

# 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 1**

**JANUARY 2022**



## **EPIDOTE FROM HACHUPA (HASHUPI), SHIGAR VALLEY, SKARDU DISTRICT, BALTISTAN, NORTHERN AREAS, PAKISTAN**

Alpine-type clefts have produced some of the world's finest epidote specimens, and those from the mountains of Pakistan are included. Alpine clefts are cavities that open where rocks are undergoing tectonic stretching and bending. Within these can be found outstanding quartz, epidote, and other minerals.

This beautiful, gemmy Alpine-type cleft epidote also exhibits *Faden* (German for 'thread') growth. Within Alpine clefts, crystals are repeatedly broken from stress. As they heal, or regrow, rapid growth caused crystals to often flatten, mismatch, and incorporate liquid and gas inclusions in the center of the crystal -- the latter constituting the "thread" running down the middle of the specimen. Photo by Rob Lavinsky, [iRocks.com](http://iRocks.com) and licensed under [CC-BY-SA-3.0](https://creativecommons.org/licenses/by-sa/3.0/)



# EPIDOTE

By Susan Celestian

**Chemical Formula** -  $Ca_2Al_2(Fe^{3+};Al)(SiO_4)(Si_2O_7)O(OH)$   
**Crystal System** - Monoclinic (3 axes of unequal length, one not at 90° from the others) (Go [here](#) for graphics of epidote crystals. Scroll down to the images; they can be rotated, using the cursor.)

**Growth Forms/Habits** - Massive, acicular/fibrous, prismatic

**Hardness** - 6

**Luster** - Vitreous to resinous

**Streak** - Colorless to grayish white

**Color** - Pistachio green, yellowish green, greenish black, dark green, black

**Diaphaneity** - Transparent to essentially opaque

**Specific Gravity** - 3.38-3.49

**Cleavage** - Perfect in one direction; imperfect in another

**Fractures** - Irregular/uneven

**Occurrence** - Secondary mineral in marble, schist & igneous rocks

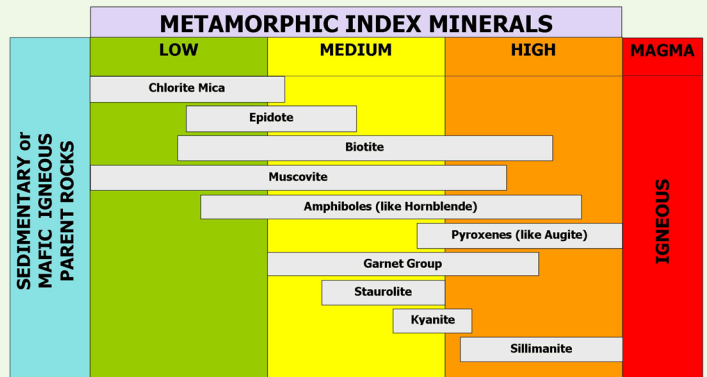
**Other** - Crystals are often striated; twinning common

Epidote is the most common mineral in a larger Epidote Group (group of silicate minerals with shared structure and composition). Epidote and Clinozoisite are end member minerals in a solid solution series<sup>1</sup>: Moving from epidote to Clinozoisite iron (Fe) is increasingly replaced with aluminum (Al).

As mentioned above, epidote occurs as a secondary mineral formed during low- to medium-grade metamorphism, or hydrothermal introduction to igneous rocks. See Figure 1.

You will see a lot of epidote in your meanderings through Arizona -- especially central and southern Arizona. Most of it will be massive as pistachio green veins and veinlets in granite and metamorphic rocks. This can be a pretty lapidary rock, although tends to be pitted (but you might be able to live with that). And then, every once in a while some pretty nice crystals can be unearthed. Keep your eyes open!

<sup>1</sup> Solid Solution Series: a series of minerals with the same essential chemical formula. It is flanked by end members, and created by the substitution of one or more elements.



**FIGURE 1 METAMORPHIC INDEX MINERALS**

Index minerals form at determinable temperatures and pressures. See that epidote forms at fairly low to mid-medium temperatures and pressures.

Table by Stan Celestian

See Figures 2-11 for images of epidote.



**FIGURE 2 EPIDOTE VEINLET** What looks like paint, on this rock, is a very thin coat (the remains of a veinlet) of massive pistachio green epidote. Locality: Rye Creek, Gila Co., AZ

Photo by Susan Celestian

Epidote continued on [page 12](#)...

## INSIDE THIS ISSUE

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

Epidote	2, 12-13
Herb Jacobson <a href="#">Obituary</a>	3
Speaker of the Month - <a href="#">Evan Jones</a>	4
January <a href="#">Board &amp; General Meeting &amp; Show Meeting Minutes</a>	5-6
Field Trips: <a href="#">Sheep's Bridge</a> , <a href="#">Aquarius Mts</a> , <a href="#">Quartzsite</a> , <a href="#">Mushroom</a>	7-11
Geo Mini : <a href="#">Thumbnails</a>	14
<a href="#">Club Information</a> , <a href="#">Field Trip Schedule</a>	15
<a href="#">Announcements</a> , <a href="#">Show list</a> , <a href="#">Words of Wisdom</a>	16-20

## HERB JACOBSON, DMRMC FOUNDING MEMBER, DIES

By Ed Winbourne

One the founders of our Club, Herb Jacobson, passed away on December 7th, after a prolonged illness. Herb was a MIT and UC Berkeley-trained geologist. He leaves his wife Cherie, two daughters and a number of grandchildren.

He grew up in a mining town in Bolivia, where his father worked as the mining engineer in a tin mine. With the outbreak of World War II, his family moved to the New York City, when he was a teenager. After his university years he traveled the world, searching for minerals such as gold, copper, and rare earth minerals. His work took him to Turkey, Thailand, Columbia, Alaska, Mexico and Peru (where he had to contend with guerillas), as well as across the continental United States. (Some of his USGS publications can be found [HERE](#).)

He had lived with his wife Cherie in The Landing, here in Anthem, for the past fourteen years. Early on, Herb enthusiastically supported the idea of a rock and mineral club in Anthem, when the idea was presented to him. He had conducted a geological survey of Daisy Mountain, for the Save Our Mountain group. He was also active in a rockhound club in Black Canyon City, where he met other Anthem residents. Herb was the first speaker at the Club's founding meeting. He spoke about the origin of the copper deposits in Jerome, Arizona, in particular the United Verde Mine, where he had worked. He also conducted drilling operation in search of copper around the Mingus Mountain area. He was the Club's first field trip leader (*editor's note: And I keep hearing folks affectionately talk about "Herb Miles"*) and continued to make presentations over the years. *Additionally, he volunteered at the DMRMC Gem & Mineral Show, as Dr. Rocks, enthusiastically identifying visitor's rocks and minerals.*

I was fortunate to have gone on scouting trips with Herb, in search of good locations to bring the Club. He was a fearless explorer who took great pleasure in sharing his understanding of what we're looking at. He also took great pride in his Toyota pickup, and loved showing the extremes of which it was capable, even when I had my doubts and elected to get out and walk and hope he wasn't about to get us stranded miles from anywhere. I encouraged him to write his autobiography after reading a brief summary of some of his adventures. Eventually I worked with Herb to accomplish that. The book is titled "Mineral Treasure Hunter," and is available on [Amazon.com](#). (From Amazon: *Mineral Treasure Hunter is an autobiography of a professional geologist who spent his career looking for mineral deposits in many countries and found a few. He was fearless, faced wild animals and guerrillas, rode mules, elephants and all kinds of vehicles, aircraft and boats. His nicknames were "Dancing Herb" and Turbo Herb." He also participated in sports and raised a family.*)

He was a remarkable man and he is missed.



**March will be here before we know it! Keep you calendar open and consider volunteering some of your time for the.....**

**DAISY MOUNTAIN GEM AND MINERAL SHOW 2022  
MARCH 19 AND 20**

## JANUARY SPEAKER - Evan Jones

Evan Jones is an Arizona native, who began collecting minerals at an early age, and he now has a fine collection of Arizona minerals. After getting a BS from ASU, he worked in the mineral business, until he ventured out on his own in 1998. He is co-owner of [Unique Minerals](#), and can be seen at major gem and mineral shows around the world.

Since 2007, Evan has been dealing in minerals from the Milpillas Mine, in Cuilaca, Municipio de Cananea, Sonora, Mexico. And he co-wrote an article on the mine for *Mineralogical Record* in September-October, 2021. The issue is full of great photographs -- as was his talk!

The Milpillas Mine opened in 2006, and by 2008 was producing many fine mineral specimens. Over the last 15 years, many fine mineral specimens have been produced -- some the finest examples in the world -- vaulting the mine to world class status. All despite the refusal of the mine owners to support the retrieval and sale of mineral specimens.

In 2020, the mine closed.

The mine exploited a 63 myo Porphyry Copper Deposit, hosted in igneous and volcanic rocks. The list of minerals highlighted in Evans talk include: azurite, malachite, malachite after azurite, barite, linarite, plancheite, cuprite, a cuprite-rich lapidary material called Sonoran Sunrise, conichalcite, native copper, brochantite, antlerite, calcite, diopside, goethite, halotrichite, hematite, natrojarosite, olivenite, pyrite, quartz, shattuckite, spangolite, tenorite, vesignieite, and volborthite.



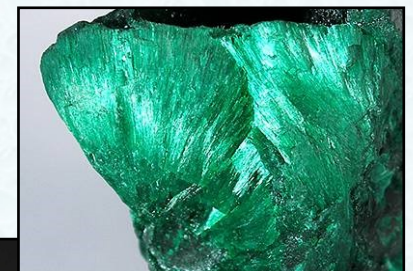
Outstanding azurite crystals abound from Milpillas Mine, exhibiting brilliant luster, and often an electric blue color. Photos by Stan Celestian

The bulk of the fabulous mineral specimens from the Milpillas Mine are azurite, malachite and malachite after azurite. Examples below:

*This is a 4.5" tall native copper from the Milpillas Mine.  
Photo by Stan Celestian*



*Fine crystalline and plumose malachite AND pseudomorphs of malachite after azurite from Milpillas populate mineral collections around the world.  
Photo of plumose malachite*



*is by Rob Lavinsky, iRocks and licensed under [CC-BY-SA-3.0](#).  
Photo of pseudomorphs to the left is by Stan Celestian.*

### Zoom Board Meeting Minutes January 3, 2022

- \* In Attendance: Bill F., Bob E., Bob S., Claudia M., Cynthia B., Deanne G., Ed W., Nancy G., Rebecca S., Renee I., Stan C., Sue C., and Tiffany P.
- \* Bill F. called the meeting to order
- \* Minutes for December accepted
  - ◇ Still missing the security chair's last name (Steve -)
- \* Cynthia B. discussed the financials
  - ◇ Rocky Mountain Federation dues paid
  - ◇ Paid out \$1,542 for civic building rooms
    - ◆ Need invoice to make sure it is for the next 6 months
  - ◇ Deanne G., Cynthia B., and Ed W. will go to bank to transfer treasurer duties
- \* Bill F. discussed the board positions
  - ◇ Newsletter will be updated with new positions
    - ◆ Inactive members may be dropped unless they reach out to stay on the board
  - ◇ Welcome Renee I. to the board
- \* As a 501(c)(3) organization questions were raised on whether members can be vendors
  - ◇ The board believes members can be vendors if they do not get an unfair advantage or price break on tables for the show
- \* Tiffany P. talked about membership
  - ◇ Renewals are still coming in
  - ◇ We are deeply sorry for the loss of Herb Jacobson, one of the founders of the club
- \* Jennifer G.'s wire wrapping class was discussed
  - ◇ She will have one more in person class
  - ◇ Rest may be on YouTube
    - ◆ Unless someone else wants to teach the class
    - ◆ Let us know if you are interested. Email [dmmclub@gmail.com](mailto:dmmclub@gmail.com)
- \* Bill F. talked about the field trips
  - ◇ Christmas party had a great turnout
  - ◇ Blue Cube/Prism mine will be Feb. 23<sup>rd</sup>
  - ◇ Sheep's Bridge Saturday Jan. 8<sup>th</sup>
    - ◆ 8 vehicles maximum
  - ◇ Mushroom Rhyolite Jan. 26<sup>th</sup>
  - ◇ Deming, NM has a Rockhound Roundup March 10-13
    - ◆ At the SW NM Fairgrounds
    - ◆ About 100 vendors, inside and outside
  - ◇ Watch emails for any updates to trips
- \* Stan C. discussed the claim's committee
  - ◇ Personal surety bond will need to be put in someone's name
    - ◆ This is problematic to make a member put out a personal bond
    - ◆ Will have a meeting to discuss issues

- \* Ed W. discussed the upcoming show
  - ◇ Meeting Jan. 19<sup>th</sup> at 6pm at the Civic Center
  - ◇ Posters will be completed soon
  - ◇ Jim R. is contacting the vendors
    - ◆ About 50% confirmed and going through waitlist
  - ◇ Layout of the tables is done
  - ◇ We are ahead of schedule since we cancelled the last two shows
  - ◇ Jessica R. and Stan C. will create posters and leaflets
    - ◆ To be given out at Flagg show
  - ◇ Website and Facebook will be updated with show information
  - ◇ Barricade company will be contacted
  - ◇ The times for the show are Saturday 9am-5pm and Sunday 10am-4pm
    - ◆ \$3 for adults, \$2 for children
  - ◇ Ad submitted to Rock & Gem Magazine
    - ◆ They have not posted it yet
- \* Please wear your name tags to all club events if you have one
  - ◇ Contact Tiffany P. if you need a name tag [dmmclub@gmail.com](mailto:dmmclub@gmail.com)

Respectfully submitted,  
Rebecca Slosarik, secretary

### General Meeting Minutes January 4, 2022

- \* Open attendance- about 64 attendants
- \* Bill F. called the meeting to order
- \* Ed W. asked for a moment of silence for the passing of Herb Jacobson
  - ◇ One of the founders of the club
  - ◇ Wrote an autobiography
  - ◇ His last presentation was on meteorites for the club
  - ◇ He will be a greatly missed talent for the club
- \* Evan Jones did an insightful presentation on Milpillas Mine in Sonora, Mexico
  - ◇ The mine is closed, but there are pieces that have gotten out
    - ◆ Beautiful specimens of copper minerals
- \* Robin S. ran the raffle
  - ◇ Made the club \$146
  - ◇ Silent auction made the club \$127
- \* Cynthia B. discussed the financials
  - ◇ This will be her last report
    - ◆ Thank you for your years of service
  - ◇ December had a deficit, but the club is still in good standing

Minutes continued on page 6.....

....Minutes continued from page 5.....

- \* Stan C. talked about the claim's committee
  - ◇ There is some undercutting that needs to be made safer before we can return to the mine
    - ◆ Will be investigated with BLM in the coming weeks
- \* Bill F. discussed the field trips
  - ◇ This is our peak season so watch out for emails
- \* Ed W. discussed the show meeting
  - ◇ Only issue for show would be another covid wave
  - ◇ It is a great moneymaker for the club
  - ◇ Please sign up to volunteer for positions
    - ◆ There are many still needed
      - \* Kids corner, setup/shutdown, signs, food vendors, ATM machine
  - ◇ Double check what you said you would assist with on the volunteer checklist that was given to Claudia M.
- \* The last in person wire wrapping class will be February
  - ◇ Remember you can always bring rockhounded or bought specimens that you want to show off to the club
    - ◆ We have a show & tell every general meeting

Respectfully submitted,  
Rebecca Slosarik, secretary

### Second Show Meeting January 19, 2022

- \* Open meeting, no attendance necessary – 10 in attendance
- \* Stacy N. discussed the vendors
  - ◇ We have about 30 vendors right now (122 tables sold)
  - ◇ 25 vendors have received contracts
  - ◇ Have tables available outside
    - ◆ Need mineral vendors
    - ◆ Must have AZ license to be a vendor
- \* Ed W. discussed the advertisements
  - ◇ Rock & Gem Magazine \$75
  - ◇ Valley-wide (newspaper) \$225
  - ◇ Foothills Focus – none this year
  - ◇ Sun City Times
    - ◆ Looking into creating an ad for them
  - ◇ Barricades company will not have lighted signs available that weekend
    - ◆ Will investigate smaller signs for highway
  - ◇ Other rockhounding clubs have been contacted
  - ◇ Leaflets and posters made
    - ◆ \$300 and \$300 for 150 posters
    - ◆ May need to print more

- ◆ Given out during Flagg show
- ◆ Will be given out for Quartzite club day
- \* Greg J. and Dave H. will check out electrical at school tomorrow
- \* Jeannie S. discussed the Kid's corner
  - ◇ Need more volunteers
    - ◆ To collect money, handle the games, give out caskets of rocks
  - ◇ About 7 cases of rocks will need to be moved from the trailer
- \* Membership display was discussed
  - ◇ Cases in storage already
    - ◆ Needs to be setup at show
- \* Overnight security
  - ◇ 5 people have volunteered
  - ◇ We cannot afford to have sheriffs positioned overnight
- \* Rebecca S. discussed the raffle
  - ◇ Will need to get material from trailer
  - ◇ Email will be sent to vendors letting them know they can donate as many specimens as they like for the raffle
- \* Jessica C. talked about ticket sales
  - Looks good on volunteers
- \* Don R. will get tables for the show
- \* Signs to direct traffic around town will need volunteers
- \* Fluorescent tent was cancelled due to covid concerns
  - ◇ Will use 2, maybe 3, transilluminators instead
  - ◇ Will be along the South wall of the gym
- \* T-shirts that are leftover will be sold at the show
- \* Food trucks need to be contacted
  - ◇ Any ideas on food vendors, please let the club know - Email [dmrmclub@gmail.com](mailto:dmrmclub@gmail.com)
- \* ATM machine – not sure if we can get one this year
- \* Deanne G. will be in charge of the cash this year at the show

Respectfully submitted,  
Rebecca Slosarik, secretary



Wulfenite from the  
Red Cloud Mine, La Paz Co., AZ

# FIELD TRIP TO SHEEP BRIDGE

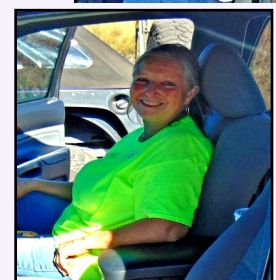
## Saturday, January 8, 2022

Photos & Text by Bill Freese

The first trip of 2022 was a hit. We ended up with 20 people pooled into 8 vehicles. This is a very long trip taking over 3 hours each way off road. The last 12 miles down to the Sheeps Bridge area is very difficult and I would give it a 6 out of 10 for difficulty. It was a beautiful day as you can see by the desert views. Everyone found some good specimens. Unfortunately, they do not photograph well until they are cut and polished. Maybe someone in our group can post a couple pics after they cut them open. On to the next trip!



S  
P  
A  
U  
G  
R  
E  
N  
L  
I  
T  
E



...Field Trips continued from page 7

# FIELD TRIP TO AQUARIUS MTS

## Wednesday, January 12, 2022

Text by Bill Freese & Susan Celestian, and photos by Bill Freese, Stan Celestian & Susan Celestian

A small group of 8 rockhounds ventured out to the Aquarius Mtns for the elusive garnets. We all found some (some were tiny - LOL) and had a great time in the AZ desert. The views were beautiful!

Our leader, Stan, hopped up the mountain like a mountain goat and was using his big sledge hammer which sounded like a gun, with all the echoes. A great mid-week trip.



Here, near Lion Springs, the Aquarius Mts (and Elephant Butte, in particular) is a big pile of volcanic breccia, tuff, and rhyolite, dated at around 22 mya (Miocene). Our prey was the elusive Spessartine Garnets in gas pockets, where they grew pneumatolytically (crystallized out of hot gases invading that invaded the rock). Once in a while you can find a topaz crystal -- but not this day.



Field Trips continued on page 9...



...Field Trips continued from page 8

# FIELD TRIP QUARTZSITE

## Saturday, January 22, 2022

Photos and text by Bill Freese

Saturday was the club day for a visit to Quartzsite. A good omen on the way was a bright rainbow. (maybe a pot of gold in Quartzsite??) There were 8 of us that hung out at the Pow Wow and Desert Gardens shows. The shows were plenty busy, but the prices were definitely higher at the Pow Wow. Everyone found a few items. I have a couple pieces for our auction. It was fun to hang out with some of our club members. The club day for Tucson will be on Feb 5th.



...Field Trips continued from page 9

## FIELD TRIP MUSHROOM RHYOLITE

Wednesday, January 26, 2022

Text & Photos by Bill Freese, Susan Celestian & Stan Celestian

We had a mid-week trip on Wednesday to the Mushroom Rhyolite site SW of Wickenburg. We had a great turnout for a mid-week trip as there was 22 of us including me. This is a site we are considering a claim on and no one was disappointed. There is plenty of different minerals in addition to the Mushroom Rhyolite. The weather was also perfect. Another great outing. .



The hills in the foreground and background are in rhyolitic rock. You will find spherulitic rhyolite, obsidian, and secondary quartz crystals and chalcedony. The rhyolitic is *spherulitic*: the very viscous rhyolitic lava did not allow easy movement of ions and crystallization occurred at many different points within the lava. The result is merging and overlapping *spherules* -- each an intergrowth of quartz and orthoclase crystals radiating from a nucleus..

Expanding gases within the rhyolite may cause openings to form within some of the spherules. Often quartz (crystals or chalcedony) grows within those openings. These structures are called *lithophysae* (plural and pronounced *lith-o-fi-sea*)

Rhyolitic lavas are very low in water. Upon eruption to the surface, the water rapidly escapes, thus increasing the viscosity of the lava -- and in the case of rhyolites, they are so viscous that they barely flow. That increased viscosity impedes the ability of crystals to form -- and the result is *obsidian*, a volcanic glass with no crystals.

Lithophysa -- a spherule with a quartz crystal-lined vug in the middle.

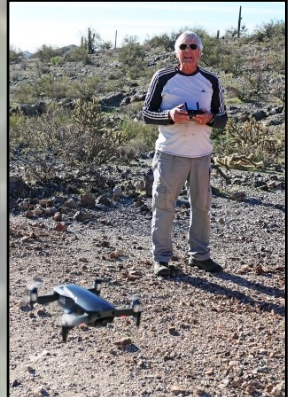


A single spherule, split in half. Note the subtle radiating crystal structure on the left half.



Field Trips continued on page 11...

...Field Trips continued from page 10



**OBSIDIAN**  
Enlarge image on screen  
to see how glassy this is

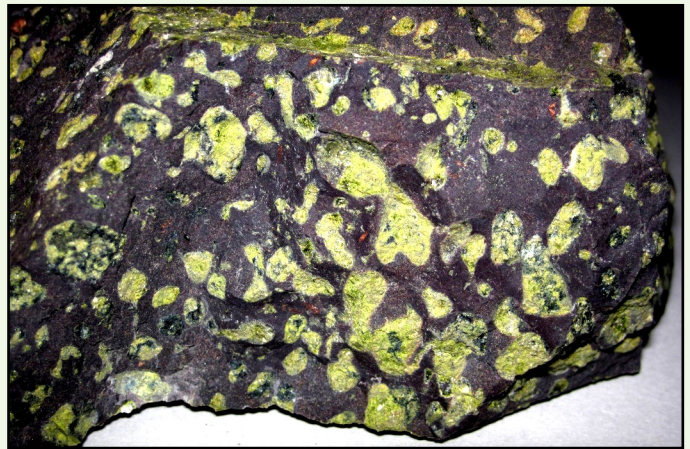
...Epidote continued from page 2



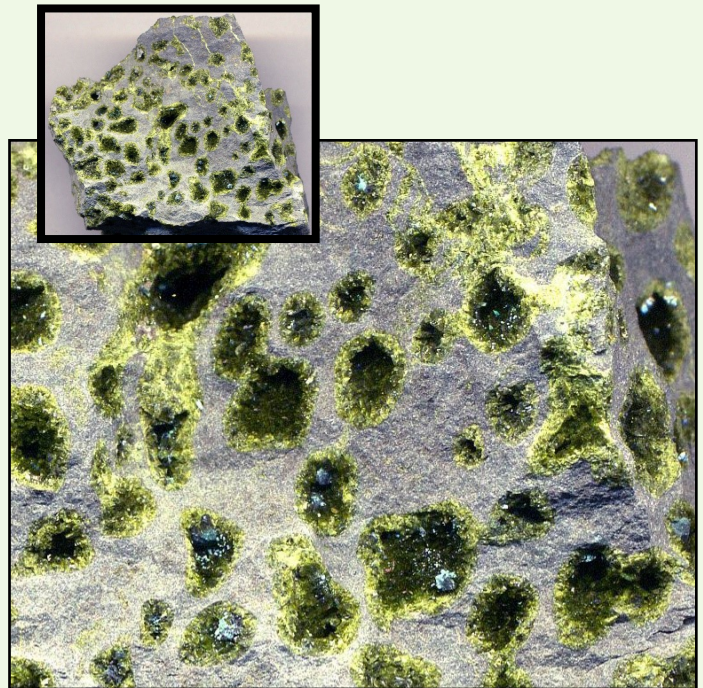
**FIGURE 3 EPIDOTE IN GNEISS** During metamorphism of the parent granite, some minerals (unstable at the new temperatures & pressures) were altered to blebs of massive epidote. *Photo by Stan Celestian*



**FIGURE 4 EPIDOTE IN GRANITE** Invasion of hydrothermal fluids into this granite has resulted in the creation of pistachio green epidote. This rock is used in lapidary, and is called *unakite*. Locality: Buena Vista, Rockbridge County, Virginia *Photo by James St John and is licensed under CC BY 2.0.*



**FIGURE 5 EPIDOTE IN BASALT** This is a specimen of amygdaloidal<sup>2</sup> basalt from the Keweenaw Peninsula of Michigan. The green mineral is epidote. *Photo by James St John and is licensed under CC BY 2.0.*



**FIGURE 6 EPIDOTE IN BASALT** This is another basalt from the Keweenaw Peninsula of Michigan - from the Gratiot Mine. Note that the vesicles of this basalt have not been completely filled in, and very slender crystals of epidote are visible, like tiny little geodes. *Photo by James St John and is licensed under CC BY 2.0.*

<sup>2</sup> Amygdaloidal is a term that applies when vesicles (gas bubble cavities) in an igneous rock have been filled up with minerals. Vesicles become amygdules.

...Epidote continued from page 12

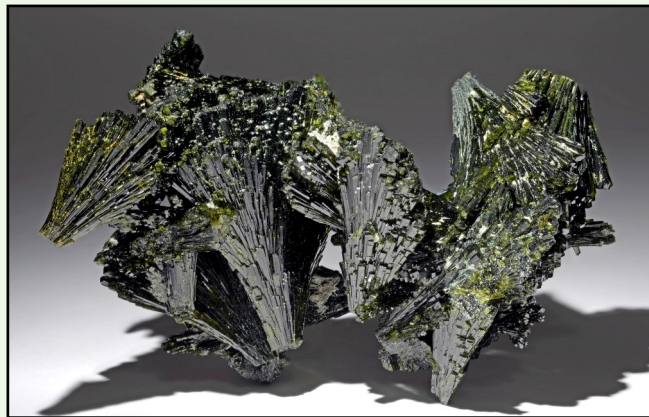


**FIGURE 7 MASSIVE EPIDOTE** At the Calumet Iron Mine, Chaffee Co., CO, there are extensive beds of epidote as an alteration mineral, from contact metamorphism around a granodiorite intrusion. In this photo, both massive and crystalline epidote can be seen. In fact some beautiful crystals of epidote have been collected at this [mine](#).

*Photo by Susan Celestian*



**FIGURE 8 EPIDOTE** This is a very aesthetic arrangement of chunky, heavily striated, dark green epidote crystals. The associated green balls are prehnite. Locality: Bendougou village (Bendoukou village; Benduko village), Arrondissement of Diakon (Diako), Bafoulabé Circle, Kayes Region, Mali *Photo by Stan Celestian*



**FIGURE 9 EPIDOTE CLUSTERS** These sheaves of dark yellowy-green epidote crystals hail from the Char Kohan Mountains, Kharan, Balochistan, Pakistan. 2.7 inches wide

*Photo by Stan Celestian*



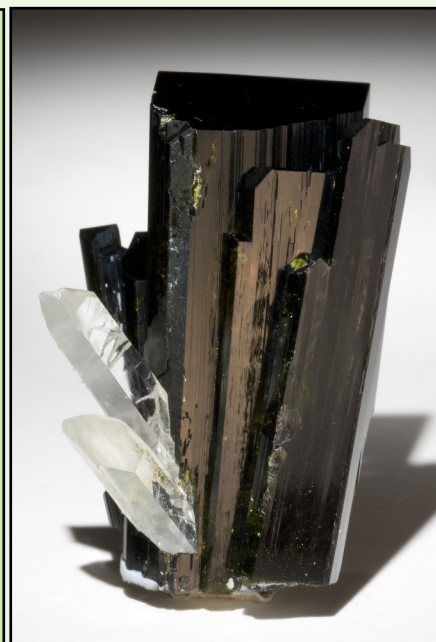
**FIGURE 10 EPIDOTE**

The 3 inch tall cluster of acicular epidote crystals is from Castovirreyna in Huancavelica, Peru.

*Photo by Stan Celestian*

**FIGURE 11 EPIDOTE**

A mine famous for large, well-formed epidote crystals is the Green Monster Mine, on Prince of Wales Island, southeast Alaska. These lovely 1.4 inch tall crystals are very dark green to brownish green. This specimen is decorated with clear quartz crystals. *Photo by Stan Celestian*



**GEO MINI****THUMBNAILS -- the Minerals**

By Susan Celestian

Mineral collectors recognize six size categories of minerals: micromount, thumbnail, miniature, small cabinet, large cabinet, museum-size.

The topic this month is a category of minerals' size, called *Thumbnails*. A thumbnail-sized mineral is any specimen that will fit within a "Perky box", which is a hinged plastic box, with a styrofoam insert for a base. The boxes' dimensions are 1.25" x 1.25" x 1.25"; and most thumbnail mineral specimens fall within 1" x 1" x 1", so that they fit comfortably in the box. The "Perky box" was initially devised by Willard "Perky" Perkin, a U.S. mineral dealer and thumbnail collector -- hence the box's nickname. See Figure A.

Many of us would like to start or augment a mineral collection. However, minerals can be pretty expensive. And large mineral specimens can take up quite a bit of space. Thumbnails have several things going for them:

- \* They are small and don't take up much space.
- \* They are typically less expensive than their larger counterparts (although that is not to say that in some instances the price can be quite steep),
- \* Often species only occur as small specimens, so you can acquire unusual minerals,
- \* Thumbnail-sized mineral specimens often exhibit crisp features. Large specimens are more difficult to extract intact, they often have inclusions or other internal imperfections, and they may more easily be damaged before discovery.
- \* Additionally, it is rarer for a rock to provide enough room for nice large crystals; more commonly space to grow is small.

**FIGURE A A PERKY BOX**

Each Perky box comes with a styrofoam square, that fits in the black portion of the box. Some replace that foam with acrylic or wood.



Figures B-H are a few of the thumbnails in the Celestian collection. Remember, these all fit in a 1x1x1 inch cube -- these images are at least twice real size.

**FIGURE B FLUORITE**

White Rock Quarry, Clay Center, Clay Co., OH

**FIGURE C BIXBYITE**

Thomas Range, Juab Co., UT

**FIGURE D FLUORAPATITE**

Ipirá, Bahia, Brazil

**FIGURE E FORSTERITE**

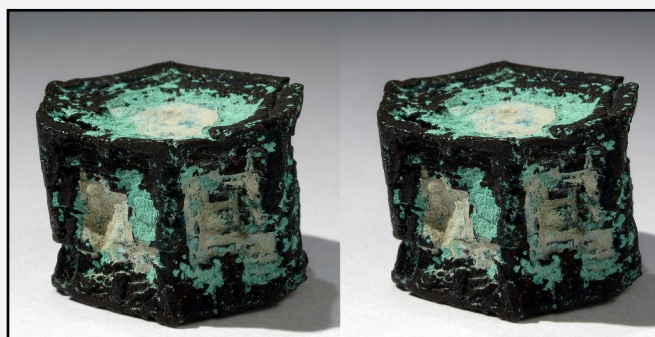
Sapat Gali, Manshera, Pakistan



**FIGURE F MALACHITE**  
Blanchard Mine, Bingham, Socorro Co., NM



**FIGURE G QUARTZ (Dipyramidal)**  
Dominican Republic



**FIGURE H COPPER after ARAGONITE**  
Corocoro, Bolivia CROSS YOUR EYES -- It's another stereo pair!

**UPCOMING FIELD TRIPS**

Here is a general list of upcoming trips, for the next 3 months. Details will be emailed to the general membership.

**February**

Tucson show - 5th Sat  
 TBD - 9th Wed  
 Burro Creek area -12th Sat  
 Dave Haneline Mine (Wickenburg) - 19th Sat  
 Blue Cube/Prism/Spectrum - 23rd Wed  
 Peridot (San Carlos) - 26th Sat

**March**

Saddle Mtn (Tonopah) - 5th Sat  
 Reserve Bank Mine? - 9th Wed  
 Dave Haneline Mine (Wickenburg) - 23rd Wed  
 Bullard mine - TBD

*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*



**Cool Pattern in Mushroom Rhyolite**

***FUTURE SPEAKERS***

**February - Doug Duffy: Lapidary**

**March - Stan Celestian: Hidden Treasures at NHMLA (Natural History Museum of Los Angeles County)**

**Join Jennifer Gecho for**



Before the meeting on the 1st Tuesday  
 4:30-6:15  
 Anthem Civic Center, 3701 W Anthem Way

**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](https://www.facebook.com/daisyMountainRockandMineralClub). 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:**...Deanne Gosse deanne.gosse@gmail.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 .....stancelastian@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.
Renee I	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)

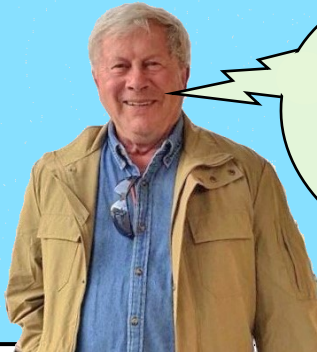
**Meeting Dates for 2022**

Jan 4, Feb 1, Mar 1, Apr 5, May 3, June 7, Sept 6,  
 Oct 4, Nov 1, Dec 6

## Words of Wisdom

passed along by our own

**Bob Evans**



One minute you are young, hip and carefree, and the next minute you're photographing vegetables in your garden

### UPCOMING AZ MINERAL SHOWS

**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 18 for \$3 off coupon.

Go [HERE](#) for a list of other shows going on in Tucson during January/February.

**March 17-20 - Anthem, AZ** Daisy Mt Rock & Mineral Club; Anthem Elementary School, 41020 N Freedom Way, Anthem, AZ 85086; details to follow.

**March 10-13 - Deming, NM** Deming Gem & Mineral Club; SW New Mexico Fairgrounds, 4100 Raymond Reed Blvd; Th-Sun 9-5; Admission: Free. Field Trips offered. See [flyer](#) on page 19.

**June 17-19 - Las Vegas, NV** Southern Nevada Gem & Mineral Society (in conjunction with Rocky Mt. Federation & Mineral Society Conference; Orleans Hotel & Casino; Fri-Sat 9-4, Sun 9-2; Admission: Adults \$5. See [flyer](#) on page 20.

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?>

**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  
azrocklady@gmail.com



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 - FEBRUARY

**You are invited to NMVC Open Studio. Lapidary & Silversmithing on Thursdays and the first, third and fifth Saturdays in a month, from 9:00 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. Usage fee is \$8/hour.

**Notice: Please bring your own towels, polishing compounds and buffing wheels as they will no longer be provided. Mandatory: wear a mask.**

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](mailto:crystalc17@gmail.com)

**February – Thursday's dates are 3, 10, 17, 24  
February – Saturday's dates 5, 19**

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 - 9-12.** Email Shirley at [crystalc17@gmail.com](mailto:crystalc17@gmail.com) Usage fee is \$8/hour.

**February - Monday's dates are 7, 14, 21, 28**





DESERT GARDENS ROCK GEM & MINERAL SHOW



# DESERT GARDENS ANNUAL INTERNATIONAL ROCK, GEM AND MINERAL SHOW

January 1 – February 28

9:00 am – 5:00 pm

(Seven Days Weekly)

1055 Kuehn Street

Quartzsite, AZ 85346

The Tucson Gem and Mineral Society Proudly Presents:

# THE 67<sup>th</sup> ANNUAL Tucson Gem & Mineral Show<sup>®</sup>

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



Scan code for information on our Tucson Gem & Mineral Show<sup>®</sup>

\*cannot be used with any other discount

### Tucson Gem & Mineral Show<sup>®</sup>

## 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

Photo: Peter Steyer (www.petersteyer.com)

For more information, visit: [www.tgms.org](http://www.tgms.org)



Deming Gem & Mineral Society's

57th Annual

# ROCKHOUND ROUNDUP

Gem & Mineral Show

**March 10-13, 2022 9 a.m - 5 p.m.**

**At the SW NEW MEXICO FAIRGROUNDS**

4100 Raymond Reed Blvd.—Deming, New Mexico

**Public Invited Free Admission Free Parking**

- Metal Detecting Contest • Jewelry & Rock Related Items • Buyers Market
- Lapidary Equipment • Displays and Demonstrations
- Guided Field Trips • Auctions • Coffee, Donuts, Breakfast & Lunch Vendors

### FIELD TRIPS

Trips leave 8:00 a.m. from the Fairgrounds  
Public Invited on field Trips to  
our club's claim, Big Diggins, and others.  
Materials found: Onyx, agate, geodes & other gem stones.  
Bring suitable clothing & shoes, lunch, water, and tools.

**DAILY DOOR PRIZES - 11 a.m. & 3 p.m.**

**CASH RAFFLE DRAWING - Sunday at 3 p.m.**

### AUCTIONS

**Friday Night - 6:30 p.m. Silent Auction**  
Rockhounds mark bids on auction forms. Items are  
donated by dealers and members. Available are cutting  
materials, slabs, geodes, crystals, gem stones, etc.

**Saturday Night - 7:00 p.m. Live Auction**  
Fine specimens, jewelry, etc. will be auctioned, which  
have been donated by dealers and members.

Email: [thedgms@gmail.com](mailto:thedgms@gmail.com)

WEBSITE: [www.thedgmsclub.com](http://www.thedgmsclub.com)

**FOR MORE INFORMATION CALL: Marilyn Page—575-544-9019**



# VIVA LAS VEGAS ROCKS

## June 17 - 19, 2022 at the Orleans Hotel



### Rocks, Gems & Jewelry Show

Presented By  
Southern Nevada Gem & Mineral Society



Hosting The Rocky Mountain Federation & Mineralogical Society Conference

**Daily**  
Admission 5.00  
Children Under 12 Free  
Tickets Entered in Drawing

**Orleans Hotel & Casino**  
Reservations  
800 675-3267  
ID: ASN2C06

**Exhibition Hours:**  
Friday 9am to 4pm  
Saturday 9am to 4pm  
Sunday 9am to 2pm

50 + Vendors  
Displays  
Speakers

Raffles  
Kids Activities  
Door Prizes



**SNGMS Contacts:**  
sngmspresident@gmail.com  
sngmsshowchair@gmail.com  
www.snvms.org