

Bulletin of the Mineralogical Society of Southern California

Volume 92 Number 11 - November, 2019

The 974th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

November 8th, 2019 at 7:30 P.M.

**Pasadena City College
Geology Department, E-Building, Room 220
1570 E Colorado Blvd., Pasadena**

Program : The Allure of Diamonds: Presented by Renee Newman

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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: The Allure of Diamonds: Presented by Renee Newman

Compared to many other gemstones, diamonds are relatively abundant, yet they have attained higher prices at auction than any other gem. Gemologist Renée Newman will explain why in her talk to our club on March 7th. It will include photos and information on:



- The highest priced diamonds sold at auction
- Three of the oldest and most famous diamonds
- Current geographic sources of diamonds
- Reasons why diamonds are so highly valued
- Lab-grown diamonds and some ways to detect them
- Diamond imitations and some ways to detect them
- Diamond treatments
- Why the 4 Cs is not an adequate pricing system for diamonds

Renée Newman developed her interest in gems in the early 1980s while conducting tours to Asia, South America and the South Pacific. Her passengers wanted to know how to judge the quality of the gems they saw. After searching in bookstores and libraries for this information, Renée discovered that little had been written on the subject of gem quality evaluation, so she decided it would be worth creating books with photos that showed how to judge gem quality.

After receiving a graduate gemologist diploma from the GIA (Gemological Institute of America), she was hired as a gemologist at a diamond wholesale firm in downtown Los Angeles. It provided hands-on experience grading diamonds and selecting colored gems and pearls for their jewelry. Armed with trade experience and gemological credentials, Renée decided to create books that showed readers how to visually evaluate the quality of gems. Her first book, the *Diamond Ring Buying Guide*, was published in 1989. Since that time, she has written twelve more books on gems and jewelry. They are used as gemology course textbooks, sales training tools, appraisal references and consumer guides. Renée will be available before and after her presentation to autograph books. Bring cash or a check if you would like to purchase copies of them. For more information about Renée and her books go to www.reneenewman.com

From the Editor:

My, how time flies when you are having fun! November and Thanksgiving already! November is also MSSC Officer elections. I hope everyone that can has stepped forward to fill positions and help keep this group vibrant and active. It is also time to send in your MSSC Membership forms for 2020. Your membership dues and Forms are due by January 1, 2020. Do it now so you don't forget. Your form is on page 13 of this Bulletin.

Also, note the change of date and venue for our 2020 MSSC Banquet. Information is on page 8. It's never too late to start gathering your donations for the Silent Auction as well. Linda Elsnau

FROM THE PRESIDENT: Interesting Minerals, A to Z. Installment 22, the letter "V":

by George Rossman
Vesuvianite

The name of this mineral has an interesting history. Mindat.org reports that in 1723 this mineral was originally named "hyacinthus dictus octodecahedricus" (blue octodecahedrons) by Moritz Kappeler. It was later renamed "hyacinte du Vesuve" by Jean-Baptiste Louis Romé de L'Isle in 1772. Abraham G. Werner renamed the species "vesuvian" in 1795. This was named after its discovery locality, included in or near lavas from the Somma-Vesuvius volcanic complex, near Naples, Campania, Italy. The name was published in 1795 by Professor of Chemistry, Martin Klaproth, this time pointing out a "hellbrauner" = light brown color.

Klaproth M H (1795) Vesuvian, hellbrauner. Beiträge zur Chemischen Kenntniss der Mineralkörper 1, 34-35 .

But, it doesn't stop here. Rene Haüy decided to use the name "idocrase". Idocrase comes from the Greek meaning 'mixed form', a recognition that crystal forms are variable and often combine the forms of other minerals. Both the names, vesuvianite and idocrase, persisted for many years. The official, approved (by the IMA) name is vesuvianite although idocrase is commonly seen in the gemological community.

What is vesuvianite? Chemically, the ideal formula is:



The \square symbols represent vacancies in the respective crystallographic position.

Missing atoms, you could say.

It commonly forms in skarns – carbonate rocks that interact with hot bodies such as magma. It commonly forms tetragonal crystals (**Figure 1**).

Because it has so many sites in the crystal structure, a variety of ions can substitute for the primary components. This gives rise to a broad range of both named and unnamed colorful varieties of vesuvianite. There a number of varieties of vesuvianite have different colors associated with their compositions that may include beryllium, cerium, chromium, and manganese.

Have a look in the **figures 2-9** that show some of the many colors of vesuvianite..



Figure 1. Brown vesuvianite from Italian Mountain, Taylor Park, Colorado
photo credit: Mark Garcia



Figure 2. Blue copper-containing vesuvianite from Telemark, Norway. This variety is known as *cyprine*.
Photo credit: grr



Figure 3. Violet vesuvianite containing iron, manganese and vanadium from Paraiba, Brazil.
Photo credit: grr



Figure 4. Green chromium-containing vesuvianite from Ludwig, Nevada. Photo credit: grr

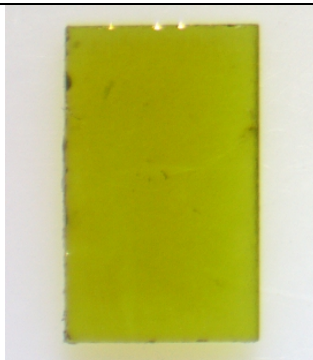


Figure 5. Yellowish-green iron-containing vesuvianite with a trace of manganese and chromium from the Ala Valley, Italy. Photo credit: grr



Figure 6. Greenish-yellow Fe^{3+} rich vesuvianite from the Feng Tien Mine, Hualien, Taiwan
Photo credit: grr



Figure 7. Brown vesuvianite with Fe and Ti from the Grenville limestone, New York Photo credit: grr



Figure 8. Brownish-yellow iron-rich vesuvianite with minor vanadium and manganese from Bisel, Kenya

Photo credit: grr



Figure 9. Deep brownish-red vesuvianite from Pajsberg, Sweden, with manganese.

Photo credit: grr

Vesuvianite can incorporate so much thorium and uranium (up to 2% by weight of these elements) that the alpha particles (helium ions) that result from the radioactive decay of U, Th, and their daughter products, tear through the structure and partially destroy the crystallographic order of the atoms. This process is called metamictization.

Eby R K, Janeczek J, Ewing R C, Ercit T S, Groat L A, Chakoumakos B C, Hawthorne F C, Rossman G R (1993) Metamict and chemically altered vesuvianite. *The Canadian Mineralogist* 31, 357-369

Vesuvianite can incorporate a range of minor components. For example, the sample at right (**Figure 10**) from Alaska contains (in wt%) 0.5% neodymium, 1.6% cerium, 0.7% lanthanum, 0.05% barium, 0.03% zirconium, 0.006% yttrium, 0.006% strontium, 5% iron, 0.1% manganese, 0.07% chromium, 1.2% titanium, and traces of zinc, copper, gallium, arsenic, and rubidium. Wow, that's a mouth full.



Figure 10. Brown, [metamict vesuvianite](#) from the Kachauik pluton, Seward Peninsula, Alaska, with over 1 wt% thorium and some uranium

Photo credit: grr

There are other minerals in the vesuvianite family, namely fluorvesuvianite, manganvesuvianite, and wiluite.

Fluorvesuvianite, $\text{Ca}_{19}(\text{Al}, \text{Mg}, \text{Fe}^{2+})_{13}(\square)_5(\text{Si}_2\text{O}_7)_4(\text{SiO}_4)_{10}\text{O}(\text{F}, \text{OH})_9$, is the least common one. It is a fine, fibrous material. Mindat.org has a few pictures you can see. It was originally found at the Lupikko Mine, Pitkyaranta District, Republic of Karelia, Russia. It is a separate mineral species because fluorine, F, is more abundant than hydroxide, OH, in the structure.

Manganvesuvianite, $\text{Ca}_{19}\text{Mn}^{3+}(\text{Al}, \text{Mn}^{3+}, \text{Fe}^{3+})_{10}(\text{Mg}, \text{Mn}^{2+})_2(\text{Si}_2\text{O}_7)_4(\text{SiO}_4)_{10}\text{O}(\text{OH})_9$, was discovered at the N'Chwaning II Mine, Kalahari manganese field, Northern Cape, South Africa. When thick, the crystals are black (**Figure 11**), but it is a beautiful deep red when the crystals are very thin. That is from the Mn^{3+} . In



Figure 11. Manganvesuvianite from the Kalahari manganese field. *Photo credit: Rob Lavinsky & irocks.com*

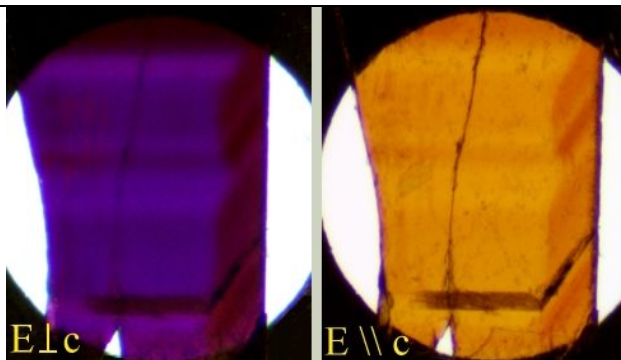


Figure 12. Polarized light transmission through a thin crystal of manganvesuvianite. *Photo credit: grr*

linearly polarized light, purples and oranges can be observed (**Figure 12**).

Wiluite, $\text{Ca}_{19}(\text{Al,Mg})_{13}(\text{B},\square,\text{Al})_5(\text{Si}_2\text{O}_7)_4(\text{SiO}_4)_{10}(\text{O,OH})_{10}$, was named in 1988 after the Wilui River Basin, Mirninsky District, Sakha Republic (Yakutia), Russia, where it was first found. This is a boron dominant member of the vesuvianite group. It looks exactly like vesuvianite (**Figures 13, 14**).



Figure 13. Wiluite from Wilui River Basin. *Photo credit: Rob Lavinsky*

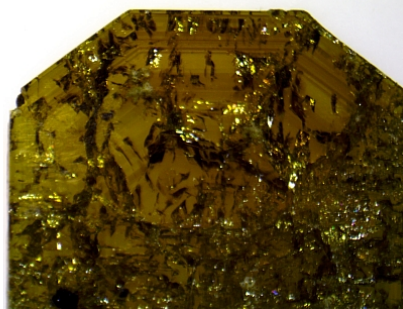


Figure 14. A thin slice of brown wiluite from Russia containing 2.6% iron. *Photo credit: grr*

Groat, L.A., Hawthorne, F.C., Ercit, T.S., Grice, J.D. (1998): Wiluite, $\text{Ca}_{19}(\text{Al,Mg,Fe,Ti})_{13}(\text{B,Al},\square)_5\text{Si}_{18}\text{O}_{68}(\text{O,OH})_{10}$, a new mineral species isostructural with vesuvianite, from the Sakha Republic, Russian Federation. *Canadian Mineralogist* 36, 1301-1304.

The brown wiluite in Figure 14 contains another mouthful of minor components. It contains small amounts of titanium, cerium, manganese, strontium, lanthanum, arsenic, nickel, zinc, yttrium, niobium, and thorium. Nature has more than 80 elements to deal with. They have to go somewhere. Minerals such as vesuvianite are where we find them.

MINUTES of the October 11, 2019 Meeting

At 7:30 p.m., the 973rd Membership Meeting of the Mineralogical Society of Southern California (MSSC) was called to order by President George Rossman. Rossman reports there are now 5,516 mineral species recognized by the IMA. A new 2019 mineral is out of Japan, *minakawait*, RhSb (rhodium antimony). Dr. Rossman also talked about his experience with *sodalite* and how, under UV lighting, it is spectacular!

Regular Business

Minutes: Dr. Rossman asked for approval of the September 13, 2019 Membership meeting minutes as written and published in the October 2019 *Bulletin*. **Motion to approve the Membership Meeting Minutes**, as above, was made by Marek Chorazewicz. The motion was seconded on the floor. Dr. Rossman asked if there were any additions or corrections to the published Minutes and seeing none, asked for approval of the motion. The voice vote was cast and **the motion to approve the Minutes passed unanimously**.

Announcements:

Field Trip Report: Marek Chorazewicz reported on the field trip September 28, 2019 to Yerington, Nevada. The group visited the Boulder Hill Mine among other locations. Check MSSC's website, mineralsocal.org/fieldtrip-information-reports/ for story and photos. Marek then announced the Friends of Mineralogy Symposium at Zzyzx Road facility. The symposium is to be held October 25-27, 2019. Dr. Bob Housley will lead field trips on Saturday (Blue Bell Mine) and Sunday! Details are listed on the MSSC website.

MSSC Officer Elections are coming up and voting will be held at the November 2019 Membership Meeting. Nominations are being accepted. Please come to show your support for our society. Get involved. Run for office. **See you November 8, 2019!**

Gem Faire flyers are up front. The event will be held December 6-8, 2019 in Costa Mesa at the OC Fair & Event Center; **Fallbrook Gem & Mineral Show**: Angie announced the Fallbrook show will be October 13, 2019.

JTI Open House for MSSC will be **November 16 from 10am – 4pm**. Please RSVP to Ann Meister or Dr. George Rossman if you plan to attend. Check the *Bulletin* or Roster for their contact information. Preliminary show of hands of those present of those who will go to the Open House showed 12-15 who said they will attend.

Visitors: Dr. Rossman asked if there were any **visitors**. There were none, but there were 25 members at the meeting.

Roster: Cheryl Lopez announced that MSSC is going paperless as far as the Roster. Contact Cheryl if you have any questions or comments.

Program Chair Announcements: Rudy Lopez announced the O.C. Paleontology Fair is Saturday, October 12. Volunteers are welcome. The Natural History Museum of Los Angeles County will host their Nature Fest March 14-15, 2020. MSSC has been invited to participate again. He talked about the friendly competition MSSC has with the Page Museum's La Brea Tar Pits and their menacing bear (Hint: our speaker, Karin Rice).

Program

Rudy Lopez introduced tonight's presenter, Ms. Karin Rice, Preparator with the La Brea Tar Pits. A geologist, Ms. Rice has industry experience in environmental and engineering geology and paleontological resource mitigation. She has been drawn to natural history and fossils. Currently, Ms. Rice is Preparator at Project 23. Project 23 is an ongoing excavation into the primordial ooze that continues to crop up around the La Brea Tar Pits.

She presents: "Geology of Rancho La Brea/La Brea Tar Pits."

Karin begins by telling about the La Brea Tar Pits asphalt seeps history. Plate tectonics, mountain building and other geologic events allow trapped gases to rise from depths. Methane gas escapes from the ground causing bubbles that make the asphalt appear to boil. Five to twenty million years ago, diatoms (single cell algae), organisms that are responsible for the death and preservation of another, turned into oil. In the Miocene, all those marine critters died during the time the Los Angeles Basin was submerged under the ocean. Those diatoms provide us with a record of past changes in the tar pits. The Monterey Formation has layers upon layers of burials that are associated with much tectonic activity. However, in the tar pits there are *no burials*. By contrast, for instance, whale bones in the ocean are not well preserved, if at all, due to scavengers, erosion and other deteriorating factors. But, in the La Brea Tar Pits, the fossils are well preserved.

While still submerged and way before the San Andres was formed, tectonic subduction zone activity on "the little sliver" faults in California (re presentation slide) opened wider. Later when the Monterey Formation extended from Monterey to Newport, there was quite extensive activity in Santa Barbara, Goleta and southward that opened the way for gas to rise.

Portions of the escaped gas evaporated leaving oil. Further evaporation is how the asphalt (tar) formed. Eventually, over centuries, the asphalt was blanketed by leaves, dust, water and debris. Insects, leaves and animals became trapped in the tar, some were preyed upon by hunter animals (i.e., saber tooth tigers, wolves) that also got trapped, and, even Columbian mammoths did not escape when they became trapped and preserved in the tar pits' "predatory trap". Today, large fossils, as well as, microfossils have been extracted from the pits. La Brea has around 3.5 million fossils with close to 600 different species. What an amazing natural record!

Karin told us about oil wells in the Fairfax/Wilshire area in the 1920's. [*Secy Note: as early as 1856 an oil company began working the La Brea Ranch, distilling some oil in the form of bitumen, asphalt used as a binding material.*] The Hancock Park asphalt seep was in the stream bed, where there was sand cross-bedding and sandy stream deposits. Early on, workers noticed bones among the asphalt they were mining, and it didn't take long to realize there were bones, lots of them, from animals that had gotten trapped in the tar.

The La Brea Tar Pits is currently working on Project 23 which has 16 fossil deposits that are housed in 23 “boxes” which contain 30,000 to 50,000-year-old fossils. Ms. Rice mentions “taphonomic pathways”, the study of how organisms decay and become fossilized. She says asphaltic sand deposits have different deposits (matrix) of sand, gravel, silt, etc. and at the tar pits; taphonomic work is used to help sort it all out. Karin reminds us the Miocene killed and preserved. The preserved is what the LaBrea Tar Pits work is all about though it is tedious, calculated and intricate.



Karin Rice • La Brea Tar Pits

photo by Angie Guzman

By the way, there are other tar seeps in California - some even on beaches and in other parts of the world. These include, but not limited to, the McKitterick Oil Fields in Kern County, in Carpinteria (CA) and Maricopa (AZ), also in Trinidad, Ecuador, Venezuela and Azerbaijan.

Thanks to Karin Rice for an interesting presentation and great Q&A. If you missed this meeting, you missed out on some facts you may have not known. Thanks again, Karin.

Of course, it’s difficult to report each detail, so come to the next meeting to hear our featured speaker for yourself!

MSSC’s next presentation will be given by Renee Newman on “The Allure of Diamonds”. [November 8, 2019]

Show & Tell: Marek brought a box of minerals and rocks to share in the break room.

Door Prize: The drawing was won by Bruce Stambaugh. Nice going, Bruce. Congrats!

Adjourn: The meeting was adjourned at 8:37 p.m.

Refreshments, interesting conversations and a look at Show & Tell followed the meeting. Thanks to Laura Davis, Rudy and Cheryl Lopez for bringing and setting up the refreshments.

Reminders:

- Submissions for the *Bulletin* are due to Editor Linda Elsna by the 22nd of each month;
- **ELECTIONS of MSSC Officers at the next Membership meeting Friday, Nov. 8, 2019.**

Respectfully submitted by Angie Guzman, MSSC Secretary.

List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	December 13, 2019	Steve Hardinger: ‘Minerals Containing Carbon’
	January 4 , 2020	Banquet: Paul Adams: <i>To Be Announced</i> NOTE new Date & Location
	February 21, 2020	Justin Seastrand: Forest Service – Land Rights
	March 13, 2020	Karol McQueary: "A Dinosaur for California
	April 10, 2020	Krista Sawchuk: Discovering the Deep Earth
Board Meeting	December 1, 2019	Board Meeting at Bruce Carter’s house
JTI Open House	November 16, 2019 10am – 4pm	Please RSVP to Ann Meister or Dr. George Rossman
Micromineral Conferece	January, 2020	Fallbrook Mineral Museum <i>Specific Date to be Announced</i>

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

MSSC ANNUAL BANQUET & SILENT AUCTION

THERE IS A CHANGE FOR OUR ANNUAL BANQUET:

New location: Pinocchio's Pizza,
1449 N Lake (North of Lake Ave & Mountain) Pasadena,
New Date: Saturday, January 4, 2020 5:00 p.m. -11:00 p.m.

The cost of the Banquet will be \$41.00.per person

Make you reservation with Rudy Lopez
(programs@mineralsocal.org).

There is plenty of seating & parking available. All reservations are due by **Monday, December 23, 2019**. You will be responsible for paying \$41.00 for each individual reservation. We need a head count by December 23rd to turn in to the restaurant. It would be a shame to miss this event because you delayed making that reservation.



Pinocchio's Pizza,

Call or email Rudy Lopez to make your reservation today: 626 993-7989 or
programs@mineralsocal.org

Mail Checks to: MSSC 1301 Leonard Ave Pasadena CA 91107

If you haven't done so already, plan to pay your dues at the same time.
Dues are officially due 1/1/2020.

Guest Speaker: Paul Adams

MSSC Helps The Environment By Going Paperless!

The Annual MSSC Roster will be sent to members via email starting March 2020. MSSC will not only help the environment, but allow additional funds to be used to support our club and programs. Also attached with the MSSC Roster, will be a printable MSSC Membership card for 2020. If you do not wish to receive your Roster via email, please respond in writing or email to Cheryl Lopez by Dec. 1, 2019 at:

membership@mineralsocal.org or MSSC
1301 Leonard Ave.
Pasadena, CA 91107

If you do not have an email address, your Roster will be mailed to you.

Ride Share Listing

Can You Provide A Ride?

Would You Like Company On The Drive To Meetings?

We have heard from several of our members that they would like to ride-share with someone to the meetings. We will list the names, general location and either a phone number or an email address of anyone who would like to connect for a ride-share. If you would like to catch a ride or would like company for the trip, let me know at msscbulletin@earthlink.net and I'll put the information in this section of the bulletin. After that, any final arrangements made are up to you. Also, If you make a connection that works for you, let me know so that I can remove your information from the bulletin. The Editor

Looking for	Who	Where	Contact at
A Ride home after meetings	Ed Kiessling	1299 Linda Vista Ave. Pasadena, CA	<i>See emailed bulletin</i>
A ride	Richard Stamberg	North Orange County, near Cal State Fullerton	<i>See emailed bulletin</i>

MSSC at OC Parks, Prehistoric OC Saturday, October 12, 2019

MSSC participated in the annual OC Parks Prehistoric OC Event on Saturday October 12th. We had a great display and gave over 450 Chalcedony Minerals out to the kids. We had a troop of Girl Scouts at our booth and Angie Guzman had to answer plenty of questions.



MSSC Booth and Fossil Display



The crew Angie Guzman, Tessy Smith & Rudy Lopez



Fast talking Angie

I want to thank Angie Guzman and her sister Tessy Smith for helping with the event. I also want to thank OC Parks for having us at their events. I have already received an email and we are committed for next year.

OTHER FREE THINGS TO DO...by Ann Meister

The **Huntington** has an interesting free lecture on **November 7** at 7:30 PM at Rothenberg Hall. The title of the presentation is "**The Lore and Lure of Literature on Early Yosemite Tourism.**" Dennis Kruska, a noted authority on the Yosemite Valley, discusses the literature that enticed sightseers to experience the Yosemite's scenic wonders following the first tourist party to the valley in 1855. The literary lure of tourism has worked so well, says Kruska, that today Yosemite is painfully loved to death. This program is the Book Club of California's Kenneth Karmiole Endowed Lecture on the History of the Book Trade in California and the West.

The **Von Kármán Lecture** on *Thursday/Friday* **November 14 and 15** at 7 PM. The speaker is to be announced. The title of the presentation is "**Science From the International Space Station.**" Learn about how we use the International Space Station as a platform for Earth Science Research. ** Thursday is at the Von Kármán Auditorium at JPL and Friday is at Ramo Auditorium at Caltech.

The **Watson Lecture** at Caltech's Beckman Auditorium is on Wednesday, **November 6** at 8 PM. The speaker is Stevan Nadj-Perge, Assistant Professor of Applied Physics and Materials Science; KNI-Wheatley Scholar, Caltech. The title of his talk is "**Opportunities in Atomic-Scale Legoland: From Novel Electronic Phases to Quantum Devices.**" Are there limits to how small electronic devices can be? In this lecture, Nadj-Perge will discuss materials that are only a few atoms thick and how, just like Lego bricks, they can be stacked together in limitless different configurations to explore new phenomena at atomic scales.

The **UCLA Meteorite Gallery** lecture is on Sunday, **November 24**. The speaker is Professor Dave Jewitt, UCLA. The title of his talk is "**Interstellar objects in the Solar System.**" Dave is an observational astronomer who has a nose for leading edge problems. He and his students were the first to document the large set of Kuiper-belt objects orbiting beyond Neptune. For the first time, we are able to study objects passing through the solar system from interstellar space. The two known interstellar objects 'Oumuamua and Borisov are both thought to be ejecta from planetary systems elsewhere in the Milky Way galaxy but, curiously, their appearances are completely different. He will present UCLA observations of both objects and discuss their big-picture scientific significance. The UCLA Meteorite Gallery in Geology room 3697 is open with a docent present every Sunday from 1 till 4. The lecture, which is always on a Sunday afternoon at 2:30 pm, is in room 3656 near the Meteorite Gallery.

West Coast Gem & Mineral Show

November 22, 23, 24, 2019

75 Select Wholesale and Retail Dealers

*Minerals*Fossils
Gems*Jewelry*

Lapidary

**Decorator Pieces*
and much more!*

*Martin Zinn
Specimen*

*Benitoite
San Benito County, CA
Jeff Scovil*

**Hours: 10-6 FRI & SAT
10-5 SUN**

***Free admission
*\$10/day parking**

New Location!!
3050 Bristol St. Costa Mesa, CA 92626
***See our website for map and driving directions**
www.mineralshowsllc.com

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	
	Full Page	\$35.00	
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 1855 Idlewood Road, Glendale, CA 91202			

With Knowledge Comes Appreciation !

Calendar of Events:

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

NOVEMBER

November 2 - 3: ANAHEIM, CA

American Opal Society

Business Expo Center

1960 S. Anaheim Way

Hours: Sat 10 - 6; Sun 10 - 5

Website: opalsociety.org/ [Show Page](#)

November 2 - 3: RIDGECREST, CA

Indian Wells Gem & Mineral Society

Desert Empire Fairgrounds

520 South Richmond Road

Hours: 9 - 5 daily

Website: indianwellsgemandmineral.com

[Show Page](#)

November 16 - 17: LAKESIDE, CA

El Cajon Valley Gem & Mineral Society

Lakeside Rodeo Grounds

12584 Mapleview Street

Hours: Sat 10 - 5; Sun 10 - 4

Contact: Mary Ness, (619) 449-0759

Email: bspcat@cox.net

Website: ecvgms.org [Show Page](#)

November 23 - 24: OXNARD, CA

Oxnard Gem & Mineral Society

Oxnard Performing Arts Center

800 Hobson Way

Hours: Sat. 10 - 5; Sun. 10 - 4

Website: oxnardgem.com [Show Page](#)

DECEMBER

---No Shows Listed for December

JANUARY 2020

January 18 - 19: EXETER, CA

Tule Gem & Mineral Society, Visalia

Exeter Veterans' Memorial Building

324 N. Kaweah Avenue

Hours: Sat 10 - 5; Sun 10 - 4

Website: tulegem.com

FEBRUARY 2020

February 14 - 23: INDIO, CA

San Geronio Mineral & Gem Society

Riverside County Fair & National Date Festival

82-503 Highway 111

Hours: 10 - 10 daily

Dues are due by January 1st !

2019 MSSC Officers:

OFFICERS		
President	George Rossman	president@mineralsocal.org
Vice President	Renee Kraus	vicepresident@mineralsocal.org
Secretary	Angie Guzman	secretary@mineralsocal.org
Treasurer	Jim Kusely	treasurer@mineralsocal.org
CFMS Director	Jo Anna Ritchey	
Past President	Ann Meister	
DIRECTORS		
2019--2020	Bruce Carter	
2019--2020	Bob Housley	
2019--2020	Leslie Ogg	
2018-2019	Pat Caplette	
2018-2019	Pat Stevens	
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Bulletin Editor	Linda Elsnau	bulletin@mineralsocal.org
Hospitality	Laura Davis	
Membership	Cheryl Lopez	membership@mineralsocal.org
Micro Mount Conf. Chairman	Al Wilkins	
Program and Education	Rudy Lopez	programs@mineralsocal.org
Publicity	Linda Elsnau	bulletin@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. The MSSC is a scientific non-profit organization that actively supports the geology department at Pasadena City College, Pasadena, California. Support is also given to the Los Angeles and San Bernardino County Museums of Natural History. 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. 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 San Bernardino County Natural History Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$20.00 for an individual membership, \$30.00 for a family membership. Bulletins are delivered by email, there is an additional annual \$20.00 fee if you prefer paper bulletins mailed to your address. The Society's contact information:

Mineralogical Society of Southern California

1855 Idlewood Rd.,

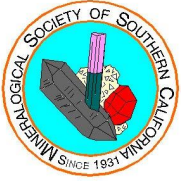
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Website: www.mineralsocal.org **The Mineralogical Society of California, Inc.**

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Our annual Roster **will be sent via email** and will include only the information you approve above. The Roster is **ONLY** for personal use of our members.

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Questions?

Contact Cheryl Lopez (MSSC Membership) at: membership@mineralsocal.org

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To:



**With Knowledge Comes
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