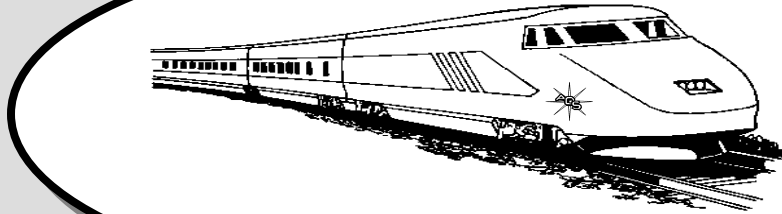


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Table of Contents

President's Message	1
Last Month's Speaker: Meg Berry	1
Sixth AOS Live Auction on June 9th	1
Bidder Agreement	2
AOS Live Auction Rules	2
Members Only Website Password	2
OpalSociety Group on the Internet	2
Cutting Phenomenal Stones	2
Chapter 5 – To Sydney and back to Andamooka	5
Chapter 6 - The Disappointment	6
Which Gems Are Of Organic Origin?	7
June 2011 Gem & Mineral Shows	7

President's Message

By Pete Goetz

How' do? as the green man from The Mask once said, Its time to raid your garage, closet, drawers, old boxes or anything else you might have some forgotten treasures tucked away. It's that time again! What time is it? (No it's not Howdy Doody time)?? **It is auction time!** Yes once again it time for the infamous LOVE OPAL AUCTION. This is a place where you have the opportunity to garner the most fantastic deals this side of the Crab Nebula. Invite your friends from other Rock Clubs (OK, invite your mommy, daddy, aunts, uncles, people next door - don't know how to spell neighbors-sisters, brothers and/or anybody else you can think of.) Where? This Thursday 7:00 pm, corner of Chapman and Gilbert.

Back again, by popular demand, the golden auctioneer styling of none other than Loose Lips Lambert. His auctioning style has dazzled many from Here to Eternity. Soooo, bring some stuff, bring some money, and have a good time.

Not wanting to bring this happy occasion down a little, but we don't want to forget the OPAL Show. Jim might have some contracts and flyers to stuff, lick and stick. See you all there.

Last Month's Speaker: Meg Berry

Renowned Gem Cutter & Carver Meg Berry was May's speaker for the AOS General Meeting. Meg will presented her "Phenomenal Stones" talk, which will include discussion of opal carvings. She showed us two additional presentations, one on cutting beryl, the other on cutting the Atocha emeralds. Meg's writeup on Phenomenal Stones is included later in this issue. Definitely read it!

Sixth AOS Live Auction on June 9th

The AOS will hold its sixth AOS live auction, on Thursday, June 10 at our general meeting at 7:00. The auction will be fun, and "fund-raising," so come and snag a bargain while supporting your



Meg Berry at the Clubhouse

club!! **There were many great bargains to be had at the event last year!**

Don't miss a chance to buy or sell opal rough, cabs, books, tools, display cases, and other neat gem stuff when members may bring up to 5 items each for sale, as long as they are gem-related, and are approved by the AOS Board of Directors. You must be an AOS member to sell at the auction, and you must sign a vendor agreement, printed here for preview. Vendors must donate 10 percent of the final price to the AOS, and will be paid after the refreshment break prior to close of meeting. We will arrive at 6:30 to help vendors prepare their items. If you have items for sale, please come early, and allow us to assign a Lot Number, any minimum "Reserve" price you may request, and log your items into our computer for easy checkout later!

Bidders may be members, or visitors, provided they have a photo ID like a driver's license, and are willing to abide by Bidder rules. You must have an official bid paddle to bid, so sign up early when you first get to the mtg. Copies of the Vendor Rules and Bidder Rules will be made available at the signup table when you arrive.

If you want to bid, you must sign in to get a paddle, and agree to the Bidder rules, which state that all items must be paid for prior to close of meeting, the highest bid wins, all sales are final, no returns or refunds. The AOS auctioneer has final authority to determine the high bid, and can accept or reject any bid at AOS discretion. Bidders cannot bid for another person, and must pay for and remove their auction items prior to the end of the meeting. Bidders are not permitted to loan their paddles to others.

Proceeds from the live auction will go toward AOS activities like our annual show preparation and advertising. Please be generous with your bids, and get a bargain at the same time!

Bidder Agreement

TERMS AND CONDITIONS

By signing Bidder Agreement Sign-Up form, and accepting bid paddle, bidder agrees to the terms and conditions of the American Opal Society's auction rules and regulations, as described herein, and any laws of the State of California that may pertain. Bidder agrees that auction bid constitutes a legally binding contract and that s/he is obligated legally to pay the total amount of his bid(s) in full to the American Opal Society, henceforth to be known as the AOS, at auction close, in cash or check (with photo ID), prior to taking possession of any auction item(s). Bidder agrees NOT to bid on his own items, nor act in the capacity of a shill or confederate with regard to any other auction vendor, bidder, or item presented. Bidder agrees that s/he is at least 18 years of age, and enters into this agreement willingly, and has read this agreement in full, that he has carefully examined all auction items, and that all items are sold "AS IS, WHERE IS," with no warranty implied or expressed, CAVEAT EMPTOR. Bidder further agrees that by his signature, s/he agrees to indemnify and hold harmless the AOS from any claim resulting from auction or auction item(s). S/he also agrees that any claim at all shall be arbitrated by an ombudsman mutually agreeable to both parties, and who conducts business in the County of Orange, California.

AOS Live Auction Rules

1. Winning bid is final, and all sales are final, no returns or refunds.
2. High bidder awarded possession of auction item(s) at the sole discretion of the AOS designated auctioneer and the AOS Board of Directors.
3. Winning bidder to take possession of any and all items s/he wins immediately after payment in full, and prior to auction close, at his expense, and remove said items from the auction area and the building prior to the end of the scheduled meeting.
4. The AOS reserves the right to accept or reject any or all bids made.
5. Bidder will not transfer or loan or assign his bid paddle and rights to any other party.
6. Auctioneer may, at the discretion of the AOS Board of Directors, bid as any bidder would, and agrees to abide by same terms, conditions, and rules stipulated herein.

Members Only Website Password

To log onto the website's members only area at: http://opalsociety.org/aos_members_only_area.htm type: Name: "member" and Password: "opallover".

OpalSociety Group on the Internet

The American Opal Society has an on-line e-Group called "OpalSociety". It is for members to communicate on club activities and as a discussion forum for all things opal. It is located at <http://groups.yahoo.com/group/OpalSociety/>.

All members are invited to join and by clicking on the button "Join This Group" on the web page to join.

Cutting Phenomenal Stones

By Meg Berry

Phenomenal: Extraordinary, remarkable, or displaying unusual optical effects. Any way you look at it, phenomenal stones are a "marvelous" experience. In order to understand the selection and cutting of phenomenal stones, one must understand the causes of these effects. There are three types of phenomena:

- 1) Reflective; which is caused, and observed, by light bouncing off the surface of the stone. Included in this type are; Chatoyancy, or Cat's-eye effect, a band of light reflected in a straight line across the top of a cabochon; Asterism, or the Star effect, a many rayed star centered over the top of a stone; and Adventurescence, a bright or colored reflection from a translucent stone or gem material(carving or bead).

2) Selective absorption; this is caused by a gem material selectively absorbing and transmitting separate wavelengths of light from different sources, thus appearing to have two distinct body colors when observed under the various light conditions i.e. Incandescent vs. daylight or fluorescent.

3) Interference; changes or variations of color produced by minute layers in the structure of the stone. This causes a variety of reflection and diffraction of the light entering a gem, producing changing wavelengths returned to the observer's eye. Included in this type are: Play of Color, as observed in opal; Labradorescence, as found in labradorite feldspar; Iridescence, seen in fire agate, iris quartz or any material with minute fractures or inclusions producing rainbow interference; Orient, as seen in pearls; Adularescence, also called Schiller, the sheen in moonstones; and Girasol Effect, a movable or billowy light seen in many species, such as quartz, corundum, opal, and others. This is similar in appearance to adularescence, with the notable exception that it is not directional.

Opal

When selecting rough opal, you should ask many questions. Is the colored area large enough to work with? Does it appear in a thin band or a thick area? How big will this gem be? Are the colors pleasing? Are they the ones I am looking for? Is the stone still embedded in matrix, and if so, can it be removed intact? Will there be matrix left in the finished piece? What kind of color display am I expecting? Broadflash, Pinfire, Harlequin, Crystal, and does it display in the piece now? How stable is this rough? Is there any crazing or cracking apparent in the rough? Can I afford it? What return can I get on this investment? Is this the elusive Black Opal? Will it make me happy?

Most of these questions can be answered with intense scrutiny of the actual rough. Rough opal should be viewed and reviewed before buying, if possible dry as well as wet. Do not expect opal miraculously to improve after cutting. The fire is usually arranged in layers, and thought must be given to the shaping process, as these layers can be completely removed while pursuing symmetry or a pleasing conformation. Fire that appears to be lurking right below the surface could improve when the interfering material is removed, or it could remain only a promise as one makes the piece smaller and thinner while pursuing it. Matrix or "potch" (unsightly massive opal) could be lying on top of exciting layers of fire, or could pervade the entire piece, never allowing a fine gem to be produced. Pessimism should accompany the novice buyer at all times. While not all opal rough is a bad deal or an unwise purchase, until you have spent a lot of time cutting opal from rough, you should count on getting low yield and having a high scrap rate. In addition to the naturally difficult process, every cutter is going to experience a very steep learning curve. Even if you aren't starting at the bottom, there are pratfalls and errors lurking around every bend.

Cracking and crazing are big problems with opal, and seem to be determined by many factors. The spaces between the microscopic structural spheres can be filled with air or water, and it is widely believed that the loss of this water, by evaporation or leaching, is the cause of crazing or a multitude of tiny cracks. This is why most opal dealers store their rough in water or a light silicon liquid. It is my experience that if an opal is sound, it will remain intact unless subjected to debilitating heat or intense light. It is difficult to predict whether rough opal has a solid structure unless it is stored dry for a lengthy time period. To create the opal presentation for this seminar, I was fortunate to acquire several pieces of opal rough from a man who spends several months every year in a hole in Australia, but is not a commercial opal dealer. He keeps his rough dry for the very purpose of finding out if it will craze. The pieces I obtained have been out of the ground dry for 2-3 years and display no crazing. I have also been fortunate to work with several pieces of top quality black opal which had been stored dry for several years after purchase, and now more than a year after cutting have not crazed. If it is necessary to store your opal wet, that is very limiting as to how

much you can wear or display it. If you let a piece of opal rough dry and there are some wet lines or rivers that are the last things to disappear, this indicates deeper cracking. Surface crazing on your rough can sometimes be ground away, but is an indication of a tendency that cannot be removed.

The color in opal is caused by many layers of regularly arranged, optically transparent spherical particles of amorphous silica, and from the voids between these particles. Only pure spectral colors can be produced by this effect, and are determined by the size of the three dimensional diffraction grating, a function of the size of the spheres and the voids between them. This will not change during cutting, so a stone that displays mainly one color will not appear significantly different no matter how well it is cut. Reds are considered the most desirable, then orange, yellow, green and blue, in descending order. This is, of course, subjective.

Cutting Opal

Opal can usually be subjected to the minimal heat required to dop with wax, and if it cracks during this process it was probably doomed anyway. Cold dopping with epoxy is always an option, however, releasing it involves the use of solvents, which some believe leaches the moisture and leads to crazing. It is not wise to use extremely rough laps for the rough grinding, nor should the wheels be run too fast. Too coarse a grindstone or too much surface speed will tear the surface, and if continued, will destroy the gem. All cutting wheels referred to are diamond laps. Only large pieces which need a lot of mass removed require anything coarser than 600 grit. A worn 260 grit lap run at a moderate speed is adequate for this rough grinding or preforming work. A 600 or 1200 grit wheel is fine for the final shaping step. All cutting should be done with plenty of water as a coolant and lubricant. This is the time that all final decisions should be made regarding which color layers to include and what to remove. The sanding steps are performed with diamond impregnated pads mounted on a soft backing, and as there is no real control with these, they should only be used to remove the scratches and flat spots left by the grinding phases. I would start with a 600 grit pad for this step, then proceed to 1,200. Polishing opal cabs with diamond always seems to leave minute scratches in the finish, so I use a soft fabric pad (Poly pad) with a wet slurry of "Linde A" for polishing. Do not run the wheel too fast. Rushing the polishing can lead to burning or cracking the surface. The back should be finished with a nice shape, and have a matte or polished finish. Do not leave any sharp edges, as they will probably chip. Cerium Oxide also gives a nice polish on opal, but I don't use this compound for anything and don't keep any in my shop, due to its carcinogenic qualities. If you are a little nervous about heating a finished opal again to remove it from the dop, a good trick is to put it in the freezer overnight. The wax "sweats" and produces a layer of moisture between the stone and the wax, and it falls right off the dop. Keep the whole work piece in a separate baggy or it will freeze to any surface it lands on. This trick works with any wax dopped stone.

Carving opal is a very rewarding method of finishing this lovely material because you can chase the fire without having to conform to a symmetrical cabochon shape. The technique and tools are basically the same, with the same rules for coarseness, tool speed, and water. I complete the prepolish stages on opal carvings with bamboo sticks and an applied diamond paste. This is an oil based process, and I have been told that it should not be used with opal; however I have not experienced any problems from it. Small hard felt wheels with a Linde A slurry are fine for polishing. A final polish with 50,000 diamond is a nice touch, use felt wheels. Opals are very vulnerable to grit contamination problems, and care should always be taken to prevent this. Clean the piece well between steps.

Fire agate is a similar cut, with the priority being the color. Being an agate, it can be preformed with coarser wheels and higher speeds, without the shredding. When the fire areas are approached, you should slow down and move to a finer grit, so as not to cut right

through them. It is most often carved, or cut en cabochon with a carved surface. The limonite inclusions that cause the iridescence in fire agate don't follow any rules. The best stones are produced by following the color, usually with small carving tools. They can be sanded and polished like any other chalcedony, with diamond or Linde A, without too much concern for heat buildup. The purple tones are considered the most desirable.

Labradorite's colors are caused by very thin plates of repeated twinning in the feldspar crystal. It is very directional, so great care must be taken to locate this direction and place the bottom of the stone parallel to it. Once the colors are located, almost any shape stone will show them off, depending on the piece of rough. Care should be taken not to generate too much surface heat during polishing. This is a popular carving material, due to its attractive appearance and relative softness.

Reflective Phenomenal Stones

Rough gem material with adularescence, aventurescence, chatoyancy, asterism, or girasol effect is usually recognizable by a sheen that appears on the surface of the stone, usually with a directional orientation. This rough, and the finished stones for that matter, are best observed with an overhead, single beam light source. A diffused light source, such as a fluorescent tube, will not give you any useful information. The rough should be moistened with water or a light mineral oil, and observed from above, with the light directly overhead. The observer's head should be as near to directly above as is possible without blocking the light. The piece of rough can be rotated or maneuvered in this position until the surface sheen is observed. The surface where this is seen the strongest should correspond to the top and bottom of your stone. It can be marked, and then the surface is roughed in, repeating the process until you are certain you have it right. Sometimes the optical effect disappears during cutting and you have to rely on your original orientation.

If you are pursuing a star, there are other methods to help guarantee correct orientation, which is essential. The rough will display a sheen on the surface on two sides, opposite each other. One method is to place a large drop of a heavy viscous oil on top of the rough piece as near to this plane as possible. This will work as a resolving lens and give quite a clear view of the phenomenon hidden in your gem. The absence of this result is not a guarantee that there is no effect, but if it is there, you will know you have a winner. Physical characteristics should be closely observed to help locate your star. The minute needles that cause the effect are visible in many types of asteriated rough. In the star stones in the hexagonal system, corundum, quartz, and beryl, the bottom of the stone should be parallel to the basal surface of the crystal. The silk will then be layered in this plane and cross itself at 60 degree angles, producing three crossed lines, or a six-rayed star. The appearance of these lines is caused by the reflections of the ends of these inclusions, focused by the dome shape of the cab. More than one star stone can be cut from a single crystal if it is large enough. Simply slice the stone parallel to the base and orient all stones in the same plane. Unless you are absolutely sure that the orientation is perfect, a little pre-grinding is helpful to ensure that you get it right. Better some trial and error at the beginning than an off center star at the end. Locating the star on a garnet is a little more difficult because of the cubic system, but a good light and a little trial and error will get you there. Diopside is similar to garnet in most ways, with the star being easier to locate.

Once you have successfully located the base of your stone, it is time to dop. I will start with a flat back if it is feasible and doesn't waste any valuable material. If not, I locate the center of the star and mark it with a black dot. Then I dop it until I am satisfied that the dot is perfectly centered over the dop. With corundum I use an epoxy dop, since too much heat is generated during polishing to use wax. On the softer stones, the wax is easier to use, giving you many chances at centering the star. I start almost all cabs, especially stars,

on my faceting machine, as this gives me the most control over shape and profile. Many asteriated stones have a big difference in hardness in some directions, leading to "soft spots". This can cause low spots and a deformed shape on hand held stones. I simply cut the profile at 90 degrees, establishing the girdle and diameter. On most star stones, up to 25% of the stone is expected to be below the girdle, creating a reflecting lens to focus the star. On opaque material this is unnecessary, and the shape is at the cutter's discretion. I then cut a series of step cut facets establishing the profile of the stone, usually 24 facets around at 75, 60, 45, 30, and 15 degrees. This creates a pleasant profile which can be adjusted for the size and available material. Remember, the purpose is not perfectly matched facets, but ultimately a nice rounded shape. The dome should be gently shaped, with a nice curved top. This is the focus of your star, and it will be lost if the side are too steep or the top is pointed. This final cut should be done on a 1200 grit lap. After I am happy with the form of the stone, I remove it from the faceting machine and gently round all of the facets into my final cab shape. Care should be taken to remove EVERY flat spot, as this is the last grinding step and you are ready for sanding and polishing.

Sanding and prepolishing are done on diamond impregnated pads with a water lubricant the same as any cabs. After this "prefaceting" process, the sanding should start with 260 grit. Remember, this is where human error first enters your work, so watch out for those soft spots and don't try to change the shape, or it will end up lopsided. Sanding should proceed with 600 and 1200 grit wheels, then you are ready to polish the softer stones, i.e. Anything but corundum or chrysoberyl. Linde A is a terrific polish for quartz, beryl, garnet or almost any other cabs. It works best when the stone gets a little hot, but not too hot, so a little less water than with opal. Star garnet is quite sensitive to surface heat and should be kept quite cool during polishing. When finishing a corundum cab I will switch to diamond wheels with an oil based paste beginning with the 600 grit. This allows the cutter to apply more diamond when needed, and generate more heat, creating a "flow" finish. On smaller stones it is possible to skip a few steps, jumping from 600 to 3000 to 14,000 finish, but on the larger ones, you need to hit every step. This would be 260, 600, 1200, 3,000 and 14,000. A final finish of 50,000 is always a nice touch, but if you have truly flowed the finish, it won't make much difference.

After the top is done, it is time for the bottom of your cab. If the stone is transparent or translucent, a curved bottom will help focus the star. A shallow dome is fine, on some very clear, elongated rubies or sapphires, the bottom may be almost as deep as the top, to preserve weight, as well as intensify the star. Traditionally, this bottom surface is left with a matte finish to help accentuate the star, but it should still be well shaped and semi-finished to show quality work. If the gem is opaque, the shape of the bottom is your preference, but should be nicely finished.

Chatoyancy

Chrysoberyl cat's-eye is usually transparent and the sheen method as well as preliminary shaping are often necessary. The eye falls in a plane, and would rotate all the way around the piece if it were cut in a sphere, so you have more discretion than a star in choosing the optimal orientation. These gems look their best with a high dome and about a 25% bottom, with a matte finish. When the eye is diffused instead of focused, it is referred to as cymophane. Chrysoberyl should be treated the same as corundum during cutting and polishing.

In most other chatoyant gems, the needles that produce the eye are visible with minimal magnification. In the crystalline materials, they run parallel to the sides of the crystal. The cab should be oriented with the bottom flat against these needles. As the top is domed, the eye will appear perpendicular to the needles, so the long dimension of the cab should also be positioned in this direction, if possible. If the needles are not visible, the sheen should be located and carefully marked prior to dopping, as it often disappears while

being cut. The cat's-eye cab should be cut with a fairly high dome, to accentuate the eye as well as save weight. If the dome is too shallow, the eye is diffused, appearing more as a sheen. In the tiger's and hawk's-eye materials, this is about all you can expect, and is expected. With the exception of the highly porous cat's-eye material, such as tourmaline, the cutting and polishing procedures are much the same as star stones.

Tourmaline cat's-eyes are often caused by negative crystals, which leads to unique cutting requirements. Often these holes penetrate the entire crystal, effectively acting as straws. Whenever possible, the needles should be located as close to the base of the cab as possible. If there is a clear area, the needles at the bottom will reflect through it, causing a very attractive, almost clean appearing stone. Once again, the long direction of the cab should be perpendicular to the needles, creating a long eye. It is possible to cut more than one cab from a single crystal. The exception to this is the bicolor cat's-eye. The eye should be located at the color separation, limiting the yield to one bicolor per crystal. If the rough is long enough, additional single color eyes can be cut.

Sanding and polishing of stones with hollow inclusions should be done exclusively on permanently impregnated pads, with plenty of water flowing. This prevents the crystal from sucking the polish into the tubes creating unsightly stains that are almost impossible to remove. These pads are quite efficient for sanding, and should be ordered 260, 600, 1200, 3,000. Polishing with them is a little tricky, as they don't allow for any surface flow, which is usually the best way to polish tourmaline. To achieve a first rate polish, 14,000 and 50,000 grit pads should be used. If the tubes are extremely large, epoxy should be used instead of dop wax, as this is very difficult to remove. If the bottom of such a cab has been contaminated in this way, after completion I will hand hold the stone and recut and sand a thin enough layer to clean it up. A fairly deep bottom helps focus the eye on transparent stones.

Selective Absorption

Color change gems should be faceted the same as any other gems, with the orientation of the rough being the only complication. Garnet, being isotropic, has no particular requirements in this aspect and should be cut for the best stone with no special care being taken for orientation. If one is fortunate enough to have a piece of rough alexandrite, the color change should be observed under the optimal conditions. The cutter should turn the stone in every direction under two alternating light sources to find the best direction of color change. This is where the table should go. If there is a conflict between this orientation and that which will produce the larger or better stone, forget the color change and cut the gem. The difference in most such stones is not worth sacrificing weight or beauty. Alexandrite polishes best for me on a ceramic lap with 100,000 grit diamond spray, spinning slowly.

Adularescence

Moonstone is the most common of the adularescent stones, with sunstone and the other feldspars, and obsidian following. The best stones are produced by locating the sheen and placing the bottom of the stone on that plane. Any shape profile is acceptable with a moonstone, and a high dome gives the light a chance to really strut its stuff. The sugarloaf shape is quite popular and if the orientation is perfect, the stone may display a pinpoint of light with curtain-like rays descending the sides. If a cleavage plane is encountered while cutting moonstone, it can often be eliminated by changing the direction of contact with the wheel. Changing the angle of that surface by about 10 degrees is helpful. If this is not possible, moving to a finer grit on a very slowly spinning wheel might help. Moonstone and obsidian both polish well with Linde A.

Aventurescence

Aventurescence is non-directional, so these stones can be cut simply for the best display, be it color, shape clarity or size. No special care need be taken.

Orient

Pearls displaying orient are traditionally, well, pearl shaped. Surface blemishes and the overall finish can often be improved on a felt wheel with "Zam" or rouge, although the red may affect the color slightly. Wax dopping is not a problem, if heated conservatively. Faceting is a contemporary way to show off a beautiful pearl, and relatively simple if the nacre is thick enough (at least 2.5 mm.). Cutting can be done on a 1200 grit lap. The best polish occurs on a slow phenolic lap, with rouge for the blacks and grays, Zam for the whites.

Girasol Effect

Girasol effect is simply an out-of-the-ordinary appearance in a normally ordinary stone, and can be cabbed or faceted to its best advantage. HAPPY CUTTING

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Continuing with Chapters 5 & 6 of the book

From Rags to Riches & Disasters

By Peter Greisl

Chapter 5 – To Sydney and back to Andamooka

It was the fastest trip ever made, we arrived in Sydney on Monday 10 pm, dirty unshaven and totally worn out.

Chris my wife had a shock when we walked in she thought something was wrong, so we had a cup of coffee and sat at the kitchen table and told her and Herman's wife of our experience also showed them the opal and told them the value.

Then came the explanation of why we here and what we had in mind, after them listening very intense, Chris said " I rather be with you and slum it for a while then being here with Beatrix (our daughter) alone, but what made you decide to choose opal mining with no sure income over such a good paid job ? "

I explained to her my reasoning that if I can find in a couple of days about \$ 150 to \$ 200 dollars and having just scratched around and not seriously mined, what would it like putting in 6 to 8 hours per day for 5 days you never know what I could find (obviously it was the wrong reason). She said "You do know we have limited funds." I said "I do realize and you know me, I would never put the welfare of my family in jeopardy, I still have \$ 800.00 and we have in the bank about \$ 2,000 and what my plan is, Herman to stay back and sell all the our stuff and his and then joins us in Andamooka, and I am sure at the worst scenario we should get about \$ 3,000 for everything so we should be ok for quite a while, and as soon as you settled in I start working on our claim."

Chris asked me when we would be going back to Andamooka, I replied "in about 6 hours enough for me to have a quick shower and hit the sack for a couple of hours and for you to pack what you need for Beatrix, yourself and a few more clothes for me." "Hilda said anything we cannot sell what would you like me to do with?" I said "call the Salvation Army to collect whatever is left including any clothes we not taking with us. Just let the Landlord know when you ready to go since we are on a week to week tenancy there should not be any problem, just make sure you hand back the flat in a spotless condition, you never know, we might need references in the future."

I had Shower and hit the pillows and was out like a light, at about 6 am Tuesday Chris woke me up and said "We are ready to go". I grabbed the 4 Suit cases and took them to the car had a quick cup of coffee and we were off at 7 am. Chris made some sandwiches and a thermos of coffee plus some munchies for the trip and were heading west towards Broken Hill and on to Port Augusta and final destiny Andamooka Opal Fields.

Nothing happened on the journey, the daughter was very good, the only thing was I did not have a break with driving as Chris did not

drive we stopped just for toilet purposes and a decent meal on Tuesday evening at a truck stop. I made sure every time I got weary I pulled over and kipped for a couple hours and resumed my driving. Chris was very concerned when we drove from Woomera to Andamooka about the Red Bull Dust, Beatrix was quite happy looking out for kangaroos and emus and every time she saw any of these animals she let out a scream of sheer delight. Finally after 28 hours we arrived at Andamooka which was Wednesday 11 am.

I watched Chris's facial expression as we drove in to the center of the so called town. We drove past Guss's and to the Co-Op also past Johnny Lyons Shop, the post office etc. She did not say anything but I read her mind which was full of disappointing thoughts.

As usual Rudi was there and he had one of his drinking buddies there whose name was Scottie as he was a Scotsman. They both said hello and welcome to Chris.

I said to Chris let's just go into the store and pick up a couple things like bread, milk, eggs, and a 5 Gallon drum of kerosene, Chris asked "What's that for?"

I replied "for the Fridge." She looked at me stupefied but I did not continue with this subject.

I also introduced Chris to McCallum he was the Co-Op Manager a very nice man. After having our goods we were heading towards Dutton Village.

On the way I said to Chris, "Darling it is very rough it is a Tin Hut just like the one we moved in to the hostel upon our arrival in Sydney when they took us with the Bus to East Hills near Liverpool, the only difference is this place here is very primitive, like the Stone age nothing like the Hostel."

I knew it was a shock to her but her love for me made it possible for her to sacrifice.

As she did belief in me and I never ever broke any promises I made to her.

We arrived at the village and I parked the car right next to our Hut.

The door was unlocked as I had to provide a padlock to lock it up when we both went out it had a safety latch inside.

Chris got out and just turned around and looked in all the direction of the valley and noticed that there were very little activity, I told her most of the people were single men and they are out working in their mines.

We went inside and she looked around and just said, "Well it has to do, I know it is not forever." Once she got acquainted with the place she got me to bring the Luggage in and said, "Well I better get the fire going to make us a coffee and prepare some food for Beatrix."

You could have knocked me of my sox, I thought there would have been a big session about she wants to go back to Sydney etc, but no she took it very well.

Jack Dutton put in while we were gone a small bed for Beatrix and a cupboard with 4 drawers and one extra chair. It was a bit cramped but ok.

I told her that I will start working on Monday and take the next few days to set up the place and get for her whatever she needs to make this place more livable.

Later this afternoon some of the people returned and they seen us walking in and out of the place, in the part of the village where we were there was about 12 Huts, most of them were the same size as our except for a couple which were considerable larger than ours and in them were one couple living by the name of Stella and Steve he was Greek and Stella was Australian. In the other one were two brothers living and they were from the UK.

We met most of their acquaintances and seem to be very nice people.

The next couple of days Chris got some stuff to dress up the place a little, put new curtain around the shower and curtains on the couple windows the place had lino which was on the dirt floor, she worked very hard and did a great job. I had the entire problem with the kerosene fridge to get it going, I had to ask one of the neighbors if he

could help me to get the bloody thing working which he did. So by the next day we had a working fridge. I drove towards Stuart Creek as this was the only place where there was still vegetation to get fire wood. I chopped and sawed and filled the car up with wood so we have a supply for a few weeks. The car was already a mess with all the abuse and it was not a car you use on the opal fields as a work car.

Every time we had our shower, Chris heated up some water and mixed with cold water in the bucket and we had short but warm showers. The couch/bed was not too bad, and we did get a breeze during the night and as it was already July the weather was not hot and the wood fire kept us quite warm.

The Greek fellow Steve invited us in one evening for coffee and we went there and he asked all the questions about who, what, why, and how. I had no secrets so I told him of what I was going to do and he then showed me some of the buckets he had there with lots of stuff in it and some looked quite good, lots of nice painted ladies and seeing this got me really excited.

Of course not knowing any values, and every time I picked up a piece from one of his buckets which I thought was very nice he kept saying just rubbish.

Over the next couple of days Chris met Gus and Lottie from the opal restaurant, and some other people at the post office etc, and everyone made her and me very welcome and wished us good luck, the majority of people kept telling me the Tee Tree hill was mined out, I told them I had no possibility and start sinking a shaft in new ground I just have to make the best of things till I am more financial and then get a drill in.

Well on Saturday Jack Dutton knocked on our door, as he seen the car parked there and he said that every Saturday he has a few sides of Mutton which he sell to the tenants and ask me if I would like one. Being a qualified butcher by trade I said yes I have one and he charged only 4 Pounds 8 Dollars for it.

Well that sorted out the meat problem as the meat at the Co-Op which had a butcher department and also at Johnny Lyons was very expensive.

I dressed the Mutton in to Chops, Roasts and stewing/soup meat.

So we settled in to our new habitat and I was ready to go to work on Monday.

Chapter 6 - The Disappointment

Well Monday was here Chris got me out of bed I dressed and had a quick bite to eat and I was ready for action, as walked out the door she kissed me good bye said "Please be care full you are on your own and no one there if anything should happen." I assured her I will be and told her I am just scratching in the tunnel walls.

I went down to the co-op and got petrol for the car and off I went to the claim.

I got out of the car grabbed all the Gear which I picked up from Klaus and Ludwig on Sunday and threw it down the shaft except the Lamps.

I climbed down and had a real great feeling about the whole thing; here I am in my own Claim, on the Andamooka Opal fields.

I lit my Lamp grabbed my pick and the shovel and my bag and screwdriver and proceeded to the spot where I dug out the piece of opal, I dug bit further into the wall where the slip was and kept digging, I had to move some dirt which I shoveled into another tunnel so I can move again. I was very soft to dig but it produced nothing what so ever, not even potch, I stopped working at the slip and continued and followed the seam along the wall which got wider and I started to dig deeper in to the wall about a foot and there it was my first result and that assured me I was working the opal level, I dug out junks of colourless potch pieces about the size of a matchbox but no noticeable colour. I was working along the wall for about 20 feet and that was when the tunnel stopped at the of it the was a big pile of dirt which I assumed was from a blast with Gelignite.

I decided to work the other side of the wall back to where I started near the shaft.

Before I did this I inspected the claim closely and I found there were Tunnels which were going in 4 directions.

That pleased me as I had a lot of possibilities left to maybe find something. There were two pillars which supported the roof at the start of these tunnels. They were about 5 feet in diameter and each pillar showed a opal level, but I did not touch them at the moment, being warned of the danger of a collapse.

I must have spent at least 4 hours working the slip and the seam on one side, so I sat back grabbed my linen bag which contained a couple of sandwiches, Vegemite and Peanut Butter of course and a thermos of coffee. I indulged this feast and was thinking, I wish Herman was here so we could really get stuck into it. But he was not hear so I got up and continued along the other side of the wall and the level got thicker and thicker but did not produce anything, Just as I was level with one of these pillars I found a bit of colour, very small, and when I looked across to the other side where I was working the slip, I noticed the level in the pillar was the same height as the slip and also on the side I was working on now. So I started thinking, I wonder if the slip went right across here, and my conclusion was the there were traces in the wall I was working and they were the piece I got before. So I thought to myself I wonder if it there is a nice parcel in the pillar. I got my pick and kept working on the wall and of course the same scenario, I got some potch nice big pieces but again no colour.

I thought maybe if I get someone experienced to look and give me some advice what I should do and in what direction I should work, at the moment I have no Idea what I am doing I am just scratching around like a blind chook.

I decided to pack up, got my bag full of potch and headed for Gusses it was already 3pm the afternoon to check if Klaus and Ludwig were there I will ask them if they can assist me.

I drove to Gusses place and I was lucky, since Ludwig does like his drink after work they both were there, I told them I would like to pick their brains if I may and they agreed and I said I just pick up my wife and daughter and come straight down if they would wait, they agreed, so I went home and said to Chris we go down to the Opal Restaurant and meet with a couple German Miners as I have several questions and they will try to answer for me.

Chris just threw on a pair of Jeans and I got Beatrix and we went.

We arrived, they have moved to a larger table so after the introduction we sat down and exchanged a few pleasantries, Klaus asked Chris how she feel about the situation, she just answered "well it was Peters dream to go opal mining and it would be wrong for me to take away his dream, I know it will not be forever, and when you love someone you can put up with all sort of discomfort."

That satisfied them and Klaus said "Ludwig has his wife joining him very shortly she went back to Adelaide to look after her sick mother." Ludwig said "Peter what is your problem or questions you have?" I replied "before I ask can you tell me how long you have been working on the Opal fields, and have you been working in other places then White Dam?" Klaus said we been here now for 3 years but we go back to Adelaide every year before Christmas in other words before it gets really hot." After a drinking pause Ludwig continued "we have been working several areas here in Andamooka." I said "I am very pleased because my questions are about areas and levels and slip etc."

I started explaining what I have done and what my observation is and am I right in my assumption?

I explained about the pillars etc, and Ludwig said "many nice parcels had been left in pillars and got only discovered by putting in a Cut which not a lot of people could afford," I ask him to explain what a cut is which he did, he also told me about share cut which people ask the dozer owner to do when they were fairly sure that there is opal which cannot be accessed any other way they will split 50% with him.

I said to them "would it be possible for you to come to my claim on Tee Tree Hill, and have a look, and maybe advise me if I am wasting

my time or which way to attack the matter." Ludwig smiled and said to Klaus but it was directed at me"

What do you think Klaus shall we educate this Austrian"

Klaus said "I think so maybe one day we need help with something".

"We meet you tomorrow morning at 7am here and we follow you."

I thanked them and we just chatted and I took in everything they told me,

Chris was very impressed and paid attention to what they were telling me.

She said to me, "I feel much better now that you get some advice from experienced people." I replied with "I wish Herman was here". "She said "I got a funny feeling about this; I would not be surprised if he would not show up". I said "What made you say that?" She said "The way Hilda was going on she would never move up to Mount Isa, all in all she was very negative and made always sarcastic jokes about the Opal mining etc".

I just said to her "well it's his loss if that's what he wants".

As we arrived at our hut, Steve and Stella was sitting outside drinking coffee and asked how we are, has Chris settled in and how she liked it. We stopped for a while and exchanged niceties and Steve ask me how the mining is going, I told him slow but I will get there as soon as my partner arrives. He said "My partner had a death in the family and left the fields so I am on my own also". I asked "are you working a Shaft?" He said "no I am working an open Cut at Hallion Hill, then he added "listen any time you need help with anything don't hesitate call on me, I know what it likes being a newcomer with limited resources". I just nodded wished them a good night and we went inside.

Chris lit the fire and we had Chops and mashed potatoes.

She put her arms around me and said "Darling you know I am all the way behind you and support you at whatever you decide to do, I don't want you to be disappointed if this does not work out, we always can go to Adelaide and start there again". I hugged her and kissed her and said to her ". That is why I love you".

I was tossing and turning all night and all sort of crazy Ideas crossed my mind about putting in an open cut, or getting someone else to work with me etc.

The next morning I meet up with Klaus and Ludwig and they followed me to my Claim, We got out of the cars and Klaus said to Ludwig, "is this not the area where the Croatian fellow Drago pulled out 40,000 Pounds a couple years ago?" "I think you right that is about the distance from the Tree to the Claim, it does not mean it was your claim it is just it was around here somewhere, this area had not been mined for about two years".

Ludwig said "Ok let's have a look", they got a couple Large Battery Lanterns and Ludwig went down first, then Klaus and I was last. Both of them crawled in and I was just on the bottom of the shaft. Ludwig looked around scratched here and there with his Screw driver and shown his light which was very powerful which lit up the whole mine, he shouted to me "I see what you mean with the traces on either side of the pillar," Klaus inspected the other part of the tunnels and said "Without more blasting and continuing on some of the tunnels you have no way of knowing what's there, the problem is you could encroach on another claim or you bring the whole lot down". Ludwig was working on the pillar and shouted out to me, "Peter come here", I crawled there and he shone his lamp on a spot in the pillar where he gouged out about 10 inches of the opal seam, and there it was, my heart jumped for joy, I could see the most beautiful colours reflecting from the seam every colour god created was there.. My heart was pounding; Ludwig worked gently with his screw driver and got a few pieces which were very small but full of colour. He said to me "these are only chips but I am convinced and I would lay a bet 10 to 1 that there is a pocket from the slip which will have opal in there". I was so excited and said "How can I get it out", to which he replied "the only way is with an open cut, push the top dirt off down to the level and then find the slip". I said "No other way?" He replied "I am sorry Peter it is too dangerous". I was so excited and disappointed at the same time.

We went up and Ludwig said "you have to peg two more claims one north of the shaft and one south so the Dozer can push the dirt of your claim to go down to the Opal level."

I thanked the Guys for their help and advice and took the few little chips home with me to show Chris, I am sure I will not be able to sleep tonight.

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Which Gems Are Of Organic Origin?

By Patricia Roebuck

Pearl, Coral, Amber and Jet are the four organic gems. Although they contain calcium carbonate, a mineral substance, pearls are the product of certain mollusks whose secretions allay the discomfort of an irritation caused by disease, a parasite, or a foreign particle. The result is the "Queen of Gems" formed inside the protective mantle that surrounds the soft parts of the animal's body, within the shell.

Coral is the accumulated skeletal material of tiny marine animals called polyps, which live in branching colonies. Extracting calcium carbonate from the water, they deposit it in their tissues and build their framework of hollow tubes, which remain after their death.

Whereas pearl and coral are of animal origin, Amber and Jet are derived from plants. Amber is the fossil resin of ancient coniferous trees. These trees flourished during the Oligocene Epoch of the Tertiary Period - nearly 40 million years ago, and were species of pine (Pines Succinifer). Most properly speaking, amber is a fossil resin containing Succinic acid. Hundreds of species of insects and other invertebrates of the Oligocene Age are found beautifully preserved in amber, caught in the sticky sap as it dripped down the bark of trees.

Jet is a compact black variety of lignite coal. Lignite is the lowest rank of coal, having been least changed. The best quality of Jet is velvety black. All coal has a plant ancestry, having formed from the remains of ancient vegetation. During many centuries vegetation thrived and died. Progressive changes of heat and pressure carried these plants through peat, then to lignite, which we know as jet. Jet was most popular during the Victorian Era and was mainly used as *mourning jewelry*.

The above information was taken from "1001 Questions Answered About the Mineral Kingdom": by Richard M. Pearl and "Precious Stones" by Bauer. -via The Rollin' Rock, 10/03

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June 2011 Gem & Mineral Shows

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

3-5—WOODLAND HILLS, CA: Show; Rockatomics Gem & Mineral Society; Pierce College Farm, 20800 Victory Blvd.; Fri. 9-5, Sat. 9-5, Sun. 9-5; contact Gary Levitt, (818) 993-3802, (818) 321-6290; e-mail: Show@rockatomics.org; Web site: www.Rockatomics.org

4-5—LA HABRA, CA: Show, "Jubilee of Gems"; North Orange County Gem & Mineral Society, City of La Habra; La Habra Community Center, 101 W. La Habra Blvd.; Sat. 10-5, Sun. 10-5; free admission; dealers, demonstrators, exhibits, youth activities, geode cutting, raffle prizes, lapidary equipment and supplies, handcrafted jewelry; contact Dave Swanston, (626) 912-1531; Web site: www.nocgms.com

4-5—SAN FRANCISCO, CA: Show, "San Francisco Crystal Fair"; Pacific Crystal Guild; Fort Mason Center, 99 Marina Blvd.; Sat. 10-6, Sun. 10-4; adults \$6, ages 12 and under free; 30 dealers, minerals, gems, crystals, beads, metaphysical healing tools; contact Jerry Tomlinson, P.O. Box 1371, Sausalito, CA 94966, (415) 383-7837; e-mail: jerry@crystalfair.com; Web site: www.crystalfair.com

18-19—CAYUCOS, CA: 51st annual show; San Luis Obispo Gem & Mineral Club; Cayucos Vets Hall, 10 Cayucos Dr.; Sat. 9-5, Sun. 9-5; free admission; dealers, rock, gems, minerals, jewelry, gemstones, beads, cabochons, crystals, fossils, jade, rock slabs and rough, custom wire wrapping, lapidary and jewelry-making equipment, prize drawing; contact Mike Lyons, (805) 610-0757; e-mail: jadestar@charter.net; Web site: www.slogem.org

24-26—SAN DIEGO, CA: Show; Gem Faire Inc.; Scottish Rite Event Center, 1895 Camino del Rio S; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7 weekend pass; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com

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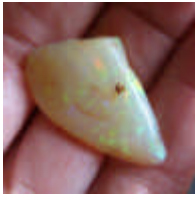
JPG 03 - Blue Green Crystal
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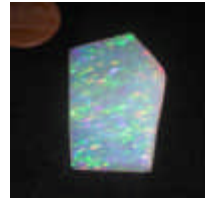
JPG04 - Gem Opal Honey Matrix
\$1,900/oz 0.163 oz \$310



JPG 05 - Mixed Andamooka Inlay
10 oz \$600



JPG 06-Andamooka Gem
0.124 oz \$725



JPG 07 - Gem Crystal
34.77 cts 41x20x7 mm \$5,215



JPG 08 - Gem Reds & Greens
\$2,900/oz 0.3 oz - \$870



JPG 09-Blue Green & Gold Gem
\$5,250/oz 1.68 oz \$8,820



JPG 10- Gem Belemnite Set in Gold
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JPG 11 - Andamooka Gem
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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

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Volume #44 Issue #6
June 2011

Some Topics In This Issue:

- Live Opal Auction
- Last Month's Speaker: Meg Berry
- Cutting Phenomenal Stones
- From Rags to Riches & Disasters, Chapter 5 & 6
- Which Gems Are Of Organic Origin?

Important Dates:

June 8 - Board Meeting

June 9 - General Meeting:

Live Opal Auction

Bring you opals, gems, jewelry, rough, etc. to auction and bring some money to buy! Great deals are to be had and money to be made.

— GENERAL MEETINGS —

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

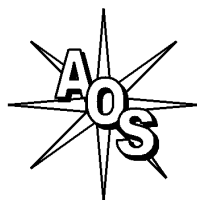
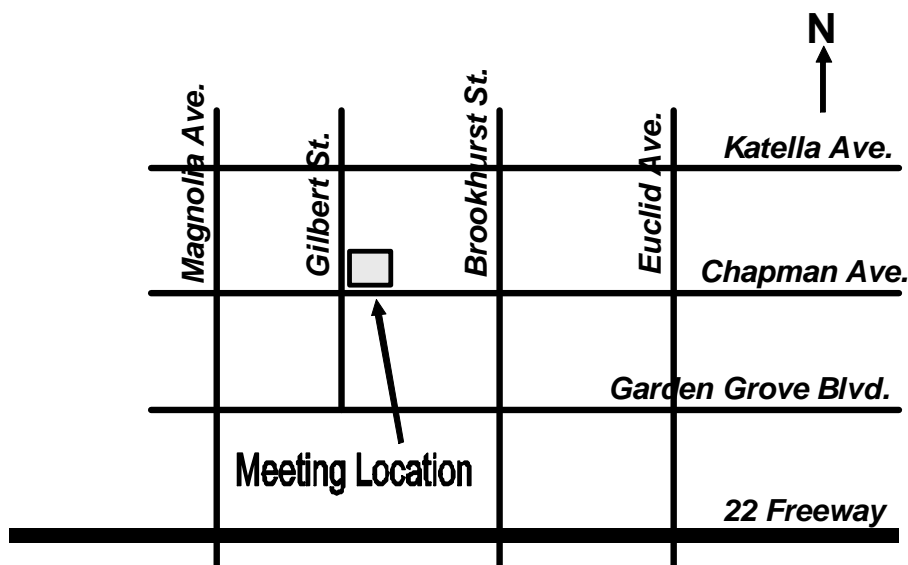
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MEETING ACTIVITIES

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

TO:

June 9th Live Opal Auction



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