



Bulletin of the Mineralogical Society of Southern California

Volume 95 Number 9 – September, 2022

The 1,004th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

A ZOOM Meeting

September 9th, 2022 at 7:30 P.M.

Program : "Minerals in 19th Century America, Scientists, Dealers and Collectors".
Presented by Howard Heitner

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Remember: If you change your email or street address, you must let the MSSC Editor and Membership Chair know or we cannot guarantee receipt of future Bulletins

About the Program: : Minerals in 19th Century America, Scientists, Dealers and Collectors”. Presented by Howard Heitner

At the beginning of the 19th century most of the men who studied the natural sciences were physicians. Among these physician/mineralogists were Lewis Beck, Samuel Robinson and Ebenezer Emmons. The earliest academic mineralogist was Benjamin Silliman who started the Yale University collection. Minerals were studied in detail even in the absence of modern atomic theory and structural analysis. By the 1850s a number of private collections had been started. Specimens were obtained by field collecting, trading and purchasing. Among the more prominent collectors were Washington Roebling and Clarence Bement. Their collections became the starting point of museum collections. Among the dealers supplying collectors at this time were A. E. Foote, Henry Ward and George English. A monthly journal; The Mineral Collector was started in 1894.



Howard, our speaker has been collecting minerals for sixty years. He started as a field collector, collecting in New York, New Jersey, Maine and other States. Later he started purchasing specimens. He purchased several old collections and became interested in the history of mineral collecting and dealing in the United States. Other interests include fluorescent minerals and pseudomorphs. He was the president of the Stamford Mineralogical Society for many years. In his professional career he was a chemist specializing in water soluble polymers. Most of his career was spent at Cytec Industries in new product development of chemicals used to process minerals. His post retirement mineral time has been spent finally organizing and cataloging his collection. He spent several years as an explainer at the AMNH. He is also working on new Zoom

presentations on mineral related topics.

How to Join our ZOOM Meetings by Rudy Lopez

MSSC members are automatically included in the invite list each month.

For non MSSC Members who want to join this meeting. You must respond to our Programs chair, Rudy Lopez at programs@mineralsocal.org no later than Tuesday August 9, 2022. Please include “August ZOOM Meeting” in the subject line of your response. This response date will allow time for us to send you the information needed to participate in the ZOOM meeting and also will allow time to get everything organized.

From the Editor: Linda Elsnau

Well, here we are at September already! Labor Day, school starts, the 2022 Fall Equinox and another excellent program from MSSC. Quite a month.

As you can see, the Board is still looking for volunteer/nominations to fill the MSSC Executive board for 2023. If the open positions aren't filled, MSSC will have no choice but to end. Since everything is being handled via the internet, you need not be “local” to assume an executive role. Please do what you can to keep MSSC the excellent organization it has been since 1932!

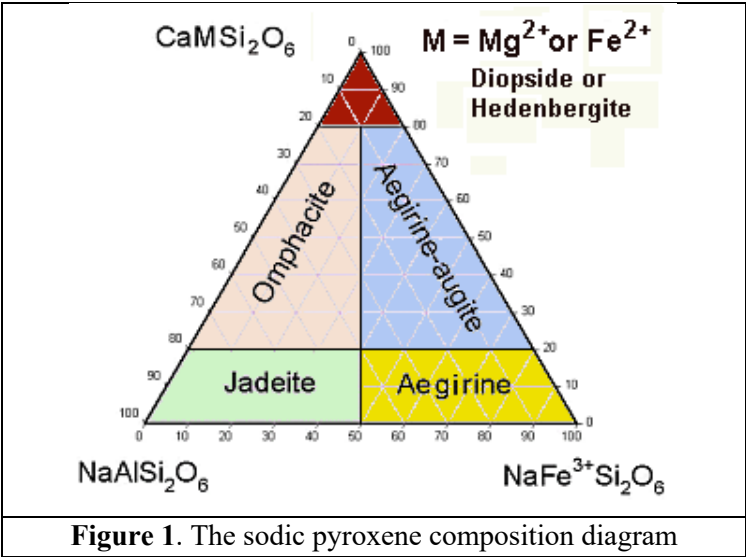
FROM THE PRESIDENT: Mineral Groups. Installment V, “The Sodic Pyroxenes” by George Rossman

Previously, we discussed the group of minerals known as the calcic pyroxenes. This time, we will focus on the less-common sodic pyroxenes. These are the pyroxenes that contain major amounts of sodium in place of calcium, magnesium and iron in the large cation site.

Like the calcic pyroxenes, the sodic pyroxenes are single chain silicates.

Let's look first on the nomenclature for the pyroxenes that contain major amounts of sodium ions. We can present a diagram that shows the nomenclature across the sodium-aluminum and sodium-iron pyroxenes and those that partially replace the sodium with calcium ions. At the top of the diagram, (**Figure 1**) we lump both

magnesium and iron together. There are solid solutions that cover nearly all of the diagram meaning that minerals with intermediate compositions occur.



Jadeite is probably the species most familiar to people. Precious Imperial Jadeite is a rock mostly comprised of the mineral species jadeite. When jadeite has the ideal end-member composition of NaAlSi₂O₆ with no iron it is colorless (**Figure 2**). Commonly, jadeite contains minor amounts of other cations giving rise to color such as green from chromium (Cr³⁺ - **Figure 3**) or lavender from manganese (Mn³⁺ - **Figure 4**). The translucent, richly-colored green jade is often considered the most desirable in Asian cultures. Iron will give rise to less intense green colors (**Figure 5**). Many other color of jadeite occur because inclusions of many other minerals such as iron oxides can enter the rock and dominate the color. High quality jadeite is mined mostly in Myanmar, the type locality for the mineral. **Figure 6** shows a mass of turbid, near-colorless jade rock in contact with bluish serpentinite rock at a jade mine in northern Myanmar.

Lesser quantities are found in Guatemala, and minor amounts of lower quality specimens are found in other localities where subduction occurs at current or former oceanic plate boundaries such as Japan, Turkey, and Kazakhstan. It is also found in California at Jade Cove in Monterey County, Mendocino County (**Figure 7**) as well as other central California counties.

			
Figure 2. Jadeite from Kachin State, Myanmar. Photo Credit: Mark Garcia	Figure 3. Green jadeite from Myanmar. Photo Credit: Pala International	Figure 4. Back-lit jadeite from Kachin State, Myanmar. Photo Credit: GRR	Figure 5. Jadeite from Kachin State, Myanmar. Photo Credit: Mark Garcia



Figure 6. Massive jade rock in contact with serpentinite near Hpakant, Myanmar.
Photo Credit: GRR



Figure 7. Jadeite from Mendocino County, CA. Photo Credit: Rob Lavinsky & irocks.com

Aegirine is less well-known compared to jadeite. It commonly contains not only Fe^{3+} but also some Fe^{2+} which gives rise to black colors through the process known as intervalence charge transfer (**Figures 8,9**).



Figure 8. Aegirine from Magnet Cove, Arkansas.
Photo Credit: Mark Garcia

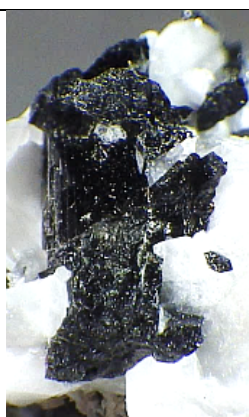


Figure 9. Aegirine from Mount-Saint-Hilaire, Canada.
Photo Credit: Mark Garcia

Omphacite usually is found in eclogites rocks which are formed when basalt undergoes high-pressure metamorphism. It commonly is found in weak to strong shades of green (**Figures 10,11**) although it may be nearly colorless. Locally, it is found on Catalina Island.



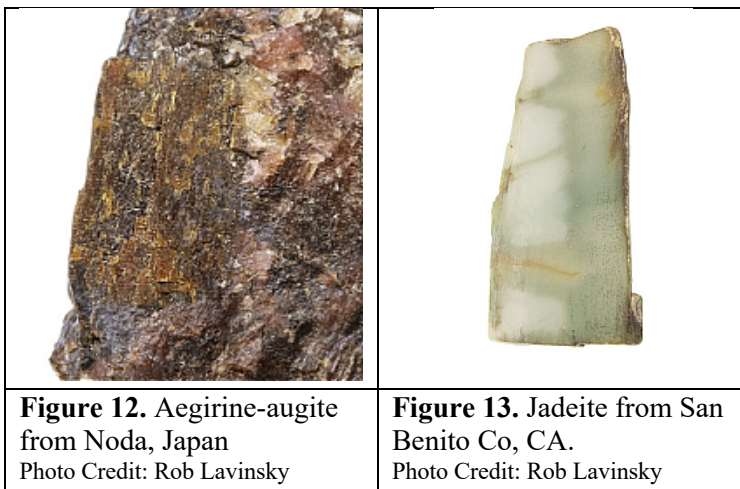
Figure 10. Omphacite from Aosta Valley, Italy.
Photo Credit: Mark Garcia



Figure 11. Omphacite from Almenningen, Norway.
Photo Credit: Mark Garcia

Aegirine-augite is the name given to the more ferric-iron-rich members of the sodic pyroxenes. Its name came into existence when Clark and Papike (1968) proposed the name for this intermediate sodic pyroxene. Later, Morimoto et al (1988) redefined the entire sodic pyroxene nomenclature system. The color is variable depending on both the iron content and the proportions of Fe^{2+} and Fe^{3+} . It can range from black to orange-yellow (when thin) to orangish-brown (**Figure 12**). It pretty much requires a good chemical analysis to place many specimens of the sodic pyroxenes into their proper nomenclature box.

Clark, J.R., Papike, J.J. (1968) Crystal-Chemical Characterization of Omphacites. *American Mineralogist*: 53: 840-868.
 Morimoto, N., Fabries, J., Ferguson, A.K., Ginzburg, I.V., Ross, M., Seifert, F.A., Zussman, J., Aoki, K., Gottardi, G. (1988) Nomenclature of Pyroxenes. *American Mineralogist*: 73: 1123-1133.



Hopefully, California jadeite is something you have in your collection. Maybe you have one from the Clear Creek deposit, Idria Peak, San Benito County, CA, like the one pictured in **Figure 13**.

MINUTES of the August 12, 2022 ZOOM Meeting

Call to Order (Dr. Rossman):

President Dr. George Rossman, Ph.D. called the meeting to order at 7:31 p.m. It was the 1,004th Membership Meeting and 27th via ZOOM conferencing of the Mineralogical Society of Southern California (MSSC).

President's Remarks (Rossman)

Dr. Rossman reports that the International Mineralogical Association (IMA) announced that there are currently 5,829 valid mineral species. Of importance, the 2021 Mineral of the Year is *seaborgite* which was characterized by a team lead by Tony Kampf. This mineral is found at the Blue Lizard Mine in Utah; it is a Li, Na, K, uranium hydrated sulfate, the only known mineral with both lithium and uranium. It also contains 3 different alkali metals as primary components. Congratulations to Tony for this outstanding mineral discovery and, this is not his first Mineral of the Year award!

Regular Business (Rossman)

Approval of Minutes: Rossman asked if there were any additions or corrections to the Membership Meeting Minutes of July 8, 2022 as published in the August 2022 Bulletin; hearing none, he asked for a show of hands to approve the minutes; he then asked for a show of hands if anyone disapproved (none). Seeing no objections Rossman stated the Minutes were approved as published.

Announcements and Reports

1. Program Chair: Rudy Lopez reported that next month's speaker will be Howard Heitner. Howard will speak on 19th Century American minerals. Also, Rudy reports that he has booked speakers through May 2023;

2. Fieldtrip Report (Marek Chorazewicz): Marek reports that the trip to San Benito Mountains will have to be postponed. However, moving up to fill the slot is a 2-day camping field trip to Tecopa to hunt for fossils.

Special vehicles are not required. The trip will be either at the end of September or very early in October. Stay tuned for more information and dates;

3. MSSC Election Information (Cheryl Lopez, Vice President): Cheryl Lopez announced the upcoming MSSC election will take place during the November 2022 Membership Meeting. Members are encouraged to use the **self-nominate form** in the August 2022 Bulletin or contact any officer for assistance. There are 7 positions available for this election: President, Vice President, Treasurer, Secretary, two (2) MSSC Board seats and CFMS Director. We are looking to the membership to volunteer, self-nominate for an office and participate in the process. As mentioned previously, Dr. Rossman declined to run for office stating that while his 4 terms have been satisfying, it's time to allow the opportunity for another person to step up, lead and contribute to the society.

Dr. Rossman adds he is turning down the chance to be president for another year or in the future, because he thinks we need to get more people involved, bring fresh ideas, fresh perspectives. George, as we know, comes from an academic perspective, but some can come with other ideas and ways at looking at our Society. We need you to volunteer, become active in the Society – it's good for the Society. It's good for all of us to volunteer, volunteer, volunteer!

Program

Rudy Lopez introduced the night's presenter Scott Braley. Scott will talk about collecting at the Red Cloud Mines in Lincoln County, New Mexico; 2 small and distinct mines just a few 100 feet apart. He has been collecting minerals for a long time, since his childhood and he now focuses on micros, like a lot of us. By the way, he has a specimen he'd like analyzed and will show it at the end of his presentation for any takers. Scott has been doing quite a lot of micro mineral photography for about the past 15 years. So now, Scott has the floor.

Scott Braley told us he teaches at a little college in northern New Mexico, nothing to do with geology but that he teaches radiation protection. He claims he is not a super expert in rocks. He's been interested in minerals and when he finds an interesting spot, he goes back to that spot maybe 10 to 15 times. Since moving to New Mexico, a couple of years ago, just in time for COVID to ruin any plans of field trips to larger, more well-known locations, he said he ended up exploring several smaller areas that aren't quite as celebrated or famed. Scott mentioned that he retired from the U. S. Air Force after many years of service. *[Secy Note: Thank you for your service, Scott.]*

The Gallinas Mountains in the Cibola National Forest is where Red Cloud Canyon is located and the not-so-famous Red Cloud Mines of New Mexico (not Arizona) are found in these mountains. They are the Copper Mine and the Fluorite Mine. The geology of the Gallinas Mountains shows Permian age (290-280 million years ago) rock, mostly sandstone and red conglomerate of the Abo Formation, on Precambrian granite basement rock and buff sandstone and limestone of the Yeso Formation. There are Tertiary/Paleogene tectonics (30mya) with volcanic trachyte intrusions with faulting caused fractures and brecciation. Ore bearing solutions fill openings in the Yeso Formation with sulfide ores and thereby emplaced sulfides oxidized and redeposited as secondary minerals sought by collectors of more current times. These mines, the Red Cloud Copper and Red Cloud Fluorite, are at the intersection of 2 major and 1 minor faults. Scott shows us the diagram/map of the area.

Scott gives a little history about the mining district in the mid 1800's, the activities during the Civil War (in eastern New Mexico, the Territory [statehood was granted 1912] actually participated a little in that war). In 1881 the first documented formal report of prospecting for lead, copper and silver in the area was made. In 1884, one of the local newspapers reported someone struck a large body of fine mineral in the Red Cloud Canyon – not in the mine. By 1907 the Copper Queen Mining Company was ramping up operations and sold 2 million shares of stock at \$5 per share going into what is now the Red Cloud Copper Mine. There were as many as 200 miners working the Copper Mine and they found what they called “fluoristine ore”, an indicator of gold at depth. They did not find the gold they wanted but from 1919, after WWI, there were economic problems right through WWII, when there was sporadic mining for lead, copper and silver.

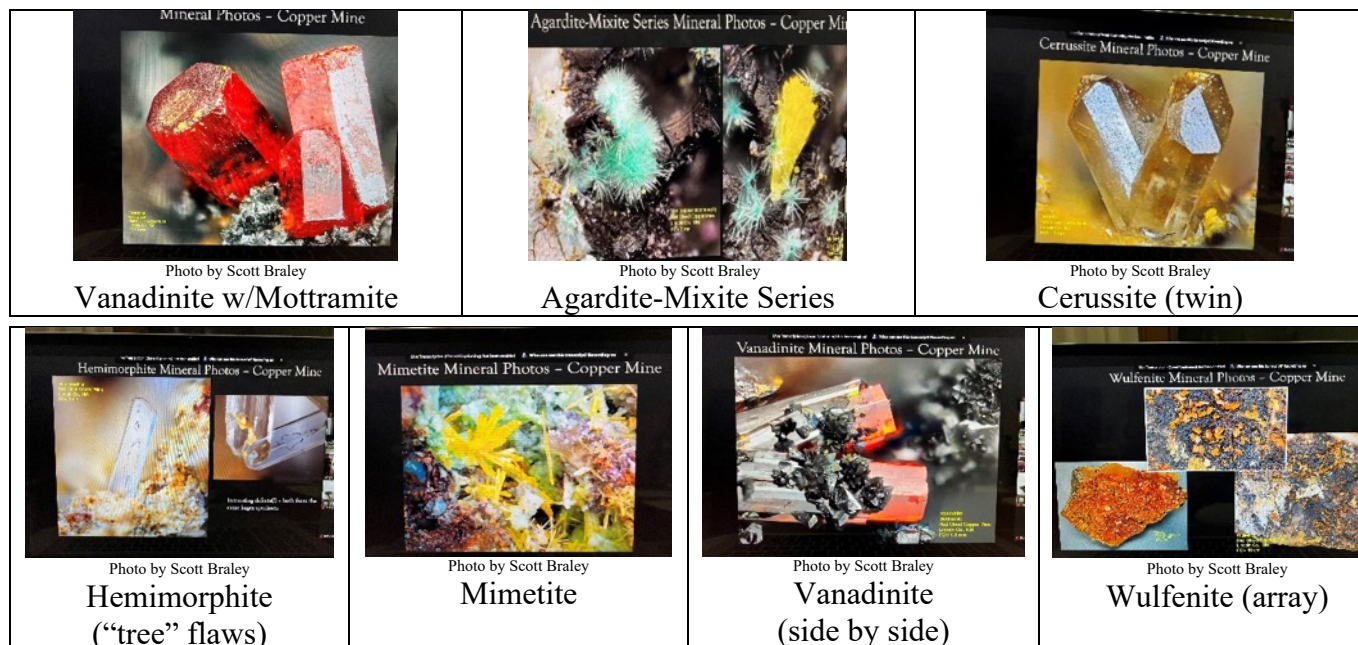
The mines were superficially similar having a fair number of rare earths but the Copper Mine's hydrothermal veins created a lot of copper there. Overall and over time from the late 1800's to 1955, there were about 40 mines in production out there with mostly copper, silver, lead, iron ore and rare earths being the major outputs. There was some prospecting but not much. Finally, there were only about 3 mines you could call substantial.

Scott showed photos from a 1919 article written about the Copper Mine and the photo in the article showed some of the miners of the era. In 1946, the district as a whole, produced 22,000 oz of silver, 370,000 of copper, 1.6 million pounds of lead and 5.5 oz of gold. But, by 1955 everything was gone and there has been no commercial mining since. The Copper Mine is not accessible but it's dumps are out there. As for the Copper Mine itself, Scott says it is underground. His photos of where the adit used to be, prior to sealing, show no real evidence of a mine entrance today. The Copper Mine actually had, according to the mineral database website, Mindat.org, about 24 different minerals. Over the years, there were fires up in the mountains but by now the dirt roads have been rebuilt, are mostly graveled over and made even more accessible to just about everyone who ventures up there. The district has actually become a recreational destination!

The Fluorite Mine is to the east of the Copper Mine dumps, just across road A023 and only about 100 feet away. It had a much shorter mining timeline. Scott showed a photo he took of the way up to the mines on that road, A023. There is a very little bit of a waterway on one side of the road. It is a dry area and there is no standing water. Scott says the Fluorite Mine adit collapsed some time ago. As for its history, this mine was started around 1943 by the U S Bureau of Mines and was active for only 3 years - then it was abandoned by them. It had different owners over about more 10 years until no one did any mining after 1955. The reason they opened this mine was for the bastnaesite, a cerium fluoride carbonate. "They" were after rare earths for optical coatings during WWII. The Fluorite Mine had very little hydrothermal veins and therefore, very little copper. They found the rare earths, and fluorite was a by-product. The Mindat mineral list is much less than that of the mine across the road. The Fluorite Mine dumps had not been turned, they were left undisturbed; they have distinct "zones": top layer is most current material but if you dig down a foot or two, the material you see will be 100 years old or older (a brief look back in time!). Scott says not to venture into any of the horizontal or vertical shafts as they're not good or safe. You can do some dry screening and find chrysocolla, wulfenite and cerussite "sparklers". The Fluorite Mine open pit had collapsed, too, and now is just a miniature cliff. If you didn't know it was there, you wouldn't be able to see it. It looks like a natural hillside and has about a foot and a half of dirt on top if it and there are a lot of scrubby pine trees growing on it. But if you dig around, as Scott says, you may just find some pretty spectacular micro specimens.

Here is a small sampling of the beautiful mineral specimens Scott Braley photographed:

RED CLOUD COPPER MINE



RED CLOUD FLUORITE MINE

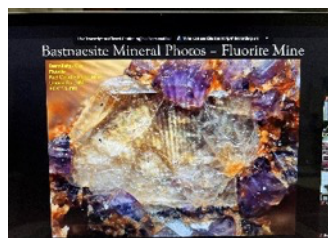


Photo by Scott Braley
Bastnaesite w/Fluorite

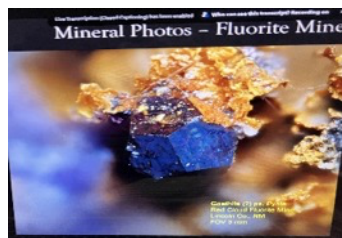


Photo by Scott Braley
Goethite w/Pyrite

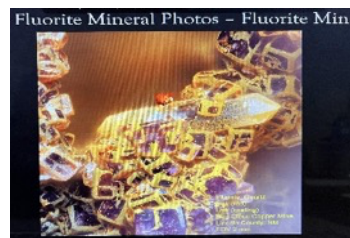


Photo by Scott Braley
Fluorite with Quartz
plus unknown red bonus

Braley says there is probably a large deposit – at some depth – of rare earth minerals, thanks to those hydrothermal veins that had popped up in the district. New Mexico Tech is doing survey work and core sampling to see what's going on and what's there. This is interesting but we'll have to wait and see what they find...stay tuned.

About the photography, Scott showed us his very effective, photo studio and spoke extensively about his self-learned methods and the “how to” of stacking photos. He has become very good at micro mineral photography and he currently shares his expertise by teaching folks of the Albuquerque Mineral club about his techniques. His photos display the best possible “good side” of the crystals and are crisp, clear and appreciated by both non-collector and collector alike. Scott graciously gave MSSC permission to publish some of his photos.

As for that specimen he would like to have analyzed, it is a sulfur with extremely fine, very thin textured hairs:

Scott acknowledged his friend, Fred Parker, for his assistance, guidance and experience oh, and for sharing this unique location. Kudos, Fred!

Thank you, Scott. Well done! The New Mexico Red Cloud mining district locale is somewhat obscure but you've just put it on the map! Of course, there was much more information about the minerals and there were many more photos. After his presentation, there was lively Q&A and even further discussion after the meeting was officially adjourned. Wonderful photos and great information about Red Cloud Canyon and the mines up in the Gallinas Mountains. Makes me want to grab my gear and head out!



Photo by Scott Braley
Unknown

There being no other official MSSC business, the meeting was adjourned at 8:49 p.m. by President, Dr. George Rossman. Ph.D.

Respectfully submitted by Angie Guzman, Secretary

NOTICES:

See you next time for our presentation on **19th Century American Minerals**. If you're a non-member, send an e-mail to Rudy Lopez, programs@mineralsocal.org, to be certain you're included on the ZOOM invite list for **MSSC's September 9, 2022 7:30 p.m. Membership Meeting**. 'Till then, have a great time doing what you do.

The Ride Share Listing is being temporarily discontinued until such time as MSSC starts holding in-person meetings again.

With Knowledge Comes Appreciation



Photo A Guzman

Opportunity Knocks

IMPORTANT ANNOUNCEMENT

MSSC will be conducting its annual ELECTIONS for Officers and Directors at the November 11, 2022 Membership Meeting, which just happens to be another great day, Veterans Day. We rely on our members to volunteer and participate in the administration of our long-standing society. WE NEED YOU! Your commitment to help lead MSSC as an Officer (1-year term) or as Director (2-year term) can make all the difference to the future of the society. Kindly complete the **Self-Nomination** form in this Bulletin. Scan and send it or give it to a Board Member. Thank You.



List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	ZOOM Oct 14, 2022	Leyla Namazie: The structural deformation and evolution of Terranes in the North American Western Cordillera using Paleomagnetism. Undergraduate Geophysics major at UC Berkeley
	ZOOM Nov.11, 2022	Aaron Celestian – TBD
	ZOOM Dec 9, 2022	Wes Andree: "JMDC's Dinosaur Trek" our augmented reality (AR) dinosaur hunt.
	ZOOM Jan 13 , 2023	Denise Nelson: Diamonds of the Forbidden Zone
Board Meeting	ZOOM October 16, 2022	ZOOM at 1:00 PM
Field Trip	Late Sept/Early Oct	2- day trip to Tecopa for Fossils; Watch website for more info

Note: Dates and programs shown above are subject to change. Check your bulletins to confirm final information each month.

Minutes of the July 10, 2022 MSSC Board Meeting (via ZOOM)

Call to Order and Roll Call

The MSSC Board meeting was called to order at 1:01 p.m. by President Dr. George Rossman. The following Officers, Directors and Committee Chairs were present: George Rossman, Cheryl Lopez, Carolyn Seitz, Angela Guzman, Ann Meister, Pat Caplette, Leslie Ogg, Rudy Lopez, Marek Chorazewicz, and Bob Housley. Excused were Al Wilkins, Ahni Dodge, Linda Elsnau, Patrick Stevens and Laura Davis. There was a quorum.

Approval of the Minutes

Dr. Rossman wanted approval of the April 3, 2022 Board Minutes as published in the May Bulletin after asking if there were any corrections or additions to those minutes. He asked for a show of hands for approval, unanimous. He then asked for a show of hands for opposition to approval and seeing none, declared the minutes approved.

President's Remarks (Dr. George Rossman, Ph.D.):

Dr. Rossman said several Board Members have mentioned a PayPal scam to purchase things. Communications are suspect, some not in English, and always with bogus sender ID. Be cognizant!

Reports (Officers and Committees):

1. Vice President and Membership Chair (Cheryl Lopez)

- ZOOM license due to renew October 2022. No discounts offered, as yet. Price is \$179.88 per year with same program as last year. A Motion to approve renewal was made and seconded. However,

after some discussion, it was *informally tabled*. Cheryl will advise the Board as we get closer to the renewal date;

- b) Election notifications will be placed in the August, September and October Bulletin regarding Self-Nomination(s) for MSSC Officers and Directors positions. Announcement: President seat is available. Cheryl prepared forms and flyers that will be included in the Bulletin(s). Board approval for forms and Announcement was given. She will incorporate an E-mail blast on or near Oct. 18, 2022 as a reminder; additionally, she will prepare a "...what if no one steps up..." outlining the consequences if no one fills that slot. She will have that reviewed before she sends it out. Election for MSSC Officers and Directors is November 11, 2022;
- c) Discussion: Field trip attendees becoming members, payments, paperwork;
- d) Membership: 109 includes 1 new family and 1 individual from last field trip.
- e) Board Discussion regarding the forms, members to volunteer for positions, field trip attendees, aging members, recruiting young people to join, expand our membership (merge with smaller clubs or?), American Lands forms to report collection sites and other topics

2. Bulletin Editor (Linda Elsnau by Dr. Rossman)

- a) Issue of advertising liquidation of a collection, print an article for non-member, or Perky thumbnail boxes for sale, as example. Is this what we want in our mineralogical Bulletin? *Discussion* followed including posted *rates for advertising are listed in the Bulletin*, upcoming local shows are listed (via CFMS), perhaps quid pro quo: list our next ZOOM in exchange for link to their show, should this be in Bulletin or go on our website, impact to length of Bulletin if add these "please print" items/notices. Flyers and other notices to "insert" are at a cost. Result is Webmaster will work out calendar info with Bulletin Editor.
- b) Issue regarding change of speakers and coordination between Rudy and Bulletin Editor, Linda. Rudy was at mercy of timing: One speaker backed out, the fill-in speaker's paperwork was not received until the end of the month, past publish deadline. This last-minute situation could not have been avoided, there is no way to predict if a speaker will drop or when. Rudy sent an e-mail blast notice of change to the membership shortly after the Bulletin went out. Apologies, it will not happen again. Board discussion: (1) Board agreed with Rudy's actions and (2) if it should happen in the future, a little discretion to delay sending out the Bulletin 1 or 2 days is alright. However, if the Bulletin has been sent, Rudy has back-up plan to show mineral related video. Note: In this case, Webmaster also posted change to website when she received Rudy's e-mail notice.
- c) Postage: Board agrees to reimburse Linda Elsnau for postage.
- d) Tracking Bulletins-no need to pursue this item now or in the future.

3. Secretary's Report (Angie Guzman): ZOOM transcript and video help with the Minutes. She also records audio as her backup. Goal is to ensure the Minutes, especially the program segment, are correct. The quandary: she has considered making the presentation portion shorter, but when she thinks of those members who cannot "attend" the ZOOM, she feels it is necessary to include as much as possible; she herself would want it that way.

4. Field Trip (Marek Chorazewicz): No update at this point, still need to discuss details with our friends from N. California, who will be showing us locations in San Benito Mountains. Logistics need to be worked out, no entrance to the mine, but there is a corral where there are tailings brought in, they charge \$100 to go through them, similar to Himalaya Mine. The trip will be late September or early October, a multi-day field trip with possibly multiple sites for collecting. Sounds great!

5. Federation Director (Angie Guzman): The Federation is collecting cancelled stamps for the March of Dimes. They process them and convert them to cash for their charity. If you are interested and would like to donate any cancelled stamps, let me know.

6. Webmaster (Leslie Ogg):

- a) Reports there was not a lot of activity except for one day in May and one day in June but unable to pinpoint the reason but they're right before the meetings. But activity on Facebook and Instagram the

same spikes appeared. Also, there was a huge spike when we had the speaker change! On our age and gender statistics, on Facebook more women (55-64 age range) follow and on Instagram more men (25-34 age range) follow. Another graph shows US followers lead both Facebook and Instagram. Interesting is 2nd and 3rd countries that follow us on Instagram are Pakistan and India, respectively. Posts reached for July 8th on Facebook is 391 people reached with 29 Likes, far more than previous 2 months!

- b) As for MSSC's webpage, Field Trips leads with the most hits and Bulletin page comes in next;
- c) Angie mentioned need to delete PCC meeting place from webpage and needed clarity on who gets checks for MSSC patch (Rudy get the order and check then forwards check to Carolyn).
- d) Board discussion about cultivating the interest people have in field trips into MSSC membership – how do we encourage people to come then join after they've seen something interesting? Do they come out of curiosity then decide to join? There are different situations, for instance people are excited to come on field trip but don't show because something came up.

7. Program Chair (Rudy Lopez):

- a) Next speaker does not want stipend but wants us to donate - to Mindat;
- b) Rudy went through his list of speakers and mentioned people who are coming back;
- c) Banquet and picnic update: Banquet is hard to predict (COVID) and so is the annual Picnic. Board consensus is not this year due to the unpredictability of the virus;
- d) Long term care of MSSC materials:
 - i) Ann Meister said she has MSSC Bulletins, a plaque honoring one of our big shows from City of Pasadena, etc. It is an unknown quantity,
 - ii) Ron Sleeper's items were copies of other clubs' newsletters only keep to research for i.e., field trip locations. Marek wants to go through the Sleeper boxes;
 - iii) Pat Caplette may have something from when they had the trailer;
 - iv) Bill Bessie was Historian before;
 - v) Digital records, physical photographs, field trip notebooks, still need inventory.
 - vi) Board discussion regarding all MSSC property and records. Whoever has any, over the next 3 months, do an inventory so we know what we have so we can compile those lists then decide where and how to store (digital, paper, etc.).

8. Treasurer Report (Carolyn Seitz):

- a) Cash Flow report previously sent to Board members. Good report;
- b) 2 outstanding checks including Miko's sent 3/1/22 – Rudy will e-mail Miko to see how we can pay him or apply payment to his membership.

9. Micro Mineral Conference (Bob Housley):

- a) Bob mentioned El Dorado conference that did go well – everyone masked up, social distancing and haven't heard if anyone had a problem as the result of it. But, not anxious to have ours in the fall because of the COVID situation. Can we do it as a not-in-person event? No. Also, several clubs are going back to virtual meetings.
- b) Discussion regarding virtual meetings and our practice of testing first. It works.

10. Status of MSSC historical materials: Photo album with 40 photos showing highlights of 9-day trip to the southwest led by Edwin Van Amringe of PJC and sponsored by MSSC was accepted by Pasadena City College.

11. Next Meeting Date: Sunday, October 16, 2022 at 1p.m. via ZOOM.

The meeting was adjourned at 2:40 p.m.

Respectfully submitted by Angie Guzman, Secretary

OTHER FREE THINGS TO DO...by Ann Meister

The **Watson Lecture Series at Caltech is on hiatus until the Fall semester**. Stay tuned until October! Find past Watson Lectures on [Caltech's YouTube channel](#).

The **Von Kármán Lecture** is on Thursday, **September 15** at 7:00 PM. Available live on YouTube at [NASA Jet Propulsion Laboratory - YouTube](#). The speaker is Mark Wronkiewicz, Research Data Scientist, NASA/JPL. The title of the presentation is “**Ocean Worlds Life Surveyor (OWLS)**.” The Ocean Worlds Life Surveyor (OWLS) is the first life detection suite to explore a wide range of size scales, from single molecules to microscopic organisms, in a water sample. OWLS is an integrated, portable, and autonomous life-detection instrument suite designed to identify and characterize life on ocean worlds. In this talk, we'll discuss why autonomy is important for this and future missions.

The **UCLA Meteorite Gallery** has reopened. Check the website for hours. The monthly lecture will be presented on Sunday, **September 18** at 2:30 PM. The speaker is Dr. Robert Hazen, Carnegie Institution for Science. The title is “**Mineral Evolution and the Rise of Mineral Informatics**.” The story of Earth is a 4.5-billion-year saga of dramatic transformations, driven by physical, chemical, and biological processes. Sequential changes of terrestrial planets and moons are best preserved in their rich mineral record. Earth's “mineral evolution,” began with a score of different mineral species that formed in the cooling envelopes of exploding stars. Dust and gas from those stars clumped together to form our stellar nebula, the nebula formed the Sun and countless planetesimals, and alteration of planetesimals by water and heat resulted in the 300 minerals found today in meteorites that fall to Earth. Earth's evolution progressed by a sequence of chemical and physical processes, which ultimately led to the origin-of-life. Once life emerged, mineralogy and biology co-evolved, as changes in the chemistry of oceans, the atmosphere, and the crust dramatically increased Earth's mineral diversity to the more than 5800 species known today. Data-driven discovery in mineralogy exploits large and growing data resources, coupled with powerful analytical and visualization methods, and is ushering a new era of “mineral informatics.”

Zoom Registration: https://ucla.zoom.us/meeting/register/tJEqduyupj0vGd3S0_52FsbHTbPjYr0sZQUj

If you need detailed instructions on [how to join a meeting](#) via Zoom please contact our Curatorial Assistant, Juliet Hook, at jahook@ucla.edu. Note: Registration is only needed once as this is a recurring meeting in Zoom. Visit the website and check on events and videos and other neat things about meteorites, go to <https://meteorites.ucla.edu>

MSSC Advertisement Policy:			
Mineral-related ads are allowable in the MSSC bulletin. Below is the price per month			
	Business Card	\$5.00	
	1/3 page	\$10.00	
	1/2 page	\$20.00	
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In addition, any advertiser who purchases 12 months of space in advance will receive a discount of 12 months for the price of 10 months. The copy for the ads should be mailed to the editor at bulletin@mineralsocal.org and the payment should be sent to the MSSC Treasurer 13781 Alderwood Lane, #22-J, Seal Beach, CA 90740			

Calendar of Events:

Only S. CA shows are listed here. Other CFMS Club shows can be found at: <http://www.cfmsinc.org/>

September 10-11, 2022, Reno, NV

The Reno Gem & Mineral Society, Inc.

Jackpot of Gems

Reno Convention Center, 4390 S. Virginia, Reno, NV

89502

Hours: Saturday 10 - 5, Sunday 10 - 4

Website: <http://www.renogms.org>

September 24-25, 2022 – Long Beach

Long Beach Mineral and Gem Society
Gems on the Hill, Annual Gem & Mineral Show
Signal Hill Public Library, Signal Hill, CA 90755-
Terrace and Community Room
Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4
PM

Free event, Children's activities

Website: <http://www.facebook.com/LBMGS>

October 9, 2022 – Fallbrook, CA

Fallbrook Gem and Mineral Society
Fall Festival of Gems & Minerals
123 W. Alvarado Street, Fallbrook CA 92028
Hours: 9 AM-4 PM
Website: <http://www.fgms.org>

October 15, 2022 – West Hills, CA

Woodland Hills Rock Chippers
First Methodist Church, 22770 Sherman Way, West
Hills, CA 91204
Hours: 10 AM – 5 PM
Website: <http://www.rockchippers.org>

Self-Nomination Form

Self-Nominations are needed for MSSC Board Positions. To nominate yourself, all you need to do is complete the form below indicating which position you are nominating yourself for. Please submit to Cheryl Lopez at membership@mineralsocal.org by Oct. 1, 2022. The election is Nov. 11, 2022.

MSSC Self Nomination for 2023 Board Position:

- President: _____
- Vice President: _____
- Secretary: _____
- _____
- Treasurer: _____
- CFMS Director: _____
- Director #1: _____
- Director #2: _____

Return this form to: Cheryl Lopez at: membership@mineralsocal.org
by Oct. 1, 2022

2022 MSSC Officers:

OFFICERS		
President	George Rossman	president@mineralsocal.org
Vice President	Cheryl Lopez	vicepresident@mineralsocal.org
Secretary	Angie Guzman	secretary@mineralsocal.org
Treasurer	Carolyn Seitz	treasurer@mineralsocal.org
CFMS Director	Angie Guzman	
Past President	Ann Meister	
DIRECTORS		
2022-2023	Pat Caplette	
2022-2023	Ahni Dodge	
2021--2022	Rudy Lopez	
2021--2022	Pat Stevens	
2021--2022	Leslie Ogg	
COMMITTEE CHAIRS		
Bulletin Editor	Linda Elsnau	bulletin@mineralsocal.org
Field Trip	Marek Chorazewicz	
Historian	Ann Meister	
Hospitality	Laura Davis	
Membership	Cheryl Lopez	membership@mineralsocal.org
Micro Mount Conf. Chairman	Al Wilkins	
Program and Education	Rudy Lopez	programs@mineralsocal.org
Webmaster	Leslie Ogg	webmaster@mineralsocal.org

About the Mineralogical Society of Southern California

Organized in 1931, the Mineralogical Society of Southern California, Inc. is the oldest mineralogical society in the western United States. The MSSC is a member of the California Federation of Mineralogical Societies, and is dedicated to the dissemination of general knowledge of the mineralogical and related earth sciences through the study of mineral specimens. We are a scientific non-profit organization that actively supports those endeavors through public outreach, field study and related programs. The Bulletin of the Mineralogical Society of Southern California is the official publication of the Mineralogical Society of Southern California, Inc.

The MSSC meetings are usually held the second Friday of each month, January, February and August excepted, at 7:30 p.m. in Building E, Room 220, Pasadena City College, 1570 E Colorado Boulevard, Pasadena, California. However, due to current health considerations, MSSC meetings are held via ZOOM conferencing until further notice. The annual Installation Banquet is held in January, and the annual Picnic and Swap Meeting is held in August. Due to PCC holidays, meetings may vary. Check the Society website for details.

The Society also sponsors the annual Pacific Micro mount Symposium held at the Fallbrook Mineral Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$30.00 for an individual membership, \$40.00 for a family membership. Bulletins are delivered by email, there is an additional annual fee if you prefer paper bulletins mailed to your address. The Society's contact information:

Mineralogical Society of Southern California
13781 Alderwood Lane, #22-J, Seal Beach, CA 90740

E-mail: treasurer@mineralsocal.org

Website: www.mineralsocal.org The Mineralogical Society of California, Inc.

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Glendale, CA 91214-2415

To:



**With Knowledge Comes
Appreciation**

***Your MSSC
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Here!***