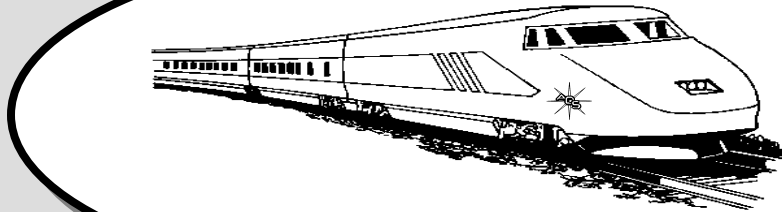


# The Opal Express

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Corey his number is on the front of the OPAL EXPRESS, or if you are not sure you make it at 3:00 pm, just show-up. We will also need some help to tear down the show on Sunday starting about 3:00 pm. Contact Corey if can commit.

If anybody knows of a dealer they might want to participate in this years show, have them call Gene LeVan or Corey, (again, numbers are on front cover). It would be nice if we could come up with about six more vendors.

Last month, we were treated to a very informative and varied lecture on OPAL by Dave Kramer. Topics included display techniques to marketing your finish OPAL pieces to advantages of DRY CUTTING to a number of other interesting and useful info.

Next meeting will be a recap of this years show. If you have not been to one of 'your' meetings, this is a good one to be at. Planning for next year will be the secondary topic.

\*\*\*\*\*  
**Last Meeting Presenter – David Kramer**

**It's Here!**

**Next Month!**

## **The American Opal Society's 43<sup>rd</sup> Annual OPAL & GEM SHOW**

**The Largest Opal Show in USA!**

**Sat. Nov. 6, 2010 - 10AM - 6PM**

**Sun. Nov 7, 2010 - 10 AM - 5PM**

**Opal and Gem Dealers** from the USA and Australia.  
**Rough and Cut Opals;** gemstones; jewelry & supplies.  
**Huge Raffle** many prizes of gemstones, jewelry, tools, etc.  
**Free Opal Seminars** on Saturday with Paid Admission.  
**Free Demonstrations** on gem cutting, jewelry making, etc.

**Same great location!**

**White House / West Wing Event Center**

**1238 S. Beach Blvd.**

**Anaheim, CA 92804**

<http://whitehouseeventcenter.com>

**Located at Hobby City**

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## President's Message

*By Pete Goetz*

It's that time again troops, The Annual OPAL & GEM Show. The show will be held in the same venue as last year - The White House Convention Center on Beach Blvd. We can still use some committed help at the front reception desk for both days, we need two people willing to run errands, if need be, for both the vendors and the OPAL Show Staff, "potential" food both help, set-up (which is Friday about 3:00 pm )call



*September Speaker – David Kramer*

David Kramer, long time AOS member and one of our area's foremost jewelry designers and gem cutters, gave a great presentation on his opal cutting techniques, hints on jewelry design, how to use small opals, etc.

David said the biggest mistake cutters make is trying to preserve the maximum size of the rough; leaving it in odd, awkward shapes and leaving hunks of potch. Go for the smaller, higher quality, stone!

# An Opal Journey In 2010

*By Richard W. Holmes*

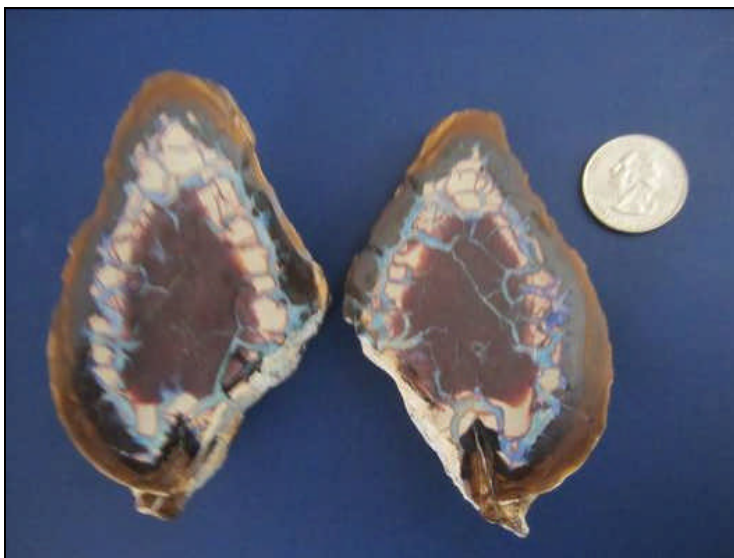
I have just returned from a 6,000-mile trip covering several of the Australian opal fields. My Australian 'mate' and I traveled in his F250 Ford diesel air-conditioned truck pulling a 22-foot off-road camper. We had originally planned an off-road trip into the Australian bush looking for gold with two metal detectors, but the extensive rain in eastern Australia prevented us from making any off-road ventures. Instead, in our two months of travel we: 1) attended the Yowah Opal Festival in Queensland, 2) took a trip to Koroit picking up Queensland boulder opal from a miner there, 3) attended the Lightning Ridge Opal Festival, 4) followed these with a 5 day journey up the Stewart Highway in South Australia to Coober Pedy.



*Yowah Opal Festival*

## The Yowah Opal Festival

It was a beautiful day at the festival. We camped there that night. There were about 100 tables of opal out in the open with only 250 attending. Len Cram and his family were there along with Steve Aracic and his lovely wife Mary. I was very fortunate to have purchased two beautiful Yowah nuts as show below:



*Split Yowah Nut*

## The Journey to Koroit



*Split Yowah Nut*

The next day we left for Koroit traveling on a hard gravel road covering at least 200 miles and never meeting an on-coming vehicle or having one over-take us. Again, it was a beautiful day. We found that there is no town of Koroit, but merely a crossroad. The area is roughly 10 miles around with approximately 10 miners using very large backhoes to dig up large river boulders from as far down as 90 feet. In talking with local people, currently, there were only two miners working the area. We were fortunate to find one of these miners and purchased some mahogany colored Koroit opal. Below is a picture of one of their boulders which I would estimate weighed at least 2,000 pounds. Returning to our base at Cumborah, N.S.W. we encountered many wild pigs, kangaroos, emus, wallaroos, goats, sheep, feral cats, beautiful fat cattle, and even a wild fox. For the first time in 7 years eastern Australia has had an abundance of water with more wild grass than the animals can eat.



*2000 Pound Boulder Opal*

## The Lightning Ridge Opal Festival

The following week we attended the Lightning Ridge Opal Festival. What a big disappointment this was. This was my 8th trip to Australia with my desire to see this festival for the first time. It rained a lot that weekend. There were about 150 tables of which one-half or two-thirds were outside in the rain and mud. I would guess there were only about 400 people attending this festival (unlike the stories I had heard in the past of a show of 10,000 people



with lots of events). There were other vendors there that gave it the feel of a poor flea market. Many of the same vendors from the Yowah Opal Festival also showed up at the Lightning Ridge festival. It could have been a better festival had the people who manage the Lightning Ridge Bowling Club moved the vendors out of the muddy parking lot onto part of the tar parking lot in front of the bowling club – this did not happen. What a miserable sight it was!



*Lightning Ridge Festival*



*Lightning Ridge Festival*

**Our Journey to Coober Pedy**

It took us 5 days to reach Coober Pedy in South Australia up the Stuart Highway. The tar roads were wonderful – without any potholes even with all the rain in the area. However, should one be unfortunate to get off the edge of the road, a vehicle could sink down to the axle. Traveling along the road we saw lots of animals all looking very healthy since the rains had brought on more wild grass than there were animals to eat it.

Upon arriving at Coober Pedy we found many houses abandoned and commercial buildings boarded up. The locals said that just about all the mining equipment was up for sale. In talking to the locals, we estimated there could be no more than a half-dozen miners still mining opal. The best thing in town is the Umoona Opal Mine and Museum, run by Yanni Athanasiadis, which I would consider an absolute “must see” should one venture to Coober Pedy.

**My Assessment of the Opal Industry – or Lack Thereof**

From what we determined in our travels looking for opal, there is no opal industry. Even in the whole Lightning Ridge area, including the Coocoran field, we do not believe there are more than a dozen



*Coober Pedy*

miners. For the time being, the boom in opal mining is over. With new regulations and fees, the feeling is that the day of the small miner is over. Should a new surge in demand occur, it was felt that several millions of dollars would have to be spent with large open pit operations cutting through a large area. However, in the Lightning Ridge area open pit mining is not allowed. Also, I spoke with one major black opal wholesaler, who has always sold in Tucson, who stated that in February, 2010, 85% of their sales came from selling boulder opal and not Lightning Ridge black opal (they are not sure they even want to go back to Tucson in 2011).



*Umoona Opal Mine & Museum*

**The Australian Economy**

Wow! Other than opal and opal mining, the Australian economy is going gangbusters. The news reported that Australia has had 20 years of continued growth with 2010 growing by 3.3%. New buildings are going up and people are buying new cars. Their rail now covers all of Australia from all four directions. The whole mining sector is on the move with new discoveries in coal, gas, uranium, iron ore, diamonds, as well as other minerals. With the substantial rains that Australia hasn't seen in 7 years, and in some places 30 years, there will be bumper crops of wheat, chickpeas, and canola

this year. There is more wild grass than there are grazing animals to eat it. Based on my two months of traveling all over New South Wales, Queensland, and South Australia, I believe we will see an economic explosion with continued growth for the next 20 years – at least. I thoroughly enjoyed my travels and the friendly people I met, and would encourage everyone to see Australia. It is a beautiful and charming continent.

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**Here's a great article on a named Welo opal from Ethiopia that new member Matthew Powers sent me. It's a stunning opal of unusual color. I believe we will see a lot of this Welo opal in the future. The Editor.**

## The Painted Opal

*By Matthew Powers, of Dragon's Breath Opal*



*The Painted Opal*

God's Art - that is how I describe opal. My name is Matthew Powers. I have been cutting opal for many years, and did the first opal shows on American TV. The show has always been known as the Dragon's Breath Opal Show, to me a name that also reflects the beauty of opal, I have never tried to make a distinction as to where gem opal comes from. Simply put it's like gold; it's where you find it; a diamond or a ruby or sapphire is what they are regardless of their geographical location.

The painted opal as I refer to it was found in the Welo region of Ethiopia, within a radius of say 300 kilometers, the exact location may never be known. The rough piece was sent to me by my partners, Dawit and Kiros, whom I would like to thank. I told them of my trouble dealing with middle men in search of high grade rough for over a year and a half, to which Dawit responded, "No problem, Matt, give me a few days and I will get you some."

Believe it or not a few days later he got in touch with me and said we have some for you, but we can get you better than this, well the rest is what you might call history, it is said that a picture is worth a thousand words, and the photo does not do total justice to the painted opal.

As all of you know opal is one of the hardest gems to photograph, the Painted Opal is 16 carats, and measures 22.5 x 23.5 mm, the "super gem", as I call it, is totally non-directional front and rear with no matrix attached; simply pure opal.

It is crystal in structure, but so intensely saturated with color that it appears as 22 Kt. gold in color and must be held to sunlight to see that it is crystal, but the color and saturation do not budge from the stone in any light source, the opal will scream at you with a single

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The American Opal Society

kitchen match in a totally dark room. This opal simply put looks as if it were painted, in all my years I have heard various rumors of stones like this from the old timers and basically chalked it off as that – rumors.

Although my mind would play games with me, to one day be able to see this kind of an opal, no photos of such a stone were ever printed, so I thought well it would be a thing to see, wishful fantasies, Every opal cutter dreams of this and I am no exception to the rule, the opal breaths gold fire and ruby reds as well as emerald greens, and is very intense while doing so, as far as brightness goes this stone sparkles, but that is shallow when compared to its magnetic pull to the eyes, gold being the rarest color, then as follows: pink, violet, red, reddish orange, orange, green and lastly blues.

This opal sits at the top of her throne, but as fellow associates you can determine for your selves, I will say that what you are seeing is not a deception of your eyes. I still go back and look at it myself to believe that this occurred to me. To see this stone in person is, well, like seeing your first rattlesnake, there is no doubt in your mind what you have seen.

Mr. Jim Pisani has been more than gracious to allow me to share this opal with you. For this I would like to thank him. The opal was shown one time on TV, the response was total silence, the same as mine when I saw what I was cutting that morning about 7 weeks ago, 9 weeks by the time you get to see this news letter, I hope to share more opals with you in the future, as Jim has seen a few of them already. I might add that the final polish has never been put on this opal. I usually finish them out with 50,000 diamond paste. I do my cutting on Diamond Pacific machines and always have. In closing anyone with any questions please feel free to contact Jim Pisani and it would be my pleasure to try to answer all of them. Also I would like to thank all of you for bearing with my first article and one of the passions of my life.

I would like to say that I have heard all the horror stories about the African opal cracking and crazing. Some of my early attempts at cutting this opal was not as good as I had hoped. What I was getting was leftovers from mine-run bags, and of course being told that it was top grade Welo. What I did notice was poor color, and very cracked pieces of opal rough, no patterns to speak of, and small pieces, nothing that would cut over a 4 ct. finished stone.

Needless to say I was not a happy camper. As all cutters, I kept trying to find decent rough. The one key to success in cutting of Welo material is after you skin away the host rock, any and all visible cracks must be cut out of the opal immediately, and I do mean all. If you do this you will in most all cases not have another single problem with the gem.

As far as crazing goes, that notion is out the window. Crazing occurs when an opal loses its water content, and cannot replenish it and most all opal can not. But the smart opal (as I call it), the Welo, can take a drink of water and will do so whenever it needs it. Put a single drop of water on a finished Welo opal and it will suck it up! Then over the course of a few hours to a few days, the Welo will dissipate the water until it is comfortable. I have tried it with salt water as well as perspiration. The smart opal will get its required water supply anyway it can.

In two years of cutting this material, and countless sales, none have crazed or cracked. The key is this - any opal from any location can crack, if it is unstable. The African opal known as Gondar opal is all cracky - do not waste your time. However, the Welo is very stable and neon in color with many base colors.

Know your supplier - if he tells you that he can't get gem pieces or larger pieces of gem rough, move on in your search would be my advice. As with any top gem rough from any geographical location, it can be pricey. It depends on what you want in the end. Some opal producing areas will never allow you to cut such opal as the Painted Opal, they will cut them for themselves, and then offer the finished stones for sale. I do not blame them!



But as a cutter the sheer thrill is to uncover that illusive master piece that has been in hiding for millions of years, to be the first to set eyes on such an opal is a cutter's dream come true.

In conclusion I would like to say that the Painted Opal came to me split in half, the entire piece of rough would have been about the size of a large hens egg. The other half is out there some where, just waiting, or perhaps hidden away in some ones rough, but it is out there. The Welo opal rough is mined using very primitive tools, by people who are not professional miners but rather people who need to make a living.

The reason the rough in most cases looks so rough and cracked is not instability of the opal, but the methods used to get it out of the host rock. Tools like an old railroad spike, and a large rock to hammer with. Some only have there hands to dig with; there are machines available for rent but are not affordable to the locals to use, and mining is done at about 9,000 feet up in the cliffs, with no roads to use as access, not to mention the heat that they endure. I am certain that in the future these mistakes will be corrected but for now this is the real situation there. Water is non existent, as you might imagine

Just remember a little extra care, and understanding is all it takes to cut these fine gems.

Best regards to all, Matthew Powers, Dragon's Breath Opal

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**Hunting for Lost Diamonds**

*Great treasures were looted during World War II. ROE KALB reports that many people still search today for the hidden and lost treasures looted by the Nazi's.*

*By Roe Kalb*

Before World War II, Germany was a known trading zone in Europe, taking a big part in the European jewellery trading. During the war, German Nazis looted gold, diamond, art and treasures from the territories they occupied and the people they victimized, later to be looted themselves by Russians at the end of war.

In the last months of the war, some of the Third Reich's secret archives were hurriedly transported from Berlin to the Nazi Protectorate of Bohemia, Moravia, Southern Germany and Austria.

In April, 1945, the chief cashier of the main branch of Berlin's Reichsbank (back then it was the central bank), Georg Netzeband, was entrusted with 164 jute sacks containing 730 bars of gold.

He was to take the treasure to an abandoned potash mine near the town of Merkers in Thuringia, central Germany, where it was assumed that the treasures would be safer than in Berlin.

In addition, diamonds, gems and jewelry were added to the shipment. The amount or value of the diamonds is unknown, but historians assume the diamonds were worth at least several million Euro in today's terms.

Colonel Franz Pfeiffer, commander of the Alpine division, had been tipped-off about the gold by friends in Berlin. When Netzeband arrived in the mountains, Pfeiffer seized the valuable cargo. Among the diamonds and jewellery were special pieces with fancy shapes, and which were thought to be quite large.

Under the cover of darkness Pfeiffer dispatched a mule train to an isolated forester's house at Einsiedl, high above Lake Walchen near the Austrian border, but it was not long before he realized that too many people knew about the hiding place. Villagers had spotted the trucks and the mules.

The gold ingots were too bulky and heavy to be carried further through the mountains so they were left in place, while the rest of the treasure such as cash money in US currencies, was speared among the soldiers.

Austrian authorities are now considering a 99-year ban on a search for Nazi treasure at the bottom of a lake in a bid to protect wildlife. The ban will include diving expeditions at the Toplitz Lake where treasure seekers have tried for decades to find Nazi treasure.

Over the years, many treasure hunters and divers searched the lake looking for the dumped diamond and gold as Allied forces swept through Europe at the end of World War Two.

Josef Muzik, a Czech treasure hunter, spent thirteen years clearing rubble from underground tunnels and investing all his money into the effort. He says that now he's come as close as ever to uncovering the treasure he believes lies hidden near the village of Stechovice in Czech Republic.

The story of "The Treasure of Stechovice" that was hidden by the Nazis at several locations in the valley of the Vltava River in Central Bohemia has excited treasure hunters since the end of the Second World War.

Some believe the Nazis buried priceless war booty in specially-created tunnels near the village of Hradistko near Stechovice. It is believed to include gold, diamonds, jewellery and pieces of art, as well as secret files and scientific documents.

Some people even believe the Nazis hid the famous "Amber Room" looted from Russia in 1941 in the tunnels. However, to-date Josef Muzik's team has found nothing.

Roe Kalb is the editor of the [Israel Diamond Institute Blog](http://www.israeldiamondinstitute.com) First published 12-09. From <http://www.jewellermagazine.com>  
+++++  
**Here's a great thread that geologist and member James Fisher of Texas sent me. These techniques seem very applicable to opal. The Editor.**

## Stabilizing Procedure for Crumbly Lapidary Rough

Excerpts From Proboards.com , from 10- 26-06 to 12-29-07

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Post by desertdweller

This is a good method for stabilizing lapidary rough that is porous or crumbly.

Since most stones are cut in water and will probably be subjected to immersion and water-based cleaners, waterglass isn't a satisfactory stabilizer. Various chemical processes can cause silicates to polymerize into opal or agate, as occurs in petrified wood. The hardened silicate from my procedure is clear and colorless. It's not as fast as epoxy, but treated material is "rock-solid" --- no undercutting or discoloration with age. In the end, it's also safer, cleaner and a lot cheaper than Opticon or other epoxies.

Here's the general procedure that seems to be working now. It's not as involved as it may seem at first glance, and gets easier with practice.

1) Clean slabs (or rough less than 1" thick) in a solution of hot water and trisodium phosphate (available in most paint departments for wall cleaning) prepared in the concentration specified for grease removal. I let them soak overnight. This may cause some slight color change - deeper blues and greens on chrysocolla and turquoise. Rinse slabs thoroughly and allow to air-dry.

2) For this step, you need a shallow, lidded stainless steel (not iron or aluminum) pot or pan and a means of holding temperature at around 180 F, substantially below boiling. I found a thrift store electric buffet warming plate which worked nicely. The stabilizing formula is based on sodium silicate solution with a weight ratio of around 3.2 (available at [http://www.chemistrystore.com/sodium\\_silicate.htm](http://www.chemistrystore.com/sodium_silicate.htm) and other similar sources). Read the MSDS! This solution is caustic, and you should wear eye and skin protection to handle it. Spray the pot lid edge with PAM or other cooking spray to keep it from adhering to the pot. Clean up drips and used utensils immediately with warm water. If the solution gets on fabric, rinse and wash it before the silicate dries.

3) Now, this is where things get a little weird... it takes a combination of very low activity organic acid and alkali mineral salts (carbonates, phosphates and sulfates of calcium, potassium, etc.) to get the silicate to polymerize in a non-water-soluble form, e.g. as agate.

Though this can be done with very concentrated mineral water (about 1 gallon boiled down to 1 cup) and aspirin or citric acid, I found the easiest and cheapest way to do this was with Emer-Gen-C Lite mineral supplement packets. \*\*\*It's important to get the Lite sugar-free version --- sugar or fructose will oxidize and may discolor the stones.\*\*\* Dissolve one packet of Emer-gen-C in 1 cup (approx. 250 ml) of water and allow the fizzing to disperse. Add this solution to 8 oz. of sodium silicate in the stainless steel pot and stir to mix. For stones with very fine porosities or hairline cracks, add about 1 teaspoon of liquid dish soap to reduce the viscosity of the solution.

4) Submerge the slabs in silicate solution in a single layer. Stacked slabs may stick together. Cover and let stand on the heat source for at least 24 hours. Longer cooking won't hurt... I've left some material in for up to 4 days. [For very thick material, a pressure cooker has been suggested, but the risks of silicate splash clogging the vent mechanism are too great for my peace of mind.] Remove the slabs and set them on a spray-greased baking rack over newspaper.

Allow the slabs to drip dry. The dried slabs are safe to handle bare-handed, and can be gently pried off the rack if they stick. A word of caution --- dried silicate can be as sharp as glass!

5) Place the dry slabs on a cookie sheet and set in a cold oven. Turn the oven to "warm" and leave it on overnight. Turn the oven off and allow the stones to cool to room temperature with the door closed. The slabs should look shiny and any deep cracks will be partially filled.

Porous stones should feel noticeably heavier after this treatment. At this point, you can re-clean the stone and "paint" silicate formula to fill larger cracks and voids. Repeat the drying and baking processes to set the added silicate.

The whole cleaning, soaking, drying and baking process can be repeated as many times as you feel necessary. There may be some brownish surface discoloration on the stone, but this comes off with polishing.

Silicate solution can be reused multiple times, adding a little water to replenish the volume. The solution may have some precipitated white silica gel and will turn tea-colored. When a thick layer of silica gel has precipitated and the solution seems thin, treat it by pouring out on about a pound of scoop-able cat litter, allowing the litter to dry, then discarding it in regular trash. Don't pour it down the sink.

I've tried to explain in as much detail as I've gleaned from a half dozen or so different trials. So far, it's worked on slabs and rough of many different jaspers, chrysocolla, turquoise, Laguna, Botswana, plume and moss agates, Koroit opal, petrified woods and fossil coral.

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From wades

Very cool. Chemistrystore.com also has TSP.

You wouldn't want to use any of the utensils in this procedure for food preparation afterwards.

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Post by spacegold

Jamie, I am intrigued by this procedure. I was just wondering the other day if there was any way I could get sodium silicate into the fractures that ruin so much beautiful quartz that I end up leaving on the beach. I am sure as heck going to find out if I can seal those so the fine polish does not get in and make them so ugly. Thanks for sharing.

---

Post by gemkoi

Very cool, I've heard of this type of process, but never seen it in run, or tried it myself. I got the Opticon down no problem, but it is expensive stuff for sure. Thanks for posting this. Very informative.

---

Post by desertdweller

A lady friend of mine shared some of her secrets so I am passing on the info, I'm not really very good at explaining anything but it is a really good method, and you don't have to be a rocket scientist to get it right. I hope some of you get a chance to try it.

---

Post by docone31

Here is my method.

I use T-88 structural epoxy. I make a frame. The materials to be stabilized I saturate with the epoxy, then place in the frame. I then fill the void left over the materials with the remaining T-88. This epoxy hardens HARD. It is very easy to polish.

I then use a 20 ton hydraulic jack. I make a ram out of the same material as the frame.

With the frame inside of a holder, usually part of the jack assembly, I push the frame ram into the assembly. Before I really turn up the volume on the press, I put mild pressure on the ram. This allows the bubbles to go to the upper limit of the frame, and into the corners, leaving the material to be stabilized relatively inclusion free.

The T-88 epoxy takes 24 hrs to cure so there is plenty of time.

After letting the bubbles out, I ram the jack. A 20 ton press can exert a lot of pressure. When it is cured, I cut the frame off the epoxy material.

Understand, a 20 ton press can exert a lot of pressure. I have bent 3/4" steel plate with it. The frame must be strong, and have definite integrity. The pressure on epoxy, which is essentially a non compressible substance, is tremendous. The stone shapes itself within the container. Turquoise and malachite are really easy to compress.

If the frame is made of steel, it can be made to be disassembled. I recommend, not using less than 3/4" 4130 chromemoly steel. The retaining bolts must be grade 8. Allen head bolts are 99% of the time grade 8.

I use aluminum foil for mold release. I have found PAM, Vaseline, beeswax under the pressure, breaks down. There is heat produced by this method. The corners, they MUST be on the outside of the frame.

The attaching bolt MUST be at least the diameter of the blot from any open edges. Any less than this, and the frame can be bent and 3/4 chromemoly is fairly expensive.

The aluminum acts as a gasket. I put a piece on each side, exiting outside the frame. On the occasion the epoxy leaches past the aluminum onto the chromemoly, attaching the stabilized stone to a side, the side can be heated with a propane torch. The heat will loosen the epoxy without damaging the material to be cut.

I have never attempted to mold a cabochon this way. If someone uses this technique, they will find out why not. This method simply makes a giant square stabilized rough to be worked. Epoxy polishes like Amber.

So slightly different techniques are required. The stone is crushed by the process so very little epoxy is visible on any part of the finished stone. There is some, but overall it looks kinda neat.

---

Post by rallyrocks

Let me think a minute, one technique involves a stainless steel pan and 180 degree simmer, the other involves a steel frame and 20 ton press....

Hate to say it doc, but I'm probably more likely to try the sodium silicate approach, thanks for the suggestion though.

DD- one question though you mention that waterglass is not a good solution, yet the page you reference for the Sodium Silicate solution calls it synonymous with water glass(?) Am I missing something here? is there some other kind of "water glass" that is not appropriate?

---

Post by desertdweller

I should of explained that better, Water glass ALONE, isn't, in my opinion, a very good stabilizer. The sodium silicate, (water glass) is altered during the chemical process.

---

Post by blarneystone

Good timing on the bump Stefan. It looks like some of the WWR material will need stabilizing before it can be worked up, especially the mossy stuff. Great tutorial Jamie! Very informative.

Thanks, Dan

Post by sabre52

Holy crap! Thanks Jamie. Excellent tutorial but I flat sucked at chemistry in college. It's what kept me from becoming a veterinarian \*L\*. I suppose if I had a hunk of something I just had to cab I might try this technique but mainly I'm afraid that's just a way to complicated for me. I'm just too messy and lazy! I might use a little Opticon or Hot Stuff to fill a pit or crack but good lord, if I had to work this hard I'd rather just chuck the material and try another hunk that was more solid... Mel

Post by ruffrock4u

This sounds like a great method! Since ninety percent of my lapidary work is polishing slabs and specimens on laps I'm going to give it a try. I'm sick of burning eyes from super glue and the mess associated with Opticon. Thanks for passing along the info!!!

Post by rollingstone

DD - a neat method, I'll have to give it a try sometime. I have a growing bag of "seconds", which basically get set aside because of pits or soft spots that are too extensive to remove with a Dremel, but which are otherwise quite nice materials. I've been treating some with epoxy or other resins, but often have been disappointed with the results. If you are still reading this thread, one question I have is does this method produce ugly fumes, particularly in the heating stages? Is it okay for indoors, or would outside be better?

Stefan - Thanks for the bumpy, I must have missed this thread first time around. I've now printed it out for my "lapidary notes" file.

-Don

Post by desertdweller

When you are drying the slabs out (in the oven), there isn't much of a smell....

Everything else should probably be done either outside or in a well vented area, like when you mix the water solution with the sodium silicate and when the slabs are simmering for the duration of 24 or more hours.

Post by Icars

Hmmm, sounds interesting...

I think sodium silicate is also the solution used in "magic rocks".

Post by rollingstone

Thanks for the note about the fumes. Sounds like a summer project in these parts (still snow on the ground). -Don

Post by rockds

Pretty neat ,Jamie, but I must agree with Mel. Hot stuff works for me and I can only imagine the wife coming in and asking me what I'm doing in the kitchen. I would be very interested to see some before and after pics if you have any or before you start the next batch

Post by Ismike

Dear Desertdweller: WOW!!! Amen and Hallelujah! There is gold in them thar hills and on this site. I've tried Opticon, water-glass alone and several other methods-all with mixed results. I haven't a need yet to stabilize material since I cut 99% agate, but I have a lot of Lakers with hairline fractures across the best face [Murphy was an optimist.]. Also I recently started working Montana moss agate ue to the mineral inclusions in it, it often undercuts in the form of many small pits. I have some of both cooking right now. Thank you. Mike. P.S. maybe one could use this alchemical solution to make one's own petrified wood, agate or opal!?

Post by kpinkert

You mentioned that in step 3 alternative methods to get the combination solution could be done with citric acid. I happen to have

some food grade citric acid I use to periodically clean out my water pot. Could you tell me a mix ration I might use to do the same thing with citric acid as you are doing with your Emer-Gen-C Lite supplements? Thanks, Kevin

Post by taogem

I have not gone through a stabilizing process yet.

I ordered some Chrysocolla off eBay. Made a few passes with the slab saw and the slabs just crumbled to pieces.

The rough looks very nice and thought it would be worth saving if I could learn how to stabilize.

For me, in this situation, and not being able to get any slabs to try and work with any way means trying to stabilize the entire 5 pound piece of rough as a whole.

I purchased a Liqui-Gem Silica stabilizer. The difference in the process for this gem silica is that both heat and pressure are required, and accomplished by using a pressure cooker.

Apparently, not meant as a replacement for epoxies, but does give more options. The true difference is in the heat and pressure, how it is applied and for how long. An epoxy is not flexible like this. The amount of hardener and setting time limit us. Too little hardener, it wont set. Too much time, it permanently sets. It will age and yellow. It may become brittle. All these things are factors, not all necessarily bad, just factors in use and our choice.

The Liqui-Gem apparently does not have these limits. It is a version of the stone itself. It can be mixed with water for greater room temperature penetration, it can be mixed with oxides in a water solution for dyeing. Until it is dried / cured it is amenable to whatever changes you want. For surface filling of cracks it is good right from the jar.

Because the process requires a pressure cooker, I have not been able to try it out yet. So can not verify how well it works.

I did let some dry on a piece of tin foil and then added water to it and it dissolved. This was probably not the correct way to cure the gem-silica. I was just trying to see if it was going to be water soluble like what I have heard about the water glass products.

Any way, when I do get the pressure cooker, will post the results.

I am very anxious to give it a try. I also have some other rough that would like to salvage.

I am also anxious to try some dyeing on some turquoise that I have, and would also like to be able to add some color to some fossilized coral as well. Another learning project that I just have not been able to experiment with yet.

Post by Icars

I am also very interested in hearing more about this. I have been cutting various Vancouver Island jaspers since I got my Workforce saw and I am finding a lot of natural voids, cracks & macro-pores in the stone that I would like to "stabilize" so they can be tumbled without fear of grit retention and recontamination, a problem I have been experiencing with some of the material I've cut recently...

Post by deedolce

I'm a bit like Mel too! Yikes, even though I suppose if I did it, step by step I wouldn't be overwhelmed. Anyway, in doing a search on the net, I found this:

**STABILIZING POROUS STONES,**

*From ROCKHOUND NEWSLETTER*

*Via DIGGIN'S FROM DAKOTA 1/82, Gen Buresh, Editor*

*July 1982 News Nuggets*

*If you would like to try your luck at stabilizing a porous stone such as turquoise so it can be cut and polished, the Silvery Colorado River Rock Club offers these instructions:*

*Take a jar with a lid; add one pint of acetone. To this, add the complete contents of both the resin and the hardener tubes of epoxy glue, mixing well. Add well-dried stones, cover the jar, and let remain for at least four days.*

Remove stones and allow a week for them to dry. They should now be stabilized and ready for working.

Anybody try something like this? Some of the coolest rock from Burro Creek has soft parts. When I get to the hardware store, I may give it a try and I'll report how it goes. Unless I hear beforehand from someone that's tried it and it didn't work!

+++++

### October 2010 Gem & Mineral Shows

More shows can be found at <http://www.rockngem.com/showdates.asp>

16--WEST HILLS, CA: 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](mailto:info@rockchippers.org); Web site: [www.rockchippers.org](http://www.rockchippers.org)

16-17--ANDERSON, CA: Show; Shasta Gem & Mineral Society; Shasta District Fairgrounds, Briggs St.; Sat. 9-5, Sun. 10-4; free admission; displays, exhibits, demonstrations, raffle, kids' activities, dealers, gems, jewelry, fossils, beads, minerals, collectibles, polished stones, supplies; contact Kelly O'Leary, P.O. Box 1130, Palo Cedro, CA 96073, (530) 722-7133; e-mail: [steve@applyaline.com](mailto:steve@applyaline.com); Web site: [www.shastagemandmineral.com](http://www.shastagemandmineral.com)

16-17--CAYUCOS, CA: 9th annual fall show; San Luis Obispo Gem & Mineral Club; Cayucos Vets Hall, 10 Cayucos Dr., next to Cayucos Pier; Sat. 9-5, Sun. 9-5; free admission; rocks, gems, mineral, fossils, crystals, meteorites, beads, slabs, carvings, lapidary equipment, door prizes, drawing; contact Mike Lyons, 7343 El Camino Real #301, Atascadero, CA 93422; (805) 610-0757; e-mail: [jadestar@charter.net](mailto:jadestar@charter.net); Web site: <http://slogem.org>

16-17--PLACERVILLE, CA: Show, "All That Glitters"; El Dorado County Mineral & Gem Society; El Dorado County Fairgrounds, 100 Placerville Dr.; Sat. 10-5, Sun. 10-5; adults \$3, children free; more than 40 dealers, case displays, special petrified wood exhibit, demonstrations, kids' activities, silent auction, presentations, prizes; contact Karen Newlin, 4232 Gailey Circle, Cameron Park, CA 95682, (530) 676-1643; e-mail: [info@rockandgemshow.org](mailto:info@rockandgemshow.org); Web site: [www.rockandgemshow.org](http://www.rockandgemshow.org)

16-17--SANTA ROSA, CA: 34th annual show; Santa Rosa Mineral & Gem Society; Sonoma County Veterans Memorial Bldg., 1351 Maple Ave.; Sat. 10-6, Sun. 10-5; admission \$5, coupon on Web site; contact Debbie Granat, (707) 542-1651; or Erica Tanner; e-mail: [santarosarockshow@hotmail.com](mailto:santarosarockshow@hotmail.com); Web site: [www.srmgs.org](http://www.srmgs.org)

30-31--LAKESIDE, CA: Show, "Rock and Gem Roundup"; El Cajon Valley Gem & Mineral Society; Lakeside Rodeo Grounds, 12584 Maplevue Rd.; Sat. 10-5, Sun. 10-5; free admission; jewelry, gemstones, arts, crafts, beads, lapidary supplies, demonstrations, junior activities, raffles; contact Patrick Smock, 10852 S. Samuel Rd., Hesperia, AZ 85615, (619) 719-3444; e-mail: [cprpsm@yahoo.com](mailto:cprpsm@yahoo.com)

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**NAME BADGE ORDER FORM:**  
PLEASE PRINT NAME AS YOU WISH IT TO APPEAR ON YOUR BADGE using up to two (2) lines of text for your name, nickname, or name of your opal related business.

**MEMBERSHIP ROSTER:** The AOS publishes a membership directory once per year in its Newsletter, the *Opal Express*. Your name will be included. Please check what additional personal information that you want listed for other members. If it is different from the information above, please note that on the application.

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**Are Your Dues Due Now?**

**PLEASE CHECK YOUR ADDRESS LABEL.** If your label shows the current month/year your dues are **DUE NOW**. If the date is older, your dues are overdue.

**A Renewal Grace Period** of two months will be provided. If your dues are due now you will receive two additional issues of the newsletter. Please note, however, that as the system is now set up, if your renewal is not received you will be **AUTOMATICALLY** dropped from membership thereafter. It is your responsibility to assure your dues are current.

Thank you,  
*The Editor*

# The Opal Express

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



**Volume #43 Issue #10  
October 2010**

### Some Topics In This Issue:

- An Opal Journey In 2010
- The Painted Opal
- Hunting for Lost Diamonds
- Stabilizing Crumbly Rough

TO:

### Important Dates:

October 5 - Board Meeting

October 14 - General Meeting  
Working Meeting to Prepare for Opal and Gem Show.

November 6 & 7 - Opal & Gem Show

## October 14

### Working Meeting to Prepare for Show

## November 6 & 7

### Opal & Gem Show

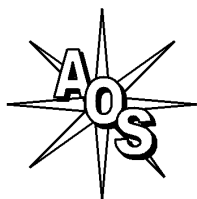
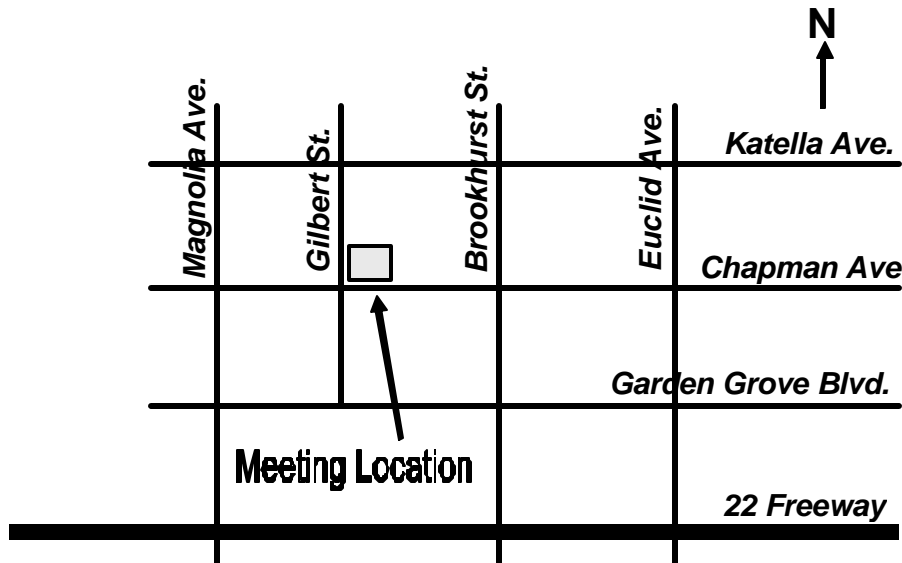
### — GENERAL MEETINGS —

2nd Thursday of the Month  
7:00 pm - 9:00 PM

Garden Grove Civic Women's Club  
9501 Chapman Ave.  
Garden Grove, CA 92841  
(NE corner of Gilbert & Chapman)

### MEETING ACTIVITIES

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



## The American Opal Society

<http://OpalSociety.org>

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