



San Diego Mineral & Gem Society
A Non-Profit Educational and Scientific Organization

THE PEGMATITE

June 2021

Students returning to classrooms every fall are invariably asked to report on “What I did on my summer vacation.” SDMG instructor Bob Hancock asked the faceting students to report on what they did during the long year of Covid-19. A fair number of them made productive use of the time faceting gems. Read three reports from members who made the most of nearly 13 months sequestered in virtual isolation, courtesy of the Advanced Faceting Class (p. 3), John Kruzel (p. 6), and Bill Brisebois (p. 7).

As Covid restrictions ease, a summer season of gem shows, field trips and familiar recurring events signals a welcome resumption of doing the things we love most. We’re happy to post some show listings at long last.



“On Hold with Cable,” phenakite, 1.685 ct, faceted by Bill Brisebois last summer.

Official bulletin of the San Diego Mineral and Gem Society

Affiliations: California Federation of Mineralogical Societies
American Federation of Mineralogical Societies
American Lands Access Association

Sister Club: Kingston Lapidary, Hull, England

Publication: *The Pegmatite* is published monthly (except July and August).

Submission Deadline: 3rd Tuesday of the month preceding next month's publication, unless otherwise indicated.

Membership: Anyone with an interest in minerals, fossils, lapidary, gems, or hand-crafted jewelry may join the Society. Contact: membership@sdmg.org

Liability: The San Diego Mineral & Gem Society, is not and cannot be held responsible and liable for personal injuries, for damage or loss of property at any meetings, field trips, classes, shows, or any event sponsored or recommended herein.

Copyright: ©2021 San Diego Mineral and Gem Society
Non-commercial reprint permission given, unless otherwise noted, provided proper credit is given.

Street Address: 1770 Village Place
San Diego, CA 92101-1651

Mailing Address: P.O. Box 710783
(membership apps) Santee, CA 92072
attn: Angela Cannon

Phone: 619-239-8812

Website: <https://sdmg.org>

Editor: Lisbet Thoresen, editor@sdmg.org

Layout, Advertising: info@sdmg.org

General Information: admin@sdmg.org

Change of Address: membership@sdmg.org

Exchange bulletins: Send to the Society mailing address

The mission of the San Diego Mineral and Gem Society is to disseminate knowledge of mineralogy and earth sciences; to encourage the study of these subjects; to conduct classes in mineralogy and lapidary arts; to conduct field trips for the collection and study of specimens; to encourage interest in mineralogy and lapidary arts among young people; and to procure and maintain a collection related to the earth sciences and lapidary arts.



PRESIDENT'S MESSAGE

June 2021

by *Dave Smith*

sdmgpresident@sdmg.org

WE HAVE ARRIVED at the last month of our calendar year and my hope is that months ahead will include resumption of all of the events we had to cancel: our monthly General Meetings, Classes in the fall, December Nights and the Christmas Potluck at year's end. In 2022, I look forward to the Society's Birthday Banquet in March, Barbeque with Silent Auction in May, competitive exhibits at the San Diego County Fair in June. Without these events, the year seems rather droll and unmemorable.

We did have a fund raiser in our Second Annual Cab and Slab event, at the SDMG building in Balboa Park. Donated equipment and various rock and mineral material were offered for sale

under strict Covid protocols, with a return of some \$4,000 over two days. My thanks to our volunteers who showed up and did the heavy lifting for this society, as they always do.

Another positive note to report was the award of two \$1,000 scholarships to two worthy SDSU students in the field of earth science and applied jewelry arts.

Upon the resumption of classroom operations, I'll let our School Director cover that topic, but I'll just add that being on City Parks property has made this issue more complicated.

Please stay healthy this summer and we'll look forward to seeing you in Fall.

School News

Wayne Moorhead, School Director

Greeting SDMG Members,

June 15 appears to be the date when restrictions may be relaxed sufficiently to enable resumption of at least some normal Society activities, possibly including classes. There may be more than usual interest in summer classes, given the pent up demand of a whole year without them. If we are cleared to start up classes, the concerns of individual instructors will determine what classes will be offered and how many students may attend. We are optimistic about the fall.

As soon as we receive news and are able make plans for holding classes, we'll reach out to our members. Look for a special eNewsletter mailing in the coming weeks. **Got questions?** Email school@sdmg.org

Stay happy and healthy.

SDMG equipment 4 sale

<https://sandiego.craigslist.org/>

Search “**SDMG**” to see the equipment



What Our Faceting Class Did During the Covid-19 Lockdown

by the Advanced Faceting Class

WHEN I TELL YOU, you won't believe what we accomplished in our Advanced Faceting class during the past year, despite Covid-19! We designed and produced more than a dozen gemology and faceting tools. We had weekly meetings on Zoom and we never missed a single week! We managed to find faceting machines so that all of us could cut stones at home. It has been an incredible effort and accomplishment.

Our weekly Zoom meetings have developed a familiar and enjoyable format. During the first part of our meetings everyone has an opportunity to show and discuss stones cut that week and recount related activities such as prospecting for rough or gold. We then

We focus on learning to cut gemstones rather than on just learning how to facet. We have moved beyond following standardized designs to creating our own designs that fit our particular stones. We found we could minimize losing carat weight and free ourselves from published designs that had been created for other stones. Our customized designs give us the best compromise of carat weight and beauty. In short, our designs fit our stone rather than our stones being cut to a standard design. We developed a cutting nomenclature and a lab manual for design and cutting notes so we could memorialize our designs. Each of us now has a record of all our finished stones.



Tools of the trade. Left to right: Specific gravity machine; lap spacer; splash pan guard; gem cutter's light box and accessories; gem cutter's notebook; custom specialty dops, and non-keyed adapter; custom clarity enhancer vessel, and vacuum/pressure pump.

move to studying other skills such as gem identification, gem formation, gem species and associated varieties, gem origin, and cutting practices for each gem variety. Next, we collaborate on envisioning and developing our cutting and gemology tool projects. Finally, we examine stones we are planning to cut, challenges these stones present, and techniques to deal with them. This often leads to one or more collaborative cut gem designs.

There are general rules for cut angles and table sizes that make great looking stones. We are learning them and using them to design our cuts. We learned to use a 3-D CAD (computer assisted design) program called Gem Cut Studio (GCS). With GCS our designs have optimized light performance and visual appeal. We also use GCS to demonstrate the effect of different cuts/angles and collaborate on new designs.

When the Gemological Institute of America (GIA) shut down its in-person campuses due to Covid-19, it instead offered some unique and effective online learning opportunities. The offer included GIA's Accredited Jewelry Professional Diploma program (AJP) free of charge to a limited number of students. Several members of our class applied and were accepted into this program, which consists of three intensive study programs: Colored Stone Essentials, Diamond Essentials, and Jewelry Essentials. Each of these courses requires a series of chapter quizzes and a final exam. We are happy to report that all our classmates who started the program successfully completed it and received GIA's AJP diploma. One of our class members enrolled in the full Graduate Gemologist Diploma program. He is doing well, and anticipates graduating this Fall.

We also learned about gem identification and how to use gem identification tools. We also studied the GIA Colored Stone Grading system for evaluating, describing, and communicating the quality and characteristics of colored stones. The evaluation criteria are calibrated for different species of stones



A parcel of Malaya garnets that was collected and photographed in Tanzania for the Advanced Faceting class.

and include evaluation of color, clarity and cut. This knowledge is invaluable when deciding how to maximize the beauty and value of each variety of stone we are cutting. As an additional aid to working with gemstone color we used the GemWizard Color System Software, which is based on GIA methods and nomenclature.

One of the fun things we did was to purchase three different parcels of rough gemstones that were collected for us in East Africa. We got some great rough in a variety of gems at great prices. We learned

Below is a list of the gemology/faceting tools we developed and manufactured for class members during the lockdown. We hope to showcase them at a club meeting once the club is open to live events again.

- An aluminum splash guard for cutting at a 90-degree angle, such as when cutting girdles.
- Custom brass dops with holes in the end to help solvents get to the glue to make release faster and easier.
- A custom designed specific gravity measuring tool used in gem ID.
- A clarity enhancing machine that features heat, vacuum, and pressure to achieve optimum results. Both oils like cedar, and polymers like Opticon, can be used in this machine. The class has been trained to use the machine.
- Special dops for better holding fancy-shaped stones such as long thin emerald cuts
- A light box used for evaluating rough and cut stones under consistent lighting conditions. It contains configurable light color temperatures so color can be checked under different Kelvin temperatures between 2700K and 6200K. It has a diffused light table, reflected light box, and flashlight for dark field examination. It can be powered by a wall charger or the included battery bank, so is portable. It has an optimized environment for smart phone photography of rough and cut gemstones.
- A universal unkeyed dop adapter for times when unkeyed dops are better than keyed dops.
- An optimized cutting desk light source with a custom light diffuser that makes inspecting facets for scratches and polish easier and more consistent.
- A custom tunable ultrasonic-based cold water diffuser/mister for maintaining optimum lap moisture when polishing. This makes polishing more consistent, faster, and reduces scratching. It also extends the useful charge of oxide and diamond polishing compounds on a variety of lap surfaces.

about where each type of stone was mined and how best to cut them. Every time a new parcel arrived it was like gemstone Christmas!

At the beginning of the lockdown, when it was necessary to maintain strict social distancing, we developed a system of sharing and passing things to each other. This took the form of a tray on a stand that lived on the front porch of one of our class

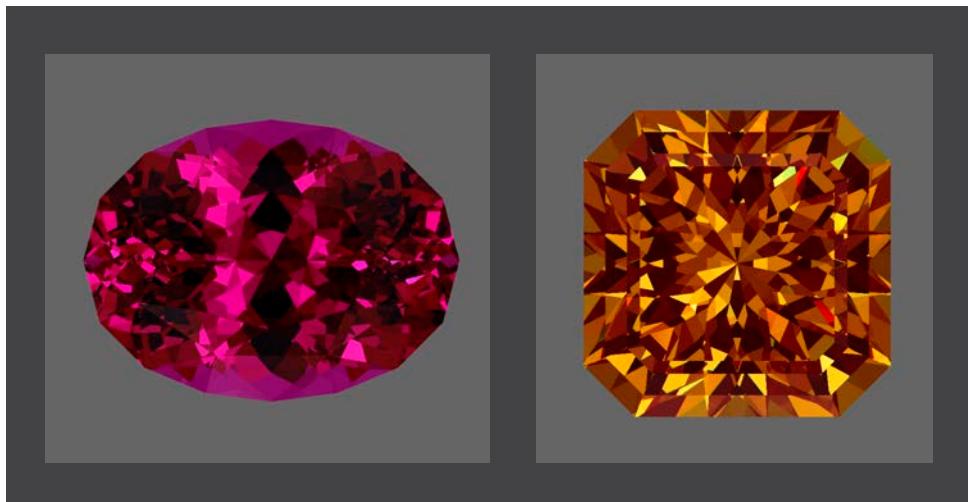


Chris heating a Zircon to adjust color during the class BBQ at Donna Beers's house.

members. It was given the nickname of the “Crack Tray” because it reminded us of how a drug house operates. We would leave something on the tray for another student, who would come by later and pick it up. The tray was stocked with hand sanitizer and wipes to ensure sanitary transfers.

Although the club remains closed for in-person events, we had a number of one-on-one meetings at members' homes to solve cutting and equipment problems. We were very strict regarding masking and other practices. As we got vaccinated and risk was lowered, we were able to have an in-person event this Spring – a BBQ at Donna Beers' home. Besides the joy of seeing each other again, and of course eating great food, we played with gemstones. Included in one of our parcels was some fine quality Zircon from the Singida deposit in Tanzania, which was the focus of our Spring event. Leading up to the BBQ, we did a number of designs in Gem Cut Studio with the goal of designing a cut that optimized Zircon for brilliance and dispersion. After choosing the four best candidates, four of us cut identically-sized stones in CZ as proof-of-concept.

When put side by side, the winning design was clear - this is how we would cut our Zircons! The material comes out of the ground so dark that it appears black, but when heated the color fades to a spectrum of colors ranging from cinnamon, red, and orange to pinkish, honey, and clear. At the BBQ we heated our stones with a torch. It was both difficult and fun to decide whether to stop heating or to keep heating because the color changes were so beautiful! Needless to say, we



Two designs made by class members using Gem Cut Studio. **Left:** A rubellite tourmaline made by Steven Dente as part of a class demonstration. **Right:** A spessartine garnet made by Mike Hackleroad.

are getting more Zircon in the parcel currently being collected in East Africa.

Although we are proud of our accomplishments in creating tools, we have ideas for more tools and will continue to develop them because it's fun.

As the Covid-19 crisis winds down and it becomes safe to resume our normal club operations at our Spanish Village facility, we look forward to seeing everyone and sharing our adventures and discoveries from this past year. The story of our faceting class shows what great members SDMG has. We would love to hear stories of how the rest of the club pursued the wonderful hobby of gems, gemology, lapidary, rockhounding, and jewelry making. There are undoubtedly many wonderful adventures that were had by our fellow members.



Cut stones carved by Mike Brown, selected from some of the parcels that the class received from Africa. **Clockwise from left:** oval pink spinel; round rhodolite garnet; six-sided Mandarin orange spessartine garnet; and emerald cut Merilani mint garnet.

John's Easy Meet Point Oval

by John Kruzel

JohnsEasyMeetPointOval

Facet Data

| | | | |
|-----------------|----|----------------|---|
| Pavilion facets | 32 | Pavilion tiers | 9 |
| | | | |
| | | | |
| | | | |

Size Data

| | | | |
|------------------|-------|-----|-------|
| L/W | 1.194 | P/W | 0.509 |
| T/W | 0.000 | C/W | 0.192 |
| U/W | 0.000 | H/W | 0.724 |
| V/W ³ | 0.294 | P/C | 2.648 |

Design Data

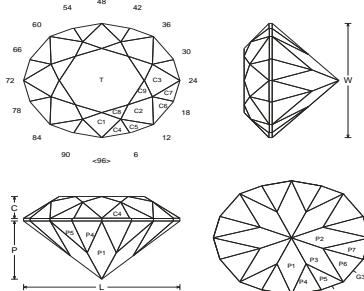
| | |
|-----------------|----------------|
| Angles for R.I. | 1.81 |
| Symmetry | 2-fold, mirror |
| Index gear | 96 |

Pavilion

| | | |
|----|-------|-------------|
| P1 | 45.53 | 96-48 |
| P2 | 45.18 | 24-72 |
| P3 | 42.01 | 10-38-58-86 |
| P4 | 48.52 | 03-45-51-93 |
| P5 | 47.53 | 06-42-54-90 |
| P6 | 45.33 | 14-34-62-82 |
| P7 | 43.52 | 20-28-68-76 |
| G1 | 90.00 | 03-45-51-93 |
| G2 | 90.00 | 06-42-54-90 |
| G3 | 90.00 | 14-34-62-82 |
| G4 | 90.00 | 20-28-68-76 |

Crown

| | | |
|----|-------|-------------|
| C1 | 40.80 | 96-48 |
| C2 | 37.00 | 10-38-58-86 |
| C3 | 35.00 | 24-72 |
| C4 | 47.00 | 03-45-51-93 |
| C5 | 45.74 | 06-42-54-90 |
| C6 | 44.00 | 14-34-62-82 |
| C7 | 41.53 | 20-28-68-76 |
| C8 | 26.18 | 05-43-53-91 |
| C9 | 19.00 | 16-32-64-80 |
| T | 0.00 | Table |



DURING THE LOCKDOWN I learned to use Gem Cut Studio software and applied it to a citrine, with great results! This design is from the “Ovals Made Easy,” a magazine article that has been floating around the faceting room for years. I found the instructions in the article difficult to follow by going back to the steps on the different pages, but in the end it worked out well.

[Click here](#) to download a faceting diagram for John's Easy Meet Point Oval.

Left: John Kruzel's “Easy Meet Point Oval” cut in citrine.

Faceting Ethiopian Opal

by Bill Brisebois

I WAS ALWAYS AMAZED by precious opal when I was a kid. All of the colors and they way they shifted reminded me of what a galaxy looked like in the pictures I saw in text books.

As I got older, I lost interest in them and when I eventually became involved in faceting gemstones as an adult, I didn't give them much thought. I had not seen many faceted opals and did not think they would look that great as such.

My girlfriend Lisa asked me if I had ever faceted precious opal, as she had seen many of the Oregon Fire Opals that I had cut. I said "no," and wasn't sure how they would turn out. At her suggestion, I spoke with an Ethiopian Opal dealer at a show and asked him about which pieces would facet the best and how to pick them out specifically for faceting. He was very helpful and I took home a few to give it a go.

As I had been designing my own cuts for awhile, I studied the opals and what I felt would give the best yield. I came up with a design "Oval the Rainbow" for the "Ozsome!" San Diego County Fair, in 2019, and it came out very well. It was an oval cut, as you may have guessed, and it had a wonderful play of color.

I learned a few things on that first faceted opal: One, they cut very easily, and two, they are very finicky to polish. So, I tried a few things over the next five or six that I cut and was determined to find a common denominator.

Unfortunately, there really isn't one. Like many stones we cut, each one can have its own quirks. What polishes one topaz for the same person may not work well for another. I think that is why we as faceters have more laps than we will ever use. However, I did come up with a few solutions and tips that I hope will help save other faceters some time.

Selection

Never buy opal that is in water or shows signs of having been wet. It will look great wet, but will dry out and craze (form cracks and even break apart) in no



Above. Rough pieces of Ethiopian Welo Opal, from Wollo Province. The deposits in this region are known for producing warm yellow and orange-colored fire opal as well as milky white and crystal clear opal. **Top left:** This piece is clear; it will have less fire but will be a cleaner stone. **Right:** This large piece will make two fine faceted opals with nice play of color. **Bottom left:** This piece has a lot of fire and will make a very nice trilliant-type cut.

Below. A 7-sided fire opal, 2.71 ct, dubbed "The Day I Won the Lottery."



time flat. Always buy from a dealer you know or one who has a great reputation. (See photo of good opal facet rough)

Look for the clarity, play of color (the greens, blues, reds, purples, etc.) and the clarity. Make sure the potch or unwanted rock is does not penetrate deep into the stone and that there are no cracks or veins.

Design

Choose a design with quartz angles and it should work fine. Even though the critical angle for the pavilion for opal is around 43, I have found that quartz angles are fine without issues in windowing of the opal.

Cutting

Use Super Glue, not wax. Orient the stone as you would any other and dop with a gel super glue. I use Gorilla Super Glue Gel; it works great, it's cheap and it's readily available. Have rarely had any issues with it, while many other more expensive cyanoacrylate adhesives just don't work as well.

Cut with nothing lower in grit than 600. I use a well-worn 600-grit lap that I have dedicated just for opal. Use a good amount of water drip when cutting, as the opal swarf tends to "gum up" the lap. A good water drip will keep the lap cutting.

Prepolish

For opal I go from a well-worn 600-grit to 8,000-grit D'Lite Topper lap. These are great to have, and I highly recommend them. If you don't have one, a well-worn 1200 grit lap will work; you will just seriously have fewer issues with a final polish using the 8k D'Lite topper lap.

Polish

Now, here is where the rubber hits the road. There are many ways to final polish, and everyone has their own "secret formula" that works best for them. What works best for me is very unconventional and really should NOT work well. I have found that opal will "grab" a lap at the leading edge and may pull off a tiny piece at a facet junction, which will cause relentless scratching and the pulling out of your hair, throwing things and or yelling and screaming at an inanimate object. I have a few tips that may help.

If you are using an oxide (Cerium) or an UltraLap Blue Spectra on a topper, add the following to the drip tank: a few drops of Dawn Dish Soap and about a half teaspoon of white vinegar. Why this works I



Two views of "Oval the Rainbow," 3.5 ct. This gem has flashes of red and a nice play of color. The cut is a design that I have used many times.

don't know. I just know it does, and it helps reduce scratching due to the surface tension against the lap. It seems to minimize the grabbing of the leading edge facet you are polishing or allows it to "slip" over it. At least, that is what I think it does, and when I used to polish opal with oxides, this was a magic bullet.

Now, getting back to my current unconventional method. I use a very hard lap and 100k diamond. Yes, I said it. A very hard lap designed for stones much harder than opal and 100k diamond with WD-40 as a lubricant. The final polish lap I use is a Diamatrix. Make sure you clean it well, if you have been polishing



Two views of "Butterfly 2," 4.42 ct.

harder stones with it before the opal. You will probably want to have a corundum flat to run over the lap occasionally to knock down any pieces of stray stone that stick up, which can cause issues, and run forward and reverse a few times.

I run the lap at a fairly high speed and keep the sweeping to a small area of the lap – around twelve to two o'clock, for example. If you use too much of a sweeping area, you will get grooves and drag lines and mostly likely scratch into the adjacent facets. When you are stopping to check the facet during this process, pull up the quill quickly in the middle of the lap area you are using, and don't let the stone drag on the lap as you are doing so – quickly and straight up.

Keep a small blue shop paper towel square by your machine and keep the swarf from building up by cleaning and moving the swarf to the outside of the lap. Think of the buildup of the polish on the lap like the tire treads in a muddy road. These can stick up, and you need to keep them smoothed out and even in the lap. You will have to play around with this, but when you get the hang of it, you will see why I prefer to use diamond on this type of lap.

Transferring to the crown

After you have cut the pavilion and are using super glue to adhere the pavilion into the cone dop or V Dop and have let it dry and cure, use a torch and a metal serving spoon with grooves cut into it clamped into a table vise.

Wet paper towel the side you want to NOT come off the dop like you would using wax, and that side goes underneath, exposing the top that you will focus the torch on. You want to be able to have side pressure on the side not being heated as you are heating the top dop to release the glue, and have a pair of long tweezers handy to pick up the hot dop when it releases. The heat should release the glue in about five seconds, depending on the size of the stone and dop. Do NOT touch the hot dop, as it will be hot for ten minutes or more –that is what the tweezers are for.

Finishing up

When the crown is cut, polished and ready to remove from the Cone or V Dop, use an airtight container containing acetone in which to soak the opal and dop. It can take from a few hours to overnight, and it will not hurt the opal at all. However, the opal will appear completely clear and lose its play of color at this stage. Don't panic, it is only temporary. When the opal releases from the dop and all the glue is removed and cleaned off, put it in plain water for about 30 seconds to wash the acetone off and keep the opal from drying too quickly. Now, the opal will appear cloudy and have little to no play of color. Again, don't panic! Put the opal in a paper towel ,and put it in a used pill bottle, then tighten the cap and let it sit for a few days. The opal will clear up, play of color will return, and it will be stable for setting in jewelry for someone to enjoy for many years.



JUNIOR DIVISION

Coordinated by
Dave Smith

HELLO from the Juniors!

Your participation at the shop has been missed. I hope we can have class sometime this summer, but the process is still ongoing. Once we dislodge this huge boulder, the momentum will see it through.

I am working on a field trip for June, with the details to be mail out several weeks prior, but I have to firm up the details first.

Stay safe and be kind to your parents.



The Juniors in January 2020. From left to right: Noah, Dave Smith, Jacob, Rowan, Gage, Barcel, Gwen, Marielle, Paul Williams, Joaquin, Kensington, Aimee, Elbert McCune and Erica.

FIELD TRIPS



Required! Call the field trip leader to ask if you may participate. Be sure to call again if you decide to cancel, so folks aren't waiting around for you.

All CFMS affiliate clubs will ask you to sign a waiver, and you must agree to abide by the AFMS Code of Ethics and listen to directions of the field trip leaders.

June 11–12, 2021 Turquoise in Tonopah, Nevada.

Sponsor: Yucaipa Gem & Mineral Society

Cost: 2 days – \$150 per Adult; Children 13 and under Free.

Details: <https://www.yvgms.org/field-trips>

RSVP/Contact/field trip chairman: D. Gibbs, poppyrocks987@gmail.com

Materials: Turquoise, Apache Tears, Jasp-Agate, Bull's Eye Agate, Chalcedony, Dendritic Agate, Rainbow Agate, Opalite in multi-colors, Tonopah Jasper.

July 25, 2021 Actinolite at Sheep Creek

Sponsor: Yucaipa Gem & Mineral Society

Cost: 1 day – Free.

Details: <https://www.yvgms.org/field-trips>

RSVP/Contact/field trip chairman: D. Gibbs, poppyrocks987@gmail.com

Materials: Actinolite, Limestone, Schist (several colors), Marble, Serpentine, Soapstone, Banded Quartzsite.

Mineralogical Society of Southern California (MSSC)

Guests Welcome.

To register for a Zoom Meeting,

email Rudy Lopez at: programs@mineralsocal.org

Type “ZOOM Meeting Invitation” in the subject line to be added to the guest invitation list.

June 11, 2021 **Peter Goetz:** Beautiful Opal, Identification and Internet Opal

July 9, 2021 **Eric Scerri:** the Periodic Table: Its Story & in Significance

August 13, 2021 **Krista Sawchuk:** Discovering the Deep Earth

SHOWS, SALES & EVENTS



SUMMER 2021 – CANCELED SHOWS

June 25, 26, 27 CFMS – 2021 Gem, Mineral & Jewelry Festival – Lodi, CA

SUMMER 2021 – THE SHOW WILL GO ON...

June 12–13 **Palomar Gem & Mineral Club Show – Escondido, CA**

Venue: 340 N. Escondido Blvd., Escondido CA 92025

Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4 PM

Contact: pgmcshow@palomargem.org

Web: <http://www.palomargem.org/annual-gem-mineral-and-jewelry-show/>

July 10 **Delvers Gem & Mineral Society Parking Lot Sale – Bellflower, CA**

Venue: 14515 Blaine Ave., Bellflower, CA 90706

Hours: 10AM – 4PM

Aug 14–15 **Pasadena Lapidary Society Show – Arcadia, CA**

Venue: Arcadia Masonic Center, 50 W. Duarte Rd., Arcadia, CA 91007

Hours: 10 AM – 5 PM Daily

Contact: Ellen Ferrell 727-512-0381, ellenbf2007@aol.com

Website: <https://pasadenalapidary.org/>

Rock Sale**June 4 & 5, 2021**

3598 Chestnut Drive

Norco, CA 92860

8 AM – 2 PM

Bring a mask, buckets, spray bottles, water.

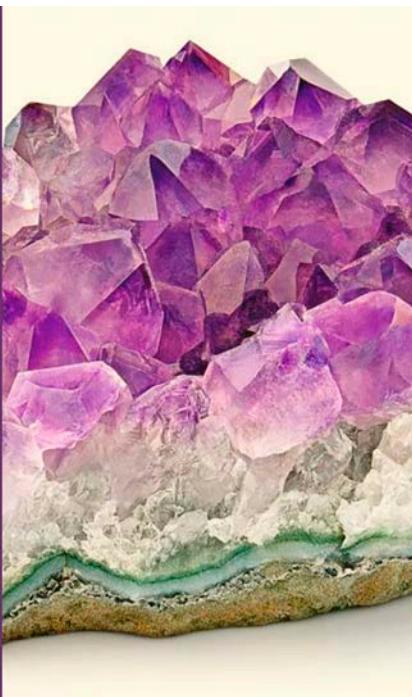
Cash only.

Questions? Contact Nancy Bird562-697-0636 or nancyjbird68@gmail.com**Friends helping friends.**

Virginia Rotramel has been a Rockhound for years. She went on many field trips and was the longtime show chair for the Woodland Hills Rock Chippers. Her friends are coming together to help lighten her load.

There is about 40 feet of rough Obsidian from Davis Creek, 10 feet of Tick Canyon Howlite, bins of small- to medium-sized geodes, bins and bins of rough agate and jaspers, and cabs. Also for sale: a barrel tumbler, saw, and other machines.

FALLBROOK GEM & MINERAL SOCIETY

**ROUGH
N' CUT**JUNE 27TH
12pm - 4pmEveryone is welcome to our
annual sale event!Rough stone, yard rock, lapidary
materials, slabs, minerals specimens,
crystals, gemstones and more!**Blow Out Sale!**We will follow all CDC & government
guidelines at this event.Fallbrook Gem & Mineral Society
123 W. Alvarado St. Fallbrook CA 92028www.fgms.org || info@fgms.org || (760) 728-1130

66TH ANNUAL PALOMAR GEM & MINERAL CLUB'S
GEM, MINERAL & JEWELRY SHOW

Unique Gems • Lapidary Art Demos • Free Parking

Saturday, June 12.....10am – 5pm
Sunday, June 13.....10am – 4pm

\$5 Adults • Kids 12 and under **FREE**

California Center for the Arts,
Escondido • 340 N. Escondido Blvd.

More info: palomargem.org

Mention this ad for 1 FREE Grand Prize raffle ticket!

**CFMS
Earth Science Studies 2021**

Camp Paradise
12725 La Porte Road
Clipper Mills, CA 95930

[Click Here for Registration Form](#)

Week 1
August 22–29, 2021

Week 2
August 29 – September 4, 2021

~ Classes ~

Beginning Faceting, Lapidary, Soft
Stone Carving, Silversmithing, Lost Wax
Casting, Beginning through advanced
Wire Art, Lampwork Bead Making, Bead
Weaving, PMC-3 Clay and Fused Glass,
Chain Maille and Enamel

Cost:

\$405 per person per week
Day Tripper is \$255 for the week

Questions? Contact:
Tony Fender
arhfender@gmail.com

Seventeenth Annual Sinkankas Symposium Agate and Chalcedony (Virtual)

Eight presentations on demand

Last Day: June 7, 2021

Deadline to register: June 6, 2021, at:

<http://bit.ly/2021-sinkankas-symposium-tix>



Named for one of the most distinguished and influential figures in gemology and mineralogy, the Sinkankas Symposium is an annual event featuring presentations by specialists working in diverse gem-related disciplines.

The theme of the 17th Annual Sinkankas Symposium is Agate and Chalcedony and is in a virtual format this year. Recognized specialists in fields ranging from geology and mineralogy to history, treatment, cutting and collecting will present on Agate and Chalcedony.

Agate lily carving by Gerd Dreher, citrine mouse carving by Patrick Dreher. Photo by Robert Weldon. © GIA. Courtesy of the William F. Larson family.

This year's symposium is held in honor of Si Frazier and Ann Frazier who have dedicated their lives to the study of the science, history, and beauty of agate and chalcedony. Si was a popular speaker and contributing author to past Sinkankas Symposia.

Venue: The virtual experience will be hosted on the Sinkankas Symposium Eventbrite page. It will feature a menu of nine pre-recorded 30 to 40-minute presentations available for viewing on-demand from Saturday, April 24, 2021 until Saturday, May 8, 2021. Registration is required to access these presentations.

Sponsors: Gemological Society of San Diego and the Gemological Institute of America (GIA)

End Date: June 7, 2021 PDT.

Cost: Free of charge, but registration is required.

Registration: Online at: 2021-sinkankas-symposium.eventbrite.com
Last day to register is June 6, 2021

Website: sinkankassymposium.net

Proceedings: A free PDF-version of the proceedings will be available for download on June 11, 2021, at: <https://sinkankas.dpidirect.com>
Printed volumes may be pre-ordered at a special rate through June 4, 2021, 5PM PDT, at: <https://sinkankas.dpidirect.com>

***Speakers & Topics:**

- Tim Adams – Fabergé’s Work with Agate and Chalcedony
- Patrick Dreher – Dreher Carvings of Agates and Chalcedony
- Dr. Peter Heaney – The Complex Mineralogy of Agates
- William Larson – Collecting Crypto-crystalline Quartzes: A Conversation with Bill
- Dr. Cigdem Lüle – Chalcedonies of Anatolia: From Neolithic to Modern Day
- Nathan Renfro – The Micro-World of Agate and Chalcedony
- Dr. George R. Rossman – Cause of Color in Agate and Chalcedony
- Robert Weldon – Challenges of Photographing Agates

**Speakers and topics are subject to change without notice.*

Sinkankas Symposium Publications (2014 – 2021)

Pre-Order all 7 printed volumes for a limited time.

Deadline extended to June 4, 2021

Pre-Order online direct from the print house at: <https://sinkankas.dpidirect.com>
Orders ship on June 18, 2021. For details, visit:
sinkankassymposium.net

Specifications 8.25" x 10.75", digital press, full color, soft cover, perfect binding.

Cost USD 35.00 ea. + sales tax (where applicable) + shipping (varies based on destination)

Limited Offer **Last day to order is June 4, 2021, 5PM PDT.** Orders begin shipping on June 18, 2021. (This is the only print run for 2021.)

Available Issues 2021: Seventeenth – Agate and Chalcedony

2019: Sixteenth – Pearl

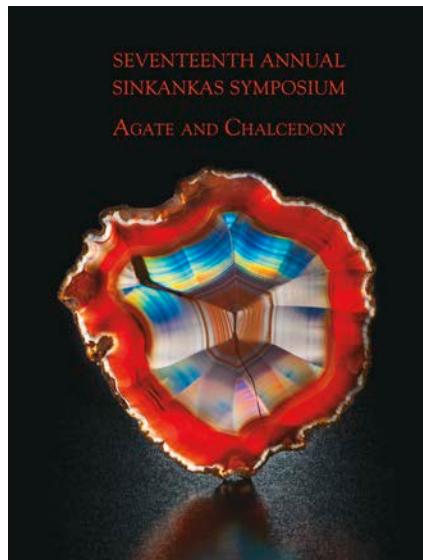
2018: Fifteenth – Tanzanite and Tsavorite

2017: Fourteenth – Sapphire

2015: Thirteenth – Opal

2014: Twelfth – Peridot and Uncommon Green Gem Minerals

2013: Eleventh – Ruby (revised edition, 2014)



Seventeenth Annual Sinkankas Symposium Agate and Chalcedony

Lisbet Thoresen and Stuart Overlin, Editors

Specifications: 8.25" x 10.75", digital press, full color, soft cover, perfect binding, 124 pp., 186 illustrations.

Publication Date: June 1, 2021

ISBN: 978-0-9915320-5-6

Table of Contents

| | |
|---|-----|
| Dedication and Acknowledgments | 3 |
| Program | 4 |
| Speaker and Author Biographies | 5 |
| Dona Leicht | 8 |
| In Memoriam: Claren ("Si") Frazier (1933–2020) | |
| Timothy Adams | 12 |
| Agate and Chalcedony Objects by Fabergé | |
| Peter J. Heaney | 28 |
| Iris Agates and Cantor Dusts: The Textural Complexity of Agates | |
| William Larson | 40 |
| Collecting Cryptocrystalline Quartz | |
| Çiğdem Lüle | 50 |
| Chalcedonies of Anatolia: From Neolithic to Modern Day | |
| Nathan Renfro | 56 |
| The Microworld of Agate and Chalcedony | |
| Si and Ann Frazier | 66 |
| A Historical Look at Gemstone Carving | |
| Lisbet Thoresen | 68 |
| Harold Van Pelt: A Passion Carved in Stone | |
| Robert Weldon | 90 |
| Challenges of Photographing Agates | |
| Robert Weldon, Cathleen Jonathan, and Rose Tozer | 100 |
| Gem Virtuosos: The Dre hers and Their Extraordinary Carvings | |
| From <i>Gems & Gemology</i> (2017) | |
| Ann Frazier | 120 |
| Agate Bibliography | |



“HOMEGROWN FUN”

by Anne Schafer

THE FULL-ON EDITION of the usual San Diego County Fair has been postponed until 2022. This is because, in concert with Scripps, there is currently a Vaccination Super Station using all buildings east of the grandstand, plus the O’Brien Hall and the main parking lot. The Super Station will most likely remain in operation through at least July. This leaves a reduced footprint for a scaled-down version of the Fair to be held this year.

This year’s Fair theme: “Homegrown Fun” – a celebration of Fairgrounds traditions.

What is included so far: Shopping in Bing Crosby, Seaside & Exhibit Hall; On-the-spot Competitions; Edutainment, such as animal presentations; Food Vendors; and a Dog Show (tentative). Plans continue to develop and change daily.

Dates & Times: June 11 through July 4, noon to 8 p.m. Closed Mondays and Tuesdays.

Parking & Admission: Approximately 3,000 parking spaces will be available daily, which will limit attendance to approximately 15,000 people per day. New parking arrangements and a new entrance to the Fairgrounds are being planned. The cost of admission will be much reduced.

News for exhibitors: There will be no competitive exhibits in 2021, due to limited space. Check back later this year, to see what is on the schedule for the Fair next year, in 2022.

Where to look for more news: The Fair will announce new information via social media, through their website, and via local news reporting (TV, radio, newspapers).

SDMG BOARD MEETING HIGHLIGHTS

April 15, 2021

This meeting was conducted via GoToMeeting, and was called to order at 7:08 p.m. by President Dave Smith.

Present electronically: President David Smith and Board members LuAnn Benton, Bob Hancock, Wayne Moorhead, Jim Parrish, Sally Parrish, Doug Peeler, Ellen Riceman, Nita Sani, Anne Schafer, Jennifer Stapp, Denny Turner (from Hawaii) and Paul Williams. A quorum was present. **Absent:** Andy Anderson and Jill Williamson. **Guests:** Mark Hatay and Lisbet Thoresen.

President's report: David Smith reported that the SDMG Building is closed to classes. A future date to resume classes, reduced in size with restrictions, is in debate.

Membership: Angie Cannon reported via email that membership stands at 347, including 18 Juniors. Twenty-three people received the printed Pegmatite last month.

Museum Curator: Jim Parrish reported that the SDMG Museum and Village Silversmiths are open. Bonnie Zeranski sets the schedule; she wants to start opening 7 days per week.

City Liaison: Jim Parrish reiterated Marie Wiggins of Park & Rec's request for a key and alarm code to the SDMG Building, to allow for emergency access.

Juniors: David Smith stated that parents are eager to have their kids back in Junior class.

School Director: Wayne Moorhead had nothing new to report. A lengthy discussion ensued.

Of the instructors present at the Board meeting, the following would be willing to teach: LuAnn Benton's carving class consisting of Jan Kunsa and Dolores Wheeler could use both the Silver and Casting classrooms; Doug Peeler is available for Mineral classes; Paul Williams indicated that all the sphere students and instructors are vaccinated; David Smith is vaccinated and comfortable working with Juniors on Saturdays (or any day); Mark Hatay and Denny Turner could use the Silver and Casting classrooms, plus the Library, for

silver fabrication classes. Two to three students could be placed in each room; portable torches could be used in the Library.

Nita Sani wants to teach, but is not comfortable starting classes yet. Bob Hancock suggested he might start faceting classes in September.

Dave Smith purchased three HEPA filter air purifiers for use in the classrooms; they are currently stored in the office.

Mark Hatay suggested documenting the required cleaning procedures, such as wiping down light switches and equipment power switches, door knobs, table surfaces and faucets before class starts. A 3% solution of bleach in water is sufficient for sanitation. Supplies such as hand sanitizer, wipes and masks have been purchased and are stored in the office.

Additional requirements: temporal thermometer scan of each person, every time; no visitors allowed in classrooms; no eating or drinking in the building; must wear a mask; attendance limited for each room; everyone must sign the waiver; air purifiers to be turned on before each class and turned off after class.

Ellen Riceman described requirements where she works, in place for a year: wipe down surfaces frequently, wear masks; maintain social distancing. Ellen elected to defer opening her Thursday night silver class.

Work to be performed prior to reopening of classes: inventory contents of all rooms, test all equipment, acquire needed supplies, print out blank copies of waivers and put in binder. Mark Hatay to install hook for Foredom, and hasp and lock on new Silver Room cabinet.

A slow reopening was proposed, with existing instructors and students, with potentially one class per day to start:

Monday – LuAnn Benton, carving

Tuesday – David Smith, casting

Weds. – Jacky Leveron, chasing & repoussé

Thurs. – Denny/Mark, silver fabrication

Friday – open

Saturday – David/Paul Williams, Juniors/Spheres

Donations: (1) Village Silversmiths called David Smith on April 9, 2021, to report that Pat Riggs had donated buckets of rocks from her parents' collection. (2) Wayne Leibitzke picked up a donation of small tools from Teresa Hill on Feb. 13, 2021.

Bulletin: Lisbet Thoresen reported that the regular .pdf version of the bulletin was sent out for April. Of the 1,755 enewsletters sent out, 44% were opened, with most interest shown in shows, public lands, the Sinkankas Symposium and scholarship recipients.

The Board voted to skip production of the May bulletin, to have the June bulletin go out on May 31st, and to have Lisbet do the September bulletin, with submissions due by mid-August.

LuAnn Benton thanked Lisbet for editing and refining the In Memoriam articles.

Historian: LuAnn Benton got the word out about missing issues of the Pegmatite, received additional donated copies, and now has complete sets for 2002 through 2011, with 2012 half-completed.

Friendship: LuAnn Benton requested that a printed copy of the bulletin be sent to Lois Lukasky. LuAnn asked that if anyone has extra thank you, sympathy, get well cards or blank cards, to leave them in the office in an envelope with her name on it.

Scholarships: Jennifer Stapp announced that both scholarship recipients have received their checks and emailed her their thanks. The geology student will use her scholarship to fund a project for her thesis. The jewelry student indicated that she may want to teach a class at SDMG.

Unfinished business: With regards to the 10-acre parcel of desert land owned by SDMG, no comparable sales of property near Ocotillo were found. Could list on Craigslist. No realtor willing to handle sale of the property. Further discussion tabled.

Meeting Adjourned: 8:48 p.m.

SDMG BOARD MEETING HIGHLIGHTS

May 17, 2021

This meeting was conducted via GoToMeeting, and was called to order at 7 p.m. by Vice President Dave Smith.

Present electronically: President David Smith and Board members Andy Anderson, LuAnn Benton, Bob Hancock, Wayne Moorhead, Jim Parrish, Sally Parrish, Doug Peeler, Ellen Riceman, Nita Sani, Anne Schafer, Jennifer Stapp and Jill Williamson. A quorum was present. **Absent:** Denny Turner, Paul Williams.

Guests: Mark Hatay, Lisbet Thoresen.

President's report: David Smith reported that the reopening of our SDMG classes is suspended, and awaiting clearance to restart from the City's Park & Rec. Dept.

Membership: No updated membership count was received from Angie Cannon. She is mailing out new membership cards to current members, for whom auto-renewal is free this year.

Museum Curator: Jim Parrish reported the museum is open, with the usual conditions. Village Silversmiths continues to clean museum.

The lock was broken off the power box above the main entrance doors. Street people are camping on the front steps, and using the power to charge their devices. Jim has reported the problem to the City; the City is to fix it.

Jim has signed up the SDMG Museum as a member of the Blue Star Museum program, which will let military members know about our free museum.

City Liaison: Marie Wiggins of Park & Rec has been working on the new Special Use Permit that allows SDMG to occupy its building, and will scan and email a copy of the draft permit to Jim Parrish for review.

Jim has received contact info for the Balboa Park Conservancy, to update the City's info sheet/map with SDMG's location.

In conversation with Marie Wiggins, Jim was advised that SDMG will have to file a separate plan for the SDMG School and submit it to her for review. She will

then submit the plan to the County, with an expected reply in 2-3 weeks. Alternatively, SDMG could wait for San Diego to be promoted to the yellow tier, or for the tier system to be retired, hopefully on June 15th.

School Liaison: Bob Hancock reported that Steve Dente's online faceting class continues to have 12 to 14 people in attendance weekly for two hours, and that half the attendees have completed a stone. Bob sent an email to all attendees, asking if they wanted in-person classes this summer, but did not receive much response.

Outreach: David Smith received a phone call from a lady in Minnesota, wanting to attend an SDMG field trip this summer. David recommended either the Oceanview Mine or the Himalaya Mine digs; she has already done the Oceanview, so will try the Himalaya.

Public Lands: Lisbet Thoresen reported that the DAC (Desert Advisory Council) is planning to meet in June 2021.

Desert public lands have been loved to death this past year; lots of ATVs roaming more extensively than usual, with more accidents and more injuries.

There is an incredible push by the Biden administration to install solar/wind power in the Mojave Desert. This would also mean building new power transmission corridors, potentially closing roads and access to rockhound collecting sites. The DRECP (Desert Renewable Energy Conservation Plan) was ratified on 9/16/2016, and with major input from rockhounds and recreation groups, access routes to collecting sites were preserved. Now, it would appear, that solar/wind interests may be coming back after the same areas designated for recreational uses.

Bulletin: Board motion carried to allow Lisbet Thoresen to produce the June bulletin and eNewsletter. Bill Brisebois furnished good content on faceting, Anne Schafer to supply Board Meeting Highlights. LuAnn Benton to write article about long-time member Dolores Wheeler.

School Director: Wayne Moorhead reported that nine instructors are willing to teach over the summer, from mid-June through August, if the City/County allows the school to reopen.

Jim Parrish reiterated that Wayne needs to fill out the form, available on the County website, and submit it, outlining SDMG's school reopening plan. Jim recommended an initial slow open, with one class per day.

Christmas Potluck: Jennifer Stapp did not know if the Park & Rec Permit Office had reopened, so the status of the potluck remains in limbo.

Website Committee: Wayne Moorhead redesigned a basic version of the SDMG website on Wordpress. Yvonne Juarez has agreed to assist with development and transition to the new website. Lisbet Thoresen will also be available to work on this project after June 6th.

New Business: LuAnn Benton reported that one set of bulletins is stored in the Historian's file cabinets in the office, the second set is in the Library. There are 4 to 5 boxes of extra old Pegmatites on the desks in the Library, available on a first come, first served basis to whomever wants them. Leftovers will be recycled later.

Jim Parrish requested that Lisbet Thoresen have an upper level link to the Museum on the SDMG website, required by the new Blue Star Museum partnership. Jim to update photos and language in the Museum description.

Any member may attend Board meetings. The next one is scheduled for June 21, 2021, at 7 p.m. and will be held via GoToMeeting. Please contact Jim Parrish at curator@sdmg.org to be added to the attendance list.

WEST COAST GEM, MINERAL & FOSSIL SHOW

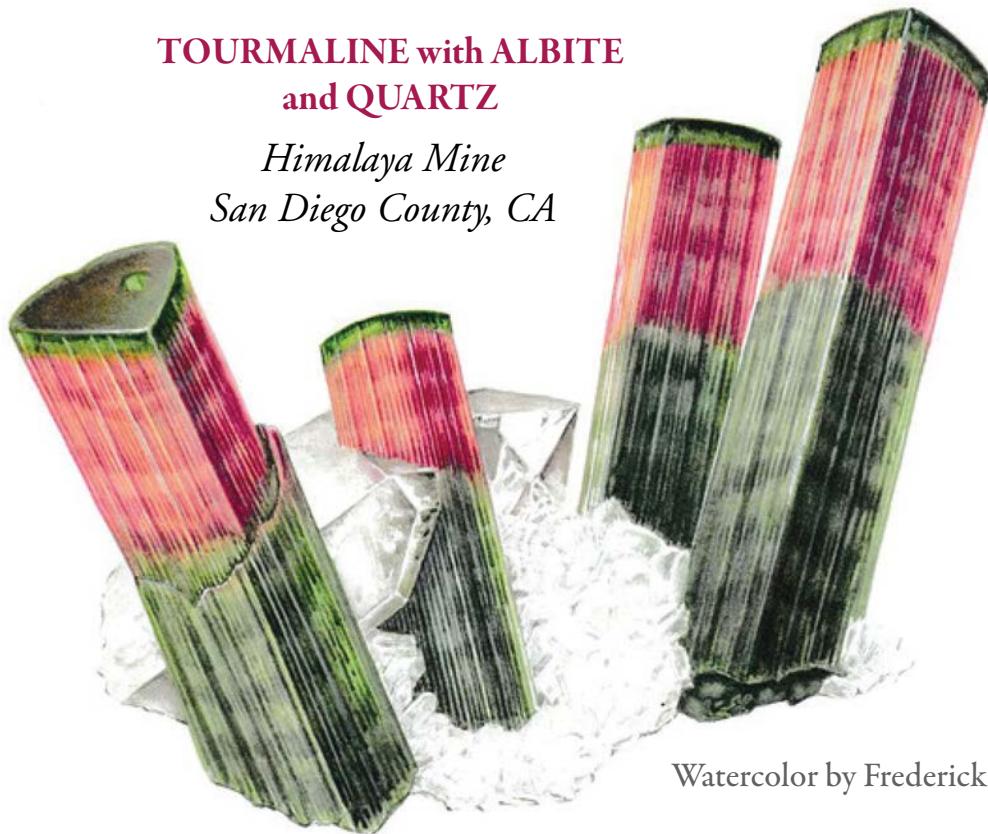
Hilton Orange County / Costa Mesa
3050 Bristol Street Costa Mesa, CA 92626

November 12, 13 & 14, 2021

Fri & Sat 10AM to 6PM • Sun 10AM to 5PM

**TOURMALINE with ALBITE
and QUARTZ**

*Himalaya Mine
San Diego County, CA*



Watercolor by Frederick C. Wilda ©

*80 Select Retail
& Wholesale Dealers*

Minerals ♦ Gems ♦ Lapidary ♦ Jewelry
Fossils ♦ Decorator Pieces ♦ and much more!

FREE Admission

Parking \$10/day

OPEN to the Public

www.MineralShowsLLD.com

mineralshowslld@gmail.com

KRISTALLE

Est. 1971

Wayne and Dona Leicht

WE ARE CASH BUYERS FOR SINGLE SPECIMENS AND ENTIRE COLLECTIONS!



875 North Pacific Coast Highway - Laguna Beach, CA 92651

949.494.5155 - fax: 949.494.0402

e-mail: info@kristalle.com

Thomas M. Schneider Quality Gemstones



861 6th Avenue, Suite 517

San Diego, CA 92101

www.tmsgems.com

Ph: 619-232-2624 Fax: 619-232-2213

THE SINKANKAS SYMPOSIUM

sinkankassymposium.net

"The best gem mineral symposium
in North America."
– John Koivula

AL'S OPAL IMPORTS & LAPIDARY

3684 Fairmount Avenue
San Diego, CA 92105

619 282-1700

Al Ramirez, proprietor
U.S. Navy WWII South Pacific veteran



Unmounted Australian and African Opals

- Lapidary equipment new or used
- Tumblers, diamond blades, belts and grits
- Rough rock for faceting, slabbing or tumbling
 - Recycle your gold or silver jewelry into new designs or repair
- A variety of finished jewelry in silver or gold
 - Faceting gemstones

All work done on premises

Layaway Available



HOURS:

Monday thru Friday
8:30am to 3:30pm

Saturday
9:00am to 1:00pm



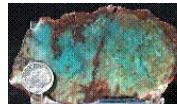
MinersGallery.com

Rock Slabs, Bulk rock, Crystals, Jewelry,
Fossils, Gems and Petrified Wood.

Phone: (619) 445-0800

richard@minersgallery.com

www.minersgallery.com



Minerals and crystals from around the world

*** ROCKS * MINERALS * GEMS * JEWELRY MAKINGS ***

*** LARGEST INVENTORY ***

*** * BEST QUALITY * ***

*** LOWEST PRICES ***

*** NEW ARRIVALS DAILY ***

SOUTH AMERICAN IMPORTS

Direct Importers

2461 San Diego Ave. #104

San Diego, CA 92110

In Old Town, in Coyote Café Shopping Center

Tel: (619) 299-3877

OPEN EVERY DAY!

Village Silversmiths

**Bead Work
Jewelry
Slabs**

**1770 Village Place
Balboa Park
San Diego, CA 92010
619 239-8812**

**Carvings
Rocks
Cabs**



DIAMOND PACIFIC
TOOL CORPORATION

2620 West Main St. Barstow CA 92311

Our business is putting fun and pride
into your lapidary hobby or profession
by making the right tools for your needs



Astounding Selection of Minerals
& Fossils from Around the Globe

MINERS GEMS

Experts in Geology, Gemology & Paleontology

World Famous Gold Rush

Rock Shop & Mining Museum

Daily Mineral Panning and Geode Cutting

Educational Programs Available

In Old Town San Diego State Historic Park
2616 San Diego Avenue, San Diego CA 92110
619-688-1178
minersgemsandminerals@cox.net
www.minersgemsandminerals.com

CLASSIFIED ADS

OCEANVIEW MINE
TOUR & SCREENING TRIPS:
CALL FOR CURRENT SCHEDULE

For more information
please visit www.digforgems.com
or call Jeff Swanger at 760-415-9143
Reservations required.
\$75. Adults \$60. Children (ages 5 to 11)
Family rates available.

HIMALAYA MINE TAILINGS:
CALL FOR SCHEDULE/HOURS OF OPERATION

At the Lake Henshaw Resort on Highway 76.
Adults, \$75 per day. Kids 12-15, half price.
Screening tables, buckets, and shovels provided.
Call (775) 830-5797
or (775) 772-7724 for more info
www.highdesertgemsandminerals.com

THE PEGMATITE – JUNE 2021

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|-----------------------------|-----|-----|-----|-----|-----|
| 29 | 31 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 Palomar Gem & Mineral Society show Escondido CA | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 SDMG Board Mtg online | 22 | 23 | 24 | 25 | 26 |
| 27 Fallbrook Gem & Mineral Society show | 28 | 29 | 30 | 1 | 2 | 3 |