

ROCKHOUND RAMBLINGS

OCTOBER 1, 2010

THE NEWSLETTER OF THE PASADENA LAPIDARY SOCIETY, INC.



Don't miss Dave Kelty's popular "Rockhound Trivia Game" at this month's meeting!

Sometime in your life while collecting rocks and other interesting natural specimens a collector with more experience is going to comment: "that's actually a Pseudomorph". Rather than having a glazed look on your face you can read the article "***Pseudomorphs of Goethite After Pyrite***" on page 5 and understand this fascinating phenomenon.

October's birthstone treats the eye to an explosion of shimmering colors, not unlike those of a magnificent rainbow following a summer rain. The Opal derives its name from the Latin word "opalus," meaning precious jewel. Prized for its unique ability to refract and reflect specific wavelengths of light, the Opal was called "Cupid Paederos" by the Romans, meaning a child beautiful as love. One legendary explanation for this gemstone's origin is that it fell from heaven in a flash of fiery lightning.

Ancient monarchs treasured Opals, both for their beauty and for their presumed protective powers. They were set into crowns and worn in necklaces to ward off evil and to protect the eyesight. These gemstones were also ground and ingested for their healing properties and to ward off nightmares.

The Opal dates back to prehistoric times. Most opals are approximately sixty million years old and date back to the time of the dinosaurs during the Cretaceous period. It is a non-crystallized silica, which is a mineral found near the earth's surface in areas where ancient geothermal hot springs once existed. As the hot springs dried up, layers of the silica, combined with water, were deposited into the cracks and cavities of the bedrock, forming Opal. This gemstone actually contains up to 30% water, so it must be protected from heat or harsh chemicals, both of which

..... Continued On Page 4

INSIDE THIS ISSUE:

<i>President's Message</i>	2
<i>Membership Info</i>	2
<i>Ed's Corner, Work-shop and Feature</i>	3
<i>The Opal</i>	4
<i>Pseudomorphs</i>	5
<i>Field Trip, Federation News</i>	6
<i>Terminology, Shows</i>	7
<i>Calendar</i>	8



President's Message

This is Chris Kyte, our acting President. Our elected President, Drew, had to withdraw due to medical concerns. He will continue

to manage the workshop. I'm sure we all wish him a speedy recovery. Cheryl Lopez read the job descriptions in the September bulletin and answered the call to serve as our **Club Secretary**. It is heartening to see new members stepping forward to assist

with the work that makes our club possible. My wife, **Marléné**, stepped up to serve as **Membership Chair** - a job she has done very ably in previous years.

Now that summer is almost over we can look forward to more collecting trips and working on preparation for our upcoming club show. I am expecting that everyone will sell raffle tickets, donate a raffle prize and pitch in and volunteer for one or two of the fun tasks that have made our show so successful in the past. There are enough choices so that everyone will be able to help even if you have limited skills.

On November 8th we will be attending the taping of TWO episodes of the **Dr. Phil Show** at Paramount Pictures! Our air conditioned coach will deliver us to the studio around 8:15 AM and we'll leave to return at 1PM. There is no cost to club members and in addition to a morning of fun the club will receive \$5 per person! Confirm your attendance as soon as you receive this bulletin to Cal Matthews at 626-798-7481 or at **pascal2@yahoo.com**. I look forward to seeing you at our club meetings and field trips - and at the **Dr. Phil Show!**

... *Chris Kyte, President*

October Meeting and General Information

Officers

Chris Kyte, Vice President
(626) 794-0519

Cheryl Lopez, Secretary
(626) 351-6283

Mark Nelson, Treasurer
(909) 996-1784

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Newsletter Articles or corrections should be sent to the editor: **Mark Nelson**, 1475 Paseo Maravilla, San Dimas 91773. (909) 996-1784 or to **mnelsonair@aol.com**

Door Prizes

Bring lots of cash to the October meeting. You will have a real treat at this meeting's special raffle! Stones ready to finish and mount! The Main Prize is a rare piece of petrified Mahogany, followed by special selected specimens of both Richardson Ranch, Maury Mountain and WGMS'

Claim Moss Agate. Also to be raffled to lucky members are Mexican Crazy Lace Agate; Cady Mountain Fortification Agate; Richardson Ranch Dendritic Agate and six other assorted specimens.

Don't miss out - this is a really special event hosted by Sylvia and Vern Cliffe and the Raffle Committee.

Dave's Rockhound Trivia Quiz

Dave's show is a PLS favorite! Hone up on your knowledge of gems, minerals, fossils, geography of California, the PLS, safety, first aid and general trivia to be competitive for a prize or two!

Membership and Meeting Locations

Membership per calendar year is \$20 per individual, \$15 for a second adult member in the same house. Junior members and third or more members at the same house are \$10. Included is one copy per family of the monthly club newsletter. Renewals are due by the December General Meeting. Mail membership checks to P.O. Box 5025, Pasadena CA 91117-0025.

Board Meetings are held at 7:00pm on the first Wednesday of the month at the One West Bank at the

northeast corner of Santa Anita and Foothill in Arcadia. All PLS members are welcome to attend.

General Meetings are held on the third Wednesday of the month at 7:30pm at the Sierra Madre Masonic Lodge, 33 E. Sierra Madre Blvd, Sierra Madre. Guests are welcome!

Field Trips are scheduled each month. Refer to the newsletter for weekend and location.

Workshops are offered to

all members for a nominal fee - normally on the first Sunday of each month at Drew Wilson's home. Refer to the newsletter for hours and the calendar for date. Location is 252 Bella Vista in Pasadena.

Workshops and field trips are for adult members and children with direct parental supervision. Eye protection and closed-toe shoes are mandatory for all participants.

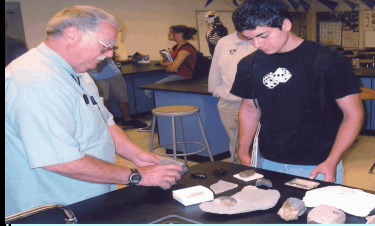
The Annual Show is held the second weekend of March at the Masonic Hall, 3130 Huntington Drive, San Marino.



Ed's Corner

EDUCATIONAL OUTREACH

by Ed Imlay



Ed Imlay at local schools

For the October meeting, please display any items of general interest, especially: workshop projects, material from locations of recent or upcoming field trips, or impress us with the birthstone of the month: **Opal.**

AUGUST DISPLAY TABLE

Bead bracelets, taught at the workshop by Cal Matthews, were displayed by Ed and Corinne Imlay. Corinne also provided a materials list for the September workshop project: Crochet Wire and Bead Bracelet or Necklace. Ed Imlay displayed some peridot and corundum rough.

Mark Nelson displayed some green olivine from Kilbourne Hole, NM, and a "what's it?" that was judged to be an agate lava bomb. Bring your own "what's it?" to the October Meeting and let the 'experts' try to identify it for you!

ANGELS WANTED

By Mark Nelson

How do you want to be remembered in life? How about after life? A simple codicil (modification) to a will expressing the writer's instruction that \$5,000 or more be donated from the writer's estate would work wonders with our mission for generations to come!

SAMPLE CODICIL

I, [name], a resident of the County of [county], State of [state], declare that this is the codicil to my last will and testament, which is dated [date original, if any, was signed].

I add or change said last will in the following manner:

[Add new Section Number if applicable] From my assets I wish to give \$[amount] to the Pasadena Lapidary Society.

Otherwise, I hereby confirm and republish my will dated, [date original signed], in all respects other than those herein mentioned.

I subscribe my name to this codicil this [day, e.g. 1st] day of [month], [year], at [full address where signed], in the presence of [full name of first witness to codicil], and [full name of second witness to codicil], attesting witnesses, who subscribe their names here in my presence.

Maker (you)

ATTESTATION

On the date last above written, [name], known by us to be the person whose signature appears above at the end of this codicil, declared to us, the undersigned, that the foregoing instrument, consisting, of 1 page was the codicil to the will dated, [date original signed]; who then signed the codicil in our presence, and now in the presence of each other, we now sign our names as witnesses.

Witness: _____
Print Name Sign Name

Address: _____

Witness: _____
Print Name Sign Name

Address: _____

That's all there is to it! Print or type a codicil and keep it with your will or personal papers. Give copies to the witnesses.

OCTOBER WORKSHOP

Our monthly workshop will be on October 3rd from 1:30 pm until 5:00 pm (no early birds, please).

Corinne Imlay's bead crochet class at the September workshop was very well attended. There was the largest workshop turn-out (22 members and guest Lee Girion) since the shop moved to Drew's home.

Reminders:

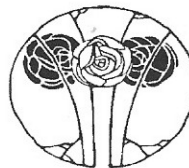
Please clean the dirt and any loose material on rocks before bringing them to workshop. The excess dirt and grime on our expensive rock cutting machines wears the blades down faster and reduces the life of the oil, increasing the cost of maintenance .

Members may take one slice from the club rocks. Please leave the rest for others.

Everyone attending are asked to sign in and put \$2 in the donation box at the entry table. Guests must also sign the liability waiver.

CONGRATULATIONS to PLS club members Dominic and Ceres Black. Dominic and his wife Tova had their new baby boy on Friday, September 10! After Tova's last check up, the doctor said that the baby was ready to come! Wanting to avoid the weekend, and/or a "9/11 birthday," they went into Arcadia Methodist and he was delivered just after eight, via C-section. He was seventeen inches and six pounds five ounces. His name is Jules Adonis Black. Baby and mother are fine, recovering well!

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Birthstone, continued from page 1.....

will cause drying and may lead to cracking and loss of iridescence. Recent discoveries of water-related opal evidence from the investigations of the rocks on Mars, as discovered by NASA's Mars Reconnaissance Orbiter, indicate that Mars may have been wet for a billion years longer than previously thought. The Opal findings have implications for the possibility that Mars once supported life.

Most of the world's Opal deposits are found in Southern Australia. Other sources of this gemstone are Brazil, Mexico, Czechoslovakia and Nevada. Quality Opal is very expensive, made more so by the caution that must be exercised in cutting, polishing and setting it into jewelry. Opal must also be guarded from blows, since it is relatively soft and breaks easily.

A gift of Opal is symbolic of faithfulness and confidence. And the powerful energy radiating from this fiery gemstone will surely illuminate any occasion!

The alternate birthstone for October is the Tourmaline - the stone often associated with those born in October under the Sun Sign (Star Sign) of Libra.

For the amazing qualities of this alternate birthstone and other ancient gems associated with the month of October, read the article on page 5.

Opal In Ancient Texts

Greek legends tell that when Zeus was victorious over the Titans that he cried tears of joy, which became opals. They considered them a stone of success, happiness and beauty that enhanced divination and inner reflection.

The ancient Romans held high value for them as well, as a stone that brought good luck, symbolic of integrity and aspiration, being only second in line to emeralds in their preciousness and desirability.

The ancient Aztecs of Central and South America had mines of fire opals and considered them a representation of the bird of paradise, since they symbolized passion and love.

The ancients of Arabia believed that opals fell to earth from paradise during lightning storms. They also believed that opals were a shield to prevent lightning from striking.

Other royalty placed opals in many of their regal crowns and attire. Napoleon made a gift of a dazzling opal with flashes of red, to his love Josephine, calling it the Burning of Troy. Opals were a favorite royal wedding gift, given to others by Queen Victoria, as they symbolized faithfulness and spiritual devotion.

Women with light colored hair wore opal necklaces to keep their hair fair and bright; even today the women of Scandinavia wear opal jewelry in their hair to preserve their glowing tresses of gold.



MOON TRIVIA - Those collecting rocks on October 23rd will do so under the Hunter's Moon, so named in Northern Europe and among Native Americans because plenty of moonlight is ideal for hunting game to stockpile for the winter ahead. Traditionally, it was a feast day called simply the Feast of the Hunter's Moon, though the celebration had largely died out by the 18th century. There is a historical reenactment by that name in Lafayette, Indiana during the early part of October 2010.



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October Birthstones In Ancient Times

By Mark Nelson



An alternate birthstone for October - Pink Tourmaline has the seemingly magical property of pyroelectricity. Scientifically speaking, this means that when heated, the gem takes on a static electric charge, making it capable of attracting lightweight objects. No wonder this gemstone was revered for its mystical properties centuries ago! Considered the "stone of the muse," it was believed to stimulate the creative process of its wearer. Pink varieties of Tourmaline range in color from pastel pink to ruby red and are mined in Brazil, Afghanistan, Burma, and India.

Opal is considered as the modern Ayurvedic October Birthstone. The term Ayurvedic comes to us from the Sanskrit Ayurveda, which is used to mean "traditional". Through the years, however, there

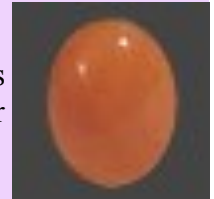
have been other stones valued by societies as October Birthstones.

Jasper is considered to be the Mystical October Birthstone →



Aquamarine was considered the October Birthstone by the Ancient Arabs, Hebrews, Polish, and Romans.

The Ancient Hindus considered Coral to be the October Birthstone →



Among the Ancient Italians and Russians - Beryl was the October Birthstone. ←

Pseudomorphs of Goethite After Pyrite

By Lee Bondurant

First let's begin with a definition from answers.com of what a pseudomorph is. A pseudomorph is a substance with the crystal form of some other mineral, forming as the result of the alteration of the original mineral without losing the original shape. Pseudomorphs may form by a breakdown and rearrangement of the same atoms (a paramorph), by a slight change in composition, by a coating over another crystal, or by a complete replacement by an entirely different mineral.

Thirty years ago while I was caving in the Guadalupe Mountains of New Mexico, we were near the Queen cave which had been mined for iron. As we got closer to the mine, I started looking at the rocks. I found some large crystals of a reddish brown mineral. These crystals had the shape of pyrite. Pyrite has a chemical formula of FeS_2 and frequently is found in the form of cubic crystals. Some of the crystals were 5 cm across, and they were cubic in nature. I collected several samples and took them home - where I used a streak plate and got a reddish brown streak. I didn't take the next step, which I should have, to test the chemical formula. I just called it hematite. Hematite has a formula of Fe_2O_3 , and has no cleavage - just like pyrite. Cleavage is separating cleanly along atomic bonding planes. Hematite has no cleavage, while goethite does. Goethite ($\text{FeO}(\text{OH})$) is similar in appearance to hematite. I know now what I have been calling hematite crystals for 30 years is actually goethite. Now comes an important question. How did they form?

Crystals form by the atoms of elements forming a bond, and then they continue to grow as long as there are enough atoms of those elements, and the right conditions. Most of us at some time have tried to grow salt crystals. You mix salt into water until you can't mix anymore in. Then you let your solution sit for a couple days. With any luck you will have some salt crystals. As long as you have salty water, the crystals will keep growing.

Back during the Permian times around where the Guadalupe Mountains are today - there was an ocean. Just as in today's oceans - there were reefs, shorelines, and deep water in that ocean. The salt water in any ocean has lots of different elements dissolved in it.

..... Continued on Page 7



FIELD TRIPS

By Joe Goetz



The October field trip is scheduled for November 4th and 5th and we will be joining the Whittier Club. We will be going to the Whittier Gem & Mineral Society's Honey Onyx Mining Claim, located just east of Barstow. The honey onyx is still there but it is hard rock mining. If you have any or have seen it, you know that it is well worth the effort involved.

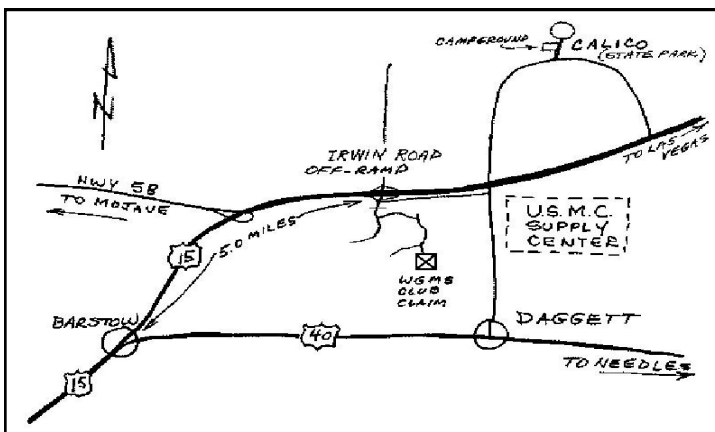
We will do daily field trips to the surrounding collecting areas to collect Honey onyx, red moss agate, petrified wood & palm root, algae agate, and other unnamed agates, jasp-agates, jaspers, fossils, etc. There will be guided field trips on both Saturday and Sunday and we will leave camp each day at 8:00 - 8:30 AM. Saturday evening will feature a traditional potluck dinner, followed by a warm campfire, if the weather permits.

Tools: Rock pick & bag for general collecting; Sledges, wedges, chisels, pry bars, etc. for those rockhounds who really want to get serious with the honey onyx.

Supplies & Lodging: Barstow is very close. For beginning rockhounds (without campers, trailers, etc.) or those who want to stay in a room for two nights you may wish to stay in a motel in nearby Barstow (the Route 66 Motel is priced at under \$40) and drive to the Club Claim each morning. This is also an easy way to get to know the "workings" of a rock club field trip. The **Oak Tree Inn** is the closest to the camp site and some folks will stay there. 35450 Yermo Dr. Phone: (760) 254-1148 Take the Ghost Town Road Turnoff. AARP or AAA Discount \$79.75 per night. The 60's Diner is open 24 hours a day

The access to the camp area requires unlocking a combination lock and opening a locked gate. The combination is 4321. After you pass through the gate, you must lock it behind you. Follow the 'W' or 'PLS' signs to camp (see map below).

Contact me, Joe Goetz, at (626) 914-5030 for questions or further information.



FEDERATION NEWS

CFMS - California Federation of Mineralogical Societies

The Culver City Rock & Mineral Club will host a special presentation on Turquoise and how over 95% of all turquoise for sale is not natural. The speaker is Dayton Simmons, owner of Silver Day Trading. He will display many samples of turquoise from different mines and with various treatments. Come prepared since there will be natural turquoise for sale after the talk.

The presentation is October 11th at 7:30 PM in the Multi-Purpose Room in the back of the Veterans Building at 4117 Overland Avenue in Culver City, CA.

CFMS Field Trip to the Cady Mountains

October 9, 2010 @ 7:30am sign in at Dairy Queen 25635 Crucero Road, Ludlow, east of Barstow. We will collect Christmas Tree Agate, jaspers with sections of multi-shaded pink opal and other agates similar to Mexican Lace Agate.

Bring collecting bags/buckets, rock hammer, spray bottles, digging tools, gloves, goggles, lunch, shade and water.

This is the heart of California's Mojave Desert and weather can be unpredictable this time of year so dress accordingly. From the meeting spot we will caravan north to the collecting location (4X4 is highly recommended). No sedans, high clearance vehicles only. Gas and food available in Ludlow. Waiver of Liability will be signed at the meeting spot.

Stayovers may camp at a number of undeveloped sites or the hotel in Ludlow. Treat the desert with respect - tread lightly and pack it in/pack it out.

For further information please contact: Adam Dean @ 909-489-4899 or email: theagatehunter@verizon.net

AFMS - American Federation of Mineralogical Societies

Regional Convention was held here in La Habra, California. The AFMS has announced that the 2011 Regional Convention will be held June 7th - 10th in Syracuse, New York.



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Pseudomorphs Continued.....

The ancient Permian oceans had iron dissolved in them. In the sediments that were buried by more and more mud - bacteria was present. As they decomposed various things were produced. Sulfur is one byproduct. So now iron and sulfur could join together and form a crystal. There are two minerals that have the same chemical formula - pyrite and marcasite. Just like a salt crystal, as long as there are enough iron and sulfur ions (electrically charged atoms) present, iron sulfide crystals will form.

Once the mud is buried and is lithified (turned to stone), the chemical alteration of the iron sulfide can begin. Now - most limestones and sandstones have what is known as 'permeability'. Permeability is how many of the empty spaces between molecules or grains are connected. Over time, water flows ever so slowly through the layers of rock. As it moves through, oxygen atoms trade places with sulfur atoms. Sometimes only the surface atoms are exchanged. Sometimes all of the atoms are exchanged and a new mineral is the result. Frequently the new crystal that grows has a different structure than the new mineral usually has. In this example, the two pseudomorphs are "pseudomorph of hematite after marcasite (or pyrite)", and "pseudomorph of goethite after marcasite (or pyrite)". Only a mineralogist would care about the difference.

What happens to the sulfur? It combines with the water, and makes sulfuric acid. This helped to make some of the caves in the Guadalupe Mountains. Any geologist, chemist or mineralogist who reads this will probably say GAHHHHH. But, this is written by me - for *real* people!

Lee Bondurant is an avid outdoorswoman and has a BS in geology. She is an instructor in the El Paso, Texas school system for 25 years and is the pastor of the First Cumberland Presbyterian Church. As a member of the El Paso Camping Club, she frequently gets to explore her hobby of rock collecting in west Texas and southern New Mexico. Your Editor had the experience of sharing some of her knowledge while rock collecting in the Black Range of southern New Mexico this past September.

ROCK & MINERAL TERMINOLOGY - "Definitions that you can use" will continue with the November bulletin.

Review the seven series of definitions before coming to the October meeting, where Dave Kelty will present his ever popular "Rockhound Trivia" program.

LOCAL ROCK AND GEM SHOWS:

OCTOBER 9-10 TRONA: 69th annual show, "Gem-O-Rama 2010"; Searles Lake Gem & Mineral Society; SLGMS Lapidary and Show Bldg., 13337 Main St. (at Trona Rd.); Sat. 7:30-5, Sun. 7:30-4; free admission; 21 dealers, 50 exhibits, geode cutting and sales, demonstrations, door prizes, kids' games, field trip supplies, field trip video presentation, 3 field trips to Searles Dry Lake to collect rare pink halite and other crystals. Contact SLGMS, PO Box 966, Trona, CA 93592-0966; or Jim Fairchild; e-mail: jbfairchild @ iwvisp.com

11 - CULVER CITY: See Federation News for a special presentation on Turquoise!

16 - WEST HILLS: 12th annual show; Woodland Hills Rock Chippers; First United Methodist Church, 22700 Sherman Way; Sat. 10-5; free admission; dealers, gems, minerals, rocks, fossils, jewelry, displays, demonstrations, silent auction, crafts, Future Rockhounds of America booth, kids' activities; contact Mary-Beth Pio, (818) 349-2943; e-mail: info@rockchippers.org;

16 - 17 WHITTIER. See the exhibits of some of our Pasadena members at the Whittier Gem & Mineral Society, Whittier Community Center, 7630 Washington Ave. Hours: 10-5 both days, free admission; dealers, gems, minerals, rocks, fossils, jewelry, displays, demonstrations. Contact Jay Valle at res19pnb@verizon.net

NOVEMBER 8 - DR. PHIL SHOW. Taping before US - his live audience! Paramount Pictures Studios. Free transportation in an air-conditioned coach. See the President's Message for more information. RSVP as soon as you read this bulletin to reserve a space and help your club with a donation from Paramount Studios.



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**October
2010**

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The Pasadena Lapidary Society is affiliated with the California and American Federations of Mineralogical Societies. Our editor is a member of the Special Congress Representing Involved Bulletin Editors.

OCTOBER 2010

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3 Work Shop 	4 First Space Vehicle Launched 1957 Sputnik 1 	5	6 Board Meeting 	7	8	9 CFMS Field Trip 
10 CFMS Field Trip 	11 Turquoise At Culver City Club. 	12	13	14	15	16 Whittier Gem Show 
17 Whittier Gem Show 	18	19	20 General Meeting 	21	22	23 Full Moon 
24 Mother In Law Day 	25	26	27	28	29	30
31 Halloween 						