

Bulletin of the Mineralogical Society of Southern California

Volume 74 Number 7

July 2004

**The 797th Meeting of The Mineralogical Society
of Southern California**

**"Gemstone Mining in Burma, Sri Lanka, Tanzania,
and Madagascar"
by Edward Boehm**

**Friday, July 9 at 7:30 p.m.
Geology Department, E-Building, Room 220
Pasadena City College
1570 E. Colorado Blvd.
Pasadena**

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July Meeting Program:

Gemstone Mining for the World Traveler

The July 9, 2004, MSSC meeting will feature a program by Edward Boehm titled "Gemstone Mining in Burma, Sri Lanka, Tanzania, and Madagascar." Mr. Boehm

has traveled to these exotic places in search of gems, and he will give an illustrated account of his experiences as well as an account of the important gem deposits in these countries.

Edward Boehm is president of JOEB Enterprises in Solana Beach. He is trained as a geologist and gemologist, and his company specializes in loose colored stones and museum consultation.

July 18th Board Meeting

The MSSC Board and interested members will meet at the home of Bill Besse at 1:00 p.m. on Sunday, July 18. This will be an important meeting to discuss show progress, finalize the August picnic plans, and work on Kid Rock and show mailings, and have fun talking about minerals. Board meetings are open to all MSSC members, and they are encouraged to attend!

Minutes of the June Meeting

The 796th meeting of the Mineralogical Society of Southern California was held on Friday, June 11th in the Geology department at Pasadena City College. President Jo Anna Ritchey brought the meeting to order at 7:33pm. The meeting had a nice and sizable turnout.

First on the agenda were announcements on the upcoming MSSC show on October 16th and 17th. Show chair, Justin Butt, discussed obtaining more assistance with the advertising for the show. Along with advertising Justin is also looking for anyone who can help with the exhibits and ideas on who they might invite to perform demonstrations.

Jo Anna Ritchey then introduced the night's speaker Wayne Leicht. Wayne gave an enlightening talk on Gold. During the talk many pictures of leaf gold specimens were revealed. He explained to the members that leaf gold is crystallized gold and upon closer inspection one can view octahedrons on some of the edges. Mr. Leicht also talked about the Eagle's Nest mine and its numerous claims along with the fantastic gold specimens that originate from there. After the talk Wayne shared some of his gold collection with the members for up close viewing.

This month's door prize went to Paul Beasley, congratulations!

Vice President Jim Kusely gave an update on this year's August picnic. It will be held at the Arcadia Women's Club on August 15th from 3 to 7pm. There will be street parking, ample room and buffet style dining.

The meeting was brought to a close at 8:42pm.

Respectfully submitted,

Ilia Lyles, Secretary

New Location! *The Mineralogical Society of Southern California*



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From the Show Chair.....

Before You Know it....

Our annual mineral show will be upon us again very soon. It certainly doesn't seem like it is only a little more than three months away, but it is! October 16 & 17 will be here soon! I'm sure many of you out there would like to know what you can do to help out. With our new change of venue, the most important thing is that we let people know what is happening. Flyers, getting the message out in other rock club's bulletins, word of mouth and posters are always a great way of increasing show attendance. If you need flyers please contact me Monday-Friday at 626.814.2257. If you have any suggestions or can help with contacting rock clubs to get the word out please contact me @ MSSCSHOW@hotmail.com.

One of our greatest attractions of our annual show is the variety and excellence of our member and guest exhibits. All you have to do to participate is fill out one of the exhibit forms, which was inserted this issue of the Bulletin or available online at [Http://www.mineralsocal.org](http://www.mineralsocal.org).

And don't forget to plan on volunteering to help at the show itself! Janet Gordon will need lots of volunteers to help with the Kids Activities, and there will be lots of other jobs, too. If there are enough volunteers, the shifts can be kept short so everyone has time to enjoy the show.

At the picnic we will be addressing and stamping postcards and taking care of the work for Kid Rock. We can call it work, but really it's just a great excuse to have fun. Hope to see you there!

If you have any questions or comments, please feel free to e-mail me or call me

Justin Butt

2004 Show Chair

MSSCSHOW@hotmail.com

626.814.2257

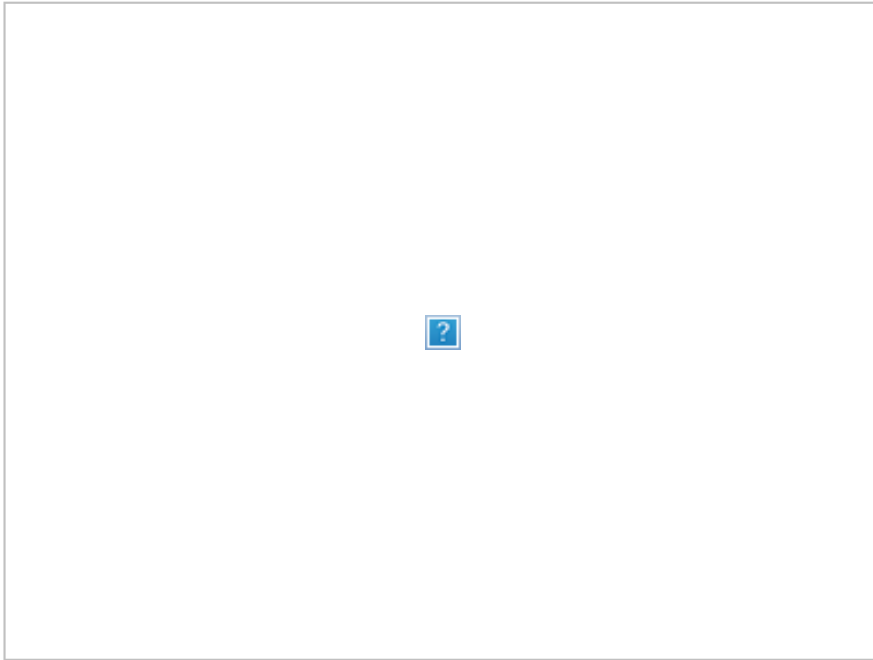
Cerro Gordo Field Trip Report

by Steve Knox

On June 6, the MSSC and the Lone Pine club meet in Lone Pine and then caravanned toward Keeler around the east side of Owens Lake. The dirt/gravel road up to Cerro Gordo was in good shape even though it is a tough climb and all up hill for over 10 miles to the mine and town site. There are a couple of narrow areas where you don't want to meet another car, but most any vehicle can make this trip. The difficult part is on the way down and four-wheel drive does help slow your vehicle down due to the lower gears. Without this, a car's brakes can get quite hot. It reminds me of the descent down Pike's Peak in Colorado, which starts at 14,000'. The difference is, at Pike's Peak, someone is actually stationed at the side of the road checking each car's brakes. Every vehicle is required to pull off the road, stop, and allow their brakes to cool off. With four-wheel drive, I was allowed to proceed because I could descend with little assistance from my brakes. Cerro Gordo doesn't have this service so attention should be given to one's brakes.

The weather was sunny and warm. We were welcomed by the manager, John Bowden and owe him and Mike Patterson, the owner, a great deal of thanks for the opportunity to visit the site and collect. They were gracious hosts. Likewise, thanks to the Lone Pine club for the invitation to join them.

The town is in excellent condition considering its age, and it is a testimonial to the preservation efforts. The museum contained numerous mining artifacts and mineral samples from the area. Among the artifacts were carbide lamps, an original mining hat (used before hard hats), mine photos, and drill bits. Minerals included quartz, local fossils, and blue smithsonite, which was the focus for most of us. In addition, they sold one-pound bars of lead/silver which were poured in 2003 from galena ore taken from part of the dump dating back to the late 1800s. These are a great souvenir as they are piece of history and are stamped "Cerro Gordo Mines."



Town of Cerro Gordon looking toward Owens Lake and the Sierra Nevada (Steve Knox)



Pale blue smithsonite collected by Steve Knox from the Cerro Gordo dumps on the June field trip (Steve Knox)

Arizona Field Trip Update:

by Steve Knox

The dates for the upcoming trip to Wickenburg and Quartzsite are October 23-24.

The first location on Saturday will be near Wickenburg, about an hour northwest of Phoenix. Additional information will be in a future bulletin. This will be to a private

mining claim for wulfenite, fluorite (mostly druze/micros), quartz, and fluorescents. The fluorescents are particularly good as they rival those from Franklin, NJ. With a black light at night, the hillside will light up in bright green, red, orange,

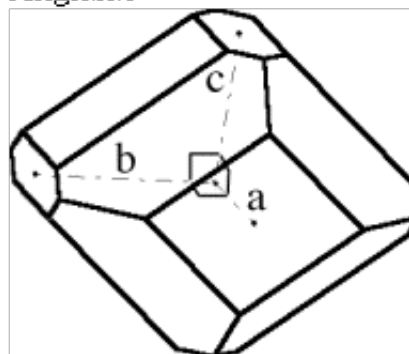
Crystallography in a Nutshell:

The Crystallographic Axes

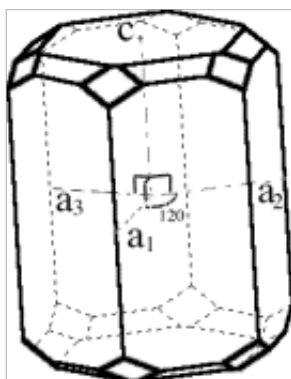
by Janet Gordon

Last March's issue of the Bulletin initiated this series with the introduction of the six crystal systems. This second installment is a quick look at the crystallographic axes. These axes are imaginary reference lines that are generally chosen to be parallel to the intersection of the major crystal faces. In crystal drawings, they are usually shown as intersecting in the center of the crystal, in part because the crystallographic axes are mostly coincident with symmetry axes, which pass through a central point. In the drawings here, only the positive ends of the axes are shown; the reader can imagine the negative ends going out the back or far sides of the crystals in the drawings.

Orthorhombic
Anglesite



Why learn about the crystallographic axes? Understanding them is important in developing the useful skill of identifying minerals by the crystal system. It also is essential for deciphering Miller indicies, Hermann-Mauguin symbols and other secret mineralogical codes. So let's begin a tour of the axis arrangements for the six crystal systems.

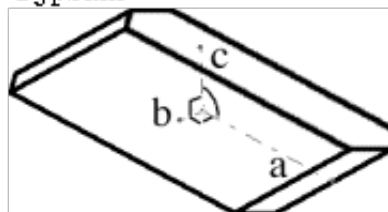


Hexagonal Beryl

In the triclinic system the three axes, as illustrated here by an axenite crystal drawing, a , b , and c are each of a different length, and the angles between each of the pairs is something other than 90° .

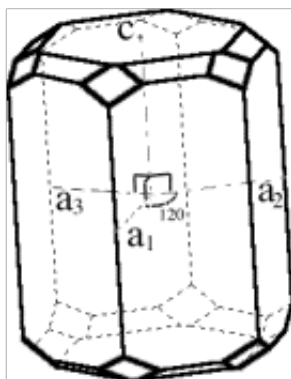
In the monoclinic system the a, b, and c axes are also different lengths, two of the axes are at right angles to each other and the third is inclined to them. In the prevailing tradition, the c axis inclined to the plane of the a and b axes as here illustrated with a gypsum crystal drawing.

Monoclinic
Gypsum



The orthorhombic system is the third system with a, b, and c axes of different lengths, but, as the system name implies, the three axes are mutually perpendicular. This is illustrated by anglesite.

The tetragonal system has two equal axes that are designated a_1 and a_2 that are perpendicular to each other. These, in turn, are perpendicular to a c axis of different length. Wulfenite has this axial arrangement.

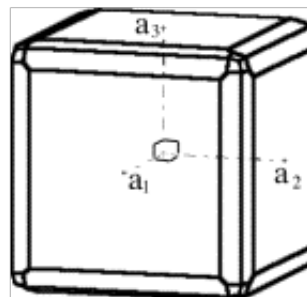


Hexagonal Beryl

There are four axes in the hexagonal system. The three axes of equal length are a_1 , a_2 , and a_3 . They are all in the same plane and are separated by 120° angles. The c axis, which is a different length is at right angles to all the a axes in the beryl crystal illustrated here.

In the isometric system, everything is equal. The three identical axes, a_1 , a_2 , and a_3 are mutually perpendicular. In the


fluorite crystal illustrated here, the axes are parallel to the edges and perpendicular to the cube faces.



Isometric Fluorite

Save the date!

***MSSC Annual Picnic is
Sunday, August 15, 3-7p.m.***



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A Needle in the Haystack

By Walt Margerum

On my latest trip to the Owens Valley I decided to dedicate several days to the Lone Pine beryl location. Murdoch and Webb (1966) give the following description; *Narrow veins with small crystals of opaque blue beryl are found cutting granite about 1 1/2 miles southeast of Lone Pine Station.* Blue-green microcline (amazonite) and epidote are also reported from this same area. It is shown on maps as the Haystack.

Knopf (1918) describes the geology of the granites in the Haystack area as follows: *That in fact several intrusions did take place in the southern Inyo Range was definitely determined southeast of Mount Whitney station where a white granite, which is devoid of ferromagnesian minerals except rare flakes of biotite and is characterized by an abundance of subhedral quartz crystals, forms a prominent knob projecting into Owens Valley as a spur from the main range; and where a gray biotite-quartz monzonite forms the foothills of the main range. The two granitoids contrast strikingly. The white granite is the younger; it carries considerable plagioclase and is probably a salic differentiate of the quartz monzonite magma that is genetically coordinate with aplite and was injected shortly after the main intrusive body.*

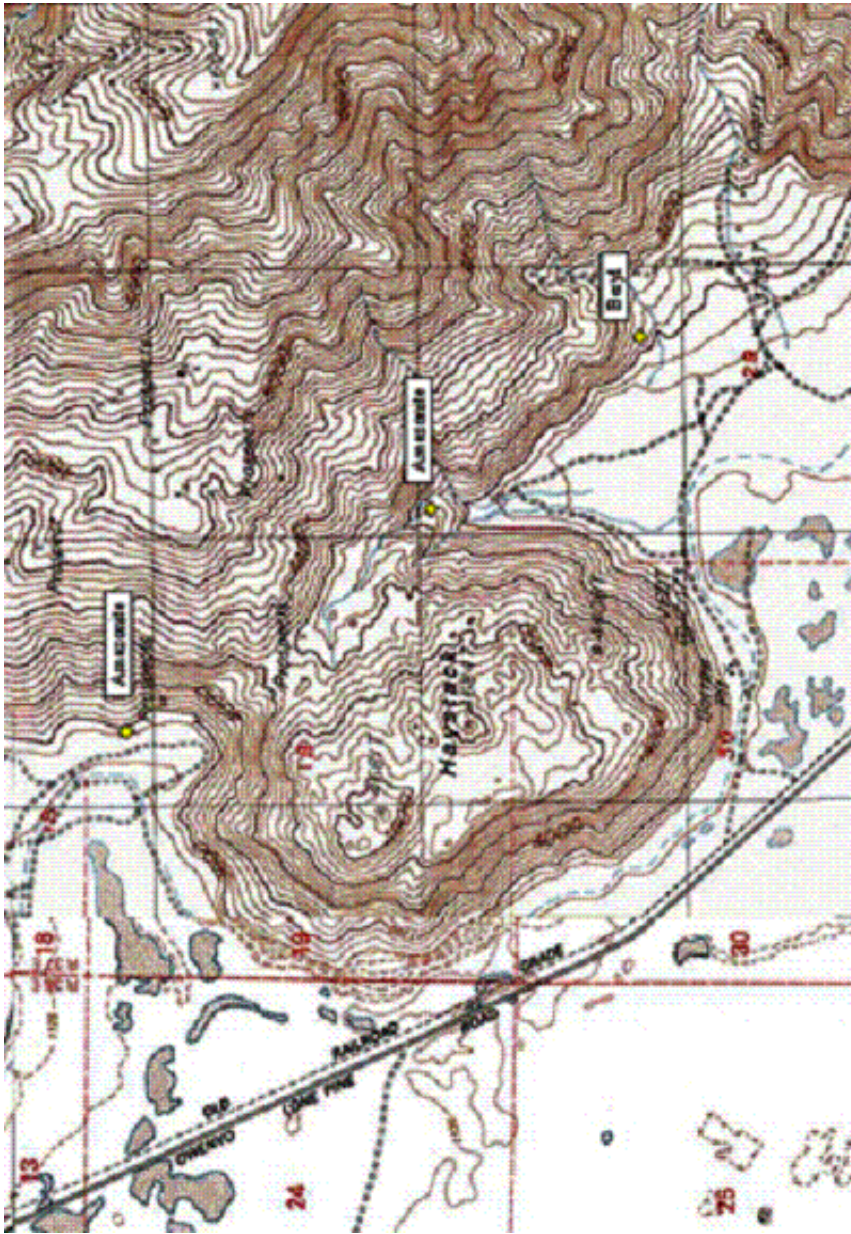
Lone Pine station was a stop on the Southern Pacific railroad and Mount Whitney station was a stop on the Tonopah to Keeler narrow gauge railroad. The two railroads met at Owenyo. Both are gone now.



Amazonite from the Haystack (Walt Margerum)



Beryl from the Haystack (Walt Margerum)



Map of some of the beryl and amazonite localities east of Lone Pine, California.
North is to the left.

The Haystack (see map) can be reached from Lone Pine by driving south on US 395 to Route 136, going 3 miles east to the Dolomite Loop road, 2 miles south to Owenyo Road, and then 3 miles north to the Haystack. It is the very prominent knob on the right. There are two access roads to the collecting area. Both are shown on the map. [Ed. note: the area on the map is also easily reached from the north edge of Lone Pine by turning east on Narrow Gauge Road (formerly Lone Pine Station Road), and turning south on the Owenyo Road. The Haystack is named Kern Knob on some older maps.]

As can be seen the Haystack is connected to the main Inyo's by a linear feature. This is not the contact between the light granite and the darker monzonite, but is an erosional feature, probably a fault. The monzonite is above the granite and the

contact between them is visible in both the Haystack and the Inyo's. Massive to crystalline pistachio-green epidote is a visible constituent of the metamorphic rock seen along the contact. In places dikes of a dark black rock can be seen in the granite, and aplite dikes are common in the monzonite.

In three days of looking I found the three localities shown on the map and several others. The beryl locality shown was found with the help of a map provided by Francis Pedneau of both the Lone Pine Gem and Mineral Society and the MSSC. Beryl mineralization is sparse. The largest beryl crystals appear to be in cracks associated with quartz, but it can be found by itself in cracks in the monzonite. The microcline found on the north side of the Haystack was in a small pocket of coarse pinkish feldspar in a light granite dike showing flow banding. That found in the other area shown was in a crack in the monzonite. The beryl crystal shown in the picture is 8 mm across the flats, and the amazonite is approximately 2 cm long. These are the best specimens that I found in the three days. As the title suggests it was like looking for a needle in the Haystack.

References

Knopf, Adolph (1918) "A Geologic Reconnaissance of the Inyo Range and Eastern Slope of the Southern Sierra Nevada, California"; United States Geological Survey Professional paper 110. pp. 60-61

Murdoch, Joseph and Webb, Robert Wallace (1966) "Minerals of California Centennial Volume (1866-1966)"; California Division of Mines and Geology Bulletin 189, p. 103

2004 Calendar of Events

June 5-6, Glendora Gems Gem and Mineral Show, Goddard Middle School, 859 E. Sierra Madre, Glendora, Hours: Sat. 10-5, Sun. 10-4. Mark Thompson (626) 335-3814.

June 19-20, Cayucos, CA, San Luis Obispo Gem & Mineral Club, Cayucos Veteran's Hall, 10 Cayucos Drive. Hours: 9 - 5 both days. Robert G. Hurless (805) 772-7160

June 19-20, La Habra, CA, North Orange County Gem & Mineral Society, Jubilee of Gems Show, La Habra Community Center, 101 W. La Habra Blvd., Hours: Sat 10-5 Sun 10-4. (626) 330-8974 / warthen@earthlink.net

June 26-27, Culver City, CA, Culver City Rock & Mineral Club, Culver City Veterans Memorial Complex, 4117 Overland Ave., Culver City, Corner of Overland Ave. & Culver Blvd., Hours: Sat. 10-6 Sun 10-5 . Chairmen Rosalie Peschel (310) 397-4336 / RSP@MSK.COM; and Linda Taibi (310) 823-8137 / bocour@aol.com; Publicity - Janice Metz (310) 314-1203 / jenft4@aol.com.

June 30-July 4, Jefferson County Fairgrounds, Madras, Oregon, Gem and Mineral Show, Eula Dillard, 145 E. 179th St., Spanaway, WA 98387, (253) 847-2755
mistybluemorn@aol.com.

August 7-8, San Francisco Gem and Mineral Society Golden Anniversary Show and Sale, San Francisco Co. Fair Building (Hall of Flowers), 9th Ave. and Lincoln Way, San Francisco, Hours Sat. 10-6, Sun. 10-5. Robert Campbell (415) 564-4230. Web site: <http://www.sfgms.org>.

August 15, MSSC Picnic, Sunday from 3 to 7 p.m., at the Arcadia Women's Club. Contact Jim Kusley, bdbdrpen@earthlink.net.

September 17-19, Devore, CA, Orange Belt Mineralogical Society, 3rd Annual Gem & Mineral Tailgate, Western Regional Little League Park, 6707 Little League Drive, Bob Woodcox (909) 874-3697.

September 18-19, Jackson, CA, Fossils for Fun Society, Kennedy Mine in Jackson, 4th Annual Tailgate Gamboree, Hours: 9-5 both days. Dan Brown (209) 296-6466, danbrown@volcano.net.

September 25-26, Vista, CA, Vista Gem & Mineral Society, Brengel Terrace Comm. Recreation Center, 1200 Vale Terrace, Hours: 10-5 both days.

September 25-26, Downey, CA, Delvers Gem & Mineral Society, Downey Women's Club, 9813 Paramount Blvd., Hours: Sat. 10-6, Sun. 10-5.

October 6-17, Fresno Gem & Mineral Society, Big Fresno Fairgrounds, 1121 s. Chance, Hours: 11 am -10 pm.

October 16-17, Southern California Gem and Mineral Show, Long Beach Convention Center, presented by the Mineralogical Society of Southern California. Hours: Sat. & Sun 10-6. Justin Butt, minwreck@hotmail.com.

November 12-14, West Coast Gem and Mineral Show, Costa Mesa Holiday Inn, 3131 S. Bristol St., Hours Fri. & Sat. 10-6, Sun. 10-5. mz0955@aol.com, www.mzexpos.com.



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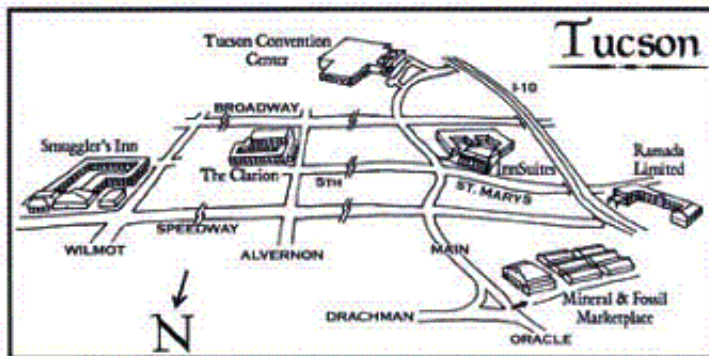
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