WHITTIER ROCKHOUNDER GEM & MINERAL SOCIETY

JULY 2019

*** Special Summer Edition ***

Young "Jack" checking us out near Newberry Springs, CA

Whittier Gem & Mineral Society
Elected Officers and Committee Chairmen

2018-19 Elected Officers

President: ..... Marcia Goetz .....(joenmar1@verizon.net) ..... (626) 914-5030
1st Vice President:... Joe Goetz .....(joenmar1@verizon.net) ..... (626) 914-5030
2nd Vice President: .. Kathy Valle.....(bunnie1962@yahoo.com)..... (626) 934-9764
Treasurer: ..... Jay Valle .....(res19pnb@verizon.net)..... (626) 934-9764
Secretary: ..... Sandie Fender ....
Federation Director: Sandie Fender ....
Directors: ..... Kim Winn .....
..... Yvonne Morton .
..... Art Ragazzi .....

Appointed Chairmen

Budget/Finance: .....
Bulletin Editor: ..... Jay Valle .....(res19pnb@verizon.net)..... (626) 934-9764
Bylaws & Rules ..... Jerry Turner .....
Claim Secretary: ..... Tony & Sandie Fender
Community ..... Kathleen Turner.....
Relations: .....
Displays: .....
Door Prizes: ..... Marvin & Judy Belcher
Field Trips:..... Joe Goetz .....(joenmar1@verizon.net) ..... (626) 914-5030
Librarian: .....
Rockgabbers: ..... Tony Fender .....
Show Chairman:..... Frank Winn .....(Rkhndfw@gmail.com) ..... (626) 239-5457
Social Secretary: ..... Kathy Valle .....(bunnie1962@yahoo.com).... (626) 934-9764

Regular Monthly Meetings: 7:00 PM 4th Thursday each month, 3rd Thursday in November & December. No regular meetings in July & August.
(See Map on pg. 15 or Write-up on pg. 4 for meeting place.)

Board of Directors: To be announced.

Rockgabbers: To be announced. See pages 4 & 5.

Field Trips: Monthly except July & August. See inside bulletin for details.

Annual Dues: Adults – $15.00; Married couple – $25.00, Junior – $5.00
1-time initiation fee - $5.00 per person

ROCKHOUNDER

THE PREZ SEZ:

Gentle Members,

We all had a nice time at the potluck last night...a good way to get summer started. A few of our members took advantage of the rock we had there to purchase and I hope you do something nice with them eventually.

We have passed the summer solstice and the weather is going to be heating up. I have a question for you- What do rockhounds do during the summer months when they can't go rockhounding. Why they wash rocks in the backyard - of course! It's a way to try to keep cool and enjoy looking at some beautiful rocks. We've been doing a little bit of this ourselves. We even set up an ez-up for shade.

Whittier's pile of rock has gotten a little smaller, but it will take a few more days of WGMS members helping to get the pile put into buckets. I hope you'll join in the fun.

Marcia

WGMS Webpage: http://wgmsca.com/

From the Editor…

The Whittier Gem & Mineral Society goes "dark" during the Summer because our usual haunts here in the far Southwest can be dangerously hot this time of year. It is possible to successfully hold field trips to Afton Canyon, for instance, but if you have a problem with the car or hurt yourself while rockhunting, it can be fatal.

Some of us still occasionally tempt fate and visit some old favorite desert collecting sites during this time of year. It is a personal choice and a calculated risk, though not a time for group trips. Better to head up into the mountains or up the California Coast.

This July Summer Edition of the (WGMS) Rockhounder has whatever information our members have provided that they think you might be interested in (like field trips). The rest is articles, etc. from many other newsletters and The Internet.

Enjoy it in good health.

Jay Valle, Editor, The Rockhounder

Punchline: "I need bail money."

The officer said, "You're staggering."
I said, "You're quite Handsome yourself."
We just laughed and laughed.
I need bail money.

Remember how when you were little you could just rip off your diaper and run around naked and everyone thought it was so cute and funny? Anyway, I need bail Money.

Via The Internet

July Beach Trip
Palos Verdes – July 20

Collect: Glaucophane, miscellaneous showy beach rocks; barite crystals, various white crystalline materials

Leaders: Phil Lahr, Chris Kyte

When: 8:00 Saturday morning, July 20

Where to meet: Directions and map when you sign up

What to bring: Water, snacks, sunscreen, wide-brim hat, walking stick, rugged footwear for rocks/ saltwater. Long pants for dolomite area (brushy). First-aid kit

Equipment: Eye protection, rock hammer, small spade or collapsible shovel, gad or chisel, sledge, newspaper to wrap rocks, bucket or other carrier

Notes: P Parking on street. There is a steep 3/4 mile trail down to the beach; the walk back, carrying rocks, is tough. Tricky footing on rocks on the beach

More information: Come to the PLS program meeting, July 16, for Q&A, examples of minerals, and sign-up.

Sign up: Be on the list so we can contact you in case of cancellation or last-minute changes. Contact Karl Stull at karlestull@gmail.com or (818) 205-7135 – text or voice (if no answer, leave a message).

Black Coral
by Tom Taffel, member SFGMS

There's Coral... and then there's Black Coral.

Actually there are more than 500 species of coral, (antipatharians), but only 150 species of black corals. From Hawaii alone, come 14 species of black coral. But the most rare of all black corals comes from the Western Caribbean off Grand Cayman Island from depths of over 200 feet.

The growth rate of this rare black coral is 1/4 to 1/2 inch diameter - every 100 years - which is why it's a protected species by international law and divers are only allowed to retrieve pieces which have broken off a reef naturally (in spite of its firm attachment to the sea floor).

Black corals are carnivores and have a hardness ranging from 4.0 - 5.5 and a density of 2.43 - 2.70 and are found in all oceans, most commonly in deep water habitats of tropical and subtropical seas. Of the 150 species of black coral, some can be found on reef slopes in water as shallow as 3 feet and as deep as 300 feet. Black coral has actually been found growing in depths of up to 20,000 feet. But coral larvae living in shallow waters will always be found in shaded areas were light is extremely limited. Black corals are colonial animals related to sea anemones. Colonies of black coral require swift currents which feed them animal plankton over their polyps. Black coral colonies thrive in deep, and therefore dark waters, usually near drop-offs and ledges.

It is the skeleton of the coral we see in jewelry and not the living coral that produces it. "A thin veneer of animal tissue, called the cenosarc, secretes the tightly-layered central skeleton of horn-like protein. Depending on the species, the living tissue may be black, red, orange, brown, green, yellow or white. The gelatinous polyps located in this living "bark" are short and cylindrical, their six, non-retractable tentacles are armed with stinging cells."

"Relatively little is known about the life cycle and reproduction of black corals. Like other cnidarians, black corals have life cycles that include both asexual and sexual reproduction. Asexual reproduction

(budding) builds the colony by adding more living tissue that in turn secrets more skeleton. Regular growth rings laid down as the skeleton thickens can be used to estimate the age of the colony. Sexual reproduction involves the production of eggs and sperm to create young that can disperse and settle new areas. Polyps are either male or female, but a single colony may be hermaphroditic, with both male and female polyps. The larval stage, called a planula, can drift with currents until a suitable surface is found. Once the larva settles, it metamorphoses into a polyp form and secretes skeletal material that attaches it to the sea floor. Then it begins budding, creating more polyps that will for a young colony. Asexual reproduction can also occur naturally by fragmentation of branch ends."

"Black coral has been harvested for centuries as a charm and a medicine. Early peoples of many cultures believed that black coral had the power to ward off evil and injury. The name, 'antipathies,' means 'against suffering.'"

Hawaii's state gem is black coral as of 1987.

Renowned American designer and master sculptor Bernard Passman has turned black coral into a popular art medium and created works of art for Princess Diana, the Queen of England, President Nixon and Pope John Paul II. For Charles and Diana s royal wedding Passman created a 97-piece black coral and sterling silver tableware service followed by an 11-piece set (in miniature) for Prince William.

The tools used in cutting and carving black coral are similar to those used by dentists.

Bernard K. Passman galleries are located in Georgetown, Grand Cayman Island; St. Thomas, U.S. Virgin Islands; Las Vegas, Nevada; New Orleans, Louisiana; and Ketchikan, Alaska. Bernard Passman has been granted a special permit to work with rare and precious material known as the black gold of the Caribbean. Speaking of gold, his beautiful rings sell for $20,000 and his famous Ziegfeld girl has a value of $135,000. Other objets d'art, sculpture and jewelry of Bernard K. Passman can be seen at: www.passman.com..

http://www.sfgms.org/articles/blackcoral.html

Minerals and Their Uses:

Cement: Cement is used for building materials, stucco, and mortar. Cement is a mixture of powdered lime, clay, and other minerals that crystallize to form a hard solid when water is added (hydraulic cement) or as a binding material in concrete" (Kesler, 1994). An excellent overview of cement, its chemistry, and properties can be found in MacLaren and White (2003).

Chromium: Chromium is used in the production of stainless and heat-resistant steel, full-alloy steel, super alloys and other alloys. Chromium is obtained from the ore mineral Chromite (Mg,Fe)(Cr,Al,Fe)2O4

Clays: There are many different clay minerals that are used for industrial applications. Clays are used in the manufacturing of paper, refractories, rubber, ball clay, dinnerware and pottery, floor and wall tile, sanitary wear, fire clay, firebricks, foundry sands, drilling mud, iron-ore palletizing, absorbent and filtering materials, construction materials, and cosmetics.

Cobalt: Half of the consumption of cobalt is used in corrosion- and abrasion-resistant alloys with steel, nickel, and other metals for the production of industrial engines. Other uses of cobalt metal include magnets and cutting tools. Cobalt salts are used to produce a blue color in paint pigments, porcelain, glass, and pottery. Cobalt is obtained from the ore minerals Linneaite (Co3S4), Cobaltite (Mg,Fe)(Cr,Al,Fe)2O4, and (Fe,Ni,Co)1-xSx.

Copper: Copper is used in electric cables and wires, switches, plumbing; heating, electrical, and roofing materials; electronic components; industrial machinery and equipment; transportation; consumer and general products; coins; and jewelry.

Diatomite: Diatomite is a rock composed of the skeletons of diatoms, single-celled organisms with skeletons made of silica, which are found in fresh and salt water. Diatomite is primarily used for filtration of drinks, such as juices and wines, but it is also being used as filler in paints and pharmaceuticals and environmental cleanup technologies.

Dolomite: Dolomite is the near twin-sister rock to limestone. Like limestone, it typically forms in a marine environment but also as has a primary magnesium component. Dolomite is used in agriculture, chemical and industrial applications, cement construction, refractories, and environmental

industries.

Feldspar: Feldspar is a rock-forming mineral. It is used in glass and ceramic industries; pottery, porcelain and enamelware; soaps; bond for abrasive wheels; cement; glues; fertilizer; and tarred roofing materials and as a sizing, or filler, in textiles and paper applications.

Fluorite: Fluorite is used in production of hydrofluoric acid, which is used in the pottery, ceramics, optical, electroplating, and plastics industries. It is also used in the metallurgical treatment of bauxite, as a flux in open hearth steel furnaces, and in metal smelting, as well as in carbon electrodes, emery wheels, electric arc welders, and toothpaste as a source of fluorine.

Garnet: Garnet is used in water filtration, electronic components, ceramics, glass, jewelry, and abrasives used in wood furniture and transport manufacturing. "Garnet is a common metamorphic mineral that becomes abundant enough to mine in a few rocks" (Kesler, 1994).

Germanium: "Most germanium is recovered as a byproduct of zinc smelting. It is also found in some copper ores" (Kesler, 1994). Applications include use in fiber-optic components, which are replacing copper in long distance telecommunication lines, as well as in camera lenses and other glasses and infrared lenses.

Gold: Gold is used in dentistry and medicine, jewelry and arts, medallions and coins, and in ingots. It is also used for scientific and electronic instruments, computer circuitry, as an electrolyte in the electroplating industry, and in many applications for the aerospace industry.

Granite: Granite can be cut into large blocks and used as a building stone. When polished, it is used for monuments, headstones, countertops, statues, and facing on buildings. It is also suitable for railroad ballast and for road aggregate in highway construction.

Graphite: Graphite is the crystal form of carbon. Graphite is used as a dry lubricant and steel hardener and for brake linings and the production of "lead" in pencils. Most graphite production comes from Korea, India, and Mexico.

Via The Rock-It, 10/09, The Rock Collector, 11/09 Little Gems 03/10, The Beacon 03/19

The McCondra Report...
by Barbara McCondra

"Black Opal"

As Primitive Man so cherished a hot, red fire in the blackness of night, so do gem lovers of the world value above all other opals, the red on black opal. Every gemstone category has its primadonna and the red multicolor black opal can command $20,000 plus per carat.

Many factors contribute to the identification of such a superb gem black opal. The location of its mine of origin is the first consideration, Australia being the most desirable as the gem quality opal there is of sedimentary formation rather than volcanic. It is Australian black that I refer to now. The blackness of the base color, the brilliance of the fire, the predominance of red, the richness of the red, the quality of the other colors with the red (heliotrope, yellow, cornflower blue, electric green, gold bronze) the rareness and desirability of the pattern of the fire, the directionality of the fire (is the color play "ON" at all angles of viewing), the fluidity and mobility of color and pattern, the shape and size of the stone, and the overall composite appeal of all these factors. All of these are a part and parcel of the gem look, that special magic, hence gem value, of the opal.

Opal aficionados have their individual preferences, but market consensus gives top dollar value to red on black. The Red Robin, Red Admiral, Black Prince, Pride of Australia, Firestorm, The Flamingo, The Cardinal, The Southern Princess, and The Flame Queen are among the list of precious, world renown, red on black gem opals. A list could be made too of many secretly bought and sold exquisite stones if it all were not so exactly that, secret! The lists go on and on. Both the famous named and the secret red on black beauties commanded royal prices.

The colors within an opal have been observed by electron microscope to be the result of the breaking up of light into the spectral colors. Red is the color caused by diffraction of light at the interface of the voids which are created by the three dimensional grates of 3,000 to 4,000 angstrom wide silica spheres. The diameter of the spheres control the size of the voids. For simplicity, envision stacks of egg cartons with the egg cups representing the silica spheres and the spaces between the cups, the voids.

To explain the blackness of the opal from which the red fire flashes is not as easy. I can tell you that all potch (opal with no fire/common opal) is made up of irregularly shaped and irregularly stacked silica spheres. However, potch can be many colors ranging from clear, white, yellow, green, orange, red, grey, charcoal, black, to glassy black. There is controversy over what it is about black potch that makes it so black. These assorted theories range from formation in black swamp water, carbon molecules, manganese presence, to properties inherent in the structure that causes the absorption of white light resulting in non-light or black. I leave this argument to the scientists.

To the romantics, the poets, the opalholics, I liken the magic of the red on black to the red heart of Australia, its fiery desert sunsets, its redback spiders (themselves tiny replicas of a black cabachon with a bloodred spot) that appear to be the guardians of every opal mining shaft, and the dancing flashes of red in a black Antarctic sky known as the Aurora Australis.

To the investment minded collector I equate the red on black opal with the pink diamond, the Burmese pigeon blood ruby, the Colombian blue green emerald, and the Tahitian Peacock or Aubergine black pearl.

To the historian I tell the tale of hope for another season of mining being paid for with the proceeds of a red on black beauty found a red eyed gouger in the face of his drive fifty feet underground in Lightning Ridge, Australia. I tell you of the old timers in the early 1900s that used to throw away the beautiful
blue/green stones because it was only the red on blacks that were marketable. Many a modern day miner has made money on processing the throw away stow dirt from that time frame. Nearly with tears in my eye, I tell you of the famous "Black Prince", which was dropped onto the floor and broken in two, but due to its good size and quality still retained great value.

Be it the past or the present, each miner dreams of red on blacks as he stares into the comfort and company of his evening fire. He is mesmerized by the red glowing coals into reminisces of long gone red beauties he has mined or had the privilege of viewing. Mostly he conjures up visions of the prized red on blacks his day's traces promised him will be forthcoming, perhaps in the next few tons of dirt he shifts.

Opal Express 3/97

Guide to Gemstone Fraud, Rip-Offs and Scams

The most common gemstone fraud is not synthetic gems as natural, but rather the selling of low quality stones as fine gemstones, especially stones that are poorly cut, heavily included or of mediocre color.

Fine Ruby, Top Color, Clarity & Cut

The gemstone business probably has more than its share of fraud, rip-offs and scams. It takes specialized knowledge to determine the authenticity of a natural gem. It is not difficult for a dealer to pass off a synthetic gem as natural, or sell an inexpensive gem such as kyanite as a more expensive sapphire. Even examining the gems in person is unlikely to protect the consumer against fraud, since sophisticated gemological instruments are usually required to detect synthetic or treated gems.

Having noted that, you might be surprised to hear that outright fraud of this sort is actually not common at all in the gemstone business. The reason is that dealers who engage in blatantly fraudulent practices don't survive long in the gemstone business.

Smart consumers prevent most outright fraud by buying only from dealers who have their gems certified by independent gemological laboratories. These labs are expert at gem identification and use high-tech instruments to determine if gemstones are natural or have been treated by various methods.

However, it is important to understand that gemological labs mainly do quantitative analysis -- they can tell you that a particular stone is a natural unheated sapphire, but they can't tell you if the stone is a high quality specimen or even if it is gem quality. They also won't give you any idea of the value of your stone.

Most of the fraud and rip-offs in the gemstone business have to do with qualitative issues, where a poor quality stone is sold as a high quality gem. This kind of fraud is unfortunately all too common, particularly among dealers who sell on price. When you see gems on offer at what seem to be

exceptionally cheap prices, that is the time to raise the fraud alert.

Windowed, Beryllium Treated Sapphire | Weak Color, Poorly Cut Spinel | Badly-Cut Fracture-Filled Ruby | Heavily Included Spessartite Garnet

The most common gemstone fraud is offering poorly cut or included gems as *fine gemstones*. Though the prices asked for these gems is well below the market price for high quality gems, these low quality stones in fact have little or no value in the market. The same is true for natural gems which have poor or mediocre color -- jewelers and dealers in fine gems will not touch these stones. But some dealers offer these leftovers to unwary buyers as "fine gems" at what seems to be an attractive price.

Another example is selling heavily-treated gems to consumers who don't fully understand the implications of the treatment. For example, some dealers sell ruby which has been fracture-filled with lead glass. But it is not enough just to disclose the treatment. The fact is that these rubies are not durable at all, and the glass filling is easily affected by household chemicals and routine heating by a bench jeweler during the setting process. These fracture-filled rubies should be not be purchased at any price. In fact the best gem labs now identify these stones not as ruby but as "composite ruby" or "hybrid ruby" to indicate that they cannot fairly be compared with natural ruby.

A gem dealer's reputation is his most important asset. This is a business that is built on trust. Dealers who engage in fraudulent practices by offering low quality stones as fine gems should be exposed. Fortunately internet consumers are vigilant and report dealers they suspect of fraudulent practices. There are well known consumer sites that report rip-offs and unethical practices. Some consumers have gemological. knowledge and are generous enough to share their expertise in these forums. Like any other product in the market, you usually get what you pay for. But in the case of gemstones, fine gems have lasting value while low quality stones are essentially worthless.

http://www.ajsgem.com/articles/guide-gemstone-fraud-rip-offs-and-scams.html

Upcoming CFMS Gem Shows

Aug 2-4 **NIPOMO, CA.** Orcutt Mineral Society
Nipomo High School, 525 Thompson Avenue
Hours: Fri-Sat 10 - 5, Sun 10 -4
Website: omsinc.org

Sept 7-8 **ARROYO GRANDE, CA.** San Luis Obispo Gem & Min
South County Regional Center, 800 West Branch Street
Hours: 10 - 5 daily
Website: slogem.org Show Page

Sept 21 **LONG BEACH, CA.** Long Beach Mineral & Gem Soc.
Expo Arts Center, 4321 Atlantic Avenue
Hours: 10:00 - 5:00

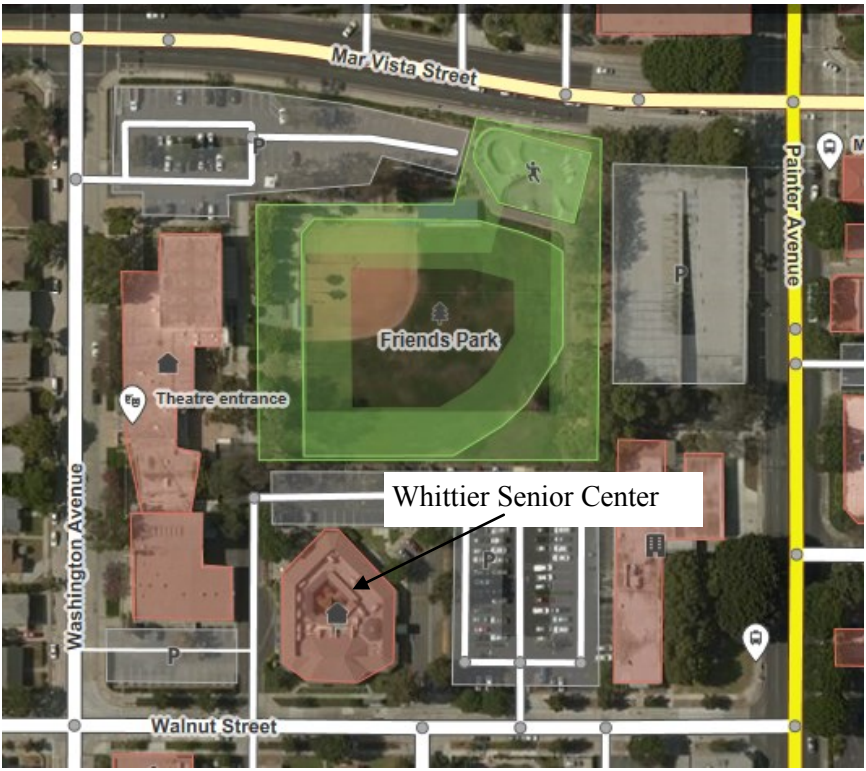
Oct 12-13 **TRONA, CA.** Searles Lake Gem & Mineral Society
Trona Gem Building, 13337 Main Street
Hours: Sat 7:30 - 5:00; Sun 7:30 - 3:00
Website: iwvisp.com/tronagemclub

Oct 19 **WEST HILLS, CA.** Woodland Hills Rock Chippers
First United Methodist Church
22700 Sherman Way
Hours: 10 – 5
Website: rockchippers.org Show Page

Nov 2-3 **ANAHEIM, CA.** American Opal Society
Business Expo Center, 1960 S. Anaheim Way
Hours: Sat 10 - 6; Sun 10 – 5
Website: opalsociety.org/ Show Page

WGMS MEETING LOCATION!

Whittier Senior Center
13225 Walnut Street, Whittier



Affiliations

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