kilanski - mkilanski@yahoo.com
if you can volunteer or have any questions.

ROCKHOUND OF THE MONTH

Randy Harmon February 2021

We are proud to announce Randy Harmon as the February Rockhound of the Month. Last year, Randy made room in his home for new treasures by donating many items to ETGMS. For many years, he has displayed parts of his collection at the Lindale Library in the summer and the Tyler Public Library in January. One summer, he and Gene Goar gave a program on Indian artifacts and fossils. What a great way to promote ETGMS and the study of earth sciences. He was often at our workdays too, as his work schedule allowed.

You are appreciated for your hard work.



This month's episode of A Look into the Past brings us to the life of the January Rockhound of the Month Lynn Metcalf in her own words. I hope you enjoy it. I did.

Lynn Metcalf, a resident of Texas since 1977, originally hails from the California Mojave Desert. She spent her first 18 years in the conservative enclave tucked against Lockheed's "Skunk Works" at Air Force Plant 42, where her father worked (and later flew out of to "The Area") for 34 years. His avionics expertise is on many spectacular and now well known aircraft.

Lynn often combed the surrounding desert (sometimes barefoot—NOT recommended!) for strange and wonderful rock and mineral specimens. Her rockhoulder's fate was sealed in the late 1960s when:

a) her 7th grade earth sciences classroom sported a rock grinder! And, b) the family went agate hunting along the beautiful beaches of Oregon. Two buckets full of glorious agate came home with the Metcalf's (with apologies to Oregon's beaches for the haul). Years later, Lynn asked her Western Swing singer/organ, accordion, guitar virtuoso (champion yodeler, too!) mother what they had done with all that agate. Lynn hid the tears from them. Turns out her father had donated the lot to the local rock shop—for free!-- years earlier.

Between her time spent around Air Force installations and her father's WWII Navy tales of the South Pacific, Lynn decided (after shelving archaeologist (age

A Look into the Past

By Julia Toombs

8), Egyptologist (age 9) and marine biologist (age 10)) to join the Navy (11). She dutifully marked the days off on seven years worth of calendars...! When she was one week into her eighteenth year she enlisted and reported to...Lackland Air Force Base, Texas, for basic training.

Whoa—huh? So, okay. A five-year USAF digression (including stints in Taiwan (2nd degree South Pacific 'beach party' sunburn and shift work in windowless buildings), Italy (okay, pinching—NOT an urban myth!--more windowless buildings and an 'elephant cage'--intelligence types will understand); and Kelly AFB, San Antonio, Texas, (at last windows! Sunshine!--and ongoing foot strain from walking miles in heels on cement floors in huge buildings...)). She completed a B.A. in (now so unbearably early 'woke'-hood) Communication & Media from Our Lady of the Lake University, San Antonio, Texas (a Protestant showing diversity here!).

The university degree catapulted her from the AF enlisted ranks to Ensign (2nd lieutenant to you Air Force and Army pu... types. The Marines and Coast Guard...Space Force?...meh...already know the system...). Her 15-year U.S. Navy career included tours in the Republic of Panama (Canal Zone — snorkeling solo with sharks (ignorance can get you dead!) off Contadora island); London, England (attempting a burn-less suntan in Grosvenor Square in August); McMurdo Station, Antarctica (really cool meteorites!--and a narrow escape with frostbite); Great Lakes, Illinois (where she met her husband of (now) 34 years); Navy ROTC Assistant Professor (US Naval History), University of Notre Dame, Indiana (plus 15 credits in Chinese and Japanese on the side); and Japan (she actually got to USE the Japanese for 5 years!) She retired with the rank of lieutenant commander (major) in 1993.

Two more hopelessly 'woke' degrees were completed during all the above: a) MHR, (U of Oklahoma, Panama Canal Division 1980) Human Resources/Relations; and b)

M.A. Marketing (Webster U, St Louis, OH, Great Lakes, Illinois Campus, 1986) uselessly grace her resume. She says they were pretty useless when she first completed them, too. Science degrees (she really wanted geology) were hard to come by while on active duty. "Too many daytime labs and not enough leave time".

Of far more interest to her is the Graduate Gemologist Program she completed with the Gemological Institute of America in 1992. Fascinated with all things gems and minerals, she completed the 2+ year program, division tests and it's final 20-gemstone examination in one year. Let it be said that attending the one-week Advanced Diamonds Course in Tokyo, Japan (taught in Japanese and English) "was a hoot" and one of the top highlights of the program! Her Diamonds Diploma is completely in Japanese kanji! Following an intensive program in providing jewelry appraisals (International Society of Appraisers—which no longer offers that specific program), Lynn offered appraisals to U.S. military personnel and their families in Japan. Seeing the need, she taught basic classes in buying diamonds and other well-known gemstones. She hopes the knowledge shared there helped folks make better buying decisions.

Lynn is downsizing her raw rock and mineral collection as her abilities in handling rock saws, grinders and drills lessen, safety factors emerge — and spouse Scott's slot car workshop proliferates. Instead, she is using her RAW format camera to bring out and share the astounding beauty in gemstones and minerals of all kinds. She hopes to grace club walls with the fruits of her photographic labors soon.

Lynn joined the East Texas Gem and Mineral Society in 2015. She submits articles to the Rock & Rose Newsletter when ideas strike that sometimes make good use of her useless degrees and often very useful GIA education.

When able, she joins club field trips. A past Member at Large on the Board of Directors, she acted as webmaster for the now defunct etgms.COM website (Lynn urges folks to please check out the new, improved site at ETGMS.ORG!). She volunteers with ETGMS Rock and Gem Shows and participates in the society's Rock Swaps among other activities.

Shop Time

By: Terry Roberts

I have attached some photos of two Tapedo agate cabs from the San Carlos area in northern Chihuahua, Mexico not far from Big Bend National Park that I completed a while back. The first photo shows a combination of patterns (orange bands in coarse quartz on the left side and fine white bands and reddish orange flocculent material on the right side) in one cab. The second photo shows some banding and a tube running diagonally from the bottom of the cab to the surface. This cab also shows some prominent parallax features as shown in the last photo.



In Memory of *Billy* *"Bill" Ray* *Holbert*

By Becky Whisenant

Another member of the club's old guard has moved on. Bill Holbert, a member since 1985, passed away last month. It behooves us to remember that the East Texas Gem & Mineral Society would not be here today if not for the contributions and faithfulness of veteran members such as Bill and his wife April.

Beginning in 1985, Bill filled the offices of President, Treasurer, board member, program committee member and newsletter editor for many years. He organized and led field trips, taught lapidary skills, set up swap meets with other clubs and promoted rock hounding at every opportunity.

Following are some personal memories from current club members.

Keith Harmon: "I first met Bill at a meeting of the East Texas Gem and Mineral Society. He

was the President and there were less than 10 members active at the time. Bill welcomed us to the meeting and was very friendly. We decided to come to the next meeting and learn what we could as we were brand new rockhounds. Bill took me under his wing and, since he had a workshop, showed me how to cut a stone and make a cabachon. We went to a few gem and mineral shows and he showed me what rock hounding could be.

I remember when Bill led us on a rock hunting trip somewhere in Arkansas but failed to tell us where to meet him in the morning. It was late before I realized I had no idea where we were to meet so I started calling all the hotels in the area and after about two hours I found him. All the next day we teased him, asking 'Where's Waldo?' Bill had a sense of humor and on that trip I learned the importance of coordination and what a leaverite was.

Bill was accomplished at cutting slabs that looked like pictures and putting them in frames. He learned that from George Franks who was a member of the club and famous for his framed slabs. Bill did well selling his work at a few area shows. He introduced me to Charles Creekmur and I was able to learn a lot from both of them.

Bill was a retired postal worker and his lovely wife, April, was

a blessing, keeping him happy and making everyone around her feel great. Once when we were riding together and I was driving, I noticed he kept watching me, so I asked why. He told me he didn't trust many other people's driving but was satisfied with mine as I kept checking my mirrors and stayed in my lane. I don't think he would have held that opinion if he rode with me very much.

He was the one who nominated me as President. No one else wanted the job so I was it, but, to my relief, he supported me and helped me get programs together for the meetings, set up trips and help the club grow. Bill was a first rate club member, supporter and friend. If not for his friendship and unflagging support I probably would not have stayed in the hobby. I hope that everyone who gets involved with our club or hobby can find as good a rockhound as I did to help them learn about our hobby."

Charles Creekmur: "Bill and his wife April were very active members. He went on a lot of field trips with me and he & I shared a room and booth space at some of the shows where he displayed his framed picture jaspers and agates. He was an artist at making those. The wire wrapping box in the lapidary room is from him. He gave it to me and I asked him if I could pass it on to the club. He was 92 when he passed."

Becky Whisenant: "I have

known Bill since 1998 when I joined the club and was always impressed with his work. Each year, I would visit with him and April while working at the show but I was surprised when he asked me about 4 years ago if I still loved rocks and collecting them. I said 'Of course!' and then he asked if I would like to have some of his specimens. He explained he couldn't make the meetings anymore and his kids did not care about them, and they needed a new home. So my

husband and I, along with our exchange student from the Czech Republic, got to spend some time with Bill & April, admiring his beautiful slab work and treasures they had collected or made over the years. I enjoyed those times with them, discovering similarities in philosophy and experiences. His handmade display case now hangs proudly on my wall, filled with a combination of Bill's and my specimens from near and far. I always think of him when I

clean it or open it up and show the beautiful items to some kid, hoping to pass on the delight".

Rocks do not change much in our lifetimes. But they do change us. They link us, teach us, delight us and lead us down paths otherwise untraveled. Here's to the rock buddies we have met along the way – like Bill: may we not forget them.

The ETGMS Board of Directors is excited to bring you some good news!!

Keith Harmon, long-time member of ETGMS and a dealer at our annual show, is sponsoring a one-time event.

Tyler Gem and Mineral Show May 22 & 23, 2021 at East Texas Fair Grounds, Building E, in Tyler.

It will showcase the dealers that have been a part of our annual show for many years and the Rock Food Table.

Anyone who has been to HCC before knows how large it is.
There will be plenty of room for social distancing between booths.
However, there will be no fluorescent room, silent auction, kids' games, or school day.
Keith does not have the material or workers to man them.

However, Keith will need volunteer help with admittance and monitoring the Rock Food Table.
Please consider how you could help and contact him at keithharmon19@yahoo.com.

Margaret Kilanski, Webmaster

A MAAR VOLCANO

KILBOURNE HOLE, NEW MEXICO

By Charles Creekmur

Kilbourne Hole, along with its smaller siblings Hunts Hole and Phillips Hole, are considered the finest examples in the world of this unique geological feature. At first glance one would think they were looking at a meteor impact crater. There is no raised rim, cone or basalt flows commonly associated with volcanoes, but rather a depression or crater in the otherwise flat featureless landscape. Kilbourne Hole is located some 30 miles west of El Paso, Texas with the last 20 miles over fair to poor graded county roads. It is in the Potrillo volcanic field that contains the Afton-Aden basaltic lava flows. The crater itself is elliptical shaped, about 1 1/4 miles across and 400 feet deep. It was formed during the last Ice Age. You certainly do not want to go after a rain—the road turns to bottomless mud. It is also not recommended for a RV or 5th wheel.

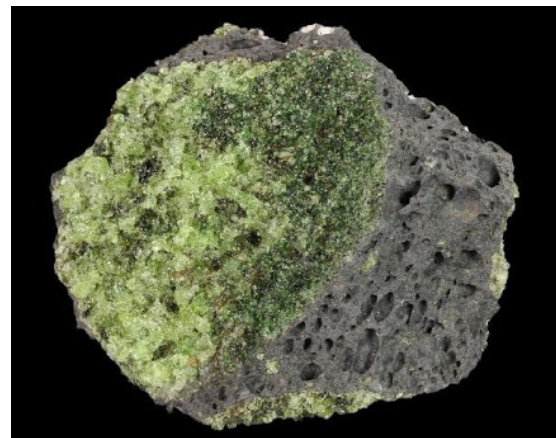
A maar is formed when rising



magma encounters sediment beds that are saturated with water (i.e. the water table). The buildup of steam pressure soon overcomes the weight of the overburden and a cataclysmic explosion throws sediments and magma into the air. In this case, an estimated 500 million cubic yards of material. As the magma falls to the ground it rapidly cools and minerals

start to crystallize. According to Bowen's reaction series, olivine (the gem mineral Peridot) is the first to form from a basic magma. Olivine "bombs", as they are called, can be found around the rim of the crater. They are rounded nodules of granular olivine with a basalt outer crust. The grains are usually rice grain size to pea sized but on rare occasion, one can find faceting grade pieces as large as a pigeon egg. As the molten "blobs" of magma fell back to Earth the olivine crystallized with a basalt outer crust. During my college years in El Paso, I made frequent trips to collect, photograph and study the geology of this unusual feature. In those earlier years, from 1958 to 1965 the location was not as "picked over" and good specimens were a lot more frequent than they are now.

WHAT IS THE "BOWEN REACTION SERIES"?



The Bowen reaction series is a description of how magma's minerals change as they cool. The petrologist Norman Bowen (1887-1956) carried out decades of melting experiments in the early 1900s in support of his theory of granite. He found that as a basaltic melt slowly cooled, minerals formed crystals in a definite order. He divided these minerals in discontinuous and continuous series.



This reaction series implies that from a single “parental magma” all the various kinds of igneous rocks can be derived by Magmatic Differentiation.

BOWEN'S PRINCIPLES

- As a melt cools, the minerals in the thermodynamic equilibrium with the melt crystallize (the dissolution equals crystallization; if there is no equilibrium either crystallization will dominate [supersaturation], or dissolution [under saturated]).
- As the melt continues to cool and the minerals crystallize, it will change the melt composition.
- Previously formed crystals will not be in equilibrium with this solution and will be dissolved again to form new minerals. In other words: these crystals react with the melt to form new crystals, hence the name reaction series.
- Common minerals of igneous rocks can be arranged in two series as a continuous reaction sequence of feldspar and as a discontinuous reaction sequence of ferromagnesian minerals (olivine, pyroxene, hornblende, and biotite).
- This sequence of reactions implies that all various magmatic rocks can be obtained by Magmatic Differentiation from a single “parent magma”.

Generally speaking, higher temperature minerals have a higher proportion of iron and magnesium and are therefore considered mafic. Low temperature minerals are associated with the opposite end of the composite spectrum (low in iron and magnesium, higher in silicon and oxygen) and considered to be felsic. Some minerals are clearly mafic, some are clearly felsic, and some fall between these two extremes.

Common mafic minerals include olivine, pyroxene, amphibole, and biotite mica and plagioclase feldspar. Common felsic minerals include quartz, muscovite mica and orthoclase feldspar. Different magma compositions clearly result in different magmatic rocks. Of the hundreds of olivine bombs I collected over the years, I only encountered one filled with white plagioclase feldspar.

The photo below shows how a large “bomb” more than a foot across has deformed the soft sedimentary beds as it fell back to earth.



The Apollo 12 through 17 astronauts spent many hours at the site learning about geology and how to collect specimens before going to the moon. As a personal aside, they were

trained by my former college dorm mate and best friend of 60+ years, Dr. James Carter. He wrote his thesis on Kilbourne and was considered one of the foremost authorities on the location. After being assigned to do petrologic work on the moon rocks, he later went on to manufacture simulated “moon dirt” for NASA to be used in testing lunar equipment.

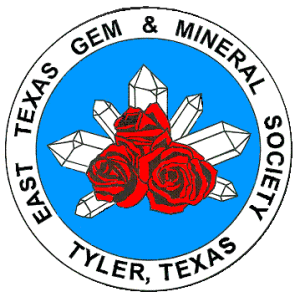
The chances of finding a piece of facet rough that would yield a stone of more than a couple of carats is rare, but one can spend many hours of quiet solitude (if you don't take the kids) in a fascinating desert setting exploring the hole.



Library *Display*



DUES, DUES, DUES



It's that time of year again!! To keep your membership current, your dues need to be paid by the January meeting. We encourage everyone to pay early so you don't accidentally forget and get dropped from the mailing list. Please make sure you complete the form in its entirety. Adult members are 18+. Please check if the member is an Adult or Junior. The yearly member fee is \$10 for an individual and \$20 for a family. Also, be sure to list your interests, so we can better serve our member's needs.

If you plan to mail in your dues, the club's address is on the last page of this newsletter.

EAST TEXAS GEM & MINERAL SOCIETY

MEMBER REGISTRATION FORM

Date Paid_____	Dues Paid_____	Cash_____	Check_____
Name(s)_____		Adult_____	Jr._____
_____		Adult_____	Jr._____
_____		Adult_____	Jr._____
_____		Adult_____	Jr._____
Address_____			
City_____	State_____	Zip_____	
Email_____	Newsletter via email Y___ N___		
Special Interest in Club_____			
Home Phone_____	Work/Cell Phone_____		

GROUP MEETS

Lapidary / Jewelry Group

Meets on the second Saturday of each month at 2:00 pm, except December and January.

Terry Roberts leads this group. Contact Terry to have your name added to the email.

terry.roberts45@yahoo.com

Mineral Group

Meets every second Tuesday of each month at 6:30 pm.

Charles Creekmur heads up the group. Contact Charles to have your name added to the email.

calcite65@gmail.com

Fossil Group

Meets every third Tuesday of the month at 6:30 pm.

David Russ heads up the group. Contact David to have your name added to the email.

dbruss50@gmail.com

PRESIDENT

David Russ

903-714-3330

dbruss50@gmail.com**VICE PRESIDENT**

Terry Roberts

TREASURER

Marcia Graham

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Please send original articles to

rocknrosenewsletter@gmail.com.

Please send in a Microsoft Word format that can be edited.

The 10th of the month is the deadline.

Board minutes are not printed in the newsletter. If you would like to see a copy, contact a member of the Board.

THE EAST TEXAS GEM AND MINERAL SOCIETY

The 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 regular monthly club meetings.

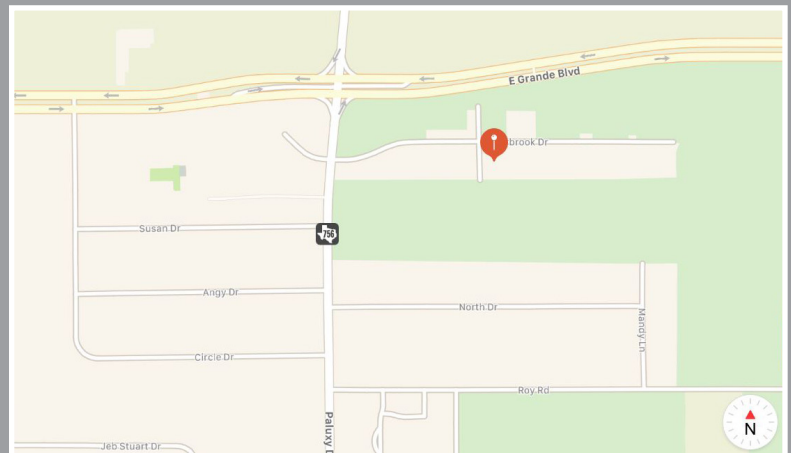
ANNUAL DUES

Single: \$10.00 • Family: \$20.00

MONTHLY MEETING

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

WHERE: ETGMS Clubhouse

Check us out on the web • WWW.ETGMS.ORG**CLUB ADDRESS AND
TO SEND DUES**

East Texas Gem & Mineral Society
P. O. BOX 132532
Tyler, TX 75713-2532

**ETGMS
CLUBHOUSE**

2015 Deerbrook Dr.
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