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 6, ISSUE 10 **NOVEMBER 2021**

Crystalline Native Copper, Minnesota Mine, Ontonagon Co., MI

Photo by Stan Celestian

COPPER

By Susan Celestian

Chemical Formula - Cu
Crystal System - *Isometric (3 axes of equal length, 90° from each other). Go to https://www.mindat.org/min-1209.html and scroll down to interactive crystal forms.*
Growth Forms/Habits - *Crystalline, arborescent/ dendritic, filiform, herringbone, massive, sheets, nodular*
Hardness - *2.5-3*
Luster - *Metallic*
Streak - *Copper-red*
Color - *Copper-red; tarnishes to green, black/dark brown*
Diaphaneity - *Opaque*
Specific Gravity - *8.94-8.95*
Cleavage - *None*
Fractures - *Hackly*
Other - Twinning not uncommon = spinel twins
- excellent conductor of heat and electricity
- malleable & ductile

Copper is an element that occurs as a Native Metal, i.e. uncombined with a significant amount of any other element. It primarily occurs in the zone of oxidized enrichment within a supergene-enriched sulfide vein, associated with large copper mines. See Figure 1.

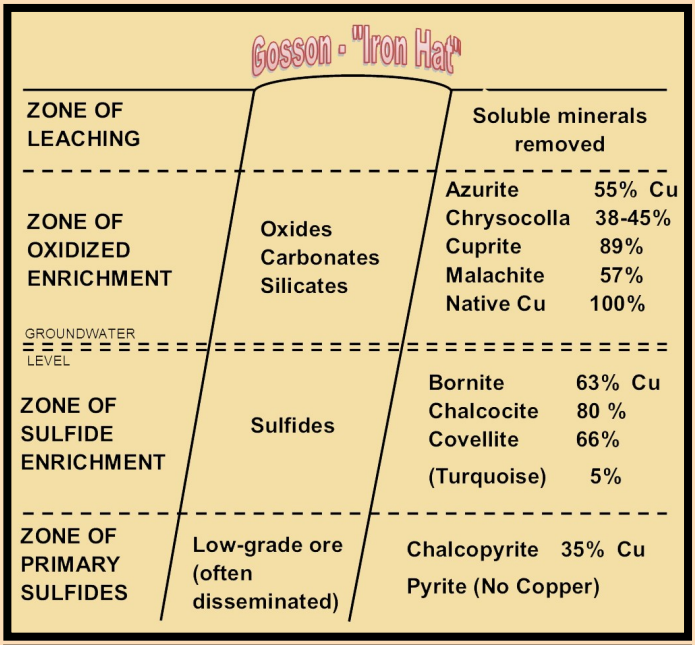


FIGURE 1 SUPERGENE VEIN ENRICHMENT After prolonged weathering, a primary vein of copper sulfides, will exhibit stratified zones of alteration, minerals form with enriched levels of copper. Native Copper occurs in the oxide zone, above the water table. *Illustration by Susan Celestian*

Native Copper continued on page 8….

DUES

It's that time of the year again, and the club needs your renewal fees before December, so Federation dues can be paid on time.

⇒ Single: $20

⇒ Family: $25

ARE DUE

3 ways to renew:

✸ In person at meeting (cash, or charge + 75¢)

✸ Mail: DMRMC, P.O. Box 74215, Anthem, AZ 85087

✸ Online:

SINGLE RENEWAL: $20.75
https://checkout.square.site/merchant/0K88ZKVZZ8960/checkout/SVOYJLVCL2NQGGHBBYVSATTD

COUPLE/FAMILY: $25.75

INSIDE THIS ISSUE

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

NOVEMBER SPEAKER - Mardy Zimmerman

JOY OF FLUORESCENTS

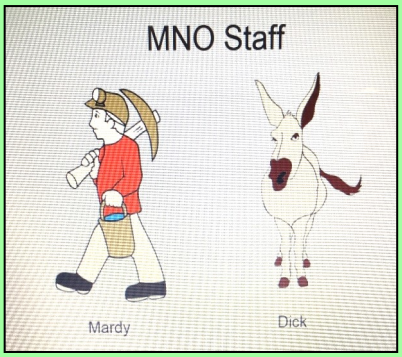
Featuring Arizona Minerals

Photos by Stan Celestian

Mardy Zimmerman, a retired elementary school teacher, has been a premier fluorescent mineral collector for many years. Inspired by Manny Robbins (author of *Fluorescence: Gems and Minerals Under Ultraviolet Light*), she has searched in many of the nooks and crannies of Arizona, and has a great collection.*

- You know a fluorescent collector, when you see a person with their head in a big black bag
- There are 3 wavelengths of light to which minerals may react: UVA (long wave), UVB (intermediate wave), and UVC (short wave)

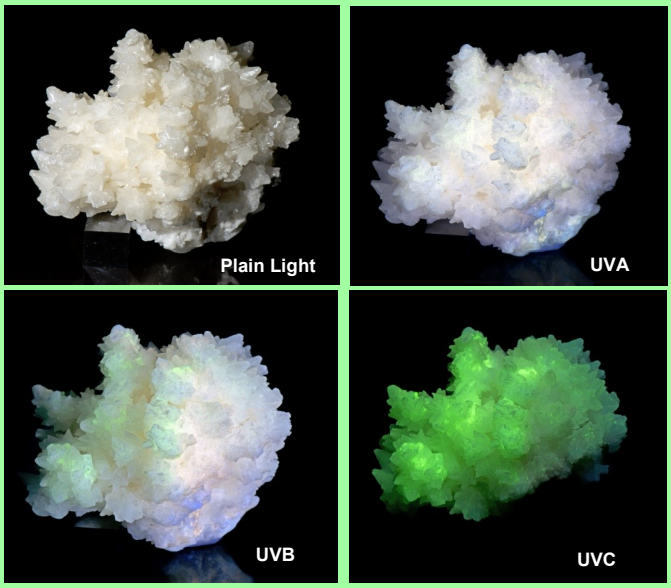
A favorite -- "Coals of Fire" from the Montana Mine, Ruby, Santa Cruz Co., AZ Brilliantly fluorescing calcite stuns the eyes!



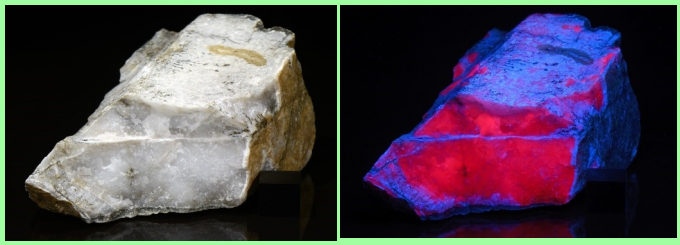
- Her "long-suffering" husband, Dick, is also her collecting partner.

* Mardy has also been bringing egg cartons and rock/ mineral/fossil specimens to the Flagg Show and local schools, where she has done programs. Currently, she orchestrates, for the Earth Science Museum, the creation of Teacher Kits, distributed around the State.

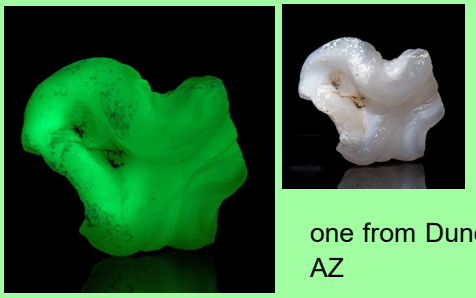
Scheelite in Quartz, Johnson, Cochise Co., AZ. In UVC, the scheelite fluoresces bright white within the quartz crystal.



This aragonite from Bisbee, Cochise Co., AZ is shown in all 3 UV wavelengths. That under UVB, Mardy calls "soft fluorescence", and she and Stan are going to do more investigation.



From the Midnight Owl Mine, Maricopa Co., AZ -- once owned by Dick & Mardy -- comes the famous eucryptite. This specimen exhibits the bright magenta fluorescence (UVC), with a shroud of spodumene (blue).



A little bit of uranium goes a long way to make chalcedony roses glow brightly in neon green. This one from Duncan, Greenlee Co., AZ

Zoom Board Meeting Minutes
November 1, 2021

- In Attendance: Bill F., Bob E., Bob S., Cynthia B., Deanne G., Ed W., Nancy G., Rebecca S., Stan C., Sue C., and Tiffany P.
- Meeting called to order by Bill F.
- October minutes approved
- Cynthia B. discussed the financials
  - Yearly USPS P.O. Box payment paid
  - Can pay dues online
    - ◊ Link will be added to the membership form on the website
    - ◊ An email sent out with a payment option
- Bill F. talked about upcoming board elections
  - Ed W. would like to step down as President
  - Deanne G. offered to become treasurer
    - ◊ Unanimously approved by the board
    - ◊ Will be voted on at Dec general meeting
- The Christmas party was discussed
  - Will be Saturday December 11th; 12-4pm
  - Robin S. will lead the white elephant gift exchange
    - ◊ No value minimum or maximum ($25 is typical)
    - ◊ Geology-related items please
  - Please bring own food, drinks, chairs, rockhounding supplies
- Tiffany P. talked about membership
  - ~180 members currently
  - Club dues should be in around Dec. 1st.
    - ◊ Must be in before December 15th
      - dues are sent to Rocky Mountain Federation for insurance purposes
- Stan C. gave update on the claims committee
  - They will be visiting the Mushroom Rhyolite site in November
- Bill F. discussed the field trips
  - Stoneworld is rescheduled for the spring
    - ◊ Pricing will be per pound
  - BBC mine in Yuma moved to January
- Ed W. talked about the 2022 show
  - Anthem Elementary school application is in
  - High school denied request
  - Vendors have been notified of March 18-20 dates
- Claudia M. created a volunteer sign-up sheet
  - Will be passed out at general meeting
  - All volunteer positions listed
  - We would like to get more volunteer involvement especially from new members
- Stan C. discussed the silent auction
  - An email with details will be sent out before each meeting
  - Anyone can auction for an item during the meeting
    - ◊ Winners will be announced at the end
  - Stan will create a sign-up sheet for the items

Respectfully submitted,
Rebecca Slosarik, secretary

General Meeting Minutes
November 2, 2021

- Open attendance- about 40 attendants
- Ed W. called the meeting to order
  - He has been the President almost 10 years!
- Thank you to Mardy Zimmerman for her fascinating fluorescent presentation
  - Also, thank you for the Eucryptite samples!
- Raffle presented by Robin S. and Deanne G.
  - Raffles brought in $358 for the club
- Cynthia B. discussed the financials
  - Dues must be in before December 15th
- Stan C. talked about the claims committee
  - Dave Haneline mine was bought from Mardy and her husband, Dick
- Bill F. talked about the field trips
  - Emails with field trip information are sent out before each trip
    - ◊ Must reply to email if you would like to attend
  - Please wear name tag on trips
  - You may tip the trip leader if you wish
    - ◊ This helps them with gas expenses
  - If you would like to go on a field trip, but do not have a proper car let Bill know
    - ◊ Accommodations may be worked out with other members
- Officer nominations were discussed
  - Deanne G. is nominated for treasurer
    - ◊ Will be finalized in December meeting
  - Ed W. would like to step down as President
    - ◊ President is the Show Chairman
    - ◊ Handles civic building matters
    - ◊ Obtains the speaker for each meeting
- Claudia M. talked about the volunteer sheet
  - Sign up if you want to help the club
  - We are all volunteers and could use some extra help
- The Christmas party was discussed
  - Club will bring some drinks, hot dogs
    - ◊ Otherwise please bring your own food
- Tiffany P. updated the club on membership
  - Currently have 199 members
- Ed W. talked about the club show for 2022
  - Most likely location will be Anthem Elementary school
  - March 18-20
- Silent Auction winners announced at end of meeting

Respectfully submitted,
Rebecca Slosarik, secretary

CHRISTMAS PARTY

Saturday
December 11, 2021
2-4:00 pm
Dave Haneline
Mine

- The club will provide some drinks and hot dogs & burgers to grill
- BYO alternate main course, side dishes, drinks of choice
- Gift exchange (rock-related item)

FIELD TRIP TO BRONZESMITH

Thursday, October 28, 2021

Photos & Text by Bill Freese

The Bronzesmith was fun as always. We ended up with only 5 people including me, but everyone always enjoys this site. You HAVE TO go there at least once. The beauty, artistry and talent on display is incredible. (look at pics!) We may look at another visit in late spring. *Editor's note: For a more detailed look at what you missed, see the October 2019 Rockchips. It is a very good experience!*

Field Trips continued on page 7…..

...Field Trips continued from page 6

FIELD TRIP TO PURPLE PASSION MINE FOR FLUORESCENTS

Wednesday, November 10, 2021

Photos & Text by Bill Freese

· This was one of our rare evening trips. We went the Purple Passion mine NE of Wickenburg to look for fluorescent minerals. There were 10 of us including me and it was an absolutely beautiful evening. I only got a few pics, as we got there just before sunset. A bunch of new folks including a couple of young ladies that recently joined the club that laughed and giggled the whole way on the 4x4 portion of the trip. I used my big 35-watt triple UV light to make collecting quicker. Everyone got some good 3-color (or better) specimens.

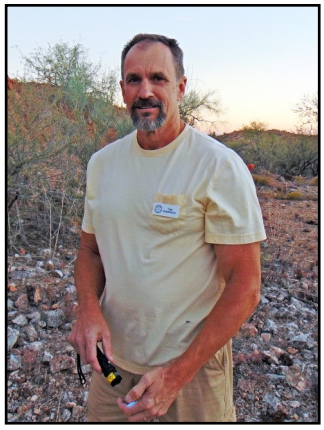
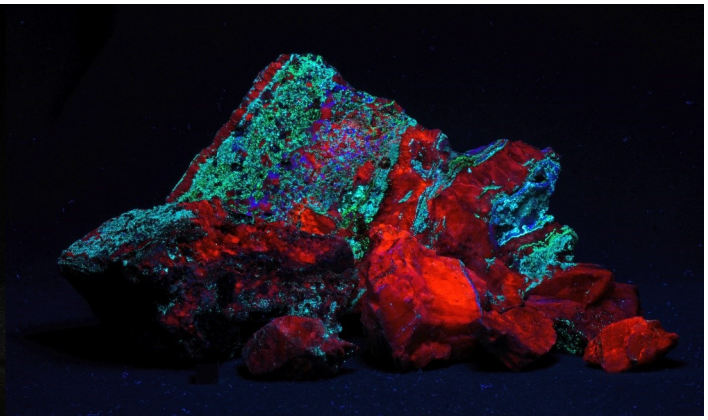


Photo by Joye Kriger



Fluorescent calcite, fluorite & willemite from the Purple Passion Mine, Maricopa Co., AZ *Photo by Stan Celestian* (not on the 2021 trip)

Field Trips continued on page 8…..

...Field Trips continued from page 7










FIELD TRIP TO CHILITO MINE FOR COPPER MINERALS

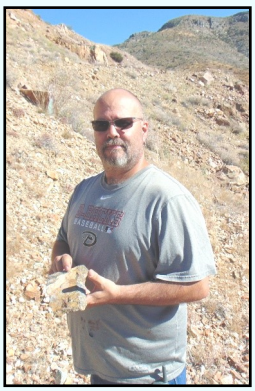
Saturday, November 13, 2021

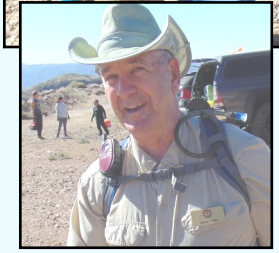
Photos by Bill Freese

Slickensides **-** This polished and scratched rock surface is a product of movement along a fault

Dendrites **-** Common in Arizona, dendrites are manganese oxide crystals, often mistaken for plant fossils.






Field Trips continued on page 9…..

...Field Trips continued from page 8

Chilito Mine continued…..











Field Trips continued on page 10…..

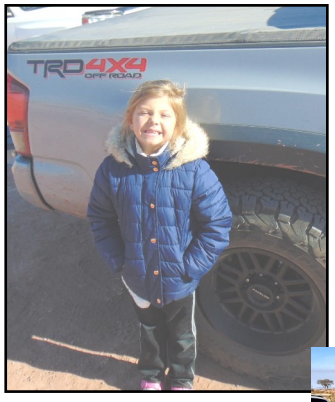
...Field Trips continued from page 9

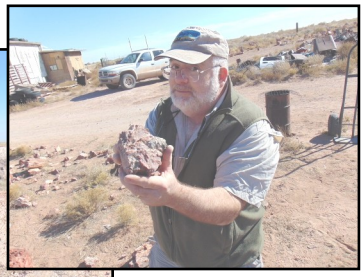
FIELD TRIP TO DOELL RANCH FOR PETRIFIED WOOD

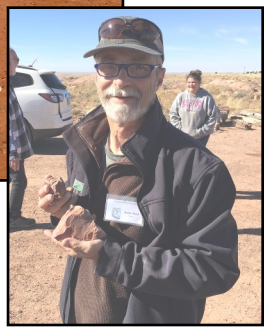
Wednesday, November 18, 2021

Photos & Text by Bill Freese

- The DoBell Ranch trip on Nov 18th was another great destination. We had 3 of the 6 clubs I invited represented. For a last minute trip, this is awesome. We ended up with 17 folks including me, for a beautiful day at the ranch. Our host, Rhonda DoBell (tan sweatshirt), made sure everyone found what they wanted and then served lunch to everyone. Lots of ooh's and aah's could be heard as people search for their favorite petrified wood pieces.







...Native Copper continued from page 2

The world's largest deposit of native copper is found in Michigan. That copper was emplaced about 1.1 billion years ago, in association with volcanism along the Midcontinent Rift, in the region of today's Keweenaw Peninsula. The rift was quite extensive, surpassing 1,000 miles long, but it is largely buried by subsequent Paleozoic sediments -- in the Lake Superior region, it is exposed. Over a period of 15-22 million years, the rift was the site of a widening and subsiding basin, into which many basaltic lavas flowed, with concurrent and intermediate periods of stream and alluvial deposition (conglomerates). Hot, mineralized water, associated with all that volcanism, invaded fractures and voids in basalt and sedimentary rocks, resulting in the deposition of vast amounts of 97% pure native copper (plus native silver). All together, there are about 18 miles of accumulation in the deepest portions of the rift basin.[1] Rifting ceased before the sea could invade, due to the compression applied during the Grenville Orogeny (continental collision along the east coast of what is now North America). See Figures 2-3.

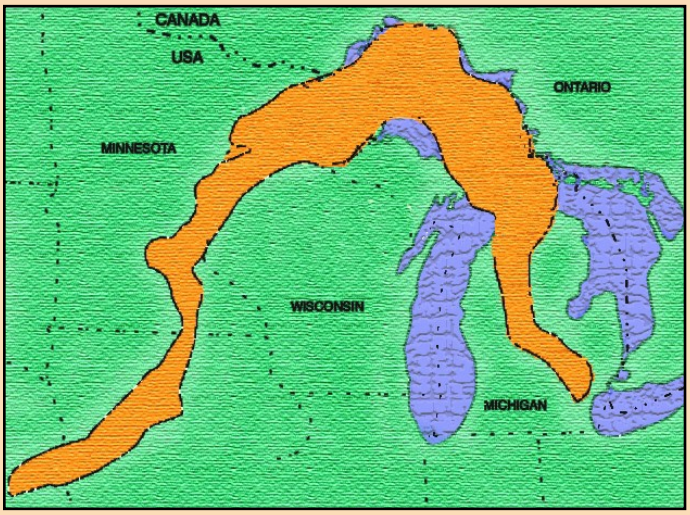


FIGURE 2 PRECAMBRIAN MIDCONTINENT RIFT SYSTEM The 1.1 billion-year-old mid-continent rift is composed of 2 arms, extending about 1200 miles. These are probably 2 of 3 arms formed at a triple junction (brittle material tends to break along 3 directions to relieve tensional stresses). *Illustration by savethewildup and licensed under CC BY-SA 2.0 (and slightly altered by Susan Celestian).*

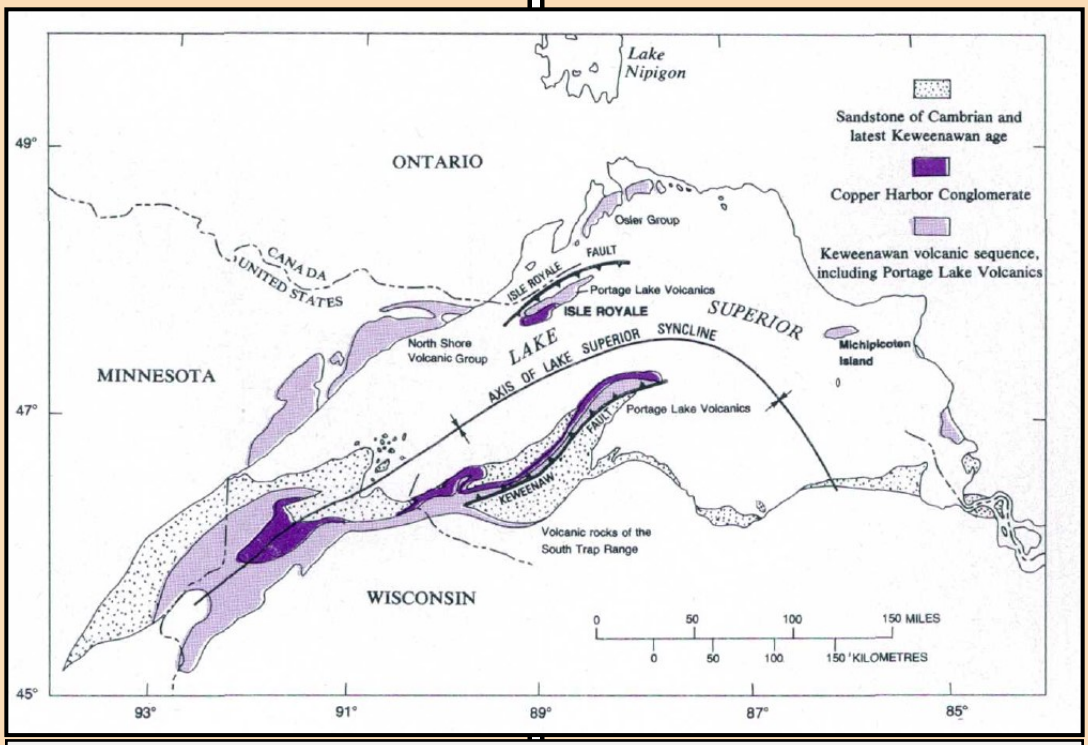


FIGURE 3 GEOLOGY OF THE LAKE SUPERIOR SYNCLINE (MIDCONTINENT RIFT) The purple areas on this map are those that host the native copper deposits of the Lake Superior region. *Illustration Public Domain, by N. King Huber in USGS Bulletin 1039 (The Geologic Story of Isle Royale National Park)*

[1]https://en.wikipedia.org/wiki/Keweenawan_Supergroup

Copper continued on page 12….

...Native Copper continued from page 12

FUN FACT: **Other than gold, copper is the only metal whose color is not silver/gray.**

Images of Native Copper follow in Figures 4-25.

FIGURE 4 NATIVE COPPER This 2.5" specimen, from the New Cornelia Mine, Ajo, Pima Co., AZ exhibits a sheet habit that segues into an arborescent habit. *Photo by Stan Celestian*

FIGURE 5 NATIVE COPPER This is a 4.55" tall arborescent native copper from Milpillas Mine, Cananea, Sonora, Mexico. *Photo by Stan Celestian*

FIGURE 6 NATIVE COPPER This lovely arborescent specimen is from the Pearl Handle Pit, Ray Mine, Kelvin, Pinal County, Arizona. From left to right, it is 6.7" long. *Photo by Stan Celestian*

Copper continued on page 13….

...Native Copper continued from page 12

FIGURE 7 NATIVE COPPER The Celestian's have dubbed this nugget "The Seahorse". It is from Bisbee, Cochise Co., AZ, and measures 14.5" from head to tail. *Photo by Stan Celestian*

FIGURE 8 NATIVE COPPER Filiform, or thready, habit of copper from the 400' level of the Dugan Mine, Bisbee, Cochise Co., AZ.

Photo by Stan Celestian

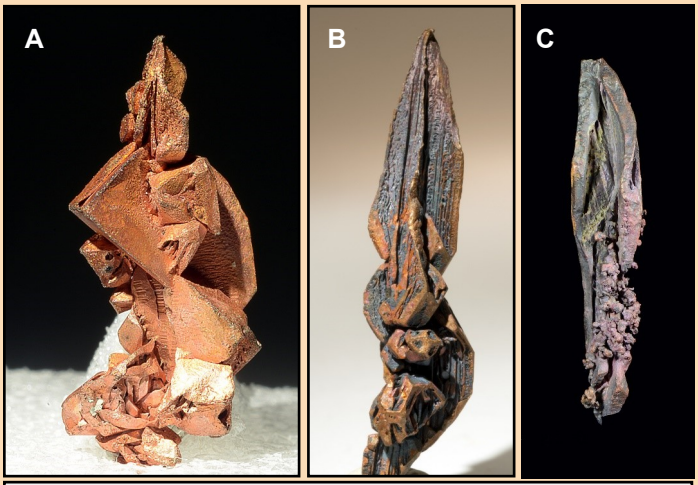


FIGURE 9 SPINEL LAW TWINS Formed by the contact twinning of two octahedrons, these elongated Spinel Law twins are special. Localities: (A) Ray Mine, Pinal Co., AZ; (B) Itauz Mine, Djezkazagan, Kazakhstan ; (C) Rocklands Mine, Cloncurry, Cloncurry Shire, Queensland, Australia.

Photos by Stan Celestian

FIGURE 10 NATIVE COPPER This specimen, from the Ray Mine, Pinal Co., AZ, exhibits what is called "herringbone" habit. Spinel-twinned copper crystals grow out from copper wires, in this very reticulated pattern.

Photo by Stan Celestian

Copper continued on page 12….

...Native Copper continued from page 13

FIGURE 11 NATIVE COPPER This specimen is probably also associated with spinel twinning. Note the chunky cubic terminations, and flattened "fins". Locality: New Cornelia Mine, Ajo, Pima Co., AZ *Photo by Stan Celestian*

FIGURE 12 NATIVE COPPER Here is another beautiful specimen exhibiting the "herringbone" habit. Locality: Houghton, MI *Photo by Stan Celestian*

FIGURE 13 NATIVE COPPER Fabulous finely arborescent specimens have come from the Rocklands Mine, Queensland, Australia. Bright luster with contrasting gray areas, from a coating of chalcocite. *Photo by Stan Celestian*

FIGURE 14 NATIVE COPPER This crystal is hexagonal -- definitely not in the isometric system. Hmmm….. It is a pseudomorph: native copper after aragonite, from Corocora, La Paz, Bolivia. *Photo by Stan Celestian*

FIGURE 15 NATIVE COPPER Flattened spinel twins reach out from this specimen, from Tuinskie Mine, Bogoslovsk District, Middle Urals, Russia. *Photo by Stan Celestian*

FIGURE 16 NATIVE COPPER From the Central Mine, on the Keweenaw Peninsula, MI, this copper specimen is a stack of small cubic crystals. *Photo by Stan Celestian*

Copper continued on page 15….

...Native Copper continued from page 14

FIGURE 17 NATIVE COPPER Big chunky complex crystals of copper from the Franklin Mine, Hancock, Michigan, and on display at the Seaman Mineral Museum, Michigan Technological University, Houghton, Michigan. *Photo by James St John and licensed under CC BY 2.0*

FIGURE 18 HALF BREED This nugget is mostly copper, but look close and you will see silver (lower left corner) -- hence the name "half breed". Locality: Quincy Mine, Houghton Co., MI *Photo by Stan Celestian*

FIGURE 19 NATIVE COPPER This is a large (8.3" across) specimen of arborescent copper from the White Pine Mine, Ontonagon Co., MI. Note that often these arborescent masses are flattened, because they grew within a crack in the host rock. *Photo by Stan Celestian*

Copper continued on page 16….

...Native Copper continued from page 15

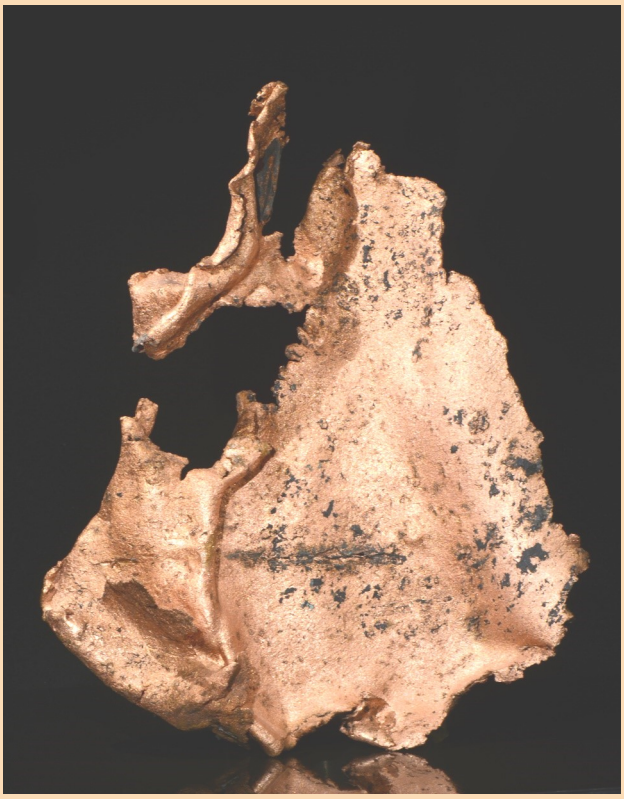


FIGURE 20 NATIVE COPPER Often copper that formed along fractures in rocks grows into a solid sheet. This specimen is 10" tall and from Michigan. *Photo by Stan Celestian*

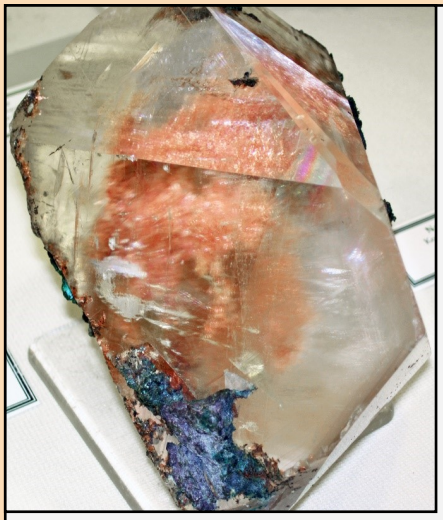


FIGURE 21 NATIVE COPPER IN CALCITE Sometimes calcite encapsulates copper as it grows. This clear calcite crystal enshrouds some lustrous native copper. Locality: Central Mine, Keweenaw Peninsula, MI, and property of the Cranbrook Institute of Science collection, Bloomfield Hills, MI.

Photo by James St John and licensed under CC BY 2.0

FIGURE 22 NATIVE COPPER IN GYPSUM Going back to Arizona, this specimen, from the Mission Mine, Pima Co, AZ, is gypsum in which dendritic native copper has crystallized.

Photo courtesy of Dakota Matrix Minerals

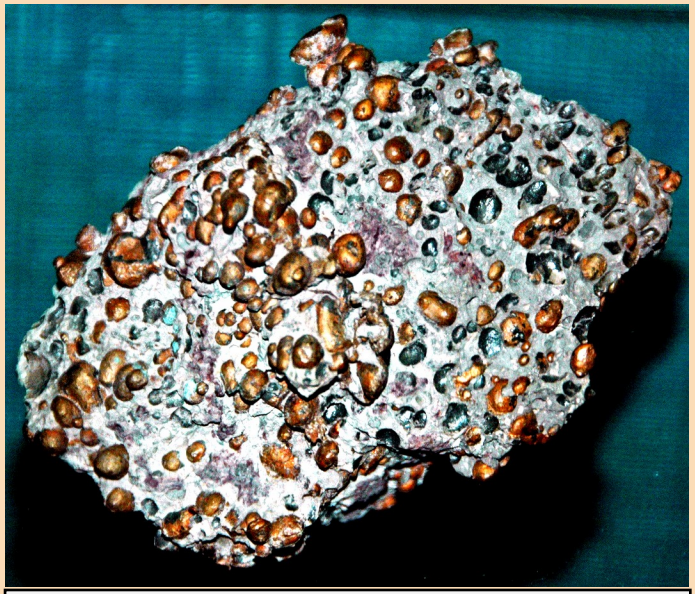


FIGURE 23 NATIVE COPPER This is a mass of amygdaloidal basalt, in which the amygdules (mineral-filled gas bubble holes) are native copper. It is also known as "shot copper". This specimen, from the Wolverine Mine, Kearsarge, MI, and is on display at the Seaman Mineral Museum, Michigan Technological University, Houghton, MI.

Photo by James St John and licensed under CC BY 2.0

Copper continued on page 17….

...Native Copper continued from page 16

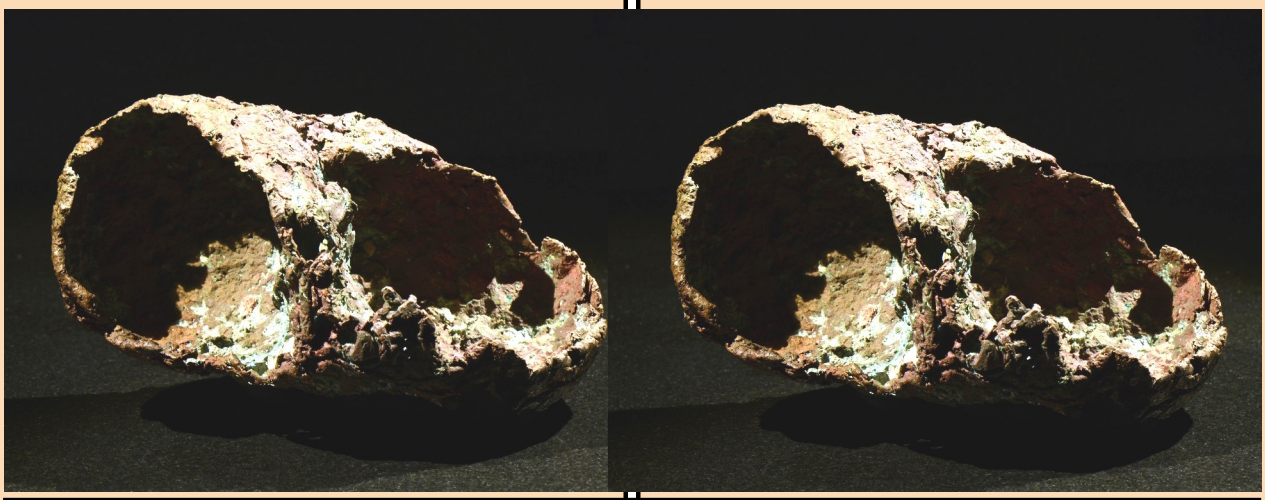


FIGURE 24 NATIVE COPPER "SKULL" Recall that rocks within the Midcontinent Rift included coarse conglomerates. Occasionally, the cement binding the pebbles and cobbles was native copper. Upon exposure and weathering, the clasts (pebbles/cobbles) fall out, leaving the copper shells -- now called Copper "Skulls". This specimen is 6.3" long and hails from the Centennial No. 9 Shaft, Centennial Mine, Centennial, Houghton Co., MI.

This is a stereo image, so stare at the center, cross those eyes, and watch the pair of skulls pop out in 3-D! *Photos by Stan Celestian*

FIGURE 25 NATIVE "FLOAT COPPER" As glaciation exposed cupriferous rocks in Michigan, masses of native copper were plucked up by the ice and transported. During transport, the soft, malleable copper was cleaned of other rock and abraded. This copper has become known as "float". Many of these are quite large -- the largest weighed 35 tons, but it has been smelted and refined. The largest existing mass is pictured above -- owned by Collector's Edge, and weighing 26.6 tons. *Photo courtesy of Collector's Edge Minerals.*

Copper continued on page 18….

...Native Copper continued from page 17

GENERAL RESOURCES FOR COPPER

https://www.mindat.org/min-1209.html
http://webmineral.com/data/Copper.shtml#.YYc0ZmBKg2w
https://en.wikipedia.org/wiki/Copper
https://www.livescience.com/29377-copper.html
https://en.wikipedia.org/wiki/Keweenawan_Supergroup
https://en.wikipedia.org/wiki/Midcontinent_Rift_System
https://project.geo.msu.edu/geogmich/copper.html
https://pages.mtu.edu/~raman/papers2/BornhorstBarronFT.pdf
http://npshistory.com/publications/geology/bul/1309/sec4.htm
https://www.livescience.com/29377-copper.html
https://museum.mtu.edu/sites/default/files/2020-12/

GEO MINI

DAVEMAOITE

By Susan Celestian

A new mineral joins a class of 2, as a naturally occurring very high pressure mineral, previously seen only in the lab. Lab-created in high pressure lab, where pressures 200,000 times that of atmospheric pressure are exerted, this mineral's version is unstable, and disappears as soon as the pressure is released, when it immediately reverts to something else. Until now, it has been unknown in nature.

It is a calcium silicate titanate (officially, a calcium, silicate perovskite), and the proposed name is davemaoite, after geologist Ho-Kwang "Dave" Mao, a pioneer in experiments using diamonds as presses, when mimicking pressures found in the mantle. Found in a deep-mantle (210-560 miles deep) diamond from a mine in Obapa, Botswana. And all that exists (that we know so far) are five tiny specks 5-10 micrometers wide (1 micrometer is .00003937 inch -- that is <u>super</u> tiny)! See Figure A.

FIGURE A DAVEMAOITE
Five specks of a new mineral are included in a diamond from deep in the Earth. <u>NOTE</u> dark halos around the inclusions (the laser used to burn down to the specks caused disruption) *Photo by Aaron Celestian, Natural History Museum of Los Angeles County*

The rigid and sturdy structure of the diamond keeps these davemaoite inclusions from becoming unstable at Earth's surface. After forming, diamonds are stable through changing conditions affected by tectonic forces. Any material included in them is permanently ensconced. Therefore, diamonds are perfect windows into conditions within the Earth's mantle; and when they appear at the surface, we can open that window.

The specks were studied by Oliver Tschauner and colleagues at the University of Nevada Las Vegas. They used x-rays and spectroscopic analysis of laser-vaporized material.

- The cubic structure distinguishes this new mineral from other calcium silicates found in the Earth's crust.
- It contains lots of potassium, which is uncommon in the mantle, but may be transported there by subducting plates. So this mineral could give scientists insights into the transportation of elements into the mantle.
- It also contains thorium & uranium, radioactive elements responsible for about 1/3 of the heat 'down there'. (See those radiation haloes around the inclusions in Figure A) Since these elements are not easily incorporated into minerals of the deep Earth, concentrations of these elements -- as compared to that within the crust -- leads scientists to believe that Davemaoite may make up 5-7% of the lower mantle. If the mineral becomes concentrated in places, the radioactive decay may account for hotspots, which drive mantle circulation, and in turn plate tectonics.

There is an ongoing approval process through which all proposed new mineral names must go, and the type specimen(s) must forever be housed within a museum. (In this case it is the holotype - the only known specimen.) The study leader requested it go to the Natural History Museum of Los Angeles County. Note the name of the photographer on the image in Figure A.

GENERAL RESOURCES FOR DAVEMAOITE

https://www.scientificamerican.com/article/new-mineral-discovered-in-deep-earth-diamond/

https://carnegiescience.edu/news/introducing-davemaoite-groundbreaking-mineral-discovery-named-after-trailblazing-carnegie

https://www.science.org/content/article/diamond-contains-mineral-never-seen-nature

UPCOMING FIELD TRIPS

WHERE: Chilito Mine
WHEN: Saturday, November 13, 2021
WHAT: Copper Minerals
MEET: 9:30 AM at the turn off for the site on AZ-177 just south of mile marker 140
(coordinates = 33.01108, -110.82079)
OTHER: Joint trip with Verde Valley Rockhounds & MSA
High clearance at least; 4WD preferable

WHERE: Red Cloud Mine (Yuma)
WHEN: Friday/Saturday, December 3-4, 2021
WHAT: Wulfenite, fluorescent fluorite
OTHER: Joint trip with MSA & Verde Valley Rockhounds

WHERE: Dave Haneline Mine
WHEN: Saturday, December 11, 2021
WHAT: Club Christmas Picnic; Cerussite, other rocks

WHERE: Blue Cube/Spectrum/Prism Mines
WHEN: Saturday, December 18, 2021
WHAT: Fluorite, Amethyst, Barite
OTHER: Collecting Fee of $20

DATES 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

DECEMBER SPEAKER

Sharon Lane, of Rocking-Oldies.com, will speak about Arizona stromatolites (see pp 13-15 in December 2019 issue of Rock Chips). They have discovered an attractive occurrence in Arizona.

March will be here before we know it! Keep you calendar open for the DAISY MOUNTAIN GEM & MINERAL SHOW 2022

FACEBOOK

Visit and join the club page periodically. See what is happening, and boost our visibility on the web. Go to: The Daisy Mountain Rock and Mineral Club. 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 https://www.instagram.com/daisymountainrockclub/ 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: Cynthia Buckner….Cbuckrun1@q.com
Publicity: Jessie Redmond...
Membership: Tiffany Poetsch tnpoetsch@gmail.com
Editors: Susan & Stan Celestian……
azrocklady@gmail.com
Field Trip: Bill Freese ... bfreese77@cox.net
Mine Steward: Stan Celestian…….
stancelestian@gmail.com
Show Chair: Ed Winbourne
Trustees:

Cynthia V	Claudia M
Susan C	Tiffany P
Bob E	Jim R
Jennifer G	Witt R
Don R	Howard R
Jessica C.	Rebecca S
Johnaton M	Joe G
Clark L	Bob S.
	Nancy G

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)

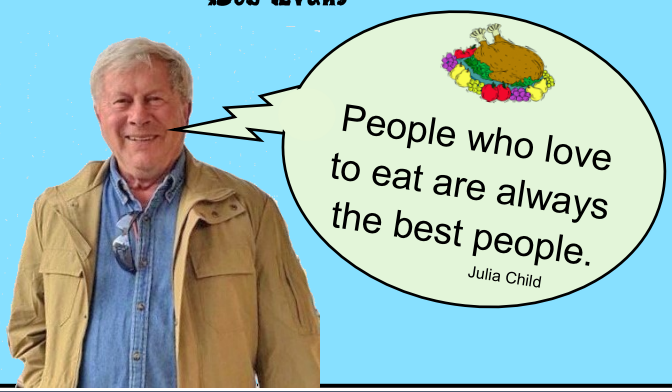
Meeting Dates for 2021

Jan 5, Feb 2, Mar 2, Apr 6, May 4, June 1, Sept 7, Oct 5, Nov 2, Dec 7

Words of Wisdom

passed along by our own

Bob Evans



UPCOMING AZ MINERAL SHOWS

November 27-28 - Wickenburg, AZ Wickenburg Gem & Mineral Society; Hassayampa School, Wrangler Event Center, 251 S Tegner St; Sat 9-5, Sun 10-4; Admission: Free. See poster on page 24.

December 4 - Phoenix, AZ AMMNRE Museum is hosting a Stamp Mill Run & Public Event; 1502 W Washington; Sat 10-2; Admission: Free. Stamp Mill demonstrations at 10:30 & 12:30, Mineral displays inside. See Poster on page 25.

January 7-9 - Mesa, AZ Flagg Mineral Foundation; Mesa Community College, 1833 W Southern; Daily 9-5: Admission: Free. See Poster on page 26.

January 1-February 28 - Quartzsite, AZ There are several shows going on during this time: Desert Gardens, Tyson Wells, PowWow, Gold Show. Go HERE & THERE to see show schedules.

February 10-13 - Tucson, AZ Tucson Gem & Mineral Society; Tucson Convention Center, 260 S Church Av; Thur-Sat 10-6, Sun 10-4; Admission: Adults $13, 2-day ticket $22, children under 14 free with paying adult. See flyer on page 22 for $3 off coupon.

Go HERE for a list of other shows going on in Tucson during January/February.

If you are travelling, a good source of shows AND clubs is http://the-vug.com/educate-and-inform/mineral-shows/ **OR** http://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=AZ **OR** https://www.rockandmineralshows.com/Location/?displayShows=true

NEEDED: QUALITY MINERALS (or OTHER) DONATIONS WITH LABELS -- for monthly raffle prizes; and for raffle, door prizes, and sales tables at the annual show. If you have specimens to donate, please see Robin Shannon. The Daisy Mountain Rock and Mineral Club is a 501(c)(3) non-profit organization, and will gratefully acknowledge your donation with a Tax Deduction Letter. Thank You!

NOTE FROM THE EDITOR

Have a geological interest? Been somewhere interesting? Have pictures from a club trip? Collected some great material? Send us pictures -- or write a short story (pictures would be great).

Deadline for the newsletter is the 22nd of the month.

Mail or Email submissions to:
Susan Celestian
6415 N 183rd Av
Waddell, AZ 85355

Visit http://rmfms.org/ for news about conventions, events, and associated clubs. If you are travelling, you might want to contact a club local to your destination. Maybe they have a field trip you could join, while in town.

NORTH MT OPEN STUDIO - DECEMBER

You are invited to return to NMVC Open Studio. Lapidary & Silversmithing on Thursdays and the first, third and fifth Saturdays in a month, from 8:30 to noon with cleanup starting at 11:45.

NMVC requires that everyone wear a mask while in the building. (Other NMVC requirements will be sent in a later email or on premises.)

Only four people can sign up, and must do so for the full three hours that the shop will be open each day. First come, first served.

Please arrive no later than 8:45 a.m. The center may close to the public at 10.

Email your request for the day(s) you are interested in participating ASAP. Email Shirley Cote at crystalc17@gmail.com

December – Thursday's dates are 2, 9, 16, 23, 30
December – Saturday's dates are 18

If more than four people wish to participate on the same day, please expect to be bumped or rotated to another day as efforts to accommodate everyone will be taken.

We would also like to inquire as to anyone wishing to come in for **Lapidary Only Open Studio on Mondays.** Email Shirley at crystalc17@gmail.com

December - Monday's dates are 6, 13, 20, 27

Wire Wrapping

Jennifer Gecho is graciously teaching a wire wrapping class that meets prior to the general meeting.

- ► First Tuesday of the month
- ► 4:30-6:15
- ► Anthem Civic Building, 3701 W Anthem Way, Anthem, AZ 85086

Please bring a cabochon, 20 and 26 gauge copper-based wire. Round nose pliers and flush cutters. Extra tools, wire, and cabochons will be available for use

LOOKING FOR A REFRESHER, OR NEW GUIDANCE, ON THE IDENTIFICATION OF MINERALS AND ROCKS?

Check out Shirley Cote's *FREE* presentation on Rock and Mineral Identification

WHEN: Saturday, December 11, 2021

WHERE: North Mountain Visitor Center

REGISTRATION limited to 15 people

DONATIONS to Save Our Mountains Foundation much appreciated

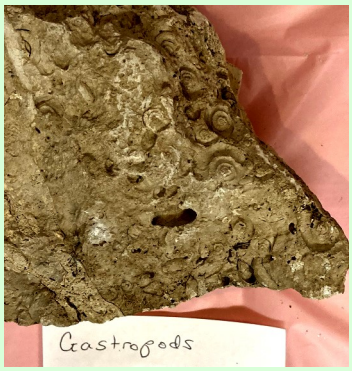
RSVP: Register by December 9 by emailing Shirley at crystalc17@gmailcom

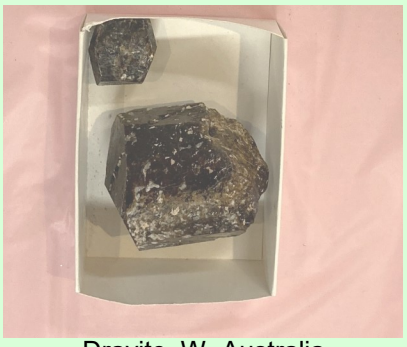
Participate and learn about elements, minerals, and rocks. Shirley will be presenting a Hands-on Rock and Mineral Identification and Uses Program. Each participant will be given an informational handout and a special mineral to take home. Enjoy a wonderful display of minerals!

"Come learn and enjoy the wonderful world of minerals!"

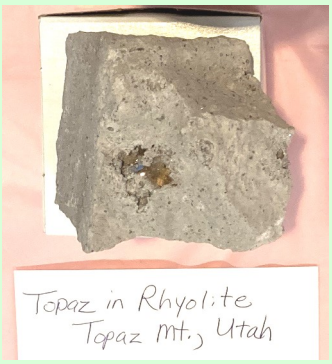
FOR FUN: A REVIEW OF THE RAFFLE ITEMS

At every meeting, tickets are $1.00



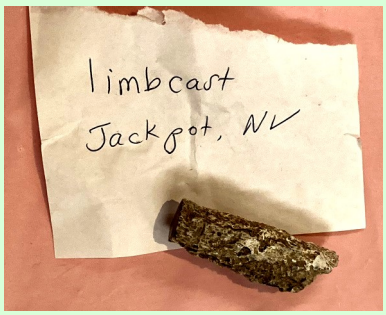


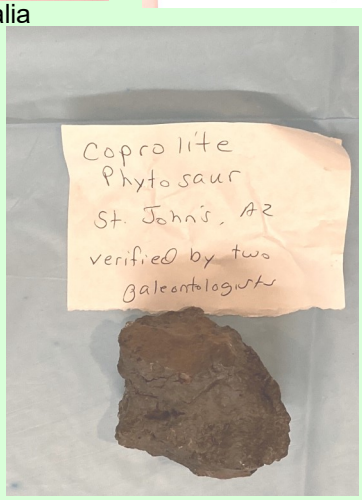
Dravite, W. Australia

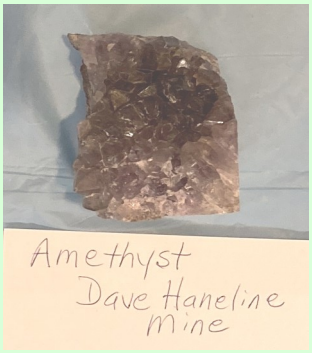


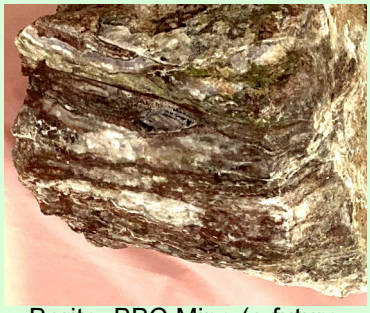
Necklace by Deanne G.

Opalized Wood, NV

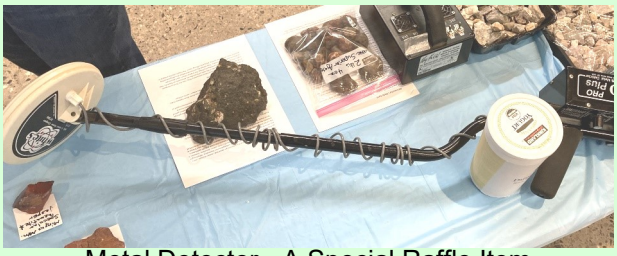








Barite, BBC Mine (a future field trip destination)

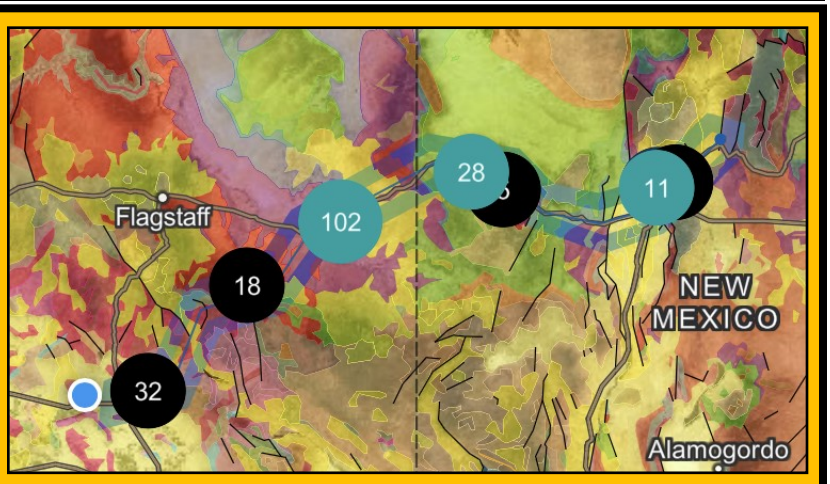


Metal Detector - A Special Raffle Item

A recent post by the Arizona Geological Survey, highlighted a really cool app -- Flyover Country -- available for both iPhone and Android.

I downloaded it, and plotted a few routes. You can ask to see any of the following: Geologic Map, Landscape Features, Mammal Fossils, Fossils, Holocene Volcanics, Ocean Core Samples or Lake Core Samples.

AND you can plot a **car** route OR a **plane** route. Cool!!!



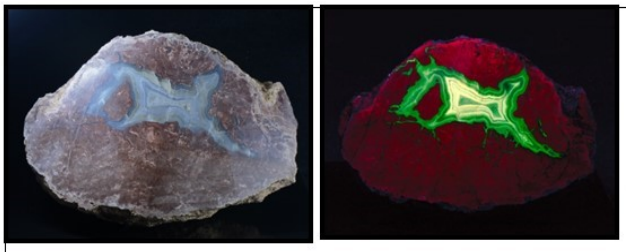
This is a partial screen shot of a route I plotted from Phoenix to Santa Fe, NM. The black dots identify special sights, the green dots identify fossils from that area.

SILENT AUCTION !!!

by Stan Celestian, Silent Auction Poohbah

The Silent Auction will be in Hyper Holiday Mode at the next meeting (December 7). **FANTASTIC** specimens will be available at the meeting. Stan C says "Bring plenty of cash as we will not be accepting checks or credit cards." And of course all of the money goes to a good cause, the DMRMC.

FIRST is a great specimen of **TOPAZ** in Rhyolite from the famous Topaz Mountain in Utah. The rhyolite has a vug (or pocket) with well formed topaz crystals. Who knows, maybe there are more vugs with topaz lurking inside the rhyolite. There is only one way to find out, win the bid and have at it. This specimen was collected by Stan C. only a couple of years ago.



SECOND is a simply fabulous **THUNDEREGG** from near the Dragon Mine near Wickenburg, AZ. This beauty was collected, polished by Stan C. (I know, what a guy) and now made available as an auction item. This "Bad Boy" is a full 9 inches across. As a bonus, the specimen fluoresces in UVc (short wave).

What an excellent addition to your collection!

LAST but far, far, far from least, is this amazing collection of **QUARTZ** crystals. You will be bidding on **ALL** of the specimens in the box. That's right ALL of it! Stan and Sue C must be crazy you say?... Well, maybe, but they are still donating it to the club's Silent Auction. (Disclaimer: Some of the craziness may be contagious and cause an inability to not pick up rocks.) This box contains 49 quartz crystals and a ziplock bag (center of picture) that has written on it: *20 Grams, Facet Grade Chrysoberyl, Brazil*. Basically it is a bag full of little greenish chips. So, WOW! Right? All of this just in time for Christmas. Keep the ones you want and give the rest as presents.

Win/Win !

(I forgot to mention, you also get all of the boxes.)

Wickenburg Gem and Mineral Show

Nov 27 & 28, 2021

Free Admission

Jewelry

Fossils

Minerals

Gems

Over 40 Vendors Best Rock Contest Raffle

Door Prizes Kid's Area Silent Auction

Hassayampa Elementary School

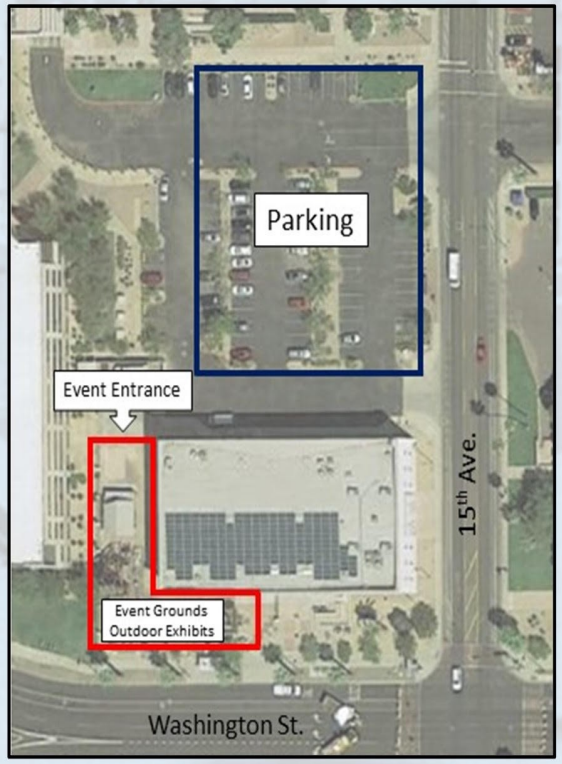
251 South Tegner Street Wickenburg, AZ

9am - 5pm Saturday • 10am - 4pm Sunday

Arizona Mining, Mineral & Natural Resources Education Museum

YOU'RE INVITED!

AMMNRE Museum
Stamp Mill Run and Public Event



Saturday, December 4

10am – 2pm

1502 W. Washington St.
Phoenix, AZ 85007

Stamp mill demonstrations
at 10:30am & 12:30pm
Mineral displays inside

Face coverings and social distancing required. More info at ammnre.arizona.edu

The Tucson Gem and Mineral Society Proudly Presents:

THE 67TH ANNUAL

Tucson Gem & Mineral Show®

February 10 - 13

The Show That Glows 2022

featuring:

THE APATITE SUPERGROUP

and the Fluorescent Mineral Pavilion
with over 80 Spectacular Displays by

The Fluorescent Mineral Society

TUCSON CONVENTION CENTER
260 South Church Avenue • Tucson, Arizona 85701

Thursday, Friday & Saturday: 10:00 a.m. - 6:00 p.m. | Sunday: 10:00 a.m. - 4:00 p.m.

Tickets go on sale Thursday, January 16, 2022 at all TCC Ticket outlets or call the TCC Box Office at 520-791-4101, option 1 for more information.

Don't forget, you can buy your ticket at the door!

Admission is $13.00, Children 14 and under FREE with a paying adult

Friday, February 11, 2022 is Military (active & retired) and Senior Citizens Day (62 and older), receive $3.00 off the regularly priced ticket*

2-day tickets will be available for a cost of $22.00*

Clip the coupon for $3.00 OFF on one adult General Admission ticket*

ADDITIONAL FEATURES:

- Retail Dealers | Exhibits
- Junior Education Area
- FREE Lectures | Symposiums
- "Micro- Mineral" Room
- Hourly Drawings at the Giveaway Booth
- Saturday Night Banquet & Awards
- Silent/Live Auctions

*cannot be used with any other discount

Scan code for information on our Tucson Gem & Mineral Show®

Tucson Gem & Mineral Show®
The Show That Glows

TUCSON CONVENTION CENTER
February 10 - 13, 2022

CHILDREN 14 AND UNDER FREE WITH A PAYING ADULT

www.tgms.org

$3.00 OFF ONE ADULT GENERAL ADMISSION

*cannot be used with any other discount

For more information, visit: www.tgms.org