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The 852th Meeting of The Mineralogical Society
of Southern California

Oregon Sunstone and the Great Chinese Red Andesine Controversy

**By
Dr. George Rossman**

Friday, March 13, 2009 at 7:30 p.m.

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

Featuring:

- All you want to know about red labradorite from Tibet
- Micromount Conference
- Blue Bell mine field trip
- Photomicrography

March Program

Oregon Sunstone and the Great Chinese Red Andesine Controversy



Red andesine gems said to be from Tibet

Dr. George Rossman will present “Oregon Sunstone and the Great Chinese Red Andesine Controversy” on Friday, March 13, 2009 at 7:30p.m. Dr. Rossman is a world-renowned professor of mineralogy at Division of Geological and Planetary Sciences, California Institute of Technology and a long-time MSSC member. Dr. Rossman is a popular speaker in the field of gems and minerals. His lectures are always informative and engaging. The following is an excerpt of what to expect from his presentation:

For about one hundred years, red feldspar from Oregon has been valued as a collector object and as a gemstone. In 1985, the origin of color in Oregon sunstone was established when it was shown that the red and green colors arise for copper in different oxidation states and the schiller arose from platelets of copper metal. Occasionally, labradorite feldspars

from Mexico were found with copper schiller, but never in quantity and rarely with red color.

In the early 21st century, red andesine feldspar began to



Red and green Oregon feldspar

appear in quantity. It was initially reported to come from Congo, later from Tibet, and also from China. Rumors developed that it was treated artificially to add the color. Rumors also developed that it was Mexican feldspar sent to China for treatment. Details on the origin and possible treatments were not forthcoming. As rumors spread on the Worldwide Web, lawsuits were brought against television networks that sold it, self-proclaimed experts said they could easily prove it was treated, but major gemological research labs were more cautious, but still unable to definitively establish whether or not treatment had, in fact, occurred. Expeditions to Mongolia have now disclosed the major source of yellow feldspar, but the controversy continues to grow.



Oregon sunstone with schiller from copper metal

Dr. Rossman will take us on a forensic investigation of Oregon sunstone and Chinese red andesine. He will discuss studies of the color of these feldspars and the results of elaborate laboratory studies aimed at establishing if it possible to diffuse color into feldspar in the laboratory, and if it is possible to determine if a feldspar has gone through a laboratory furnace after it emerged from nature's volcanic furnaces.

Minutes of the February 20, 2009 Meeting

The 851st meeting of The Mineralogical Society of Southern California was held on Friday, February 20, 2009, at Pasadena City College, Pasadena, CA. President Geoffrey Caplette brought the meeting to order at 7:30 p.m.

He then introduced the speaker of the evening, Dr. Bruce Carter, who gave a presentation entitled: “ Geology and Gemstones of Madagascar.”

Dr. Carter, the recently elected Vice-President of the MSSC, earned his Ph.D. in Geology from Caltech, and taught at Pasadena City College for the past 34 years, serving as Dean of Natural Sciences for the last 18 years.

Dr. Carter recently explored mineral localities and gemstone sources during a two-week Gem and Mineral Council trip to Madagascar. During his talk, he discussed that country’s landscapes, minerals, wildlife, people and flora.

Madagascar, slightly larger in land area than California, has a marine environment. Because the land is well-watered, rice and other crops grow successfully in paddies. Madagascar is severely deforested, with few rain forest areas. However, Madagascar is unique in that 80 % of the species there are located nowhere else. Lemurs and baobab trees are prevalent throughout the country.

The people of Madagascar are Indonesian in origin, and there are no significant disputes among the residents. The area was first inhabited only about 1,000 years ago.

The minerals of Madagascar include celestite, amethyst, citrine, rock crystal, garnets, sapphires, tourmalines, emeralds and beryl. Pegmatites are very old, with deep decomposition. Dr. Carter’s descriptions of the crude mining techniques used to extract minerals, including sending men down tight holes on ropes, with no reliable oxygen supply, were particularly interesting. There are a few open pit and panning operations.

After the presentation, stones purchased in Madagascar were displayed. A very large citrine pendant, and a sapphire, in a ring setting, were particularly striking.

Dr. George Rossman will be the speaker at the March meeting. Dr. Carter requested members' assistance in identifying additional speakers for 2009.

President Caplette announced that the Pasadena Lapidary Show would be held March 14-15, 2009, and provided show announcements. He further stated that the Monrovia Rock Hounds Show would be held March 7-8, 2009 at the Los Angeles County Arboretum.

The door prize was won by our guest, Sarah Difiorina.

The meeting was brought to a close at 9:15 p.m. by President Caplette.

Respectfully submitted, Pat Caplette, Secretary

**If you haven't paid your membership dues,
this will be the last issue you receive.
Hate to cross your name off the mailing list.**

The 44th Pacific Micromount Conference

By Robert Housley

I think it is safe to use the cliché, everyone had a good time, to describe this year's Pacific Micromount Conference, so you should make plans right now to attend the 45th to be held on the last weekend in January of 2010. Thanks to sterling efforts by a great group of volunteers, including Al Wilkins, Ann Meister, Sugar White, Gene Reynolds, Garth Bricker, and JoAnna Ritchey, everything went smoothly despite the untimely death of one of the organizers, Walt Margerum.

As has become customary, the Conference got underway with a delicious potluck dinner on Friday evening followed by a photographic tour of new mineral finds during the past year presented by Sugar White. As always, there were some surprises to learn about. After Sugar's talk we were fortunate to hear a short presentation by Steve Watts from Quebec about a new Canadian locality for rare alkali minerals similar to those that in the past made Mt. St. Hilaire famous.

First thing Saturday morning our give away tables, sales table, and silent auction were all in business. Soon the room filled up, with microscopes set up in almost all of the available spaces. At 10 am the program began with an Introduction, Announcements, and a brief tribute to Walter Margerum. Then at 10:15 we had the morning talk titled "Vanadate Occurrences and Vanadium Minerals in Southern California" by Paul Adams. He described the major



Everyone was hard at work with microscope in viewing micros..

vanadinite producing mines and gave a brief history and current status of each as well as showing pictures of crystals collected. One fascinating part of the talk described his saga in locating the Green Monster Mine and then in identifying the Cu vanadate minerals occurring there.

A fine lunch including sandwiches, salads, coffee, and soft drinks was served at noon. About 1:30 pm we started the verbal auction and bidding was vigorous. One micro of gold sold for over \$50.

At 3:15 pm we had the talk “Micro Inclusions in Minerals and Gems” by John Koivula of the GIA. It was fascinating and several people came especially just to hear it. About 5 pm we closed the silent auction. At 6 pm we had a fine buffet dinner. After dinner, I gave a talk titled “Glimpses of the History of the Blue Bell Mine”. I started by describing the era when the first claims were filed there during the 1880s and finished by telling about the IMA approval of the new lead silicate mineral, plumbophyllite, recently found there. This is a new mineral that is actually big enough to see and is pretty.

We finished up the evening and the Conference with a short talk by Garth Bricker on micro minerals of the Himalaya Mine.

The sales table was well patronized and the bidding in both auctions was vigorous, so we finished up well in the black. We also received offers of more help so things look good for next year.

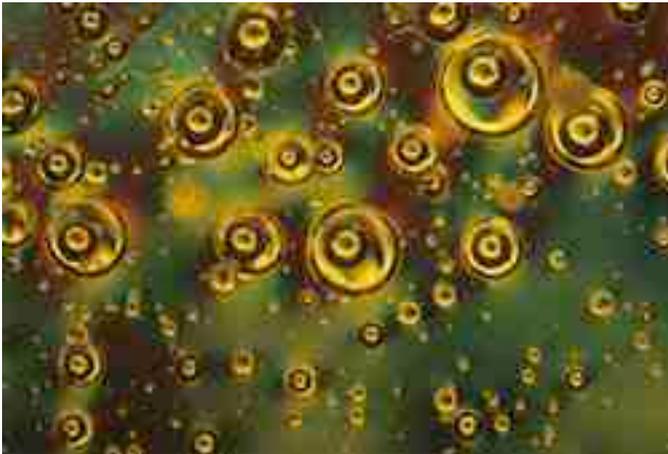
Photomicrography: A Study of Mineral Inclusion and an Art Form

If you missed Mr. Koivula’s lecture at Micromount Conference, I hate to say this, but **you missed a lot!!**

In Mr. Koivula’s photomicrographs, inclusions were no longer the unsightly and undesirable things that depreciate the value of an otherwise “fine” gem. Mr. Koivula told that

by observing the inclusions in minerals under a microscope, one could learn the life story of the mineral such as how it formed, where had it been. With the advanced technology of gem treatments, often it is hard to tell whether a gem had been heat treated or not. However, Mr. Koivula pointed out that in those cases when a gem stone's color was caused by trace element by observing the colors surrounding inclusions in the gem one can tell whether the stone was heat treated or not. Some pictures were interesting, not only as records of inclusions, but also as art work. I was most impressed by the picture below taken from an amber.

As an added bonus, everyone was given a free copy of "Photomicrography for Gemologists." The article explained the set up for photographing through microscope and various illumination techniques. The article included many fine pictures of inclusions.



Droplets of dew or rainwater with air bubbles floating in them were captured in amber from the Dominican Republic.

Magnified 5X. Photomicrograph by John Koivula. Reprinted from GIA Insider: A Bi-Weekly Electronic Bulletin, November 21, 2008, Volume 10, Issue 20.

Blue Bell Mine Field Trip

By Robert Housley

The day was perfect and the group, consisting besides myself, of Al Wilkins, Pamela Birge, Barbara Matz, Andrew Turner, Bert Vogler, John Dagenais, and Wes Gannaway, was enthusiastic as we headed north from the Zzyzx off ramp toward the mine. However, I was surprised and somewhat worried by the good condition of the road, showing evidence of much recent traffic. Since this road only goes to the mine, that meant lots of people had been there recently. I guess that is to be expected for a collecting area that has been world famous for at least 40 years. In any case I need not have worried. There was still plenty to find.

At the A1 site adjacent to the parking area, we collected tsumebite and fornacite, and on the A2 dump just above, we found linarite, caledonite, and diopside in nice micro specimens. Eventually we all headed over to the D site, which involves a short hike followed by a short but steep climb over a large porphyry dike. Along the way to the D site I pointed out other possible productive collecting areas that we would not have time to explore. At the D site, on the dump of a small shaft, one can find a variety of micro minerals including hemimorphite, wulfenite, fluorite, perite, diopside, and chlorargyrite.

We all made it over the dike and everyone found something of interest on the D dumps. I remember in particular that Pam found a nice micro wulfenite. Since I had collected here many times, I was only looking for the unusual and was fortunate enough to find several things I wanted. I found one rock containing unaltered primary sulfides and tellurides. That is something I had been looking for for ages. I also found some of the Zn clay mineral fraipontite, and some of the rare Zn, Pb tellurate/phosphate kuksite.

During late afternoon, we all drifted back toward the cars. I took a short detour with John Dagenais, who showed

me where he had found a red Pb chloride mineral which is new for the Blue Bell, and either a very rare, or possibly, even a new mineral. I was also able to collect a little of that. Amazingly, after all the attention it has received, the Blue Bell still has surprises!

At the cars, tired but happy, we really enjoyed the left over sandwiches from the Conference that Pam had brought along. Then everyone headed out before dark.

Thanks for the Donations!

Many thanks to all of you who made the silent auction at the banquet a great success. Contributors included, but not limited to, Elizabeth Moller, Rock Currier, Steve Knox, Bob Housley, the estate of Walt Margerum, Carolyn Seitz, Janet Gordon, Toni Callaway, and Susan Hansen. Plenty of good bids made the evening fun and profitable for the MSSC, and we hope everyone is enjoying their new purchases.

Many thanks to the estate of Walter Margerum. Some of Walter's micromounts created quiet a fierce bidding in the Micromount Conference.

More about Walter Margerum

Email from past president Ilia Lyles: Walter's passing is truly a loss to all that know and love him. I first met Walter in 2003 when I joined the society and I immediately knew he was something special. His sense of humor and extraordinary intellect made him one in a billion. I always made a point of sitting next to Walter so I could be close to his energy and terrific wit. He was a wonderful treasurer but more importantly an amazing human being. Words cannot express how much I miss my dear friend; I will remember the fun times we had. He will never be forgotten. Goodbye Walter, I love and miss you so very much.

EXPANDED DANA SYSTEM

This is a 2008 Excel unprotected spreadsheet of minerals in revised-new Dana Order. Included are species, "expanded Dana numbers," formulas, crystals systems, by groups and more with undating potential. It can also be copied and used for other projects. Share with colleagues.

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2009 Calendar of Events

February 27 - March 8, Imperial, CA Imperial Valley Gem and Mineral Society, Inc. Gem and Mineral Building on Fairgrounds Hours: Fro., Sat. & Sun. Noon - 10 Mon. thru Thur. 4pm - 10pm

March 6, 7 & 8, Hayward, CA Mineral and Gem Society of Castro Valley Centennial Hall 22292 foothill Blvd. Hours: Fri. & Sat. 10 - 6, Sun. 10-5 Larry Ham (510) 887-9007 E-mail: showchair@mgscv.org Website: <http://www.mgscv.org>

March 7 - 8, Arcadia, CA Monrovia Rock Hounds, Inc. LA Co. Arboretum & Botanical Garden 301 North Baldwin Ave. (1 block South of I-210, Foothill Freeway) Hours: 9 - 4:30 both days E-mail: joannaritchey@gmail.com Website: www.moroks.com

March 7 - 8, Ventura, CA Ventura Gem and Mineral Society, Inc. 47th Annual Gem, Mineral , Lapidary & Fossil Show Seaside Park Ventura County Fairgrounds Hours: Sat. 10 - 5, Sun. 10-4 Website: <http://www.vgms.org> The show is free. Kids will enjoy “paint-a-fossil,” grab bags, and a variety of kids’ activities. There also will be demonstrations of lapidary arts and exhibits from wonderful private collections of rocks, minerals, fossils, and lapidary work. Raffle prizes will be drawn at the end of the show, and a silent rock auction will be held continuously throughout the show. More than 15 dealers in fossils, minerals, lapidary equipment, slabs, etc., will be on hand, along with a country store featuring flea market items, used books and magazines and plants. For further information, contact Jim Brace-Thompson, (805) 659-3577, jbraceth@roadrunner.com

March 13, 14, 15, Stoddard Wells, CA Victor Valley Gem & Mineral Club 33rd Annual Tailgate Held off Stoddard Wells Road in Apple Valley Hours: 10-5 Daily

Tailgate Map (Google): N34.670650 W117.108983

Website: www.vvgms.org

March 14-15, San Marino, CA Pasadena Lapidary Society
San Marino Masonic Center 3130 Hunting Drive, San
Marino Hours: Sat. 10 -6 , Sun 10-5

March 14-15, Turlock, CA Mother Lode Mineral Society
Stanislaus County Fairgrounds 900 N. Broadway,
Turlock Hours: Sat. 10 -6 , Sun 10-5 Website:
www.motherlodemineralsociety.com Show Website:
www.turlockgemshow.com

March 14-15, Spreckels, CA Salinas Valley Rock & Gem
Club Veteran's Memorial Hall 5th & Liano Streets
Hours: 10-5 daily Website: salinasrockandgem.com

March 21-22, Escondido, CA Palomar Gem & Mineral Club
Army National Guard Armory 304 Park Ave. Hours:
Sat. 9-5; Sun. 9-4 Website: www.palomargem.org

March 21 - 22, Vallejo, CA Vallejo Gem and Mineral
Society Vallejo Elks Lodge 2850 Redwood Parkway
(Intersection of Parkway and Admiral Callahan Road)
Hours: 10 - 5 both days

March 28 - 29, Torrance, CA South Bay Lapidary and
Mineral Society Torrance Recreational Center 3341
Torrance Blvd. Torrance, CA Hours: Sat. 10 - 5, Sun.
10-4 Website: <http://www.palosverdes.com/sblap/>

March 28-29: Angels Camp, CA Calaveras Gem & Mineral
Society Calaveras *Frog Town USA* Fairgrounds
Highway 49 in Angels Camp Hours: Sat. 10?; Sun. 10?
Website: Calaverasgemandmineral.org

March 28-29: Roseville, CA Roseville Rock Rollers Placer
County Fairgrounds 800 All America City Blvd.,
Roseville Hours: Sat.10?; Sun.10?

April 3-5, Bakersfield, CA San Joaquin Valley Lapidary
Society Kern County Fairgrounds 1142 South P. Street
- Corner S. P & Belle Terrace Hours: 9-5 Daily