

Bulletin of the Mineralogical Society of Southern California

Volume 75 Number 10

October 2005

The 812th Meeting of The Mineralogical Society of Southern California

“The Southern California Gem and Mineral Show”

**October 15 & 16, 2005
Sat. & Sun. 10 am-5 pm**

**Long Beach Convention and Entertainment Center
300 E. Ocean Blvd.
Long Beach**

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It's show time!

*From Justin Butt
Show Chairman*

Once again, it is time for our annual gem and mineral show. Your show officers have been putting in hours and hours of work on this show, and the dealers are eagerly looking forward to it! The least you could do is spend some time enjoying the show this year and helping out for a shift or two at the MSSC information booth. The booth is located right by the entrance doors, so you will certainly not be lonely!

If you are available Friday, Oct. 14, we will be skirting tables as early as 8:00 am until around 4:00 pm, and we will be setting up the display cases about 3:00 pm. If you are available Sunday in the evening, we will be doing the teardown of the show. If you cannot help out on Friday, please come by on Sunday to enjoy the show and then help us put it all back in the trailer for next year. Many dedicated people will be helping out on Friday, Saturday, and Sunday, so if you are well rested on Sunday, please give us a hand and relive some of your fellow club members!

Let me know what time you are available to assist us so I don't have to force someone to work a double shift at the information booth! =) E-mail me (Justin Butt) or give me a call at 520.207.9958. Thanks and see you at the show!

Show logistics and the Long Beach Marathon: The Long Beach Marathon will be run on Sunday, Oct. 16, concurrently with our show. Steps have been taken to assure that this is an asset to the show rather than a drawback. The marathon runs from 8:00 a.m. until about 3:00 p.m., and Ocean Ave. and the main entrance to the convention center will remain open to traffic. The show will have its own, clearly signed parking deck, so finding show parking on Sunday should not be a problem. Alternatively, you can come to the show via the Metro Blue Line. Get off at the Long Beach Transit Center station (end of the line), and walk south on Pine Ave. for 3 short blocks to the entrance of

the convention center.

On Friday, parking is free for volunteering members. All you need to do is tell the parking attendant that you are helping with the gem and mineral show. On Saturday the marathon folks will be only setting up, and there will be no impact on the show. On Sunday morning it will be a little crowded for the dealers and others who need to be their early, but the racers will be in Seal Beach by the time the show opens. The marathon will be all cleared out before we begin tearing down on Sunday.

Kid Rock Volunteers

The show will once again have kid rock activities, and volunteers are needed to staff this effort. For the last three shows, students from local geology departments have served as docents, and more student help is anticipated this year. However, MSSC members, their children, and grandchildren, age 12 or older, are encouraged to help, too. Here's a synopsis of the jobs available:

1. Supervise a touch table for matching minerals with the products in which they are used.
2. Assist with construction and decoration of simple crystal models.
3. Help kids learn how to determine the hardness of minerals by scratch testing.
4. Welcome kids to the mineral give-away table and direct them in choosing their free, labeled minerals.
5. Help kids look at minerals with a simple microscope.

To sign up as a kid rock volunteer, please phone or email Janet Gordon (626-441-6715) with the volunteers' names and the day and hour they wish to serve by Oct. 8. If you can't make a scheduled commitment, stop by the kid rock area during the show when your feet are tired and see if there is a volunteer who needs to be spelled off for a short time. You and the kids will have a great time!

Self-Collected Minerals for the 2005 Show

By Walt Margerum

I am still soliciting the membership for **self-collected** minerals. As of September 20, I have received just one response. If you have material that you are willing to exhibit please provide me with the following information:

1. Mineral name,

2. Where collected, and when,
3. Your name,
4. Size of the specimen (LxWxH).

Please respond before Oct. 10 to allow me time to set up one or more cases. The minerals can be provided any time before the show and will be returned after the show.

It is important to show the general public that good specimens can still be collected, even in this era of government over regulation.

I can be contacted at:

1. Via e-mail
2. Ph: 310-324-1976, or
3. Walt Margerum, 14892 Sutro Ave., Gardena, CA 90249

I thank you in advance for your support.

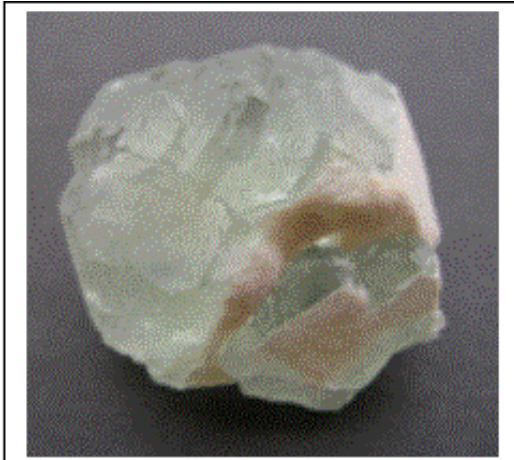
MSSC Board to Meet on Sunday, October 2

The Society Board will meet at the home of Jim Kusley on Sunday, Oct. 2 at 2 pm. This important meeting will deal with last minute show details, nominations for next year's officers, planning for the January banquet and other business. All members are welcome to attend.

Minerals of the Southwest, Part 4

by Steve Knox

In it's final installment, minerals of the southwest will conclude with four mineral locales in California. All specimens pictured were field collected and photographed by Steve Knox.



4-cm modified octahedron of green fluorite found in 2001 at the Felix mine in Azusa.



Typical cliff formation at Palos Verdes with a recent landslide that contains barite.



Palos Verdes barite cluster collected 12/03 is 8 cm across.



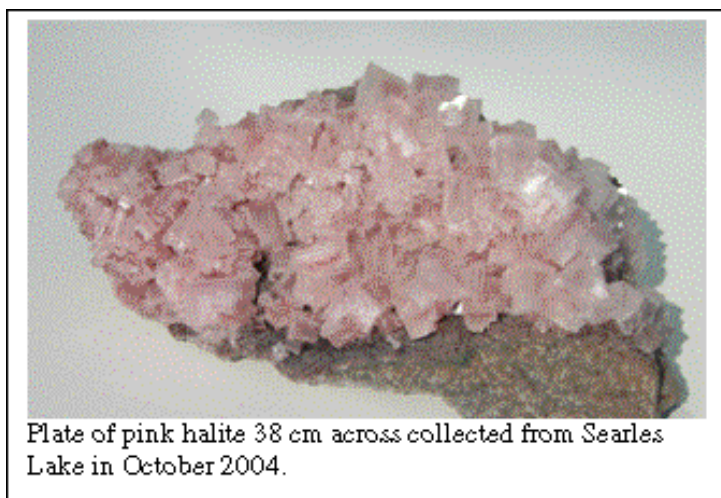
Close-up view of pink halite crystals up to 4 cm across from Searles Lake.

California

California contains a vast assortment of minerals and mineral locations, of which, four areas in the southern part of the state will be discussed here because of their close proximity to the MSSC for a day or weekend field trip. These include the Felix mine in Azusa for fluorite, Palos Verdes Peninsula for barite, Trona for halite, and the pegmatite belt in southern California.

The Felix mine in Azusa is well known for its fluorite and has been collected extensively. Most fluorite consists of modified octahedrons and is green with bluish colors less common. Until recently, access was granted from the Monrovia plant nursery to cross their land to the hillside where the veins exist in decomposing granite. Currently, the area is being developed, so future access could be an issue.

One of the most unique and scenic collecting locales is near Los Angeles on the Palos Verdes Peninsula for barite. Within this heavily populated area, directly adjacent to the beach, are cliffs that contain veins of butterscotch-colored barite crystals. The barite can usually be extracted in small plates from an inch up to a foot across. The crystals are typically 5-25 mm tall, but blades 5-8 cm are sometimes found. New pockets and veins are exposed as the cliffs erode, but collectors must be cautious due to the dangerous nature of collecting in or near the cliffs. As a bonus to collecting, the views of the ocean and Catalina Island are often spectacular, and if time and tide permits, the tide pools can be explored for their variety of starfish, purple sea urchins, anemones, and other sea life.



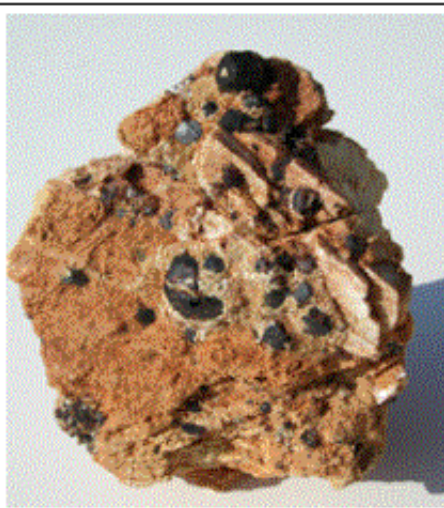
To the northeast of Los Angeles, in the desert not far from Death Valley, is the town of Trona. Within this basin was once a lake that has now dried and consolidated its mineral riches into layers of evaporite minerals. The surface is a white salt crust, which contains pools of brine. The brine pools are colored red from bacteria which imparts a pink to red color in the crystals. It is here that salt crystals, or halite, grows. Typically, the crystals grow upside down beneath and along shelves where the brine comes into contact with the solid salt crust. The crystals are cubic in habit, but can be hopped or stepped in their growth pattern.

Unlike most other minerals, the halite is a renewable resource as it grows back each year after it has been "harvested." Single crystals and plates many feet across are extracted annually during the Searles Lake Gem and Mineral Show which allows collecting on the lake's surface once a year during the second weekend of October. In addition to halite, some of the other major minerals encountered include hanksite, borax, trona, thenardite and sulfohalite.

Minerals from the Southern California pegmatite belt—



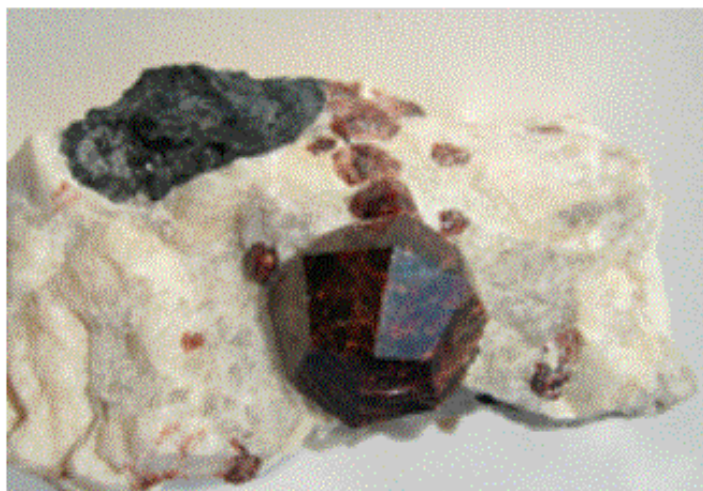
8 cm long schorl crystal with spessartine garnets. Collected in 1998.



Spessartine garnet in feldspar with mica. 13x10 cm specimen was collected in 1999.



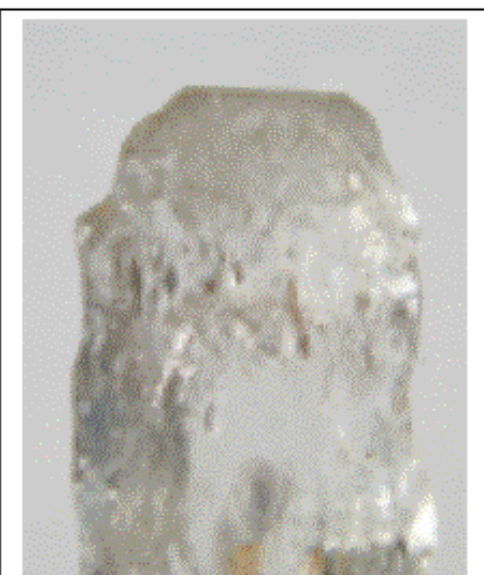
Doubly terminated quartz with garnet and included tourmaline needed. Collected in 2003; size is 2.5 cm.



Garnet with schorl in quartz in feldspar collected in 2000. Specimen is 7 cm across.



Etched spessartine garnet from a mica pocket. Specimen is 2cm across and was collected in 2001.



Etched beryl specimen is 2.5 cm long and was collected in 2001.

Like Colorado, California is well known for its pegmatites. In general, the pegmatite belt covers parts of Riverside County, San Diego County and continues into Baja California, Mexico. Such pegmatites contain a variety of crystals with tourmaline, quartz, feldspar, mica and garnet being the best known and most common.

With regards to self-collecting, most mines are inaccessible because they are private, however, there is a chance of finding an exposure which could yield a treasure trove of crystals. The pegmatites range from only a few inches or less in thickness to several feet or more. Many structures contain crystals "frozen" in them. When encapsulated in quartz or feldspar, such crystals do not usually make good specimens as they may not be completely solid. This is especially common with tourmaline and garnet.

When found, the tourmaline is often brittle and crumbles, while the garnets, sometimes called "burnt garnets" are dark, opaque, and non-gemmy.

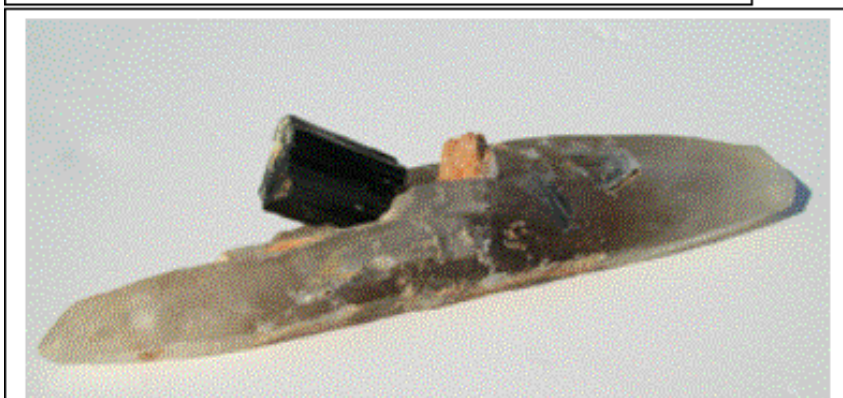
However, if the structure opens into a pocket, then better specimens can be collected. If a pocket is encountered, it can be large and extensive. Pockets are generally lined by graphic granite or feldspar, and the interiors are usually composed of crystals of feldspar, quartz, tourmaline, mica, and garnet. These are the most common minerals that form, but a pocket could contain only mica, feldspar and quartz, or it could have other more rare minerals. Each pocket is unique and often a surprise. Schorl or black tourmaline is the common variety of tourmaline with colored tourmaline more rare and unlikely.

The feldspar tends to be frothy, apparently due to decomposition of the mineral, or it may form bright white euhedral crystals. The quartz ranges from clear to smoky, and pockets can be full of shards with few complete, clear crystals. Although often cloudy, some of the quartz is eye clean and may even have inclusions such as black tourmaline needles in them.

The garnets (of the variety spessartine) are sharp, lustrous if not frosted, and sometimes clean internally. The color tends toward brown-orange to fiery red, and cut gems are possible. When etching occurs, the garnets take on unique chiseled shapes, and can be highly lustrous. Such crystals greatly resemble some of the material having been mined recently from Brazil. Although less likely, there is the rare beryl or apatite.



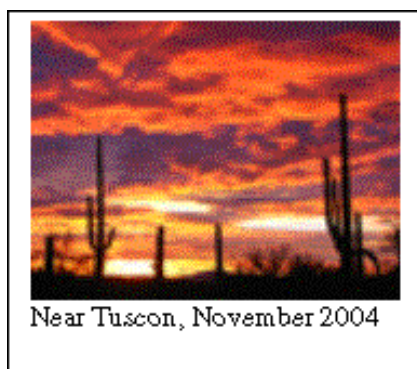
Black tourmaline in feldspar and quartz.



Doubly terminated smoky quartz with tourmaline. Specimen is 20 cm long and was collected in 1998.

Most crystals are found singly, being buried in pocket mud and debris, but combination or matrix pieces can occur. Unfortunately, due to the nature of the pockets and pocket formation, most of the crystals are broken or shattered, and must be repaired. Despite this reality, the overwhelming excitement and rarity of such a discovery is well worth the experience.

To conclude this series of articles dedicated to self collecting and to the MSSC 2005 show theme of "Minerals of the Southwest," it is hoped that these articles encourage an appreciation of the geological sciences, enjoyment of the outdoors, and a sharing and dispersion of mineral knowledge and education.



To every end there is a sunset.....*Steve Knox*

Minutes of the September Meeting

The 811th meeting of the Mineralogical Society of Southern California was called to order at 7:35 by president Bill Besse. The meeting started with MSSC director Ken Raabe and a discussion of this year's show exhibits. Topics included the "Club Case" of self-collected minerals by Walt Margerum, plus additional 50 display case presentations. These included such renowned names in the mineral world as Wayne Leicht, Bob Reynolds, Rock Currier, Bill Besse and Joe Siefke senior geologist, U.S. Borax. Additionally there will cases by the fluorescent minerals, Miners Lunch Box and, of course, The Los Angeles Natural History Museum among others. Display forms are still available on our web site, www.mineralsocal.org, or by emailing Ken Raabe.

An announcement was made by this month's speaker Dr. Janet Gordon of the passing of Harvard based mineralogist Cornelius S. Hurlbut, Jr., who authored or co-authored many editions of the "Manual of Mineralogy after J. D. Dana."

This month's presentation by Dr. Janet Gordon focused on 5 "off the beaten path" field trips associated with the 32nd International Geological Congress held last year in Italy. Starting in Milano, Janet with her husband Paul, ventured northwest and into the Italian Alps looking for recently discovered diamonds. Other adventures included ancient medieval aqueducts and massive inlaid stone architecture in Sienna and then concluded with areas south of the Bay of Naples including Mt. Vesuvius and the geological shaping of Pompeii.

Request for volunteers: An announcement was that the show in October still needs volunteers to make it work, so everyone was reminded to sign up or email Janet Gordon.

The meeting was adjourned at 8:35.

Respectfully submitted for the Secretary by Jim Kusely

Cornelius S. Hurlbut, Jr. (1906-2005)

With the passing of Dr. Cornelius Hurlbut, Jr., on September 1, 2005, the mineral community has lost the last of a generation. His work on pegmatite minerals and borates is well-known. He was an E.S. Larsen student and did his dissertation on the Bonsal tonalite in southern California. Mineralogy students know him as the author of *Dana's Manual of Mineralogy* which he took over from William E. Ford, publishing the 15th edition in 1941. He published the 18th edition in 1971 and co-authored the 19th-21st (1999) editions with Cornelis Klein. He was also the author of *Minerals and Man*, which was selected by the American Library Association as one of the 35 "Outstanding Books of 1968," as well as co-author of *The Changing Science of Mineralogy* (1964) and the editor of *The Planet We Live On: An Illustrated Encyclopedia of the Earth Sciences* (1978).

Dr. Hurlbut joined the Harvard faculty in 1934 as a petrography instructor and became Professor of Mineralogy six years later. He went on to chair the university's Mineralogy Department from 1949 to 1960 before retiring in 1972 and becoming Professor Emeritus.

In retirement, Dr. Hurlbut turned more to gemology, an affiliation that began in the 1940s when he joined GIA's Educational Advisory Board. He taught a gemology course at Boston University in the early 1970s and co-authored (with George Switzer) the first edition of *Gemology* in 1979 (the second edition, co-authored with Robert Kammerling, was published in 1991).

Among his many distinctions, Dr. Hurlbut was a 1955 Guggenheim Fellow, a former president of the Mineralogical Society of America, and a recipient of the 1994 Carnegie Mineralogical Award for his contributions to the field.

Compiled from www.gia.edu and an e-mail announcement from Dr. Carl Francis of Harvard University.

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2005 Calendar of Events

October 2, Fallbrook, Fallbrook Gem and Mineral Society, Fallbrook Gem and Mineral Museum, 123 W. Alvarado St, Hours 10-4, FGMS Board (760) 728-1130, FGMS@tfb.com.

October 8-9 Lakeside, El Cajon Valley Gem and Mineral, Lakeside Rodeo Grounds, Hwy. 67 & Maple St., Hours: 10-5 both days, Peggy Bowery (619) 561-1823, Docsgirl9@aol.com.

October 8-9, **Trona, Searles Lake** Gem & Mineral Society, 13337 Main St., Hours: Sat. 7:30-5, Sun. 7:30-4, Mud trip on Sat. at 9 am; blow hole trip Sat. at 2:30 pm; pink halite trip Sunday at 9 am. See www1.iwvisp.com/tronagemclub for details or phone Bonnie Fairchild (760) 372-5356.

October 15-16, Long Beach, **The Southern California Gem and Mineral Show**, Long Beach Convention Center, presented by the Mineralogical Society of Southern California. Hours: Sat. & Sun 10-5, www.MineralSoCal.org.

October 22-23, "**Minerals of the Santa Monica Mountains**," a Friends of Mineralogy symposium and field trips at the Conejo Recreation and Park District in Thousand Oaks. See <http://www.mineralsocal.org/scfm/index.html> for additional information, times and directions to the meeting site as they become available.

October 22-23, Whittier, Whittier Gem & Mineral Society, Whittier Community Center, 7630 Washington Ave., Hours: Sat. 10-6, Sun. 10-5, Jay Valle 626-934-9764.

Nov, 5-6, Ridgecrest, Indian Wells Gem & Mineral Society, Desert Empire Fairgrounds, Mesquite Hall, 520 S. Richmond Rd., Hours: 9-5 both days, John DeRosa (760) 375-7905.

Nov. 11-13, Costa Mesa, **West Coast Gem & Mineral Show**, Holiday Inn, 3131 S. Bristol St., Costa Mesa. www.mzexpos.com.

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 or Walt Margerum (wmargerum@earthlink.net, 310.324.1976).



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