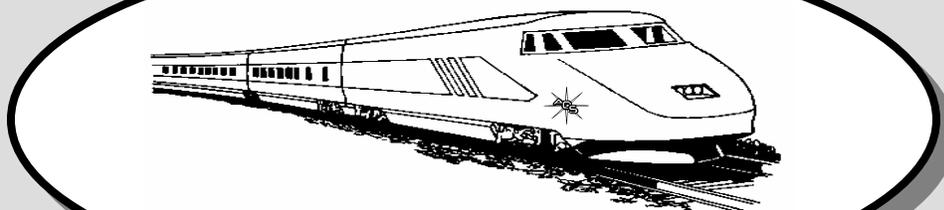


# The Opal Express

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## Members Only Website Password

To log onto the website's members only area at:  
[http://opalsociety.org/aos\\_members\\_only\\_area.htm](http://opalsociety.org/aos_members_only_area.htm) type: Name:  
"member" and Password: "opalcanyon".

## Opal Society Workshop is Open!!!

*Dr. Walt Johnson*

The American Opal Society's workshop is open at Ball Jr. High School on Monday, February 9 from 7:00 to 9:30 p.m. The school is located at 1500 W. Ball Road in Anaheim. This is between Euclid Ave. and Harbor Blvd. If you are traveling east on Ball Rd. the parking bt entrance you need to use is just before the railroad tracks. If you are traveling west, the lot is just after the railroad tracks. Room 37 is in the center of the campus.

The workshop will be open on Mondays. Instruction will be given in cutting opal, wax models, lost-wax casting, fabrication, and setting stones. The workshop will furnish machines to cut and polish stones as well as a centrifuge for casting and a kiln for burnout. You will need to furnish other equipment you wish to use. Please bring a roll of PAPER TOWELS with you for clean-up as the room is a science lab and needs to be kept spotless.

To attend, membership in the American Opal Society is a must due to insurance. A nightly fee of \$2 is asked to help keep the equipment in good running condition.

Our thanks to Pete Goetz and the Anaheim Union High School District for the use of this classroom for our workshop!

## Louisiana Opals Open Again after Katrina

*I included this note from Rick & Terry when they renewed their membership. It's good to know they are open again. The Editor*

Due to Hurricane Katrina, our store has been closed for 6 weeks. We had water damage in the store. But we are proud to announce "We are now Open for Business". Mail is slow but it is working.

Rick & Terry Dubea  
Louisiana Opals / Rick's Fine Jewelry  
6601 Veterans Blvd. #4  
Metairie, LA 70003  
Email - [rickdubea@aol.com](mailto:rickdubea@aol.com), Phone (504) 455-8489

## Trip Report: Quartzsite - January 28, 2006

*By Mike Kowalsky*

Saturday was a mostly sunny day with a few clouds and almost no breeze. A nice day to make a trip to Quartzsite. So I and Jay Carey made the trip and had a nice relaxing time. We saw a greater number of Opal Friends that day at Quartzsite. We found out, when we chatted with Tony Thurber, that we had just missed Barbara McCondra and some Aussie friends. But we were able to purchase some of her opal she had left at Tony's booth. I purchased a very nice Yowah Split for \$20's. We saw a very nice display of opal from Lightning Ridge presented by Bob who came over for Quartzite and Tucson. Among the other oddities I found and purchased a specimen of green opal that came from Indonesia. The gentleman selling it stated that it was from a single source and he going on to Japan from there.

We visited with Stan McCall and Lora Heidrich at their usual spot. We met Claudia and A. J. Coutier from Spencer Opal Mines in Idaho. They showed us some very rare pink based opal that has only been found at Spencer Mines. They have donated superb specimens to the permanent AOS Collection of Opals which we display with the Opals of the Americas. A. J. also showed us orange based opal that was newly discovered at their mine. They invited AOS to come to their mine and do some mining. The last time I was there with Bob Dixon, A. J. gave us a grand tour of the mine. I have to resurrect the video and show AOS the tour. If we can arrange a field trip that falls around Memorial Day, the 4th of July or Labor Day (for a modest fee) we can mine in a prearranged area and keep the opal that we discover. It is also a great area to bring an RV and have free camping. Bob Dixon and I stayed in a nearby motel. Yellowstone National Park is very close to Spencer and can easily be included in the trip. The origin of the opal appears to be a hot springs that slowly dried up and produced the opal.

Our trip to Quartzsite was a refreshing treat to Opalholics like us. Our day was a great field trip that only took one day. Make time for Quartzsite next year!

## Opal Canyon Field Trip on Feb. 18<sup>th</sup>

By Russ Madsen

A number of us are planning to visit Opal Canyon to see what its status is on the weekend of February 18 - 19. Monday the 20th is President's Day holiday for some folks.

We will be meeting Saturday, Feb. 18<sup>th</sup>, in the parking lot at the Subway on the north end of Mojave off of CA-14. We are planning to depart for Opal Canyon as near 9 AM as possible. It takes about one hour to get to the canyon from that departure point and it is about 35 miles one way. We will lead a group to the canyon on Saturday morning but not on Sunday.

Please contact me (Russ Madsen) 562-884-2254 or email [chairman2rgm@cs.com](mailto:chairman2rgm@cs.com) ahead of time if you plan to attend so we know who to look for. There is very little cell coverage in Opal Canyon although it has been possible to get a signal from the ridge occasionally.

I don't have any idea whether there are any toilet facilities. Bring everything you need, pack everything out. Especially bring plenty of water and protection from sun exposure. You can buy sandwiches from Subway for lunch. Some will camp overnight Saturday night. There's a parking area at the mine. There's also a camp site at the Joshua tree on the ridge above the canyon. Expect to dry camp. I have no idea what facilities still exist. Last time I was out, only one outhouse remained standing and that was two years ago. The trailers had been ransacked pretty badly. Anyhow, we will head home Sunday evening whenever it gets too dark to dig.

Expect overnight temperatures to be freezing. Daytime temps probably cool to chilly. Elevation is about 4,000 feet. It will be too early in the season for spring wildflowers.

What to Bring: Most important unusual tool is a pair of wire cutters, i.e. metal snips. They will be destroyed by usage at the canyon so I buy the cheap ones for about \$3 a pair at Harbor Freight. Other tools include hammers, chisels, a small brush or broom for clearing a rock face of dust, a squirt bottle to wet the rocks for opal detection, containers of various sizes from film cans up to 5 gallon paint buckets. Also, make sure you bring food, water, hat, sunscreen, gloves, and warm clothes. Make sure you have a full tank of gas in Mojave.

I am not able to provide any info about signage or present road conditions. 4WD and high clearance suggested. There's a section of sand wash that I have always used 4WD but that's mostly to circulate lubricant in the transfer case. High clearance might be necessary for a short bit after the wash. A lot depends on what has happened since the big rains last winter.

Just in case this is helpful, here's how to get there: go north on CA-14 through Palmdale to Mojave. Allow around 2 hours to get to Mojave from the Orange County area (~130 miles). Proceed on CA-14 thirty miles north to and through Red Rock Canyon State Park. One mile beyond Red Rock there's a well marked exit for Dove Springs ORV area. Take this but head east (right). Make an immediate left. You will be heading north on a dirt road parallel to CA-14. A few hundred yards ahead, the old route to Opal Canyon veers east. Follow the most traveled dirt road and the small signs (if they still exist) OPAL --->>>.

At about 2.8 miles there's a few hundred yards of sand wash. Turn a very hard left at the large ironwood tree in the wash. Continue following the most traveled road as it winds and climbs up to the flat. Continue forward past the Nowak Opal Mine on your left. About ½ mile beyond the Nowak mine the road goes downhill a bit steeply. Turn left at the bottom and proceed to the diggings.

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## Lapidary Lore and More

By June Culp Zeitner

The 2005 winners of the National Rockhound Lapidary Hall of Fame add seven new, inspiring leaders to the growing list. All are

talented and important members of this popular hobby. Ballots were a little late this year, partially due to the death of Ken Zahn, a long-time and influential board member, and subsequent changes in rules.

From now on, ballots are not needed and nominators have all year to make their choices. Everyone wanting to make a nomination should write a letter of about 200 words telling why this person is being nominated. The nominee should have contributed to some part of the hobby for at least 15 years. - The nominee can be an amateur, semiamateur, semiprofessional, or professional. Any nominations received before March 31 will count for that same year. Any nominations received after that will count for the ensuing year. Questions should be addressed to Curator Maxine Wilson, HCR 74 Box 21, Murdo, SD 57559, (605) 669-2256.

## Walt Johnson - National Hall of Fame Winners - JEWELRY

Walt is a gemologist, jeweler, teacher, carver, goldsmith, scrimshaw artist, exhibitor, and club officer. He has inspired countless jewelry students. He is a master at lost wax casting, and an expert at cutting and polishing opal.

Walt was an art teacher by profession and is now much in demand as a lecturer. His profession became his hobby when he offered evening and weekend classes and individual lessons in most jewelry techniques.

One of the interesting techniques he has helped students master is casting stones in place. Even though he has a masters degree in jewelry design, he never stops learning or teaching. Many of his students now have their own jewelry businesses and some are now teaching the arts they learned from him.

From *Rock & Gem Magazine*, 2006-02, Page 76. Reprinted for educational purposes under the "fair use" provision of the U.S. Copyright Act.

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*Here's a great article I stumbled upon about our members. Steve & Darlene were 2005 Opal & Gem Show dealers - the Editor*

## Opal Enthusiasm: Starting Down Under, Couple Comes Up With Online Business Gem

September 22, 2003

Story By John Fitzgerald, Photos By Bob Zellar of  
*The Billings Gazette Staff*

If you want to do business with the government, go to Washington, D.C. If you want to do business with bankers, go to Wall Street.

If you want to do business in opals, go to Coober Pedy, Australia. More than 95 percent of the world's opals come from Australian opal mines, and Coober Pedy is the epicenter of the business.

Opal lovers call themselves "opal-holics," and Billings is home to two who have frequently bellied up to the Coober Pedy opal bar.

Steve and Darlene Newstrom have made three trips during the past four years to Australia to buy rough opals, which they transport back to Billings and sell on their Web site - [www.villagesmithyopals.com](http://www.villagesmithyopals.com). Steve also finishes some opals and sells those on the site as well.

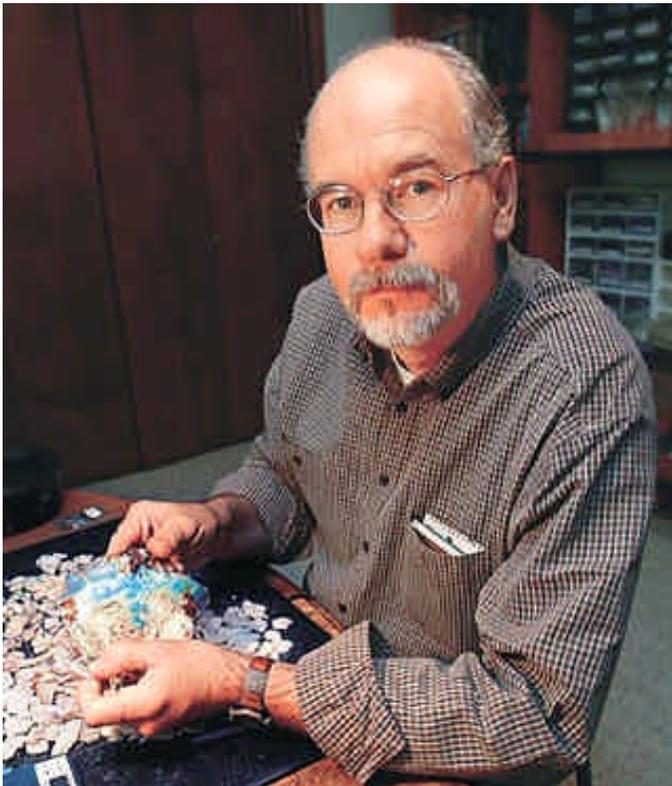
"It's kind of like gold fever," Steve said.

Steve became a rock hound after receiving a book on rock and gem collecting when he was eight years old. He was intrigued by a picture of an opal.

"But photos don't show what an opal really looks like," Steve said, so he and his father, also a rock hound, went to Hudson's Jewelers in downtown Minneapolis to see a real opal.

"That's when I fell in love with opals," he said.

When he was 13, his father bought him a small gem cutting machine. A few years later, Steve used his earnings as a busboy to buy his first parcel of opals.



Steve Newstrom holds a large piece of opal above a pile of ungraded stones. Newstrom and his wife, Darlene, travel to Australia yearly to purchase uncut gems which they then sell as uncut or cut stones on their Billings-based Web site.



Above left, opals show their fire – sparkle and color – even before cutting. Right, opals can be made into triplets. A thin layer of opal is placed over a black background and then covered with a clear top layer to bring out its fire. Photos by Bob Zellar/Gazette Staff

Over the years, Steve has turned opals into jewelry and sold them on consignment. In the meantime, he got a "real" job as a hospital imaging engineer. He currently works at Deaconess Billings Clinic, where he services and maintains Xray, ultrasound, nuclear medicine, and CT machines. Darlene is a special education teacher at Burlington Elementary.

While opals can be found in Mexico, Brazil and even Idaho, the vast majority of quality opals are found in several spots in Australia. Of these spots, the most productive is Coober Pedy, found on the edge of the Australian outback north of Adelaide. Steve and Darlene made their first trip to the town in 2000.

"It really is a dirty little town, but the food is great," Darlene said.

"They have 40 different nationalities in a town of, what, 2,500? And they each have their own restaurant," Steve said. "Greek, Serbian, you name it. And the seafood is incredible. Once a week a truck comes up from Adelaide with fresh seafood right out of the ocean. Oysters on the half-shell, huge ones. Calamari in huge rings. And dozens of fish you've never heard of before."

But after having something to eat, it's down to business.

Steve said the Australian government has kept corporations from monopolizing the opal mines, and the opal veins are neither long or deep. Resting along cretaceous bulldog shale, the opal veins and pockets can be reached with a one or two-man mining crew.

Therefore, to buy opals, you have to haggle with the miners themselves. "It's all done on a cash-only basis," Steve said.

All prices are subject to negotiation, an art Darlene leaves to Steve. "I have a hard time with it. Just tell me the price and either I can buy it or I can't. Luckily, Steve's pretty good at it," she said.

Once mined, the rough opals are gathered into parcels depending on their size and quality. Parcels can cost up to \$1 million.

"We might see five parcels in a day," Steve said. "Some are high quality and high priced, some are not. Sometimes you can get a screaming deal because the guy's wife is leaving tomorrow for Greece and he needs the cash."

Opals are judged on three criteria: size; color or "fire;" and brightness. The fire is the amount of glitter, shine or character the opal shows. Brightness is the amount of light reflected by the opal and is graded on a scale of 1 to 10, with 10 being very rare, Steve said.

Once back in Billings, Steve and Darlene will sort the rough opals, putting them in piles to be sold for \$10 an ounce all the way up to \$5,000 an ounce. Opals are a light stone, so an ounce goes a long way, Steve said.

They will also take thin opals and make them into triplets or doublets. A triplet has a black glass bottom, a thin layer of opal and then a quartz cap on top. A doublet is the same without the quartz. Doublets and triplets are cheaper than a solid opal.

Then they advertise the opals in Rock and Gem Magazine, the Lapidary Journal and through the American Opal Society. They also have about 500 subscribers to their newsletter, and they maintain their Web site.

And, if he sees a particularly beautiful opal, Steve may finish it himself and make it into jewelry. Darlene has several opal necklaces that Steve has made for her.

Working nights and weekends, Steve and Darlene have done well with their opal business even if they put all the money made back into the business.

"We'd like to do this for a retirement business," Steve said. "I don't want to sit around when I retire. There are six major gem shows in the U.S. Maybe we'll get a fifth-wheel and travel around."

After spending years traveling in the Australian outback, seeing the United States might be a nice change of pace.

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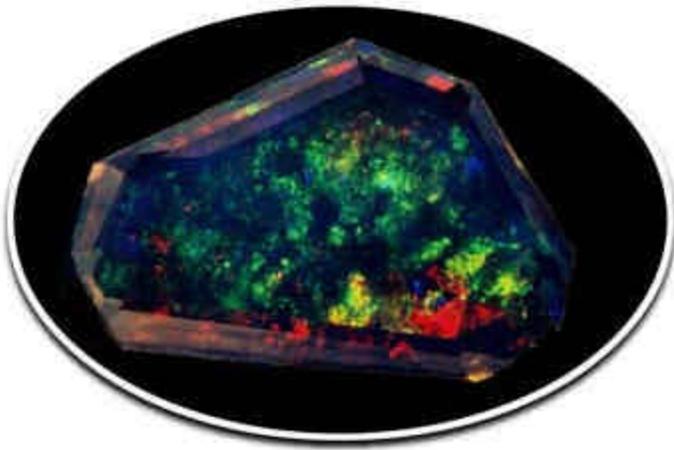
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## Famous Opals: The Colors of Heaven

By David Burton

Something unique happened in the year of 1956 that triggered a significant chain of events. It all began with the removal of a very interesting piece of wood opal from its natural environment in Virgin Valley (Humboldt County, Nevada) to an urbanite's garage shelf. During the next 32 years, that was where the opal resided, long forgotten, amongst the other objects that had once held their owner's interest.

It wasn't until the spring of 1988, that the opal was moved from its dark and dusty resting place. It was brought out for a special occasion -- the bi-annual garage sale -- and it was there that it caught the interest of Jim Paige, a collector of the unusual. He and his son, Mike noticed that if you held the opal up to a light, you could see some color flash through the crystallized wood.



Jim quickly purchased the opal for only fifty dollars. He then took it to his jeweler, David Burton, at Lapidary International. Once David saw the play of color in the opal, he immediately recognized that the gem that Jim had purchased was a Contraluz opal. The opal itself was rare because of its unusually large size, but the fact that it wasn't heavily cracked gave David the hope that it might facet into a gemstone of great potential.

Unfortunately, at the time, Lapidary International was utilizing a faceter who lived out in the California desert and David could think of nothing worse than cutting a Virgin Valley opal that crazed easily out in the middle of the desert during the peak of summer. Temperatures during that time of year were reaching into the low 100's with the average temperature being 102°F.

Before David handed over the piece of opal to Frank Lacante, the faceter in Boron, he preformed the opal so that the total weight of the opal could be noted before the cutting commenced. The total weight was now approximately 88 carats.

Two weeks went by without a word from Frank. David began to worry that something (or rather someone) was going astray. Frank had no home phone and the only way that anyone could reach him was by driving up there to see him in person. Fortunately, after the third week went by, Frank did call to inform David that he was sorry as he could be, because he felt that the opal would craze after a few days. Frank ended the conversation by telling David that he would try cutting it again.

David reluctantly agreed. By this time, David owed Frank more than he was charging his customer, Jim Paige, for the cutting. Nevertheless, David felt that it was a stone of great promise and worth all the hassle. As a result, he let Frank continue working on the opal.

After the fifteenth attempt, the stone stabilized. The carat weight was now only 43.43 carats, and to David, that seemed like a lucky number, because fortunately for Lapidary International, Jim's wife liked diamonds more than she did opals. With Christmas looming just around the corner, Jim gave the opal to David in exchange for a 4 carat diamond cluster ring. In addition, David also returned the money that Jim had paid for the faceting of the opal.

Lapidary International now had it's first world class opal. After David showed the new stone to his mother, she hid her eyes and exclaimed that she could see the "colors of Heaven," From that moment on, the name "Colors of Heaven" was placed upon the Contraluz opal from Virgin Valley.

Recently, much interest was expressed in the opal, mainly by a graduate gemologist, Fred Ward, who was gathering information about opals for his new book. When Mr. Ward saw Lapidary International's collection of world class opal, he decided to feature four of them in his new book about opals. The Contraluz is one of

the big four. It was beautifully immortalized within the pages of Mr. Ward's book, Opals.

Copyright, 1997 by David Burton. David Burton is the owner of Lapidary International and a past AOS President.

## Safety Article - CARBON MONOXIDE

By Chuck McKie CFMS Safety Chairman

Carbon monoxide (CO) is an odorless, colorless, deadly gas. It can kill you before you know it because you can't see it, taste it or smell it. At lower levels of exposure, it can cause health problems. Some people may be more vulnerable to CO poisoning such as fetuses, infants, children, senior citizens and those with heart or lung problems. When an individual breathes in CO, it accumulates in the blood and forms toxic compound known as carboxyhemoglobin (COHb). Hemoglobin carries oxygen in the bloodstream to cells and tissues. Carbon monoxide attaches itself to hemoglobin and displaces the oxygen that the body organs need. Carboxyhemoglobin can cause headaches, fatigue, nausea, dizzy spells, confusion and irritability. Later stages of CO poisoning can cause vomiting, loss of consciousness and eventually brain damage or death.

Carbon monoxide is a by-product of combustion of fossil fuels. Fumes from automobiles contain high levels of CO. Appliances such as furnaces, space heaters, clothes dryers, ranges, ovens, water heaters, charcoal grills, fireplaces and wood burning stoves produce CO. Carbon monoxide usually is vented to the outside if appliances function correctly and the home vented properly. Problems occur when furnace heat exchanger cracks or vents and chimneys become blocked. Insulation sometimes can trap CO in the home. The Consumer Product Safety Commission and the Phoenix Fire Department recommend installing at least one carbon monoxide detector with an audible alarm near the bedrooms. If a home has more than one story, a detector should be placed on each story. Be sure the detector has a testing laboratory label. The following is a checklist for where to look for problem sources of CO in the home:

1. A forced air furnace is frequently the source of leaks and should be carefully inspected.
2. Measure the concentration of carbon monoxide in the flue gases.
3. Check furnace connections to flue pipes and venting systems to the outside of the home for signs of corrosion, rust gaps, holes.
4. Check furnace filters and filtering systems for dirt and blockage.
5. Check forced air fans for proper installation and to assure correct airflow of flue gases. Improper furnace blower installation can result in carbon monoxide build-up because toxic gas is blown into rather than out of the house.
6. Check the combustion chamber and internal heat exchanger for cracks, holes, metal fatigue or corrosion. Be sure they are clean and free of debris.
7. Check burners and ignition system. A flame that is mostly yellow in color in natural gas fired furnaces is often a sign that the fuel is not burning completely and higher levels of carbon monoxide are being released. Oil furnaces with similar problems can give off an oily odor. Remember you can't smell carbon monoxide.
8. Check all venting systems to the outside including flues and chimneys for cracks, corrosion, holes, debris, blockages. Animals and birds can build nests in chimneys preventing gases from escaping.
9. Check all other appliances in the home that use flammable fuels such as natural gas, oil, propane, wood or kerosene. Appliances include water heaters, clothes dryers, kitchen

ranges, ovens or cooktops: wood burning stoves, gas refrigerators.

10. Pilot lights can be a source of carbon monoxide because the by-products of combustion are released inside the home rather than vented outside. Be sure space heaters are vented properly. Unvented space heaters that use a flammable fuel such as kerosene can release carbon monoxide into the home.
11. Barbecue grills should never be operated indoors under any circumstances nor should stovetops or ovens that operate on flammable fuels be used to heat a residence.
12. Check fireplaces for closed, blocked or bent flues, soot and debris.
13. Check the clothes dryer vent opening outside the house for lint.

From the CFMS Newsletter 12/2005

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## Growing Opals

Here is a good set of comments making opal from the Lapidary Arts and Faceters Digest. It's some food for thought given our upcoming show in November. The Editor

From the LAPIDARY ARTS and FACETERS DIGEST, Issue No. 250, 11/21/2003, Website <http://www.gemcutters.org>, Moderated by Thurmond Moore III

-----  
From: Tony <[lightbender@thegemdoctor.com](mailto:lightbender@thegemdoctor.com)>

Hello Thurmond,

I don't have the article and I have a straight face...honest. Are you going to start farming opals? Patrick, the Australian Opal dealer, ex miner, whose office I share, knows Len Cram, an Australian miner, dealer, who is growing opals and has seen his synthetics, he also has many other synthetics and simulants in his collection, some are good, most are dreadful, but all are obvious.  
Tony.

-----  
It is like this Tony. I live in an area that resembles the sedimentary deposits of Australia in many ways. I have suspected for some time that opal may be present here. I also know that precious opal has been found in a dry creek bed not 6 miles from my property. I have been desperately searching for info on Len Cram's experiments because I think that the information I gain may lead me to the correct geologic formation to find the opal that I suspect in this area. I also am intensely interested in growing some opal and would prefer using Len's approach than using highly refined chemicals. What I have been able to glean from the meager info I have found concerning his methods makes more sense than other methods I am slightly familiar with. I have about 5 square miles of property to search. I am trying to obtain Oil exploration data to give me a better picture of the subsurface here.

The precious opal is here. I can FEEL it calling. LOL  
Thurmond

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Subject: Re: Growing Opals

From: Don Rogers <[Don@Campbell-gemstones.com](mailto:Don@Campbell-gemstones.com)>

At 01:49 PM 11/21/03 -0600, you wrote:

You might be interested in the latest GIA Insider that released today. There is a short article on a new synthetic Opal. The link is [http://www.gia.edu/newsroom/issue/2798/2009/insider\\_newsletter\\_details.cfm#3](http://www.gia.edu/newsroom/issue/2798/2009/insider_newsletter_details.cfm#3)

I don't know Len Cram personally, but his work with opals legion. He doesn't share much about his "Opal Farm". Some rumors are that he uses a "pinch" of the local dirt to give his created opals a real look. Again rumor, it is said that his created are not distinguishable from natural but he refuses to release any information on his process to protect the opal industry that he loves. This love of opals is very evident in his books.

Thurmond, I admire your quest. I'm not sure where you live, but when you consider that opals are found all along the Pacific divide, as well as Louisiana and Idaho, you might just hit the jackpot. There is a place just south of Santa Cruz, Ca called Opal Cliff. It is completely covered with houses now, but I have always wondered where the name came from.

Don

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Subject: Opal Plantation

From: "aurimas" <[aurimas@chariot.net.au](mailto:aurimas@chariot.net.au)>

G'Day Thurmond,

A few years ago, in Viet Nam, some enterprising Aussie soldiers made a nice profit by selling kangaroo feathers to the GIs. The local chooks were more frightened of the Aussies than they were of the Viet Cong, and there were many sad and embarrassed cocks trying to hide their plight by walking backwards and squatting a lot.

I know that you got a couple of pounds of Aussie opal dirt, but mate, fair suck of the sauce bottle that is not enough. I live in an area that in many ways is similar to Texas, so if I got a bucket or two of Texas dirt, could I then grow some oil???

A good way to find the stuff is to dig a hole, have a look, if empty, dig another one, in a known opal bearing area. Back in the 60's I met a very interesting chap in Andamooka, an opal miner, full of booze and attitude. He swore on his mother's grave that the best way to find the direction of the opal vein when down the hole was to use a hollow pendulum made from Bakelite with a small piece of the correct colour paper inside. The colour of the paper had to be "in sympathy" with the opal, then it would swing towards the opal. He carried a tobacco tin full of bits of variously colored paper, just to make sure he had all the bases covered. It worked, I saw it. The pendulum did swing, but not always in the same direction. This called for a drink, and after 2 coffee cups of El Cheapo Wine, he would try again to confirm the best direction before starting a drive. No bloody good, mate, the bugger would not swing. I did not have the heart to tell him that the booze stopped his hands from shaking. He kept on finding small bits, just enough for tucker and booze, but he held on to his dream. He made sure that he embalmed himself well before his death, but did not "strike it big".  
Cheers Aurimas in Adelaide in South Australia, 7 hrs S of Andamooka.

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Hi Aurimas,

The dirt from oil property will not work. Already tried that one since we are almost surrounded by wells and don't have any of our own. LOL I don't know much about Len Cram's methods, but what I can find makes much more sense that the "accepted" science concerning opal formation. What I can glean from his work would seem to indicate a process of ion exchange similar to a water softener setup. It appears that the chemical processes involved would tend to assemble the array of silica spheres much the same way crystals grow, but, at a microscopic scale rather than atomic scale. Opal though not crystalline shares many characteristics of crystals due to the necessity of an orderly array of spheres. Keep providing balance for me mate.  
Thurmond

-----  
From: Tony <[lightbender@thegemdoctor.com](mailto:lightbender@thegemdoctor.com)>

Hello Thurmond,

Luckily you have a well developed sense of humour. I think that Len Cram's choice of words and of course his other eccentricities lend much credence to the perception of growing opals in opal dirt as being the territory of the raving weirdo.

Names like Judith Osmer, Pierre Gilson and Carroll Chatham conjure up images of white coated scientists busily coaxing valuable gems from chemicals in their labs. A high tech industry with all the

fears and paranoia of high tech security. I believe Len has found very cheap and low tech security as he is doing essentially no different to these people. He doesn't have a high security complex to house his experiments, it's actually a shed. Of course his complete lack of interest in any commercial potential reduces his risk that much further.

Most of Len's discussion on the subject doesn't help convince you that he has anything of value or has much scientific awareness of what he is doing. The only stones he is willing to show are no more than curiosities rather than stunning valuable gems. Of course no opal miner is about to show off wealth or brag of riches.

The big problem with growing your own is as you point out "Opal though not crystalline shares many characteristics of crystals due to the necessity of an orderly array of spheres." the soup necessary to grow an opal is also quite willing and capable of growing a crystal and the effect of this is quite obvious in opal synthetics. The stone appears to have columnar composition to some extent or another. For instance Gilson stones are less obvious than the Kyocera. The effect is not unlike the appearance of the hexagons in fiber optic glass but doesn't produce the chatoyance.

Many, many years ago I was cleaning out my sediment trap bucket after cutting a considerable amount of opal, several pounds. At the time I remarked how nice it would be to put it all back together in one stone. Oh how we guffawed and chortled.  
Tony

-----  
From: "Jonathan L. Rolfe" <[jon@gearloose.com](mailto:jon@gearloose.com)>

You wrote:

>Many, many years ago I was cleaning out my sediment trap bucket  
>after cutting a considerable amount of opal, several pounds. At the  
>time I remarked how nice it would be to put it all back together in  
>one stone. Oh how we guffawed and chortled.

Oh, really? And what do you think the REVERSE SWITCH on the machine is for??? :-)

-----  
Hi Jon,

My old Stanley Ultra-Tec must be faulty since that feature does not work. LOL  
Thurmond

++++  
**The Rediscovery of Corundum Crystals  
from the San Jacinto Mountains, Riverside  
County, California**

*By Kenneth L. Gochenour*

I first saw specimens of corundum crystals from the San Jacinto Mountains in 1980 at the booth of Mark Rogers during the Pasadena Mineral Show.

Their symmetry and rare morphology immediately intrigued me. The crystals were doubly terminated, spindle shaped and nearly 12 inches in length. Some specimens exhibited multiple crystals in a schist matrix. I soon found that the crystals were collected in the late 1940's by an "Oriental couple." Unfortunately, the exact Locality was unknown.

My brother Dana and I were able to get some idea as to the locality so we set out to try to find it. We visited the presumed locality several times after the show but we only found a small outcrop of the corundum-bearing schist that contained crystals up to 4 inches in length. These crystals were nothing like the crystals that we had seen at the show. We often dreamed of finding and resurrecting this classic locality. We did find some fine grossular garnets nearby and satisfied ourselves with them rather than beat the very dense brush while trying to locate the corundum.

October 1999. Just before the Pasadena show we again decided to give the corundum locality another try. We began our search at home in the library. Over the years we had been building

up bits and pieces of information from quite a few different sources. Bob Reynolds, then of the San Bernardino County Museum, our cousin Bill Rawley, and Mark Rogers all had given us useful bits of information that we hoped would lead us to the right spot. We had also discovered an article in the Mineralogist from the 1950s containing a detailed account of the deposit but it had only vague information as to its location. Since we were fairly sure we were in the general area of the search we used the combined information along with some good geologic maps and a structural geology textbook to try to narrow down the search area.

In the field we began by trying to find the spot that we had found some 11 years previously. The area had of course changed quite a bit. A fire had left the once blush-covered slopes barren. After a systematic search we finally found our original spot. This spot soon showed itself to be not the right spot, at least not the long-lost spot. It just did not correlate with our information. Sometimes there is only one option left to the prospector: try someplace else. So we did.

We set off for the next mountain and soon found some small corundum crystals in schist matrix scattered in the float field below the peak. The crystals were small and badly weathered. This was a good sign that corundum was found in more than one place.

According to our information, there was a limestone outcrop above the corundum locality. The outcrop was said to have some grossular garnet and wollastonite crystals that could be collected. We followed the ridge up to a white rock outcrop that proved to be the garnet locale. We spent the rest of that day exploring for garnets and were able to retrieve some excellent crystals frozen in quartz.

On our next trip we again made our way to the garnet tactite. While Dana looked for garnets, I set off to do some exploring. After several fruitless hours of searching, I was able to locate some of the corundum in schist. Again it was too small and certainly on the wrong part of the hill to be the spot I was looking for. We retreated down to the truck with garnets but nothing more than that and dreams of giant corundum crystals.

It took two more trips before we finally located the original corundum outcrop. The outcrop did not outcrop; instead, the dark biotite schist barely stuck up out of the ground. Here were the remains of an old working and schist with broken crystals that were once as much as 12 inches Long and an inch in diameter. The schist had some crystals that were 7 inches long still in place and we spent the day trying to remove two pack loads to take down the hill for preparation and repair. On subsequent trips we found two more spots that had corundum crystals of collectable size and quality.

At locality #1 we found some cleavages of some very large corundum crystals loose in the topsoil. Some of these monster crystals had once been 2 feet Long or even Longer. The largest crystal was more than 3 inches in diameter. All this material was loose in topsoil and the original schist was not to be seen. We removed over 150 pounds of crystals from this "potato patch."

Basic Geology. The deposit is on the contact of a Mesozoic quartz diorite and later Paleozoic metasediments. In geologic terms, this is called nonconformity. The Later Paleozoic sediments were metamorphosed at the contact with the granodiorite /quartz diorite. Small lenses and sills of schist cross boundaries on the contact. It is in some of these schist bodies that the corundum crystals are found. The garnet tactites are found in this same environment. Because the corundum-bearing schist has a much larger grain size and Larger mica crystals, it is less resistant to weathering, thus giving the schist a lower profile. In some cases the schist is rotten and has been reduced to a layer of iron-stained micaceous clays. Veins of quartz and the garnet tactites are found in close proximity to the corundum-bearing schists.

Some small scale prospecting has been done in the past for tungsten ores as evidenced by numerous bulldozer cuts exposing tactite bodies in the surrounding area.

The corundum-bearing schist is a biotite schist with inclusions of quartz and feldspar found nearby the largest corundum crystals. Here the schist is quite coarse and the biotite crystals are enlarged. The crystals of corundum are oriented randomly and found in sprays and bunches in the schist. Non corundum-bearing schists in the area are quite resistant to any weathering and are much more sill-like in their form. The Largest corundum -bearing schist lens that has been found at this time is only 20 feet long and 10 feet in diameter with a depth of about 3 feet.

Recovery of the crystals from the schist matrix because of the toughness of the interlocking mica crystals and also because the crystals have been stressed in their cooling. The crystals cleave into sections and must be restored as each piece is removed from the matrix. The crystals are included with biotite so severely that in some crystals there is partial replacement. This makes recovery very slow and tedious. Great care must be exercised during the preparation process. We hope to find better and more well preserved crystals in the future as the deposit is likely to contain more corundum-bearing schists.

*From the Fallbrook Gem & Mineral Society's "Lithosphere", May/June 2000*

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### Paper from Rocks

A new type of paper (made) for industrial use has been developed by Ukrainian researchers. The paper is made of basalt that is found in large quantities in the Ukraine. The rock is ground, melted in electric furnaces, then passed through special strainers producing a strong elastic fiber. Basalt paper resists rot and is water-resistant. It can be heated to 800 degrees without melting. It is expected to be used extensively in the manufacture of industrial filters. *From the Quarry Quips Via Golden Spike News 5/02.*

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### The Green Flash

For eons of time, probably dating back to the earliest men standing on a seashore, mankind has watched the sun setting into the ocean, not just to see the Sun disappear (with the silent hope and prayer that it would reappear the next day from the opposite direction), but to occasionally experience the phenomena we now call "the green flash". Whether from the deck of a ship sailing into the night, standing on the shore or on a cliff, we watch for that elusive single moment when the very last ray of light from the setting Sun penetrates a wave at just the precise angle to create a fleeting green flash. Blink, and it is gone, and even those who have seen it, will tell you that although they have watched for years, only on the rarest of occasions have they seen (and almost felt) the beauty of that instantaneous, almost indescribable, pure radiant green light of hue and intensity that they will never forget. In fact, once seen, the viewer may spend the rest of their life watching sunsets in the hope of re-experiencing the joy of such pure light.

For the non romantic technical types the explanation of the green flash is that it is caused by refractive separation of the sun's rays into its spectral components. This may occur at sunset when only the small rim of the sun is visible. When refractive conditions are suitable, red, orange, and yellow waves of sunlight are not refracted sufficiently to reach the eye, whereas green waves are. The visual result is a green flash in the surrounding sky.

A few green gemstones, turned in sunlight, or even better, candlelight, will appear to throw off such a flash of green light. The best quality Tavorite sometimes appears almost magical in that the burst of green light is so repeatable and so easily seen. It is as though a slice of time, yet timeless in nature, can be held in the hand. *From the International Colored Gemstone Association (ICA) website at <http://www.gemstone.org>.*

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### February 2006 Gem & Mineral Shows

**28-11 — TUCSON, AZ:** Show, "AZ Mineral & Fossil Show" Martin Zinn Expositions; The InnSuites Hotel, 475 N. Granada; 10-6 daily, Sun. 10-5; free

admission; more than 400 dealers from all over the world, free shuttle to other shows; contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

**28-11 — TUCSON, AZ:** Show, "AZ Mineral & Fossil Show" Martin Zinn Expositions; The Mineral & Fossil Marketplace, 1333 N. Oracle Rd.; 10-6 daily, Sun. 10-5; free admission; more than 400 dealers from all over the world, free shuttle to other shows; contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

**28-11 — TUCSON, AZ:** Show, "AZ Mineral & Fossil Show" Martin Zinn Expositions; Clarion Hotel-Randolph Park, 102 N. Alvernon Wy.; 10-6 daily, Sun. 10-5; free admission; more than 400 dealers from all over the world, contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

**28-11 — TUCSON, AZ:** Show, "AZ Mineral & Fossil Show" Martin Zinn Expositions; Smuggler's Inn, 6350 E. Speedway; 10-6 daily, Sun. 10-5; free admission; more than 400 dealers from all over the world, contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

**28-11 — TUCSON, AZ:** Show, "AZ Mineral & Fossil Show" Martin Zinn Expositions; Ramada Inn Limited, 665 N. Freeway; 10-6 daily, Sun. 10-5; free admission; more than 400 dealers from all over the world; contact Martin Zinn Expositions, P.O. Box 665, Bernalillo, NM 87004, fax (505) 867-0073; e-mail: mz0955@aol.com; Web site: www.mzexpos.com.

**28-11 — TUCSON, AZ:** Show; AKS Gem Shows; Howard Johnson, 1010 S. Freeway (I-10 and Starr Pass Blvd.); 10-7 daily; contact Kay Schabillon, P.O. Box 24552, New Orleans, LA 70184, (504) 455-6101; Web site: www.aksshow.com.

**28-11 — TUCSON, AZ:** Show; AKS Gem Shows; La Quinta, 750 W. Starr Pass Blvd. (I-10 and Starr Pass Blvd.); 10-7 daily; contact Kay Schabillon, P.O. Box 24552, New Orleans, LA 70184, (504) 455-6101; Web site: www.aksshow.com.

**31-6 — TUCSON, AZ:** Show; The Bead Renaissance Shows; 3340 E. MI, next to the Holidome; Tue. 10-6, Wed. 12-9, Thu. 12-9, Fri. 10-6, Sat. 10-6, Sun. 10-6, Mon. 10-6; free admission; retail and wholesale dealers, ancient, vintage and contemporary beads, buttons, jewelry, tools, books; contact J&J Promotions, P.O. Box 420, Williamsburg, NM 87942, (505) 894-1293; e-mail: info@beadshow.com; Web site: www.beadshow.com.

**3-5 — SAN RAFAEL, CA:** Gem show; Gem Faire Inc.; Marin Center/Exhibit Hall, 10 Avenue of the Flags; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**10-12 — SANTA MONICA, CA:** Gem show; Gem Faire Inc.; Santa Monica Civic Auditorium, 1855 Main St.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**17-26 — INDIO, CA:** County Fair and National Date Festival; San Gorgonia Mineral & Gem Society; Gem & Mineral Bldg., Bldg. 1, 46-350 Arabia St.; 10-10 every day; adults \$7, seniors \$6, children \$5; contact Bert Grisham, (951) 849-1674.

**19 — GOLDFIELD, AZ:** 17th annual F&E Schrader Memorial Hunt; Superstition Mountain Treasure Hunters; call or e-mail for application; contact Superstition Mountain Treasure Hunters, (480) 983-3484; email: smth03@hotmail.com.

**24-26 — MESA, AZ:** 56th annual show, "Art on the Rocks" Maricopa Lapidary Society; Mesa Centennial Center, Centennial Hall, 201 N. Center St.; Fri. 10-5, Sat. 10-5, Sun. 10-4; Laurette Kennedy, (602) 738-2552; e-mail: Lkennedy11@aol.com.

**24-26 — SANTA BARBARA, CA:** Gem show; Gem Faire Inc.; Earl Warren Showgrounds/Exhibit Hall, 3400 Calle Real; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**25-26 — ANTIOCH, CA:** Annual show, "Treasures of the Earth 2006" Antioch Lapidary Club; Contra Costa County Fairgrounds; Sat. 10-5, Sun. 10-5; lapidary demonstrations, dealers, faceted stones, handmade jewelry, rocks, beads, supplies, opals, fossils, minerals; adults \$3, Scouts in uniform and kids 12 and under free; contact Ellen Bauer, (925) 458-2539; e-mail: ebauer\_lapidary@yahoo.com.

**25-26 — SAN FRANCISCO, CA:** Show, "San Francisco Crystal Fair" Pacific Crystal Guild; Laguna Ave. and Marina Blvd.; Sat. 10-6, Sun. 10-4; contact Jerry Tomlinson, (415) 383-7837; e-mail: sfxtl@earthlink.net; Web site: www.crystalfair.com.

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 Please address all inquiries and exchange newsletters to:  
**The Opal Express C/O**  
**Jim Pisani**  
**P.O. Box 4875**  
**Garden Grove, CA 92842-4875**  
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 Thank you,  
 The Editor

# The Opal Express

American Opal Society  
P.O. Box 4875  
Garden Grove, CA 92842-4875



**Volume #39 Issue #01  
February 2006**

TO:

### Some Topics In This Issue:

- Opal Society Workshop is Open
- Louisiana Opals Open after Katrina
- Dr. Johnson in Rock & Gem
- Online Business Gem
- Famous Opals: The Colors of Heaven
- Safety Article - CARBON MONOXIDE
- Growing Opals
- The Rediscovery of Corundum Crystals
- Paper from Rocks
- The Green Flash

### Important Info:

**Board Meeting  
January 30<sup>th</sup>**

**General Meeting  
February 9<sup>th</sup>**

AOS Lecture Series:  
Noel Lamkin will speak on General Jewelry Design

### — GENERAL MEETINGS —

2nd Thursday of the Month  
7:00 pm - 9:00 PM  
Garden Grove Civic Women's Club  
9501 Chapman Ave.  
(NE corner of Gilbert & Chapman)  
Garden Grove, CA

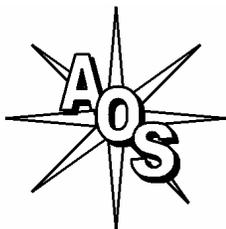
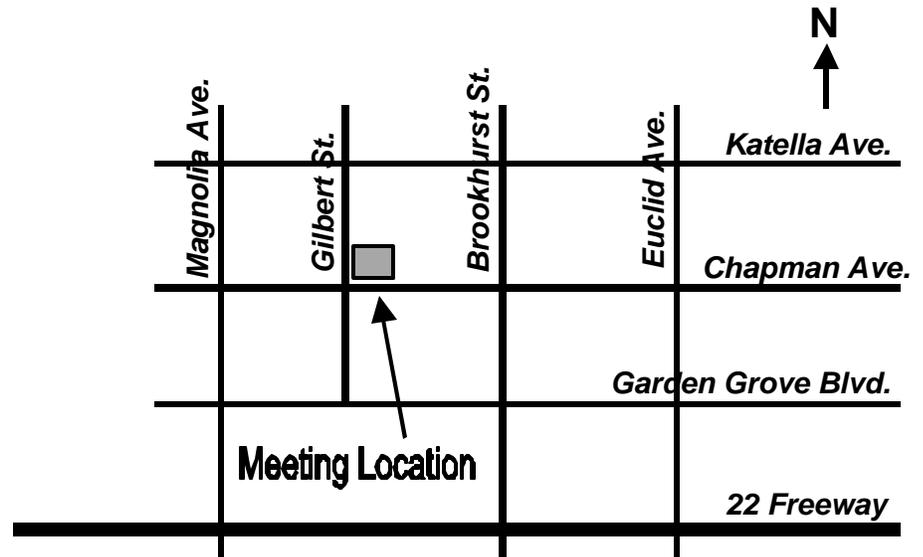
### MEETING ACTIVITIES

Opal Cutting, Advice, Guest Speakers,  
Slide Shows, Videos, Other Activities

## February 9th:

## AOS Lecture Series:

# Noel Lamkin will speak on General Jewelry Design



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