

Bulletin of the Mineralogical Society  
of Southern California

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Volume 83 Number 2

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The Meeting of the Mineralogical Society of Southern California

**Speaker Dr. Michael McKibben**

**Recovery of Important Elements from Hydrothermal  
Solutions**

**Friday, April 8, 2011 at 7:30 pm**

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



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## 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 and collecting 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 web page 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.

The Society's contact information::

### **Mineralogical Society of Southern California**

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**April 8, 2011 Speaker Dr. Michael McKibben  
Recovery of Important Elements from Hydrothermal Solutions**

Our MSSC April 8 speaker will be Dr Michael McKibben of the University of California, Riverside. He will speak on the recovery of important elements from hydrothermal solutions (this is the same talk presented to MOROCKS a month or so back-I don't remember the specific title).

For the past few thousand years (since the neolithic period) most economically important elements such as copper, tin, iron, lead and zinc have been recovered by mining mineral deposits. The broken rock is first physically processed to separate out the specific element-bearing mineral from waste rock and then the mineral is smelted or otherwise processed to separate out the particular element.

However, all of these elements can also be found in solution within naturally-occurring waters, particularly hydrothermal solutions. Recovery of these elements from hot groundwater in geothermal areas and from mineral-rich hydrothermal springs in deep oceanic environments present promising new avenues for production of many important elements. Within the next decade or two the production of many elements will likely shift from mines on land to hydrothermal springs in the deep ocean.

On May 13, 2011 Larissa Dobrzhinetskaya will speak on *Diamonds From Deep Subduction Zones Related to Continental Collisions*. This is the talk that was originally scheduled for the March meeting. More details about her talk and a detailed biography are found in the March Bulletin.

**MEANDERINGS FROM THE PRESIDENT by Ann Meister**

At the recent board meeting, we were discussing activities for the MSSC such as a show or conference or symposium – something that focuses our interests, generates some \$\$ and increases our membership. I began to reminisce about the first MSSC “show” that I remember from the mid 1950’s. It was essentially a part of the annual banquet which was held in June at that time at the Odd Fellows Hall on Los Robles in Pasadena. (It’s not there anymore.) It was really a member’s only event where we showed off our collections. Those who did not have display cases, laid out their exhibit on the table top. Seems there was even some competition. At the end of the evening, everything was packed up.

The afternoon-evening-banquet-with-displays became a week-end show at the same venue that included dealers, lectures, and a snack bar that sold hot dogs, chili, and desserts made by the women folk. Now the public was encouraged to attend. Our overnight security was members armed with baseball bats, sacking out in sleeping bags in front of the many external doors. As the show grew and we needed a larger venue, we moved to the PCC cafeteria for a number of years, then to the Conference Center side of the Pasadena Convention Center, and then to the Convention Hall. We went from table-top exhibits to 100 display cases for members and guests, including illustrious guests such as the Smithsonian Institution. There’s a lot of history to the shows. Unfortunately the venues became less civic-minded and, due to financial pressures, more commercial. Do we want to start small again? Maybe so. It would be fun to show-off our collections once more.

**MINUTES OF THE MARCH 18, 2011 MEETING**

The 874th meeting of the Mineralogical Society of Southern California was held on Friday, March 18, 2011 at Pasadena City College. President Ann Meister called the meeting to order at 7:35 pm.

It was announced that 1) the Society is looking for a person to do advertising/marketing (see elsewhere in the bulletin for details), 2) there will be a board meeting at Bruce Carter's house on April 10, 2011 at 1:00 pm. All officers and board members should attend. Members are welcome, but please let the Bruce or Ann know so that we are sure to have enough chairs.

Bruce Carter introduced the speaker, Fred Elsnau and his "memory" Linda Elsnau. The program topic, "Mostly Micros" was illustrated with beautiful slides of micro minerals mostly from the Elsnau collection. Fred uses a Minolta 35mm SLR with bellows. Micros offer a view into the mineral world that is often not available in macro specimens. Some crystals only grow to millimeter size; others show habits that don't come any larger. The enlightening presentation was followed by a lively discussion.

Bob Housley won the door prize.

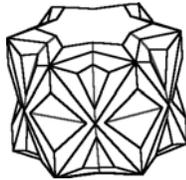
As there was know further business, the meeting was adjourned at 8:55 pm.

Respectfully submitted,

Ann Meister, Secretary Pro Tem

### **HELP WANTED**

MSSC is looking for someone to do marketing/advertising. The primary focus is to get meeting announcements onto on-line bulletin boards such as the Yahoo group la-rocks and calendars for local communities such as Pasadena, Sierra Madre, Altadena, Monrovia etc. so that we can entice visitors and potential members to our activities. Outreach to local schools may also become part of this job though not necessarily. Please contact Ann Meister at [president@mineralsocal.org](mailto:president@mineralsocal.org).



### **Mineral Trivia Question-**

Minerals often have nicknames, and diamond, "the king of gems" or "a girl's best friend" is one of the better-known examples. The question is: why are diamonds called "ice"? Check your answer on **page 10**.

## New Crystals, Fresh at the Vent



Paul Gordon photo

Visitors to Hawaii who hike across Kilauea's largest caldera and wander off the main trail can enjoy seeing how sulfur crystals grow by vapor deposition at several the volcano's active fumaroles. The crystals at this vent tend to be elongated in habit, but different shapes were found at other sites. The field view is about 0.5 m across. Sorry, no collecting is allowed in Volcanoes National Park.

MSSC Bulletin April 2005

## Editors Corner

This will be a new section for me, as editor, to editorialize. Others are welcome to be guest commentators.

I think I need to thank the club and all it's members for keeping me as I am going through an all too public learning curve. I am not known for making the same mistake twice--but I am known for finding new ones. I shall hope that they become progressively more minor.

## ALAA - WHO ARE THEY AND WHAT IS THEIR PURPOSE?

In 1991, the President of the American Federation of Mineralogical Societies (AFMS) appointed a select committee to recommend ways to make the Federation more effectively responsive to the political challenges of increasing regulation and decreasing access to public lands that State and Federal Land Management agencies were imposing on amateur fossil and mineral collectors. The committee recommended that the AFMS form a separate 501(c)(4) organization whose primary purpose would be to promote the amateur collectors' interests in present and proposed policies, rules, regulations and legislation with State and Federal land managers, elected officials and legislators. In compliance with that recommendation, the AFMS directors voted to establish the American Lands Access Association (ALAA) in July 1992 at their convention in Brunswick, Ohio. The Association is a 501 (c)(4) (non-profit) organization which means that all moneys raised by the association can go toward lobbying activity. Donations and memberships to ALAA are not tax deductible.

The purpose of the Association is to promote and ensure the rights of amateur fossil and mineral collecting, recreational prospecting and mining, and the use of public and private lands for educational and recreational purposes ; and to carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators and public land managers. Their work began immediately! Within days of the July meeting, Senator Max Baucus (D-MT) introduced the Vertebrate Paleontological Resources Protection Act of 1992 into the U.S. Senate. If enacted, the legislation would have ended amateur fossil collecting on all public lands managed by the Federal government except under supervision of certain degreed paleontologists in "acceptable institutions."

ALAA has become an organization that is present wherever there are hobbyist and recreational users of our public lands whose interests and concerns are not being heard or are being jeopardized by proposed policy, regulation or legislation at the local, state and federal level. From defeating the Baucus Bill in 1992 to coordinating massive public protest to the proposed US Forest Service rules (withdrawn) and the Bureau of Land Management's RS (Revised Statutes) 2477 Rights-of-Way (rewritten), the ALAA has earned the respect of public officials from Washington, DC to state capitols across the country as the voice of the amateur and recreational users of public lands. The Association has also formed working relationships with many other organizations fighting for private property rights and multiple use of public lands including the Blue Ribbon Coalition, the Alliance for America as well as treasure hunters, metal detectorists, fishing and hunting enthusiasts, and mining and timber interests. With this network of contacts, the Association reaches into every State and into every Congressional District in the country on a national level. That network provides a swift and effective response to issues brought to our attention.

On another level, many officers, directors and members of the Association have developed ongoing working relationships with local, state and federal officials and legislators. This other network provides us with immediate access to and an impact on many proposals for changing regulations, policy or legislation before they become set in the concrete of implementation.

ALAA is also there when there are confrontations in the field and when proposals are made for expanding federal ownership of land such as publicizing and fighting the Heritage Corridor Act, and other attempts to establish additional wilderness areas under federal control.

**YOUR HELP IS NEEDED TO CONTINUE OUR STRUGGLE TO PROTECT PUBLIC LANDS FOR THE PUBLIC TO WHOM THEY BELONG! ADD YOUR VOICE TO OURS! JOIN ALAA NOW !**

The ALAA website has current and breaking news of events concerning rockhounds (and mineral collectors) It also has a section concerning active legislation. <http://www.amlands.org/>.

The Blue Ribbon Coalition is a group of clubs that are joining together to express their concerns regarding uses of Federal Lands (including but not limited to BLM & Forest Service), legislation, Their web site is <http://www.sharetrails.org/>.

These sites are one way to keep up to date on lands access, recent legislation and other concerns of those in the rock and mineral community.

### **CFMS Field Trip**

**April 23rd/24th 2011 Sat/Sun. 9am. Kingston Mountains, CA**

It is important to let us know if you are going or think you might be going. The weather can change and if the field trip is canceled we won't be able to notify you. It is important that you get the map for this field

trip. Some roads might not have signs. With the map and the directions you should be able to find the site. There are also GPS coordinates. Please let us know at least 1 week prior to the field trip.

**Field trip:** Our April field trip will be to the Kingston Mountains in the Kingston Range. Come out for a fun weekend of digging for clear and milky quartz crystals, and possibly amethyst crystals. The weather should be nice, warm during the day, but cool at night. The main road to the collecting area is well graded. For the drive from camp to the site area, 4-wheel drive is recommended. The site enters the Kingston Range Wilderness Area and no vehicles are allowed to precede any farther; you will need to walk. The hike is not bad, and there is plenty to be found along the way to the primary collecting spot. The best material is higher up and is a moderate to hard hike. **GPS:** N 35 46 29.47 W 115 54 41.23

**When:** April 23rd/24th, 2011, Sat, 9am-3pm. Sun 9am-noon. Deb and I will be camping Friday 22nd to Sunday the 24th. I will be there late afternoon/evening Friday.

**Directions:** 15 freeway north, to the town of Baker, from Baker 15 freeway drive north 26 miles more to Cima Road turnoff. Turn left, north. Drive .05 miles to Excelsior Rd/Kingston Rd and continue north 34.5 miles. About halfway the Excelsior Rd/Kingston Rd will slowly curve going west. Continue west on Smith Talc Rd 4.7 miles, continue west on Mesquite Valley Rd. 1.3 miles. There will be a fork in the road, go left west on Western Talc Rd 2 miles. Don't go on Furnace Creek Rd. From the 15 freeway to the site it is about 43 miles. I will have a map for reference, use my directions and the map. Some roads might not have signs.

You should be able to see our tent, which is white and blue. Look for my White Ford F-250 Crew Cab. There will be a CFMS sign in the window. We will also have hand held radios/walkie talkies on channel 7 (287 miles from Thousand Oaks to site, 5.5 hours drive time) It can be really windy.

**Tools:** Rock pick/hammer, gad pry bar, chisels, hand sledge, heavy sledge, sifter, large pry bar, shovel, garden rake, hand trowel, pick, eye protection, gloves, collecting bags, buckets, wide brimmed hat, suntan lotion. There is no shade morning, afternoon, and it can be hot, but it will probably be cool, so dress accordingly, layers. I would recommend a daypack, to put your tools in. Lots of water, lunch, food, camping gear are suggested.

**Material to Collect:** Clear and milky quartz crystals, and possibly amethyst crystals, The best collecting is accomplished by carefully examining the boulders and rock at the base of the mountains, but single crystals can be found just about anywhere from the main road all the way to the foothills, especially in the washes. Inspect any boulders you encounter for cavities or seams. You will need hammers, sledges, safety glasses, gloves to split the tough host rock. Turning the soft sand in the wash with a garden rake or hand trowel will also sometimes expose buried crystals. There are veins throughout the mountains at the head of the wash, at one time there was an amethyst claim there. Be patient and willing to do some work, and you should return with many fine specimens.

**Points of interest:** The wilderness is botanically one of the most diverse areas within the California Desert. Botanists have identified 505 native plant species and 32 are viewed as endangered, rare, or limited in distribution. Creosote bush scrub vegetation is found at lower elevations and juniper pinyon woodland at higher elevations. The only stand of giant Nolina in the eastern Mojave Desert is found in Kingston Range, and a relic stand of white fir trees clings (one of only three stands found in the California Desert) to the slopes of two drainage's just below Kingston Peak. Also located in the wilderness is a portion of the Shadow Valley- Cima Dome Joshua tree forest (one of the densest concentrations in the world). The

vegetation and perennial water support a variety of wildlife species, which do not occur in nearby drier habitats. Bird densities are many times higher and contain higher species diversity. The Kingston Mountains are one of the four localities in California in which confirmed sightings of the banded gila monster have been made. Other wildlife species include bighorn sheep, wild burros, coyote, black-tailed jackrabbits, ground squirrels, kangaroo rats, roadrunners, quail, rattlesnakes, tarantulas, and several species of lizards. The southeastern portion of the wilderness provides critical habitat for the threatened desert tortoise. **Map:** E-mail us and we will send you the map to the Kingston Range

CFMS Co Chair south field trips

Robert Sankovich 805-494-7734 [rmsorca@adelphia.net](mailto:rmsorca@adelphia.net)

Adam Dean 909-489-4899 [theagatehunter@verizon.net](mailto:theagatehunter@verizon.net)

## **Public Lands Travel Management Plans Hits Snag in Courts**

By John Martin

CFMS PLAC South Chair

Several lawsuits have been filed by various environmental groups against both the Bureau of Land Management and the US Forest Service over their Travel Management Plans. These Travel Management Plans have been going through their development and approval stages for several years and most of them have been released in their final version by the respective government agencies. In most cases the environmental activist groups felt that the government agencies did not do enough to protect the environment to the extent of the agencies own policies and procedures. One of the long-running dispute centers on a Civil War-era mining law, known as R.S. 2477, which granted rights-of-way across public land until it was repealed by congress in 1976. Existing rights-of-way, however, were grandfathered in and now these environmental activists want most of these roads (Rights-of-way) across our Public Lands closed. A large number of these roads and trails have been used for years by hunters, fishermen, and off road users and, yes, even rockhounds use some of these roads to get to our favorite collecting areas or campsites. Congress has enacted legislation requiring agencies responsible for the management of our public lands to establish and implement a Travel Management Plan identifying for the multipurpose usage of roads, trails and access rights-of-ways through the public lands they manage. They must take into consideration the recreational and commercial value of these roads and the environmental impact the roads and users of the roads may or may not have on the public land they manage. The environmental activist groups have been active for several decades trying to achieve their agenda of having no unpaved roads through our public lands or as they call it "A Roadless Wilderness", where the only way to gain access is on foot or horseback. This will kill most all rockhounding as we know it today. What these lawsuits have accomplished, whether ruling in favor of the OHV users, the Government Agencies or the Environmental Activist Lobby, is allow time to return to the negotiating table and reconsider and re-plan the usage of these roads across our public lands. Now, we in the Rockhound community have a chance to let our voices be heard and our wishes be known on these matters. If we speak long enough and loud enough and with a unified voice, we may just be able to keep our access roads open to mechanized travel now and for future Rockhounds to enjoy. It will take several years to re-draw the Travel Management Plans, so the fates of our collecting sites are ours to loose. Please get informed and become proactive in the process. A good way to start is to contact you Federation, Federation Director and check often the American Land Access Association (ALAA) Web site . The CFMS web site, [www.cfmsinc.org](http://www.cfmsinc.org), the AFMS Website and all of the Regional Federation websites can be accessed through the ALAA Website [www.amlands.org](http://www.amlands.org)

**April 2-3 - LANCASTER, CA**

Antelope Gem & Mineral Society  
Lancaster High School  
44701 - 32nd Street West  
Hours: 9-5 daily

**April 2-3 - LEMOORE, CA**

Lemoore Gem and Mineral Society  
Trinity Hall  
470 Champion Street  
Hours: 10-6 daily

**April 8-10 - VISTA, CA**

San Diego County Council of Gem & Mineral Societies  
Antique Gas & Steam Engine Museum  
2040 N. Santa Fe Avenue  
Hours: 9-5 daily

**April 9-10 - MARIPOSA, CA**

Mariposa Gem & Mineral Society  
Mariposa Co. Fairgrounds  
Fairgrounds Road  
Hwy #49, 1.8 miles South of Mariposa  
Hours: Sat. 10-6; Sun. 10-5

**April 9-10, PARADISE, CA**

Paradise Gem & Mineral Society  
Elks Lodge  
6309 Clark Road  
Hours: Sat 10-5; Sun 10-4  
Website: [www.paradisegem.org](http://www.paradisegem.org)

**April 15-17—SAN DIEGO, CALIFORNIA: Gem Faire**

Scottish Rite Event Center, 1895 Camino del Rio S. Gem Faire hours:  
Fri. 12pm-6pm, Sat. 10am-6pm, Sun. 10am-5pm.  
Admission \$7 weekend pass; contact  
[www.gemfaire.com](http://www.gemfaire.com)

**April 15-17 - SAN JOSE, CA**

Santa Clara Valley Gem & Mineral Society  
Santa Clara County Fairgrounds  
334 Tully Road  
Hours: Fri 9-5; Sat & Sun 10-5  
Website: [www.scvgems.org](http://www.scvgems.org)

**April 16-17 - NEWBURY PARK, CA**

Conejo Gem & Mineral Club  
Borchard Park Community Center  
190 Reino Road  
Hours: 10-5 daily  
Website: <http://www.cgamec.org>

**April 23-24 - SANTA CRUZ, CA**

Santa Cruz Mineral & Gem Society  
Santa Cruz Civic Auditorium  
Corner of Church and Center St  
Hours: 10-5 daily  
Website: [www.scmgs.org](http://www.scmgs.org)

**April 30 - May 1 - ANAHEIM, CA**

Searchers Gem & Mineral Society  
Brookhurst Community Center  
2271 W. Crescent Avenue  
Hours: Sat. 10-5; Sun 10-4:30  
Website: [www.searchersrocks.org](http://www.searchersrocks.org)

**May 13-15 - ANDERSON, CA****CFMS SHOW & CONVENTION**

Northern California Treasures  
Hosted by: Superior California Gem & Mineral Society, Shasta Gem & Mineral Society, & Paradise Gem & Mineral Club  
Shasta District Fairgrounds - Anderson, CA  
Briggs Street (8 miles south of Redding)  
Exit 677 off Interstate 5 to Highway 273  
Hours: Fri. & Sat. 9-5; Sun. 10-4

**Mineral Trivia Answer**

One of the many superlative properties of diamond is its high thermal conductivity, which is about four times that of copper, an excellent thermal conductor. Because of this thermal property, diamonds feel cool when touched to the lip, hence the nickname "ice." This is just one facets of diamond as described in the article of the same name by George E. Harlow and Rondi M. Davies in the latest issue (March 2005) of *Elements*.

*Elements* is a new periodical published jointly by the Mineralogical Society of Great Britain and Ireland, the Mineralogical Association of Canada, the Geochemical Society, The Clay Minerals Society, the European Association for Geochemistry, the International Association of GeoChemistry, and the Mineralogical Society of America. This is a magazine the mineral collectors will want to keep an eye on, as it is designed to appeal to and be accessible to a wider audience than just the professionals in its sponsoring societies. The authors of articles are instructed to cut out the jargon and communicate with students, scientists with related

From MSSC Bulletin April 2001

### Society Contacts for 2010

#### OFFICERS

President	Ann Meister
Vice President:	Bruce Carter
Secretary:	Bob Griffis
Treasurer	Jim Kusley
CFMS Director:	Jo Anna Ritchey
Past President	Geoffrey Caplette

#### DIRECTORS

2009-2010

Leslie Ogg  
 Geoffrey Caplette  
 James Imai:  
 Fred Elsnau:

#### COMMITTEE CHAIRS

<i>Facilities</i>	<b>Vacant</b>
<i>Field Trip</i>	<b>Vacant</b>
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<i>Program and Education</i>	Bruce Carter
<i>Show</i>	Vacant
<i>Webmaster</i>	Leslie Ogg
<i>Bulletin Editor</i>	Jo Anna Ritchey <i>joannaritchey@gmail.com</i>

***New Location AND New Date!***

**WEST COAST GEM & MINERAL SHOW**

**MAY 20 - 22, 2011** Show Hours: Fri. & Sat., 10 - 6 ★ Sun. 10 - 5.

**Holiday Inn - Orange County Airport**  
 2726 S. Grand Ave. (Dyer Rd at 55 Fwy, Exit 8)  
*"Just 2 miles from our former Costa Mesa location"*

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