

Bay Area Mineralogists June 2006 Newsletter

Next meeting: June 14th, 2006

Room P-24

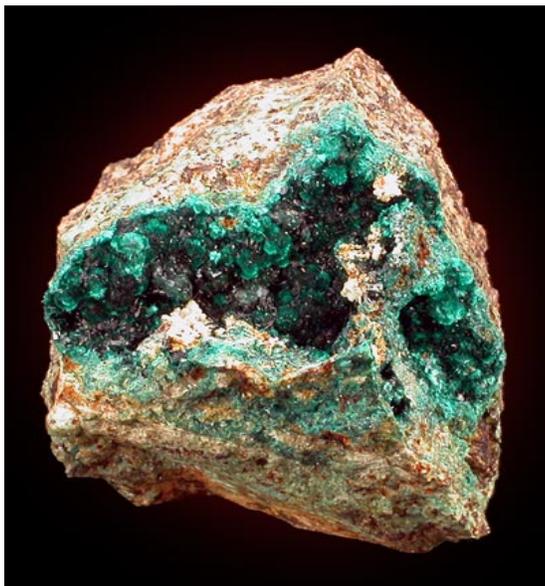
Foothill College, Los Altos, California

<http://www.baymin.org>



BAM is an eclectic group of mineral enthusiasts who gather to promote and share their interests in advanced mineralogy and mineral collecting. Membership is open to individuals with various levels of experience in mineralogy. The roster includes amateur mineralogists and professionals from organizations including the United States Geological Survey, the California Division of Mines and Geology, local universities and colleges, research laboratories and institutes, museums and mining companies, well-known mineral dealers, notable private mineral collectors and accomplished field collectors.

June Meeting Agenda



Douglas Hill mine, Artesia Lake, Yerington Dist.,
Lyon Co., Nevada, 4 x 4 x 3.2 cm
Photo from www.danweinrich.com

The June meeting will feature a presentation by BAM member **Don Windeler** on the **"Skarn deposits near Ludwig, Yerington district, Nevada"** Don will discuss some of the unique geology of the district and will share some of the mineral knowledge that he has gained during visits to the area. If you have any samples from the district, especially those old pieces from the Douglas Hill mine before the collapse or the secret locality digs from McGuiness and Parnau, **please bring some of them in to share!**

The Yerington district...

located in the Singatse range of western Nevada, comprises a series of porphyry copper deposits associated with the 162 Ma intrusion of a granitic batholith into a Jurassic and Triassic sedimentary sequence. The largest mine in the district, the Yerington (Empire Nevada) mine, yielded 162.4 million tons of ore averaging 0.55% Cu between 1952 and 1978. This district consequently has been rotated 90 degrees by Tertiary Basin and Range faulting, providing unique exposures of a hydrothermal alteration system from top to bottom.

Near the abandoned town site of Ludwig, four miles west of Yerington, a sequence of limestones, calcareous argillites, and volcanoclastics has been extensively altered from contact with the intrusion.

Stages of alteration include (1) early contact metamorphism, forming endoskarn and fine-grained hornfelses of wollastonite, grossular garnet, diopside, or monticellite, (2) replacement of dolomitized marble with Fe-rich grandite and salite skarn, (3) replacement of massive limestone with andradite and ferrosalite skarn, and (4) late retrograde alteration containing quartz, calcite, chlorite and magnetite, with localized scapolite. Locally high-grade chalcopyrite mineralization accompanied the third stage of andradite skarn alteration; the retrograde stage may be associated with the later, non-mineralizing intrusion of the Shamrock batholith to the south.

From a collector's standpoint, there are a variety of minerals to be hunted. The best-known are the secondary copper minerals found near the Douglas Hill Mine, which include chrysocolla, brochantite, malachite, and pseudomalachite. Douglas Hill was noted as one of Scott Kleine's favorite collecting areas in his chapter of Minerals of Nevada (Castor and Ferdock). Over a square kilometer of garnet and pyroxene rocks are exposed; while most of these are fine-grained and admittedly ugly, there are areas in the main skarn where blades of ferrosalite pyroxene reach several inches in length. Yellowish-green idocrase crystals up to 20cm in length have been reported. There are localized occurrences of phlogopite-spinel skarn and the rare borate szaibelyite in altered dolomite, though the latter has been mostly noted in thin section. Late alteration products include goethite pseudomorphs after pyrite.

BAM's Nevada Field Trip Review



The first large-scale field trip in a couple of years had a great turnout. At one point there were over ten people and eight vehicles on the trip. Can't say much for carpooling, but I guess gasoline isn't that expensive! Lots to tell about the trip and here is a little smattering about what we did and what we saw. Details are sure to be disclosed at the June Meeting and in a nice web review to be published this Summer.

First, thanks to the hospitality of Scott Kleine, many of us were treated to a BBQ, some tales of Nevada mineral collecting and a view of Scott's incredible Nevada mineral collection. Left for Willard late that afternoon and did some quarrying before the sun set. Stan Bogosian and Dan



Evanich broke into a killer pocket of Fluellites. Trips to the Red Bird, Bloody Canyon and Hollywood mines yielded some excellent samples for many as well.

The centerpiece of the trip was our time at Majuba, snow and all! Yes, that is a snowman with Benitoite eyes, a Peridot nose and a Rubellite mouth. Got over 2" of snow, but the cleaned out shed (Thanks Chuck!) and the well cribbed Tin Stope (Thanks Rick & Dan!) provided great places for escape from the snow. The Cu stope was too dangerous to enter, but all did well nonetheless.



Upcoming Field Trips

June 24th Silver Creek, Fresno Co., Contact Stan Vance @ 559-264-0222 for details

Upcoming Events of Mineralogical Interest

Aug 5-6 Golden Gateway to Gems, San Francisco Gem & Mineral Society; San Francisco County Fair Bldg., 9th Ave. at Lincoln Way; Sat. 10-6, Sun. 10-5.
<http://www.sfgms.org>

Cobalt chromophore "Beluga Spinel"

Near Kimmirut on Baffin Island at the 2005 Beluga sapphire project, True North Gems has discovered a rare, cobalt-rich variety of the gemstone mineral commonly known as spinel. The Beluga spinel has an unusually intense and strikingly beautiful blue color; the chromophore (coloring agent) of the new mineral find is the element cobalt. The preliminary field identification by True North's Chief of Operations, William Rohtert, has been corroborated through laboratory testing by Dr. George Rossman, a world-renowned expert on color in gemstones, working at the California Institute of Technology in Pasadena, California, who confirmed cobalt 2+ in natural cobaltian spinel and noted that even though the cobalt content is minor, it has a great effect on the color. It is seen in traces from only a few classic sites in Asia and in the Yakutia kimberlite pipe in Russia.

For images and additional information regarding this new discovery and True North Gems' other projects, visit the Company's website at www.truenorthgems.com



BAM Contact Information

Editor: John Magnasco
 Phone 408-838-9186
 Email magnasco@SBCglobal.net
 BAM site: <http://www.baymin.org>
 President: Rick Kennedy <mailto:riken@flash.net>
 Treasurer: John Magnasco <mailto:magnasco@SBCglobal.net>

Meetings

Meetings are held the second Wednesday of each month during the academic year (Sept → June) with the exception of each February, which is left free for those making their way to Tucson. The location is Foothill College, Room P-24, Geology Building, Los Altos Hills, California. 8-10pm. Take Interstate 280 North from San Jose toward San Francisco to the El Monte exit and head west.

Sign-up Sheet

We still need volunteers to fill the spots

Month	Newsletter	Program	Snacks	Field Trip
March		Tucson Show		
April	North Pennines	Jesse Fisher Weardale		Dan Evanich Clear Creek 4/29
May	Nevada Rick Kennedy	John Magnasco Nevada		Dan Evanich Nevada 5/24-29
June	Don Windeler Yerington District	Don Windeler Ludwig Skarns	John Magnasco	Stan Vance Silver Creek 6/24
July		OFF	OFF	Stan Vance Twin Lakes 7/15
August		OFF	OFF	Stan Vance Rainbow Mine 8/19
September				Stan Vance Owens Valley 9/8-11
October				
November				
December				
January				