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Bulletin of the Mineralogical Society of Southern California

Volume 77 Number 3

March 2007

The 829th Meeting of The Mineralogical Society of Southern California

Colors of Quartz

by

Laura Baker

Friday, March 9, 2007, at 7:30 p.m.

Geology Department, E-Building, Room 220

Pasadena City College

1570 E. Colorado Blvd., Pasadena

Featuring:

--Reports on 42nd Pacific Micro-Mount Conference

--Field Trip to Blue Bell Mine

--Report on the 53rd Tucson Gem and Mineral Show



(Photo above: Quartz from New Hampshire with an amethyst core surrounded by green quartz. Photo provided by Laura Baker.)

About March Meeting

Date: Friday, March 9, 2007

Speaker: Laura Baker

Topic: Colors in Quartz

Laura J. Baker will speak on “Colors in Quartz” for the March 9, 2007, meeting beginning at 7:30. Quartz, a mineral familiar to collectors and mineral scientists alike, is found in a variety of colors, from colorless to yellow, to rose-red to green, to purple to brown. The causes of the different coloration can be discussed in terms of the environment in which the quartz grew and the different chemical elements present in minute quantities within the crystalline structure. Our speaker will present an overview of what is understood today about the different colors of quartz, and the tools scientists use to find out about color in minerals. Particular emphasis will be on a greenish variety of quartz found in an amethyst deposit at Thunder Bay, Ontario, Canada.

Greenish quartz has been reported at a number of deposits throughout the world. The material from Thunder Bay Amethyst Mine Panorama is generally pale greenish-gray, but samples of greenish quartz collected from other amethyst-bearing localities are more intensely colored. A detailed study of quartz from the Thunder Bay deposit shows that the green quartz is part of a color-gradational mineralization sequence involving quartz of other colors and chalcedony. For all localities, the color is consistently correlated with the speciation of hydrous components, as darker green samples incorporate larger amounts of molecular water than paler greenish-gray samples, colorless samples, and amethyst.

Laura Baker is currently a graduate student in the Division of Geological and Planetary Sciences at Caltech, working on modeling of subduction zones. Specifically, she is developing a computational model that allows iterative feedback between chemical aspects: mineral chemistry, melt initiation and migration, and water in nominally-anhydrous minerals; and dynamic aspects: buoyancy forces and evolving thermal and velocity fields. This model will lead to a better understanding of geophysical and geochemical observables,

such as the nature of magmas produced at subduction-related volcanoes. Other research interests include a study of rare green quartz found at an amethyst mine in Ontario, Canada. A Maryland-native, she received her bachelor of science degree in geology from the University of Maryland, and a master's degree in geochemistry from Caltech.

Minutes of the January 20, 2007, Meeting



Joe Siefke, Steve Knox, Rock Currier, and Geoff and Pat Caplette admire scepter quartz collected by Steve Knox. Photo by Paul Gordon

The 827th meeting of the Mineralogical Society of Southern California was held on Saturday, January 20, 2007 at the Oak Tree Room, Arcadia, CA. President Ilia Lyles brought the meeting to order at 6:30 p.m.

Immediately following the annual dinner, Dr. Janet Gordon introduced the speaker of the evening, Dr. David K. Lynch, who gave a presentation entitled: "San Andreas Fault." Dr. Lynch, who has a Ph.D. in Astronomy, has an extensive background in infrared spectroscopy of stars and other celestial bodies, and has been widely published, having authored over 150 scientific papers and 10 books.

Although his background is primarily astronomy-related, Dr. Lynch took the initiative to map the San Andreas Fault, from Cape Mendocino to the Mexican border, during driving trips and from observations while a passenger in low-flying, hired planes. During his talk, Dr. Lynch described the main geologic features along the Fault, with emphasis on the Carrizo Plain. He is also the author of a new book, "Field Guide to the San Andreas Fault," which covers the geology and provides detailed maps.

Janet Gordon announced that the speaker for the February meeting (which will be held on the 4th Friday of the month) would discuss the mineralogy of Greenland and Iceland, while the speaker for the March meeting, Laura Baker, will describe the various colors of quartz and the Thunder Bay, Ontario deposits.

The 2007 officers of the MSSC were introduced, and past presidents were acknowledged. It was announced that there is still an opening on the Board of Directors. It was also announced that the January board meeting would be held at the home of Ilia Lyles on January 21, 2007 at 2:00 p.m.

Walt Margerum stated that the silent auction, held during the banquet, raised over \$1,000 for the club. The meeting was brought to a close by President Lyles at 9:00 p.m.

Respectfully submitted,

Pat and Geoff Caplette

Minutes of the January 2007 Board Meeting

The January 2007 Board Meeting of the Mineralogical Society of Southern California was held at the home of President Ilia Lyles, in Simi Valley, CA, on January 21, 2007. President Lyles brought the meeting to order at 2:00 p.m. In attendance were the following MSSC members: Ilia Lyles, Janet Gordon, Walt Margerum, Robert Housley, James Imai, Leslie Ogg, and Geoff and Pat Caplette

Principal Topics

Review of 2006 Finances: The net worth of the MSSC was \$20,672.30 as of December 31, 2006. A significant contributing factor to the net worth amount was the cash received as a result of the recent merger between the Southern California Micro-Mounters and the MSSC.

Budget for 2007: Walt Margerum presented the 2007 proposed budget, including general annual income and general annual expenses. The budget, which included the proposed sale of 9 display cases, was approved by the Board. During 2007, respective donations of \$200 to the San Bernardino County Museum and \$500 to the PCC Van Amringe Memorial will be made. A gift, in an amount to be determined, might also be made to the California Mining Museum.

Upon review, it was agreed that the amount of available cash was not appropriate to the conducting of a large show in 2007. Mineral auctions, at MSSC events, will continue to be held in 2007.

One of the MSSC's larger expenses, display case trailer parking, could be affected by arrangements that may be made with the Fallbrook Gem and Mineral Society during the year. It is possible that the trailer might be stored at that club's premises.

Possibility of a 2007 Mini-Show: Various show formats, including combining a small show with the annual picnic and having speakers, as well as joining efforts with the Fallbrook club to do the same, were discussed. Talks with the Fallbrook club will continue. In the meantime, potential picnic locations, not to exceed the approximate amount of \$200 in rental charges, will be investigated.

Future Field Trips: Trips to Topaz Mountain in Utah, the aragonite site near San Luis Obispo, the Rowley Mine near Gila Bend, Arizona, mines surrounding Cedar City, Utah, and certain sections of the San Andreas Fault, were discussed. Janet Gordon will be available for a San Andreas Fault trip if it occurs in the May 10th to 11th time frame.

July Board Meeting Locality: The July Board Meeting will be held at the home of James Imai and Leslie Ogg in Redondo Beach, CA on July 15th, 2007.

Webmaster: Leslie Ogg agreed to assume the duties of webmaster. It was moved, seconded and approved that she undertakes such position.

The meeting was brought to a close at 4:30 p.m.

Respectfully submitted,

Pat and Geoff Caplette

We Have Five New Members

Richard G. Doyle MD

8525 Louise Ave.

Northridge, CA 91325

Pamela Birge

17615 Valeport Ave.

Los Angeles, CA 93535

Bill and Pat Kent

5439 La Jolla Mesa Dr.

La Jolla, CA 92037

David K. Lynch

22914 Portage Circle Dr.

Topanga, CA 90290

42nd Pacific Micro-Mount Conference Report

by Walt Margerum

The conference opened promptly at 3:00 PM Friday January 26 in the San Bernardino County Museum's conference room. 23 people were present for the potluck buffet dinner

followed by Sugar White's annual "What's New in Minerals" slide show and talk. As usual the talk was entertaining and educational, and as usual the pictures were spectacular. We have become so accustomed to Sugar's pictures we tend to forget how much time, effort, and skill goes into them. So, thank you Sugar! The Conference then adjourned for the night.

The doors opened at 8:00 AM Saturday and an additional 21 people attended the main session. Julia Curtis Steele gave a retrospective on the life of Juanita Curtis telling how she got interested in minerals, and giving a brief history of her life. Juanita was one of the founders of the Southern California Micro-Mineralogists, and instrumental in starting the Pacific Micro-Mount Conference. The mineral juanitaite which she discovered was named in her honor. She will be missed. Fred Elsnau then gave an excellent talk and slideshow titled "Mostly Micro's". Again I was impressed by the quality of both the pictures, and the specimens.

At noon we broke for lunch. After lunch the verbal auction was held and 34 excellent specimens and slides went to the lucky high bidders. A silent auction of xx specimens and other items was held until 3:00 PM.

Bob Housley, Garth Bricker, and Sugar White presented information and pictures on the Sunday field trip to the Blue Bell Mine.

We broke for dinner at 6:00 PM. It seems we spent a lot of time eating. It must be noted that between the talks and eating, much socializing and transferring of information and specimens was accomplished.

After dinner Joe Marty presented his "Recent Finds in Utah and Nevada", and without seeming to be too repetitive, I was amazed by the quality of the pictures and specimens.

For those MSSC members that are not "into micro's" attendance at this conference will turn you into true believers. I expect to see more of you there next year. The museum portion of the conference ended about 9:00 PM.

First, thanks to the San Bernardino County Museum for hosting us. I want to thank all the MSSC members that made it happen. Bob Housley for his coordination with the museum, his leading the field trip, and his overall support during the show. Sugar and Bob White for handling the lunch, and leading the auction. Ann Meister for the buffet dinner, providing the dinnerware, coffee pots, etc. Garth and Janice Bricker for their usual excellent job of handling the \$1 sale table. Al Wilkins for the badges, and recording the winners of the auction. He also collected the money. Gene Reynolds handled the give-away table in his usual efficient manner. Jim Imai provided yeoman's service as needed. If I have forgotten anyone I apologize.

In summary the Conference was a success, and hopefully many more will ensue.

Blue Bell Mine field trip report

by Bob Housley

During the Pacific Micro-Mount Conference we held a mini symposium on the Blue Bell Mine and showed slides of many of the 50 or so minerals that have been found there. We also warned people that in recent years mainly micro specimens have been collected there.

Despite that fifteen people and 3 dogs came on the field trip to the Mine on the following Sunday. The weather was perfect and everyone was on time at our meeting place at the Zzyzx off ramp from I-15 near Baker. We caravanned to the mine site, over 6 miles of somewhat washed out desert road, in 12 four wheel drive vehicles without incident.

Our first stop was in the northern part of the working also referred to as the "A" site. These workings consist of a glory hole and several short adits with associated dumps. Quite a few small pieces of linarite and some cerussite and brochantite were found on the dump from the glory hole. In the adit closest to the parking area Walter Margerum found some vauquelinite, platnerite, and probably pyromorphite, while nearby Andrew Turner and Joe Marty found some nice tsumebite. Meanwhile in a lower adit Bruce Hurley and Brian Dozier found some small wulfenites.

After lunch a few headed home to avoid the Las Vegas traffic, but about 10 of us walked the few hundred yards over to the southern most workings referred to as the "D" site. This involved climbing over a distinct porphyry dike that sticks up about 30 feet above the surrounding softer metamorphized sediments. The southern workings consist of a couple of short adits and a couple of shallow shafts with associated dumps.

The dump of one of the small shafts consists almost entirely of coarsely cellular gossan with cells up to about an inch in diameter, that frequently contained one or more of the minerals quartz, hemimorphite, fluorite, wulfenite, diopside, calcite, chlorargyrite, perite, and murdochite. Everyone broke rock on this dump for a while and found many of these minerals. Al Wilkins got several nice wulfenites and some murdochite. I got some nice chlorargyrite.

Late in the day Joe Marty worked in one of the small adits and surprisingly broke out some cabinet specimens of chlorargyrite with calcite. I think everyone had a nice time and left with some interesting specimens. People headed home when they felt ready. I stayed until after dark. Garth Bricker slept there overnight before heading home

Dues are Overdue!

If you have not paid your dues, this will be your last Bulletin. We will miss you. Hate to see you miss out on Walter Margerum's four-part report on Goodsprings District.

Member's report on show event.....

The 53rd Tucson Gem and Mineral Show

By William Moller

With an estimated of 30,000 people in attendance, the 53rd Tucson Gem and Mineral Show offered a magnificent exhibition of gems, minerals and fossils during its recent display of earth artifacts.

Drawing strongly upon choice displays from Australia and other distant lands, the exhibits emphasized opportunities to view superb opals, extraordinary clusters of reddish orange crocoite and well crystallized dark brown garnets. Gold, copper, and diamonds supplemented the examples in the forty plus cases dedicated to representatives of the Earth's southernmost continent.

Activities of an extraordinary nature for mineral shows took place in the evening, prior to the start of displays, when Dona and Wayne Leicht entertained approximately one hundred patrons of the festivities with a superb dinner in a mansion of tremendous proportions, high atop a hill, not too far from the Show site.

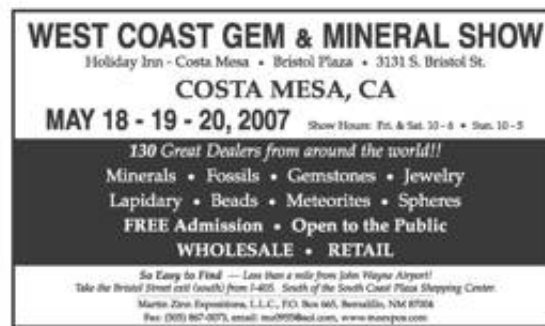
Accenting the uniqueness of the event was preparation of the dinner by a French chef imported by the hosts, Ian Bruce and Wayne and Dona Leicht. A superb evening was enjoyed by all participants.

In addition to the numerous display areas distributed in abundance among more than five motels exterior to the main show, spectators were able to visit almost four hundred sites for distribution of exceptional mineral specimens, sources of polished stones and related jewelry.

Vying also for spectators interest were various daily and evening events such as a lecture on Australian minerals their history and current collecting sites, including those of New Zealand.

Closing of the show on the final evening was marked by the presentation of top honors for excellence of quality and beauty to Marc Weill of Connecticut. He was accorded as possessing "the best box of rocks" according to standards established by the late Paul Desautels. The Sidstrom Award given for the best single specimen in competition went to Jack Halpern of San Francisco.

In 2008 it is hoped that MSSC will be represented by more than just six entries. In 2007 Eugene Reynolds, Garth and Janice Bricker, Bill and Elizabeth Moller and Al and Betty Ordway were the sole "regular" representatives of this Society. Wayne and Dona Leicht and Rock Currier also served as dealers.



Show and Tell

Subject; Banded agates from China



Bottom



Top

These look like two Laguna agates from Mexico, but they are actually from China. I was told that they were collected along the banks of the Yangtse River.

The nodules measured about an inch and were polished by nature. I am still debating whether to make them into two cabochons or just leave them as they are, conversation pieces.

—Shou-Lin Lee

About Show and Tell: Part of the fun of collecting is being able to show and tell. In this section called **Show and Tell**, I hope to generate some dialogue among all members, especially those who are unable to attend the monthly meetings.

Any member who is interested in showing the world his or her collection, new find, geological formation or an interesting picture should e-mail me one or more photos (yes, I need photos!) and a brief description or narrative about the photo(s). Please limit the subject matter to geology, mineralogy and related subject matters.

BY POPULAR DEMAND!

The Meister Trimmer is available again.

Contact Ann Meister

Email: meister_ann@hotmail.com

Phone: 626-794-3482

2007 Calendar of Events

March 2-4, Hayward, Mineral & Gem Society of Castro Valley, Centennial Hall at 22292 Foothill Blvd., Hours: Fri. & Sat. 10-8, Sun. 10-5.

March 2-11 2007, Imperial, Imperial Valley Gem & Mineral Society "60th Annual Gem & Mineral Show" California Mid-Winter Fairgrounds Hours: Fri, Sat, Sun. Noon - 10 p.m. Mon. Thru Fri. 4 - 10 p.m.

March 3-4, Arcadia, Monrovia Rockhounds, Los Angeles County Arboretum & Botanical Garden, 301 N. Baldwin Ave., Hours: 9-4:30 both days, Jo Anna Ritchey, www.morocks.com.

March 3-4, Ventura, Ventura Gem & Mineral Society , The Ventura Gem, Minerals, Lapidary, & Fossils show. Seaside Park- Ventura County Fairgrounds, 10 W. Harbor Blvd. Hours: Sat. 10 - 5; Sun. 10 - 4.

March 10-11, Escondido, Palomar Gem & Mineral Club Army National Guard Armory 304 Park Avenue, Saturday 10-5, Sunday 10-4.

March 10-11, Spreckles, Salinas Valley R & Gem Veteran's Memorial Hall 5th and Llano Streets Jim Bassett (831) 758-5830

March 10-11, Turlock, Mother Lode Mineral Society Stanislaus County Fairgrounds Hours: 10 - 5

March 10-11, Vallejo, Vallejo Gem & Mineral Society Solano County Fairgrounds (junction Interstate 80 & Hwy 37) in the County Bldg Hours: 10 -

5 both days Phyllis Malicki (707) 745-3255.

March 16, 17, 18, San Bernardino, Orange Belt Mineralogical Society Western Regional League Ballpark 6707 Little League Drive Hours: Fri, Sat. 9 a.m. to dusk; Sun. 9 - 4

March 23, 24, & 25, Bakersfield, San Joaquin Valley Lapidary Society 5th Annual Rock & Mineral Rendezvous Indoor Show/Outdoor Tail Gate Kern County Fairgrounds Hours: Fri. 9 - 8; Sat. & Sun. 9 - 5

March 24-25, Angles Camp, Calaveras Gem & Mineral Society Jump for the Gold Gem & Jewery Show Hwy 49, Sat. 10 - 5, Sun. 10 - 4

March 24 - 25, Roseville, Roseville Rock Rollers Placer County Fairgrounds 800 All America City Blvd. Sat. 10 - 5; Sun. 10 - 4

March 31 - April 1, Torrance, South Bay Lapidary Mineral Society Ken Miller Recreation Center 3341 Torrance Blvd. Sat. 10 - 5; Sun. 10 - 4 Leslie Neff: (310) 318-2170