

Bulletin of the Mineralogical Society of Southern California



Volume 79 Number 10

October 2008

The 847th Meeting of The Mineralogical Society
of Southern California

Earthquake Hazards in Southern California by **Dr. Nancy King**

Friday, October 10, 2008, at 7:30 p.m.
Geology Department, E-Building, Room 220
Pasadena City College
1570 E. Colorado Blvd., Pasadena

Featuring:

- MSSC annual banquet and auction to be out of this world
- Field trip to Trona
- The mystery of red labradorite/andesine
- Agate show at Menasha, Wisconsin part III
- An unusual tanzanite crystal

October Meeting Southern California Earthquakes

By Janet Gordon



*Lakebed sediments folded along the San Andreas Fault in Palmdale.
Paul Gordon photo.*

Join us at 7:30 on Friday, Oct 10, 2008 for a talk titled “*Earthquake Hazards in Southern California*” given by Dr. Nancy King of the U. S. Geological Survey. Dr. King will talk about the relationship between plate tectonics, faults and earthquakes, and explain how we locate and measure earthquakes. She will also discuss the faults and earthquake history of southern California and describe current earthquake research in our part of the state.

Dr. Nancy King has a B.A. in mathematics from the University of California at San Diego and a Ph.D. in geophysics from the Scripps Institution of Oceanography. She has spent most of her career as a geophysicist doing earthquake research at the United States Geological Survey (USGS). Her specialty, crustal deformation, involves using measurements of the surface deformations of the earth's crust to infer how faults are slipping both between and during earthquakes. She is currently Chief of the USGS Southern California Earthquake Hazard Assessment Project, and also leads the Global Positioning System (GPS) group at USGS Pasadena.

Minutes of the September 12, 2008 Meeting

The 847th meeting of The Mineralogical Society of Southern California was held on Friday, September 12, 2008, at Pasadena City College. President Geoffrey Caplette brought the meeting to order at 7:30 p.m.

Vice President Janet Gordon then introduced the speaker of the evening, Dr. Bryan Wilbur, who gave a presentation entitled: "Oddballs, Oddbulbs, and Oddcups: Cambrian Echinoderms of California and Nevada."

Dr. Wilbur, who has a Ph.D. from the University of Texas, joined the Pasadena City College faculty in 2006. He has published a number of papers on echinoderms, the primary focus of his research.

He began his talk by setting forth and discussing echinoderm synapomorphics: 1) five-fold symmetrical pattern; 2) stereom skeleton; and 3) water vascular system. He then proceeded to very enthusiastically describe a particularly strange Cambrian echinoderm, the helicoplacoid. Through extensive field collecting in California, Nevada and Canada, and studying many hundreds of echinoderm casts, Dr. Wilbur was able to shed new light on the helicoplacoid's structure and

habits, and determine that there were most likely two species and one mutant form of helicoplacoids.

At show and tell, Bob Housley displayed drusy quartz and opalescent quartz that he had collected outside Roseburg, Oregon. He requested input from members regarding the probable cause of the iridescent effect shown in the opalescent quartz. Jane Jones brought Russian vivianite that appeared to occur on bauxite. MSSC members provided Russian mineral information sources that Ms. Jones could use to identify her specimen. Ms. Jones graciously brought specimens of stibnite and millerite, among others, for door prizes.

Bob Housley announced that the Friends of Mineralogy would be having a conference on the identification of minerals in October, 2008, and encouraged members to visit the Friends of Mineralogy website for more information. Janet Gordon reminded members about the annual Trona Gem-O-Rama to be held October 11-12, 2008, and provided handouts about the various Trona events.

The door prize was won by Christine Urbach.

President Caplette brought the meeting to a close at 8:50 p.m.

Respectfully submitted, Pat Caplette Secretary

MSSC Banquet and Auction to be Out of This World!

Save Saturday evening, January 24, 2009 for the annual MSSC banquet and auction! We are privileged to have Dr. Ralph Milliken, a foremost expert on the minerals of Mars as our dynamic speaker, and with contributions from members like you, our silent auction can be an out of this world success. Janet Gordon is ready now and anytime until January 24 to collect your contributions of mineral specimens, mineral books, and related items to be sold in a silent auction to benefit the society. Start looking through your drawers,

garage, and bookshelves now, and plan on a great evening in January.

Yes, we will be having the same delicious food as usual at the Oak Tree Room in Arcadia with plenty of room to socialize and scrutinize auction items.

Field Trip Announcement

By James Imai

Gem-O-Rama of the Searles Lake Gem and Mineral Society, October 11 – 12, Trona, CA (see also the listing in the Bulletin and home page of SLG&M, <http://www1.iwvisp.com/tronagemclub/GEM-O-RAMA.htm>). There are many, many activities ranging from a Pancake Breakfast starting at 6AM both days, displays and dealers, and several very rewarding field trips (modest fees required). If you have not yet collected or are in need of replenishing your specimens of euhedral Hanksite, sulfohalites, or beautiful Pink Halite, this is your chance! The former are dry “blowhole” crystals; the specimens are formed at depth and substantial pressures, so the Searles Valley mineral plant drills to the deposit and allows the crystals to blow freely onto the dry lake surface. Hanksite is easily collected as fine crystals ranging in size up to hens eggs. The sulfohalites range from peanut to filbert nut size. These crystals will suffer from exposure to surface conditions, but may be preserved simply by storage in a sealed container (such as a jam or baby food jar) or by coating with a protective film. If you wish to experiment in this preservation, bring an empty two liter soda bottle to be filled with a saturated solution of the fluids in which the crystals originally formed. The Pink Halite, in turn, forms masses of well-formed cubes, some skeletal, but in a saturated pool environment. It can be messy (this is an understatement).

It is not really possible to take full advantage of all of the activities; hence no matter if you have gone to this Gem-

O-Rama before, there is still something fresh and wonderful to do. See their program announcement.

Because of the wide range of activities and interests, it is suggested that MSSC members act on their own, and form any sub-groups as they wish. There are accommodations both for campers, and for those requiring motels, as well as lunches and dinners. There is something for everyone!

These Might Interest You!!! Conference and Symposium

**--The 29th Annual New Mexico Mineral Symposium
November 8 & 9, 2008 Macey Center New Mexico Institute
of Mining & Technology Socorro, New Mexico** sponsored
by: New Mexico Bureau of Geology and Mineral Resources
Albuquerque Gem and Mineral Club Los Alamos Geological
Society New Mexico Geological Society Chaparral
Rockhounds

The symposium will consist of a day and a half of formal papers presented in 30-minute time blocks. An informal pre-symposium social and tailgating session will be held at local motels beginning on Friday, November 7, 2008 and a silent auction. No formal field trips are planned.

The general registration fee for the symposium is \$30.00, the fee for seniors over 55 is \$25.00, and the fee for students is \$15.00 (with student ID).

To find out more information please visit: 29th NM Mineral Symposium Announcement 2

--The Second Gemological Research Conference hosted by the Gemological Institute of America (GIA) is calling for Abstracts

The Second Gemological Research Conference (GRC 2009) will take place August 21-23, 2009 in San Diego, California. According to GIA publication following are some of the highlight:

- World-renowned keynote speakers (It is confirmed that MSSC member, Dr. George Rossman will be one of the keynote speakers).
- Cutting-edge oral and poster presentations and panel discussions
- Two parallel tracks emphasizing gemology and jewelry/business issues
- International, multidisciplinary participation, including a session
- co-organized by the Mineralogical Society of America
- Field trips to the famous gem pegmatites of San Diego County
- Photography competition and workshops

If you are interested in presenting your research findings in oral and poster presentations you can, submit an abstract of the presentation (up to 400 words plus one figure or table) by March 1, 2009. Members of the GRC Advisory Committee will review all abstracts for appropriateness and scientific merit. Those chosen for conference presentations will be published in a conference proceedings volume.

For detailed instructions to submit abstracts and conference registration please visit the [conference website](http://www.grc2009.gia.edu) at: www.grc2009.gia.edu

The Mystery of Red Labradorite/Andesine

By Shou-Lin Lee

The first time I heard the name “red labradorite” was on ACN, a TV shopping channel, about three years ago. The name peaked my interest because the labradorite I knew was mostly blue. That was news to me and I am always on the lookout for new stone. Although the show host claimed that the mine was somewhere in China, the description she gave

sounded very much like Oregon sunstone. I thought the shopping channel probably tried to repackage a lesser known stone with some mystique to promote the desirability of the stone among unwary customers. After all, Oregon sunstone is not well known among the general public.

Later, the shopping channel announced that they received the lab result of their “red labradorite.” It turned out that the stone had more andesine than labradorite. So the channel corrected their label and continued selling “red labradorite” under the new name “red andesine.” Meanwhile, the exact locality of the mine remained as a mystery. It changed from Mongolia to the Congo to Tibet.

Sometime last year, rumors started flying that the so called “red labradorite/andesine” was really treated yellow labradorite from Mexico. News had it that both the Gemological Institute of America and Dr. George Rossman were given some samples to study. Since Dr. Rossman is a MSSC member, I was anxious to learn his finding.

Because it is a multimillion dollar question (there are pending law suits), Dr. Rossman was very tight-lipped about his findings, but he mentioned that he will published his findings, most likely in Gems and Gemology. And after that he might give a talk to our members. So be on the look out.

Agate Show at Menasha, Wisconsin: Part III The Sales

Text and photos by Shou-Lin Lee

When Mr. Richards told me that there would be vendors selling agates from China, I did not expect the agates to be those that I had been looking for. After all, many areas in China produce agate. Just in the Los Angeles area, one can find vendors selling agates from Western China, Inner Mongolia, and northeast China, but never the kind I was looking for, which were small tumbled nodules from Yangzi

Riverbank. Even so, when I spotted a sign said “Agate, of The World,” I headed straight to the booth. Before I could check out whether the vendor really had agates from all continents, my eyes were fixed on a sign said “Rain Flower Agate, Yangtzu [sic] River, China:” In front of the sign there were some agate nodules (see photo to the left). Clasp



ing my husband Chris' arm tightly, I stared at the agates. “This is it. This is it. I found it.” Chris quietly patted my hand. My excitement was that of someone who finally met her famous celebrity idol in person. I was excited, not only because I finally found the agate, but also because I heard about the “rain flower stone” since childhood, but had never known what it looked like, only that it was decorative rock found at Yuhautai in Nanjing

city, Jiangsu Province. The agate that I thought was a recent discovery was, in reality, an old favorite among Chinese for more than a thousand years. As I was chatting with the vendor about his agates, he pointed out that behind his booth there was another vendor who specialized in “rain flower stone.” Sure enough, the vendor not only had two tables of the stones, he also showed me two books on the subject. The books, that were written in Chinese were about a certain personal collection of the rain flower stone. I felt like I hit the jack pot!

Other than the vendor who boasted to have agates from all over the world, there were also vendors who specialized in agates from single localities such as from Union Road (St. Louis, Missouri), Mexico, Germany, Argentina, and Antarctica. Antarctica? Yes the vendor had a sign said that his agates were from Antarctica, Russian base, Agate Bay.

How do people collect agates from under a thick layer of ice, I wondered.

Photo Gallery of Rain Flower Stones



Agate Trivia

--In 1969, the Lake Superior agate was named the official Minnesota State gemstone.

--Mortars and pestles made of agate have been used in chemistry and physics laboratories for many years because the smooth, highly polished surfaces of the agate allowed the scientist or technician to grind chemical reagents.

--Turn and bank indicators of military aircraft used to contain a black agate bead.

--During the Renaissance period, stone cut from dendritic agate was considered holy stone by Muslims, Christians and Jews because of the resemblance of dendrites to the burning bushes of Moses.

An Unusual Tanzanite Crystal

Text and Photo by Shou-Lin Lee

At the September International Gem and Jewelry Show in Santa Monica, I spotted an unusual Tanzanite (see photo below).



The crystal shape resembles more of a kyanite than a tanzanite. The color of the skin is mostly beige, with a tinge of pink in some areas. However, the center of the stone is deep violet. The vendor told me that the whole lot was found

as a single piece about three feet long. Hoping to find some cut-able material, the miner broke the piece and did not find any facet-able material. Some pieces were crumbly. As I was picking through the lot, checking for sturdiness, some pieces broke in two. Still my first reaction was will this cut an eye? I guess that I have to find out for myself.

West Coast Fall

GEM&MINERAL SHOW

HOLIDAY INN - Costa Mesa

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NOV. 14 -15 -16, 2008 Show Hours: Fri. & Sat., 10 - 6, Sun. 10 - 5

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2008 Calendar of Events

October 5 2008, Fallbrook, Fallbrook Gem & Mineral

Society "Fall Festival of Gems" FGMS Museum 123

W. Alvarado Hours: 10 - 4

October 11-12 2008, Grass Valley, Nevada County Gem &

Mineral Society "Earth's Treasures" Nevada County

Fairgrounds 11228 McCourtney Road Hours: 10 - 5

both days

October 11 - 12 2008, 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

- October 11-12 2008, Lakeside,** Cajon Valley Gem & Mineral Society Lakeside Rodeo Grounds 12584 Maplevue
Hours: 10-5 both days
- October 11-12 2008, Vista,** Vista Gem & Mineral Society Antique Gas & Steam Engine Museum 2040 North Sante Fe Avenue Hours: Sat. 10-5, Sun. 10-4
- October 18 2008, West Hills,** Woodland Hills Rock Chippers First United Methodist Church 22700 Sherman Way
Hours: 10-5
- October 18-19 2008, Anderson,** Shasta Gem & Mineral Society Shasta District Fairgrounds Hours: 1Sat. 9-5: Sun. 10-4
- October 18-19 2008, Placerville,** El Dorado County Mineral & Gem Society El Dorado County Fairgrounds 100 Placerville Drive Hours: 10 - 5 both days
- October 18-19 2008, Santa Rosa,** Santa Rosa Mineral & Gem Society Veterans' Memorial Auditorium 1351 Maple Avenue, Santa Rosa Hours: Sat. 10-6, Sun. 10-5
- October 18-19 2008, Whittier,** Whittier Gem & Mineral Society Whittier Community Center 7630 Washington Avenue Hours: Sat. 10-5 both days
- October 25-26, 2008, Los Altos,** Peninsula Gem & Geology Society Los Altos Youth Center One San Antonio Road Hours: Sat. 9-5 pm, Sun. 9-4 pm
- November 1-2 2008, Anaheim,** American Opal Society Clarion Hotel Anaheim Resort 616 Convention Way
Saturday 10 to 6, Sunday 10 to 5 paid admission.
- November 1-2 2008, Concord,** Contra Costa Mineral & Gem Society Centre Concord - 5298 Clayton Rd. Clayton Fair Shopping Center Hours: 10 - 5 both days
- November 1 - 2 2008, Ridgecrest,** Indian Wells Gem & Mineral Society Desert Empire Fairgrounds, Mesquite Hall 520 S. Richmond Rd. Hours: 9-5 both days
- November 1 - 2 2008, San Diego,** San Diego Mineral & Gem Society Al Bahr Shrine Center 5440 Kearny Mesa Road Hours: Sat. 9:30-5, Sun 10-4