BRECCIA

Santa Clara Valley Gem and Mineral Society

Volume 70 Number 4, April 2022

Index

Coming Events

April 26 General Meeting with a **Silent Auction**. Bring your items for the auction which benefits SCVGMS and find some treasures to take home. The **Bragging Rights** theme is Quartz. Email pictures of your entries to **Alan Achor kayakbb7@gmail.com**, and join in the fun.

April 28 Board Meeting on Zoom.

April 30 Field trip to the **Clear Creek**.

President's Message

.

This is an exciting time. COVID is somewhat tamed. We are going out more without masks. And new field trips are available. Assigning Stephen May to run field trips will help us all to know what is available and what we are capable of attending. I think most field trips can be enjoyed by any member of our society, but some will be more intense, requiring climbing or rugged terrain.

The Clear Creek field trip can be dangerous and requires attendees to buddy up. However, it is a popular field trip and has already gotten a lot of attention and a list of people who will attend. This Breccia has information about the Clear Creek trip and also about a trip to the Paradise area.

If you want to know upcoming field trips that SCVGMS and surrounding clubs are promoting, look in the Breccia.

I have to admit that I have not been on a field trip with SCVGMS, but it is something I am interested in doing.

The Co-Op has a very detailed information list that rates the road condition, parking availability, if camping is allowed, maps, and field trip rules as well as many other details. See the March Breccia for this information. for specific information on Clear Creek.

With that more detailed information, I am looking forward to undertaking a field trip adventure or two. Can't wait!

Respectfully,
Madam President Michele Smith

Cutting Rock Slabs

Jose Sul has offered to cut slabs for Santa Clara Valley Gem and Mineral Society (SCVGMS) members. Jose is working on his 14 inch saw to be ready to cut slabs for the club. He will teach you how to use a saw and what you need to remember to be safe and have good cuts. More details will follow in the next couple of months.

A Co-op Member Field Trip-Clear Creek
Sponsored by SCVGMS
April 30, 2022

SCVGMS has joined the Northern California Field Trip Co-op. During the year, SCVGMS will sponsor a trip open to all members of the co-op. In return, all members of SCVGMS will be able to participate in field trips sponsored by other clubs that are members of the cop-op. Being able to participate in co-op field trips is an excellent reason to become a member of SCVGMS.

- 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 (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 – Clear Creek Management Area, King City, CA
Trip Difficulty Rating Scale-
Vehicle Access & Parking – # 6 Medium Ground Clearance, Parking available
Collection or View Site - #5
When – April 30, 2022
Sponsor Club – Santa Clara Valley Gem & Mineral Society
Leader and Contact Information – Stephen May, (408) 306-6782**,** stephenmay0990@gmail.com
Members' Guests – Allowed
Collection Material – plasma agate, petrified wood, serpentine, druzy quartz, cinnabar, spessartite garnet, benitoite (questionable).
Proposed Schedule - Meeting at Jade Mill Campground, 8:30am; enter gate at 9:00am; leave at 3:00 pm.
Meet– Jade Mill Campground
Directions to Camp/Site - 50 yds, from Gate Entrance to Clear Creek Management Area
Vehicle Requirements – (4x4, carpooling), Medium ground clearance. 4X4 nice, not required.
Camping Facilities – (ie, water/ dry, toilets, motels) dry camping, gravel, picnic tables, fire rings, vault restrooms, hiking trails, 5 sites, first come, first serve, no reservations.
Tools –Digging Tools: Rock hammer, Sledge hammer 3 lb., Chisel flat, Chisel point, Sledge hammer 10-16 lb., Bucket, bags.
Safety Concerns – Gloves, Safety Glasses, Boots, Long pants, Sunscreen, Hat (Hard hat, recommended), Long sleeves, Partner if you are going to wander (check in)
Climate/Weather– Cool during April. Snow at high elevation possible in April. Hot Mid-day.
Clothing -(ie, full cover for poison oak) Full cover. Hat.
Fees - Visiting permit 1/person, free; but site charges $6.95 fee. Parking Permit required, $5.00; site charges $6.95 fee

Field Trip to Paradise

April 23 - Paradise CA, 3 hours from Santa Clara
Sponsored by: Calaveras Gem & Mineral– new chairman Katrina McKewan
Expedition Field Trip-rose quartz, idocraze (also called vesuvianite), jadeite. fossils,
From Paradise off 70.
Meeting in Paradise along Highway 70, at 9:00 a.m.
Shouldn't need 4 X 4.
If needed, car pooling is available within the Field Trip area.
Contact: Stephen May stephenmay0990@gmail.com (408) 306-6782

Member Displays

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.

Jim Fox brought in a piece of Mt. Airey Blue Agate, **David Persselin** brought in some samples he picked up just outside the entrance gate to the Clear Creek collecting area. (jadeite, serpentine, jasper pieces), **Melanie Fox** brought in what appeared to be a meteorite and an unidentified piece that resembled a botryoidal schist.

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.

Rick Kennedy– Chairperson

Sunshine

We would like to wish all our members good health. It is good news that there are no members needing sunshine at this time. As, hopefully, the pandemic has wound down, we are returning to much better times.

If you know of anyone needing some sunshine in their lives, please email Margo Mosher at **Margo Mosher at margomosher@yahoo.com.**

Information on Shows
April-May

April 1-3; Vista, CA Vista Gem and Mineral Society Vista Gem and Mineral Show
Antique Gas and Steam Engine Museum 2040 N Santa Fe Ave
Hours: Fri & Sat 10-5; Sun 10-4 Contact
Email: info@vistarocks.org Website: https://vistarocks.org/

April 9-10; Mariposa, CA Mariposa Gem and Mineral Club Mountains of Minerals
Mariposa County Fairgrounds 5005 Fairgrounds Road
Hours: Sat 10-5; Sun 10-4
Website: https://mariposagemclub.org/

April 9-10; Thousand Oaks, CA CANCELLED
Contact: gguttman8@gmail.com

April 23-24; Santa Cruz, CA Santa Cruz Mineral And Gem Society
Santa Cruz Civic Auditorium, 307 Church St., Santa Cruz
Hours: Sat & Sun 10-5
Contact: scuzgms@gmail.com Website: http://scrockngem.org

April 30-May 1; Anaheim, CA Searchers Gem and Mineral Society
Brookhurst Community Center 2271 W. Crescent Ave., Anaheim
Hours: Sat. 10-5, Sun. 10
Contact: (909) 815-3045 Email: searchersgemandmineral@gmail.com
Website: www.searchersrocks.org

May 6-8; Lancaster, CA **California Federation Show**
Hosted by Antelope Valley Gem & Mineral Club
Antelope Valley Fairgrounds 2551 W. Avenue H
Hours: Fri & Sat 9-5; Sun 9-4
Contact: Susan Chaisson-Walblom Email: slchaisson@yahoo.com

May 6-7; Yucaipa, CA Yucaipa Gem and Mineral Society
Yucaipa Blvd and Adams St., Yucaipa CA
Hours: Fri. 6-10 PM, Sat. noon-10 PM
Contact: (909) 794-0731 Website: http://yvgms.org

May 7-8; Jackson, CA Amador County Gem & Mineral Society
Kennedy Mine Gem & Craft Show, 12594 Kennedy Mine Rd., Jackson, CA
Hours: Sat 10-5, Sun. 10-4
Contact: (916) 698-9853 Website: http://www.amadorgemandmineral.or

Camp Paradise

Week 1: August 22nd to August 28th 2021
Week 2: August 29th to September 4th 2021

For more information about time, location, lodging, etc., contact:
Camp Paradise Registrar
Sandi Kilcrease
422 Mitchel Lake Court
Copperopolis, CA 95228
(831) 334-1170
slk95228@gmail.com

Also available to assist you:
E.S.S. Committee Co-Chairs, Tony & Sandie Fender, email: sandie.fender@gmail.com

Smithies

Smithies are eager to resume. We have made a few decisions about what and when. Now is the time to select a day of the week to meet.

We will meet once a month from 1-4:00pm in our shed. There is room for 5 plus me depending on Covid-19

Classes focus on beginners, but all are welcome. You must respond to my email invitation, and receive a confirmation. To get on the Smithie email list, let me know.

Which day of the week would you like to meet?
___Monday
___Tuesday
___Wednesday
___Thursday
___Friday
___Saturday
___Sunday
Any day is fine. Check all that will work for you.

This is the first time we have offered a choice, and the first time we will be able to meet on a weekend. More about focus and projects later.

Thanks, Pat pat.speece@comcast.net

Be An Exhibitor for the Santa Cruz Gem and Mineral Society
April 23-24, 2022

The Santa Cruz Mineral and Gem Society is seeking exhibitors for its 2022 April 23-24 rock and mineral show at the Santa Cruz Civic Auditorium in downtown Santa Cruz CA. SCMGS has six (6) display cases available. Please email David Somerton at dsomerton4@gmail.com if you are interested in this purely voluntary exhibitor opportunity. SCMGS provides a case novelty for its exhibitors as well as free entry to the show for the exhibitor and up to two family members. Please review and fill out the information requested below and return by email to David Somerton, Exhibits Chair, dsomerton4@gmail.com.

SETUP: Competitive Displays set up times are 1 pm -9 pm, Friday, April 22, 2022. SCMGS provides the empty cases and lighting. The exhibitor provides liners (if desired, case interiors may be scuffed and dirty), a small padlock for the case, and all display items and labels inside the case. Case interior size is approximately: back 48 ¾" x 20", bottom 48 ¾"x 21 ½", sides 21 ½" x 20" (note, sizes may vary slightly)

LIABILITY: The Civic Auditorium is locked at night and evening security is provided by SCMGS. Cases are in entry hallways so that during event all show attendees pass by the cases. This makes it difficult for anyone to break into a case without being seen. If an exhibitor has security concerns, please discuss with the Exhibits Chair. SCMGS can provide extra lock hasps for cases with very high value items.

The exhibition opportunity is purely voluntary on the part of the exhibitor. It is mutually agreed that the Santa Cruz Mineral and Gem Society and its officers, directors, members, and assignees will not be liable for damage or loss to any exhibit and exhibitor in whole or part. This includes the property of the exhibitor or injury to their person resulting from any cause. Submitting this signed application/certification form for entry constitutes acceptance of this limitation of liability.

Exhibitor certifies that case contents are the property and/or responsibility of the undersigned exhibitor. Exhibitor acknowledges that there are no restrictions on photography at the show and the exhibit may be used by individuals for purposes over which SCMGS has no control nor any responsibility to correct if unacceptable to the exhibitor. Furthermore, SCMGS may use a photograph of the exhibit on its own website and society promotional materials, provided the image is not sold in any form.

SIGNATURE_____

Print Name_____ Date _____

SET-UP: Friday April 22, 2022 from 1 pm to 9 pm.
DISPLAY: Saturday and Sunday April 23 & 24, 2022, 10 am – 5 pm
REMOVAL: Sunday April 23, 2022 from 5 pm to 8 pm

EXHIBITOR FULL NAME:_____

ADDRESS:_____

PHONE:_____ **EMAIL**:_____

NAME OF ROCK CLUB or SOCIETY IF MEMBER:_____

NUMBER of CASES DESIRED:_____ **PROPOSED EXHIBIT CONTENT**:

_____

NAMES OF INDIVIDUAL SETTING UP THE CASE (NEEDED FOR ACCESS BADGING PURPOSES):_____

Would you like to volunteer to help out with the show set-up and operations? If yes, someone will contact you. Volunteers are offered an opportunity to participate in drawing for prizes.

March 22 and April 26 General Meetings

Our **March 22 meeting** featured a presentation by **William Borucki** who was the originator and the principal investigator of the Kepler Mission. The mission was specifically designed to survey the stars in a specific area of our Milky Way Galaxy to detect Earth-size and smaller planets in the habitable zones of the stars using the Transit Method of Photometry. Bill summarized his talk with what has been learned:

- Kepler has shown that most stars have planets.
- Planetary systems have been forming from the beginning of our galaxy.
- Earth size planets are common.
- Planets unlike any in our solar system are common.
- Planets of all sizes are found in the habitable zone.

April 26, 2022 will be a Silent Auction The items that we all bring will be displayed on the tables and offered for bid. Each item has a bid sheet. The last name on the list wins the item, and pays the cashier. Bring just about anything. Items do not have to be gem or mineral related. We have auctioned off homemade candies and cookies, plants, pottery, tools, and thingamajigs. Bring your items, find an empty spot on a table, fill out a the paper that will be with your item, and get ready to have fun. Remember that your items are a donation to the club and that all money collected goes to help the club. We thank you in advance!

There will be three bidding time periods. The president will announce the start and the closing of each period. At the end of each time period, one of the three tables will be closed, signifying that the last name on any bid sheet wins the item, and if you are the high bidder, you can take the item and pay the treasurer. Cash or personal checks are both fine, and all proceeds go to the club treasury.

Come early to add your item to the fun, and to see what other people have brought that you might like. Bring your items to be auctioned, cash or check and a tote bag for the goodies that you have bought.

Top O' the Morning to You (a little late)

Friendship is when people know all about you… but like you anyway.

The brain is the most amazing organ. It works 24 hours a day, 365 days a year from birth until you fall in love.

It doesn't matter how big your house is, or how much money you have, or that you wear expensive clothes. Our graves will be the same size.

I don't like to think before I speak… I like to be just as surprised as everyone else about what I say.

And….What did our parents do when they were bored with no Internet? I asked my 18 brothers and sisters, and they didn't know either.

From: irishcraicandhomour.com

Bragging Rights

The March theme was items that are blue. There were no entries for the March meeting where the theme was the color blue. **The theme for April's meeting is Quartz. Please email a photo of your entry to Alan Achor at kayakbb7@gmail.com**

Alan Achor-Bragging Rights Chairman

Rockhound of the Month

The Rockhound of the Month Award goes to **Pat Schuesler**. Pat and Louis, together, as our hospitality chairs, have made us all feel welcome as we have participated in our meetings. Thank you, Pat for all your smiles of welcome and your help.

Membership Dues

SCVGMS membership dues are due for the year 2022. 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.

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: http://www.scvgms.org/

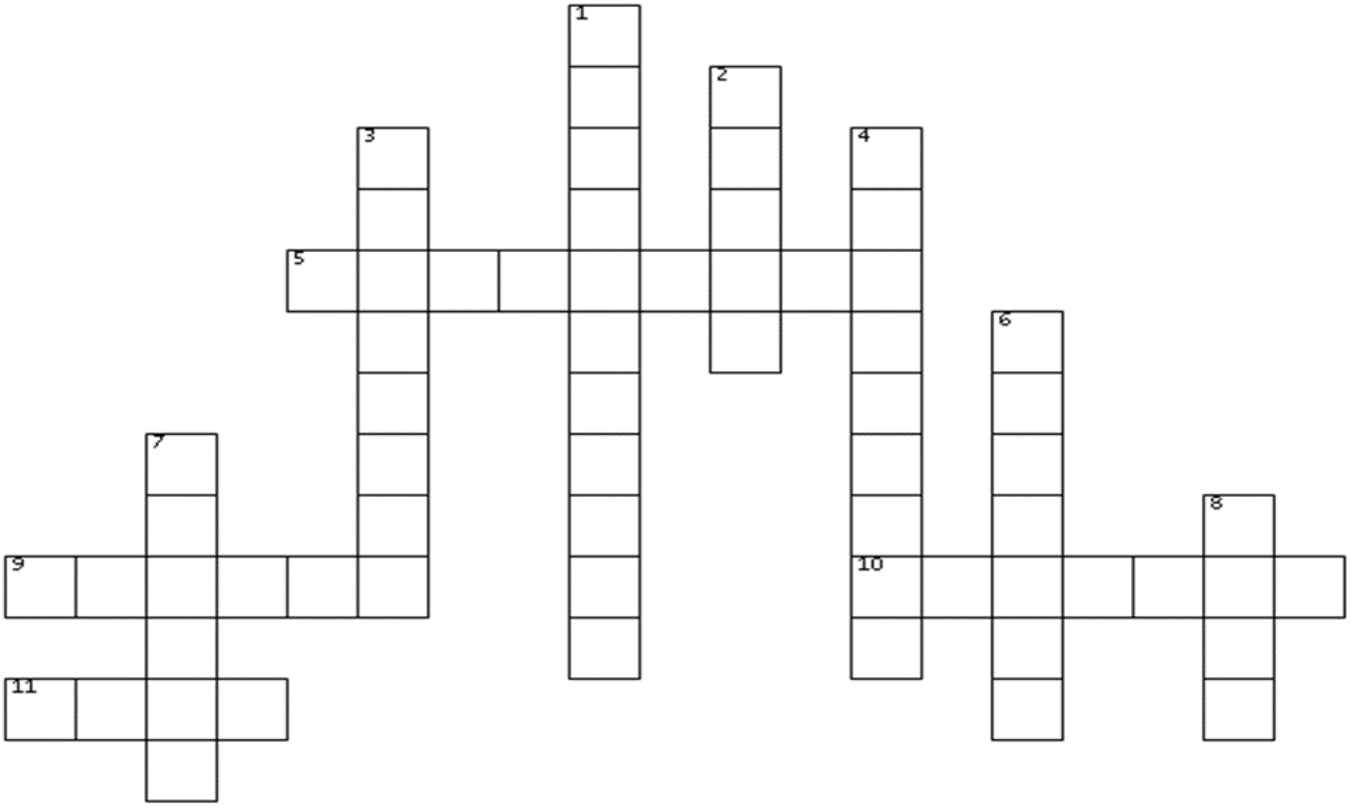
Note: After you click on the above link, if you want to see the Breccia and other news items, scroll down and click on "Download", shown under the Newsletter option.

The American Federation of Mineralogical Societies: http://www.amfed.org

CFMS Bulletin: http://www.cfmsinc.org/

To access the news from the **American Lands Access Association**: www.amlands.org

Crossword Puzzle Using Words Found in This Breccia



ACROSS

5. _____ produces over 90% of the world's precious opal.
9. _____ also green and blue fluorite are common.
10. _____ exhibits a whole range of colors in a single rock.
11. _____ is the color of azurite.

DOWN

1. _____ deposits were discovered on the Red Planet by NASA in 2008.
2. _____ Mines are near Magdaline, New Mexico.
3. _____ building blocks are two fluorine atoms bonded to a calcium atom.
4. _____ Mines are in the Hansonberg Mining District in New Mexico.
6. _____ in a small amount makes fluorite blue.
7. _____ give fluorite a green color.
8. _____ Hardness Scale mnemonic is "The Girls Can Flirt And Other Things Can Do.

Uncovered: The Truth about Opal Formation

The secret of how opals formed in Australia's Red Centre could shed light on the landscape on Mars. New research has explained the mysterious formation of opals, found in abundance in Australia's red center, and the information could shed light on the environment on Mars.

Australia produces over 90 per cent of the world's precious opals, but before now scientists have never been able to explain precisely how the gemstones formed.

"Before this we did not know [opal's] origin, why it forms at such shallow depths or why it can be found in central Australia and almost nowhere else on Earth," says lead researcher Professor Patrice Rey, a geologist at the University of Sydney.

Opals formed by acidic weathering Patrice says the findings, published this week in the Australian Journal of Earth Sciences, reveal that opals formed during "an extraordinary episode of acidic weathering, during the drying out of the central Australian landscape."

Between 100 million and 97 million years ago, a vast sea that covered 60 per cent of Australia – from Coober Pedy in South Australia to the Gulf of Carpentaria in northern Australia – began retreating

This drying out of Australia's center increased the acidity levels at shallow depth, releasing silica through the weathering of sandstone. Further weathering then lowered the acidity to a level at which precious opal can form in the silica-rich gel.

Australia's Red Centre similar to Mars Central Australia is believed to be the only place on earth where acidic weathering of this scale has ever taken place, although similar conditions have been observed on the surface of Mars. Nonprecious opal deposits were discovered on the Red Planet by NASA in 2008.

"If you look at Mars and the Red Centre, they share similar characteristics," says Patrice. "Similar rocks went through similar weathering processes, so potentially precious opals might exist there."

Patrice says central Australia offers a "unique natural laboratory", where researchers can study biological processes that could potentially be present on Mars.

Mike Snow, a minerals expert at the South Australian Museum, says the findings are compelling, and may well provide a glimpse into the landscape on Mars.

"The landscapes of Mars and the [Red] Centre both have large amounts of red oxidized iron," says Mike. "This is part of the opal story."

"Perhaps opal may well occur on Mars if it is similar to the Great Artesian Basin."

by Amy Middleton 3 June 2013

"If it is, it's the darndest looking fire opal I've ever seen!"

WHAT IS THAT ROCK? IS IT FLUORITE?

If you're a rock collector, even if you've only been at it for a short time, you have learned how to identify crystal and mineral specimens. You might test the (Mohs) hardness of the specimen, which can be a dead giveaway in the identification of a mineral. (You can remember the Mohs hardness scale using the mnemonic "**T**he **G**irls **C**an **F**lirt **A**nd **O**ther **Q**ueer **T**hings **C**an **D**o" … from a Mohs hardness of 1 to hardness 10, that is **t**alc, **g**ypsum, **c**alcite, **f**luorite, **a**patite, **o**rthoclase (feldspar), **q**uartz, **t**opaz, **c**orundum, and **d**iamond.) You might also test the streak color of a specimen by rubbing it against a plate of unglazed porcelain. Because the color of the streak that a particular mineral leaves is always the same regardless of any variations in apparent color of a stone, a streak test can also be a dead giveaway in the identification of a specimen.

But if you are collector, you likely look first at the shape and color of a mineral or crystal in order to identify it. Bright yellow, with crystals that have four sides and that come to a point? Sulfur! Gray in color, with six-sided crystals that come to a point? Smokey quartz! A deep blue, spectacularly star-shaped crystal formed by six four-sided pyramids back-to-back? That's cumengeite – perhaps you are lucky enough to have a specimen in your collection. And how about that distinctively purple crystal of fluorite?

Wait! You have a specimen of fluorite, but it is *not* purple? Not a surprise. Fluorite is found in a variety of colors. Purple, yes, but also light and dark blue, and light and dark green. Yellow and white fluorites are also not uncommon.

Let us spend a moment considering what gives rise to the colors of the rocks we collect. (And, really, what gives rise to the colors of *everything*.)

Visible light is a mixture of every color in the rainbow. (You can remember the colors in the rainbow using the mnemonic "ROY G. BIV" … **R**ed, **O**range, **Y**ellow, **G**reen, **B**lue, **I**ndigo, **V**iolet. These are the colors in the order that you see them in a rainbow, and also in order from the lowest to the highest energy carried by a photon – a packet of light – of that color. Although, sorry, Roy G. Biv is not the name of a famous scientist.) When light strikes the surface of an object that it cannot penetrate, photons of some colors get absorbed and some get reflected… and whatever colors are reflected determine how we see the object. When light strikes a piece of azurite, for example, mostly blueish photons are reflected, while photons of most other colors are absorbed. The color of light bouncing off that azurite and heading toward your eyes is therefore mostly blue. Azurite is blue.

When light passes *through* an object, something similar happens – some colors of light are absorbed and others are absorbed.

Consider a crystal of ruby. Ruby, a variety of corundum, is composed of aluminum oxide (Al_2O_3) molecules – two atoms of the element aluminum bonded together with three atoms of oxygen. Aluminum oxide molecules cannot absorb the energy carried by most photons, so when light passes into a ruby crystal, most photons – most colors of light – pass straight through. The energy carried by reddish light, however, is just right to make those molecules wiggle, which means that light of those colors gets absorbed. Because the molecules cannot hold on to the red- light energy for long, it is quickly reemitted. Reemitted in a *random direction* – reddish light is scattered by repeated absorption and reemission. Rubies are red.

So now to fluorite! Molecules of calcium fluoride - two fluorine atoms bonded to a calcium atom – are the building blocks of fluorite. Millions of years ago, as calcium fluoride molecules accumulated in hydrothermal veins in Earth's crust, the heated, liquid environment enabled those molecules to connect to each other in regular, organized, lattice structures… crystals!

Continued on Page 13

Pure crystals of calcium fluoride are not purple, however. Nor are they blue or green or yellow. A pure fluorite crystal is transparent and colorless. Yes, fluorite displays a wide variety of colors. Purple, blue, green, and yellow fluorite is common. Clear, white, brown, black, and even an orange variety of fluorite can be found. And yes, a variety of fluorite – rainbow fluorite – exhibits a whole rainbow of colors in a single rock, often in bands. What gives fluorite its rainbow of colors? Impurities and imperfections.

The variety of colors we see in specimens of fluorite results from impurities – small amounts of atoms that are neither calcium nor fluorine that snuck into the calcium fluoride molecules as the rock was forming millions of years ago. Colors can also arise when structural defects occur in the connecting of the CaF_2 molecules to each other, for example, when excessive heating pushes some fluorine atom pairs out of their normal positions in that lattice of molecules.

When a pair of fluorine atoms is pushed out of position, one of the electrons in those atoms gets left behind. The nature of that electron enables it to absorb a specific amount of energy, the energy that happens to be carried by purple light. The electrons cannot hold onto the absorbed energy for long, however, so that energy, in the form of purple light, is reemitted. Reemitted in a random direction, so purple light passing into the crystal is scattered off in all directions. Light coming out of the fluorite crystal is purple. Fluorite looks purple.

When manganese atoms replace calcium atoms at the centers of some calcium fluoride molecules (while the crystal was forming), these impurities scatter orange light. A small amount of yttrium makes fluorite blue, a bit of cerium gives fluorite a yellow-green color, and samarium gives rise to highly prized green fluorites. And when atoms of the rare-earth element europium replace some of the calcium atoms in a fluorite crystal, it makes the stone glow (fluoresce) when illuminated with ultraviolet light. (Did you guess? That is where "fluorite" got its name!)

As a collector, you almost certainly seek out specimens of all and every mineral. But given the wide variety colors with which they present, you might enjoy having a special "sub"-collection of just fluorites. (I have a shelf in one of my display cases devoted just to fluorite!) And we haven't even touched on the other fascinating aspect of fluorite, the different and varied shapes of its crystals. Perhaps we can explore that in another issue.

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

Rainbow Fluorite

Cartoon from the Internet

Rockhounding in New Mexico

A miner got up each morning, climbed into his truck, drove to his mine, threw in his money, and drove home, satisfied that he had done the most effective mining that he could do. He was right. Like owning a boat which is a hole into which you throw money, mining and rockhounding share the same definition, except that in mining and rockhounding, first you must dig the hole before you toss in the cash. As I searched the ground, then dug for fluorite at the Blanchard Mine and smiling at this joke, I realized that it is the search that counts; the fun of the search and the joy of wandering among the plants, many with lovely flowers, under a vast ever-changing sky, in the silence of remote countryside, where we find peace and occasionally even a worthwhile mineral. Fluorite comes in as many colors as flowers; blue, green, purple, black, yellow, red, white, pink, orange, and brown, and so it was that I searched for fluorite, the flower that would not wilt. My best find was a blue piece, a little battered, but still cherished even today as I remember this trip.

In September of 2014 when Bill, our friend Gene Westerberg, and I began our trip to New Mexico hoping to find turquoise, we visited the Turquoise Museum in Albuquerque. Our guide informed us that of all the states that have turquoise, New Mexico has the worst. The visions of finding turquoise that had danced in my head quietly slunk away, and in reading our various rockhound guide, I learned that we might find fluorite and smithsonite at several sites in Southwest New Mexico.

We drove from Albuquerque, south to Socorro, staying at a Best Western Motel and spent most of our time searching the dumps at the Kelly Mines near Magdalena. We hoped to find smithsonite. Originally the silver was mined, and the smithsonite was simply considered to be a nuisance to be tossed aside; described as a gristle lacing the silver ore that the miner sought. In the 1890s, a man named Cory T. Brown became curious about the greenish rock where eventually it was analyzed and considered to be a rare and valuable mineral, later named smithsonite after the founder of the Smithsonian Museums in Washington DC. Decent quality smithsonite is unavailable at any price because it has become so rare, but of course, we hoped to find some, and we spent three days searching for it.

Access to the Kelly Mines was controlled by a petite little lady named Bennie, short for Benita. She ran Tony's Rock shop, once owned by her brother Tony, who has since died. Tony, Bennie, and their brothers mined for Smithsonite for years, and Bennie showed us many beautiful examples.

It rained hard the first day, and we searched amidst the raindrops when the rain wasn't too much and between the showers when it poured. The rain washed the hillsides, and we sorted among the washed, cleaned minerals and rocks that first day, and again on the third day of our trip. Later that third day we searched the piles along the road leading to the Kelly Mine because this was the location where the miners had loaded the narrow gage railroad cars. We found a few tiny pieces of smithsonite. Flushed with our small success, we returned on our last day of rockhounding only to find access to the mines closed, and therefore searched along the roads and in the ditches to no avail. We found lots of rocks and minerals other than Smithsonite, and Bill and I picked up our usual tons to bring mail home. Gene, the wisest among us, took home only his tiny translucent specimen of Smithsonite.

We enjoyed a day at the Blanchard Mines in the Hansonberg Mining District. The rockhounding books describe these mines as a rockhounder's paradise, and they truly are. We needed permits, issued by Allison and Donnie Cameron in what remains of the town of Bingham. Bingham boasts two building sites, one of them titled "Blanchard Gems and Minerals 3 Miles from the Middle of Nowhere". Allison and Donnie operated the tiny rock shop and lived in the mobile home next door. They raise a big garden and orchard. Heaven knows

Continued on Page 15

Rockhounding in New Mexico continued from page 14

how they water it all in the middle of a high dessert, but both are very productive, and Allison was busy canning peaches. She talked with us a bit, issued our permits, and told us how to get to the mines, giving us her wrinkled, used copy of the map, and instructing us to return it to her. She kept my driver's license as security, telling us we could each collect ten pounds of rocks for our ten dollars per person fee. She mentioned that we'd have to dig for our treasures and that our location was not the original Blanchard Mine. Because of her description our expectations were low as we bumped and banged across the arroyos and over the ruts on the dusty road. The mine dumps were the stuff of my childhood dreams. Glittering treasures lay everywhere, glittering treasures anyway to a gal that loves gleaming minerals and really doesn't give a darn whether they were rare or valuable. I wish I'd taken pictures but I didn't have a camera with me. We enjoyed the day, finding specimens of most of the minerals described in "The Rockhound's Guide to New Mexico". The book that had recommended the mines with such enthusiasm.

We felt fortunate that we had the health, endurance, and flexibility to take our rockhounding trips, hiking as we do often among loose rubble over hillsides in extremely hot conditions. We hoped for more years among the big skies and the still landscapes where we can wander to our hearts' content**.**

By Jo Borucki

Introduction to Smoke Treated Welo Ethiopian Opals

Smoke treatment for Welo Ethiopian opals begins when the preformed opals are placed into a box with a small wood chip fire underneath. This set up allows only the smoke to pass through the opals and not the heat. Setting up the perfect smoking box system took us a long time to figure out the right distance to keep the opals from the fire to ensure the best yield of finished smoke treated opals without cracks from the heat of the fire. We lost many opals to heat cracks fine tuning this treatment.

Since Welo Ethiopian Opals are hydrophane, this making them very porous, allowing for them to deeply soak in the smoke. The time frame for the treatment process normally takes around 2 hours sometimes longer and is a permanent treatment.

It is amazing to see this treatment done because you can start out with Welo opal performs that all look to be the same base color and after the treatment will end up with all the pictured mixture of base colors mixture from green, tan/brown, yellow, dark black. Normally there is only around 25% that turn yellow or green base color. Majority turn tan/black base after treatment.

After the treatment process the fire color play is very much enhanced. Most all smoked Welo opals end up with fire play brightness of at least 4/5-5/5.

A lot of people have never seen or heard of smoke treated Welo opals. Some people that do know of this treatment think it is horrible for the Welo opal business because of people not disclosing whether a opal has been treated.

The major concern is the mixing up of the natural base color Welo Opals with the treated. Natural Untreated Welo opals are found in a variety of natural base colors. Some of which include clear / silk / brown / tan / green / dark crystal / white/ grey / purple / red / yellow / lavender / blue crystal / pinkish white.

Continued on Page 16

Introduction to Smoke Treated Welo Ethiopian Opals continued from page 15

Konjo Opals wants you to be aware of this treatment process. We will always label any smoke treated opal that we offer for sale with full discloser of treatment. We also offer Lab certification from a choice of labs if you would like on any of our opals. Send a message for more details on lab certifications. If you would like to buy any smoked treated Welo opals send a message for pricing.

From: http://www.opalauctions.com/auctions/ethiopi an-opals/item-317852

General Meeting Minutes

March 22, 2022

The meeting was called to order by **Michele Smith** at 7:36 pm inside of the Cabana Club and via Zoom so that those who could not attend in person could still participate.
Michele started the meeting with the Pledge of Allegiance.
Frank Mullaney stepped down as the Vice President to take on the Treasurer's position vacated by Ana Papadopoulos last January. **Stephen May** offered to take on the position if nobody else would. Michele Smith asked 3 times if there were any other volunteers for the position of Vice President. No one volunteered so Stephen May was voted in as Vice President. Michele Smith also asked if anyone was interested in becoming an At-Large Board Member. **Deb Runyan** volunteered and was elected to the board.
Announcements: The SCVGMS Board meeting will be held on Zoom at 7:30 pm on Thursday March 24th.
Member Displays: **Jim Fox** brought in a piece of Mt. Airey Blue Agate; **David Persselin** brought in some samples he picked up just outside the entrance gate to the Clear Creek collecting area. (jadeite, serpentine, jasper pieces), **Melanie** Fox brought in what appeared to be a meteorite and an unidentified piece that resembled a botryoidal schist.
Bragging Rights: There were no entries this month for the color Blue.
Correspondence: Frank Mullaney picked up a post card from a company that will identify meteorites.
Hospitality: 15 people on ZOOM, 10 Members present in person and 4 guests in person.
Cat / Amber / Sarah / Melanie
Rockhound of the Month: **Pat Schuesler** for her wonderful job in hospitality all these years.
Fall Federation Report: **Karen Welder**, The CFMS Show will be held in Antelope Valley on April 23-24, 2022. They are looking for 2022 Show Demonstrators in Lancaster. Please email Dean Welder for more information. There is a show in the Joshua Tree area on 4-1-22. Stephen May to send show information to Jo for the Breccia.
Sunshine: Nothing for now
April Meeting is a Silent Auction!! Please bring something to sell for the club. (not required to attend)
Presentation: Planets Orbiting Other Stars. William Borucki
Bill gave a wonderful presentation on how NASA AMES scientists identify planets with gasses, water, temperature and atmosphere, as well as the type of planet: whether it is a rocky, water or gaseous planet, and the use of Transit Photometry and the different planetary systems. Great job.
Next Meeting is on April 26th, at 7:30 pm
Meeting adjourned: 9:02 pm
Respectfully submitted, Jim Fox substituting for Rick Kennedy

Board Meeting Minutes

March 25, 2022

The meeting was called to order at 7:36 PM via the Zoom application.
Roll Call: All board members were present except for Rick Kennedy, Alan Achor, Karen Welder & Dean Welder.
Reading of the minutes from the February 24th Board Meeting: M/S/P to approve the minutes as read. (S. May, F. Mullaney).
Correspondence: Frank Mullaney received a card from a company that will identify meteorites.
New Members: No new members
Treasurer's Report: Frank Mullaney: M/S/P to approve the report as read. (S. May, M. Powers).
Committee Reports:
Federation: Karen Welder Absent
Stephen May Our first hosted AFMS CO-OP Field Trip will be to the Clear Creek Area scheduled for Saturday April 30th, 2022. A Reminder 3.5 weeks until Paradise.
Old Business:
The wheels for the trailers need replacing. We will replace them when we need to move them.
Frank Mullaney replaces Ana Papadopoulos as Treasurer
Stephan May replaces Frank Mullaney as Vice President
Deb Runyan replaces Stephen May as Board Member
New Business:
Any one interested in helping us fill the President and Treasurer positions for 2023 please contact any Board Member: Nominating Committee members are: Stephan May, Pat Speece and maybe Jo Borucki
Jose Sul has a 14" Saw that can be used by SCVGMS members for cutting rocks up to a maximum size of: 5.5" x 5.0" x 14". He will also teach members how to use the saw.
Jose requested for help to pay for a new saw blade and oil. ($325) M/S/P to approve payment for the oil & blade after Frank determines type of blade needed. (S. May, P. Kidman).
Programs:
April - Silent Auction
May - Michele Smith looking into possible Fluorescent Presentation.
Next Board Meeting is April 28th at 7:30 PM via ZOOM.
Meeting adjourned: 8:27 pm

(Filling in for Rick Kennedy SCVGMS Secretary)

How Do You Become a Rockhound?

Buy a large bag of marbles and carry it with you whenever you go looking for rocks. Every time you pick up a rock and put it in your pocket, take out one of the marbles from the bag and throw it over your left shoulder.

Any time you see one of your marbles, pick it up along with the rock nearest to it - the rock goes in your pocket, the marble into the marble bag.

When you have finally lost all of your marbles, you are a rockhound!

Santa Clara Valley
Gem and Mineral Society

P.O. Box 54, San Jose, CA 95103-0054
Website: www.scvgms.org
Email: info@scvgms.org
Phone Number (408) 265-1422

Like us on Facebook:
http://www.facebook.com/santaclaravalleygemandmineralsociety

SCVGMS ELECTED OFFICERS

President: Michele Smith	(408)374-1897
Vice President: Stephen May	(408)306-6782
Secretary: Rick Kennedy	(408)529-9690
Treasurer: Frank Mullaney	(408)691-2656
Editor: Jo Borucki	(408)245-2881
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
Alan Achor	(408)749-0771
Deb Runyan	(408)866-7564

Parliamentarian: Dean Welder (408)353-2675

SCVGMS COMMITTEE HEADS

Bragging Rights Chair: Alan Achor
Donation Receiving Committee Chair: Michele Smith
Festival Chairpersons 2023: Jim and Missy Fox
Field Trip Coordinator: Stephen May
Founder's Day Picnic Chairman: Stephen May
Founder's Day Raffle: TBD
Founder's Day Bingo: TBD
Hospitality: Pat and Louis Schuesler
Installation Dinner: Rick Kennedy, Jim and Missy Fox
Member Displays: Rick Kennedy
Refreshments: TBD
Silent Auction: TBD
Sunshine: Margo Mosher
Trophies: Frank Mullaney
Librarian: Deb Runyan
Webmaster: TBD

Note: Some of these committee heads may change. Michele Smith and Stephen May are working to fill all positions.

An Invitation

This society is pleased to invite guests to attend general meetings, study groups, and field trips. General meetings are normally 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 scheduled for April 26 at 7:45 at the Cabana Club and is also available on Zoom.** The **Board Meeting is scheduled for April 28 at 7:30 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 Jo Borucki who may be contacted by email at **joborucki@yahoo.com** or by phone at (408)245-2881. The Breccia is proofread by Pat Speece. Exchange bulletins may be sent to Jo Borucki, 1196 Sesame Drive, Sunnyvale, CA 94087. Permission to copy is freely granted to American Federation of Mineralogical Societies (AFMS) affiliated clubs when proper credit is given.

Study Group Leaders

For information, please contact the leader listed below.

Smithies: Pat Speece 408- 266-4327 pat.speece@comcast.net
Cabbers: We need a leader. Can it be you?
Rock Tumbling Study Group: David Mosher