

Bulletin of the Mineralogical Society of Southern California

Volume 88 Number 1 - January, 2015

The 917th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

Special Date: January 10th, 2015

MSSC Annual Banquet

Oak Tree Room, (next to Coco's)

1150 West Colorado Boulevard

Arcadia, CA 91007

Social Hour 5:30 pm; Dinner 6:30 pm; Speaker 7:30 pm

Program : Denise Nelson - Giant Amethyst

In this Issue:

<i>TITLE</i>	<i>Page</i>
Program: Annual Banquet & Giant Amethyst: presented by Denise Nelson	2
From the Editor: Linda Elsnau	2
Meanderings from the President: Ann Meister	2
Minutes of the December 12, 2014 Meeting	3
List of Upcoming MSSC Events	6
50th Annual Pacific Micromount Conference Reminder	6
UA Mineral Museum Receives Its Largest Donation of Minerals Ever By Alicia Saposnik,	6
January Featured Mineral: Adamite	8
Ride Share Listing	8
A Few Of My Favorite Pieces	9
Calendar of Events	10
2015 Officers	11
About MSSC	11

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:

MSSC Annual Banquet The evening starts at 5:30 PM Dinner will be served at 6:30 PM
Reservation: \$38.00/person with reservations due to Rudy Lopez by **Wednesday, January 7th, 2015**. You can email Rudy at programs@mineralsocal.org to let him know you plan on attending. (You can make your reservation by email or phone and pay at the door.) If you make an unpaid reservation and then don't come to the banquet, you are still responsible for the reservation's cost as the price to MSSC is based on the advanced reservations made.)

Silent Auction: Don't forget to bring your contributions for the silent auction and your wallet to purchase your auction wins! This event is a main fund raising event for MSSC so bid generously!

Program: Giant Amethyst Presented by: Denise Nelson

"The Mines of Minas Gerais:" a visit to several of the world's most fascinating gem regions in Brazil. Garnet, Aquamarine, Amethyst, Topaz, Emerald and more are covered in this colorful talk. A look into the mines and stories about the people and places of this beautiful country complete this informative and sparkly evening.

Denise Nelson is a Graduate Gemologist (GIA), Appraiser, and occasional Gem hunter. She started her own business, Inner Circle, a Fine Jewelry and Appraisal provider, over 23 years ago in Maryland. Her travels to mines and trade-shows have taken her to many different Countries like Brazil, Thailand, Malaysia, Japan, China, Germany, France and Argentina.

From the Editor: Linda Elsnau

What a busy season we seem to be in right now! A special open meeting in November, our annual visit to JTI in December, the holidays and our upcoming Annual Banquet and the Pacific Micro Mineral Conference in January. I'm looking forward to February to relax, I think!

As I start my third year as your bulletin editor, I want to take this time to thank everyone for the fine member contributions to the bulletin that I have received. I know that I have some that I have not used as yet. I must explain that I and the Board are very concerned that nothing be used without the proper permission from the author the photographer and/or publisher. Sometimes, I am unable to obtain the required permissions and other times, it can take a very long time to do so. If you have given me something that you have been waiting to see used, it is most likely a permission problem. If you can help, let me know.

As always, I am always looking for interesting articles for our bulletin. Please contact me at bulletin@mineralsocal.org if you want to discuss a possible contribution.

Don't forget that your dues are due. If your membership renewal is not received by Jan. 31st, you will not appear in the club roster if you pay later. If you forget altogether, the February bulletin will be the last you will get!

MEANDERINGS FROM THE PRESIDENT by Ann Meister

HAPPY NEW YEAR! May 2015 be good to you.

I look forward to see all of you at the annual installation Banquet and Silent Auction on January 10, 2015 at the Oak Tree Room in Arcadia. Reminder notices were emailed recently. Remember that reservations are required by January 7 to Rudy Lopez at programs@mineralsocal.org. There are going to be lots of interesting things on the silent auction tables. There will be specimens from the Bill Moller collection and specimens donated by Kay Robertson from her collection. Also books, a Katherine Foster Clark mineral-inspired oil painting, jewelry made by MSSC members, and who knows what else will turn up. If you have something to add, please bring it! (or bring it to the PMC silent auction.) It's always fun, and this is also our only money-raising activity.

This is your opportunity to give the PMC a try, even if you've never looked at micro-minerals. What an exciting anniversary celebration! The **50th Annual Pacific Micromount Conference (PMC)** is on January 30-31 and February 1. Friday and Saturday are at the San Bernardino County Museum in Redlands. On Sunday there's a

field trip usually led by Bob Housley. (Don't tell me we never have field trips!) Bob hasn't yet announced where to yet, but it's always to an interesting locality where you will find something. **Here's your chance to meet many currently active field collectors** such as Joe Marty, Al Wilkins, Paul Adams and others. Attendees are from around the US and often from Canada and Europe also. If you don't have a microscope, there's always someone who will let you take a look through theirs. My 'scope is often unused since I'm in charge of food and am busy in the kitchen. So find me and I'll show you which 'scope you can use. There's give-away tables with lots of goodies and a sales table with \$1 specimens as well as both silent and verbal auctions. Several speakers are scheduled: Friday evening, Georges Favreau on a Getchell-like assemblage of minerals at Jas Roux in the French Alps; Saturday, Joe Marty on minerals of the Blue Lizard Mine and other western localities; Paul Adams on various mineral localities in Inyo County, CA; and various contributed talks and member photos. Find out who's been doing what and where; it's a lively and congenial group of mineral enthusiasts. The registration form was the last page in the December *Bulletin* email. Advance registration by mail is \$15; at the door the charge is \$20 and includes lunch on Saturday. In addition there's a \$5 charge for Saturday night dinner if you want to stay for that. Hope to see you there.

Here's what's new on the **San Gabriel Mountains National Monument**: Ten cleanup crews and new forest managers have been hired and a fund-raising campaign has been launched that is expected to top \$3 million. The cleanup crews are working on trails, picking up trash, and eradicating graffiti. Daniel Lovato, deputy forest supervisor for the Angeles National Forest, announced that he is hiring a new volunteer coordinator plus three additional staffers to organize volunteers and keep forest visitor centers open year-round. A working group of about 15 members, the Community Collaborative, is meeting to determine where it is best to spend the new dollars. The San Gabriel Valley Council of Governments is also involved in the planning process. Officials have said that rules for off-road vehicles, hunting, or leases on federal land will not change. Haven't seen anything yet on gold panning in the San Gabriel River.

MINUTES of the December 12, 2014 Meeting

The 916th membership meeting of the Mineralogical Society of Southern California (MSSC) was held Friday, December 12, 2014 at Pasadena City College's Geology Department. The meeting was called to order at 730 p.m. by President, Ann Meister.

Regular Business

- President Ann Meister welcomed all guests; Rudy Lopez has membership applications for those interested in joining; refreshments will be served after the meeting;
- A Motion to approve the Membership Minutes of October 10, 2014 and the Membership Meeting Minutes of November 14, 2014 as published in the Bulletins of November 2014 and December 2014 respectively was made by Angie Guzman and seconded by Rudy Lopez. Motion was approved by unanimous vote by the members.
- Deadline to submit items for the Bulletin is December 19, 2014;
- Membership dues of \$20/yr. are due January 1, 2015, you may add Annual Banquet cost of \$38/ea. to your check;
- Next Membership Meeting is our Banquet, January 10, 2015. It will be held at the Oak Tree Room at Coco's at Colorado Blvd and Michillinda. Reservations go to Rudy Lopez by January 7, 2015 in order to give a count to the restaurant. Social hour and silent auction begin at 5:30pm, dinner at 6:30pm and program begins at 7:30pm;
- Silent Auction items for the Banquet should be listed on form. Please fill out the form before you get to the restaurant. If the item is more appropriate to the Pacific Micromount Conference (PMC), please give it to PMC representative;

- PMC will be held January 30 and 31st at San Bernardino County Museum in Redlands. There will be a field trip on Sunday, February 1, 2015, to be announced;
- Election of Officers: Unless there are other candidates, the slate of officers is:

President	Ann Meister
Vice President	George Rossman
Secretary	Angie Guzman
Treasurer	Jim Kusely
Federation Director	JoAnna Ritchey
Director; 2015-2016	Bruce Carter
Director; 2015-2016	Bob Housley
Director; 2015-2016	Leslie Ogg

Motion to accept the slate of officers as listed above was made by Rudy Lopez and seconded by Fred Elsnau. Motion put to a vote by the members was unanimous to approve the slate of officers for year 2015. Congratulations!

- Next Board Meeting will be March 1, 2015 from 1pm – 4pm to be held at Bruce Carter’s home. Agenda will be sent to Board members in advance.

Announcements

- Huntington Library and Botanical Gardens will have Suiseki (Japanese viewing stones) presented by California Aiseki Kai from December 26, 2014 to January 5, 2015. BJ added that this is the 25th anniversary and the natural stones are all from the United States. They will be exhibited on crafted daiza;
- Ann received an e-mail flyer announcing Arizona Gem Tours: 3day/2night Quartzite trip for January 20, 2015 through January 23, 2015. This event is NOT sponsored or endorsed by MSSC.

Show and Tell

- Geology related item in the news: Washaway Beach in Washington State has the most rapid erosion on the Pacific Coast. Cape Shoalwater eroded 12,303 feet, about 124 feet per year, wiping out a town, causing relocation of the cemetery and other related issues. “Land” titles remain but there are no taxes paid for property underwater. Discussion followed about Cascadia fault and New Orleans, La., becoming an island.

Program

Ann turned the meeting over to Program Chair Rudy Lopez. First, thank you to Bruce Carter for getting the hall for our last meeting and presentation (Curiosity Rover).

Rudy introduced our speaker George R. Rossman. Dr. Rossman is Professor of Mineralogy, Division of Geological and Planetary Sciences at California Institute of Technology. He is also MSSC’s Vice President. George’s presentation is The Color of Peridot and Other Green Minerals.

Most people are interested in minerals, the source and beauty of them and, often times, *how* minerals get their colors. We need to start with an understanding of minerals and where they come from. A major source area for Peridot is China’s Hebei Province. Peridot is also found

Arizona, Pakistan, Myanmar, Egypt, Western Arabia and minor areas not significant on a commercial scale, in Sri Lanka, South Africa and others.

To understand the mineral, we look more closely. Peridot is the magnesium (Mg) rich mineral Forsterite of the Olivine group (silicates). The iron (Fe) rich mineral is called Fayalite. A third kind from the Olivine group is Tephroite, a manganese (Mn) silicate that is quite rare.

What color is Peridot magnesium sulfate? It has been determined that the magnesium, sulfate and oxygen have nothing to do with the color, but a deeper examination, a chemical analysis, shows there is 7% to 20% iron, as well as other minor chemicals: titanium (T_1O_2), manganese (MnO), nickel (N_1O) and chromium (Cr_2O_3), for example, having insignificant amounts to change the perception of color. It is clearly the iron that causes the green color. The ideal setting is magnesium iron silicate ($Mg_{1.8}Fe_{0.2}SiO_4$).

It is possible to produce synthetic Forsterite but they don't look the same and the color is not green! They are brownish. There are color variations, for example in the San Carlos, AZ samples where some are darker and some are lighter. There is also a blackish mineral, Laihunite. It is an Iron Silicate of the Olivine group, as well.

Absorption light analysis of wave lengths shows that Peridot has the least light absorption. Iron 2+ causes green color in gems. But wait, there is an overpowering of elements: chromium overpowers iron, for example. Aluminum replaced by titanium yields green tourmaline and so on. Other items in the overall scheme are the polarization factors, intervalence charge transfer: Fe^{2+} vs. Fe^{3+} and reverse action (so called flashlight effect) and more.

Iron 2+ is blue, add a small amount of titanium and you get yellow. Vanadium acts like chromium to get the green color. Kunzite is green but fades to pink in sunlight! These are examples of the chemical interactions in gems and their resulting coloration.

Dr. Rossman continued his presentation with mentions of irradiation (nitrogen = green, no nitrogen = blue) of Topaz, Potassium in feldspars and oxidized lead (blue) and in orthoclase (green). He went on to speak of Rare Earths elements, Iron³⁺ andradite in Madagascar and Kyanite. Many of the more desirable gems such as emerald, tsavorite garnet, demantoid garnet and chrome tourmaline owe their color to vanadium or chromium. Chromium is also responsible for the red color in ruby and spinel. George states that electrons and closeness of atoms to Chromium, basically the distance between Chromium to the atoms, is what defines color.

What causes Peridot to be the color green? Clearly, as stated above, it is the iron. But, as evidenced by George's presentation, there are other factors at play. Dr Rossman opened the floor for questions. There were questions about black tourmaline, Brazil green, aluminum oxide Alexandrite, sapphires (yellow-a rat's nest of confusion!) and blue ones. His presentation was well presented, very informative and chock full of wonderful photos of excellent specimens. Thank you, George.

Meeting (Cont.)

Reminder: The Installation Banquet/January Membership Meeting will be held January 10, 2015 at Coco's Oak Tree. The speaker will be Denise Nelson who will give a presentation on Mines of Brazil. [Contact Rudy Lopez to make your reservation!]

Door Prize drawing was won by Pat Stevens.

We have printed labels for the carbonized corn donated by Dan Krawitz.

Happy Holidays see you at the Banquet!

Adjournment 8:55 p.m.

Respectfully submitted Angie Guzman, MSSC Secretary. *(Apologies in advance for any misspellings in this Minutes/aag)*

List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	February 20, 2015	Bethany L. Ehlmann: - Mineralogy of the Martian Surface
	March 13 2015	Denise Nelson: Museums of Europe
	April 10, 2015	Justin Zzyzx: Palos Verdes, Barite, Mines and History
	May 8, 2015	Gabriel Masosson: African Opals, Welo Opals from Ethiopia
Micro Mineral Conference	January 30-31 2015	San Bernardino County Museum, Redlands, CA
Board Meeting	March 1, 2015	Board Meeting at Bruce Carter's house

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

Don't Forget: 50th Annual Pacific Micromount Conference: January 30-31st, 2015

Where: San Bernardino County Museum , 2024 Orange Tree Lane, Redlands, CA

Times: Friday, Jan 30th: 3:00 PM to 9:00 PM, Saturday, Jan 31st: 8:00 AM to 9:00 PM

Full Information and a registration form are also attached with this email bulletin (USPS bulletin recipients, please check your December bulletin for an enrollment form.)

University of Arizona Mineral Museum Receives Its Largest Donation of Minerals Ever

By Alicia Saposnik, Department of Geosciences | July 25, 2013

The University of Arizona (UA) department of geosciences' Mineral Museum recently received the largest single donation in the museum's history - more than 8,000 mineral samples, including about 1,000 species the museum did not have. The donated samples will be used for research and may help identify rocks on Mars.



The University of Arizona's [Mineral Museum](#) recently received the largest collection of minerals ever donated to the museum, which is part of UA's [department of geosciences](#). One of the world's most significant single donations of research minerals, the collection may help identify rocks on Mars.

The donation of more than 8,000 samples is eight times larger than any other gift of minerals to the museum. It includes approximately 1,000 species the museum did not previously own.

"This is a great collection that contains exactly the sorts of samples that are so valuable to science," said Robert

Downs, UA professor of geosciences and UA Mineral Museum curator.

The collection, donated by Rock Currier of Arcadia, Calif., is valued at \$500,000.

The donated minerals will be used primarily as research samples in the [RRUFF project](#), which is creating a database of the characteristics of all known mineral species. Downs started the project with funding from Mike Scott, the founding president of Apple.



Rock Currier (left) and Robert Downs stand by Downs' rental car before his drive back to Tucson with the second load of the donated mineral collection. Half of the specimens were shipped, but the more delicate ones were packed and driven from LA. (Photo by Mark Candee/UA department of geosciences)

Having new minerals to study greatly expands the RRUFF database and increases its value to science. The database will allow scientists and the general public to identify minerals – both on Earth and as part of planetary exploration.

The project characterizes minerals using a technique called Raman spectrometry, which does not require destructive sampling. Once the RRUFF project has the signature of a mineral in its database, a detection device can identify a rock or mineral just by comparing its Raman "fingerprint" with ones already in the database.

Eventually, minerals will be identifiable by just waving a device over the rock or soil. A Raman instrument designed by the European Space Agency is going to Mars on the European Space Agency mission called ExoMars in 2018.

The scientists controlling this Raman instrument will be using the RRUFF database to help identify minerals on Mars. A second Raman instrument is currently being designed by NASA. Downs is a collaborator with the design team for NASA's instrument.

Downs and Currier share a love of both the aesthetics and the science of minerals. They met about 20 years ago in Tucson, where Currier comes every February to attend the Tucson Gem and Mineral Show. Downs, also a co-investigator on NASA's Curiosity Mars rover project, stays at Currier's home during his trips to the Jet Propulsion Laboratory in California. Currier learned about the RRUFF project and the UA Mineral Museum from Downs and decided to make his gift.

Currier is a longtime wholesale mineral dealer. He has run numerous worldwide expeditions, amassing a systematic collection of minerals over the course of his career. Currier's interest in minerals began with his first job at Borax, where he worked in their chemical control laboratory at the open-pit borate mine and refinery at Boron, Calif.. At that point, he said, "Borate minerals became my passion, the first of many."

After 10 years, Currier decided to give the minerals business a try.

"I talked a buddy into going on a trip to India to hunt for zeolite specimens," he said. "In 1972 I left with a \$500 round-trip plane ticket and \$1,000 in my pocket, half of which was borrowed. I got a big pile of zeolite specimens."

This first trip to India was followed by many more, as well as trips to South America, Asia and Africa to find specimens for his wholesale business that continues today.

Downs says, "It all fits together. The minerals that Rock donated will become part of the RRUFF database, which we use to compare, identify, and characterize the minerals we find on Mars."

The UA Mineral Museum, owned by UA's department of geosciences, is located in [Flandrau Science Center](#) on the UA campus. The museum houses minerals for research as well as mineral displays that are open to the public.

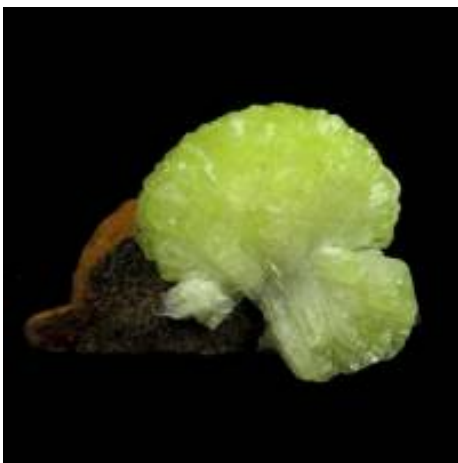
***Editors Note:** This article was reprinted here with the permission of both the author and Rock Currier. Thank you both so much.*

Featured Mineral: Adamite

Formula: $Zn_2(AsO_4)(OH)$

Crystal System: Orthorhombic

Name: Named by Charles Friedel in 1866 for Gilbert-Joseph Adam (April 7, 1795 Seine-et-Marne, Fontainebleau, France - 1881 Paris, France), Inspector (Auditor) of Finance for the French Government and who supplied the first specimens of his mineral. Adam was a wealthy mineral collector and his mineral collection was described in *Annales des Mines* in 1869 and later in a published catalog (1869). Adam was also the discoverer of aerugite, chenevixite, corkite, cuprotungstite, scacchite, and xanthiosite. Adam's mineral collection was acquired by the École des Mines, Paris, France. Adam was a member of Société géologique de France and received the honor of Commandeur de la Légion d'Honneur.



rocks.com photo

Adamite: $Zn_2(AsO_4)(OH)$
Locality: Ojuela Mine, Mapimí,
 Mun. de Mapimí, Durango,
 Mexico
 3.4 cm x 2.2 cm x 1.7 cm



irocks.com photo

Adamite: $Zn_2(AsO_4)(OH)$
Locality: Ojuela Mine, Mapimí,
 Mun. de Mapimí, Durango, Mexico
Dimensions: 3.7 cm x 3.1 cm x 2.1
 cm



irocks.com photo

Adamite: $Zn_2(AsO_4)(OH)$
Locality: Ojuela Mine, Mapimí,
 Mun. de Mapimí, Durango, Mexico
 2.2 cm x 2 cm x 1.2 cm

Ride Share Listing

Can You Provide A Ride?

Would You Like Company On The Drive To Meetings?

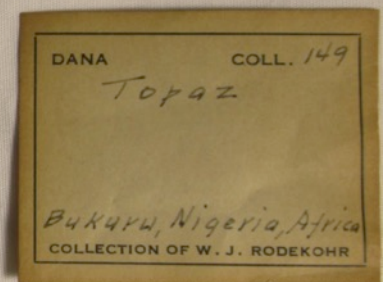
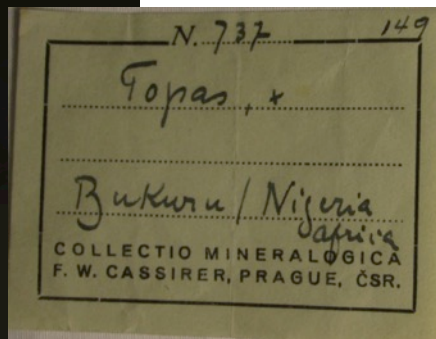
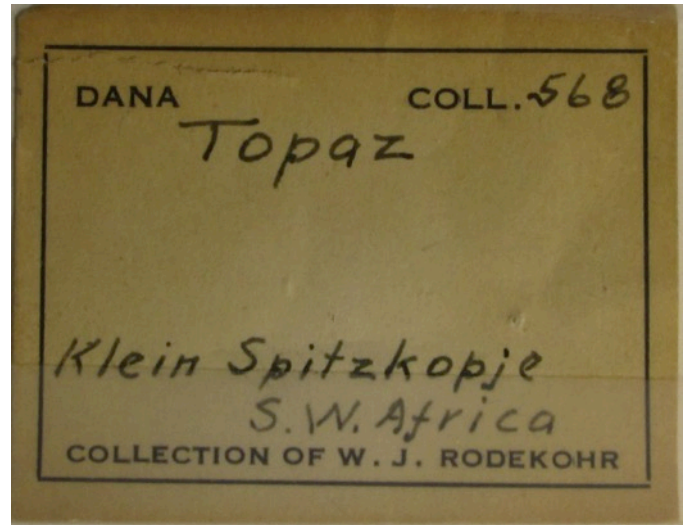
We have heard from several of our members that they would like to ride-share with someone to the meetings. We will list the names, general location and either a phone number or an email address of anyone who would like to connect for a ride-share. If you would like to catch a ride or would like company for the trip, let me know at mssbulletin@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	Richard Stamberg	North Orange County, near Cal State Fullerton	
A ride	Catherine Govaller	San Bernardino, CA	

A Few Of My Favorite Pieces: offered for your enjoyment by Gene Reynolds



Both Specimens are Thumbnails and rest on 1" x 1" foam squares.



Editor's Note: Gene, thank you for sharing.

WEST COAST - SPRING **GEM & MINERAL SHOW**

MAY 15 - 17, 2015

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Cobaltian Calcite- Morocco
Photo by Joe Budd©

MSSC Advertisement Policy:

Mineral-related ads are allowable in the MSSC bulletin. Below is the price per month

	Business Card	\$5.00	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
	1/3 page	\$10.00	
	1/2 page	\$20.00	
	Full Page	\$35.00	

Calendar of Events:

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

JANUARY 2015

No Southern California Shows in January

FEBRUARY 2015

February 13 - 22: INDIO, CA

San Geronio Mineral & Gem Society, Cabazon
Riverside County Fair & National Date Festival
82-503 Highway 11
Hours: 10 - 10 daily

February 27 - March 8, IMPERIAL, CA

Imperial Valley Gem & Mineral Society
Imperial Valley Expo
200 East 2nd Street/>
Hours: Weekends noon - 10 pm; Weekdays 4 pm - 10 pm
Website: www.IVGMS.org

MARCH 2015

March 7 - 8: ARCADIA, CA

Monrovia Rockhounds
Los Angeles Arboretum
301 Baldwin Avenue
Hours: 9:00 - 4:30 daily
Website: www.Moroks.com

March 7 - 8: VENTURA, CA

Ventura Gem & Mineral Society
Ventura County Fairgrounds
10 West Harbor Blvd.
Hours: Sat 10 - 5; Sun 10 - 4
Website: www.vgms.org

March 13 - 15: VICTORVILLE, CA

Victorville Valley Gem & Mineral Society
Stoddard Wells Road & Hwy 15
Hours: 9 - 5 daily
Website: www.vvgmc.org/tailgate

March 14 - 15: SAN MARINO, CA

Pasadena Lapidary Society
San Marino Masonic Center
3130 Huntington Drive
Hours: Sat 10 - 6, Sun 10 - 5
Website: www.pasadenalapidarysociety.org

2015 MSSC Officers:

OFFICERS		
President	Ann Meister	president@mineralsocal.org
Vice President	George Rossman	vicepresident@mineralsocal.org
Secretary	Angie Guzman	secretary@mineralsocal.org
Treasurer	Jim Kusely	treasurer@mineralsocal.org
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2015--2016	Bruce Carter	
2015--2016	Bob Housley	
2015--2016	Leslie Ogg	
2014-2015	Pat Caplette	
2014-2015	Pat Stevens	
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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 Elsna	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.,

Glendale, CA 91202-1053

E-mail: treasurer@mineralsocal.org

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

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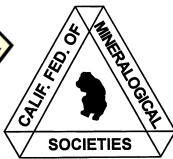
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MSSC Bulletin Editor
3630 Encinal Ave.
Glendale, CA 91214-2415

To:



With Knowledge Comes Appreciation



**Your MSSC
Bulletin Is Here!**