



Lake City Rockhound News

NORTH IDAHO MINERAL CLUB, INC

P.O. Box 1643 Hayden, ID 83835

January, 2016

Meeting at LAKE CITY CENTER 1916 Lakewood Drive 667-4628 – In Library 6:00 – 8:00 PM,
Third Thursday of the Month. Visitors and Guests are Welcome.

Our web site: <http://www.northidahomineralclub.com>

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This Month's Meeting

REGULAR MEETING – January 21, 2016

PROGRAM:

'Outdoor Idaho: Rockhounding' video

REFRESHMENTS: Bev Bockman, Mike Burton

SILENT AUCTION AND SCHOLARSHIP DRAWING

(NEXT DRAWING IN MARCH) BUY YOUR TICKETS TODAY

NIMC Board Meeting Minutes – 12/9/2015

Those present were: Dale Ruperd, Carl Chapin, Dean & Patric' Hutchinson, Beverly Bockman, and Diane Rose.

Change in By-laws:

The Federation Director and the Mineral Council Delegate may be reimbursed for mileage for the most direct usually traveled route, based on one vehicle. The mileage rate will be based on ½ [one half] of the IRS mileage rate or actual receipts. One night's lodging will be reimbursed for one room if required. If the distance does not allow for the return trip in one day.

If requesting more than one night's lodging or other expenses **MUST BE PREAPPROVED** by the Board. Estimated amounts need to be **PRE-APPROVED** by the Board. Receipts for reimbursements required after the event is finished for payment.

Fire Agate

From <http://en.wikipedia.org/>

Fire agate, a variety of chalcedony, is a semi-precious natural gemstone found only in certain areas of northern Mexico and the southwestern United States. Approximately 24-36 million years ago these areas were subjected to

massive volcanic activity during the Tertiary Period. The fire agates were formed during this period of volcanism when hot water, saturated with silica and iron oxide, repeatedly filled cracks and bubbles in the surrounding rock.



Fire agates have beautiful iridescent rainbow colors, similar to opal, with a measurement of hardness on the Mohs scale of between 6.5 and 7 which prevent issues of fading, cracking and scratching. The vibrant iridescent rainbow colors found within fire agates, created by the Schiller effect as found in mother-of-pearl, is caused by the alternating silica and iron oxide layers which diffract and allow light to pass and form interference of colors known as fire. There is no actual object inside the stone, this special effect arises from light interference within the micro-structure layering of the gem.

New Newsletter Editor

Editorship of the Rock City Rockhound News has passed from the very capable hands of Bev Bockman to Michael Burton. Thanks for the great example, Bev. I hope I can do as well. -Mike

Cryptic Quote

Clue: Replace each S with a T

JBVN! PXCJPTBXNN GI SRXQP TGGM, SRX

BQSSBX AQWSQMN VBZJ.

- SRGMJN CPJZ

Puzzle solution on page 5

Cabochon Cuts

From Gem Cutting, A Lapidary's Manual by John Sinkankas

Before proceeding with the actual cutting of a cabochon, you must have clearly in mind the use to which the finished stone will be put. Is it going to be used in jewelry; if so, what kind? Or, if intended as a part of a collection, are the factors of shape and size important? The answers to these questions may easily give an exact purpose to your cutting and very likely lead to more worthwhile results.

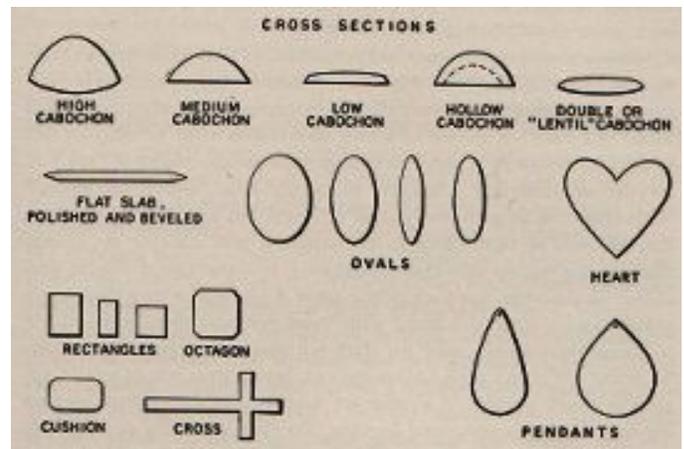
Selecting a Style of Cut

The variations in shape of cabochons are virtually limitless; but, in general, only a few standard shapes are cut. These are: the oval (really an ellipse), the circle, the angular or polygonal shape, the heart, the pendant, and sometimes the cross. Hearts and crosses are always attractive but are difficult to do well. Irregular shapes are currently popular, both in thin slabs possessing a striking pattern and in the so-called "baroque" gems. The latter are merely small pieces of rough, smoothed and polished all over without any attempt to make the shape regular. Their deliberate lack of symmetry is pleasing in a barbaric way.

The selection of a cabochon shape must be also governed by practical considerations. The long, narrow, navette shape, for example, is intriguing, but if meant to be put in a ring, it will present some serious problems. Not only is it more difficult to make, but its sharply pointed ends are apt to catch on clothing and result in bending or breaking the ring. Cabochons cut in large sizes are seldom practical for brooches unless the cutter makes them thin in cross section to reduce weight. If too heavy, they will tend to hang improperly from the clothing. Because of this consideration, commercial cutters have learned to cut such stones into thin sections, sometimes even hollowed out on the back, and always with the view that expensive gem material can be more economically used in thinner slices. Earrings of the screw type can be the most troublesome of

all jewelry and the most easily lost if they are extremely heavy. For safety, such earrings must be screwed on too tight for comfort. Bracelet stones also cannot be too large, but for a different reason. If meant to be set in a series of links, they should be small enough to allow the assembled bracelet to curve smoothly and gracefully around the wrist.

Many amateurs do not cut cabochons for jewelry purposes but rather as items for their collection. In such a case the use of "standard" sizes is not required except for the sake of consistency. However, if the stones are to be mounted in ready-made mounts, accurate cutting is necessary. Exceptionally good material should be cut on its own merits, probably deserving a fine, handmade mount anyway.



The beginner's work is most often revealed by the excessively heavy tops he puts on his first stones, a practice seldom followed by the professional. There are times, however, when thick tops are needed, either for an appropriate effect, or for safety's sake in the case of materials that are fragile or easily split. Amazonite, the lovely green feldspar, for example, possesses several easy cleavages and, unless cut fairly thickly, may break apart during cutting. Certain transparent and translucent gems, such as amethyst and rose quartz, may, in thin sections, present a washed-out appearance. Obviously, the intensity of the color will determine largely how thick such gems should be cut.

Cabochon shapes are not only classified as to outline but to cross section as well. The most common section is that in which the bottom is perfectly flat and only the top is curved. Starting from sawed slabs, this shape is easiest to attain and is also most satisfactory for setting in jewelry. If both top and bottom are rounded - the top usually more so -

the cabochon is known as a "double-cabochon." This shape, if thin, is also called a "lentil" in allusion to its bean-shaped cross section. Seldom encountered and difficult to accomplish is the hollow cabochon, used to give lightness of weight and color. In this type, the back of the stone is ground away with sphere-shaped metal cutters charged with loose grit and then polished. It is almost exclusively used for dark-red almandine garnets or "carbuncles." Without such hollowing out, many almandines would appear as black as coal. A simple yet highly satisfactory cross section for large stones is presented by thin, flat slabs carefully polished on both sides and the edges neatly finished in single or double bevels. This mode of preparation is well suited to pendants and brooches.

The upper upper curvature of cabochons may be further classified as to the steepness of the curve. A shallow curve is called a "low" cab; then there are, successively, "medium" and "high" cabs. Each has a particular application.

The Ellensburg Blue Agate

From *The Nisqually Rockhounder*, 4/01 by Ray Killian

Found only in the northwest corner of lower Kittitas Valley, near Ellensburg, is the unique stone known throughout America as the "Ellensburg Blue". This Agate is only found in a 20 to 25 miles radius from the town of Ellensburg. It is believed to have been deposited from the last glacial age. This is why one looks for the agate on the surface. Best time to look for the Agate is after the spring thaw or when farmers get their fields plowed, as both bring the Agates up to the surface.

What makes it unique and much sought after? The answers to this question can be summed up in several words, Scarcity, color range and variety, hardness and adaptability to variety of settings.

The scarcity of the stone is such that one to two ounces of cutting material in eight hour search of the rugged hills and fields where it occurs, is considered a good day's find. Occasionally one finds a stone of up to four ounces and over. Almost all of the land where Ellensburg Blues are found is posted private, or leased land and as such is closed to rock hunters except by special permission of the local rancher.

Color of the Ellensburg Blue ranges from the light, sky blue through a cornflower blue to almost purple royal blue. Clouds, streaks, or bands may occur in stones and graduates

from nearly opaque to transparent.

The hardness of any stone is measured on Mohs scale of 1 to 10. One being talc and ten being diamond. Using this measurement, the Ellensburg Blue will test out at from 7.5 to 8.3 or harder on the scale.

Because of its singular qualities and limited quantity, Ellensburg Blue has been reclassified by many gemologists to be a precious gem. Therefore, should you decide to purchase an Ellensburg Blue, you will not only have a truly unique piece of jewelry, but also an investment that will no doubt increase in value quickly.

I wish to thank all the people of the Ellensburg Agate shop for all the information on this one-of-a-kind agate. They were very helpful in explaining all about this Blue Agate, color, where found and even gave a map as to where would be the best place to go for a first timer. I shall share all these with you.

If you are in the Ellensburg area and have some time stop by the shop. They have a large display of Ellensburg Blue, some very fine one of kind jewelry and unmounted stones. The shop also has jewelry findings and lots of other agates and jasper and many other types of stones.



Ellensburg Blue Agate

DUES REMINDER

Don't Forget: If you haven't paid your member dues, you should do that at this month's meeting.

**\$10 for a single member
\$17.50 for a family**

Tumbling

From *The Rock Licker* 9/00 via *Golden Spike News* 10/00 by Bob Hicks (Rearranged and shortened by the editor with the author’s permission)

General Information

Two methods of tumbling being discussed will be with the rotating tumbler, and the vibrating tumbler. For both methods the grinding medium is silicon carbide.

The grits: Rough grit (anything under 100) is used for the first stage. Medium grit (120 to 300) is used in the 2nd stage. Fine grit (400-600) is used for the third stage.

Estimating cost: As a “rule of thumb”. Silicon carbide, 220400 grit weighs approximately 0.8 ounces per tablespoon. Fine grits 400-600 and polishing powders weigh approximately 0.5 ounces per tablespoon.

Weigh your stones when you get your tumbler 2/3 to 3/4 full. In other words, a 6 pound tumbler does not always hold six pounds of rocks. As a rule of thumb, use 1 tablespoon of grit per pound of stones, or 1 tablespoon per two pounds of the manufacturer’s weight rating of the tumbler. Most tumbling books suggest more grit and polish than is really necessary.

Volume shrinkage: roughly 25 percent of the beginning volume tumbled in step one will turn to mud, so run two loads of step one. This will provide the filler material to replace those that were ground away or thrown away from the first step.

Sizes and hardness of stones: A superior polish requires a variety of sizes, with the emphasis on lots of small chips that help polish the larger stones. All stones in a load should be of the same approximate hardness. Softer stones will not polish and may be gouged by harder stones.

A handy hint: Have a note pad next to the tumbler to record the date, time, and condition of the stones during the various steps and grit changes.

Polishes: There are many different polishes for the final stage. The best one for you will be determined by experimenting. Some of them are: Rapid 61, Aluminum Oxide, Cerium Oxide, Tin Oxide, Chrome Oxide, and Tripoli. Suggestion: rapid 61, Cerium, or Tin Oxide.

Burnishing: Use a soap rinse . Bar Ivory soap is the only

pure soap we know of. Chemical additives in other soap and detergents seem to leave a residue on the stones. The dark color when this soap rinse is poured off shows how much grit was still on what you thought were clean stones. Shave the bar with a knife or whatever method you wish. The water-soap combination reaches a balance when little bubbles appear on the surface of the moving material and should remain this way throughout the soap cycles. The soap bubbles provide a cushion for the stones. Excess water slows down the process.

Cautions:

- 1. Do not let the slurry mud dry on the material in any cycle.** [If you goof] and you have hardened mud, fill the tumbler with water and let it run until the mud has washed off or is soft enough to wash off with a hose or faucet.
- 2. Do NOT pour slurry down the drain:** unless you can afford lots of plumbing bills.]
- 3. Some materials like jade or obsidian require different procedures**

	Step 1	Step 2	Step 3	Step 4	Step 5
Barrel Size	Coarse Grit 60/90	Fine Grit 120/220	Pre-Polish 500 Grit	Polishing Compound	Burnish (Soap)
Pounds	Tablespoons				
1.5	2	2	2	2	1/2
3	4	4	4	4	2
6	8	8	8	8	2
12	16	16	16	16	4

If you are concerned about gas, include a teaspoon of baking soda for each 3 pounds of material in each grit cycle.

Spalling is a “ground glass” appearance on the edges of stones. If this happens, use a filler material in step 3.

A filler material can be purchased, plastic, walnut shells, old inner tube pieces, felt matting, cut up soft plastic from milk bottle tops, etc. They are easier to remove if they float. Vibrating tumblers generally do not need a filler.

If your vibrating tumbler has gray sludge running down the outsides of the barrel during the grinding, or whitish sludge during the polish, or soapy stuff running down during the burnishing - you are using too much water, and grit or polish, or soap.

Cryptic Quote Solution

ALAS! REGARDLESS OF THEIR DOOM, THE
LITTLE VICTIMS PLAY.

- THOMAS GRAY

Hints & Tips

Silversmiths: Draw your jeweler's saw through an old candle. It coats the blade and you can saw faster. Wipe a piece of chalk over your jeweler's files. It keeps metal slivers from clogging the file and you can blow them out. Avoid scratches in silver you are working on by covering it with transparent contact paper. You can mark and saw with the paper on. **From *The Petrified Digest* 1/99**

Lapidary: To identify and grind out pits in the cabochon, spray the rough cab with red enamel from an aerosol can, then grind the paint off with a light touch. Pits and lines will stand out as bright red spots, making it unnecessary to wipe the cab to see if the pits are out. This is especially helpful when grinding free form cabs from Fire agate. **From *Quarry Quips* 12/98**

Lapidary: If you have Chrysocolla and would like to bring out the blue and green, also any copper. put it in full strength chlorine bleach for as long as it takes. This really works and you will get good colors. Remember the hazard of mixing bleach with any acid. It releases a poisonous gas. **From *Arrastra* 11/98**

Equipment: If your soft plastic safety goggles are scratched or foggy, try toothpaste and only a little elbow grease. It works super. **From *Golden Spike News* 4/99**

Cleaning: Don't use laundry detergent to clean oil from material that has just been sawed. Use dish washing detergent instead. Laundry detergents contain bleaches that may affect colors on many gemstones and slabs. Dish washing detergents do not have bleaches and are balanced to break down oils, fats and grease. **From *Gem City Rock News* 9/96**

Stabilizing Porous Stones: If you would like to try your luck at stabilizing a porous stone such as turquoise so it can be cut and polished, then Silvery Colorado River Club offers these instructions: Take a jar with a lid; add 1 pint acetone (do this outdoors!), add the contents of both the

resin and the hardener tubes of epoxy glue, mixing well (suggest 330 water clear epoxy); add well dried stones; cover and let remain at least 4 days; remove stones; allow a week to dry. They should now be stabilized and ready for working. **From *Minnesota Mineral Club***

Tumbling Hint: To tumble soft material that is hard to polish, start with second coarsest grit. Fill the tumbler to 3/4 or 7/8 full so stones will roll and not fall. About 1/4 the normal amount of cerium oxide polishes better than the usual polishes. **From *Owyhee Gem***

Remove stains from marble: Use a paste of cornstarch and water. Spread over the stain and allow to dry overnight. Rinse with clear water. If the stain remains, repeat with a paste of cornstarch and hydrogen peroxide, except rinse off after a couple of hours.

Quick & cheap fluorescent: Light can be made by replacing the clear lens from a flashlight with a cobalt blue lens from a stained glass dealer.

Rocks and Minerals Word Find

Find the following words in the grid. They can be horizontal, vertical, diagonal or reversed.

ALEXANDRITE , AMBER , AMETHYST ,
CALCITE , CARNELIAN , DIAMOND ,
EMERALD , GARNET , JADE , MALACHITE ,
OPAL , PERIDOT , RUBY , SODALITE , SPINEL ,
TALC , TOPAZ , TURQUOISE

R	X	B	P	B	D	K	W	C	U	B	T	Q	N	E	D	P	J
D	Z	I	M	E	K	E	J	G	A	Q	R	J	J	K	B	M	A
V	B	A	C	J	R	C	I	T	U	R	Q	U	O	I	S	E	D
K	B	L	P	D	E	I	B	X	Q	T	N	I	I	J	F	N	E
V	Z	G	L	O	Z	R	D	E	T	Z	A	E	L	T	O	F	D
Q	S	G	Z	X	T	F	A	O	W	R	G	R	L	M	V	Q	W
Z	W	A	M	E	T	H	Y	S	T	H	Q	X	A	I	Z	N	R
F	S	J	E	O	V	G	O	S	U	C	V	I	B	C	A	U	L
T	D	C	T	P	D	P	Y	D	Q	P	D	X	A	P	X	N	M
A	T	T	I	A	L	S	O	D	A	L	I	T	E	O	V	K	O
L	Y	H	C	L	R	Z	O	R	E	B	M	A	Z	F	R	G	O
C	P	C	L	E	T	I	R	D	N	A	X	E	L	A	D	A	L
B	I	V	A	S	R	U	B	Y	A	C	Q	A	P	L	A	R	E
T	V	T	C	J	C	A	L	X	O	S	I	R	L	J	C	N	N
L	E	M	E	R	A	L	D	U	I	R	G	H	I	I	T	E	I
R	M	N	E	S	I	O	U	Q	R	U	T	T	L	I	P	T	P
C	C	J	L	M	B	E	T	I	H	C	A	L	A	M	V	U	S
J	G	K	X	C	J	K	W	R	V	Q	N	U	B	I	J	V	Y

North Idaho Mineral Club
 P.O. Box 1643
 Hayden, ID 83835



First Class Mail

<p style="text-align: center;">NIMC Officers</p> <p>President: Dale Ruperd (664-2712) Vice-President: Dean Hutchinson (686-9156) Treasurer: Carl Chapin (772-9049) Secretary: Diane Rose (659-6173)</p> <p style="text-align: center;">Other Positions</p> <p>Show Chair 2016: Dean Hutchinson Newsletter: Michael Burton (772-9347) Federation Director: Dale Ruperd Federation Delegate: Bill Johnson (765-3099) Webmaster: Michael Burton Programs/Membership: Bev Bockman (773-5384)</p> <p style="text-align: center;">Affiliations</p> <p>AFMS – American Federation of Mineralogical Societies NFMS – Northwest Federation of Mineralogical Societies S.C.R.I.B.E. ALAA – American Lands Access Association</p>	<p style="text-align: center;">Gem Show Schedules</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Feb 12-14</td> <td style="width: 15%;">9:30-5:30 9:30-5:30 9:30-5:30</td> <td style="width: 20%;">Oregon Agate & Mineral Society</td> <td style="width: 50%;">OMSI, 1945 SE Water Ave, Portland, OR</td> </tr> <tr> <td>Feb 13-14</td> <td>9:00-5:00 9:00-4:00</td> <td>Whidbey Island Gem Club</td> <td>Oak Harbor Senior Ctr, 51 SE Jerome St, Oak Harbor, WA</td> </tr> <tr> <td>Feb 27-28</td> <td>10:00-6:00 10:00-5:00</td> <td>Idaho Gem Club</td> <td>Expo Idaho, 5610 Glenwood St, Boise, ID</td> </tr> <tr> <td>Mar 4-5</td> <td>8:30-6:00 9:00-5:00</td> <td>Panorama Gem & Mineral Club</td> <td>Stevens Co. Fairgrounds, Columbus Ave, Colville, WA</td> </tr> <tr> <td>Mar 5-6</td> <td>10:00-6:00 10:00-5:00</td> <td>East King Co Rock Club</td> <td>Pickering Barn, 1730 10th Ave NW, Issaquah, WA</td> </tr> <tr> <td>Mar 12-13</td> <td>10:00-6:00 10:00-4:00</td> <td>Magic Valley Gem Club</td> <td>Twin Falls Co. Fairgrounds, Merchant Bldg #1, 215 Filer Ave, Filer, ID</td> </tr> <tr> <td>Mar 12-13</td> <td>9:00-5:00 10:00-4:00</td> <td>Rock & Arrowhead Club</td> <td>Klamath Co. Fairgrounds, 3531 So. 6th St., Klamath Falls, OR</td> </tr> </table>	Feb 12-14	9:30-5:30 9:30-5:30 9:30-5:30	Oregon Agate & Mineral Society	OMSI, 1945 SE Water Ave, Portland, OR	Feb 13-14	9:00-5:00 9:00-4:00	Whidbey Island Gem Club	Oak Harbor Senior Ctr, 51 SE Jerome St, Oak Harbor, WA	Feb 27-28	10:00-6:00 10:00-5:00	Idaho Gem Club	Expo Idaho, 5610 Glenwood St, Boise, ID	Mar 4-5	8:30-6:00 9:00-5:00	Panorama Gem & Mineral Club	Stevens Co. Fairgrounds, Columbus Ave, Colville, WA	Mar 5-6	10:00-6:00 10:00-5:00	East King Co Rock Club	Pickering Barn, 1730 10 th Ave NW, Issaquah, WA	Mar 12-13	10:00-6:00 10:00-4:00	Magic Valley Gem Club	Twin Falls Co. Fairgrounds, Merchant Bldg #1, 215 Filer Ave, Filer, ID	Mar 12-13	9:00-5:00 10:00-4:00	Rock & Arrowhead Club	Klamath Co. Fairgrounds, 3531 So. 6 th St., Klamath Falls, OR
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