



# BRECCIA

## Santa Clara Valley Gem and Mineral Society

Volume 71 Number 7, August 2023

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### Events

**August 22:** The General Membership Meeting will feature Noel Runyan on working with fragile rocks, and an Ice Cream Social. The Bragging Rights theme is "Beginning with the letter 'C'".

**August 24:** Board Meeting on Zoom.

**August 25, 26:** Davis Creek, California – 6 ½ hour drive, Obsidian, Rainbow, Pink, Silver, Mahogany, Electric Blue, Needles (Tentative: Trying to arrange Group Permit, with Dept. of Forestry.)

**August 26:** DRC Sale from 9 AM to noon.

**September 16th:** Founders Day Picnic

**September 26:** General Membership Meeting program will be a video from Jo Borucki, or a CFMS speaker.

**September 28:** Board Meeting on Zoom.

## Editor's Message



The program for the July meeting was Flint Knapping by **Donna Kelly**. She gave us some background on knapping and told us how to make some of the tools she uses; there were many questions.

Donna Kelly on the left and her bag of tools on the right. What we don't see is the big box of band-aids in the left-hand pocket of the bag!

If you would like to learn more, Donna referred us to Paleoman52 (<https://www.youtube.com/user/Paleoman52>) and Jack Crafty (<https://www.youtube.com/user/AllergicHobbit>).

I had hoped to include a story "Rockhounds fight for access to their jewel in the desert: Mojave Trails National Monument" from the LA Times but did not receive permission. Here is the link so you can read it: <https://www.latimes.com/environment/story/2023-07-16/rockhounds-fight-for-access-to-jewels-of-california-desert>

Do you have anything that other members might enjoy?

Your contributions of anything from a short "how-to" or "my favorite thing", up to 2 to 3 pages of whatever you think others would find interesting. Rock related photos are also appreciated. The deadline for submissions is the Sunday after the General Meeting.

Deb Runyan, Breccia Editor

## Rockhound of the Month

Our rockhound of the month is **Rick Kennedy**, for everything!



## Membership Dues Are Due

**SCVGMS membership dues are due for the year 2023. Your dues are essential** to the operation of SCVGMS. They are \$5.00 for Junior, \$20.00 for an individual, and \$30.00 for the household.

Please send your check to **Treasurer, Santa Clara Gem and Mineral Society, Box 54, San Jose, CA 95103-0054** or to **Frank Mullaney, 5705 Begonia Drive, San Jose, CA 95124**

Thank you.

## Field Trips

**August 10-13 Thursday-Sunday:** Petrified Blue Forest and American Fossil Quarry, Kemmerer, WY  
A Co-op field trip sponsored by Sacramento Mineral Society  
Petrified Wood is free, American Fossil Quarry Dig has a fee.  
Contact: Mike Jones, Cell (916) 477-0890  
Email: [scienceskoolbus@gmail.com](mailto:scienceskoolbus@gmail.com)

**August 25, 26 Friday and Saturday:** Davis Creek, California – 6 ½ hour drive, Obsidian, Rainbow, Pink, Silver, Mahogany, Electric Blue, Needles (Tentative: Trying to arrange Group Permit, with Dept. Forestry)

**September 28th through October 1st:** Topaz Mountain and Dugway Geode Beds, Utah  
A Co-op Field Trip sponsored by the Roseville Rock Rollers Gem and Mineral Society  
Topaz Crystals, Bixbite (Red Beryl), Pseudobrookite Crystals, Hematite Crystals, and Geodes.  
Field Trip Leader and Contact Information: Gene Doyle, CO-OP & Roseville Rock Rollers. Text or leave message, Cell: (408) 605-9457, Email: [eugene.doyle@sbcglobal.net](mailto:eugene.doyle@sbcglobal.net) or Jim Barton, CFMS-N, Home: (916) 773-0458, Cell: 916-847-7321, Email: [geologist1@surewest.net](mailto:geologist1@surewest.net). Gene Doyle will email you a more detailed write up upon request.

For questions for the above listed field trips unless otherwise noted:

**Contact Stephen May** for details.

Email: [Stephenmay0990@gmail.com](mailto:Stephenmay0990@gmail.com)

Phone: (669) 248-3993 or (408) 306-6782

**September 15-17 Friday to Sunday:** Fallon, NV El Dorado Mineral & Gem, Wonderstone, Selenite, Chalcedony orbs.

Sponsored by El Dorado Mineral & Gem

Contact: John Doleman (530) 272-3752 Email: [john95670@yahoo.com](mailto:john95670@yahoo.com)

### **AFMS Field Trips in conjunction with the 2023 AFMS/NFMS Show and Convention in Billings, Montana:**

**August 7 Monday:** Bear Canyon - black and white fortified agate

**August 8 Tuesday:** Fossil trip north of Hysham, MT

**August 9 Wednesday:** On the river for wood & agate (may change depending on weather)

**August 10 Thursday:** Fee dig for fossils near Glendive

**August 11 Friday:** Probably an additional trip for agate

There will be sign-up sheets at the show.

### **Sponsored by Nevada County Gem and Mineral Society**

Contact for all below: John Doleman (530) 272-3752 Email: [john95670@yahoo.com](mailto:john95670@yahoo.com)

**September 9 Saturday:** Valley Springs, CA - 2 ½ hour drive. Red Dumortierite.

**September 23-24, Saturday - Sunday:** Markleeville, CA - 4 hour drive. Rhyolite with crystal-filled vugs, Silver Ore, a Brown Agate, and some Jasper.

Contact before Sep. 20, 2023.

**October 6-8, Friday-Sunday:** Davis Creek, California – 6 ½ hour drive. Geodes, Petrified Wood, Crystals, Obsidian.

Contact before Oct. 3, 2023.

## A "Co-Op Member" Field Trip to Fallon, NV

- This trip is open to all rockhounds who agree to abide by the AFMS Code of Ethics, the directions of the field trip leader and practice safe rockhounding.
- Call the field trip leader beforehand to sign up and for further information.
- Remember to wear your name badge and sign in and sign out with the field trip leader.
- CO-OP website has information: [www.ourfieldtrips.org](http://www.ourfieldtrips.org) (Password is needed).
- A Consent and Assumption of Risk Waiver of Liability form must be signed upon arrival at meeting site.
- All non-CFMS members are required to contact the Field Trip Leader before a field trip for any insurance requirements.

**TRIP LOCATION:** South of Fallon, NV

**WHEN:** Sep. 15,16,17, 2023

**SPONSOR CLUB:** El Dorado & Nevada County Mineral and Gem

**LEADER & CONTACT INFO:** John Dolman-land line (530) 272-3752, [john95670@yahoo.com](mailto:john95670@yahoo.com)

**MEMBERS' GUESTS:** Allowed

**COLLECTION MATERIAL:** Wonderstone, Selenite, Chalcedony Orbs.

**MEET THE LEADER:** Off of US-Route 50, 11 mi. South of Fallon, NV at Grimes Point Archaeological site, 8:00 am, sharp!

**PROPOSED SCHEDULE:** Day one, Sep.15, meet the leader at Grimes Point Archaeological site, 8:00 am, sharp!

Days 2 & 3, Sep.16 & 17th, meet the leader at the same spot as Day one at 8:00 am. A 4 X 4 is needed these days for the Selenite and/or Chalcedony orbs!

**DIRECTIONS TO SITE/CAMP:** US-Route 50, 11 mi. South of Fallon, NV.

**VEHICLE REQ'S:** 4 X 4 is best.

**CAMP/FACILITIES:** Vault toilets at Grimes Point, 5" round X 8" deep holes in the field areas.

**TOOLS:** hard rock type= Safety glasses, leather gloves, chisels, 3 lb. hammer, scoop screens, classifier screens, buckets, bags.

**SAFETY CONCERNS:** The risk of encountering Rattlesnakes is real but very low. And personal falls are more possible.

**CLIMATE/WEATHER:** Check weather beforehand, could be very warm to hot. Bring at least one gallon of water per-day for each person, lunch, and snacks

**CLOTHING:** Dress in layers, bring sunscreen.

**OTHER REMARKS:** If you plan to attend, you must contact the field trip leader, John Dolman, before Sep. 12, 2023.

**FEES:** None

## Smiles

Why is a moon rock tastier than an earth rock?  
Because it's a little meteor and cheesier.



## **DRC Sale Saturday, August 26th, 9am to noon.**

There will be fluorescent rocks, 5 ½ tubs of slabs, and lots of free rocks.

Also furniture and tools.

Come help Michele get her back yard back!

### **Furniture, Donated by Rick Kennedy, for the DRC Sale**

A: Large Victorian Case: D 15 5/8"; W 29 1/2"; H 79 1/2"

B: Medium Case: D 14 1/2"; W 24 1/2"; H 75"

C: Corner Case: D 13 1/2"; W 28"; H 75 1/2"

D: Small Display Case: D 17 1/2"; W 22 3/4"; H 6"

E: Small Display Case: D 17 1/2"; W 22 3/4"; H 6"

F: Small Display Case: D 17 1/2"; W 22 3/4"; H 6"



A: Large Victorian Case



B: Medium Case



C: Corner Case



D: Small Display Case



E: Small Display Case



F: Small Display Case

## Tools for the DRC Sale

Below is a list of some of the tools and machines we will have for sale at the next DRC Sale. Most are in need of TLC and will require some assembly, but Jim Fox thinks they all can be restored.

- ⇒1 Highland Park E-5 10" Rock Saw w/ 10" Diamond Blade (needs work) D 17 1/2" W 22 3/4" H 6"
- ⇒1 Gryphon Diamond Band Saw Model C-40
- ⇒1 Highland Park 14" Rock Saw: Model #M-3 (Mounted on custom made rolling cart) w/ 14" Diamond Saw Blade (Used). (Needs work)
- ⇒1 14" Diamond Saw Blade (New)
- ⇒1 Crystalite Products Vertical Double Flat Lap: With accessories (Needs work)
- ⇒1 Soft Stone Spool Polisher: With accessories
- ⇒1 6" Home made Rock saw (Needs work)
- ⇒1 Lortone 8" Gem Grinder Model # DA-84: with 2-8" expandable drums used for polishing stones and 2-8" grinding stone wheels (Needs work)

There were also 2 extra motors (in fair condition) and various replacement parts for older machines (in fair condition). There were 11 Lapidary Diamond Coated saw blades: 1- 6" blade (Poor Condition), 2- 12" blades (OK Condition), 3- 12" blades (Fair Condition), 2- 12" blades (Poor Condition), 3- 18" blades (Poor condition).

We may have a lot of newly donated stones that we aren't able to sort though for \$0.50 a pound  
We will also have old stock from previous sales for free, so bring your crates and buckets.

## Website Links

### Your Window to the World of Important Websites

**Click on the blue area of whatever site you want to visit!**

**Link to Our SCVGMS Website:** <https://www.scvgms.org/>

Note: After you click on the above link, if you want to see the Breccia and other news items, scroll down and click on "Download", shown under the Newsletter option.

**The American Federation of Mineralogical Societies (AFMS):** <https://www.amfed.org>

**California Federation of Mineralogical Societies (CFMS):** <https://www.cfmsinc.org/>

To access the news from the **American Lands Access Association:** [www.amlands.org](http://www.amlands.org)

**SCVGMS Facebook Page:** <https://www.facebook.com/santaclaravalleygemandmineralsociety>

## More Smiles

A rockhound's favorite drink is anything on the rocks.

What is a rockhound's favorite treat?

Rock candy.

## **President's Message, August 2023**

### **The Best Gem Shows Have Field Trips**

#### **The Prineville Rockhound Pow Wow, Annual Jewelry, Gem & Mineral Show**

This is a premier Gem and Mineral Show, which takes place in Prineville Oregon. This amazing gem and mineral show takes place, usually the third week in June. The show always runs four days, from Thursday through Sunday. The thing that sets this show apart from most is that it has three Field Trips, Friday, Saturday and Sunday.

Prineville is located about 191 miles North of the California / Oregon border along highway 97 through Bend and then, head East on Highway 126 at Redmond. The area has plenty of lodging, whether at Prineville or Redmond, for very reasonable prices. There are also a number of RV parks as well as tent campgrounds nearby at Ochoco Reservoir.

The Gem and Mineral Show is held at the Crook County Fairgrounds right in the middle of Prineville. There are vendors from all over the country, and an auction on Saturday night. There is a huge sampling, probably the best collection of materials from all over Oregon. Most of the vendors are not just selling materials they bought, but rather materials they have collected, cut, polished, carved and made into jewelry. Some of the finest gem quality sunstones you could hope to see. The varieties of agate and opal that you will find at the show are fantastic. Some of the artists have been creating and selling materials at the show for over 30 years. The people are some of the friendliest I have met in all my years of rockhounding.

The real draw from my point of view (as field trip chairman, SCVGMS) is the field trips that they put together for the show. There are always 3, one each day, Thursday, Friday and Saturday. The field trips are free. OK, technically, they are not entirely free. In order to go, you have to be a member of the Prineville Mineral Club, BUT! You can join with a temporary membership for \$10.00, or a family membership for \$20.00. This is good for all 3 trips, so for a family of 4, like mine, the cost is \$5.00 each and you get 3 field trips. What a deal! The Field Trips are run, caravan style, meeting at the rock show at the Fairgrounds at 7:00 am each day. Maps are available in case you want to stop for breakfast or whatever. They review the route ahead of time, so you know what to expect.

The destinations are as varied as the materials to collect. There are at least a dozen rockhounding sites within an hour and a half of Prineville, including some private locations. There's Bear Creek, with Moss Agate, Chalcedony, Drusy Quartz, or the Carey Agate Beds. There is Sheep Creek, with Chalcedony, Jasper, 'Oregon Jade', Agatized Wood and Moss Agate. There are fossil beds, petrified wood with stumps and limb casts, agates of all varieties including one of my favorites, Polka Dot Agate. The biggie though, for this area, is Thunder Eggs. Nearly every year, one of the locations is, invariably, Richardson Ranch. I will cover 3 of the locations that we went to during the 2019 Prineville Pow Wow trip.

#### **Ochoco Tube Agate Meadow**

This is a unique site, a high meadow of open grass, rather wet, and surrounded by pine forests. The ground is a wet red clay. The meadow and surrounding land is owned by a cooperative of the Prineville Mineral Club. For the dig, they bring in an excavator that digs 3 large pits, about 20' x 40'. In the

center it was about 8' deep, and the edges about 5' deep. When I say, it was wet, I mean 'Wet'.



The material we are digging is called 'Tube Agate'. It is a seam agate through which air bubbles floated up as it was cooling, leaving small tubes and grains in cool patterns. The pieces ranged from the size of a pinky joint to fist sized chunks. From a hazy clear or milky white to a yellowish amber.

Tube Agates



Our Queen of the Dig, Beverly, may have found the greatest number of pieces, however, the prize for the largest piece goes to Bob Rush. I don't want to say Bob didn't work hard at the dig, because he did. However, while he was taking a break outside of the pit, sitting on a pile of the material dug out by the backhoe, he rests his hand on a lump on top of the mound that he is sitting on, and the ring on his finger goes ... 'tink'. He rubs some of the clay aside and finds that the entire lump is a monster piece of tube agate, about 20 lbs.



Here is a picture of our esteemed Queen of the Dig.

### McDonald's Farm



The next place we went was McDonald's Farm. This is a well known local collecting site which is a pay site. The materials here were petrified wood, angel wing agate and large thunder eggs. The petrified wood was varied in type and quality, also size. Some of the wood was soft and punky, but some of it was not just petrified, but agatized and opalized. Brilliant whites, glossy blacks and some ochre and deep bricky red/brown. Some of the pieces were pretty significantly large, like a 4 foot log, about 20" in diameter, but the better materials were not cheap. We still found a few worth collecting and paying for.

### Angel Wing Agate



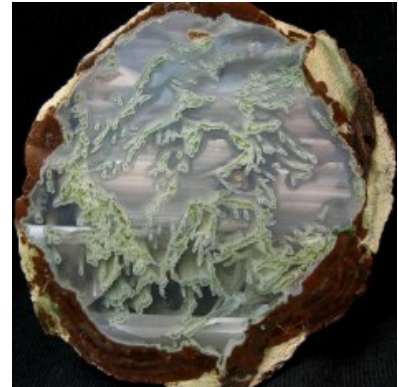
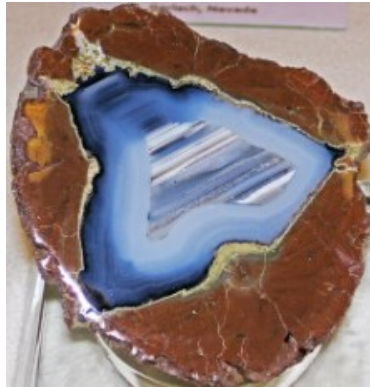
Of greater interest to us was the 'Angel Wing Agate'. This is a unique agate which was free flowing on the surface before cooling, resulting in beautiful shapes, grain and patterns. We found a monster outcropping with some amazing material. However, this material, when in the

host rock or in this case, a huge boulder that was so hard, Alan spent about 3 hours using chisels, a four pound hand sledge and a twenty pound sledge trying to separate a sizable chunk. We forced him to give up, "Please, I've almost got it". Not even close. We figure in about 3 days he might get the piece he was trying to collect. Even so, we collected some nice samples.



## Richardson Ranch

### Thunder Eggs



They are collected by the hundreds. Our first trip there, two of us collected a hundred thunder eggs, at \$1.00 per pound, about \$112.00. They have several different beds located within a short easy driving distance of the shop. Each has a unique set of characteristics, including moss agate, reds, blues etc. They will also cut them for you, for a nominal (not all that cheap) price in case you don't have your own rock saw, but if there are a lot of people and there often are, you may have to wait a while. They have thousands of acres of land in the valley where they are located. You don't have to go to Richardson Ranch to collect them, because Thunder Eggs are ubiquitous for hundreds of miles of central Oregon. However, it is a convenient way to collect them. You won't find an easier location with more success.

Next time you want to find some easy field trips with multiple locations in a single journey, with a Gem & Mineral show to boot, in case you don't find enough amazing pieces of your own, you should check out the annual June Prineville Pow Wow, Gem & Mineral Show.

## Camp Paradise

**Week 1: August 20 to August 26th 2023**

**Week 2: August 27th to September 2nd 2023**

**Classes** – Beginning Faceting, Beginning Lapidary, Advanced Lapidary, Soft Stone Carving, Beginning Silversmithing, Intermediate and Advanced Silversmithing, Lost Wax Casting, Beading, PMC3 Clay, Fused Glass, Enamel, Cold Connection, Intarsia.

All classes are subject to change. Please Note: Class assignment preference will be given to first time students.

Camp Paradise costs \$500 per week per person.

**For more information about time, location, lodging, etc., contact:**

**Camp Paradise Registrar Glenda Keil**

[Camp-Paradise-2023-Registration-2](https://www.camp-paradise.com/2023-Registration-2)

**Glenda : 1 916-448-8341, [gkeil@comcast.net](mailto:gkeil@comcast.net)**

# Igneous Rocks (Part 2)

By Prof. Philip R. Kesten, Ph.D., Department of Physics  
Santa Clara University

**So now, igneous rocks... they form when hot, liquid magma cools and solidifies. That cooling can take place as the magma rises toward Earth's surface, or if the magma can reach Earth's surface, cooling occurs after the magma comes out of the ground—out, say, through an erupting volcano or an oozing fissure.**

In the first case, when the magma cools before reaching the surface, cooling occurs slowly—it can take hundreds of thousands or even millions of years for the liquid rock to cool down enough to solidify. For that reason, any individual grains in the magma have plenty of time to crystalize and grow, so that the rock that is ultimately formed is coarse-grained. The most common igneous rock, granite, forms in this way. Granite is composed primarily of feldspar, quartz, and mica, and as you can see in Figure 4, the grains in a specimen of granite are large enough to be easily visible. (And here is some more bonus information: the word “granite” is derived from the Latin granum, meaning “grain.”)



<https://www.geologypage.com/wp-content/uploads/2019/05/Granite-Rocks-GeologyPage-696x595.jpg>

**Figure 4.** Coarse grains are visible in this specimen of granite.

Peridotite is another coarse-grained igneous rock. Like granite, it forms while the molten magma is still trapped beneath Earth's surface. Peridotite contains crystals of magnesium, iron, and chromite, but it is particularly rich in olivine, giving peridotite its distinctive green color. (See Figure 5.)



<https://www.flickr.com/photos/jsjgeology/16788415375>

**Figure 5.** Coarse grains are visible in this specimen of peridotite. Peridotite gets its distinctive green color from high quantities of olivine.

Another common igneous rock is basalt, a fine-grained rock that forms when iron- and magnesium-rich lava cools rapidly near Earth's surface. (Figure 6) Basalt can form when rapidly flowing lava cools quickly on the surface. Volcanos, lava flows... basalt! So it's no surprise that we have found evidence of basalt on Venus, home to well over a thousand volcanos, and on Mars, home to Olympus Mons, the tallest volcano in the solar system at over 13 miles high. But here is, perhaps, a surprise: astronauts have collected specimens of basalt from the surface of the Moon. Yes, the Moon has been volcanically active throughout its history; we have evidence that volcanic eruptions occurred on the Moon over four billion years ago, and as recently as perhaps only fifty million years ago.



**Figure 6.** Basalt.

When hot, liquid magma escapes from inside the Earth and encounters the relatively cool atmosphere, it cools quickly. (Magma that comes out of the Earth is referred to as “lava.”) Because of this, the rock that forms exhibits no grains and no crystalline structure; it is uniform in composition and appearance. The most common igneous rock formed in this way is obsidian, often referred to

as “volcanic glass.” (Figure 7a) Sometimes the lava ejected from a volcano contains trapped gas bubbles; the chambers in which the gas was trapped remain when the lava solidifies, leaving a rock that looks like a sponge. (It’s not soft, however!) This is pumice (Figure 7b) or scoria (Figure 7c). Pumice forms when the lava is frothy—full of gas bubbles—as it is ejected from a volcano, so pumice is extremely lightweight. Some pumice is light enough that it floats in water. Scoria is a bit denser than pumice, so it does not float. It is also dark in color (pumice is tan or light brown) primarily because of its iron content. Because iron oxidizes—rusts—scoria is sometimes red.



**Figure 7a.** Obsidian, sometimes called “volcanic glass.”

[https://en.wikipedia.org/wiki/File:Lipari-Obsidienne\\_\(5\).jpg](https://en.wikipedia.org/wiki/File:Lipari-Obsidienne_(5).jpg)



**Figure 7b.** Pumice. <https://www.thoughtco.com/pumice-rock-4588534>



**Figure 7c.** Scoria. [https://m.media-amazon.com/images/I/81RGKAVcHaL.\\_SX522\\_.jpg](https://m.media-amazon.com/images/I/81RGKAVcHaL._SX522_.jpg)

Hot ash is often ejected from an erupting volcano, usually from a vent along the sides of the volcano or at its base. When the ash cools, it can solidify to form rock—a rock called “tuff.” Tuff is relatively soft, so it is easily weathered, leaving the kind of dramatic formations found in Bandelier National Monument in New Mexico. (Figure 8.)



**Figure 8.** Dramatic formations of tuff in Bandelier National Monument in New Mexico. (photo: prk)

When magma cools enough to solidify before it comes out of the ground, the shape of the rock that forms is, of course, the shape of the crack or crevice or hollow column through which the magma was

flowing as it was pushed up toward the surface. We don't see that igneous rock formation unless it becomes exposed. Such is the case for the spectacular igneous formation known as Devil's Tower. (Figure 9, and yes, this is the very same Devil's Tower made famous in the blockbuster movie "Close Encounters of the Third Kind.") The igneous rock of Devil's Tower pushed up through sedimentary rock. In the course of the forty or so million years since, the relatively soft sedimentary rock was eroded away by rain and ice... exposing the Devil's Tower formation to the world.



<https://upload.travelawaits.com/ta/uploads/2021/04/devils-tower-national-monumenfa2c91-800x800.jpg>

Figure 9. Devil's Tower, a spectacular igneous rock formation in Wyoming

Igneous rock. It starts out as magma—molten rock—deep in the Earth, and cools to form granite, obsidian, pumice, as well as a wide variety of both fine-grained and coarse-grained rocks. Igneous rock can be found in many varieties, colors, and crystalline and non-crystalline forms. It's well worth adding some igneous rocks to your collection!

Prof. Philip R. Kesten, Ph.D., Department of Physics, Santa Clara University

## So long, but not farewell

**By Rick Kennedy**

Well, this weekend it is finally happening. Much like a Monty Python movie where I have been running towards this thing and it doesn't look like it is getting any closer until suddenly I'm there, that is what my move has been like. But I finally got approved for a rental house and I will be out of my home in San Jose in a few days.

It is a bittersweet thing, leaving a home I've lived in for 18 years, and a community that I've been in since I graduated college, back in 1986 (not even going to try counting!). But this is a good move for me, I'll finally have the room and the lower costs of living to give my quality of life and my business the best chances for success and growth. I say "not farewell" because ya ain't getting rid of me, I'm still on the Board, I'll still be doing our show as well as others in the Bay Area, and I'm only four hours away. Oh, and I'm a lifetime member!!

Some words of wisdom (hopefully) that I would leave as it pertains to the club: Our hobby has a huge umbrella, everything from digging, to collecting, to making. There is room for all of us. We all want the club to succeed, we may have different ideas of how to do this, but we all want the club to thrive. Participate!!! There are always going to be spectators, but every club needs participants. Participation is the life blood of a club and honestly, participation will feed you as a member. Share your passion in this field. It doesn't matter what your interests in our hobby are, if you enjoy it, share it. Sharing passion will often inspire unknown passions in the people you share with, it is infectious.

Although I will be in Reno, part of my heart will always be in the Bay Area and with this club. You have been community for me as I have gone through the loss of my mother, father, sister and the mining accident which nearly took my foot. Your kindness, friendship and camaraderie I will always be thankful and grateful for.



# Bragging Rights

There were two winners in the July contest for a **fossil**:



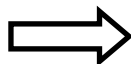
1  
Fossil Sand Dollar

## Fossil Sand Dollar by John Bahr



AND

Coprolite, Alberta by  
Sonia Dyer



3  
Coprolite, Alberta

There were also two other great entries:



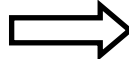
## 2 Orthoceras Dish

## Orthoceras Dish by Deb and Noel Runyan



AND

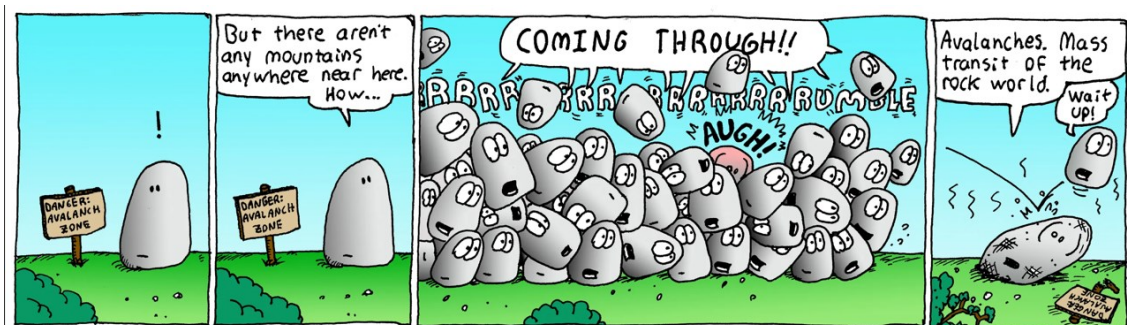
Megalodon Shark Tooth by  
Jim Fox



4  
Megalodon  
Shark  
Tooth

Next month's Bragging Rights theme is "Beginning with the letter 'C'". Please email a photo of your treasure that starts with "C" to Alan Achor by 4:00PM on Monday, August 21 to have it included in the contest. Alan's email address is [kayak-bb7@gmail.com](mailto:kayak-bb7@gmail.com).

## Alan Achor-Bragging Rights Chairman



## Improbable Rock Story

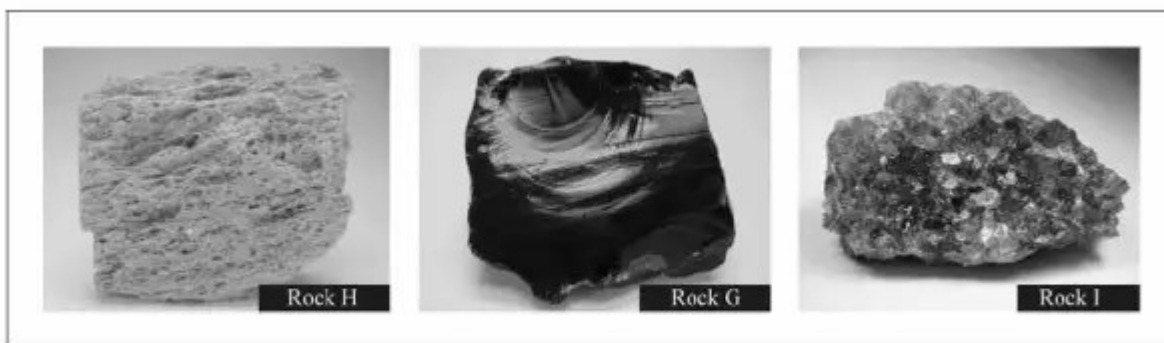


Figure 2. Images of rocks (originals in colours).

Of these three rocks, which would you say is the most 'confident' ?

August 12, 2014

Martin Gardiner

How about the most 'sincere' or 'intelligent'? Just such questions were asked in a recent study by Dr. Mark Avis (Massey University, New Zealand), Dr. Sarah Forbes (University of Birmingham, UK) and Dr. Shelagh Ferguson (University of Otago, New Zealand). Their study examined the (perceived) personalities – specifically the Brand Personalities (BP) – of the three rocks shown above. Experimental results showed that Rock G was the most glamorous and also the most contemporary, whilst rock H was the most sentimental, and rock I was the most independent.

See: '[The brand personality of rocks: A critical evaluation of a brand personality scale](#)' Marketing Theory, December 6, 2013.

With permission from: <https://improbable.com/2014/08/12/assessing-the-perceived-personalities-of-rocks/>

## Sunshine

Frank Mullaney had leg surgery. We wish him a speedy recovery.

Michele Smith had a recent trip to the ER. We hope that everything is under control.

Jim Sugiyama's wife is having difficult health issues. Our thoughts & prayers are with her.

A shout out to John P. that he is not forgotten. We hope he is doing the best he can.

A hello to Larry and Mary Lu, long time members. They are unable to attend meetings due to health reasons but are still very interested in our club.

A good bye to Rick Kennedy who after many active years in our club has moved to Reno. He will be missed.

If you know of anyone needing some sunshine in their lives, please email **Margo Mosher** at [margo-mosher@yahoo.com](mailto:margo-mosher@yahoo.com).



## Member Displays

We had 4 member displays at the July meeting.



Jim Fox: Magnetite in Appetite.  
He demonstrated the magnetic properties with metal marbles and a magnetic strip on the face of the stone!



Bruce Poehlman: Free rocks from the DRC, on the left is Quartz with Tourmaline and on the right is Native Copper.



Joan Schramm: Amazonite/  
Amazon Stone from Mexico

**Please email a photo of the items that you wish to display to [Michele Smith](#) by the Sunday before the general meeting, so that the people who attend the meeting on Zoom rather than in person can view your items. Please bring your items with you to the Cabana Club, if you are attending the meeting.**

**Don't know what to display?** Any type of rock, mineral, or fossil (identified or not), your latest project, information on a field trip, ideas for a display case, or anything to do with rocks is appreciated. Sharing items helps to educate all who are attending. Show off what you love, so that we can enjoy it with you.

## Information on Shows for 2023

### August 18-20, 2023 - Gem Miner's Jubilee Show

Lebanon Valley Expo Center  
80 Rocherty Road  
Lebanon, PA 17042  
Hours: 18 & 19: 10-6; 20: 10-4  
Contact: (301) 807-9745  
Website: <https://www.gem-show.com/>

**August 19-20, 2023** – Tehachapi, CA  
Tehachapi Valley Gem and Mineral Society  
500 East "F" Street, Tehachapi, CA 93561  
Hours: 9-5  
Contact: (661) 972-1117,  
[travis462@outlook.com](mailto:travis462@outlook.com)  
Website: <https://www.tvgms.rocks>

**August 26-27, 2023** – Arcadia, CA  
Pasadena Lapidary Society  
Arcadia Masonic Lodge  
50 W. Duarte Rd., Arcadia, CA 91007  
Contact: (626) 260-7239  
Website: <https://pasadenalapidary.org/category/gem-mineral-show/>

**September 16-17, 2023** – Monterey, CA  
Monterey Fairgrounds, Monterey, CA  
Hours: 10-5  
Contact: (831) 801-5887  
Website: [www.cvgms.rocks](http://www.cvgms.rocks)

**September 16-17, 2023** – Reno, NV  
Reno Gem and Mineral Society  
Reno/Sparks Convention Center  
4590 S. Virginia St., Reno, NV  
Hours: Sat. 10-5, Sun. 10-4  
Contact: (775) 229-4420,  
[sailondan55@aol.com](mailto:sailondan55@aol.com)  
Website: <https://renogms.org/>

**October 7-8, 2023** – Grass Valley, CA  
Nevada County Gen and Mineral Society  
Nevada County Fairgrounds  
11228 McCourtney Rd., Grass Valley, CA 95949  
Hours: Sat. 10-5, Sun. 10-4  
Contact: [4vanclan5@att.net](mailto:4vanclan5@att.net)

**October 8, 2023** – Fallbrook, CA  
Fallbrook Gem and Mineral Society  
123 W. Alvarado St., Fallbrook, CA  
Hours: 9-4  
Contact: (760) 728-1130,  
[info@fgms.org](mailto:info@fgms.org)  
Website: <https://www.fgms.org>

**October 14-15, 2023** – Redwood City, CA  
Peninsula Gem & Geology Society AND Se-  
quoia Gem & Mineral Society  
Redwood City Community Activities Building  
1400 Rosevelt Ave., Redwood City, CA 94061  
Hours: 10-5  
Contact: (650) 575-3144, [cci@pacbell.net](mailto:cci@pacbell.net)  
Website: <https://sequoiagemandmineralsociety.org>

**October 28-29, 2023** – Sacramento, CA  
Sacramento Mineral Society of California  
The Scottish Rite Temple  
6151 H Street, Sacramento, CA  
Hours: Sat. 10-5, Sun. 10-4  
Website: <https://www.sacgemshow.com/>

**October 28-29, 2023** – San Diego, CA  
San Diego Mineral & Gem Society  
Liberty Station Conference Center/Point Loma  
Nazerene University  
2660 Lanir, San Diego, CA 92106  
Hours: Sat. 10-5, Sun. 10-4  
Contact: [luannz@att.net](mailto:luannz@att.net)  
Website: <https://sdmg.org>

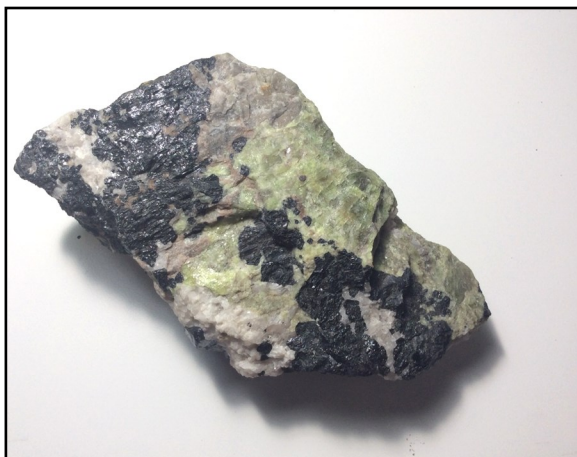
**October 28-29, 2023** – Orange, CA  
American Opal Society  
Velvet Rose Event Center  
300 S. Flower St., Orange, CA 92868  
Hours: Sat. 10-6, Sun. 10-5  
Contact: (714) 501-9959,  
[info@opalsociety.org](mailto:info@opalsociety.org)  
Website: <http://www.opalsociety.org/>



# Willemite Crossword Puzzle

By Jo Bouricki

Many of my rocks and minerals are in my rock garden in our atrium. It's a great place for them because as my husband, Bill and I eat lunch there, I can admire my rocks. Occasionally, I pick a specimen out for a better look as I did the other day when I noticed the willemite, still in the box it was in when I bought it at one of our rock sales. I was curious about this light apple green mineral from the **Charles Weiler Collection** probably collected by Weiler in around 1943 or 1944 when Weiler was employed by the New Jersey Zinc Company as a junior mining engineer. I did a little research using **Wikipedia** and the **Gem Society** websites as my main sources of information. Use it as you enjoy the crossword puzzle on Willemite information.



**From Wikipedia Willemite - Wikipedia:** “Willemite is a [zinc silicate mineral](#) ( $\text{Zn}_2\text{SiO}_4$ ) and a minor ore of [zinc](#). It is highly [fluorescent](#) (green) under shortwave [ultraviolet](#) light. It occurs in a variety of colors in daylight, in fibrous masses and apple-green gemmy masses. **Troostite** is a variant in which part of the zinc is partly replaced by [manganese](#), it occurs in solid brown masses.

It was discovered in 1829 in the Belgian [Vieille-Montagne](#) mine. [Armand Lévy](#) was shown samples by a student at the university where he was teaching. Lévy named it after [William I of the Netherlands](#)<sup>[5]</sup> (it is occasionally spelled **villemite**).<sup>[6][7][8]</sup> The troostite variety is named after Dutch-American mineralogist [Gerard Troost](#).

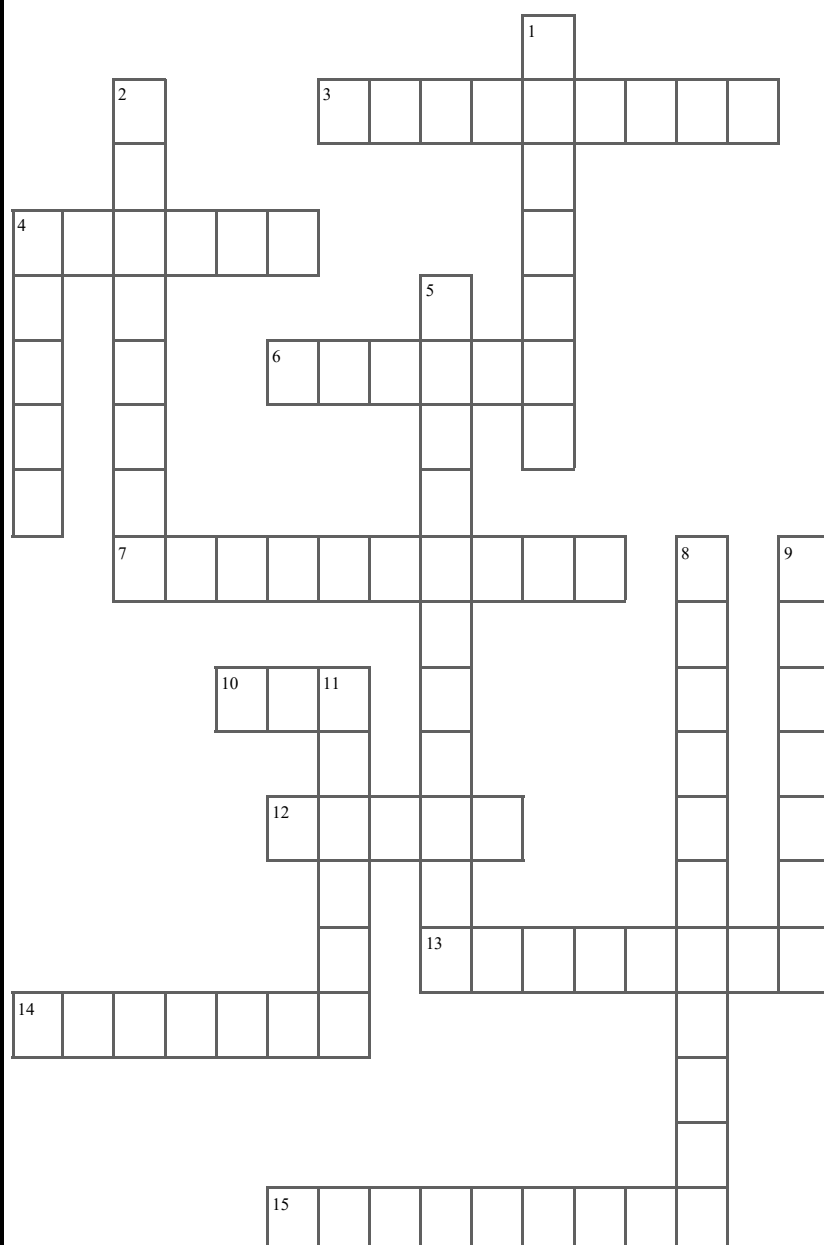
Willemite is usually formed as an alteration of previously existing [sphalerite](#) ore bodies, and is usually associated with [limestone](#). It is also found in marble and may be the result of a metamorphism of earlier [hemimorphite](#) or [smithsonite](#).<sup>[10]</sup> Crystals have the form of hexagonal prisms terminated by rhombohedral planes: there are distinct cleavages parallel to the prism-faces and to the base. Granular and cleavage masses are of more common occurrence.<sup>[11]</sup> It occurs in many places, but is best known from Arizona and the zinc, iron, manganese deposits at [Franklin](#) and [Sterling Hill Mines](#) in [New Jersey](#). It often occurs with red [zincite](#) (zinc oxide) and [franklinite](#) ( $\text{Fe,Mn,Zn}(\text{Fe,Mn})_2\text{O}_4$  (an iron rich zinc mineral occurring in sharp black [isometric](#) octahedral crystals and masses). Franklinite and zincite are not fluorescent.

**From the Gem Society Willemite Value, Price, and Jewelry Information - Gem Society :** “Soft, fragile, and difficult to polish, willemites don’t make good jewelry stones. You’re more likely to find any faceted or cabbed gems in mineral collections than jewelry collections. Nevertheless, their striking [fluorescence](#) may make them interesting conversation pieces if worn as jewelry. Since willemites have a [hardness](#) of only 5.5, place them in [protective settings](#) to protect them from scratches.”

Use this information, to solve the crossword puzzle shown on the following page.

By Jo Borucki, July 18, 2023

# Willemite Crossword Puzzle



## Across

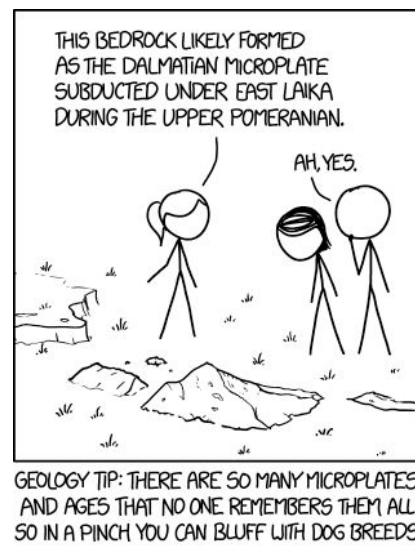
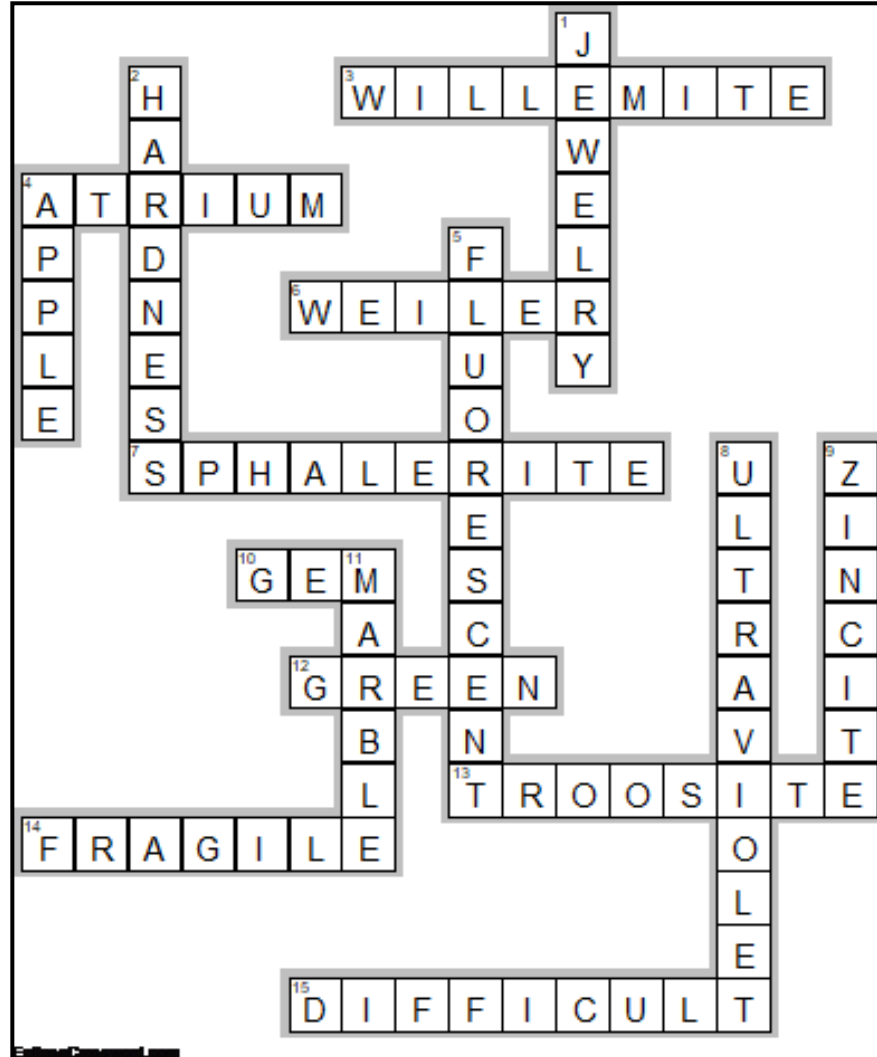
3. Too soft, fragile, and difficult to polish for jewelry purposes
4. Open area in a home
6. Original collector of Willemite shown in picture
7. The ore bodies altered to form willemite
10. Society website used for much of this information
12. Usual color of Willemite
13. Variant of Willemite where manganese partly replaces zinc
14. Easily damaged
15. Not easy

## Down

1. Willemite does not work well as this
2. Willemite only has a 5.5 of this quality
4. Shade of green for Willemite
5. When viewed with ultraviolet light
8. Shortwave light
9. Red zinc oxide
11. Where Willemite may be found as a result of metamorphism of Smithsonite or Hemiphorite

This puzzle is also available to be filled in online at: <https://www.scvgms.org/willemitecrossword/>

## Willemite Crossword Puzzle Answers



# Membership Meeting Minutes

July 25, 2023

**Call to Order** - 7:36ppm

**Pledge of Allegiance**

**New Members:** Dustin Bastianelli

**The Vice Corner:** Following a 2 day visit to the ER, Michelle provided a cautionary tale of "Don't wait to see the Doc if you think something might be amiss".

## **Member Displays:**

**Jim Fox:** Magnetite in Appetite and demonstrated the magnetic properties with marbles on the face of the stone!

**Joan Schramm:** Amazonite/Amazon Stone from Mexico

**Bruce Poehlman:** Free rocks from the DRC one Native Copper and the other Quartz with tourmaline.

## **Posts to Fill:**

- President, 2024 –?
- Snacks for September: Lucy
- October: Bruce Pullman

**Correspondence:** None to report

## **Field Trips (Stephen May) :** Updates

August 25, 26 Trying to arrange Group Permit, with Dept. Forestry speaker.

Davis Creek, California – 6 ½ hour drive, Obsidian, Rainbow, Pink, Silver, Mahogany, Electric Blue, Needles

**Snack Break:** Healthy junk (plus cookies) -

**Rockhound of the Month:** Rick Kennedy, for everything.

**Bragging Rights** for the month of July, General Meeting, the theme is "Fossils" – Alan Achor

1. Fossil Sand Dollar
2. Orthoceras Dish
3. Coprolite, From Alberta
4. Megalodon Shark Tooth

Another tie for July's bragging rights and the winners are: John Bahr's Fossil Sand Dollar and Sonia Dyer's Coprolite from Alberta

Bragging rights theme for August: Letter C

**Hospitality:** 30 Members and 3 Guests in attendance.

**Sunshine:** Margo Mosher.

## **Show Volunteer Drawing for Camp Paradise Week:**

Missy Fox announced the winner and the backup winners for the "Thank You Show Volunteers!" drawing; a Trip to Camp Paradise for a weeklong adventure.

The official winner of the Camp Paradise adventure is Karen Welder! Thank You Karen for your volunteer time at the show. The back up winners are in order: Jim Harbold, Cynthia Porter, Michelle Powers, and Lon Mulaney. Thank you all for your generous contribution of time and energy for our show!



**Federation Report (Karen Welder):** none.

**Upcoming Event:**

Founders Picnic Saturday September 16th 11:00-3:00 @ The General Meeting location  
Please RSVP to Jim Herbold, [jimherbold@gmail.com](mailto:jimherbold@gmail.com), so that we know how much meat and drinks to buy. If you plan to attend, please RSVP and bring a side, salad, or dessert to contribute to the feast!

**DRC SALE:** Saturday, August 26th, 9am to noon.

Fenced area FREE. Display cases, tools, 2 diamond saws, Florescent rocks, 5 ½ tubs of slabs

**Program:** Donna Kelly, Flint Knapping The ancient technology styles, tools and techniques as well as more contemporary tools and methods were shared. The reference slides can be accessed through the club.

**Adjournment:** Meeting adjourned at 9:45 PM

Respectfully submitted, Cynthia Porter, Secretary

## Board Meeting

**July 27, 2023**

**Meeting called to order at:** 7:36pm

**Roll call:** Noel Runyan (Board), Stephen May (Pres), Cynthia Porter (Sec), Deb Runyan (News Editor)

Absent: Michelle Powers (Board), Jim Fox (Board), Missy Fox (Board), Rick Kennedy (Board), Paul Kidman (Alt Fed Dir), Frank Mullaney (Treasurer), Michele Smith (Vice Pres), Dean Welder (Parliamentarian), Karen Welder (Fed Dir)

**Reading of the Minutes from June 29th board meeting:** deferred to August meeting

**Correspondence (Frank Mullaney):** Nothing new

**New Members (Cynthia Porter):** Nothing New

**Treasurers Report (Frank Mullaney):** Attached email

**Committee Reports:**

Federation – (Karen Welder) Nothing New

Field Trips – (Stephen May) Update: Nothing New

August 10th-13th - Pet. Blue Forest & American Fossil Quarry. Kemmerer, WY. Sacramento Mineral Society Mike Jones, cell (916) 477-0890, [scienceskoolbus@gmail.com](mailto:scienceskoolbus@gmail.com) Pet wood, Fossils. Pet wood no fee American Fossil Quarry Fee Dig

August 25, 26, (27) Fri. Sat.

Davis Creek, California – 6 ½ hour drive, Obsidian, Rainbow, Pink, Silver, Mahogany, Electric Blue, Needles

September 28th – October 1st - Topaz Mt & Dugway Geo Beds, Delta UT. Sponsored by Roseville Rock Rollers, CFMS, Gene Doyle, CO-OP & Roseville Rock Rollers Field Trip.

8/7 Bear Canyon, Mt, Black and white fortification agate.

8/8 Hysham Fossil

8/9 yellow stone river petrified wood and agate

8/10 Glendive Fee dig for fossils.

8/11 Agate Trip TBD. (I'll check AFMS site, Frank

**DRC Sale**, August 26th: 9:00 - Noon

**Santa Clara County Fair** – Remaining Business: No new

**Founders Day Picnic** – Jim Herbold, Sign-up sheet to help. Stephen May, Alan May

Shout out for Bingo items and for auction items

Need Bingo materials.

**Old Business:**

How much to charge for admission to the show.

Document from Frank to be shared.

**New Business:**

New section of our site, Members only Trading Post. Not financially connected to the SCVGMS.

**Upcoming Programs:**

August: Noel Runyan Fragile Minerals plus Ice Cream Social event

September: ? Video from Jo Borucki, or CFMS speaker

Founders Day Picnic September 16th: Jim Herbold, volunteers. Stephen May

October-? Opal Program (Michele to provide Stephen with contact)?? Australia,

November- Silent Auction

December- Installation Dinner

**Next Board meeting** is August 24th

**Meeting adjourned:** 7:54 pm

Stephen volunteers to print 6 copies of the Breccia each month.

Respectfully submitted, Cynthia Porter, Secretary

## SCVGMS ELECTED OFFICERS

President: Stephen May, 408-306-6782  
Vice President: Michele Smith, 408-374-1897  
Secretary: Cynthia Porter, 408-978-5848  
Treasurer: Frank Mullaney, 408-691-2656  
Editor: Deb Runyan, 408-628-7789  
Federation Director: Karen Welder, 408-353-2675  
Alternate Fed. Director: Paul Kidman, 408-356-4995

## Board Members at Large

Jim Fox, 408-356-7711  
Missy Fox, 408-356-7711  
Michelle Powers, 408-694-8686  
Noel Runyan, 408-866-7564  
Rick Kennedy, 408-529-9690  
Parliamentarian: Dean Welder, 408-353-2675

## SCVGMS COMMITTEE HEADS

Bragging Rights Chair: Alan Achor  
Donation Receiving Committee Chair: Michele Smith  
Show Chairpersons 2024: TBD  
Fairgrounds Booth Chair: Michele Smith  
Fairgrounds Liaison: Frank Mullaney  
Fairgrounds Volunteer Coordinator: Margo Mosher  
Field Trip Coordinator: Stephen May  
Founder's Day Picnic Chairman: Jim Herbold  
Founder's Day Raffle: TBD  
Founder's Day Bingo: TBD  
Hospitality: TBD  
Installation Dinner: Tamara Bell, and Michael Paone  
Member Displays: Rick Kennedy  
Refreshments: TBD  
Silent Auction: TBD  
Sunshine: Margo Mosher  
Trophies: Frank Mullaney  
Librarian: Deb Runyan

## Santa Clara Valley Gem and Mineral Society

P.O. Box 54, San Jose, CA 95103-0054

Website: [www.scvgms.org](http://www.scvgms.org)

Email: [info@scvgms.org](mailto:info@scvgms.org)

Phone Number 408-265-1422

Like us on Facebook:

<https://www.facebook.com/santaclaravalleygemandmineralsociety>

## An Invitation

This society is pleased to invite guests to attend general meetings, study groups, and field trips. **General meetings are held the fourth Tuesday of every month with meet and greet time beginning at 7:15 followed by the meeting at 7:45 PM at 100 Belwood Gateway (the Cabana Club), Los Gatos, CA 95032.** Belwood Gateway is just south of Blossom Hill Road between Leigh Avenue and Harwood Road. **The Next General Meeting is on August 22 at 7:45 at the Cabana Club and also available on Zoom.** The Next Board Meeting is at 7:30 on **August 24** on Zoom.

**Our Society's Purpose:** The inculcation of a love of rocks and minerals by the furtherance of members' interests in the earth sciences and by education in all facets of related educational activities with the promotion of good fellowship, proper ethics, and conduct.

**Our Membership Requirements:** Attendance at two general meetings within twelve months.

This society is a member of the California Federation of Mineralogical Societies (CFMS) and is affiliated with the American Federation of Mineralogical Societies (AFMS).

**Our Newsletter, the Breccia, is published ten times annually. The deadline for all articles is the Sunday after the general meeting.** The Breccia editor is Deb Runyan who may be contacted by email at [Deb4Rocks@gmail.com](mailto:Deb4Rocks@gmail.com) and by phone at 408-628-7789. This Breccia was proofread by Sonia Dyer, Jo Borucki and Noel Runyan.

Exchange bulletins may be emailed to the editor. Permission to copy is freely granted to American Federation of Mineralogical Societies (AFMS) affiliated clubs when proper credit is given.