

WHITTIER

ROCKHOUNDER
GEM & MINERAL
SOCIETY

General Meeting: March 28, 2013

“HISTORY OF A
SOUTHERN CALIFORNIA GOLD RUSH”

M
A
R
C
H

2
0
1
3



Obsidian Butte on a Beautiful Field Trip Day

ROCKHOUNDER

THE PREZ SEZ:

It seems like I just wrote one of these messages for the ROCKHOUNDER. But then, I hate February. For one thing, I feel like the bank wins in February, they get a full mortgage payment but I only get 28 days in the house.

I enjoyed seeing several of you at the February Field Trip to the Salton Sea. We sure squeezed a lot into a single day. Everyone got all of the material they wanted at Obsidian Butte. The Mud Volcanoes were enjoyed by everyone, something very unique. While Ginger and I had to return to the highway to get fuel, I understand that several folks stopped on the way back home to search for additional material.

This month, there are all kinds of activities for our pleasure. March 9-10 you can attend the Pasadena Show, and the Stoddard Wells tailgate. March 16-17 is our trip to Lavic Siding and the Southern Cadys. There is always so much material to be found at Lavic, if you do not return home with a bucket full of material, you may want to think about another pastime. Your last opportunity to "get out" in March is the CFMS Field Trip on March 24th to Shark Tooth Hill. As a reminder, full details on this trip are in the February ROCKHOUNDER.

For those of you that have asked about a Rockgabbers meeting, we should be scheduling one in the near future. We need to schedule a date for the meeting that does not conflict with any other rockhounding activity. After we get through the busy month of March, we should see a few more Saturday dates open up.

That's about all I have to say this month so, I'll see you at our next meeting, and around the camp fire.

Art

WGMS General Meeting

Thursday, March 28, 2013

**HISTORY OF THE
SOUTHERN CALIFORNIA GOLD RUSH
(in Holcolm Valley)**

Our speaker, Jim, is a busy man and both times I have spoken with him he is traveling out of state. He said he would love to visit us but can't confirm until a few days after the printing of this bulletin. Jim is enthusiastic about sharing his program on the Southern California gold rush in the San Bernardino Mountains – the Holcolm Valley by Big Bear.

Our lapidary societies have been there on field trips several times and it would be great to hear the history of those brave gold miners.

Marcia

Rockgabber Update

Now that Thanksgiving, Christmas and Quartzsite are over it's time to get back to making new jewelry and Rockgabbers. Last year we learned the peyote stitch and made "nuts" bracelets. As a next project we are going to learn the right angle weave stitch. We can make earrings, bracelets and necklaces using this versatile stitch. If there are other ideas that people want please let me know. When we have a date established I will contact the members and let them know.

Tony and Sandie Fender.

Event:	WGMS Board Meeting
Date:	March 21, 2013
Time:	7:30 PM
Place:	Jerry & Kathy Turner's Whittier home

News From the Federation

ZZYZX

The Earth Science program at Zzyzx will be from March 31st till April 8th this year. They offer classes in many topics including silver work, cabochon cutting, carving and beading amongst others. They also usually take day trips out to the local collecting areas. The cost of the week is \$375, which includes accommodations or RV camping, and food.

For more information go to:

http://www.cfmsinc.org/forms10/zzyzx/zzyzx_13/2013%20ZzyzxApplication3.pdf

or contact AUDREY HARVEY at 805-492-2253.

CFMS SHOW

The CFMS show this year is in Ventura at the County Fairgrounds, and is sponsored jointly by the Ventura club, the Oxnard club and the Conejo club. The theme for the show is "California Rocks", and it will run from May 31st to June 2nd. There is limited camping at the fairgrounds, some sites with hookups, and the last time I checked it was \$25 per night dry or \$35 per night with hookups. There will be both competitive and non-competitive exhibits.

For more information go to www.cfmsinc.org and follow the links to the show information.

Tony Fender

Two types of formation of common opal can be observed at the Opal Mountain collecting area. Cherry Opal is found in vugs and cracks of basalt "bombs". To get to the opal you have to bust the host rock apart. It is sometimes difficult to recover intact pieces large enough to do anything with. The other type is formed in tufa similar to the tufa spires at Searles Lake and occurs as seams in the light colored and much softer host rock. It is removed with a hammer and chisel and is somewhat easier to remove larger pieces intact. Green, orange and amber opals from this location are mostly in this category. This article is meant to provide the reader with some opal formation theory. ED

Formation of Opal

The geological factors associated with opal formation continue to be the subject of research and active discussion by geologists, opal prospectors and miners.

Three main models for opal formation presently exist, and these are briefly outlined below. Although the models have been put forward as stand-alone concepts, further research may show some linkages between them.

Weathering Model

In the Lightning Ridge opal fields, most opal is recovered from near the top of the various Finch clay facies lenses (opal dirt), immediately below the overlying portion of the Wallangulla Sandstone Member. Geological mapping of the opal fields has shown that the sandstone is thickest in areas that have produced large amounts of opal. Opal is rarely produced from areas in which the sandstone is thin or absent.

This data supports a view that the weathered sandstone at Lightning Ridge is the source of silica for the formation of opal. The occurrence of opal in the uppermost portions of the Finch clay facies is consistent with the concept that siliceous solutions (groundwater + silica) percolated down from their source rock (Wallangulla Sandstone Member) and were trapped by the impervious barrier presented by the clay fades (opal dirt).

Interpretation of aerial photographs and satellite images shows numerous lineaments (representing faults or joints) throughout the Lightning Ridge area. The lineaments identified are commonly several kilometres in length and may be expressed at the surface by a number of large box or belah trees following the line of lineament. There is a good relationship between the occurrence of

lineaments, particularly where they intersect, and the occurrence of opal deposits.

It is possible that these major lineaments were passageways that allowed deeper weathering and initial groundwater movement, and therefore controlled the sites of the development of the smaller-scale structural features, such as joints, faults, and subvertical breccia zones, which are observed in most of the workings in the Lightning Ridge area. Collectively, these features have created zones that allowed the passage of groundwater down from the surface, resulting in today's opal fields.

An additional factor necessary for the formation of opal is the appropriate chemical environment. This process is not well understood, but may involve:

- a change from an alkaline to an acidic environment;
- the presence of aluminium oxide, ferric oxide or magnesium oxide; and
- the presence of sodium chloride or sodium sulphate.

Fundamental concepts associated with the weathering model include:

- opal developed by weathering at some time after the rocks in which it is found;
- a source of silica, predominantly sandstone, is required for opal to form;
- a claystone permeability barrier trapped water carrying silica, which allowed the opal to form; and
- blows and faults generally enhanced the permeability of rock strata and increased the potential for opal to form in association with sandstone and claystone.

Syntectonic Model

This model proposes that opal formed from mineral-bearing waters rising towards the surface under pressure along fault and breccia pipes. Deformation of sandstone and claystone layers by large-scale, tectonic, geological processes caused water to be forced hydraulically into fractures and faults. As the water dissipated into areas of lower pressure, the opal was deposited as veins.

Some of the silica-rich water that formed opal also escaped to the surface as hot springs. Where this water infiltrated Tertiary sands and gravels, silcrete has

(Continued on page 11)

**Lavic Fieldtrip
March 16 & 17, 2013**

The fieldtrip for March is to the area of fabulous jasper in a wide range of colors and shades. It is one area where you can step out of your camper or car and start collecting just by bending over and picking the piece you want up. Whether this is the first time or one of the many times over the years, it is a great place to go. The supply of jasper seems almost endless.

We are also across from the great Cady Mountains with all of its assorted collecting materials. You could easily spend a month just going into the Cadys and collecting both known and unknown materials.

Then there is the possibility to do a little exploring of some of the older sites as well as finding some new as well.

Potluck will be on Saturday night. So, bring your favorite dish. If weather is permitting we'll have a campfire. It just isn't camping without a fire.

Hope to see you out there!

Lost somewhere in Calif.
Joe Goetz

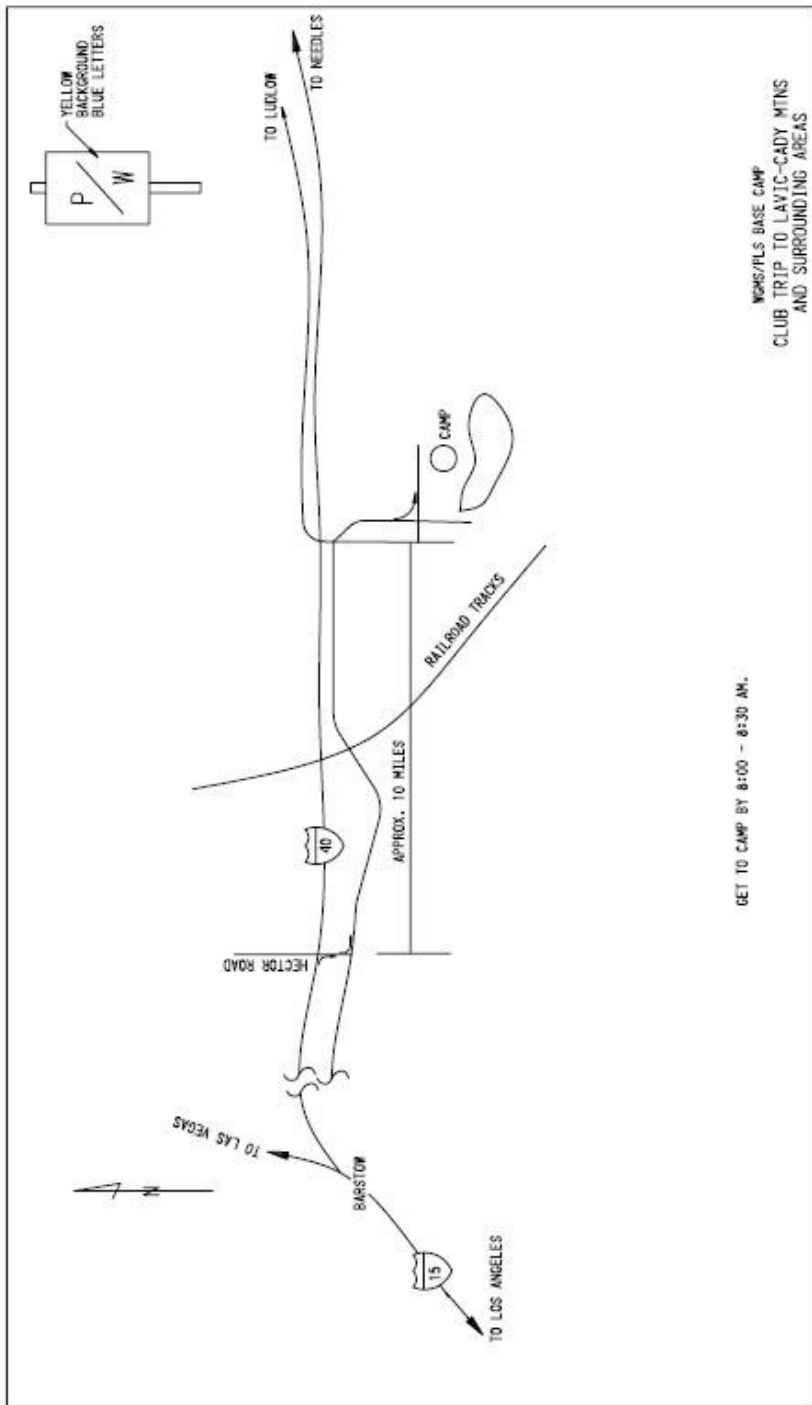
The Salton Sea -- you had to be there

Most all met up at the Lowe's parking lot and headed out to meet up with those who came up from the south. The location of the meeting was the White Water Rock Company. This is where Marcia and I ended up after running an errand.

The rock company actually had an area for rock hounds. There was pink and green soapstone, tourmalined (shorel) quartz, Iceland spar, crazy lace agate, a variety of onyx and even petrified wood rounds and small logs. And the prices were great. If needing (wanting) some different materials, try them.

After getting gas (for the truck), we met up again at the Sonny Bono bird sanctuary. After resting up a bit we were off like a herd of turtles. We went down one road then right and before you realized we were driving on a dike. Once that happened the destination was a certainty...that would be the Obsidian Butte; actually to me it looked like extruded licorice piled up here and there. A lot was sort of cruddy; however there was a lot of nice black

(Continued on page 10)



The Salton Sea

(Continued from page 8)

material lying around as well. By the time most all had collected what they wanted, it was time for lunch.

Soon we were headed to a place called Red Hill. After a lot of rights turns, then lefts, we were approaching the hill. We circled at its base and soon Mark pulled over and was out of his 4X4 and was headed up the hill. The prize there was obsidian with brown spots. I didn't really find much; others like Art did find some. I got tired of trying to find the mythical material (I did find some pumice). I stood there and looked around. I noted the boat ramp was at least 60 ft. from the water!

In what seemed like a really short time, we got into our vehicles and headed out to the Mud Volcanoes. After driving a bit we arrived at a field next to a geothermal power plant. Out there in the middle of the mud flat field were the volcanoes. There weren't really large or tall as volcanoes go, however they were unique. They were ranging in size of 2 – 3 feet to approximately 8 to 9 feet tall and almost as wide. There were pools of hot water which were bubbling with carbon dioxide and some sulfur hydroxide (which smelled like rotten eggs). We all walked around them and on them looking down into them and watched the hot mud bubble and make a sound kinda like bluuup and if you weren't careful some of that mud would land on you. I looked at my arm just after a drop of mud had landed and thought to myself, there are people who pay a lot of money to take a bath in mud and here I was getting it for free.

Soon it was time to go; it was decided to go to the old Bertram Sodium Hydroxide Mine which was on the way home anyway. As we drove up, I was wondering if we would find as alabaster or any of the other things that were listed in the federation fieldtrip report.

After a train went by, we crossed the tracks and were headed up a dusty road. We made a right turn and were headed for some hills and toward an ore shoot. Once we stopped, Frank was out looking at the hills and some something that was black and white in color and translucent to boot. And I'll tell you, it was heavy. It made the trek back to the truck somehow seemed longer. I know I didn't walk that far. Don found some pure white rock and that was heavy as well.

Well by this time the shadows were getting long and it was time to go home. I know I was ready, I was tired. This was a trip that was well attended and you know you had to be there.

Going somewhere in Calif.

Joe Goetz

Formation of Opal

(Continued from page 7)

been formed as a result. Accordingly, there may be an association between areas of silcrete and opal deposits.

Fundamental concepts associated with the syntectonic model include:

- opal was developed after the rocks in which it is found,
- opal was formed relatively quickly; and
- faults and blows are essential for opal to have formed in a given area.

Microbe Model

The opal-bearing claystone commonly contains substantial amounts of fine, fossilised organic matter. Various types of microbe fossils, primarily aerobic (air-dependent) bacteria, have been identified within samples of opal from the Lightning Ridge area. Although none of these fossil organisms are visible to the naked eye, microscopic studies have shown them to be quite abundant.

At the time the Cretaceous sediments were deposited, abundant organic matter and montmorillonite (smectite) clay within some sediments provided an ideal habitat for the microbes to feed and breed. Waste acids and enzymes excreted by the microbes caused the chemical weathering of clay minerals and feldspars in the surrounding rocks.

Ultimately, the ongoing feeding and waste production processes of the microbes created favourable physical and chemical conditions for the formation of opal.

Fundamental concepts associated with the microbe model include:

- opal developed at the same time as the rocks in which it is found;
- microbes tended to be most abundant where there is an abundance of montmorillonite (smectite); and
- the biological activity of microbes created a chemical environment that promoted the weathering of clay minerals and feldspar.

<http://www.resources.nsw.gov.au/lightning-ridge/about-opal/formation-of-opal>

What is an Amethyst?

An Amethyst is a type of quartz often found in jewelry, it is Bluish-purple in color and is composed of silicon dioxide (SiO₂) with small traces of Aluminum and Iron which all merge to donate it its distinctive purple color. In today's article we will provide some basic information about the Amethyst in terms of its value, characteristics and price.

Greek Mythology Background

The name Amethyst comes from the Greek words a- (denoting 'not?') and Methustos (denoting 'drunk?'); these terms were used since the Greeks thought that the gemstone protected the wearer from becoming drunk. It was quite usual in Greek times for drinking vessels to be made of Amethysts. For example, many wine goblets were carved from the gemstone.

The story goes that the Greek god of intoxication and wine Dionysus was in a romantic pursuit of a maiden called Amethystos, who refused his advances. The goddess Artemis protected Amethystos by transforming her into a white gemstone; in honor of Amethystos and her longing to stay chaste, Dionysus poured wine on top of the white gemstone making it go purple in color.

Where is Amethysts Found?

Amethysts are found all around the globe, largely in mines in Brazil, South Korea, Austria, Uruguay, Russia, Canada and Zambia.

Specific Amethysts mining areas in Brazil are Las Vigas, Minas Gerais and Piedras Parado. The Amethysts are normally found in geodes which are hollow rocks that contain crystallized minerals around the inside edge.

Another method is to inspect the mining area for something called a vein, The Amethyst can in specific circumstances grow in veins around 30 feet under the ground. Amethysts are commonly found with a stone called Citrine, so if Citrine is found, chances are Amethyst will also be available Amethyst deposits are also found in other countries around the world such as: Bolivia, Argentina, Madagascar, India and Sri Lanka.

How Much Are Amethyst Worth?

The key question asked by many people considering buying an Amethyst is

how much do they cost and what constitutes a real stone rather than a fake. Amethysts are considered (along with Diamonds, Sapphires, Rubies and Emeralds) as the most valuable gemstones in the world. However, they seem to have gone down in worth since enormous deposits of the gemstone were found in Brazil - this follows the old adage of increasing volumes resulting in lower price. Important aspects that characterize the value of an Amethyst include Clarity, Color, Cut, Size, Individuality and treatments used to enhance the Amethyst. Clarity, which refers to the number of flaws inside the gemstone, also affects the value of the Amethyst, with a smaller amount of flaws and scratches resulting in a more expensive Amethyst.

In terms of color, an intensely colored deep Purple Amethyst is worth more than a dull, pale lighter colored one. A superbly cut Amethyst will be more expensive than an average cut gemstone.

In terms of size, with Amethysts size does count. The larger the Amethyst the better and the more it is worth. If an Amethyst has unique features such as special patterns or colors, this can additionally enhance its value. Treatments such as heat, dyeing and coating can also reduce the value of the Amethyst. Natural Amethysts will also be more valuable than those that have been artificially treated and enhanced.

About the Author:

Rayaz Siddiqi Ruby resource at <http://rubyandgem.com>

This article was printed from:

<http://www.easyarticles.com/article-630442.htm>

From The RockCollector 2/11 via Rimstones Review via Stony Statements, 2/11

The Digital Rockhounder

This Newsletter is available by e-mail as a full-color PDF. If you wish to receive the WGMS Rockhounder directly to your computer, send an e-mail to **res19pnb@verizon.net**.

Editor

Upcoming CFMS Gem Shows

Mar 2-3 **ARCADIA, CA.** Monrovia Rockhounds
The Arboretum & Botanic Gardens
301 Baldwin Avenue (Ayers Hall)
Hours: 9:00 - 4:30 daily
Website: www.Moroks.com

Mar 2-3 **VENTURA, CA.** Ventura Gem & Mineral Society
Ventura County Fairgrounds, 10 W. Harbor Blvd.
Hours: Sat 10 - 5; Sun 10 - 4
Website: www.vgms.org

* **PASADENA LAPIDARY SOCIETY SHOW**
* **Mar 9-10** **SAN MARINO, CA.** Pasadena Lapidary Society
* **San Marino Masonic Center, 3130 Huntington Dr**
* **Hours: Sat 10 - 6, Sun 10 - 5**
*

Mar 8-10 **VICTORVILLE, CA.** Victorville Valley Gem & Mineral Society
Stoddard Wells Road Tailgate
12 miles East of I-15; last 7 miles graded dirt road
Hours: 9-5 daily
Website: www.vvgmc.org

Mar 23-24 **TORRANCE, CA.** South Bay Lapidary & Mineral Society
Ken Miller Recreation Center, 3341 Torrance Blvd.
Hours: Sat 10 - 5; Sun 10 - 4
Website: www.palosverdes.com/sblap

May 3-5 **BISHOP, CA.** Lone Pine Gem & Mineral Society
Bishop Fairgrounds, Sierra Street & Fair Drive
Hours: Fri 6 - 9; Sat. 9:30-5; Sun 9:30-3

May 4-5 **ANAHEIM, CA.** Searchers Gem & Mineral Society
Brookhurst Community Center, 2271 W. Crescent Avenue
Hours: Sat 10 - 5; Sun 10 - 4:30
Website: www.searchersrocks.org

WGMS MEETING LOCATION!
Whittier Community Center
7630 Washington Ave. Whittier



Editor: Jay Valle, 1421 Latchford Avenue, Hacienda Heights, CA 91745
Home: (626) 934-9764; E-Mail: wrongwaybart@yahoo.com

Bulletin exchanges: are welcome and requests should be sent to the editor.

Affiliations



California Federation of Mineralogical Societies
American Federation of Mineralogical Societies
Special Congress Representing Involved Bulletin Editors



Whittier Gem and Mineral Society, Inc.
Post Office Box 865, Whittier, California 90608-0865
Editor: Jay Valle, 1421 Latchford Ave.
Hacienda Heights, CA 91745

Date: March 28, 2013 at 7:30 PM
Location: See page 4 & 15 for info