BULLETIN of the Mineralogical Society of Southern California

Volume 99 Number 10 October 2026

The 1,055th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

A ZOOM Meeting

October 9, 2026, at 7:30 P.M.

Program: "Mineral Adventures in Mexico 1977-2026":

Presented by Peter Megaw

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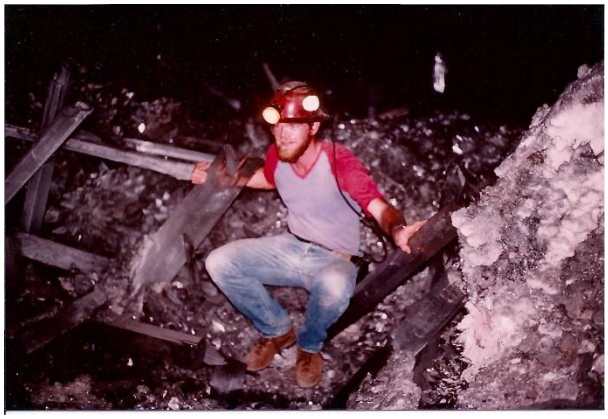
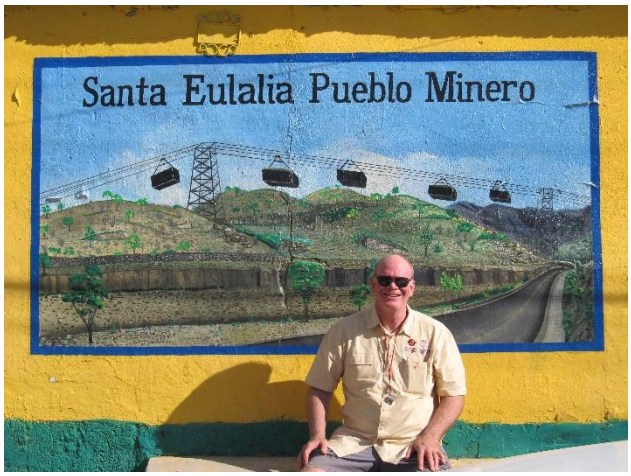
Remember: If you change your email or street address, you must let the MSSC Editor and Membership Chair know, or we cannot guarantee receipt of future Bulletins

Program: "Mineral Adventures in Mexico 1977-2026" Presented by Peter Megaw

With nearly 50 years of exploring Mexico's silver-lead-zinc-gold mines - and future mines - I have had regular access to many of Mexico's prime specimen localities and some fun things have followed me home over the years - not to mention some fun experiences in the process! The talk will weave mineral specimens into their mining history, geology, and exploration context and trace my evolution as a geologist and collector with a singular focus - Mexico.



Dr. Peter K.M. Megaw, Is a *Consulting Geologist* (PhD UofA) President of IMDEX/Cascabel and co-founder of MAG Silver. Peter has been a dedicated mineral collector since first setting foot in Santa Eulalia in 1976. He moved to Tucson in 1979 and quickly joined the Tucson Gem and Mineral Society, taking on the job of Exhibits Chair for the Tucson Show in 1984. This has given him the opportunity to visit most of the world's major mineral museums with a special eye out for what they should bring to Tucson. His mineral collecting has come to focus almost exclusively on Minerals of Mexico, and he has spoken and written extensively on specimen localities there; most recently in-depth articles for *Mineralogical Record* on the Santa Eulalia Mining District in Chihuahua, Mexico and Milpillas, Sonora (co-authored with Evan Jones). He is also a contributing editor for *Rocks and Minerals* and occasionally writes for *Mineralogical Monographs*. In his spare time, he collaborates on studies of silver isotopes in silver minerals, is Mindat's moderator for submissions on Mexico and co-moderator of the FMF Mineral Forum, often with tongue planted firmly in cheek. A combination of the above led him to be awarded the Carnegie Mineralogical Award for 2009. The unusual selenide species "petermegawite" was named for him in early 2022.



How to Join our ZOOM Meetings

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

For non MSSC Members who want to attend this meeting. You must respond to our Programs chair, Carolyn Seitz speakers@mineralsocal.org. no later than the Thursday prior to the next scheduled meeting. Please include "*current month* 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.

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From the Editor: Linda Elsnau.

Fall is officially here! It's finally cooling off a bit, but it still feels too hot for me!

It looks like another great program is scheduled for the October meeting. Try not to miss it.

It's almost time for the annual election for our leadership. Please look at where you can step in to help our group thrive.

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From Our President Leslie Ogg

This month's mineral/element will be iron. Specifically, an iron-nickel meteorite from Campo del Cielo, which means *Field of heaven or Field of the sky.* I have a meteorite from there; I did not collect it myself. It is from a friend/mineral dealer Dale Harwood. Meteorites from this area of Argentina are now illegal to collect in Argentina. Pieces that are in other countries are legal to buy and sell.

The meteorite struck the Earth 4,200-4,700 years ago. It was "discovered" in 1576; of course, aboriginal people knew about it long before. About 100 tons of fragments have been found, total tonnage is estimated at 300 tons, the most of any meteorite. The two largest pieces are the 30.8-tonne *Gancedo* and 28.8-tonne *El Chaco*, they are among the heaviest single-piece meteorite masses recovered on Earth.

It is presumed that the meteorite entered the Earth's atmosphere and then broke into fragments, there are at least 25 craters in the meteor field. The composition of these meteorites include many things besides iron, which may have been the cause of the fragmentation upon atmospheric entry.

The meteorites are 92.6% iron followed by 6.67% nickel, .43% cobalt, .25% phosphorus, 407 ppm germanium, 87 ppm gallium, and 3.6 ppm iridium.

Campo Del Cielo meteorite
1172g

*information sourced from Wikipedia

1. Don't forget to VOTE. We have national and local elections on November 3.
Register to vote and/or check your voter registration here https://www.voterizer.org
2. We also have MSSC nominations in October and November, with elections at the November 13 meeting.
Members, please attend and participate in selecting the governance for your society.

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MSSC Membership ZOOM Meeting Minutes, Friday, September 11, 2026

President Leslie O. called the meeting to order at 7:33 PM and announced that this is our 1054th membership meeting.

Leslie O. held a moment of silence for 9/11 victims.

Attending: 25 members in attendance and Guest Speaker Mike Breeding

Leslie O. announced are currently 6,239 approved minerals, with no new additions in the past month.

Minutes: Marek C. made a motion to approve the minutes of the August 14, 2026, meeting, seconded by Carolyn S. Motion carried.

There was a discussion of the fact that 14-15 of the MSSC club members have minerals named after them, and there was a suggestion to create a webpage within our Society's webpages documenting all past and present members with named minerals.

Carolyn S. introduced Dr. Mike Breeding, Senior Manager at Gemological Institute of America (GIA), who presented "It's the Little Imperfections that Make Natural Fancy Color Gem Diamonds Special." Dr. Breeding talked about the atomic-level causes of color in fancy colored diamonds, covering defects, impurities, and treatments that produce rare hues like green, blue, pink, and red.

Mike explained the atomic structure and defects in diamond that cause different colors, including how nitrogen impurities create yellow diamonds and how plastic deformation can produce brown, pink, or red colors. He detailed how radiation damage from nearby radioactive materials can create green diamonds, with beta particles being the most common natural cause and gamma rays being less effective. Mike noted that green diamonds from alluvial environments have had millions to billions of years of exposure to radioactive fluids, making them highly sought after in the trade. Mike presented a detailed slide presentation of colored diamond formation, focusing on green, blue, and pink diamonds. He described how green diamonds form near the Earth's surface through radiation damage creating vacancies, which can be distinguished from brown diamonds by their annealing behavior at 600°C. Mike explained that blue diamonds are rarest and typically caused by boron substitution, while pink diamonds result from lattice distortion creating 550 nm absorption bands. He demonstrated how treated diamonds can be created from ordinary brown diamonds through high-pressure high-temperature treatment, irradiation, and heating to produce NV centers that create red color. Mike concluded by highlighting the exceptional value of rare colored diamonds, noting that the Blue Moon of Josephine sold for $48 million, making it the highest per-carat grossing colored diamond ever sold.

Mike also discussed the properties and production of diamonds, explaining that laboratory-grown diamonds have become more common and affordable in recent years, with 1-carat colorless lab-grown diamonds now available for about $100 wholesale. He shared insights about specific diamond mines including the Cullinan mine known for blue diamonds and the now-closed Argyle mine in Australia, which was a major source of red and pink diamonds. The discussion also covered GIA's ability to trace and certificate diamonds from specific mines, including Arkansas diamonds.

Miko S. announced he will donate meteorite samples to the club and discussed the challenges in distinguishing between meteorites and industrial slag based on density and texture.

Leslie O. reminded the group of the upcoming elections scheduled for October 9th and November 13th, with Renee confirming she will accept the nomination as vice president again.

No immediate field trips planned.

We discussed the recent picnic event which had lower attendance than expected due to hot weather and insufficient advertising. No financial report yet for the picnic. Leslie O. said she would work on sending reminders to club members in the future.

The group discussed their recent participation in a gem and mineral commercial show, where two PhD mineralogy students from Rutgers joined our club, but found the event to be exhausting and not well-suited for our purposes and wasn't worth the significant time commitment required, particularly since most attendees were focused on beads and jewelry rather than minerals. The group decided not to participate in the October event but might consider December, though they would need to recruit more people to make it viable and would prefer to find different mineral-focused events in the future.

Adjournment: Leslie O. wasn't able to reconnect to Zoom so the meeting closed without formal adjournment.

Submitted by Marcia Goetz, Secretary

Submitted by Marcia Goetz

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List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates::	ZOOM November 13, 2026	**TBA**
	ZOOM December 11, 2026	**TBA**
	ZOOM January 8, 2027	**TBA**
Board Meeting	Sunday, December 6, 2026	ZOOM at 1:00 PM
2027 Installation Banquet	Saturday, January 16, 2027	Hoff's Hut in Seal Beach
Field Trip		No News At This Time

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

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Thought You Might Be Interested by Linda Elsnau

Announcing:
The 2nd Annual Meeting of the Mineralogical Society of America

Help inspire the next generation of mineralogists!

The 2nd Annual Meeting of the Mineralogical Society of America

The Mineralogical Society of America (MSA) promotes mineral-based research and education and fosters collaboration among professionals, students, and mineral enthusiasts.

Many mineral scientists participate in international geoscience conferences, but these have become very expensive and are typically so large that meaningful interactions are challenging, especially for students and early-career scientists. Attendees typically only have time to interact with a small, somewhat narrow range of

topics and people. Also, large conferences cost thousands of dollars per person at a time when funding is diminishing. In response to this, MSA decided to:

Goal 1: organize a more interactive, mineral-focused, and affordable conference
Goal 2: create a meeting format that involves meaningful, mutually beneficial interactions with the non-academic, mineral-interested community

Therefore: In February 2026, MSA held a small, mineral-focused meeting in Tucson AZ. It was a great success, attracting more participants than expected.

We believe there were several reasons for the success of this meeting:

- The meeting encompassed a wide range of topics related to mineral-related research, education, and outreach. In contrast to large meetings that have many concurrent sessions, the MSA meeting has an "all plenary" format: one session at a time.
- With generous support from donors, MSA provided substantial travel support for student presenters.
- Tucson! The overlap of the MSA meeting with the Tucson Gem & Mineral Show was a major draw.

On the Sunday of the Show at the 2026 meeting, MSA hosted informal mineral-themed "walk-by" workshops at the MSA Booth and sponsored a "Breakfast with a Mineralogist" event in the convention center. At MSA Tucson 2027, we will hold these and more events, including a program of talks targeted to mineral enthusiasts and the general public, and a Raman mineral identification workshop. In addition, with the cooperation of the Tucson Gem & Mineral Society, we will offer all meeting participants ticketed access to Sunday at the Show as part of their MSA meeting registration.

The more technical part of the meeting will be held Monday to Wednesday following the Show, with optional field trips on Thursday, February 18, to copper mines, mineral deposits, and other sites.

Request for MSA Tucson 2027 sponsors: For this meeting to be successful, we need to lower economic barriers for participation, particularly for students. On the following page, we outline MSA's financial commitment and a request for donations to support student conference expenses.

Supporting the next generation of mineral scientists

At the 2026 meeting, MSA committed $10,000, which was matched by a generous donation from the Gemological Institute of America and supplemented by many individual donations from MSA members.

These funds paid for some or all of the travel costs for every student who requested support: 38 of the 52 students who gave presentations at the meeting received an average of $500, with some receiving up to $1000. During the meeting and in a post-meeting survey, students and their advisors said that these travel grants were:

- *critical* to student participation in the meeting,
- *strong evidence* for commitment by MSA and donors to early-career mineral scientists, and
- a major reason that *this meeting was special* relative to other geoscience-related meetings.

For MSA Tucson 2027, we would like to support as many students as possible: ideally, all students who request financial support to attend the meeting. Based on the success of the 2026 meeting, we are expecting that student participation will increase and therefore are planning for up to 75 students.

We are seeking financial support to allow:

- **travel support for as many students as possible**; we estimate that an average of $500 per student will cover most students based in the US (airfare or other transportation, lodging, food). For travel grants for 75 students, we are seeking $40,000.
- **zero registration fees for *all* students**; this fee includes the cost to MSA of renting the meeting venue, providing conference support materials and personnel, and refreshments. For students, this cost is $100/person; for 75 students, we are seeking $7500.

MSA Mineral Sciences for All

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OTHER (FREE) THINGS TO DO...by Ann Meister

The first **Watson Lecture** of this season is on Wednesday, **November 4** at 7:30 PM at Caltech's Beckman Auditorium. The speaker is **Katie Bouman,** associate professor of computing and mathematical sciences, electrical engineering, and astronomy; Rosenberg Scholar; Heritage Medical Research Institute Investigator. The title is **"Physics and AI."** Learn about how physics and AI are working together to illuminate the hidden universe. ADVANCE REGISTRATION is available beginning September 23 at The Watson Lectures - Public Events. Enjoy pre-lecture activities and music including food, drinks, and books available for purchase starting at 6 PM. Every Watson Lecture is recorded and published on Caltech's Watson Lecture YouTube playlist.

The **UCLA Meteorite Gallery** located in room 3697 of the Geology Building on the UCLA campus is open to the public on weekdays from 9 am to 4. Admission is always free. The monthly lectures seem to have been discontinued but the gallery is well worth exploring. Visit the website and check on events, videos, and other neat things including resources for teachers, Go to https://meteorites.ucla.edu

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Calendar of Events:

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

2026 Shows

Oct 11, 2026 - Fallbrook CA
123 W. Alvarado St., Fallbrook CA 92028
Fallbrook Gem and Mineral Society
Hours: 9am-4pm
fgms.org

Oct 17, 2026 - West Hills, CA
First United Methodist Church, 22700 Sherman Way, West Hills, CA 91307
Woodland Hills Rock Chippers
Hours: Saturday, 10 am - 5 pm
Website: rockchippers.org

Oct 31-Nov 1, 2026 - Orange, CA
Velvet Rose Event Center, 300 S. Flower Street, Orange, CA 92868
American Opal Society
Hours: Sat 10am-6pm; Sun 10am-5pm
Admission $5 Adults; Students with ID and Children under 15 FREE
FREE Parking
Website: opalsociety.org

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

Business Card	$5.00
One-third page	$10.00
One-half 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 2231 Golden Circle, Newport Beach, CA 92660

2026 MSSC Officers:

OFFICERS		
President	Leslie Ogg	*president@mineralsocal.org*
Vice President	Renee Kraus	*vicepresident@mineralsocal.org*
Co-Secretaries	Marcia Goetz	*secretary@mineralsocal.org*
Treasurer	Pat Stevens	*treasurer@mineralsocal.org*
CFMS Director	Angie Guzman	
Past President	Angie Guzman	
DIRECTORS		
2025--2026	Carolyn Seitz	
2025--2026	David Lesperance	
2025--2026	vacant	
2026-2027	Pat Caplette	
2026-2027	Bert Vogler	
COMMITTEE CHAIRS		
Bulletin Editor	Linda Elsnau	*bulletin@mineralsocal.org*
Field Trip	Marek Chorazewicz	
Historian	Ann Meister	
Membership	Linda Elsnau	*membership@mineralsocal.org*
Micro Mineral Conf. Chair	Al Wilkins	
Program and Education	vacant	
Speaker Bureau	Carolyn Seitz	*Speakers@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 held on the second Friday of each month, at 7:30 p.m., MSSC meetings are conducted via ZOOM conferencing until further notice**.** The annual Installation Banquet occurs in January, and the annual Picnic and Swap Meeting are in August. 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 sent 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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To:

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Your MSSC Bulletin Is Here!