



# STRATA GEM

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## Club President Year 2000

A year as Club President  
During a very busy time  
It was real hard to communicate  
From my long telephone line

It started out in Quartzsite  
With part of the crew  
I was told of so many responsibilities  
I just didn't know what to do

Looking for just the right rock  
To take back for grab bag fills  
Walking around the Gem Shows  
To find what's needed without breaking the till

Writing the presidents message  
To tell others what to do  
Seeking advice around the fire  
They all said it's up to you  
Making of the crafts

To make the show go  
Where they get the ideas  
I surely do not know

Erla's Little rocks  
Were surely hard to find  
The kids who couldn't find any  
Were told they must be blind

Then to the kitchen  
That's really where it's at  
But if you ate too much pie  
It just might make you fat

Finding room for everything  
That people want to show  
We needed it in display  
The people need to know

We had a good variety of things to sell & show  
Lolly's painted rocks are great  
But they are not real  
I want everyone to know

Tearing down & boxing up  
Was really quite a sight  
But if we didn't hurry  
We would be late into the night

We tried to get things put away  
And really had good luck  
But if you drove a motor home  
You had to be careful to not get stuck

I hate to be a quitter  
Some may say I lack guts  
But if I was president for another year  
It just might dive me nuts

Parting shots as president 2000  
By Darrel Bolinder



## Members News

### Club Homepage:

Yeah!!! Netscape finally updated our club address. The new URL is <http://sites.netscape.net/tooelegem>. Also I would like to report after getting the American Federation, the Rocky Mountain Federation & SCRIBE to list our club homepage on their websites, we are getting an average of 10-20 people checking out our site per month from them & from different search engines (and of course other clubs & word of mouth. Thanks!!!). Hopefully it will turn into new members down the road. I would still like members to send me photos of their favorite work they have done and/or specimens or even write some articles for the kids corner or for the hints & tips areas, so I can get them up on our site (articles will work for the newsletter too, hint hint).

### Request For Information:

Here is an email I received from Cutis Schuh:

I'm attempting to locate biographical information about two early 20<sup>th</sup> century Utah mineral dealers by the

names of Maynard Bixby and W.H. Parker. They had businesses in Salt Lake City in the early 20th century. I am writing to enquire about the possibility of placing a small notice in your Society's bulletin requesting information from your readers. Thank you for your time and any information you might provide.

### Letter From The Editor:

I am having a real good time down here in Quartzsite, learning a lot (I've been jesting that I'll have to go back home just to have a vacation). I joined the gem & mineral club here, and have already taught a direct casting class with pinto beans, rock salt & broom straw. I have also seen a few things that may help the our club. One thing I thought was fun is they have a small glass display case that the members can bring in the things they have made to show off (not always rockhound related),

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then the other members could then talk to that person before the meeting or during the social about the piece. The other thing, which I've read other clubs doing too, is they have a club display case in the town library. Now if Tooele will let us do something like that, we might be able to get the word out about our club & maybe get more people interested in the club.

I hope y'all survived the holidays!!!  
Dennis Chapman  
Editor

**PS: I still need a list of everyone that has paid their 2000 or 2001 dues** so I can update my mailing list. If you have paid them & I haven't updated your address label you may want to call me at my toll free number - & leave a brief message. I will still have to check it out, but it would help.

## Rock Collecting American Style

By - Lavern Novlan

One of our favorite places to rock collect is in the Ashwood region of Oregon. Ashwood is 36 miles northeast of Madras. The road to Ashwood is paved. All of the rock collecting is done on ranchers' property so the road conditions vary and most are primitive. We have been with rockhounds who have taken campers, cars and motor homes to the sites but it is not recommended that they do so. There have been some misfortunes with these rigs. It is advisable to have a proper rig for the conditions you are going into.

On one of our trips this year we had 66 rigs and around 100 rockhounds. This was a challenge for the Field Trip Leader.

The ranchers open up their ranches three times a year for rock collecting. Irene and I go to Madras when the "All Rockhound Pow-Wow Club of America" is hosting their Gem and Mineral Show. During the show they hold field trips every day - some days they have two trips. You can find Jaspers, Agates, Petrified Wood, Wood Replacement, Thundereggs and Ledge Agate. The size of the material can run from tumbling material to huge pieces that are taken out on semi-trucks and need a "Cat" to lift them.

The ranchers charge for the material. The price per pound (25 cents to \$2.00) varies from place to place, depending on the material and the work required for removing the overburden.

The Pow-Wow Club has been holding this Gem & Mineral Show for 51 years. Next year will be their 52nd year. It will run from July 4-8, 2001 and will be held at the Jefferson County Fairgrounds, Madras, OR.

The same field trip leader has been in charge of the trips for many years and a CB radio is an added plus as they keep you informed about the area and local history, point out geological land formations, wild life and tell stories about "Brother Ben".

At Marsten's ranch you can load up with wood replacement - the material is made up of all colors. The rancher digs out the rock with a "Cat" which is equipped with a bucket. He spreads the material on the ground and everyone swoops in for the kill, looking for the perfect piece. You can pick out what and how much you want. The price for this material is \$1.00 a pound. It is very nice material. The last quarter mile to this site is somewhat steep and two cars and a motor home decided to stay at the bottom and catch a ride with other people.

John Friend has very nice Thundereggs. Not much effort was required to dig for his eggs as he had already had the backhoe in and eggs were dug out for us. The pile to the west side of the pit was 25 cents a pound because that is where he wanted to dig next. He didn't want to move the eggs himself. The pile to the east side was 50 cents while those you dug were 75 cents a pound. Some very nice eggs came from his location and they were all sizes.

We went out to Pliney Ridge Agate and again the sizes varied from tumbling to boulder size. This site requires some hard rock mining if you want to be selective. You can pick good pieces that others don't want by walking around in the pit. Two years ago we used a hydraulic jack to pry two huge rocks apart. They turned out to be massive in size, the material is very hard and solid.

Wood of all sizes, shapes and colors are found at the McDonald's Ranch. He uses a front-end loader with a backhoe to help dig out the wood. His ranch looks like a war zone as he is digging out trees that museums are buying up. There is opalized wood as well as mineralized wood on the ranch. The gigantic pieces are carried out on flat beds. We managed to get some "rounds" at \$1.00 per pound. If you got chunks, it was 50 cents a pound. If you want wood, there is plenty here and it is a sight to behold.

Darrell Friend has great Jaspers, Apple Green Agate and Thundereggs. We did the three locations in one day, as the sites weren't that far apart. Darrell overheard me talking to a fellow rockhound about jasper I found buried in the bottom of the dig site. Darrell wanted to know if I wanted it out. I told him "sure" but I couldn't take it home because it was too big. He told me he could knock a corner off. He fired up the "Cat", lowered the dozer blade and snapped off a corner for me. He proceeded to back up the "Cat", lowered the ripper fingers and rolled out the rest of the 200-pound boulder. He continued to rip the rest of the site and rolled out several more large boulders that people had been working on. Some of these boulders were larger than the one I had been working on. Everyone went away from here more than happy and satisfied.

From here Irene and I went to the Apple Green Agate location. This location was not quite as good as the other areas we had been to. It was a smaller area and not much material was exposed. I did manage to get a piece from a rockhound who didn't want the piece he had. This is great material and should work up nicely. It was

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a steep hike to both areas. The road was also interesting.

The last site at Darrell's was a pleasure to dig in. No heavy-duty equipment was needed in digging for Thundereggs, as we were in what appeared to be volcanic ash. There were lots of eggs and it became a real problem deciding which eggs to keep. At \$1.00 a pound, it doesn't take long to load up when digging with very little effort. Some of the eggs even had druse crystals in the cavity. The size of the eggs varied.

You can see that we have a real problem as to how much material to bring home, as there is a lot of it. I guess that is why we went from a ¾ ton truck to a ONE TON!

If any of you get the urge to go to Madras, after reading this short article, by all means GO! The ranches are slowly being bought up by lawyers from Portland and they are closing the ranches to rockhounding as well as hunting. There are several locations now that are closed and will not be reopened. One of the locations that is closed is for very large Thundereggs (the were called Dolly Parton eggs!)

On the bright side, the ranchers are continuing to look for more areas that they can open up for the rockhounds. We have been going to Madras for six years now and every year we go down we get to a new site. I believe that the resources of the region have not yet been fully tapped; there is still a lot of material out there. It is just a matter of finding it.

There are other sites for collecting while in the Madras area, such as Richardson's Ranch and the Glass Buttes, but a report on them will have to wait till another time.

From The Calgary Lapidary Journal, 10/00.  
Via Rockcollector 12/00

## Stones Of Mexico

by Don Mayers, Mining Geologist

### Amethyst:

Little or no flawless amethyst occurs in Mexico. However, in the mountains near Taxco (Tass-go)--a town once famous for its silver mines and now noted for the picturesqueness of its streets and the artistry of its silversmiths--are numerous veins which yield amethyst of fair to excellent color, though almost opaque from numerous flaws. Individual crystals are several inches long and up to an inch in diameter; due to intense inter growth, cementation, and flaws, they do not possess the beauty of comparable specimens from Brazil or Uruguay. Only rarer is a portion of a crystal sufficiently clear to allow the cutting of a flawless stone of more than a few carats weight.

These crystals are shipped from Taxco to Queretaro City, the lapidary center of the nation. Here the amethyst is cut and polished; most is cut en cabochon, but some

of the better material is carved into rudimentary figures--miniature frogs, for example--suitable for a better grade of silver jewelry. Most of the cut stones eventually find their way back to Taxco, where they are mounted.

Amethyst-also occurs in Guanajuato (wann-a-watt-to) in some quantity. Although more pleasing as mineral specimens than is the Taxco, Guanajuato amethysts are vastly superior in size, color and transparency.

The author received, on one occasion, some small, flawless pale doubly-terminated amethyst crystals from an unknown locality in Sonora; they greatly resembled Herkimer quartz in appearance. No more is known of this occurrence.

### Other Stones

Turquoise occurs in several places in Mexico: Northern Chihuahua; Concepcion del Oro, Zacatecas; Lower California. These deposits have been worked sporadically for the past fifty years with decreasing success. Turquoise produced tends to be greenish, light in color, small in size, and rather soft.

A flawless one-carat emerald crystals was recently shown the author by a fairly reliable miner. The miner claimed to have discovered it in the State of Oaxaca (wa-ha-ha) in a region known to be hostile to outsiders. (many foreigners do not appreciate that access to certain parts of Mexico is not feasible owing to the presence of actively hostile groups.)

During the war of flourishing business in Queretaro City was based on the manufacture of colored glass in imitation of precious stones. Magnificent large "Aquamarines", "Amethysts", "Topazes" and "Emeralds" made their appearance, not expertly cut on home-made faceting machines (jam-peg cutting is unknown in Mexico). The glass stones had unpolished girdles, as many think this is the sign of a genuine stone. Rings mounted with these well-authenticated stones were sold widely and some even found their way into the United States. The merchants who supplied the colored glass in sheets received amazing prices for "gem rough" of a particularly choice shade.

taken from ROCK TALK 9/96 (Tucson, Arizona)  
via Glacial Drifter 5/98

## Fireballs And Bolides

When large meteoroids come too near the earth they become trapped by its gravity and are drawn into our atmosphere and these resulting meteors are sometimes quite spectacular. If they are brighter than Venus, they are usually called 'fireballs' and if they explode, they are 'bolides'. Pliny described a fireball over Rome in 60 A.D. that began as a spark that he thought was 'seen to

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fall from a star that increased in size as it approached the earth, became as large as the moon, and turned the sky into a sort of cloudy daylight'. A November 1977 fireball seen in parts of Ontario was said to be as bright as the sun. According to witnesses of the January 1983 fireball in West Virginia, a fireball brighter than the full moon streaked across the sky, followed by sonic booms and thunder like rumblings three to five minutes afterward.

from Mineralog, via PEGMATITE 3/96  
via Glacial Drifter 5/98

## On To Uranus

Like Jupiter, Saturn, and Neptune, Uranus is a gaseous giant surrounded by a ring system. It is about four times the size of Earth and about half the size of Saturn. Discovered in 1781 by William Herschel, it doubled the size of the known Solar System. A rocky core is surrounded by a thick atmosphere of hydrogen, helium, methane, ammonia, and sort of an icy, slushy water compound. Winds reach speeds of over 350 miles per hour, which blows the clouds around this aquamarine "marble". It has fifteen moons and eleven thin dark rings. It takes 84 Earth years to orbit the Sun, and its poles are not up and down like Earth's, but sideways. One day is 42 Earth years long, but that means there is also a 42 year night. Strangely, the magnetic field is not parallel or perpendicular to the poles, but at an unusual 600 angle to the axis. One cannot help but wonder if Uranus and another celestial object collided, thus causing these abnormal phenomena.

Miranda, one of the moons of Uranus, is also a different place. Discovered in 1948 it is only 300 miles across, but has cliffs, which are up to three miles high. Its surface is a patchwork of hills, grooves, and craters - in other words, it is a geological mess. Perhaps it was hit by an asteroid long, long ago causing it to shatter. The pieces then fell back together, leaving surface evidence of some sort of violent occurrence,

As with the other members of our Solar System, Uranus has many unanswered questions. I'm sure the great astronomer William Herschel, who discovered this planet, would be amazed to see present day satellite photographs. Yet, there is much to learn about this planet. To be part of this celestial quest is a wonder, but also a privilege.

(author unknown) from The Trilobite 12/96  
via STONEY STATEMENTS 4/98

## Rockhound Dictionary

(The under-the bridged Version)

- Agate:** An opening (door) in a fence.  
**Archeologist:** A person whose career is in ruins.  
**Barium:** What you do with your cloths after You meet a skunk.  
**Boule:** A dish that holds fruit on the table.  
**Cabochon:** A small French taxi.  
**Coral:** A place to keep sea horses.  
**Crystal:** A girl's name.  
**Crystalline:** Her twin sister.  
**Cube:** A square viewed from a angle.  
**Detour:** 1. A road opened especially for tourist.  
2. A summer road for tourists.  
**Diamond:** The hardest stone known to man to get Back from his old girlfriend.  
**Dust:** What kids substitute for mud when it doesn't rain.  
**Earthquake:** The result of Mother Nature not taking Her earth control pills.  
**Era:** A mistake.  
**Expert:** Someone 50 miles from home.  
**Faceting:** A complex way to ruin a good jewel.  
**Field Trip:** 1. An Impossible trek to an inaccessible place for non-existent minerals.  
2. When you fall down outside.  
**Filing Cabinet:** System for losing things alphabetical.  
**Findings:** Stuff you find.  
**Flintknapping:** A sleepy stone.  
**Fortification:** 1. Two twentyfications.  
2. A large gulp of Good whiskey.  
**Fossils:** A teen-ager's parents  
**Friend:** One who can see the star in your sapphire.  
**Garnet:** What you say when a rock drops on your foot.  
**Gentleman:** A man who holds the door open for his wife to carry the rocks in.  
**Geode:** A poem of G (often written in hollow verse)  
**Geologists:** People who have their faults.  
**Grinding Wheel:** The bearing going out on your old truck  
**Igneous:** Dumb  
**Inclusion:** Unwanted third person on a date.

From Scribe News Letter 4-95  
via The Rock hound Scoop 5/99

## Birefringence

by Gerald Wykoff, GG, OSM,  
from 03/89 American Gemcutter #25

Many gemcutters sometimes mistake the terms double refraction and birefringence. The term birefringence is actually the strength, or the measurement, of double refraction. This amount is measured by the difference between the refractive indices of the ordinary and ex-

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traordinary rays in uniaxial stones and between the alpha and the gamma rays in biaxial stones.

The difference—or measurement—is always expressed by numerals, (e.g., -0.006-0.009 for beryl).

In most instances a precise measurement of birefringence isn't necessary for gemcutters. Birefringence is most useful for gem identification.

The doubling of opposite facets and inclusions is good proof that a stone is doubly refractive. Keep in mind most doubly refractive stones do not exhibit the extreme doubling effect of zircon and/or peridot.

If you'll carefully examine the amount of doubling you can reasonably estimate the amount of birefringence in the gem. To train your eye for estimating birefringence try examining a zircon, peridot, tourmaline and a sapphire of about the same size.

A careful comparison of what you sight will give you a relatively good idea of the birefringence of each gem so you can judge an unknown with fair accuracy. While you are training your eye, don't forget there are direction in which no birefringence is visible in doubly refractive stones.

For that reason, you want to judge a stone only in a direction of maximum doubling, (e.g., perpendicular to the crystallographic axis). The direction parallel to the CA is the direction of least double refraction which is why many smart gemcutters try to orient their stone on that plane.

Richard T. Litticoat, in his book, "The Handbook of Gem Identification," gives an excellent method for testing for doubly refraction. Cut a hole one-eighth to one-fourth inch in diameter in a piece of white card board or stiff white paper.

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### Watch Light Pattern...

Now hold this card so that sunlight—or light from a strong lamp— passes through the hole and fall upon the crown of a faceted gem. Light entering the crown will be reflected from the pavilion facets and refracted from the crown back to the lower side of the card to form a pattern of small dots.

The dispersion of the gem often causes a pattern of rainbow spots, Litticoat pointed out. If the gem is doubly refractive, then these spots will appear on the card in pairs.

From Anglic Gemcutter © 5/99  
P.O. Box 826  
Beavercreek, OR 97004-0826

### Words of Wisdom:

If you always tell the truth you don't have to remember anything!

## Recipe For A Good Rock Club

Assemble a group of rockhounds in assorted sizes and personalities.

### Measure accurately:

- 1 cup friendly words
- 1 cup understanding
- 1 cup courtesy and patience

Sift carefully and remove all malice and ego, Add a dash of wit and humor, warm welcome for all, and a heart full of cooperation. Praise when needed. Mix well until blended into a smooth running organization. Sprinkle with good time and fun. Garnish with new members. Serve with warm greetings.

Plenty for all.

Author unknown  
Via Deming Rock Chips 4/99  
Via The Rock Hound Scoop 5/99

## Kids Corner

### Old Fashioned "Rock Candy" !!

#### Sugar Crystals on a String.

Here is an experiment that you can do that is quite easy. When you are finished, you can make it disappear by eating, have fun!

**Materials you will need:** Sugar, Quart Jar, Heat Source.

1. Get a VERY CLEAN jar (this is important, or you will end up with a jar of sugar sludge).
2. Bring a quart or so of water to a boil and dissolve as much sugar as you can. Pour this into the clean jar!
3. Tie a string to a pencil and hang the string into the jar with pencil resting on the rim. You might want to put a piece of wax paper or something over the top of the jar to slow down evaporation.
4. As the sugar solution cools, it becomes super-saturated. The excess sugar will crystallize out on the string.

from West Seattle Petroglyphs 4/97



## A Rockhounds New Years Resolutions

1. For every new specimen I bring home., I'll weed out five.
2. To hold more tightly to the wheel, and keep on going past that rock shop.
3. To eliminate at least 2 gem shows from my travels in 1998.
4. Not to go to every sale I see advertised next year.
5. Not to call everything I can't identify as JASPER.
6. To minimize my large collection; to maximize my choice specimens.
7. To weed out (high-grade) my many magazines about rocks.
8. To complete two unfinished projects before starting on ten more.
9. Bring an item for show and tell.
10. NOT TO LET MY WIFE SEE THIS LIST!

Via Gates Rockhound, Dec. 96/Jan. 97  
via Beehive Buzzer 1/99

## Thought For The Rockhound

The travelers who is more interested in the smoothness of the highway than where he is going probably won't go anywhere in particular.

P.P.  
News & Views 11/99

## CALENDAR

If you know of any events coming up, PLEASE let me know as soon as possible. If anything is wrong PLEASE let me know as soon as possible.

- Jan. 19-21 GILA COUNTY GEM & MINERAL SOC. SHOW. Show location: Gila County Fairgrounds Globe, AZ, 3 miles North of Jct. US 60-70
- Jan. 27 ARIZONA CITY GEM & MINERAL SHOW, Community Center, 13270 S. Sunland Gin Road, Arizona City, AZ
- Feb. 9-11 WICKENBURG GEM & MINERAL SHOW, Community Center, 160 N. Valentine St., Wickenburg, AZ.
- Mar. 8-11 DEMING GEM & MINERAL SOC. SHOW, Southwestern New Mexico Fairgrounds, Deming, NM
- Mar. 16-18 TIMPANOGOS GEM & MINERAL SHOW, Provo Elks Lodge, 1000 So. University

## Transplant

In the hospital the relatives gathered in the room where their family member lay gravely ill. Finally, the doctor came in looking tired and somber. I'm afraid I'm the bearer of bad news, he said as he surveyed the worried faces. "The only hope left for your loved one at this time is a brain transplant. It's an experimental procedure, semi risky and you will have to pay for the brain yourselves.

The family members sat silent as they absorbed the news. After a great length of time, someone asked, "Well, how much does a brain cost?" the doctor quickly responded, \$5,000 for a male brain and \$200 for a female brain."

The moment turned awkward. Men in the room tried not to smile, avoiding eye contact with the women, but some actually smirked. A man, unable to control his curiosity, blurted out the question everyone wanted to ask, "Why is the male brain so much more?"

The doctor smiled at the childish innocence and so to the entire group said, "It's just standard pricing procedure. We have to mark down the price of the female brain, because they've been used.

Author unknown  
Submitted by Byron & Melva

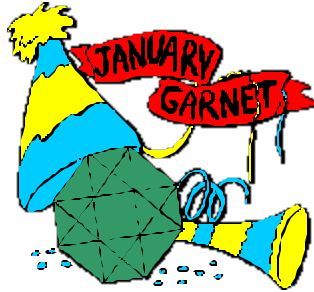
# January Birthdays

Birthstone:

**Ancient**  
Garnet

**Modern**  
Garnet

Raelsdon Baudino	
Heinz Jockisch	13
Selma Jockisch	10
Linda Nelson	25
Dorothy Petersen	27
VerNon Petersen	7
Melva Scott	3



## Opal

by Karen Rice

Opal has been divided into three general categories, namely, precious opal which display the familiar play-of-colors, common opal which does not display any play-of-color and, finally, the orange color typical of fire opal - which unlike the first two, is usually transparent material. For the purpose of this article it is the first of these types that will be discussed.

The delightful play-of-colors displayed by opal has made it a popular gemstone for many centuries. The use of opal dates back to the Roman era, its introduction occurring around 200 to 100 BC when the expanding empire came into contact with traders from distant lands, in particular, eastern Europe. The first known opal mines were in Hungary (later, the area in which the mines lie was to become part of Czechoslovakia) and it was these mines that provided the majority of opal in the earliest times. Opal was to remain popular right up until the beginning of the eighteenth century, at which time it fell victim to the commonly held superstition that it brought bad luck upon its owners. Fortunately, this belief is no longer at the forefront and today opal is as popular as ever, especially the much prized material displaying the play-of-colors against a dark background, known as black opal.

Opal is often grouped with the quartz family despite the fact that its outward appearance is totally different, the reason being that chemically, they are very similar, each consisting at the most basic level, of silica. With opal, however, there is the addition of water - about 6 to 10%, depending on locality. But this aside, the two are, of course, far different. Instead of being crystalline in nature, opal is amorphous, consisting of a hardened gel-like substance formed when silica rich water, having percolated below the surface, becomes concentrated in fractures or other voids in the surrounding rocks. Under the right geological conditions some of the water eventually evaporates, leaving a solid silica nodule or vein.

But as with most geological mineralogical events this is

only part of the story. For many years the origin of the play-on-colors seen in precious opal could not be pinpointed. Indeed, it was not until the scanning electron microscope was employed that the true nature of opal was discovered. Researchers using very high magnification found that opal consisted of billions of submicroscopic spheres of silica and, that for a play-of-color to be present, these spheres had to be both uniform in size and stacked in neat rows, one on top of the other. If the spheres were of different sizes and arranged in a haphazard manner then no colors were present --- hence common opal. As a result of this finding the play-of-colors is now known to be caused by diffraction --- the interference of light as it passes through layers which are arranged in an orderly fashion.

Opal is found in many parts of the world, geologically, however, deposits are divided on the basis of the type of rock they are found in. There two divisions, namely, opals found in volcanic rock --- most often rhyolite, such as the Virgin Valley, Nevada deposit, and those found in sedimentary rocks, the classic example being the Australian opal fields. As regards the quality differences between the two, in general, opals formed within volcanic rocks tend to be finer than those formed in sedimentary environments. However, the former are less durable than the latter and are very prone to cracking --- a result of water loss upon exposure to the atmosphere. Virgin Valley opals 'or example have been found to contain up to 20% water, far above the average Australian opal which has a water content of less than half that.

As already stated, the oldest known opal deposits are those found in the Carpathian Mountains in what is now the Czech Republic. Although worked for centuries, the mines were all but abandoned in the 1930s, and it is unclear if any production takes place today. Other early deposits were found in Honduras in 1843 (this deposit may have been found much earlier) and, importantly, at Querataro, Mexico in 1855. This deposit and other locations in Mexico are still worked today. Both the Mexican and Honduran deposits are found in volcanic rocks. But without doubt, it was the discovery of the opal deposits in Australia that put opal mining on the map.

It is far too long a story to tell of the finding of the Australian opal fields. So briefly, the first deposits were found around 1872, although it is thought by some that opal was found as early as 1849. The most important deposits are usually credited to be: Andamooka, discovered in 1930 but today producing limited quantities; Coober Pedy, first found in 1915 and now the largest producer, Mintabie, which has only become a big producer since the mid 1970s but was found as early as 1921 (it is also the producer of fine black opal); Lightning Ridge, discovered around 1903 - the original black opal deposit and still a producer of the finest opals, and finally, White Cliffs, the first of the big opal fields, found as long ago as 1890 but almost unworked since the early 1900s. With the exception of Mintabie, the opals are

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found in sedimentary rocks.

Coming nearer to home, large quantities of opal have been recovered from Virgin Valley, Nevada. This deposit, which produces very fine material, was first found in 1905 and has since been worked extensively. It is unfortunate that much of the material is prone to cracking due to water loss.

Like its history, the treatment of opal is also a long story. Opal lends itself well to being tampered with, in particular, dying white material black. This not only attempts to imitate natural black opal but also has the tendency to intensify the play-of-colors. Opal may also be impregnated with various substances, again, in order to improve the play-of-color. Doublets are also commonly encountered, most consisting of a black plastic backing on a thin sliver of opal. And these are just a few examples of practices which are not always told the unsuspecting buyer, so again, it is always best to buy from a reputable store - *and remember, if something appears too good to be true - it probably is!*

(From *The Bulletin of the New York Mineralogical Club*  
2/99 via ROCKBUSTER NEWS 5/99)  
via T-Town Rockhound 7/99

## How To Shape And Polish Opals Without Machinery

Opal is a hydrated silica with varying amounts of moisture. Its hardness varies from 5.5 to 6.5. This method of cutting and polishing opal practically eliminates fracturing from heat. There are four basic steps in shaping and polishing:

1. Sanding off the matrix on both sides to locate the best fire.
2. Rough shaping the stone.
3. Sanding and pre-polishing, which results in the final shaping and size.
4. Final polishing the gemstone.

### **SUPPLIES NEEDED:**

1. A carborundum stone, double grit [sold by most hardware stores].
2. Wet or Dry Sandpaper, 400 and 600 grit.
3. A piece of inner tube, 6" square.
4. Two pieces of corduroy or velvet material, 6" square.
5. Polishing agent, Tripoli or Tin Oxide.
6. Aluminum pie pan.
7. Dopstick and household glue or cement.

### **INSTRUCTIONS:**

Place carborundum stone on the inner tube in the pan, course side up. Pour water on the stone until some

stands on top. Always work opal on a very wet stone. With a circular motion, grind off matrix on both sides to reveal the best fires. Mark size of desired stone on the back of the opal and grind down to size. When size has been obtained, wash opal, carborundum stone, inner tube and pan. **DO THIS BETWEEN EACH PROCESS.**

Now the opal is ready to be dopped. Use a cold dop of household cement. Coat the end of the dopstick. Also coat the back of the opal. Let it set a minute, then press together. Stand in modeling clay or other support to dry, about eight hours.

When the opal is set on the dopstick, use the coarse side of the carborundum stone to shape the opal. Wash all equipment. Then, this time, using the fine side of the stone, sand out all the scratches, wash and proceed. Go through this process first using the 400, then the 600 sanding paper. The opal should have a pre-polish on it.

For the final polish, use the same process with the tin oxide. A little Linde A may be added to the tin oxide if you wish. To remove the stone when finished, soak overnight in water and the stone will come loose. Good luck and may you have a beautiful stone.

Malachite, Turquoise, Chrysocola, as well as many other stones under 6.5 hardness may be polished with this method.

From Petrograph via Rock Rollers, 8/00.  
Via Rockcollector 12/00

## Another Trick For Cutting Mexican Jelly Opal

When cutting Mexican opal with transparent or clear (that's most of it!) base color, cut a high dome on the top side and a moderate dome on the back. The reason for this is twofold:

- 1) If you get the top and bottom domes just right, the light will refract within the stone as it does in a properly cut faceted stone. The effect will be as though light is trapped within the stone and the color will "glow" in a seemingly bottomless stone.

It works great with or without play of color. Try it!

- 2) Polishing the back of the opal helps the stone to last longer. A polished surface tends to retard water loss from the opal over time. A rough surface has many times more actual surface area per given dimension than a polished surface, thus increasing the potential for physical and chemical interaction.

(from Mag 7 by Paul Born in *Lapidary Digest* #189, 12/26/98, via *The Opal Express* 1/99. Non-commercial republication permission granted.) via Pegmatite, 11/99, via Pick and Pack 4/00

via Rock Chips 12/00



# January Calendar



2001

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 New Years	2 ☾	3	4	5	6
7	8	9 ☺ Monthly Meeting	10	11	12	13
14	15 Martin Luther King Jr. Day	16 ☾	17	18	19	20
21	22 Newsletter Deadline	23	24 ●	25	26	27
28	29	30	31			

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