

WHITTIER

**ROCKHOUNDER**  
GEM & MINERAL  
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January 24, 2013  
Crafting Earrings



Proof of prehistoric life in the Rodman Mountains of San Bernardino County, California. Picture taken by Don Eschbach.

# ROCKHOUNDER

## THE PREZ SEZ:

**H**appy New Year! I hope your holiday was all that you hoped and expected it to be. It was great seeing many of you at our Holiday Party at Jerry and Kathy Turner's. I want to acknowledge here how much all of us in the Club appreciate the effort that the Turner's have, over the last several years, put into providing us with such a wonderfully prepared location for this event. A lot of time and effort goes in to making sure that everything is in place for this special event that we share at their home.

As many of you know, our Board officers serve two year terms, so all of us on the Board are now beginning our second year of service in the same offices we held in 2012. I am proud of how this Board has performed in the year just ending, and look forward to working with each and every member for another successful second year.

Our first month of the new year will be, as always, quite hectic. Quartzite will be a destination for many during various times in the month. This often interferes with our ability to pull together a critical mass for much of anything, including the first meeting of the year. The Q.I.A. Pow Wow conflicts with our first meeting of the year on Thursday, January 24th. If the plans Ginger and I have scheduled remain firm, we will be in Quartzite on that evening. One of our other Board members will conduct our January meeting.

As we leave January behind, and begin to settle into the new year our Club will begin to pick up steam for the rest of the year. We can look forward to a number of great rockgabby events and local field trips, already in the planning stage. That's about it for now.

Looking forward to seeing you throughout 2013, especially around the campfire.

*Art*

**WGMS General Meeting**

**Thursday, January 24, 2013**

**“Crafting Earrings”**

**T**ony Fender will give a program on how to create one of his earring designs. This is planned for this January meeting so you have time to make a pair of earrings for Valentine's Day for your mom, family member, friend or your favorite pirate (har' har' har' matey).

*Marcia*

**2013 Field Trip Planning Meeting**

**T**here will be a Field Trip Planning meeting of the four local Federation Clubs (Monrovia, North Orange County, Pasadena and Whittier) to determine the field trips for 2013. We want to develop field trips that will appeal to a broad selection of people - day trips, weekend trips, educational and just plain fun.

All interested members of these or other clubs are invited to attend and participate in the planning.

**Date:**

Saturday, January 19th 2013, 10AM

**Place:** The Goetz residence:

755 W Dike St, Glendora, CA 91740-4940

RSVP to Joe Goetz at (626) 914-5030 or [joenmarl@verizon.net](mailto:joenmarl@verizon.net).

**Mark Nelson**

**Field Trip: Quartzsite**

The field trip for January is to Quartzite. PowWow is on the 26, 27 of January. It is possible Chris Kite and Mark Nelson will lead a field trip. More information will be available at the January meeting.

*Joe Goetz*

**Quartzsite Show List  
2012 - 2013**

**Shows 2012-13**

Oct 01 - Feb 28 **Hi Ali Swapmeet**

Nov 01 - Feb 28 **Prospectors Panorama**

**Shows 2013**

Jan 01 - Feb 28 **Desert Gardens -Gem & Mineral**

Jan 04 - Jan 13 **Tyson Wells Rock & Gem Show**

Jan 07 - Jan 27 **Main Event**

Jan 18 - Jan 27 **Tyson Wells Sell-A-Rama**

Jan 19 - Jan 27 **Sports, Vacation & RV Show**

Jan 23 - Jan 27 **46th Annual Q I. A. POW WOW**

Feb 1 - Feb 10 **Tyson Wells Arts & Craft Fair**

Feb 2 - Feb 3 **Classic Car Show**

Feb TBA **Blue Grass Festival at Tyson Wells**

Feb TBA **Chili Cook-Off & State Salsa  
Championship**

*Submitted by Tony Fender*

**Glass Engraving**  
by Paul Milo

Before man learned the secret of making glass, nature produced glass in two ways - lightning strikes and volcanic eruptions. When lightning strikes sand, the heat of the strike sometimes fuses the sand into long slender tubes called **FULGERITES**, commonly called petrified lightning.

The intense heat produced during a volcanic eruption occasionally fuses rocks and sand to produce **OBSIDIAN**. Early man discovered many uses for obsidian. He shaped it into knives, arrow heads, jewelry and money.

The first manmade glass was in the form of a glaze on ceramic vessels produced around 3000 B.C. The first glass vessels were produced in Egypt and Mesopotamia around 1500 B.C. By 30 B.C. the skill of the glass maker had improved to the point that manufacturers used glass jars to hold honey, wines and oil.

The first 4 centuries of the Christian era could be called the Golden Age of Glass. The glass makers had learned to make transparent glass. They did blowing, gilding and painting. They knew how to layer different colored glass and carve out designs in high relief.

Glass art had its ups and downs but continued to improve over the centuries. The 17th century is noted in the history of glass for the manufacture of crystal glass. Lead was added in the manufacturing process making it softer and more refractive. Engraving, cutting and grinding were used to decorate glass at this time.

The softer crystal was easier to work. Diamond engraving was the preferred method for decorating glass. In the Netherlands, the center of diamond engraving, a stippling or pointing was developed to an art form. Point and dots were hammered into the glass surface with a diamond needle. In Holland, a punch with a diamond point was hit with a hammer to gain the desired affect.

**GLASS ENGRAVING - materials needed**

Glass Engraving Set consisting of:

1 fine diamond engraver (as your dentist for his diamond tips)

1 medium diamond engraver

1 shading tip

1 holder

Glass, Pattern, Black Fabric, Tissue, Newspaper

Glasses for eye protection

It is a good idea to practice on a flat piece of scrap window pane. Cheap glass jars and wine bottles, because of the way they are made, are brittle. You will find the diamond tip will require more pressure to cut the design, slip off the

pattern and wear down faster. Be patient! Don't get discouraged. It's not as bad as it seems.

Remember, you are working with glass, so small chips are produced and they cut and scratch. Never use your hand to wipe off the work area. Use a tissue to brush dust onto the newspaper underpad. When you are done for the day, carefully fold up the newspaper and discard it. Use a new paper when you start again. Keep dogs and children away from the work area.

Glass must be thoroughly cleaned before starting. Center the pattern under the glass and secure with scotch tape on four sides. Clean the glass!

Outline your pattern using a medium engraver. Areas that are shaded require more lines that follow the contours of the subject chosen i.e. a flower. The edge of the petals is usually light than the center. More lines make the outside stand out. Feather these lines towards the center, leaving the center of the flower without any marks - a few dots for pollen and light shading for the center complete the flower.

When you think you have your picture traced on to the glass, carefully lift the scotch tape from three sides and hinge back the pattern. Checked for missed lines, areas that need more shading. Don't over do it. Replace the pattern, make corrections. Remove the pattern, clean the glass and place it on the dark material. Continue shading using a shading tip being careful not to over do it.

#### **PROBLEMS THAT CAN BE OVERCOME**

Oil from the hands can cause the engraver to slip.

Keep glass surface clean using glass cleaner.

Hard spots cause engraver to skid. This can be overcome by repeated passes with the engraver. Be patient.

Glass in manufacture may become brittle and may fracture or break at the edge. Stay 25 to .50 of an inch from the edge.

Mistakes can not be removed but can be hidden.

Many unique gifts - personalized wine glasses, drinking glasses, vases and flower bowls - can be made that are uniquely YOU and One of a Kind.

Have fun and good luck.

#### **Reference:**

World Book

Glass Engraving

Eastern Publishing

**Calgary Rock and Lapidary Club**

**Lapidary Journal**

<http://www.crlc.ca/crlcart7.htm>

Catch a Falling Snowflake

D { " I c t { " T c j c o

Ah, snow. You can ski it, plow it, and pack it. You can shovel it, taste it, and play with it. As a motorist, you may have cause to curse it. But in your leisure moments this winter, when the rockhound's usual treasures are buried, take the opportunity to observe it in all its crystalline beauty. I can even show you how to preserve a few delicate flakes to observe in a warm house with a cup of coffee close by.

In our childhood we learned that each snowflake flutters to Earth as a unique creation. This may be so, but would be hard to verify. The naturalist, Scott Camazine, notes in his book, *V j g " P c v w t c n k u* (John Wiley & Sons, Inc., 1987) that 600 cubic miles of snow cover the Northern Hemisphere. 18 million ice crystals reside in every cubic foot. Therefore,  $600 \times 5,280^3 \times 18,000,000 = 1,589,737,882,000,000,000,000$  snowflakes contributed to this mass, a number greater than the number of stars in our galaxy-and snow has been falling on the planet for some three billion years. Needless to say, nobody is out there inspecting each one, so don't call me a liar if I say the variety is endless.

The Making of a Snowflake

Ice crystals do fall into one of ten general form categories, going from delicate plates, star-like crystals, and needles, to the ice pellets and hail that can sometimes be downright dangerous when they fall from the sky. The kind that develops depends on the humidity and the temperature in the cloud of water droplets from which they form. The star crystals or dendrites that artists usually select to put on Christmas cards form at high humidities and temperatures from 0<sup>0</sup> to -15<sup>0</sup> Celsius. Needles and hollow prisms form over a wide range of moisture regimes, but at a narrow temperature range of -8<sup>0</sup> to -4<sup>0</sup> C. Plates form at lower humidities between ### C and -25<sup>0</sup> C. At temperatures between -25<sup>0</sup> and -40<sup>0</sup>, prisms tend to form.

Snow crystals condense on a speck of dust, building with six-sided symmetry. The combination of temperature, moisture, and air circulation that flips crystals up and around a cloud before they get

heavy enough to fall ensures all that endless variation I mentioned. Snowflakes borne from supercooled water droplets that evaporate uniformly may become perfectly symmetrical. Updrafts may take needles and prisms into areas where plates are forming to make capped columns called **tsuzumi**, named after a Japanese drum of similar appearance. Crystals bumped and jostled by droplets that only partial evaporate may pick up these frozen globs to create a kind of ice crystal called rime. If rime continues to collect icy globs until the underlying crystal structure is obliterated, it becomes graupel. Graupel can further degenerate to ice pellets and hail.

**Collecting Snowflakes**

Enough theory. How do you collect these beauties to inspect for yourself? Begin with a piece of black velvet or black cardboard. You will also need some glass slides. You can buy some 2" X 2" glass slides from photo stores that are essentially slide frames with glass in them instead of film. Raid the cupboards for a few wooden toothpicks and pick up a can of clear acrylic spray from a hardware or hobby store. Scrounge a magnifying glass from your kid and you are set. Put all this stuff in an unheated shed or garage a couple of hours before the snow comes tumbling down.

Collect the falling snowflakes on the cardboard or velvet and take it to a cold sheltered area away from drafts. Observe the flakes with your magnifier. Don't breathe directly on the flakes with your ; :<sup>0</sup>Or&ath or they're history.

To preserve your flakes for posterity (and the warmth of July), spray a glass slide with acrylic. Pick up the snowflake of choice with a toothpick moistened on one end and transfer to the slide. Allow the snowflake to sit in your "cold room" for a couple of hours. The acrylic will evaporate and recondense around the snowflake, making a teeny tiny mold which you can later look at in leisure with a magnifier or microscope and store in an appropriately tiny box, like the plastic box the slides came in. You can also put the slides in your old projector and bore neighbors who come to visit with a dissertation on "What-I-Did After-We-Opened-Presents-At-Christmas-This-Year".

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### About 'Needles' of Obsidian

The term 'needles of obsidian' refers to a naturally occurring fragment of obsidian that is basically rod like in shape. Needles can be anywhere from the size of a pencil lead to that of a three-foot section of four-by-four. As obsidian cools beyond the threshold of crystallization, it contracts and fractures. Usually the pattern of shattering is pretty random, creating pieces of varying size and shape. In any large obsidian flow there may be a few long thin pieces just because of chance. In a few flows, however, the entire formation has an overall tendency to produce needles. No one has ever seen this occur, so theories as to the origin of needles are only that: theories. The one that I favor, which was developed by an actual geologist from Humboldt University some twenty-five years ago, is that the needles formed in an already existing obsidian flow when it was bisected by a fault line. The resulting earth movement flaked the rock along parallel axis at 90 degrees, the result being needles. At every site where I have found more than random needles, there seems to be a general matrix with



needle sizes ranging from hair-like to honkers of up to thirty inches; but please, feel free to come up with a theory of your own. Perhaps they were left by aliens or are some kind of weird communist plot. At any rate the needles are the second key to the wonderful and amazing tones that our chimes produce. The shapes allow the sympathetic vibrations to build up and emote.

Needles of obsidian are relatively rare and little known. Over the years, we have found several places in Oregon and California where we are permitted to dig them, and we enjoy primitive camping, hiking and digging for six to eight weeks per year.

<http://www.obsidianwindchimes.com/>

### Dolomite, not dynamite

Dolomite is primarily composed of calcium magnesium carbonate. It was first described in 1791 by the French geologist Déodat Gratet de Dolomieu. The rock that forms the mineral can be referred to as Dolostone. It's comprised mainly of dolomite, where most of the calcium has been replaced by magnesium. Limestone with dolomite is dolomitic limestone, though it was also called magnesian limestone in older reports.

It can be white, gray, or pink. On the Mohs scale, it ranks from a 3.5 to a 4, with a specific gravity between 2.84 and 2.86. It has a white streak, with a vitreous to pearly luster. As dolomite is a double carbonate, unlike calcium, it doesn't dissolve rapidly in diluted hydrochloric acid unless it has been scratched or it is in a powdered form.

Dolomite is relatively rare, though geologic records indicate that there were once vast deposits. Modern dolomite forms as a precipitate on the surface, such as in highly saline lakes in South Australia. Crystals that form in deep-sea sediment are called "organogenic" dolomite. Recently, dolomite has been found which formed in the oxygen-depleted environments of the supersaturated saline lagoons in Brazil, along the Rio de Janeiro coast.

Dolomite forms in many different environments, with varying structural, textural, and chemical characteristics. The geologic record shows that modern dolomite is very different from the majority of ancient dolomites, leading researchers to speculate that the conditions in which they form are very different from where they used to form.

Dolomite is used as an ornamental stone, an aggregate for concrete, and as a source of magnesium oxide. It is also used in a process for producing magnesium, and serves as the host rock for Mississippi Valley-Type ore deposits of lead, zinc, and copper. It is sometimes used as a flux for smelting in areas where calcite limestone is too costly or uncommon, and large quantities are used for the production of float glass.

It is also commonly used for its basic properties. Dolomite and dolomitic limestone are added to soil and potting mixes to lower their acidity and to provide a source of magnesium. It is also used as a substrate in saltwater aquariums to steady the pH of the water. As it contains relatively low amounts of radioactive particles, particle physicists like to build particle detectors under layers of dolomite. It helps to insulate against cosmic rays while not adding to background radiation.

If you went on the CFMS field trip to Palos Verdes, you may have found some dolomite at the Livingston Quarry.

Minda Moe, Mineral Chair Via The Nugget 8-12

**Fourth Annual World Rock Tumbling Contest (2013)**

The **Feather River Lapidary & Mineral Society** invites you to join us for our fourth annual World Rock Tumbling Contest. This year we will be using Tuledad Canyon Agate. Tuledad Canyon is located on the California Nevada Border near Susanville CA. Pictures of the polished rock will be on our web site after the 1st of January. <http://www.FeatherRiverRocks.org>

This flyer is your invitation and your application. Please fill out the information below, make out the check payable to FRLMS and mail to;

**Feather River Lapidary & Mineral Society or FRLMS  
P.O. Box 2645  
Oroville, CA. 95965**

- \* First place \$250.00
- \* Second Place \$100.00
- \* Third Place \$50.00

**Entry fee this year will be \$40.00 for continental US residents. This will include shipping material to you. All others fees will be \$40.00 plus shipping. Please send correct fees and how to ship.**

- \* (3LBS.) of rough will be shipped to you when application & check are approved.
- \* We will stop accepting applications June 1st, 2013.
- \* (1/2 LB.) finished rock must be returned with copy of entry form and must be post marked no later than August 15th, 2013.

Name; \_\_\_\_\_ Phone; \_\_\_\_\_  
Address; \_\_\_\_\_  
E-mail; \_\_\_\_\_

(530) 877-7324 Email; [tumbling@FeatherRiverRocks.org](mailto:tumbling@FeatherRiverRocks.org)

Catch a Falling Snowflake

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Snowflake Bentley, et al

One of the original "snowflake nuts" was Wilson A. Bentley, who, in the late 1880's, spent many happy Vermont winters photographing an amazing array of snowflakes. Bentley wrote Snow Crystals in 1931 showing his amazing collection of photographs. Dover Books reprinted it in paperback and it is still readily available from Amazon.com and elsewhere. Vincent J. Schaefer in the 1940's developed a casting technique of which the one described above is a variation. Edward R. LaChapelle wrote a book to Uv k Crystals in 1969 which is available at the Ft. Collins library.

And now you have at least one more thing you can do with snow and a way to bring back fond memories of it - while you hunt fossils and agates under next summers blazing sun.

References

Bentley, W.A., and Humphreys, W.J., U p qEyt "{ uNew York: Dover Publications, Inc., 3 ; 8 4
Camazine, Scott. V j R c' v w t c n. New York: John Wiley & Sons, Inc., 1987.
LaChapelle, Edward R., H k gI mwfk 'f U g p' qEyt "{ uSeattle and London: University of Washington Press, 3 ; 8 ; 0

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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**

- Feb 15-24**    **INDIO, CA.** San Gorgonio Mineral & Gem Society  
Riverside County Fair & National Date Festival  
46-530 Arabia Street  
Hours: 10 - 10 daily
- 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](http://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](http://www.vgms.org)
- Mar 9-10**      **SAN MARINO, CA.** Pasadena Lapidary Society  
San Marino Masonic Center, 3130 Huntington Drive  
Hours: Sat 10 - 6, Sun 10 - 5
- 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](http://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](http://www.searchersrocks.org)
- May 31 to**      **VENTURA, CA. CFMS SHOW & CONVENTION**  
**June 2**        **"California Rocks"**  
Sponsored by:  
Conejo, Oxnard, & Ventura Gem & Mineral Societies  
Ventura County Fairgrounds, 10 W. Harbor Boulevard  
Hours: Fri & Sat 10 - 5; Sun 10 - 4  
**Website:** [www.cfms2013.com](http://www.cfms2013.com)

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



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**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



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