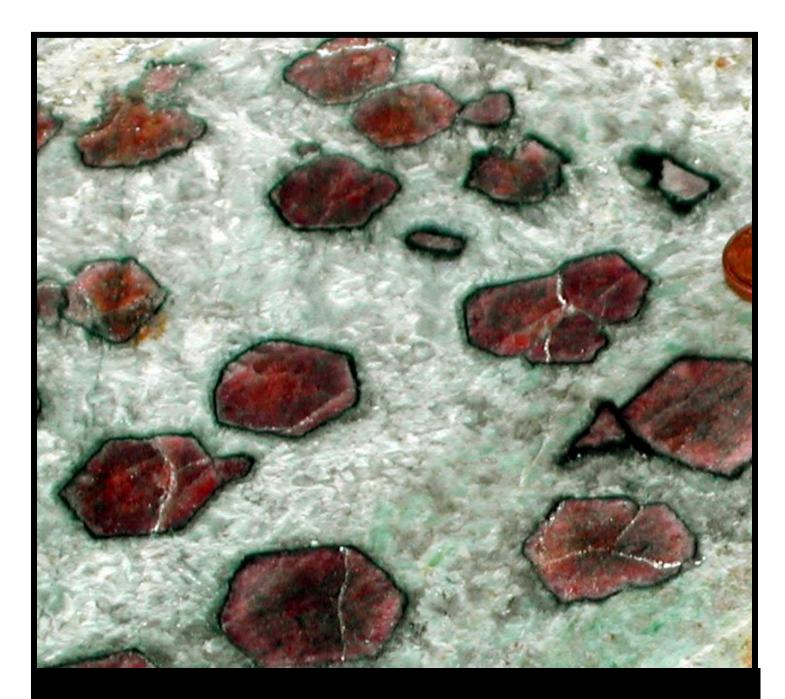


DAISY MOUNTAIN ROCKCHIPS

The purpose of Daisy Mountain Rock & Mineral Club is to promote and further an interest in geology, mineralogy, and lapidary arts, through education, field experiences, public service, and friendship.

VOLUME 7, ISSUE 11

DECEMBER 2022



This is an image of an Eclogite from St Philbert de Grandlieu, Loire Atlantique. The garnets are 1 cm (a bit more that 1/2") across. Photo by Arlette1 and used under license <u>CC BY-SA 3.0</u>

December 2022

ECLOGITE aka CHRISTMAS ROCK

By Susan Celestian

I'm going to stray from the alpha-order presentation of minerals this month, and go with a theme — Christmas. There is an important rock that makes up part of the Earth's upper mantle, with the nickname "Christmas Rock". Officially, it is called *eclogite* — a rock composed of >75% volume red almandine-pyrope garnet and green sodium-rich pyroxene (omphacite), plus minor amounts of other minerals, such as quartz, kyanite, olivine, mica, and others.

The rock is green and red, or green, red, and white — very festive!

Back in the 'old days' (when I was an undergraduate), it was thought that the majority of the upper mantle was eclogite. However, our understanding of the composition of the mantle has been refined, and it is thought that the mantle as whole is mostly peridotite.

Eclogite is a high temperature/high pressure metamorphic rock, formed where basalt and gabbro of the oceanic crust are subducted deep into the mantle. The very high pressures under which it forms creates an extremely dense (heavy) rock. It forms at a minimum of 25 miles (40 km) depth, but may form as deep as 93 miles (150 km). So basalt/gabbro descend, and at 25+ miles deep, they recrystallize into very dense eclogite. That dense phase helps to drag the oceanic crust deeper. In fact, eclogite descends to depths that make it unlikely to return to Earth's surface However, we do find it "up here" — as xenoliths in other rocks, chunks that are squeezed to the surface in slippery serpentinite zones, or pulled to the surface by buoyant continental crust in zones of continental convergence - all which allows us to glimpse rocks we are unable to view in situ.

Eclogite is chemically equivalent in composition to basalt and gabbro; however, the minerals are different, and it never contains plagioclase feldspar, an important mineral found in the parent rocks (but unstable in the new environs). IF an eclogite were to melt 100%, you would get a basalt or gabbro.



FIGURE 1 ECLOGITE This beautiful eclogite is from Nordfjord area, Sogn og Fjordane County, Norway. It is composed of red garnet, green pyroxene, and white quartz. *Photo by James St. John and used under license* <u>CC BY 2.0</u>.

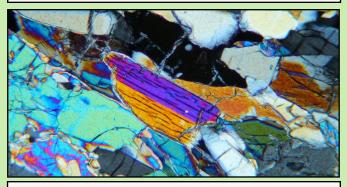


FIGURE 2 OMPHACITE This pretty picture is a microscopic view of a thin section of Omphacite, under <u>crossed polarized filters</u>. The colors are due to refraction and interference of the light passing through the mineral and the upper filter. *Photo by Ringwoodit and used under license* <u>CC BY-SA 4.0</u>.

GENERAL RESOURCES FOR ECLOGITE

https://en.wikipedia.org/wiki/Eclogite https://www.sandatlas.org/eclogite/ https://blogs.agu.org/georneys/2011/07/02/geology-word-of -the-week-e-is-for-eclogite/ https://www.mindat.org/min-48628.html https://www.jsjgeology.net/Eclogite.htm https://all-geo.org/metageologist/2012/10/eclogites-back-tothe-surface/

INSIDE THIS ISSUE

Each item is now hyperlinked to the page on which it is found

Eclogite aka Christmas Rock	2
Announcements	3, 17
December Christmas Party and Meeting	4-5
Safety Zone	6
December Board & General Meeting Minutes	7-11
Field Trips: <u>Hewitt Canyon</u> , <u>Spectrum/Prism/Blue Cube</u> , <u>Saddle</u> <u>Mountain</u>	12-14
Geo Mini: Geo Booms	15-16
Club Information, Field Trip Schedule	18
Announcements, Show list, Words of Wisdom	19-22

December 2022

<u>The class is scheduled to start in January — HOWEVER, be sure to await the arrival of a</u> <u>DMRMC Email Announcement</u>

ANNOUNCEMENT: NEW WIRE WRAPPING INSTRUCTOR — Ryan Howard!

CLASS DATE: on the 1st Tuesday CLASS TIME: 4:30-6:15 CLASS PLACE: Anthem Civic Center, 3701 W Anthem Way

Look for an email with further details, but for planning I am including the supply list that Jennifer Gecho used, when she taught the class. Ready to wrap!?

Bring a cabochon, 20 and 26 gauge copper-based wire, round nose pliers and flush cutters. Extra tools, wire, and cabochons MAY be available for use, but no promises at this time.

Show, socialize, share, swap, sell

January's meeting will not be normal. There will be no speaker. After the business meeting, there will be a time to socialize, while showing your favorite or recent rocks, sharing extra material you may have (a great way to clear space for new stuff!), swapping rocks with others, or selling specimens or something you have made.

This has been an annual event, and a great opportunity to mingle with other members, to acquire some new material, AND to talk rocks.

THERE WILL BE NO SILENT AUCTION AT THE JANUARY MEETING

ED WINBOURNE, DMRMC President/Big Kahuna is home now after having emergency triple bypass surgery on Thanksgiving and several weeks of rehab. His wife, Susan, continues to recover from October open-heart surgery.

Keep them in your thoughts and hearts!

December 2022

december christmas potluck & meeting











C A F E M L A L O W S R A D E H R Ι Ι P E

Christmas continued on 5...

December 2022

...Christmas continued from page 4













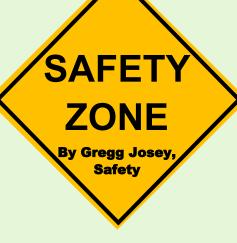




A GREAT SILENT AUCTION!



December 2022



Preparence for a fun and Safe feeld trep

For a fun and safe field trip preparation is the key. There is nothing like getting out into the wilderness, and then realizing you left something critical behind.

Avoid a calamity by making a list. This is a great practice to follow before every field trip, but especially important on your first few trips. There are a few things you should always take along, no matter how long or short, popular or deserted the trip might be. Here is a list of items I have composed to help with a safe field trip.

- 1) Backpack A small backpack will help you carry the items listed below.
- 2) Weather-appropriate Clothing Check the weather condition for the area that we will be rockhounding.
- 3) Hiking Boots or Shoes This is necessary for the rough rocky conditions you through which you will be walking. Tennis shoes, sandals, or loose-fitting shoes should not be worn.
- 4) Hat Shade in warm weather and in the cool weather it will keep your head warm.
- 5) Food or Snacks While out rockhounding have a couple of snacks handy in your backpack for a short break.
- 6) Water Always carry plenty of water with you while away from your vehicle. Dehydration can set in fast.
- 7) Navigation Tools Map and compass. If possible, print a map of the area we will be visiting. If in your budget, a small hand-held GPS is extremely handy and easy to learn to use. You can purchase a basic GPS for around \$100.00.
- 8) Whistle We provide these free of charge through the DMRMC. Ask your trip leader (Bill) for one before leaving the group.
- 9) Sun Screen Much time in the higher altitude you don't even realize that you are getting sunburn until it is too late. Apply before leaving the group.
- 10) Head Lamp or Flashlight Just in case you end up staying out later than planned.
- 11) Lighter or other Fire-starting Equipment Again, this is just in case something occurs that you end up staying out longer than planned.
- 12) Trash bag A trash bag can come in handy in many ways. Rain poncho, shelter, and (at the least) use it to pick up trash, while out rockhounding.

Remember the boy scout's motto: "ALMAYS BE PREPARED"

Be safe and have fun rockhounding!

ZOOM BOARD MEETING MINUTES December 5, 2022

- In attendance: Bill F., Bob S., Claudia M., Deanne G., Jeff B., Rebecca S., Renee I., Stan C., Sue C., and Tiffany P
- Bill F. called the meeting to order
- Minutes from November were accepted
- Deanne G. discussed the financials
 - o Budget is complete for the club year
 - This gives us an idea of what the club spends its money on and when
 - The Christmas party was charged a cleaning deposit of \$100
 - It was asked if this would be returned after the party
 - Deanne will follow up with the matter
 - o Bob S. is still looking into the insurance for the board
 - He received several quotes after the meeting
 - The quotes will have to be more specific to consider any options
- Johanna R. updated the by-laws for the club
 - Final approval was made by the board
 - Sent to the general members for approval
 - Then a vote will be made to enact the changes at the next meeting
 - It has been about 10 years since serious by-law changes were made
 - Should be addressed every 3-5 years in the future
 - As the club grows and changes, so should the by-laws
- Election for board of trustees and officers next general meeting (12/6)
 - Those on the board are willing to stay in their positions
 - o The board welcomed Jeff Blosdale, our newest member
 - Thank you for volunteering!
- Claudia M. discussed the promotional items
 - Will bring the stickers for the next meeting
 - Will also have bumper stickers available
 - Will have the prepaid t-shirts only
 - o January will be stocked with items to buy
 - Bring your cash, card, check to the next meeting
- Tiffany P. talked about membership
 - 160 renewals so far (this can include couples)
 - Renewal emails sent to those who have not renewed yet
 - Tiffany will give Rocky Mountain Federation a headcount
 - Payment is due December 15th to RMF
- Bill F. talked about membership dues
 - Those that apply in December pay for the following years membership
 - They do not have to pay for the current year as well
 - There are no prorated fees available
- Stan C. talked about the claim's committee
 - o Tom E., Don R., and Bob S. are on the claim's board
 - o Jeff B. volunteered to be on the committee as well

Minutes continued on page 8....

December 2022

- Wire wrapping class is coming back!
 - January meeting should take place
 - The room still needs to be rented
- Safety with Gregg J. was discussed
 - Was not on the call
 - Will have something ready for January
 - You can always check out the latest newsletter for safety related articles
- Bill F. talked about the field trips
 - Red Cloud continues to be a great rockhounding spot
 - \circ Check out all the pictures on FB, the newsletter, and at meetings
 - The Chilito trail is getting repaired for the next trip
 - The rain washed it out
 - \circ $\,$ January 7th will be to the club's new claim site
 - \circ $\;$ There will be a club day to Quartzsite in January $\;$
- Show dates were discussed
 - o Tentatively still March 10-12, 2023
 - o Claudia M. submitted paperwork for school district
 - Applied to high school and elementary school
 - Some prefer the high school
 - It has a larger gym
 - Overnight security is not necessary at the high school
 - The dates do not interfere with other rockhounding events
 - There should be no issue finding vendors this year
 - The vendors will be informed shortly
 - Vendor count will depend on location
 - Tom E. volunteered to take over vendors for Jim R. this year
 - Thank you for volunteering!
 - Volunteer sign-ups will start in January for the show
 - We need all the volunteers we can get!
 - 4 hours per shift
 - Show specific meetings will start soon
- The Christmas party was discussed
 - About 60 RSVP'ed
 - o 5pm setup, general meeting 7-8, 8:30 cleanup
 - Presents will be exchanged like a raffle this year
 - There will be no speaker for the Christmas party
- January meeting was talked about
 - Will be a swap and sale
 - Bring anything geology related, even those just for show and tell
 - Swap or sell the items you rockhounded or made
- February meeting will be with live snakes
 - o Rattlesnakes' solutions will have a snake presentation
 - This is a safety related presentation
 - It will teach us how to handle a rattlesnake encounter
 - Rattlesnakes are numerous in the desert

...Minutes continued from page 8

- The March meeting will feature Stan C.
 - He will discuss the egg carton project for the DMRMC show
 - Given to the kids at the kid's corner
- Bill F. talked about upcoming programs
 - Monthly recognition TBD
 - May create a subcommittee to run
 - Club Guides TBD
 - Working on getting this implemented
 - Youth program
 - Might be ready by January meeting
- Groupworks cancellation
 - \circ $\,$ Due to rising prices and lack of traffic on app, it will be removed
 - Sorry for any inconvenience for the change
 - The newsletter, emails, website, and FB page will have any pertinent information available to all members of the club

Respectfully submitted,

Rebecca Slosarik

GENERAL MEETING MINUTES December 6, 2022

- Open attendance about 55 people
- Bill F. called the meeting to order
- The Christmas party was delectable!
 - All had plenty to eat with many gifts exchanged
- The newcomers were welcomed to the club
 - Found the club from fellow rockhounds
- Deanne G. discussed the financials
 - Budget for the new year is finished
 - \circ Net income for the month
- Claim's committee was brought up
 - There are new people in the committee
 - Chairperson has not been finalized yet
 - \circ $\;$ There is a trip to the new mine in January $\;$
 - Check emails for instructions
 - It is located SW of Wickenburg
- Bill F. talked about the field trips
 - \circ $\;$ There will be a new tip jar made soon
 - Chilito mine field trip is still TBD
 - There will be an overnight trip to Kingman and Laughlin
 - Check your emails for updates and instructions
 - Please RSVP to the email for the field trip you will attend!

0

0

December 2022

...Minutes continued from page 9

- Bill F. discussed the board member's votes
 - The current board agreed to keep their positions for another year
 - All general members were given the list last month
 - Information for the board can be found on the newsletter
 - The vote was presented to keep all current board members
 - Unanimous vote from all present club members
 - \circ $\;$ There is one open board seat left based on current by-laws
- Johanna R.'s by-law changes were presented to the general membership
 - The by-laws state that changes made will be given 10 days for review from the general membership
 - Bill discovered it was only 8 days before the meeting
 - It was asked if the members were okay with this deviation
 - No objections were made
 - There was a vote for the by-law changes to be approved
 - Unanimous vote from all present club members
- Claudia M. discussed the promotional items
 - The new bumper stickers are available
 - She brings them to the meetings for purchase
 - Will be available at the DMRMC show
 - A class that anyone could attend was mentioned
 - ASU giving a geologic narrative of the southwest
 - Thursday March 16th from 9:30-11
 - At the Tempe connections public library
 - The club show was discussed
 - The high school is easier to monitor
 - There is more space and bigger bathrooms
 - Gregg J. will help chair the show
 - Tom E. will chair the vendors
 - Robin S. will chair the raffle
 - Renee I. will chair the kid's corner
 - The show will help fund the scholarship
- Ed W. (President of the club) wished everyone Happy Holidays!
 - He was in the hospital, but is doing fine
 - We wish you a speedy recovery Ed!
- Tiffany P. talked about membership
 - One final email will be sent out for due renewals
 - About 170 people renewed (this may include couples)
 - You can always pay online, at a club meeting, or mail in a check
 - \circ The online form is helping with membership
- Gregg J. discussed the safety committee
 - \circ Whistles will be given out at next field trip
 - o The February presentation is safety related
 - Will be a live rattlesnake demonstration

December 2022

...Minutes continued from page 10

- Bill F. talked about the upcoming and new programs
 - \circ The kinks are still being worked out before any are operational
- Wire wrapping will now be instructed by Ryan H.
 - o This will likely start in January before the general meeting
 - \circ Will be at the Anthem Civic Building from 4:00-6:15pm
 - \circ $\;$ You can always check the front desk for room number
- January general meeting will be a Swap & Sale meeting
 - o Bring your own jewelry, cabochons, tchotchkes, etc.
 - Show them off or barter for other goodies
- The show will need volunteers
 - Please sign up for any shift you can
 - o At least 4 hours of your time that weekend would greatly benefit the club
- The youth program for the club was discussed
 - Cynthia F. and Jessica C. will assist the program
 - Thank you for volunteering!
 - Would like to have something ready by January
 - There are about 20 youths in the club
 - 9-10 that routinely attend meetings
- Stan C. talked about the silent auction for the December meeting
 - Great specimens up for grabs!
 - Made the club \$500
- Happy Holidays everyone!
- Please remember to wear your nametag to all club events.

Respectfully submitted,

Rebecca Slosarik



A pretty chunk of the Quartz variety, amethyst. This was collected five years ago, by Stan Celestian, not too far from the Dave Haneline Mine. *Photo by Stan Celestian*

FIELD TRIP TO HEWITT CANYON Wednesday, November 30, 2022

Photos and text by Bill Freese

DMRMC had a great trip out to Hewitt Canyon on the 30th for some beautiful marble. Great stripes of green & pink and other colors. The weather was also just right, with a few clouds and perfect temperature. All 13 of us found some good pieces to take home. The Hewitt Canyon area is also very scenic, so we took some pics on the way out. See ya next time.



December 2022

... Field Trips continued from page 12

FIELD TRIP TO SPECTRUM/PRISM/BLUE CUBE MINES

Saturday, December 3, 2022

Photos and text by Bill Freese

DMRMC had another wonderful trip on December 3rd, to one of the club's favorite sites — the Prism/Blue Cube/Spectrum claims. We even had our hosts Ed & Julie Davis out there with us. The prizes are blue fluorite and amethyst. There are other minerals as well. The part that makes this site fun and interesting is the work you have to put in to get your rewards, but no one complains. All 15 of us managed to get some great pieces. The weather was a little odd in that it was cooler and half-way through the day it started raining a light, constant rain; so we were all wet by the time we were done. Too much fun!



DMRMC FACEBOOK PAGE Field Trips continued on page 14... ...Field Trips continued from page 13

FIELD TRIP TO SADDLE MOUNTAIN Wednesday, December 6, 2022

Photos and text by Bill Freese

DMRMC had a mid-week trip to Saddle Mountain. We were joined by folks from the Verde River Rockhounds and Mingus clubs. Even with a bunch of cancellations, because of health issues, (it is that time of year), we still ended up with 15 people on the trip. It started as a cool, cloudy day, but the sun came out after a couple hours. Everyone found tons of Chalcedony, with some having a chance of Fire in them. All of the pieces glow nicely under short-wave UV. It was a great trip.

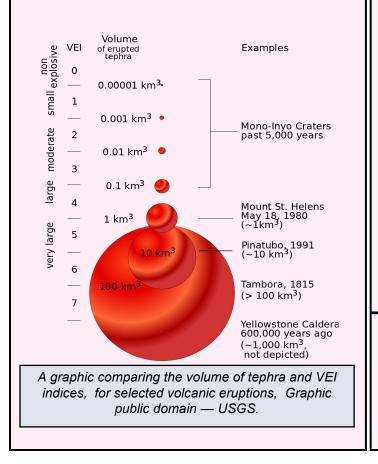


December 2022

GEO MINI Geo-BOOMS! By Susan Celestian

Volcanic eruptions are not rare. But large, Earth and climate-changing eruptions are not common. About one year ago, a massive eruption occurred on Hunga Tonga¹, in the Tonga-Kermadic Islands Volcanic Arc (a part of the Pacific's Ring of Fire). You may not have even heard about it, as it was a submarine eruption; however it did make an atmospheric impact.

In 1982, Christopher Newhall (USGS) and Stephen Self (University of Hawaii) developed a classification system for evaluating volcanic eruptions — the Volcanic Explosivity Index (VEI). At this time, it is a scale of 0-8, and takes into account the volume of volcanic products, the height of the ash cloud, and observations. Most of he scale is logarithmic, meaning that every VEI, over VEI2, represents a ten-fold increase in ejecta over the VEI below. So a VEI3 erupstion produces 10X the ejecta of a VEI2; a VEI4 produces 10X the ejecta of a VEI3, but 100X the ejecta of a VEI2. And on it goes



MAJOR HISTORICAL VOLCANIC ERUPTIONS²

Yellowstone 640,000 yrs ago VEI8 Huaynaputina 1600 VEI6 Krakatoa 1883 VEI6 Santa Maria Volcano 1902 VEI6 Novarupta 1912 VEI6 Mount Pinatubo 1991 VEI6 Ambrym Island 50AD VEI6+ Ilopango Volcano 450AD VEI6+ Mount Thera 1610BC VEI7 Changbaishan Volcano 1000AD VEI7 Mount Tambora 1815 VEI7

And now we can add *HungaTonga - Hunga Ha'apai* in Tonga, of which only 2 small islands (of the once .9mi x 1.2mi island) now peak above the waves. The eruptive phase began on December 20, 2021 and culminated in a massive explosion on January 15, 2022. The estimated VEI is 5-6. Some of the highlights:

- Sound of blast heard in Alaska, 6000 miles away
- Blast excavated an estimated 2.3 mi³ of rock
 Excavated 2300 feet down
- Gas and ash plume reached 35.4 miles high (highest ever recorded!)
- Injected 143 tera grams of water vapor into atmosphere (enough to fill 58,000 Olympicsized swimming pools, or 315,261 lbs of water) Water may remain in stratosphere for years.
- Generated a global tsunami (circled the globe 4 times over 6 days; local swells reached 50 feet, raised sea level in the Mediterranean by 1 foot)
- Generated meteo-tsunami: oscillations in the atmosphere, that disturbed the ocean surface
- Multiple pyroclastic flows that probably went over 50 miles from the volcano center; killed all life and covered at least 8500 mi² with debris
- Currently pumping out hot debris-laden water

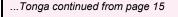
Michael Cassidy U. of Birmingham) and Lari Mani (U of Cambridge) wrote in *Nature* that calculate that an eruption 10-100 times larger than this eruption is 1 in 6, in this century!

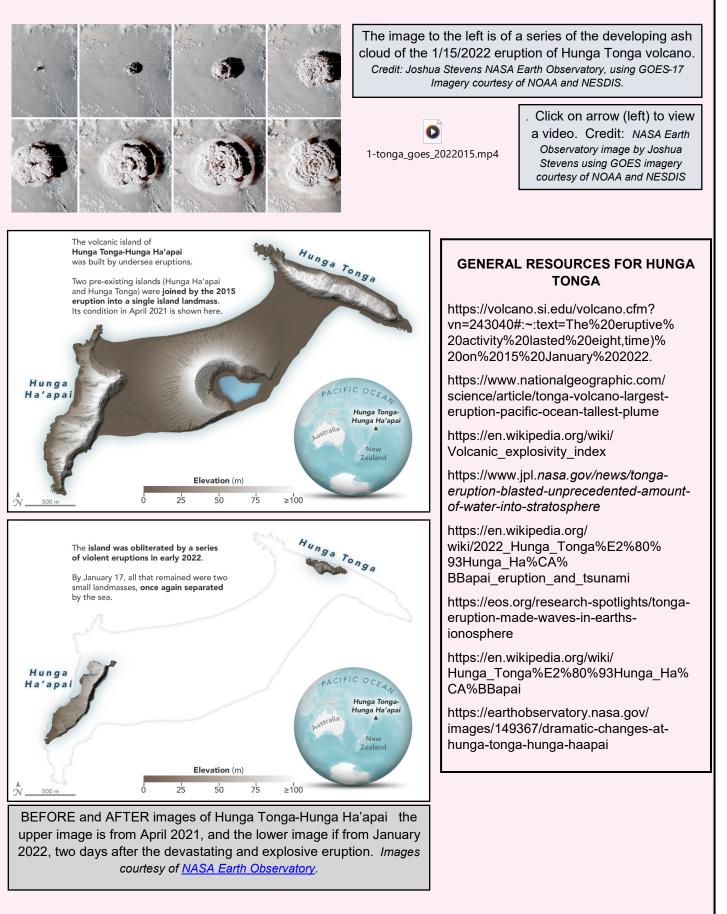
¹ Hunga Tonga-Hunga Ha'apai rises 6562' above the ocean floor, is about 12.5 miles wide; the caldera was just under 500' below the surface, and was 400-500' in diameter

² For more details go <u>HERE</u>.

Tonga continued on page 16....

December 2022





MUSHROOM RHYOLLTE SIGN UP FOR THE JAN 7 FIELD TRIP TO CLUB CLAIM



- Consider volunteering for some aspect of the show: setup/take down, kid's corner, rock sales, security, food table, publicity..... I know Claudia and other committed chairs will be making a plea for help pretty soon.
- address, email address, and cell phone number, and a description of what they sell. You can contact Tom at: (603) 679-8506 or t59edwards@gmail.com.
 If you were at the show last year and didn't see something you wished had been there let Claudia know so we can find a vendor for those items if one exists
- * Tom Edwards, who is newly in charge of getting vendors for our show, has a limited number of back-up vendors so if you attend a show somewhere in Arizona, and find a vendor that you like, please talk to them and ask for their business card with their mailing address, email address, and cell phone number, and a description of what they sell. You can contact Tom at: (603) 679-8506 or t59edwards@gmail.com
- And the club needs your help

March is just around the corner - and you know what that means.....

Daisy Mountain Rockchips

December 2022

rmc gem and mineral show!!

UPCOMING FIELD TRIPS

Here is a general list of upcoming trips. Details will be emailed to the general membership.

January

Mushroom Rhyolite (new claim) - Sat 7th Quartzsite Club Day - Sat 21st -- Mineral Shopping Oatman area - Fri-Sun 27th-29th -- Travertine, Lizardstone, Fire Agate, Oatman

February

Tucson Show Club Day - Sat 4th Mushroom Rhyolite (new claim) - Wed 8th Burro Creek - Sat 11th — Jaspers, Agates Tangle Creek - Wed 22nd Brenda Area - Sat 25th — Jasper

March

Bagdad mine or Superior Apache Tears - Sat 4th Seven Springs - Wed 8th — Onyx/travertine DMRMC Rock & Gem Show - 11th & 12th?? San Carlos - Sat18th — Peridot Dave Haneline Mine (Wickenburg) - Wed 22nd

April

Yuma Area Mines - 1st & 2nd Sat-Sun Chilito Mine (Hayden) - 5th Wed — Copper minerals Mineral Mtn - 15th Sat — Amethyst, copper minerals Dragon Mine - 19th Wed — Mica, tourmaline, thundereggs DMRMC Picnic at Anthem Park - 29th Sat

May

Springerville- 12th-15th — Luna Agate Payson – 17th Wed — Fossils Christopher Creek – - 17th Wed —Zebra jasper/chert Agate Mtn - 20th Sat — Agate, Quartz

June

Lynx Creek (Prescott) - 3rd Sat — Gold panning RMFMS Convention, Casper, WY - xxth-xxth Fri-Mon

DATES AND DESTINATIONS SUBJECT TO CHANGE

Bill and the field trip committee will be actively looking for productive spots for field trips. If you have any suggestions, you are encouraged to contact him at bfreese77@cox.net

FUTURE SPEAKERS

JANUARY: Swap and Sell

MARCH: Stan Celestian - A Review of the Club's Egg Carton Project and new Flickr Page

APRIL: Robert Hazen - Carnegie Institution, Washington D.C., via Zoom. He is a geologist and will speak on Mineral Evolution.

December 2022

FACEBOOK

Visit and join the club page periodically. See what is happening, and boost our visibility on the web. Go to: <u>The Daisy</u> <u>Mountain Rock and Mineral Club</u>. It is set up so you can post photos of outings or related items. Share with friends!

AWARD-WINNING WEBSITE

http://www.dmrmc.com/

If you have comments, contact Nancy Gallagher.

INSTAGRAM

Follow the club on Instagram. Go to <u>https://www.instagram.com/</u> <u>daisymountainrockclub/</u> and follow today. Share with friends!

Officers, Chairpersons, & Trustees

President: Ed Winbourne.....ewinbourne@gmail.com Vice President: Bill Freese..... bfreese77@cox.net Secretary: Rebecca Slosarik .. rslosarik1@gmail.com Treasurer:...Deanne Gosse deanne.gosse@outlook.com Publicity: Jessie Redmond... Membership: Tiffany Poetsch tnpoetsch@gmail.com Editor: Susan Celestian.....azrocklady@gmail.com Field Trip: Bill Freese ... bfreese77@cox.net Mine Steward: Safety: Gregg Josey Show Chair: Ed Winbourne Trustees:

> Susan C Stan C Bob E Nancy G Renee I Gregg J

Claudia M Tiffany P Don R Howard R Jeff R Johanna R Bob S

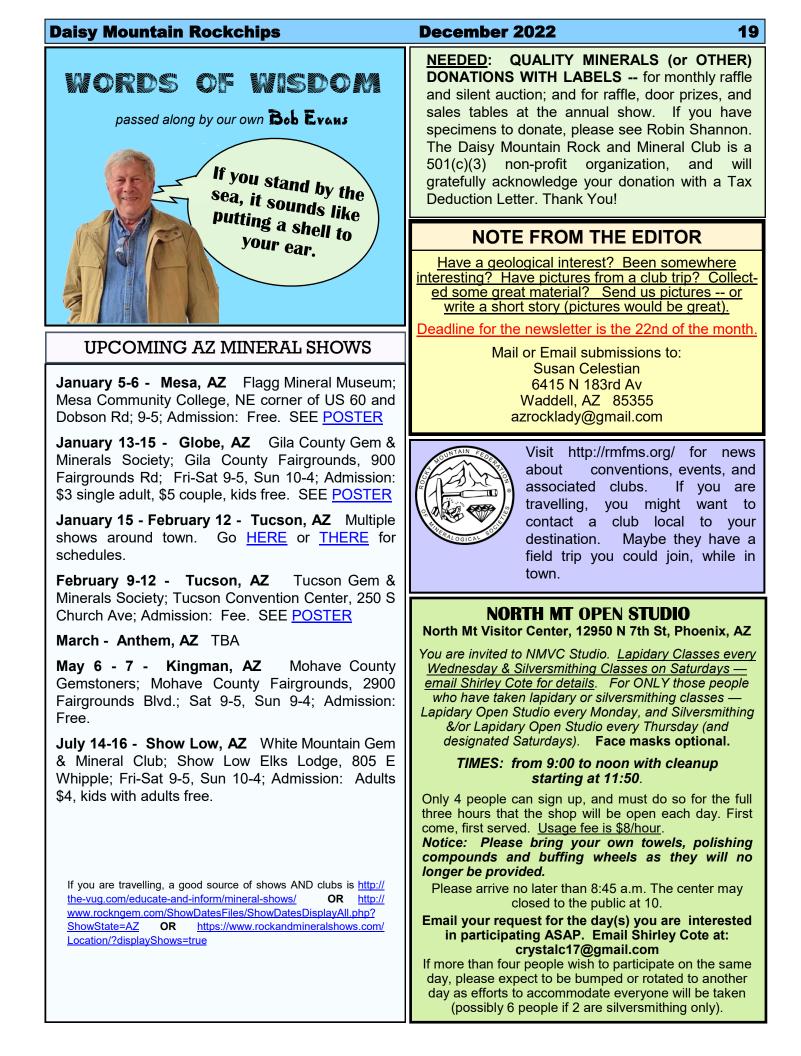
Meetings are held the **1st Tuesday of the month** at **the Anthem Civic Building**, 3701 W Anthem Way, Anthem, AZ 85086. General meeting at 6:30 pm. We **do not meet in July or August**.

DMRMCLUB@GMAIL.COM

Membership Dues: First year \$30, then \$20.00 Adults per Person First year \$45, then \$25.00 Family (2 people)

Meeting Dates for 2023

Jan 3, Feb 7, Mar 7, Apr 4, May 2, June 6, Sept 5, Oct 3, Nov 7, Dec 5



SHOW

50TH ANNUAL FLAGG GEM & MINERAL

December 2022

GOLD - QUARTZSITE, LA PAZ COUNTY, ARIZONA U OF A MINERAL MUSEUM COLLECTION PHOTO CREDIT: JEFF SCOVIL







MESA COMMUNITY COLLEGE NE CORNER OF US 60 AND DOBSON ROAD | 9AM - 5PM

FREE Parking FREE Admission FREE Samples for Kids www.Flaggshow.info



2023 65th ANNUAL *GILA COUNTY GEM & MINERAL SHOW*

JANUARY 13th, 14th & 15th 2023 FRI & SAT. 9 AM - 5 PM & SUN 10 AM - 4 PM

DEALERS * DISPLAYS DEMONSTRATORS * ACTIVITIES

LOTS OF CHILDREN'S ACTIVITIES ** DEMONSTRATORS AND VENDORS LAPIDARY EQUIPMENT/TOOLS **40+ SPECIMEN DISPLAYS HOURLY DOOR PRIZES ** AND MUCH, MUCH MORE!!

OPENING CEREMONY PRESENTATION OF COLORS PROVIDED BY THE GLOBE JROTC

SNACK BAR PROVIDED BY THE GLOBE/MIAMI ELKS LODGE # 489

WITH HANDS ON LEARNING

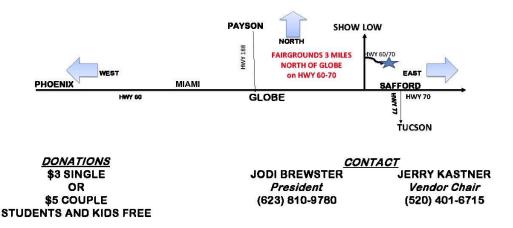
PRESENTATION FOR ALL AGES JOHN O'BRIEN - WHAT IS A FOSSIL @ 1PM FRIDAY, SATURDAY & SUNDAY

DEMONSTRATION FOR ALL AGES

GILA COUNTY COLLEGE - LAPIDARY - ALL DAY FRI, SAT & SUN WIRE WRAPPING JEWELRY WITH POLYMER CLAY- CINDY KOONTZ - ALL DAY FRI, SAT & SUN WIRE WRAPPING ART - HALEY WILLIAMS - ALL DAY FRI, SAT & SUN NATHAN SCHOLTEND - STONE CARVING WITH JADE - ALL DAY SATURDAY

> JOIN US @ GILA COUNTY FAIRGROUNDS GLOBE, ARIZONA 3 MILES NORTHEAST OF JUNCTION U.S. 60-70

VISIT US ON THE WEB WWW.GILAGEM.ORG



December 2022

