

Bulletin of the Mineralogical Society of Southern California

Volume 82 Number 12

December 2010

The 871st Meeting of The Mineralogical Society of Southern California

The Opal from Cooper Pedy

By

Larry Hoskinson and Leslie Neff

Friday, December 10, 2010 at 7:30 p.m.

Geology Department, E-Building, Room 220

Pasadena City College

1570 E. Colorado Blvd., Pasadena

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December 10 Program

Larry Hoskinson and Leslie Neff have spent over two years in Australia starting in 1985 with the last trip being in 2007.

Each trip has included a visit to Cooper Pedy, which will be the focus of their upcoming slide presentation. They talk about all aspects of opal mining from how you can noodle on the mullock heaps to how full time miners go underground. On their last visit they stayed with friends who live underground and have slides showing that.

They will also give a demonstration of finding opal using a black light.

If you have always wanted to go down under, or if like Larry and Leslie, Australia is one of your favorite places, there will be some interesting things to look at.

There will be some rough and finished opal for purchase if desired, and many specimens to look at.

Membership dues are due this month

Please send your dues to current MSSC treasurer, Herman Ruvalcaba

November Meeting/Program Brief

The November program was about the discovery and mining of benitoite. Mr. Rick Kennedy's presentation focused on the ups and downs of one particular mine: Benitoite Gem Mine. The presentation included many historical photos of the mine. Mr. Kennedy also brought his collection of benitoite specimens and cut gems, including a faceted benitoite that weighs more than five carats. Mr. Kennedy's website www.earthstreas.com had more information and pictures of benitoite specimens.



One of Rick Kennedy's Benitoite specimen. Photo by Shou-Lin Lee

MSSC president Geoffry Caplette announced that Ann Meister would accept the

position as President, Jim Kusely agreed to be Treasurer/membership chair and Jo Anna Ritchey would accept the position as Bulletin Editor, with certain conditions. In an email from Ms. Ritchey, she stated:

"There is a condition to being Bulletin Editor-I will need one article from a member each month..... I would fill the bulletin with: 1. Program description, 2. Article from member, 3. Calendar of events, 4. Anything else of interest that comes my way. It is #1 and #2 that I would need a commitment from someone (s) before I would agree to be bulletin editor."

Anyone interested in providing articles should contact Jo Anna Ritchey at (626) 359-1624 or email at j.ritchey@verizon.net. The secretary position is still vacant, so is field trip chair.

In order to minimize the workload of bulletin editor, Ann Meister proposed that with the advance technology, MSSC should go paperless and all members should receive the bulletin via email. The proposal was not voted on. So it remained as a suggestion. Vice president/program chair, Dr. Bruce Carter announced that the 2011 annual banquet will be on January 22, 2011 at the Oak Tree Room. The program speaker will be our own Dr. George Rossman. The topic is to be determined. More information about the banquet will be posted in next month's bulletin.

You are invited!!

Open house at Jewel Tunnel Imports

Saturday, December 11, 2010

between 10 AM to 4PM

13100 Spring St., Baldwin Park, CA 91706

Phone (626) 814-2257

Map available at jeweltunnel.com

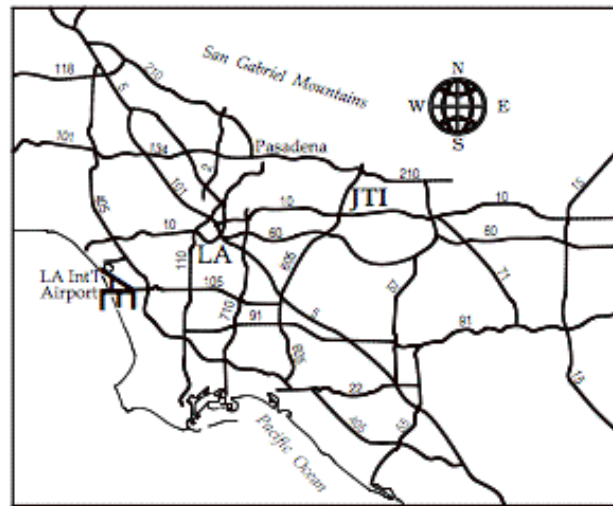
Refreshments will be served.

Jewel Tunnel Imports is a leading wholesale distributor of mineral specimens, crystals, fossils, tumbled stones and many different kinds of lapidary items like balls, eggs, jewelry etc. made from different minerals. We have a warehouse in excess of 10,000 sq. feet full of mineral related natural history items, perhaps the largest of its

kind in the United States.

Historically Jewel Tunnel Imports has had limited open house parties for mineralogically and geologically oriented groups such as the students and faculty of various university geology departments and members of certain gem and mineral societies. These open houses, by invitation only, on a few weekends just preceding Christmas, offer a chance for individuals belonging to these groups to buy minerals and crystals at wholesale prices and to learn something about the wholesale gem and mineral business.

Jewel Tunnel Imports is a wholesale only warehouse and this invitation is only for the date of the open house. If you wish to return during the year to purchase items you will need to obtain your own resale permit from the California State Board of Equalization. If you have items to trade, Rock Currier, owner of Jewel Tunnel Imports, has been known to do that especially if he finds it suitable for his own personal collection.



Directions to Jewel Tunnel Import's warehouse.

The Many Facets of Rockhounding:

A Special Exhibit at the California Oil Museum

(Reprint from CFMS Newsletter December 2010 issue)

By Jim Brace-Thompson

I encourage all rockhounds making a visit to southern California within the next few months to swing by Santa Paula and visit the California Oil Museum. This summer, Museum Coordinator Jeanne Orcutt asked if the Ventura Gem & Mineral Society might be interested in assembling a special exhibit on "The Many Facets of Rockhounding." In a terrific team effort, two dozen members of the society came together and outdid themselves. They assembled such displays as: field trips &

collecting; southern California agates, nodules & geodes; Midwest geodes; Morgan Hill poppy jasper; gemstones of the Pala tourmaline district; silverwork, bead stringing, & jewelry-making; gemstone cabochons set in belt buckles; carved gemstone bowls; free-form sculptures; rough & polished stones; knapped arrowheads & knives; fossil whalebone; trilobites from the California desert & around the world; a collection of the many forms of feldspar & quartz; a petrified wood collection; a huge Arkansas quartz cluster as well as vugs of Brazilian amethyst; mining artifacts; and meteorites. Several exhibits are based on displays that won trophies at the Ventura County Fair and annual shows of the CFMS and AFMS. Thus, the exhibits truly shine with professional polish.

The exhibit runs through February 14, 2011, at the California Oil Museum, 1001 E. Main St., Santa Paula (exit 10th St. from the 126 freeway). Museum hours are 10AM-4PM Wednesdays through Sundays. Admission is \$4 adults, \$3 seniors, \$1 youth. Check their web site for further details (www.oilmuseum.net) or call (805) 933-0076.

By the way, the museum building itself is a display piece, a National Register Historic Site. It contained the original 1890 corporate headquarters of Union Oil Company, and its permanent exhibits highlight the history of the “black gold” that brought untold wealth and prosperity to California long after the original gold rush days of the 19th century had receded into history. Displays about oil and oil wells include fossils from the oil fields and a full-size operating iron-and-timber drilling rig from 1900, as well as vintage gas pumps and antique gasoline station memorabilia.

The overarching goal of the special exhibit on rockhounding is to show the public the broad spectrum our avocation has to offer by highlighting the varied interests and expertise of individual club members—and thereby, just maybe, tempt more people into this great hobby of ours. The experience proved to be a fun, educational, community-oriented project, and members of the Ventura Gem & Mineral Society encourage all clubs with a local museum nearby to explore similar possibilities for bringing an appreciation of rockhounding to our general public and friends. We thank Jeanne Orcutt and the California Oil Museum for giving us that very opportunity!

Mark your calendar

**The Mineralogical Society of Southern California
Proudly Presents
The 46th Pacific Micro-mount Conference
January 28 to 29, 2011 at the
San Bernardino County Museum
2024 Orange Tree Lane, Redlands, CA
Registration form for the conference/field trip is
included as the attachment.**

Helpful Etching Techniques

Posted on www.earthstreas.com as part of "The Care and Feeding of Your Benitoite Specimen" Reprinted with permission from author

By Rick Kennedy

What is etching?

As stated above, natrolite was the last mineral to form at the deposit and it coated all of the minerals of interest from that deposit. In order to enjoy the minerals below, the natrolite must be removed so as to expose the crystals of benitoite, etc. I hope to show techniques that will give all a better understanding of the material as well as the ability to get the best specimen possible out of your piece of rough.

Getting Started

The person getting started will need these basic items: Muriatic acid, one or several plastic containers (Tupperware works very well for this), rubber gloves (latex gloves will react to the acid, so use the heavy duty yellow 'Mr. Clean' gloves), toothbrushes, paraffin, a sharp instrument (dental pick), hammer and chisel for trimming, lye (Lewis Red Devil drain cleaner is great), an outdoor (camping) stove and an artist's brush or two.

For more advanced work, the following items have proved most helpful: Watergun, Dop waxer, Zuber mineral trimmer, an ultrasonic cleaner, trim saw, hand grinding unit (Foredom or Dremel).

Selecting a specimen

When looking to purchase a collection, buying mine run material or just going through your stash to see which piece to work on next, here are a couple of tips as to what to look for:

1. A nice thick blanket of natrolite
2. Signs of mineralization around the edges
3. Lumps in the natrolite
4. Certain types of matrix
5. Depositional direction

Etching your Benitoite

The first step is to wash the specimen as thoroughly as possible before the first acid bath, the water gun can be very helpful in that regard. After the specimen has been washed, it goes in a container of water that you add enough acid to create a solution no stronger than 10% acid to water. Let the solution sit from 4 - 24 hours, dump the acid and wash the specimen in clean water. At this point, go over the specimen very carefully and determine where you need to add paraffin to keep the acid from etching. Use the artists brush to paint the areas you need to coat. Make sure the wax is very hot as it adheres to the surface and fills gaps better that way. Repeat this process of changing the acid and cleaning the specimen until you are done. You may wish to melt off all of the paraffin a couple of time during this process in order to more accurately check your progress. When in doubt, be conservative. You can always remove more natrolite, you can't add any! A couple of notes, the warmer the acid is, the faster it works. The warmer the paraffin is, the faster it falls off! Room temperature is best! All of the advanced techniques can be incorporated into this simple routine. In shaping a specimen, trim saw, grinding tools and trimming by Zuber or hammer can be done at any time. I prefer to do as many of these things as early in the process as possible so I can use the acid to cover or fix any of the marks I make on the specimen.

Finishing off the Specimen - The Final Rinse

Now that you have etched your specimen as far as you want to go, it is time to finish it off. Remember that you have been soaking it in a fairly concentrated acid, washing it in clean water does not remove all of the residue and your specimen will turn yellow over time if not finished off properly. You also want to melt the paraffin off in the process, here is how you do it: Needed is one porcelain pot and the Lewis Red Devil drain cleaner (pure NaOH). Put your specimens, water and lye in the pot and heat to a near boil. Once the solution gets to that temperature, turn off the heat and let it sit until it has cooled down to near room temperature. Then you will wash the specimens in clean water and let them sit to dry. If you have an ultrasonic cleaner, that is the best last step, but be forewarned, many of these crystals have fractures which could break in an ultrasonic cleaner... Be Careful!!

Frequently Asked Questions

Question: Should this process be done indoors?

Rick: No, you are working with strong chemicals here. Out in the open air is the best place

Q: How do I dispose of these chemicals?

R: The nice thing about using Muriatic acid (HCl) and lye (NaOH) is that they cancel each other out to form NaCl (salt) and H₂O (water), so I keep my waste acidic water in a five gallon bucket and add lye when it is time to dispose of it.

Q: Where to purchase materials?

R: I have had my best luck at Orchard Supply for acid, lye, paraffin, gloves and the like. For some of the more heavy equipment I have purchased items from Dave Shannon Minerals (Ultrasonic cleaner and Zuber) and KQ Minerals (Water Gun). Mine run unetched specimens are now being offered by Steve Perry Minerals and Trinity Mineral Company

Q: What is that jelly-like gook and how does that form?

R: That stuff is a precipitate indicating that the solution is too rich in silica. It happens for two reasons: Too much acid in the mix or too long between cleanings. The precipitate coats the natrolite and slows down the etching process. It is a BAD thing!

Q: I have a specimen that has yellow all over the natrolite, is this fixable?

R: Yes, if there is enough natrolite, a quick soak in the acid and proper finishing technique should do wonders for that yellow rock!

Opal Trivia

By Shou-Lin Lee

- Opal is Australia's national gemstone.
- Virgin Valley Black Fire Opal is the official precious gemstone of Nevada since May 27, 1987.
- Some Virgin Valley opals are very thirsty. They will stick to sweaty hands or your tongue.
- Opal that displays iridescent color patches is called noble opal or precious opal and the phenomenon of iridescent color patches is called play-of-color or fire.
- Common opal or opalite usually refers to opal that does not have play-of-color/fire, except fire opal from Mexico. The fire opals from Mexico are so named not because they have lots of fire, but because of their body colors that range from clear to cherry red.
- Some transparent opal displays iridescent color patches only when light is shone through it. This kind of opal is called Contra-luz.
- Below is a very fine pineapple opal specimen in the Smithsonian's collection. Pineapple opal is hard to come by because it is often damaged during the process of mining and most of the time people prefer to cut them rather than preserve them as a specimen.



(Photo by Shou-Lin Lee)

West Coast Gem & Mineral Show (Spring) has new dates and new location

For those who regularly visit West Coast Gem & Mineral Show, the show will be back at Orange County at a new location on May 20 through 22, 2011. The new location for the show is Holiday Inn-Orange County Airport. The address is 2726 S. Grand Ave., Santa Ana, CA 92705. Exit 8 from the 55 Freeway, at the intersection of Grand and Dyer.

2010 Calendar of Events

December 4-5 2010, Barstow, CA Mojave Gem & Mineral Society Community Center 841 S. Barstow Road Hours: 10-5 daily Website: www.mdgms.org

Season's Greeting!!

