

# **Bulletin of the Mineralogical Society of Southern California**



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The 836th Meeting of The Mineralogical Society  
of Southern California

**Exploring Southern California for Minerals**  
By  
**Bob Housley**

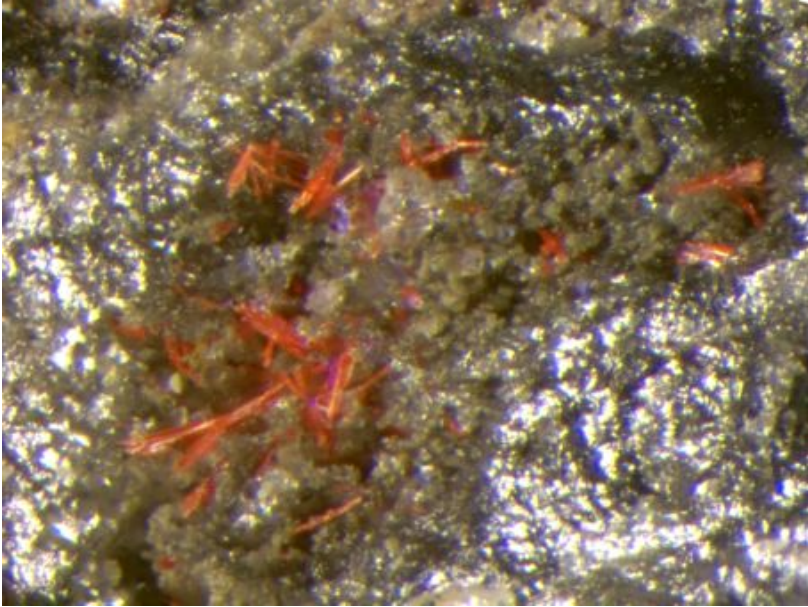
**Friday, October 12, 2007, at 7:30 p.m.**

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

## **Featuring:**

- Exploring Southern California for Minerals**
- Types of volcanic eruptions and how to visit them safely**
- Mineral Locality Symposium**
- Some Useful Web Sites**
- Opal from Utah**

## Exploring Southern California for Minerals



Dr. Bob Housley will present "Exploring Southern California for Minerals" on Friday, October 13, 2007 at 7:30p.m. An avid field collector, Dr. Housley has spent considerable time checking out various mineral localities as well as helping other area collectors identify their finds.

The topic will cover minerals finds in Cascade Canyon, the Bessemer Iron Mine, the War Eagle Mine, the Aga Mine, the Blue Bell Mine and the Root Mine. According to Dr. Housley, at Cascade Canyon below Ontario Peak, you can collect nice ruby corundum crystals, unfortunately too flawed for gems. At the Bessemer Iron Mine you can collect nice dodecahedral magnetite and books of phlogopite mica. At the War Eagle Mine you can collect very nice aurichalcite. At the Aga Mine he recently found a suite of micro minerals including the rare tellurates khinite and parakhinite. At the Blue Bell Mine a new Pb silicate mineral was found. The

specimen is described by Tony Kampf. At the Root Mine he found the first North American occurrence of the mercury, silver sulfide chloride iodide mineral perroudite (see photo on page 3).

Dr. Housley will bring in specimens from Cascade Canyon, the Bessemer Mine, and the War Eagle Mine to the meeting.

Dr. Housley has been a consistent contributor to the southern California mineral community by giving presentations at Southern California Friends of Mineralogy symposia, participating in the Desert Symposium, posting mineral photographs on the web, and serving the MSSC in numerous offices including president. He received a Ph.D. in physics from the University of Washington in Seattle, has had a long career at Rockwell Scientific Laboratory and is affiliated with the Caltech Physics Department.

## **Minutes of the September 14, 2007 Meeting**

The 834<sup>th</sup> meeting of the Mineralogical Society of Southern California was held on Friday, September 14, 2007, at Pasadena City College. President Ilia Lyles brought the meeting to order at 7:30 p.m.

Janet Gordon, Vice President, then introduced the speaker of the evening, Dr. Rosaly Lopes, who gave a presentation entitled: "How to Visit Volcanoes Without Getting Burnt." Dr. Lopes, who is a Principal Scientist at NASA's Jet Propulsion Laboratory, is an expert on volcanism on Earth and the planets, and has discovered 71 active volcanoes on Io. She has also shared her knowledge of volcanoes and their respective sites in three books, including "The Volcano Adventure Guide."

Dr. Lopes first described the different types of volcanoes and eruptions, from mild to violent, including the Hawaiian, Strombolian, Vulcanian, Peleean, Plinian and Ultraplinian. She explained that the gas content of the rocks at a site plays an important role in the level of explosivity of a given eruption. She then proceeded to take the MSSC

members on a tour of several of the world's volcanoes and sites, including those in Hawaii, the western United States, Italy, Greece, Iceland, Costa Rica and the West Indies. The photographs of the locations and Dr. Lopes' anecdotes were especially interesting.

Dr. Lopes warned volcano site visitors to avoid walking over lava tubes and lava benches near the ocean, and to watch out for steam and methane explosions, unstable terrain, and rock bombs. She further cautioned visitors to wear appropriate clothing and to have escape plans.

Dr. Lopes concluded her presentation with descriptions of the lava flows and lava channels of the moon, the giant shield volcanoes of Mars and the many volcanoes of Io.

Walt Margerum announced that the American Mineralogist magazine was now online.

Carolyn Seitz reminded members about the Fallbrook Gem and Mineral Society's "Fall Festival of Gems" to be held on October 7, 2007 at the FGMS Museum.

The door prize was won by Leslie Ogg.

The meeting was brought to a close at 8:50 p.m. by President Lyles.

Respectfully submitted, Pat and Geoff Caplette

## **Mineral Locality Symposium**

### **Sources of Iron (terrestrial or not) and Vanadium in the Mojave Desert**

**When:** October 20 & 21, 2007

**Additional activities:** field trip to the Iron Hat Mine on Saturday and the Bessemer Mine on Sunday

**Fee:** \$20.00 includes: Saturday Lectures, Coffee, Lunch, & Field Trip on both days

**Sponsored by:** Southern California Chapter of the Friends of Mineralogy

**To be held at:** Roy's Gas & Café, 6666 National Trails Highway, Old Route 66, Amboy, CA 92304

**How to get there:** Take I-15 from LA to Barstow. Gas up at Barstow. Take I-40 east past Ludlow. Exit south at Kelbaker Road to Old Route 66, then west to Amboy.

**Food:** delicious Juan Pollo chicken dinner will be served for lunch on Saturday. R.S.V.P. to:

Jennifer Rohl either by email at rohlon@yahoo.com or via cell phone (714) 293-0156 no later than October 5, 2007.

### **Saturday Symposium & Field Trip**

**9:00 AM** Registration for Symposium and Field Trips –  
(Coffee and snacks available)

**9:30** Welcome, Bob Reynolds, President, SCFM

**9:40** Stratigraphy and Structure of the Bristol & Marble Mountains—Howard Brown, OMYA

**10:10** Iron Hat Mine, Marble Mountains—Bruce Bridenbecker, Professor, Copper Mountain College

**10:40** Iron Ore Emplacement in the Soda Mountains —  
Kim Bishop, Professor, CSULA

**11:00** Vanadium and California Vanadinite Localities—  
Paul Adams, SCFM

**11:30** Meteorites in the eastern Mojave Desert—Bob Verish, SCF

**12:00** Trip To Bessemer Iron Mine, Upper Johnson Valley  
—Robert Housley, SCFM

**12:15 – 1:30 PM** Lunch Break Lunch Meeting - SCFM meeting

**1:30** Afternoon field trip led by Bruce Bridenbecker to the Iron Hat Mine, Marble Mountains.

**6:00** Picnic Dinner in Twentynine Palms, location announced at symposium]

### **Sunday Field Trip Information**

Field trip begins at 9 AM at Hwy 241 & Bessemer Mine Road. Details of the field trip will be announced at the meeting. High clearance vehicles are recommended. Maps and directions will

be supplied during that time. Out of town visitors can stay in Barstow or Twentynine Palms.

## **Attention Members**

**Save these dates:**

**November 16, December 14, 2007 and January 12, 2008**

The November meeting will be on the 3<sup>rd</sup> Friday, **November 16**. Dr. D. Trent will speak on the geology and mining history of Joshua Tree National Park.

On Friday, **December 14**, Dr. Tony Kampf is scheduled to report on his mineral tour adventures in Namibia.

Saturday evening, **January 12, 2008** is the MSSC's annual banquet with Wayne Leicht presenting a program on the Philadelphia Academy collection and the new publication "The 50 Greatest American Mineral Localities." And it's never too early to think about what you might donate to the banquet's auction!

**For those who are interested in attending or making a presentation in symposium 2008 Desert Symposium and Field Trip will be held on April 18–21, 2008 at Desert Studies Center, Zzyzx, California**

The theme of the 2008 Desert Symposium and field trip will be on the development of the Colorado River and its entry into the Salton Trough. The symposium will explore geographic extent of the Bouse Formation and contrast fresh water deposits with deposits containing marine fossils. Examine sediments at Anza-Borrego that indicate when the Colorado River entered the Salton Trough. Drive from Eastern Mojave Desert piñon-juniper plateaus to the Sonoran vegetation of the Colorado Desert.

If you plan to make a presentation or bring a poster, the DSC Desert Symposium accepts abstracts and articles regarding climate, habitat, biology, zoology, paleontology and geology, archaeology and history in deserts, particularly the

southwestern deserts of North America. Articles can contrast data from deserts with that from non-arid areas.

Suggested articles that the steering committee would like to see this year include:

- 1) Description and timing of deposition of sedimentary units in southeast California, including Imperial Fm., Bouse Fm., units of Anza-Borrego, Colorado River sediments and delta.
- 2) Fossil trackways in those formations
- 3) Historic flooding of the Salton Trough by “agricultural accident”
- 4) Contrast Mojave flora with flora of Colorado Desert, including palm oases.
- 5) Volcanism at Red Butte
- 6) Geothermal energy production along Salton spreading center
- 7) Intaglios, petroglyphs, and pictographs
- 8) Patton Training Center and camps
- 9) Historic transportation: stage routes, plank roads, river paddle wheelers, and railroads.

**email address: [wpresch@fullerton.edu](mailto:wpresch@fullerton.edu)**

## **Some Useful Web Sites**

By Walt Margerum

**[www.mineralsocal.org](http://www.mineralsocal.org)** - This of course should be your primary site for everything MSSC. In addition to providing information on meetings it is also a repository for past Bulletins, and has links to other sites of interest.

**[www.mindat.org](http://www.mindat.org)** - In my opinion this is the most useful site on the web for information on mines and minerals. It provides information and pictures of minerals as well as a very comprehensive list of mines and their associated minerals. It provides links to other sites, and has free downloads of some very interesting old publications. There is a chat room, and a discussion area on mineral topics. This is only a brief overview of the site. The site is the creation of

Jolyon Ralph, and is maintained by a small army of supporters.

**[www.geocommunicator.gov](http://www.geocommunicator.gov)** - This site provides information on active mining claims. It works in conjunction with the BLM **[www.blm.gov/lr2000](http://www.blm.gov/lr2000)** site. If you know the general location you can find the active mining claims in the area. Like many U.S. Government sites, it is not very user friendly. You need to read and follow the instructions in order to get the data you want. Having said that if you want claim data this is the place to go.

**[LARocks @yahoogroups.com](http://LARocks@yahoo.com)** – While not strictly a web site this chat group is useful for posting and obtaining info. Most of the members are interested in lapidary, but there is also info on minerals.

**[www.minsocam.org](http://www.minsocam.org)** - This is the official web site of the Mineralogical Society of America (MSA). The MSA has recently made all the articles from the American Mineralogist available on-line. The articles are scanned PDF files with OCR text behind the page images. This means you can search the complete journal run by using the Google™ Search box on the MSA home page, **<http://www.minsocam.org/>** and selecting the “Search minsocam.org” radio button. You can also find the complete table of contents by going to **<http://www.minsocam.org/MSA/ammin/toc/>**. Articles published after 2004 are restricted to MSA members or subscribers to the American mineralogist. All previous articles are available to everyone.

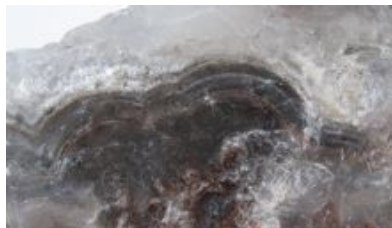
**[www.consrv.ca.gov/cgs](http://www.consrv.ca.gov/cgs)** - This is the California Geological Survey site (formerly California Division of Mines and Geology). It provides information on the geology, natural resources and geologic hazards of California. While mines and minerals are no longer a top priority in California this site still provides useful information.

**[www.webmineral.com](http://www.webmineral.com)** - This site has both basic and advanced information on minerals, and is a good general information site. This mineral database contains 4,442 individual mineral species descriptions with links and a comprehensive image library.

**[www.rockhounds.com](http://www.rockhounds.com)** - This site is known as Bob’s Rock Shop, and is a good source of mineral information. It is affiliated with Rock and Gem magazine.



The above are only a small sample of what is available on the web. If you have your own favorite site report it to me and I will periodically update this article.



## **More on the Opal from Utah**

On MSSC bulletin July 2007 issue I reported that I acquired some opal rough from Utah which was called

either satin sheen opal, or bacon opal, or candy opal depending on whom you talk to. As I showed off to friends my new find, I got more information about the material. Tim Thomas told me that he knew the opal as Schiller opal, and as far as he knew the opal was still being mined by a group of people, but the location was kept as a trade secret. Mr. Thomas also told me that the opal was mentioned in Gem and Gemology some time ago. Thanks to Gemological Institute of America library, I was able to find an article entitled “Botryoidal white opal from Milford, Utah” in Gem and Gemology 1997 spring issue pages 63-64.



“The botryoidal opal from Milford, Utah, has been known for at least 20 years. Since 1996, William Cox, a gem cutter from Provo, Utah, has been cutting this material into flat-topped freeform cabochons with curved schiller—a result of the botryoidal internal layering. Mr. Cox is marketing these cabochons as Satin Flash opal. “

The article went on to describe the cabochon which the author examined:

“With magnification, we saw a structure of curved layers throughout this material, some layers showed crazing in reticulated patterns, but cracks were confined to individual layers for the most part and did

not extend through the stone. Some small rounded white crystals were also visible; these were clumped in small patches rather than distributed evenly throughout the material. When examined with crossed polarizers, the stone did not show the extremely high strain characteristic of hyalite opals from most localities. The cabochon had a typical opal R.I. of 1.45, and a specific gravity — measured hydrostatically — of 2.14; It was inert to both long and short wave.”

So the material belongs to a variety of opal call hyalite. I searched the internet and my gemological library and found very few references on hyalite as a gem material. However, due to its strong fluorescence under ultraviolet (UV) light, hyalite is a coveted specimen by collectors of fluorescent minerals. According to some references and a specimen in Fallbrook Gem and Mineral Museum, hyalite fluoresces yellow green under UV light. Dr. Rossman told me that the yellow green fluorescence is due to trace element of uranium.

At first, I was disappointed that my material did not fluoresce under either long wave or short wave UV light. But after I trimmed off the material to only the clear transparent part, it fluoresces red under both LW and SW UV light, just like some of the Australian precious opal I have. I guess that my hyalite does not have traces of uranium.

The botryoidal transparent part of the rock cut very interesting cabochons. On one side the cabochon looks like lots of bubbles in a pot of boiling water (see photo on the left), while on the other side the cabochon displays a silk sheen unlike any other gem I have ever seen (see photo on the right). The photo did not capture what it's really like. All I can say is that it looks like sunlight shining on clouds on a nice day.



Text and photos by  
Shou-Lin Lee

## Another not so Common “Common Opal”



In the naming convention of opal, those which display play of color are called “precious opal” and those which do not display play of color are called “common opal.” However, just because it has “common” in its name does not mean that the opal is less precious. The opal to the left is often referred to as cat’s eye opal. It was cut from a piece of common opal from Tanzania. The cat’s eye is caused by numerous microscopic hollow tubes.—by Shou-Lin Lee

### **WEST COAST GEM& MINERAL SHOW**

Holiday Inn - Costa Mesa \_ Bristol Plaza \_ 3131 S. Bristol St.

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## 2007 Calendar of Events

- October 7 2007, Fallbrook,** Fallbrook Gem & Mineral Society "Fall Festival of Gems" FGMS Museum 123 W. Alvarado Hours: 10 - 4 Mary Fong-Walker (760) 723-3484 [FGMSORG/organization/orglocations/html](http://FGMSORG/organization/orglocations/html)
- October 13-14 2007, Grass Valley,** Nevada County Gem & Mineral Society "Earth's Treasures" Nevada County Fairgrounds 11228 McCourtney Road Hours: 10 - 5 both days Cliff Swenson (530) 272-3752
- October 13-14 2007, Lakeside,** Cajon Valley Gem & Mineral Society Lakeside Rodeo Grounds 12584 Mapleview Hours: 10-5 both days David Newton (619) 390-5054 Email: [jontom@nethere.com](mailto:jontom@nethere.com)
- October 13-14 2007, Trona,** Searles Lake Gem & Mineral Society ?6th Annual Gem-O-Rama? Searles Lake Gem & Mineral Society 13337 Main Street Hours: Sat. 7:30 - 5; Sun. 7:30 - 4 Bonnie Fairchild (760) 372-5356 Website: [www1.iwvisp.com/tronagemclub](http://www1.iwvisp.com/tronagemclub)
- October 20 2007, West Hills,** Woodland Hills Rock Chippers ?th Annual Show? First United Methodist Church 22799 Sherman Way Hours: Sat. 10 - 5 Virginia Rotramel (818) 790-7598 Website: [www.rockchippers.org](http://www.rockchippers.org)
- October 20-21 2007, Anderson,** Shasta Gem & Mineral Society Shasta District Fairgrounds Hours: 1Sat. 9-5: Sun. 10-4 Bill Seward (530) 365-8641
- October 20-21 2007, Placerville,** El Dorado County Mineral & Gem Society El Dorado County Fairgrounds 100 Placerville Drive Hours: 10 - 5 both days Jackie Cerrato (530) 677-2975 Website: [eldoradomineralandgen.org](http://eldoradomineralandgen.org)
- October 20-21 2007, Santa Rosa,** Santa Rosa Mineral & Gem Society Veterans' Memorial Auditorium 1351 Maple Avenue, Santa Rosa Hours: Sat. 10-6, Sun. 10-5 Shirley Mattson or Tom Dering / (707) 795-1730 or (707) 564-4537
- October 20-21 2007, Whittier,** Whittier Gem & Mineral Society Whittier Community Center 7630 Washington Avenue Hours: Sat. 10-5: Sun. 10-5 Jay Valle: (626) 934-9764

**November 3-4 2007, Concord, Contra Costa Mineral & Gem Society**  
Centre Concord - 5298 Clayton Rd. Clayton  
Fair Shopping Center Hours: 10 - 5 both days Sam  
Woolsey (925) 837-3287

**November 3-4 2007, Anaheim, CA American Opal Society**  
Clarion Hotel Anaheim Resort 616 Convention Way  
(off Harbor Blvd.) Hours: Sat. 10-6; Sun 10-5 Jim  
Lambert (714) 891-7171

**November 3-4 2007, Lancaster, CA Palmdale Gem & Mineral Society**  
2551 W. Ave. H, Hwy 14 Hours: 9 - 5  
both days Susan Chassin-Walblom (661) 943-1861  
Website: [pgms@antelecom.net](mailto:pgms@antelecom.net)

**November 3-4 2007, Ridgecrest, CA Indian Wells Gem & Mineral Society**  
Desert Empire Fairgrounds, Mesquite  
Hall 520 S. Richmond Rd. Hours: 9-5 both days John  
De Rosa (760) 375-7905

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