## The Opal Express

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







Will Not Be Delivered Without Postage

Volume #35 Issue #1 January, 2002

In This Issue: Whitesail Opal of British Columbia

Board Meeting-Monday, Jan. 7 \_\_\_\_\_

**General Meeting** Thursday, Jan. 10 Speaker: Hans Durstling on: Opal Cutting in Idar-Oberstein and

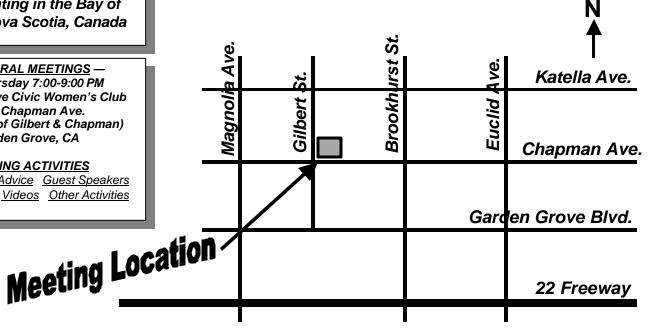
Gem Hunting in the Bay of Fundy, Nova Scotia, Canada

— GENERAL MEETINGS — 2nd Thursday 7:00-9:00 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

TO:			





## **The American Opal Society**

http://opalsociety.org

Mike Kowalsky	President	(714) 761-4876	email: mykowalsky@aol.com
Bob Dixon	Vice President	(714) 534-5063	
Bob Olinskas	Treasurer	(949) 786-7291	
Jay Carey	Show Chairman	(714) 525-7635	email: jaycarey@gte.net
Jim Pisani	Webmaster	(562) 797-4986	email: webmaster@opalsociety.org
Jim Pisani	Acting Editor	(562) 797-4986	email: webmaster@opalsociety.org
Carol Bova	Editor	(818) 951-1402	email: editor@bovagems.com



# American Opal Society Membership Renewal

Thank you for continuing to support your American Opal Society!

, , , , , , , , , , , , , , , , , , ,	<u> </u>			
TYPES OF MEMBERSHIP (Select one)	DUES / RATES* (select one)**	AMOUNT PAID		
1) All US Addresses including Alaska and Hawaii	\$25.00			
2) International Members = All addresses outside of US Addresses	\$30.00			
3) Additional Badges/each	\$5.00			
** <u>SENIOR DISCOUNT</u> = Age 65 or over deduct \$5.00	-\$5.00			
Name badge (optional) \$5.00 each-includes engraving (Badge free when joining)	\$5.00			
TOTAL PAID-DUES less Senior Discount plus Badge if Applicable) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>				

Please make check or money order payable to "American Opal Society". Mail payment and application to: American Opal Society; PO BOX 4875; Garden Grove, CA 92842-4875

MEMBERSHIP ROSTER: Yes, include m					mbership directory	
(If yes please sign here)	D	AIL / WEBSITE if you prefer a partial listing)  Date		Without your signature here you will not be included in the member info list		
DEALER LIST: Yes, include my name/address on a list provided to Opal Show.  (if yes, please sign here)			-		Without your signature here you will not be included in the dealer roster.	
NAME				4	NAME BADGE ORDER FORM:	
BUSINESS NAME					PLEASE PRINT NAME AS YOU WISH IT TO APPEAR ON YOUR	
ADDRESS			APT #: or PO BOX		BADGE using up to two (2) lines of text for your name, nickname, or name of your opal related	
CITY	STATE	ZIP	ZIP or POSTAL CODE		business.	
COUNTRY (IF OUTSIDE USA)	1	<b>,</b>				
PHONE: Home ( )	Business ( )		FAX ( )			
E-MAIL	WEBSITE					

The Opal Express is published monthly by
The American Opal Society.
Copyright 2002. All rights reserved.

NON-COMMERCIAL REPRINT PERMISSION GRANTEDUNLESS OTHERWISE RESERVED.

Editor-Carol J. Bova Please address all inquiries and exchange newsletters to:

The Opal Express c/o
Carol J. Bova
P.O. Box 5388
Glendale, CA 91221-5388
Email: editor@bovagems.com
Article Deadline is the 15<sup>th</sup> of the month prior to each issue

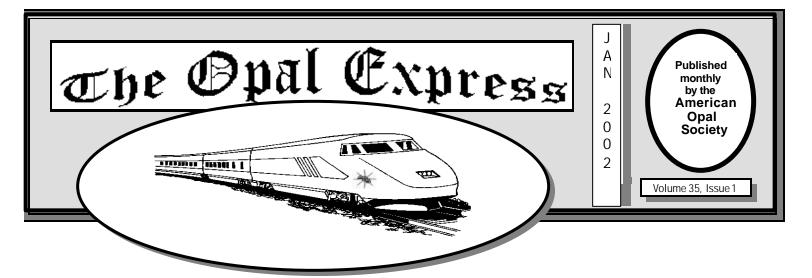
#### **OPAL SOCIETY WORKSHOP**

The workshop at Walker Jr. High is available for the use of AOS members on Wednesday nights. Please call Stan McCall at Gems & Opals (714) 827-5680 if you plan to attend a shop session.

#### **WORKSHOP RULES**

- 1. Shop may only be used by AOS members.
- 2. Shop users must sign liability waiver.
- 3. Shop users must sign in. Shop supervisor will maintain sign-in list and collect usage fees.
- 4. Shop usage fee is \$3 per session.

To assist us in scheduling, please call Stan or a board member in advance to reserve shop time. Thank you!



#### PRESIDENT'S MESSAGE Mike Kowalsky

The American Opal Society ended the year 2001 with a very nice dinner. Some twenty plus members were there to greet Faye McDowell who was miraculously there after suffering a stroke while on a field trip. She is recovering very well and has bounced back to almost her normal self. We all were amazed and happy to see how much she had recovered. She was telling us her plans to go to Quartszite in January. Many of us hope to go and see her there. We had a number of nice door prizes and even I won one.

This is the time of year I look forward to. First there is Quartszite where it is hard to predict what you will find. Last year I obtained a large specimen that was part of an opalized tree discovered in Malaysia during an excavation. It is similar to the ice cream opal that is found in Idaho except that it is a mixture of white and blue opal. I will make a small specimen for display in the AOS showcase. It was in Quartszite that I found the specimens of opal from Alpine Texas.

After Quartszite the month of February is filled with gem shows and displays in Tucson. The American Opal Society is a co-sponsor of the Opal Seminars that will be held in the Holiday Inn South; Holidome; as part of the Gem & Lapidary Wholesale show. I will be presenting two lectures featuring the Yowah Festival and the Lightning Ridge Festival. Featured will be the magnificent displays of opal and the opal jewelry design contests winners. We had a display of Opal from the Americas in the Yowah exhibit. I was only able to bring the four samples since the rest were on display at the Culver City Gem show.

The Board of Directors has already made arrangements to hold the AOS annual show at the Quality Hotel Maingate in Anaheim on November 2<sup>nd</sup> and 3<sup>rd</sup>. With that decision made we can concentrate on the show and seminars.

I want to wish everyone a happy healthy new year 2002. For me it will be hard to top the year 2001, with my visit to the two opal festivals in Australia and the many wonderful people I met there. Maybe some will come over to the U.S. this year.

# HIGHLIGHTS OF MY ANDAMOOKA VISIT; AUGUST 2001 By Mike Kowalsky

Peter Tauber and Margo Duke provided my companions and me a very memorable visit to

Andamooka in early August during my trip to Australia this year. I had been corresponding with Peter by e-mail over the last year and he had sent me a very interesting picture of some rough opal recently mined in White Dam. I knew that White Dam was close to Andamooka and wanted to see the mining going on in that area. My wish came true in spades. Not only would I get to see White Dam fields but Stuarts Creek and some fossil areas by Lake Torrens.

Peter and Margo were displaying the Australian Opal Dress at the Lightning Ridge Festival so I was able to prearrange my visit more specifically. I had made general arrangements earlier before leaving for Andamooka. In fact, I used a magnificent large specimen from Margo's display for a short video that I was in during the Lightning Ridge Festival. The Discovery Channel was videotaping the Festival and I was asked to be a part of the videotaping.

We arrived in Andamooka mid-afternoon on a Monday and checked in to the Post office and Andamooka Dukes Bottle House Motel. Peter met us and immediately invited us to tour the Andamooka Opal Fields. When I was there in 1998, we had several experiences touring the Opal Fields, including getting stuck and having to get help. But the weather had been drier and of course this trip we all had four-wheel drive vehicles. We went to the highest spot and I was able to get some good slides of the opal fields and video of the area. Peters partner; Joe; was getting ready a mining claim that was close by. We went and watched the big D9 being skillfully maneuvered by Joe. One of the requirements of mining seems to be master of many of the excavating machines and know the limitations of the soil that you are working on. Many times Joe would maneuver close to the edge but always in a safe manner. This was not the exciting part of opal mining but the necessary part of moving dirt so that they could go to a lower level where they expected to find opal.

The next day Peter offered to take us on a tour of the Stuart Creek area where the first opal was found in these fields. Peter drove in his diesel powered Nissan fourwheel drive. I must say it was wonderful that Peter drove and with a vehicle he knew well. The ride was a true wilderness adventure. A shortcut took us over more than 35 red sand dunes. Each trip up, on top and down were separate challenges. The trip up was a dash to make it up at maximum speed. The trip on top was a challenged to keep the vehicle in the road filled with soft red sand

while trying to slow down to safely navigate the down part of the sand dune. No one made a comment knowing that we had the true expert at the wheel; Peter. Oddly though, the sand dune part of the trip was actually quite smooth except for the gyrations on top.

First we had a stop at the northern edge of Lake Torrens. There we went to see a natural salt-water spring with ancient tiny fish swimming. They could only survive at the spring as Lake Torrens is normally dry. This time it was full with the water from a hundred year rain. At the edge of the lake were fossils of prehistoric animals that resembled crabs. Took lots of pictures of the area.

Next we went to an area that was called Yarrow Wurter. Then we came to a valley and saw tailings from mines near the top of the hill. There we fossicked on the tailings of a mine. This was the first time I had seen opal that had a look of porcelain. The few samples we found had a white porcelain shell and a black translucent center. It was only later on my trip that I saw samples of precious opal from Lambina with similar characteristics at Murray Willis place. These are the only opal samples that I have seen with these characteristics. I do have samples of potch opal from this area and precious opal from Lambina.

We went off to the Stuart Creek Mining area, passing through a valley that was covered with green plants. We found out that we were about three weeks too early as these green plants would flower into a carpet of Stuarts Peas. Probably only one year in ten to see that magnificent display of the bright red and orange flowers. At Stuart Creek we fossicked the opal tailings, went through some of the original huts that had housed early miners and some of the later sheds and houses.

Some mining is still occurring in the area. However, the older tailings have been all passed through a machine so that fossicking is not very good. The return trip had another pass through the sand dunes and it was every bit as good as the trip going.

The next day we were invited to visit their other mine in the White Dam fields. It appears that opal occurs in many of the areas surrounding Andamooka and as we found out, stretching to Stuart Creek and possibly beyond. However, the concentration of opal seems to change and the challenge now is to find the pockets of opal that allow mining to be economically done. We noticed that opal mines were spread out in single digs and in clusters of digs. Joe and Peter had been out earlier and we were invited to have a close look. They both took turns in operating the large backhoe and checking the dirt for signs of opal. They estimated that they were just a few feet above the opal layer though this layer had produced some opal in earlier digs. I again collected many slides and video of the operation.

Some of the tourists had come out from Andamooka and joined us in watching the operation. After they had left, Peter invited us to visit a miner I knew from my last visit, Telas. I had taken pictures of his 7-ton opal specimen that he had moved to Adelaide. Barbara McCondra had written a story about his discovery and published it in Rock and Gem. His claim was a short distance away. We went to his mine and found he was doing a different type of mining. He was using a bobcat that he modified and was underground mining as a oneman operation. He first added a large spike to the bucket on the bobcat and using the machine was able to take down a 2-3 foot section of the mine wall. This technique performed the hard pick and shovel work and was much

faster. One of the secrets of a successful miner is to move a lot of dirt in the quest for opal. Perhaps the most exciting part of the visit was riding on the hitch on the back of the bobcat with minimal lighting thru the tight turns of the mine. Telas knows the mine and could maneuver the bobcat expertly around the mine. We had a look at the beautiful rough that was his find so far for that day. You could see the fire from the rough even in the very poor light we were viewing it. Great video and pictures were obtained.

I had another highlight in my visit to Andamooka. I wanted to visit Alex Mendelsohnn. I was able to visit him on my last afternoon and went to view his latest paintings. Needless to say, I fell in love with one of flowers that I had never seen before. I purchased it before I left but had to have it shipped as it wasn't dry yet. In fact it has been drying since it arrived here and is about ready for framing.

We had one last dinner at the Tucker Box with all our friends that we met or knew in Andamooka. Everyone went out of their way to help us and show us around the area. Andamooka is trying to build up tourism and is working hard at it.

We did stop in Roxby Downs and toured the large mining complex there. It certainly is a huge operation. It was a worthwhile stop.

I'd like to thank Peter Tauber and Margo Duke for their hospitality and all the time they took to tour us around Andamooka, White Dam and Stuart Creek. It will be a trip that I will long remember.

# Thursday, Jan. 10 Speaker-Hans Durstling on: Opal Cutting in Idar-Oberstein

and

#### Gem Hunting in the Bay of Fundy, Nova Scotia, Canada

Hans will talk and show slides on his visit to the house of Cullman, a specialist opal cutting shop in Kirchweiler near Idar-Oberstein. This will show the kinds of machines the Kirchweiler cutters work at, their cutting positions, etc. Hans will also talk about Gem Hunting in Nova Scotia, his home, about some of the unusual agates, and other gemstones he has discovered.

Safety Report

### Trip Tips

By Cathy Gaber

I recently asked rockhound friends around the country to answer several questions to help me put together a family feud style game for one of my clubs. One question was "Name three field trip safety tips". I received some very good suggestions from the 25 people who responded, and I would recommend each and every tip. The number in parentheses is the number of times a particular answer was given if it was given more than once. This could be used as a handy checklist and reminder on future field collecting trips.

Wear hard toe shoes or boots (20).
Wear a hard hat (17).
Wear eye protection/safety glasses/goggles (16).
Stay away from walls/overhangs (5).
Use the buddy system/Never go collecting alone (4).
Wear gloves (4).
Carry a first aid kit (2).
Take insect repellant.

Don¹t leave tools lying around.

Use specially hardened chisels.

Have permission to collect on the property.

Don¹t throw rocks down embankments.

Carry sunscreen.

Carry plenty of drinking water.

Do not do any blasting.

Go collecting in the daytime.

Use the proper tools.

Take maps.

Don't put your hands where you can't see what is there.

#### **NEWSLETTER ARCHIVES ONLINE**

There is one password for all members: "opalsrus".

# HOT OPALS IN COLD B.C. By Randy Lord

When you first stumble across an outcrop of volcanic hosted precious opal in the alpine of northern British Columbia (BC) it is seldom recognizable unless you have the eyes of an eagle or the peregrine falcons that fly overhead. Sometimes it is the flashes of red, green or blue fire against the black background that catch your eye. Sometimes it is the white blotches showing all over the rock that do the trick. Standing proud on the weathered surface these opal grains tell you to get on your hands and knees and look closer. The fact that the precious opal flashes with colour after 10,000 years of glaciation and 10 months of snow cover each year tells you that this is no ordinary opal adventure. A look around at the snow capped peaks and alpine meadows confirms why.

We are exploring and trenching 6000 feet up on a flank of the Whitesail Mountains in northwest British Columbia. The Northern Lights claim is located approx 90 air miles south of Houston, BC and access is by helicopter. This is one of the few alpine locations in the world where precious opal can be found and paying attention to the task at hand can often prove difficult when blizzards and howling winds are trying to knock you down. Our extremely short weather window lasts from late July to early September and snow can fall anytime. Frozen fingers and toes are the price paid for BFDs (bug free days) as sunshine and calm winds signal the hordes of bloodsuckers from their hiding places to have their lunch. We have only been scratching this property with hand tools but finding visible precious opal in surface outcrops over a 5 sq. km. area has captured our attention.

Volcanic hosted opal deposits are believed to be associated with hydrothermal activity. At the Northern Lights claim, precious opal occurs most commonly as open space fillings in the matrix and vesicles of clasts in the volcanic lahar (debris flows) and lapilli-tuff units of the Tertiary-aged Ootsa Lake Group. It also occurs as amygdules in massive flows. The dominant opal bearing lithologies are the debris flows with minor amounts in the lava flows and ashfall tuffs.

Common opal of all colours, many types of agates and even one agate with a line of precious opal inside are all found in close proximity. Geological theory does not explain how one vesicle can be filled with bright precious opal, the adjacent one empty and the occasional empty vesicle shows an inside surface that flashes with precious fire. Celadonite and zeolites are present which somehow indicate a favorable geological environment.

The types of opal we find range from nodules similar to Mexican material; thin seams in matrix that resemble Queensland boulder opal and matrix opal that has the appearance of Honduran opal crossed with dinosaur bone. The nodules are generally small with white, clear, yellow, brown and even black base colour. Their clarity ranges from transparent to opaque; colour intensity varies from good to very brilliant; colour spectrum of this opal covers the entire rainbow. A transparent black opal was cut recently that shows good red and green flash. The boulder type opal generally ends up as specimen material as freezing/thawing and physical extraction all take their toll and the opal presents the weakest plane on which to fracture.

The precious opal matrix material represents our biggest volume of production at present. In appearance it shows small flecks of all colours distributed throughout various matrix hosts. The strongly vesicular hosts or matrix types can range from a dense hard black basalt to softer brown porphyritic andesite and to gray, even reddish colour material. Vesicles filled with precious opal may account for over 25 per cent of the volume of the rock. The description of the matrix material as dinosaur bone was noted by Kevin L. Smith, a renowned carver. Although sometimes the host volcanic material will take a good polish, sadly the majority of the matrix material produced so far has been too soft for daily wear and will require stabilizing. After stabilizing the matrix material exhibits good colour and is suitable for spheres, carvings and jewelry grade cabochons.

Cutting these various types and grades of opal presents unique challenges and several cutters and carvers are using their skills and knowledge to achieve good results. Techniques such as doublets work well but natural stones are tricky due in part to the extreme environment and the deep surface weathering. As mining to date has been surface or near surface material, we believe that as trenching proceeds deeper less fractured opal will be recovered.

An amazing dacite dike was the site of the original discovery of precious opal in the Whitesail range. This prominent vertical feature stands over 20 feet tall and 3 feet wide in places where it cuts through the opalized country rocks. It has been named the Great Wall by the prospectors as it resembles closely its namesake; snaking across the property in a distinctive spine.

Permanent snow pack covers much of the terrain. Tenacious alpine plants cover any marginally; habitable ground so outcrops and exposure of bedrock are minimal on the top. The top is relatively flat with the sides very steep and horizons of red, gray and black units can be followed around the flank and appear to be continuous. With a flat glaciated top and various coloured layers, our best description is that it resembles a chocolate layer cake. Precious opal in nodules, seams and as matrix hosted material has been found in over 20 places but safely trenching or extracting material is a different matter

Our first trench was named Zona Rosa for the red colour of the basalt. It proved an exercise in the excavate and tumble method of mining. Luckily a flat bench 100 yards below stopped the boulders on their downward journey. The experience of tumbling stove-sized boulders weighing hundreds of pounds down a snowfield onto a flat is not soon forgotten. A member of the team would be hunkered down in a safe place noting where the boulders landed. Pieces that survived the tumble were given the sledge and chisel treatment and reduced to gravel piles. Many bright precious opal specimens were found here but the action of freezing and thawing has fractured most

of the near surface material. As this trench progressed into the steep slope the uphill wall became hazardous and digging was abandoned.

From another very steep site located directly above our fly-in camp we would send boulders the size of automobiles skidding down 600 feet of snowfield often to have them land within an easy walk from camp. This type of opal mining is not for the faint of heart.

We have recovered water worn precious nodules from small streams and consider them a real treat. Placer techniques have proven productive in highly weathered areas and make an attractive choice for those infrequent sunny days. Screening pea gravel for flashy nodules by a bubbling alpine creek is a very special experience.

Prospecting for precious opal in an alpine environment presents peculiar challenges and conditions. A float trail will often descend where snow and gravity have chosen. Following the float uphill until it flashes in place is always a productive way to prospect. Steep snow slopes are to be avoided without proper gear and the scree slopes and ravines provide plenty of challenge on the edges. Strongly rooted shrubs and bushes are an alpine prospector's best friend but gloves, walking sticks and even kneepads all have their place in your backpack.

In this pristine environment the many permanent snowfields provide our fresh water and a highway system. Refrigeration in camp is never a problem. Sunshine melts the snow at the rate of an incredible 2 feet per day and the resulting layer of corn snow has provided more than a few quick descents sitting on a raincoat. With your feet out front and a pick head clenched firmly in your grip a downhill slide at the end of a hard day can lift your spirits quickly.

We cut trail where needed and found that even the resident wolves immediately started to use our trail in one particularly steep area we call the Razorbacks. Crossing the Razorbacks is perilous to the extreme and often we see mountain goats peering up at us thinking cleverly, "two legs bad /four legs good ". We agree completely with their wisdom.

Two legged visitors are scarce but the local critters add plenty of character to the site. Mountain goats, marmots and ptarmigan are common sights and have proven to be good neighbours. The wolves and the resident King of the mountain, a huge grizzly, leave us alone and tolerate our short intrusions into their territory.

Whistlers, commonly called marmots, live right next to our camp and have trails and burrows all around us. They are curious as well as frightened by tall moving objects and their shrill whistles are echoed throughout the mountain by their nearest neighbours as an effective early warning system. The sprinkling of their jaw bones with their long incisors all over the alpine suggest that the wolves are serious and efficient at hunting these mountain piggies.

Many marmot burrows are dug under huge boulders in order to avoid their most terrifying predator, the grizzly bear. Huge excavations where boulders the size of refrigerators have been torn out of the ground attest to the grizzlies desire for a whistler meal.

This last season we enjoyed fresh baked bread in camp and when a big blue grouse noticed the other alpine birds munching down crumbs in our camp he moved in as well. The many ptarmigan don't seem to mind human company but keep our canine mascot, a miniature wiener dog named Misty, running in circles.

Misty, whose ancestors were bred to hunt badgers, chases whistlers and nearly met her demise down a marmot burrow one season. After she chased one down a hole it turned on her and tore big strips off her nose and head. The poor beat-up dog limped back to camp and remained comatose next to the woodstove for close to 3 days. The lesson did not last though because after a full recovery she was even tougher on them.

Mountain goats range freely over the entire property and have walked right up to us when we are having lunch. Their stray tufts of dense white fur clinging to rocks are often mistaken from afar as white opal. The nannies and kids gather in small herds and after feeding on whatever they can find, generally seek safety in the cliffs. The billys travel around a bit more and all the goats have favorite dust baths and mineral licks on the mountain. Their ability to climb and descend seemingly vertical faces is astounding but their bones do show up as well. Each year a lone bull moose has walked past our tents on his way through camp. Mountain caribou also pass through the area and shed their horns.

Strangely, porcupines are encountered up high where no twigs or suitable vegetation is evident. We believe they are teenagers kicked out of the good foraging areas down in the trees. Their teeth marks on ancient 4x4 claim posts show their hunger and need to chew but with no trees to climb they become easy targets for predators.

Frequent southern visitors to our mountains are the beautiful ruby red and emerald green rufus hummingbirds. As they follow the glorious blooming alpine flowers north they often buzz around our heads, attracted by brightly coloured headgear or backpacks. Their loud buzzing as they circle your head can be startling but their friendly antics leave smiles all around.

As access is by helicopter, we have had to rely on hand tools and portable gas powered saws and drills. We use a wheelbarrow and an alpine rickshaw outfitted with mountain bike wheels for moving loads. These have proven very efficient and this season we flew a small excavator in to assist with trenching. This digger weighs 850 pounds without its stabilizers and counterweights and flew straight and true like a dragonfly after pick-up by the chopper. Moving this lightweight machine across snow, mud and gravel is accomplished by extending the boom and bucket then lifting the front stabilizers and rolling forward on the back wheels as the boom is retracted. The speed and agility of this digger is amazing and future plans include mounting a hydraulic jackhammer in place of the bucket. Alpine trenching has taken a quantum leap forward as a relatively inexpensive Bell 206 can be used instead of the pricier heavy-lift machines.

On arrival at the top this season we found a huge snowfield covering our last season's main trench. After hydraulicking the snow to determine its depth we found we had 12 feet of snow to contend with. Digging and hauling snow was futile so we set up an irrigation system. Gravity fed water and sprinklers fashioned from 1" PVC pipe plugged at the end with numerous holes drilled its length meant two weeks later our trench was open. The digger /rickshaw combination proved very effective at clearing overburden and weathered lahar material. The fresh lahar material proved very tough however and a ripper tooth attached to the bucket made some progress but chisels, sledges and a Cobra drill were necessary.

As we dug we encountered precious opal matrix material at the bottom of the trench, on both sides and the face so we were encouraged to trench some distance away. Our hopes were realized as precious opal bearing material kept coming out of every hole we dug. Being limited to payload and time we high- graded and trimmed the best boulders then sacked approximately 800 pounds of mine-run for a net load. Our 30-day season ended with another snowstorm.

British Columbia has a wealth of mineral resources and because of its rugged terrain; much of the province has remained unexplored or prospected. That precious opal deposits occur in BC is relatively unknown but recent discoveries are about to change that. Singular specimens have been found from the southern Okanogan area up to northwest British Columbia. Two other properties, notably Firestorm Opal of Burns Lake and Okanogan Opal of Vernon, BC have produced beautiful specimen and jewelry grade material. These volcanic hosted precious opal deposits indicate that closer inspection of all common opal and agate areas may yield further discoveries and significant attention is warranted. From our experience getting your nose down to ground level is required and recommended to all opal prospectors. Randy Lord

7512-18th Ave., Burnaby, BC, Canada V3N 1H9 opal@whitesailopal.com , http://www.whitesailopal.com

#### **CALIFORNIA GEM & MINERAL SHOWS**

JAN 11-13--SANTA ROSA, CA: Show; Gem Faire; Sonoma County Fairgrounds, 1350 Bennett Valley Rd.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Allen Van Volkinburgh, (760) 747-9215; www.gemfaire.com.

JAN 18-20--DEL MAR, CA: Show; Gem Faire; Del Mar Fairgrounds, 2260 Jimmy Durante Blvd.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Allen Van Volkinburgh, (760) 747-9215; www.gemfaire.com. FEB 1-3--REDLANDS, CA: 37th annual conference, "Vanadates and Phosphates"; Pacific Micromount Conference; San Bernardino County Natural History Museum, 2024 Orange Tree Ln.; 3:00-10:00 p.m. Fri. Sat. 8:00-9:00 a.m. Sun., Field Trip; contact Beverly Moreau, (714)-577-8038; e-mail: bcmoreau@4dnet.com.

**FEB 15-17--SANTA BARBARA, CA:** Show; Gem Faire; Earl Warren Showgrounds, Los Positas and Hwy. 101; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Allen Van Volkinburgh, (760) 747-9215; Website: www.gemfaire.com.

**FEB 15-24--INDIO, CA:** Show, "Riverside County Fair and National Date Festival"; San Gorgonio Mineral & Gem Society; 46-350 Arabia St.; 10-10 all days; contact Don or Bert Grisham, (909) 849-1674.

FEB 16-17--STOCKTON, CA: Show, "Earths' Treasures"; Stockton Lapidary & Mineral Club; Scottish Rite Temple, 33 W. Alpine Ave.; Sat. 10-5, Sun. 10-5; admission \$2, children 12 and under free; dealers, displays, demonstrations, Touch Table for the kids; contact Jim Dunlap, 8453 Fontenay Wy., Stockton, CA 95210, (209) 478-0747; e-mail: jimsopals@jps.net. FEB 23-24--SAN FRANCISCO, CA: Show, "The Great San Francisco Crystal Fair"; Pacific Crystal Guild; Fort Mason Center, Laguna and Marina Blvd.; Sat. 10-6, Sun

San Francisco Crystal Fair"; Pacific Crystal Guild; Fort Mason Center, Laguna and Marina Blvd.; Sat. 10-6, Sun. 10-4; admission \$4, children under 12 free. Contact Jerry Tomlinson, PCG, P.O. Box 1371, Sausalito, CA 94966, (415) 383-7837; e-mail: sfxtl@earthlink.net; Website: www.crystalfair.com.

#### **QUARTZSITE GEM & MINERAL SHOWS**

## JAN 1 FEB 28--DESERT GARDENS GEM & MINERAL SHOW

PO Box 619, Quartzsite, AZ 85346, (928) 927-5555 JAN 19-FEB 3--THE MAIN EVENT

Rocks/Gems/Arts/Crafts & Year Round Swap Meeting http://www.quartzsitechamber.com/links\_mainevent.shtml Po Box 2801, Quartzsite, AZ 85346, (928) 927-5213

#### JAN 4-JAN 13--TYSON WELLS ROCK & GEM SHOW

Rocks/Gems/Arts/Crafts & more

http://www.tysonwells.com

PO Box 60 Quartzsite, AZ 85346 (928) 927-6364 JAN 18-JAN 27--TYSON WELLS SELL-A-RAMA

Rocks/Gems/Arts/Crafts & more

JAN 23-JAN 27--POW WOW (36<sup>TH</sup> ANNUAL)

http://www.quartzsiteimprovementassoc.com Rocks/Gems/Minerals/ & Related Hobbies PO Box 881, Quartzsite, AZ 85346, (928) 927-6325

PROSPECTOR'S PANORAMA

JAN 4-JAN 15--GOLD SHOW

JAN 18-FEB 3--GEM AND MINERAL

PO Box 786, Quartzsite, AZ 85346, (928) 927-6467

#### TUCSON GEM & MINERAL SHOWS

(See Website - http://www.tucsonshowguide.com)
JAN 28-FEB 11--TUCSON SHOW PLACE

S. Freeway Ave. & Starr Pass Blvd.; 1530 S. Freeway Ave. Advance Information: Don Burrow, (520) 620-0007; fax (870) 867-3664.

JAN 29-FEB 12--LA QUINTA GROUP: La Quinta Inn, N. Freeway Ave. & St. Mary's Rd.; 665 N. Freeway Ave. Advance Information: (520) 622-6491.

JAN 31-FEB 14--GLOBE-X/DAYS INN: Days Inn/Convention Center, S. Freeway Between Congress St. & Starr Pass Blvd.; 222 S. Freeway Ave. Advance Information: Joe Patel, 520-791-7511; fax (520) 622-3481; e-mail globex@daysinntucson.com; Website www.daysinntucson.com.

FEB 1-17--TOPGEM MINERALS: TopGem Warehouse, N. Main Ave. Between Drachman St. & Speedway Blvd.; 1248 N. Main Ave. Advance Information: (520) 622-6633; fax (520) 792-2928; e-mail top@topgem.com; Website www.topgem.com. Wholesale only.

FEB 2-15--A BEAUCOUP CONGÉ: Ft. Lowell Rd. Between First & Stone Ave.; 355 E. Ft. Lowell Rd. Advance Information: David or Tom Smith, (520) 696-9490; fax (520) 696-0039; e-mail info@beadholiday.com; Website www.beadholiday.com.

FEB 2-15--GEM & LAPIDARY WHOLESALERS: Gem Mall, I-10 at Palo Verde Rd.; Country Club Rd. & Michigan St. Advance Information: G&LW, (601) 879-8832; fax (601) 879-3282; e-mail info@glwshows.com; Website www.glwshows.com. Wholesale only.

FEB 2-15--GEM & LAPIDARY WHOLESALERS:

Rodeway Inn/Grant Road, I-10 at W. Grant Rd.; 1365 W. Grant Rd.; (520) 622-7791. Advance Information: G&LW, (601) 879-8832; fax (601) 879-3282; e-mail info@glwshows.com; Website www.glwshows.com. Wholesale only.

**FEB 2-16--MINERAL & FOSSIL CO-OP:** N. Oracle Rd. & Elm St. (Next to the Ramada Inn); 1635 North Oracle Rd. Advance Information: Bill Barker, phone/fax (520) 617-0207; e-mail docfossil1@aol.com.

FEB 2-16--PACIFICA/AKS TRADE SHOWS: Holiday Inn Express, I-10 & Starr Pass Blvd.; 750 W. Starr Pass Blvd.; (520) 624-4455. Advance Information: Kay Schabilion, (504) 455-6101; fax (504) 455-6157; e-mail aksshow@att.net; Website www.aksgemshows.com.

FEB 2-16--PACIFICA/AKS TRADE SHOWS: Howard Johnson, I-10 & Starr Pass Blvd.; 1010 S. Freeway Ave.; (520) 622-5871. Advance Information: Kay Schabilion, (504) 455-6101; fax (504) 455-6157; e-mail aksshow@att.net; Website www.aksgemshows.com. Wholesale only.

#### FEB 2-16--TRADE SHOWS INTERNATIONAL:

Butterfield Business Center, Palo Verde Rd. Between Irvington Rd. & Ajo Way (Across from the Holidome). Advance Information: TSI, (520) 549-0049; fax (520) 670-9555; e-mail tsi@earthlink.net.

FEB 2-17--INTERNATIONAL GEM & JEWELRY SHOW Intergem Tucson 2002/Congress Street, 700 Block of W. Congress St.; West of Freeway Ave. on Congress St. Advance Information: (301) 294-1640; fax (301) 294-0034; e-mail info@intergem.net; Website www.intergem.net. Wholesale only.

FEB 2-17--RAPA RIVER GEM & MINERAL SHOW: S. Freeway Ave. Between Congress St. & Starr Pass Blvd.; 292 S. Freeway Ave. Advance Information: Ray Arriaga, (520) 743-0866; fax (520) 743-0563; e-mail rapagem@yahoo.com; Website www.rapariver.com.

FEB 2-17--TUCSON ELECTRIC PARK GEM & MINERAL SHOW: Kino Sports Complex, E. Ajo Way Between Kino Pkwy. & Country Club Rd.; 2500 E. Ajo Way. Advance Information: (520) 883-6447; fax (520) 883-0527; e-mail TEPGemshow@cs.com.

FEB 3-16--ARIZONA MINERAL & FOSSIL SHOW: Best Western Executive Inn, W. Drachman St. & Oracle Rd.; 333 W. Drachman.; (520) 791-7551. Advance Information: Martin Zinn Expositions, (303) 674-2713; fax (303) 674-2384; e-mail mz0955@aol.com; Website www.mzexpos.com.

FEB 3-16--ARIZONA MINERAL & FOSSIL SHOW: InnSuites Hotel, N. Granada Ave. & St. Mary's Rd.; 475 N. Granada.; (520) 622-3000. Advance Information: Martin Zinn Expositions, (303) 674-2713; fax (303) 674-2384; e-mail mz0955@aol.com; Website www.mzexpos.com.

#### FEB 3-16--ARIZONA MINERAL & FOSSIL SHOW:

Ramada Inn/University, N. Oracle Rd. & Drachman St.; 1601 N. Oracle Rd.; (520) 623-6666. Advance Information: Martin Zinn Expositions, (303) 674-2713; fax (303) 674-2384; e-mail mz0955@aol.com; Website www.mzexpos.com.

FEB 3-16--ARIZONA MINERAL & FOSSIL SHOW: Mineral & Fossil Marketplace, N. Oracle Rd. & Drachman St.; 1333 N. Oracle Rd.; (520) 624-4018. Advance Information: Martin Zinn Expositions, (303) 674-2713; fax (303) 674-2384; e-mail mz0955@aol.com; Website www.mzexpos.com.

FEB 3-17--AMERICAN INDIAN EXPOSITION: Flamingo Hotel, N. Stone Ave. & Drachman St.; 1300 N. Stone Ave.; (520) 770-1910. Advance Information: Fred Synder, (520) 622-4900.

FEB 4-9--THE BEAD RENAISSANCE SHOW: Sabbar Shrine, E. 15th St. & Tucson Blvd.; 450 S. Tucson Blvd. Advance Information: J & J Promotions L.L.C., (303) 232-7147; fax (303) 232-5263; e-mail

shows@beadshow.com; Website www.beadshow.com. FEB 4-16--ATRIUM PRODUCTIONS: Pueblo Inn (formerly the Four Points Hotel), S. Freeway Ave. Between Congress St. & Starr Pass Blvd.; 350 S. Freeway Ave.; (520) 622-6611. Advance Information: George Zraket, (480) 998-4000; fax (480) 998-4748; e-mail atriumpro@aol.com. Wholesale only.

FEB 6-10--THE BEST BEAD SHOW: Kino Veterans Memorial Community Center, E. Ajo Way & Forgeous Ave.; 2805 E. Ajo Way. Advance Information: Crystal Myths Inc., (505) 883-9295; fax (505) 883-0056; e-mail crstlmyt@swcp.com; Website www.crystalmyths.com. FEB 6-11--AMERICAN GEM TRADE ASSOCIATION Tucson Convention Center, Main entrance on S. Granada Ave.; 260 S. Church St.; (520) 791-4266. Advance Information: AGTA, (800) 972-1162; fax on demand (800) 879-6259; e-mail info@agta.org; Website www.agta.org.

#### FEB 6-11--GEM & LAPIDARY DEALERS ASS.:

Wholesale only.

Radisson City Center (formerly Holiday Inn), Broadway Blvd. & Granada Ave.; 181 W. Broadway Blvd.; (520) 624-8711. Advance Information: GLDA, (520) 792-9431; fax (520) 882-2836; e-mail info@glda.com; Website www.glda.com. Wholesale only.

FEB 6-11--THE WHOLE BEAD SHOW: Windmill Inn, N. Campbell Ave. & River Rd.; 4250 N. Campbell Ave.; (520) 577-0007. Advance Information: (800) 292-2577, (530) 265-2544; fax (530) 265-2776; e-mail: info@wholebead.com; Website www.wholebead.com.

FEB 6-15--INTERNATIONAL GEM & JEWELRY SHOW: Intergem Tucson 2002/Michigan Street, One Block West of Palo Verde Rd.; 3340 Michigan St. Advance Information: (301) 294-1640; fax (301) 294-0034; e-mail info@intergem.net; Website www.intergem.net. Wholesale only.

FEB 6-17--DELL: Tucson Scottish Rite, Two Blocks South of Broadway Blvd.; 160 S. Scott Ave.; (520) 622-8364. Advance Information: David McGee, (520) 906-8867; fax (903) 560-0026; e-mail TexasWire@aol.com. FEB 7-10--TUCSON DIAMOND SHOW: anning House, Congress St. & Granada St.; 450 W. Paseo Redondo; (520) 770-0714. Advance Information: GemCast Productions, (303) 526-4412; fax (303) 526-5109; e-mail

www.tucsondiamondshow.com. Wholesale only.

mntngem@aol.com: Website

FEB 7-12--GJX GEM & JEWELRY SHOW: Gem & Jewelry Exchange, Main entrance on S. Granada Ave.; 198 S. Granada Ave. Cheryl Wormington, (520) 882-4200; fax (520) 882-4203; e-mail cheryl@gjxusa.com; Website www.gjxusa.com. Wholesale only.

FEB 7-15--GEM & LAPIDARY WHOLESALERS: Holiday Inn/Holidome, I-10 at Palo Verde Rd.; 4550 S. Palo Verde Rd.; (520) 746-1161. Advance Information: G&LW, (601) 879-8832; fax (601) 879-3282; e-mail info@glwshows.com; Website www.glwshows.com. Wholesale only.

#### FEB 8-11--RIO GRANDE CATALOG IN MOTION:

Tucson East Hilton, E. Broadway Blvd. & Kolb Rd.; 7600 E. Broadway Blvd.; (520) 721-5600. Advance Information: (800) 545-6566; (505) 839-3247; fax (505) 839-3248; e-mail info@riogrande.com; Website www.riogrande.com.

FEB 8 –12--TUCSON WESTWARD LOOK RESORT MINERAL SHOW: Westward Look Resort, A Half-Mile East of Oracle Rd.; 245 East Ina Rd.; (520) 297-1151. Advance Information: Dave Waisman, (509) 458-2331; e-mail svldave@aol.com.

FEB 8-13--GEM GALLERIA: Manning House, Congress St. & Granada St.; 450 W. Paseo Redondo; (520) 770-0714. Advance Information: GemCast Productions, (303) 526-4412; fax (303) 526-5109; e-mail mntngem@aol.com; Website www.gemgalleria.com. Wholesale only.

FEB 14-17--TUCSON GEM & MINERAL SOCIETY

Tucson Convention Center, Entrance on Church St. & Granada Ave.; 260 S. Church St. Advance Information: TGMS, (520) 322-5773; fax (520) 322-6031; e-mail tgms@tgms.org; Website www.tgms.org.

#### PRICING OPAL

Subject: Opal Price Guide

Hi everyone: I'm planning on getting into selling the opals I cut and am in the process of learning to price them properly. I have Paul Downing's "Opal Identification and value". His method is based on an updated reference called The Guide put out by Gemworld International. I see that this publication costs 175\$ a year. Apparently there are other reputable guides. Does anyone know if there is a site on the net that publishes basic opal prices?

Susan - 7genex7@sssnet.com

Subject: RE: Opal Price Guide

<<li><<I'm planning on getting into selling the opals I cut and am in the process of learning to price them properly. I have Paul Downing's "Opal Identification and value". His method is based on an updated reference called The Guide put out by Gemworld International....>>

Actually, it's the other way around. The Guide uses his system (he is one of their contributors).

<<Does anyone know if there is a site on the net that publishes basic opal prices?>>

Unfortunately, don't think there is such an animal. Opal pricing is highly subjective and based on the attachment the owner to the material, general availability, and the market's whim. The rarity of color, number of colors, pattern, and intensity of brightness will in fact determine how highly prized a given stone is.

The very best way to learn about pricing is to go to The Opal Show presented by The American Opal Society the first weekend in November in Anaheim and look, and look and look. Just about all of the dealers (except equipment supply people) deal primarily in opal of every variety, and from every location imaginable. It is an opalholic's dream!

One of our members was showing the Downing brightness kit at the workshop a few weeks ago. It does give you some idea of relative brightness, but there is so much variation in depth of color, pattern of color, number of colors, that no one set of 5 stones is going to give you an easy way to say, ah, this is a \$10 stone and this a \$1000.

You can see a \$50,000 stone though, and know in your gut why it's worth that ... the intensity is enough to bring tears to your eyes and it glows with an inner fire that is visible across the room! (Had that pleasure once upon a time!)

Perhaps the best suggestion for net looking is to simply browse as many opal sites as you can. There are many excellent ones. I particularly like Tim and Barbara Thomas's House of Tibara site for clear, easy to understand information. Especially look at the section on "How to Buy Opal" at: http://www.opal-tibara.com.

I'd strongly recommend joining the American Opal Society if you're not already a member! The monthly newsletter is one of the best opal education tools available. And Barbara McCondra does a monthly column for The Eclectic Lapidary on Australian opal... some of which might be of particular interest to you. (This month's is on "Opalphobia" and Overcoming Fear of Cutting Opal). The March, 1997 issue was on red on black opal, and why it can go for \$20,000/carat! So drop in and

browse through the archives. See you all again sooner next time.

Carol J. Bova, <u>bova@bovagems.com</u>, The Eclectic Lapidary e-zine, <u>http://www.bovagems.com</u>

Subject: RE: Opal Price Guide

In a message dated 98-04-24 10:29:41 EDT, you write:

<< I'm planning on getting into selling the opals I cut and am in the process of learning to price them properly. I have Paul Downing's "Opal Identification and value"...(snip)... Does anyone know if there is a site on the net that publishes basic opal prices?>>

I have been in the Opal business for a few years now and can tell you that the Guide (Downing) prices are way off. Stones that would wholesale for \$1000.00 per carat if the Downing grading system is used and applied to the guide pricing matrix, will actually sell for closer to \$100.00 per carat. Your best bet to establish prices is to do a lot of visiting at shows. Wear some Opal jewelry of varying quality stones to use as comparison stones. The light is always different at the shows and your memory will not be able to differ between a \$100.00 a carat stone and a \$50.00 a carat stone a week later so a comparison to a known set is the only way I know to fix the lighting and memory problem.

By the way, Opal prices are some what soft now that the Asian economy is in the tank, so you are going to be having a "LOT" of competition from the Aussie's. I know that I am.

Good luck though and you will find that there is a market for top, well cut stones.

Don at Campbell Gemstones < Campgems @aol.com>

Subject: RE: Opal Price Guide

In a message dated 98-04-27 11:32:47 EDT, you write: << You can see a \$50,000 stone though, and know in your gut why it's worth that ... the intensity is enough to bring tears to your eyes and it glows with an inner fire that is visible across the room!>>

Carol's statement above sums up opal pricing in general. I have customers come into my store and look at the opal display and they almost always focus on the most expensive opal in the display. They generally ask "why does that one cost so much more than the others?", and my response is that the stone that talks to you the loudest is the most expensive. You, as a customer, are buying a thing of beauty and the more beauty, the higher the cost. This is true for any stone and most anything else in life.

Don at Campbell Gemstones < Campgems @aol.com>

Subject: RE: Opal Price Guide

Thanks everyone for your replies about opal pricing. I'm wondering, since you don't think Paul Downing's opal pricing book is all that reliable how you feel about his statement in his other book "Opal Cutting Made Easy" that "Generally the price per gram is equal to the cost of the cut stone per carat". Is this a pretty good rule of thumb? Is this for wholesale or for retail? (the book doesn't specify...)

Susan - 7genex7@sssnet.com

Subject: RE: Opal Price Guide

In a message dated 98-04-29 14:22:16 EDT, you write: <<"Generally the price per gram is equal to the cost of the cut stone per carat". Is this a pretty good rule of thumb? Is this for wholesale or for retail? (the book doesn't specify...)>>

Susan, let us try this. You buy an Ounce (31.1 grams) of rough opal for \$100.00. Out of the ounce, you are going to find a few stones that have something wrong with them and a few that are really nice. So figure that you get around 80% cut table material. Now if your opal is like most, it isn't broken into shapes that all you have to do is polish. Most require some shaping and if you are cutting ovals, somewhere around 30% yield is about the norm, so you should expect (31.1x0.8x0.3) around 7.5 grams or 37.5 ct of finished opal. You paid \$2.67 per carat for your finished opal. Your rough cost was \$3.22 per gram. So your "COST" will work out close to the statement, BUT!!!!!!! This is not your price. You have to figure cutting cost, your time is worth something, your equipment cost something, the electricity, etc. are all added to your "cost". Now you need a little profit. You need to add all of these things together and come up with your "Price". You will not sell all of your parcel of opal right away so you need to be able to cover your expected return with just a few stones. Those are the Killer ones in the group. The Dogs will be around forever.

So the statement about "cost" is correct as far a material cost goes but it is not a way to price your stones. Your supplies, operating expenses, and profit all go to figuring a price, and then for opal, what does your gut tell you.

Don at Campbell Gemstones < Campgems @aol.com>

Subject: RE: Opal Price Guide Susan,

Downing's opal-pricing methods as described in his book are excellent. But experience has shown me (as well as others, apparently) that the prices listed in "The Guide" bear very little resemblance to those in the marketplace we sell in: they are a LOT higher, IMHO. But maybe you have a different market; you have to adjust your pricing to be realistic for the buyers you hope to attract. Downing's pricing system, while far from perfect, is a valiant attempt to systematize a truly mind-boggling problem. If I wore a hat I'd take it off to him. By and large, opal pricing boils down to experience and instinct, and Downing has provided at least a framework to begin from. If you cut a lot of opal you begin to appreciate how rare truly fine stones are, and develop a sense for the gradations of value: brightness, pattern, colors, base potch color, etc., etc.

As for the cost of opal per gram/carat, this is mainly a way of thinking about comparative values. If you think you might buy some \$500/oz. rough at a show, it's easier to decide whether you can sell it with your normal mark-ups for labor, etc. by quickly dividing 30 into 500 and realizing your cost FOR MATERIAL ONLY will be around \$17 per carat (cost per gram is the same as cost per finished carat, assuming a yield of 20%, about 30 carats per ounce, -- a figure I've found to be pretty reliable over the years). Bear in mind there's a big variable here: all the cut stones from a parcel won't be of the same size, quality or value, so we're talking about averages. But I have found this simple formula to be of enormous help in buying rough.

If you have questions about whether cut stones from a parcel (as above) will sell for the cost-plus-labor & overhead figure you arrive at, check around for cut stones at that price and see how they compare with the rough you're considering. Figure that most of the prices you'll see are retail. "Wholesale" is usually extremely variable, depending on the quantity purchased.

Rick Martin <RI-Orion @postoffice.worldnet.att.net>

Subject: RE: Opal Price Guide

I have to agree for the most part with comments already expressed, however, beauty, expense, effort and presentation have little to do with value. Pricing anything that contains some of ones artistic expression is a teeth gnashing and hair pulling experience at best (I've been doing this a while and am running out of both).

If your stones are compared to available products a fair estimation of value is achieved, an independent appraiser can sometimes do this and the insurance replacement value they use would be close to double what the stone should fetch. Of course gut feelings can make a higher or lower asking price.

Dr Downing's works are generalizations as are all textbooks, taking that into consideration they are excellent volumes and quite corrects in content. A specific stone however needs specific interest to be understood. Rough Stone dealers are not philanthropists and they price their goods according to what they believe the yield will be. With opal this doesn't always work as sometimes the good stuff is hidden: a recent sale of a fine chunk of Coober Pedy white with extensive sandstone covering for \$1600Can revealed an incredible harlequin broad flash semi-crystal valued at \$50,000Can.

I sincerely recommend you make an appointment with a local appraiser or two and take a few of your stones that cover the range of what you own, your own master set as it where. DO NOT bother with written appraisals, but listen carefully and take notes. I guarantee it will be the most useful 20 bucks you've parted with in a long time.

Anthony L. Lloyd-Rees, <u>cutter@paralynx.com</u>, Website: <u>http://www.opalsinthebag.com</u>

This chain of emails is from the Lapidary Digest (administered by Hale Sweeny (hale2@mindspring.com), Issues #136 through #139, April, 1998. AOS Editor

Fine Black, Boulder, And Crystal Australian Opal Gems

## CANDIDA OPALS

Is The Exclusive Importer For DJ Oldfield Pty. Ltd. Of Queensland, Australia

Cutting opals since 1967.
All Gems Guaranteed Crack-Free.

Call / fax 415-221-7446 for more information.

Visit us at the

Tyson Wells Rock & Gem Show Quartzsite, AZ

Jan. 4-13. 2002. Row K. Space 21.