

Bulletin of the Mineralogical Society of Southern California



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February 2009

The 851th Meeting of The Mineralogical Society
of Southern California

The Geology and Gemstones of Gondwanaland

By

Dr. Bruce Carter

Friday, February 20, 2009 at 7:30 p.m.

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

Featuring:

- Pictures of January banquet**
- Remembering Walter Margerum**
- Update on red labradorite**
- The red diamond**

February Program

The Geology and Gemstones of Gondwanaland: Travels in Madagascar and South Africa

By Janet Gordon

On Friday, February 20, 2009, Dr. Bruce Carter will present "*The Geology and Gemstones of Gondwanaland: Travels in Madagascar and South Africa*" at 7:30 in room E220 of the Geology Department at Pasadena City College. The talk will feature the recent Gem and Mineral Council trip to Madagascar to explore mineral localities and gemstone sources. As a world-renowned source of many exceptional mineral specimens and fine gemstones, the geology of Madagascar is surprisingly poorly known.

About the size of California, Madagascar is a fragment torn off first from Africa and later from India. The island has more endemic species than any other land mass its size, including many species of lemurs (primates) and baobabs (trees). Humans arrived only about 1000 years ago, but in that short time they have stripped more of the original rain forest than just about any other tropical area on Earth, and it is now one of the poorest nations in Africa.

Madagascar is part of a belt of mineralization stretching from Ethiopia and Arabia through Tanzania and Mozambique to India, Sri Lanka and Antarctica. Long known for a few mineral occurrences, such as tourmaline and celestite, it is only in the past couple of decades that many of the gemstone deposits have been located in Madagascar.

Starting out in Johannesburg and the Kruger National Park, Bruce and Kathy then joined the group from the Los Angeles Natural History Museum for two weeks in Madagascar. Led by Charlie Carmona, the group visited a

number of artisanal mining localities as well as several cutting shops and gemstone markets.

Bruce earned B.S., M.S. and Ph.D. degrees in geology from Caltech and taught at PCC for 34 years, serving as Dean of Natural Sciences for the last 18 years. He retired in 2005, got married in 2006 and has enjoyed many trips with Kathy since then.

Minutes of the January 24, 2009 Meeting

The 850th meeting of The Mineralogical Society of Southern California was held on Saturday, January 24, 2009, at The Oak Tree Room, Arcadia, CA., the site of the annual banquet. President Geoff Caplette brought the meeting to order at 6:30 p.m. Dinner was served promptly thereafter.

Immediately following the dinner, Dr. Janet Gordon introduced the speaker of the evening, Dr. Ralph Milliken, who gave a presentation entitled: "Opal and Other Mysterious Materials on Mars."

Dr. Milliken, who earned a Ph.D. in Geology from Brown University, is a research scientist at JPL/Caltech, and primarily studies hydrated minerals throughout the solar system through the use of reflectance spectroscopy and other methods.

Dr. Milliken began his talk by discussing the size and features of Mars, including its water cycles, dunes and arid regions. He explained that since Martian meteorites are rare, robotic exploration was necessary to enhance our knowledge of the geology of the planet.

Unlike earth, minerals, such as opal, clays and hydrated salts are found on very ancient terrains on Mars; the entire history of Mars is preserved in its rock record.

The changes in Martian mineralogy through time were discussed: the Amazonian period, dominated by iron oxides, the Hesperian, with its sulfate salts, and the oldest, the

Noachian, dominated by clay. Ancient Mars, with plentiful water, transitioned to a dry and cold planet.

The advanced laboratory and remote sensing techniques and equipment now available, including reflectance spectroscopy and satellites, provide high-resolution data, and allow for the mapping of the geology the Mars.

The photographs of the canyons and delta systems of the planet, especially those viewed through 3-D glasses, were particularly impressive.

Dr. Milliken also discussed the latest generation rover, which is scheduled to launch in 2011.

Following the presentation, Geoff Caplette announced that he would continue as President, with Herman Ruvalcaba and Pat Caplette remaining in their respective positions of Treasurer and Secretary. Bruce Carter is the new Vice President, replacing Janet Gordon. Dr. Gordon, the backbone of the MSSC, was thanked for her long-time, excellent service, in many positions and capacities over the years. Fred Elsnau, Jim Imai, Leslie Ogg and Geoff Caplette will serve as Directors. Jo Anna Ritchey is CFMS Director.

Bob Housley reminded members of the upcoming Pacific Micro-Mount Conference, and stated that there would be interesting speakers on different topics of interest, including inclusions in minerals.

At show and tell, Steve Knox displayed boxes of impressive minerals he had collected over the past year,



including topaz, malachite (see picture to the left), smoky quartz, and a large specimen of phenakite.

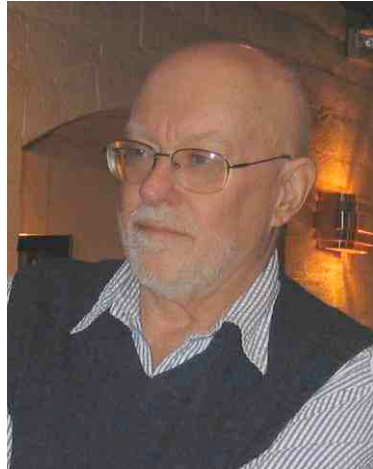
The auction, held in conjunction with the banquet, was a success. We want to thank the family of Walt Margerum, who generously donated numerous minerals for the auction.

The meeting was brought to a close at 8:40 p.m. by President Caplette.

Respectfully submitted, Pat Caplette, Secretary
2009 Officers



Geoff Canlette President



Bruce Carter Vice President



Herman Ruvalcaba Treasurer



Pat Caplette Secretary

Pictures from the Banquet



Inspection and bidding of silent auction items.





Some fine specimens up for auction

Passing of MSSC Former Treasurer Walter Margerum

Bob Housley reported that he was contacted by Walter Margerum's brother about the passing of Walter Margerum. Mr. Margerum was former MSSC treasurer and at one time, the bulletin editor too.

Email from Bob Housley: It is with considerable sadness that I must inform you that Walter Margerum passed away suddenly during the weekend before Christmas. He was only 69. Walter was born in Princeton, New Jersey and graduated from Newark College of Engineering. After graduation he went to work in the aerospace industry and settled in Southern California. He soon became a mineral and earth science enthusiast and started roaming the desert looking for minerals. As a part of his passion he developed an extensive computer database of Southwestern mines and mineral localities. He



Walter walking up the hill toward the Essex Mine dump from the Thompson Mine parking area to collect linarite. It was taken during the SCFM Darwin trip last April. Photo by Bob Housley

wrote popular articles on such places as Borate, The Tungsten Hills, Darwin, and Mount General, to name a few. In recent years his focus shifted to micro minerals and he became an expert micro mineral photographer. He also became a co-organizer of the Pacific Micromount Conference. His willing help and exhaustive knowledge will be sorely missed.

Email from James Imai: The sudden and sad news about Walter Margerum leaves us all with a deep sense of loss. He was a valuable and contributing member of the MSSC. He not only participated in our events, but was a pillar in managing affairs as treasurer and his presence will be sorely missed. He had the infinite patience and skill to manage our accounts and keep straight all the details of the transactions of the club.

On November 29, Walter, my son Joshua and I went on an outing to the Shadow Mountain area for mineral exploration and a bit of target practice. Walter not only self-



collected minerals, but he had an extensive collection of United States military arms. He was extremely knowledgeable about both. We walked the various outcrops and he talked about his engineering background which began in central Colorado (Cheyenne area, I seem to recall). We had a good day, and stayed out until dark, stopping for fish tacos on the way back. It was the last time I would see Walter.

Walter in the foreground taken on Nov. 29 by James Imai

**Have you pay your membership dues yet?
It was due last month!!!**

**If you did not receive the dues notice
Please contact Membership Chair:
Herman Ruvalcaba**

I hate to cross your name out of the mailing list

A New Twist in the Saga of Natural Red Labradorites/Andesine

by Shou-Lin Lee

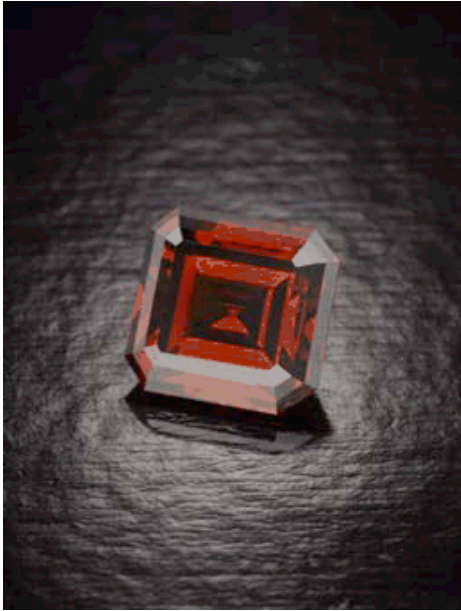
Last month I reported that according to Gemological Institute of America (GIA), a team of scholars from the Gemmological Association of All Japan visited the andesine mines in Tibet and Inner Mongolia and confirmed that indeed the Tibetan locality does produce natural red andesine. So as soon as the winter issue of Gem and Gemology arrived, I immediately flipped to the page about red andesine. The article included pictures of red andesine in concentrations mixed with sand/gravel or soil. Also a picture of red andesine pebbles after they were cleaned. The materials in both pictures had a very intense red color, but somewhat opaque. I was disappointed that Dr. George Rossman's study on the physical properties of the materials was not in the journal.

Dr. Rossman told me that the publication of his article was postponed because he needed more time to study the new materials received from the expedition. However, he observed something unusual in the specimens he received from the above mentioned expedition. So--- what does this mean?

I guess it is to be continued.....

If you go to Quartzsite or visit any Tuscon shows, please share your experiences by submitting your pictures and adding a few lines. I can use your input.

The Kazanjian Red Diamond



By Shou-Lin Lee

Since we are on the topic of red stones, have you checked out the red diamond on display at Los Angeles County Natural History Museum? According to the news posted at the museum's website: <http://www.nhm.org/>, the 5.23 carat diamond was cut from a diamond rough that was *“found around 1927 in the diamond fields of South Africa, the red diamond was a sensational discovery. During World War II, it was stolen in Arnhem during Nazi occupation of the Netherlands, and hidden in a salt mine with other looted treasures. When it was recovered by American soldiers, it was at first mistaken for a ruby. The diamond's original owners did not survive the war and the gem was eventually sold. It passed through several hands, including those of Sir Ernest Oppenheimer, until it was purchased by a private collector in 1970. There it remained hidden until 2007 when it was*

purchased by Los Angeles-based Kazanjian Bros. Inc. This is its first exhibition in the U.S.”

Natural red diamonds over five carats are extremely rare so last month I made a special trip to the museum just to see this diamond in person. Although, at the first glance it looked like a very good garnet, I must say the trip to the museum was worth it. Speaking of red diamond looks like a garnet, I remembered reading about the red diamond in Smithsonian that was once identified as a garnet. Next time if someone offered you some red stones better checked them before dismissing them as garnets.

Now that you have seen the picture, what do you think?

(Photo from www.nhm.org/news/archive/2009/Kazanjian_Red_Diamond.pdf)

COSTA MESA, CA - *the Spring Show*

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2009 Calendar of Events

- January 2-February 28, Quartzsite, Az.** Various rock and mineral shows,for more information check Web site www.ci.quartzsite.az.us
- January 31-February 14, Tucson , Az.** Various rock and mineral shows,for more information check Web site www.tucsconshowguide.com
- February 12-15, Tucson , Az.** Tucson Convention Center for more information check Web site www.tgms.org
- February 13-22, 2009, Indio, CA** San Gorgonio Mineral & Gem Society Riverside County Fair & National Date Festival Gem amp;& Mineral Building Bldg #1 46-350 Arabia Street Hours: 10 am - 10 pm
- February 27 - 28, Northridge, CA** Del Air Rockhounds Club United Methodist Church 9650 Reseda Blvd. (at Superior Street) Hours: Fri. 3 - 9:30- Sat. 10-5
- February 27 - March 8 2009, 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 2009, Hayward, CA** Mineral and Gem Society of Castro Valley Centennial Hall 22292 foothill Blvd. Hours: Fri. & Sat. 10 - 6, Sun. 10-5
Website: <http://www.mgscv.org>
- March 7 - 8 2009, 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 Website: www.moroks.com
- March 7 - 8 2009, 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>