

# Lake City Rockhound News

Newsletter of the North Idaho Mineral Club, Inc.  
P.O. Box 1643 Hayden, ID 83835

February, 2016  
Volume 9, No. 2

We meet on the 3<sup>rd</sup> Thursday of the month at the Lake City Center, 1916 Lakewood Drive, Coeur d'Alene in the Library, from 6:00PM to 8:00 PM. Visitors and Guests are Welcome.

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

## Contents

Meeting Info . . . . .	1
Meeting Minutes . . . . .	1
Precious Metal Clay . . . . .	2
WSMC Sponsored Field Trips . . . . .	4
Faceted Gems . . . . .	4
Lapidary Tips . . . . .	5
Cryptic Quote . . . . .	5
Calendar of Events . . . . .	6

## This Month's Meeting

**Regular Meeting** – February 19, 2016

### **The Meeting Program:**

Leon Agee will present a slide show on Inclusions

**Refreshments:** Corey Brenner

There will be a silent auction and scholarship raffle (next raffle will be in March). Buy your tickets today.

## January 2016 Meeting Minutes

Meeting called to order by President Dale Ruperd.

The Pledge of Allegiance was recited.

The Treasurers report was given by Carl Chapin. All bills are paid.

There were 19 members and one guest, Julie McCormick who joined at the meeting. Welcome Julie!

### *Old Business:*

Change of Bylaws. The proposal was submitted for a vote. (as printed in January Newsletter). Motion to approve made by Corey Brenner/ seconded by Diane Rose. Passed.

Treat schedule was passed around for members so sign up for treats for the monthly meetings. Thank you to those signing up!

February treats will be furnished by Corey Brenner

### *New Business:*

No new business.

### *Show report:*

Beverly Bockman reported that Dean Hutchinson met with

her to explain the duties of Show Chairman for the June 4 & 5, 2016 show at the Fairgrounds.

### *Announcements:*

Joshua Williams from the NIC Geology Club introduced himself and explained some of the goals of their Club. They meet every Wednesday at noon. Contact Joshua at 208-641-9815 for more information. They are planning field trips.

Beverly Bockman stated the Panorama Club (Colville, WA) show is March 4 & 5 (Friday and Saturday) Need more information call Beverly: 208-773-5384

Dale Ruperd stated the Rock Roller have their field trips on their website and encouraged NIMC members to join in on any that interest them.

Rock Rollers Show is March 25, 26 & 27 at the Spokane Fairgrounds.

Our newest member shared her braided garnet necklace she had made with an Alaskan garnet and some quartz crystals she found at z friends claim. She likes gold!

Respectfully submitted, Diane Rose, secretary

## Precious Metal Clay

By Jeanette Landenwitch, via Gem Cutter News, 12/08

### Introduction

PMC is a revolutionary development in the precious metal industry. It allows for easy creation of detail in designs that would be very difficult and painstaking to achieve using conventional forms of metal and methods of working. Expensive tools and equipment are not needed to work with PMC.

It is a very versatile product. The silver and gold PMC can be used separately, or in combination with each other, as in two-tone pieces. PMC can be combined, before firing, with other materials such as potter's clay, sterling silver, high-fired ceramics, synthetic corundum stones, and, after firing, using epoxy, or soldering methods. It can be enameled, carved, or even wheel-thrown. Three dimensional pieces and hollow forms such as beads and vases can easily be made.

PMC is a very 'forgiving' medium. Changes in the piece can be made at any stage of creation, allowing for the design to truly evolve. New designs can be tested with very little time commitment. You will also learn that, with a little vigilance, there is virtually no wasted PMC. Slightly or completely dried PMC can be re-hydrated to working consistency, or made into slip (a paste form of PMC used for joining and repairing).

PMC has incredible potential and limitless possibilities. Your designs can be as simple or as intricate as you desire. As you learn about PMC, your imagination will be more than sparked. You will find yourself thinking of more design ideas than you have time to create. By all means try new things and experiment with new ideas. This is a product that is in its infancy. It has tremendous potential and is very easily individualized. Experienced artisans, jewelers, clay workers, bead-makers, etc., will find ways to incorporate PMC into existing methods of working. Novice hobbyists and budding artisans will have wonderful success from the very beginning. You will find great satisfaction and encouragement when you see the professional results you can achieve.

Those who experiences PMC will add a dimension to their work that has been unavailable until now.

### Properties of Standard PMC, PMC+, and PMC 3

Precious Metal Clay is available in pure silver, and in 24 Karat gold and the just released PMC Bronze. We'll only discuss the silver and gold here.

There are three types of silver PMC-standard PMC, PMC+ (called PMC Plus), and PMC 3. Each can be worked the same, using the same tools, yet each type also has its own properties and characteristics. These varying qualities are what make using PMC so very versatile. Although each type of silver PMC has its own rate of shrinkage, the shrinkage is uniform throughout the piece. Therefore, the proportion and scale within the piece before it is fired, will remain the same after firing, the piece will just be smaller. Also note that the shrinkage will occur in all directions-length, width, and thickness. One of the beauties of the shrinkage characteristic is that you create the piece in a larger size (definitely a plus for those of us who wear glasses), and the detail becomes more enhanced after it has been fired.

### Standard PMC

In standard PMC, whether silver or gold, the binder is about 30% of the content of the silver clay mixture. Since



the binder burns away, the piece will be about 70% of the original size after firing. There is a PMC ruler made specifically to help measure the shrinkage of standard PMC. I have found it to be very accurate. This ruler works for standard PMC only, both silver and gold. Each side has a true 6" ruler. On one side there is also an expanded ruler

that shows the size the piece should be made before firing in order to achieve the intended finished size. For example, if you want a piece to be 1" long when it is finished, then you would use the expanded ruler and actually make the piece the expanded 1". On the reverse side there is a shrunken ruler. If you are using a mold, for instance, that

the size has already been determined, then you would measure that mold with the true 6” ruler and check the shrunken ruler to see what the actual after firing size would be. So, a piece made from a 1” mold before firing would actually end up being less after it is fired.

Standard silver PMC is fired at 1650F for two hours. Gold is fired at 1830F for two hours. After firing, PMC is stronger than the same item made in conventional metal of the same purity. PMC is more porous, therefore resulting in pieces that are lighter in weight than their counterparts in conventional fine silver and 24K gold. This characteristic is particularly advantageous when making larger wearable art items.

**PMC+**

Silver PMC+ has approximately 12% binder in the content of the clay, and therefore shrinks to about 88% of its original size. It is denser after firing than standard PMC, therefore is slightly heavier. There are three firing temperature and time options for PMC+. It only needs to be fired for 10 minutes, but can be fired longer. When fired for two hours, at 1650F, it becomes almost as strong as sterling silver. Firing at the lower temperature of 1470F makes it possible to embed sterling silver findings, such as earring posts, before firing.



**PMC 3**

Silver PMC 3 has the same shrinkage rate as PMC+. PMC 3 can also be fired for as little as 10 minutes, or as long as two hours. If fired for two hours it will become slightly denser than the other two forms of PMC, and, therefore, slightly stronger. If fired for two hours, PMC 3 must first be heated to about 250C for at least 10 minutes to be sure the binder burns away.



No matter which form of PMC you use, after firing it is pure precious metal and can be handled as such. It can be

sanded, soldered, polished, tumbled, burnished, oxidized, wire brushed for a satin finish, enameled, etc.



**How to Avoid Haze on a Cabochon**

by Bill White , via Strata Gem, 12/08

Yes, it is possible to cloud or haze a cabochon in the final polishing step. There are at least two reasons this happens. Some stones will haze under the influence of most polishing compounds due to their physical structure. These are usually soft materials below seven on the Mohs scale, such as obsidian, sodalite, malachite, variscite, etc. A good rule of thumb is: any stone that will dull and haze when used in a ring or pendant will also do so during the polishing stages. When you run into one of these babies that just must be added to your personal collection, your best buy is to stay with diamond all the way. However, in most cases this problem occurs because of the person holding the dopstick. Improper sanding can leave a nip or fuzzy surface. A buildup of heat can create a flaw early in one of the sanding stages, scaling over and locking in the dull haze you are trying to overcome. This part of the problem can happen with most lapidary material. So avoid all heat buildup in your sanding operations. It's absolutely essential to have a clean stone before polishing. Be certain extender fluid, soap, oily finger residue, etc., is removed. Any contaminates will mingle with the polishing agent and become part of the stone's surface. What should be a sparkling, flawless gem is cloudy and hazy and not an object of beauty. Only by going back and resanding to remove all traces of this microfilm can the problem be corrected.

The glaze on your jade cab is caused by working with well-worn sandpaper. Try washing the stone in acetone, then washing in detergent two or three times, scrubbing with a toothbrush. Rinse well and try it on new sandpaper.  
**Source: Quarry Quips, 7/05 via Rocky Mtn Fed News, 9/05**

### 2016 WSMC SPONSORED FIELD TRIPS

The Washington State Mineral Council plans guided field trips to collecting sites. Open to member clubs, and the general public. Most trips are free. Included are the Pow Wow trips (must join to go on trips). Host clubs and contact persons will be set up as I gather info. For updated information, go to: [mineralcouncil.wordpress.com](http://mineralcouncil.wordpress.com) , or contact Ed Lehman at [wsmced@hotmail.com](mailto:wsmced@hotmail.com), or home (425) 334- 6282 or cell (425) 760-2786.

Date	Host	Site	Meeting Place & Time	Material	Tools
1/16	Marysville	Beaver Valley	10:30 @ INFO center	Chert & Zeolites	Hard rock
1/30	Darrington	Walker Valley	9:00 @ Big Lake Store	Geodes & Agate	Hard rock
2/20	Marysville	Cedar Ponds	9:00 @ Monroe Jack n Box	Jasper	Dig & Hard rock
3/19	Marysville	Cherry Creek	9:00 @ Duvall Safeway	Jasper	Dig & Hard rock
4/16-17	POW	Saddle Mt.	8:00 @ Boat Launch	Petrified Wood	Dig & Hard rock
5/7	Darrington	Racehorse Creek	9:00 @ IGA @ Nugent's Corner	Fossils, Mushrooms	Dig & Hard rock
5/21	Ellensburg	Saddle Mt.	9:00 @ Mattawa Lepricon Market	Petrified Wood	Dig & Hard rock
6/10-14	Spokane	Succor Creek & McD	Call Host for Information	ThunderEggs & Agate	Dig & Hard rock
6/18	Darrington	FR 17 & 18	9:00 @ Darrington IGA	Jade, Serpentine, Hematite	Dig tools
6/23-26	POW	Madras, OR	8:00 @ County Fair Grounds	Agate, T-Eggs, Petrified wood	Dig & Hard rock
7/16	DAR	Sweetwater	10:00 @ Darrington Show (Grange)	Travertine	Dig & Hard rock
8/20-21	NWOS	Greenwater	9:00 @ Enumclaw Ranger Station	Agate & Jasper	Dig & Hard rock
9/10-11	POW	Teaway	8:00 @ Teaway Camp	Geodes, Agate, Jade	Dig & Hard rock
9/24	NWOS	Little Naches	9:00 @ Enumclaw Ranger Station	ThunderEggs & Lilypad Jade	Dig & Hard rock
10/15	Marysville	Money Creek	9:00 @ Money Creek Camp Ground	Ore & Picture Jasper	Dig & Hard rock
11/19	Mt Baker	Blanchard Hill	9:00 @ I-5 Exit 240 Gas Station	Dalmation Stone	Hard rock

**ALWAYS contact host for updated info a week before trip !!!**

HOST	CLUB	CONTACT INFO
Msvl	Marysville Rock Club	Ed Lehman— <a href="mailto:wsmced@hotmail.com">wsmced@hotmail.com</a> (425) 334-6282 (425) 760-2786
Dar	Darrington Rock Club	Ed Lehman— <a href="mailto:wsmced@hotmail.com">wsmced@hotmail.com</a> (425) 334-6282 (425) 760-2786
Pow	All Rockhounds PowWow Club	Larry Vess— <a href="mailto:vessel3755@gmail.com">vessel3755@gmail.com</a> (253) 473-3908
Elb	Ellensburg Rock Club	Steve Townsend— <a href="mailto:srtrocks@aol.com">srtrocks@aol.com</a> (509) 933-2236
Spk	Spokane Rock Rollers	Mike Shaw— <a href="mailto:mikeshawmoose@yahoo.com">mikeshawmoose@yahoo.com</a> (509) 244-8542
Nwos	Northwest Opal Society	Tony Johnson— (253) 863-9238
HC	Hells Canyon Rock Club	Dan Cease— <a href="mailto:rockmangem@q.com">rockmangem@q.com</a> (509) 254-1720

## Faceted Gems

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

A faceted gem can be most easily described as one which the outside is covered with a series of flat, polished surfaces called facets. In this respect it differs from a cabochon where the primary feature which captures our notice is the smooth and unbroken curvature. Customarily, faceted

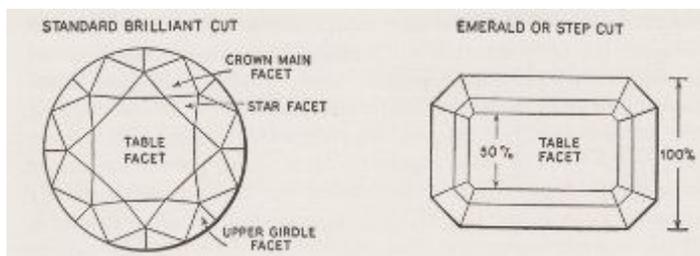
stones are cut from transparent material to take advantage of the additional brilliancy which this mode of fashioning provides. Yet, depending upon the tastes of the cutter, much opaque material is also faceted, the twinkling geometric reflections cast from the surface being considered a more attractive way of displaying the beauty of the stone than the rounded shape of the cabochon. Dead black gemstones are often cut in facet style - for example, tourmaline, spinel,

black diamond, jet, and hematite. Even the lowly agate is often cut in faceted beads. There is no hard and fast rule governing which stones should be faceted, it being primarily a matter of taste; but it must be noted that transparent stones gain most by being cut in this fashion.

Brilliance in gemstones is due to the reflection of light from the surface of the gem, and in the case of transparent stones, reflection from within also. The two intermingled reflections, which shift and sparkle as the stone is turned, depend for their intensity upon optical properties of the particular gemstone and the methods employed in its shaping and finish.

**Styles of Facet Cuts**

There are two basic styles of cutting faceted stones from which all other cuts are derived, the brilliant cut and the emerald or step cut. As shown in the diagram, the chief difference between the two is in the shape of the facets and their placement about the gem. In the brilliant cut, the facets are triangular or kite-shaped while in the step cut, all facets are more or less rectangular and arranged in parallel or in "steps."



The brilliant cut is particularly suited for, but not confined to, colorless or faintly colored stones which, lacking hue, must depend on clean, sharp, brilliant flashes of light for attractiveness. Step cuts may also be used for pale or colorless stones but find their greatest employment in stones of a decided color. There, again, no hard-and-fast rule governs the selection of a style, and the taste of the cutter, as well economic considerations, will determine which one will be selected. Today's taste in gemstones is toward the simple perfection of the step cut for almost all colored stones and even for those only faintly tinged.

**Lapidary Tips - Polishing & Cleaning**

**Stoney Statements, Oct 2012**

, **via Pick Hammer News, Jan 2013**

, **Via Beehive Buzzer January 2013**

- When polished, black petrified wood has no resemblance to wood at all. It looks like a plain black polished stone. You can highlight some of the beautiful grain structure by bleaching it. Soak the cut and sanded pieces in household bleach for 2 to 4 weeks, replenishing the solution when needed. When the desired grain contrast has been obtained, remove the pieces and polish. Some extremely interesting pieces can be obtained by this method.

- To polish a stone in its setting so it can obtain its original luster, use a piece of suede or chamois skin or soft leather. Dip the stone in water and rub with polishing powder. Several rubbings may be necessary to restore a stone such as jade. Organic material will sometimes put a polish on turquoise.

- One way to clean quartz and amethyst crystals that does not involve dangerous acids is to cover them with fresh vinegar to remove the carbonates such as lime, barite and calcite. Allow them to stand overnight (or longer as needed) in the vinegar. Wash well, and then place the crystals in washing type ammonia for 8 to 12 hours. Remove, rinse and wipe dry.

- Don't use laundry detergents to clean oil from rocks that have been sawed. Use regular dishwashing soap (not those containing bleach or "oxy") instead. Laundry detergents contain bleaches that may affect colors on some materials. Regular dishwashing detergents do not have bleach and are balanced to break down oils, fats and greases.

**Cryptic Quote**  
 Clue: Replace each W with an E  
 RWOWM EROWGF ILAM JLRWI ER SRIFNERT  
 FNSF WSFG LM RWWYG USERFERT.  
 -KEHHI MLGW

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**First Class Mail**

<b>NIMC Officers</b>		<b>Gem Show Schedules</b>																													
President: Dale Ruperd (664-2712) Vice-President: Corey Brenner (640-4743) Treasurer: Carl Chapin (772-9049) Secretary: Diane Rose (659-6173)		<table border="1"> <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 &amp; 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 10<sup>th</sup> 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 &amp; Arrowhead Club</td> <td>Klamath Co. Fairgrounds, 3531 So. 6<sup>th</sup> St., Klamath Falls, OR</td> </tr> <tr> <td>Mar 18-20</td> <td>10:00-7:00 10:00-5:00</td> <td>Timpanogos Gem and Mineral Society</td> <td>Spanish Fork Fairgrounds, 475 So. Main St., Spanish Fork, UT</td> </tr> <tr> <td>Mar 19-20</td> <td>9:00-6:00 10:00-5:00</td> <td>Hellgate Mineral Society</td> <td>Hilton Garden Inn, 2730 No. Reserve St., Missoula, MT</td> </tr> </table>		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 <sup>th</sup> 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 <sup>th</sup> St., Klamath Falls, OR	Mar 18-20	10:00-7:00 10:00-5:00	Timpanogos Gem and Mineral Society	Spanish Fork Fairgrounds, 475 So. Main St., Spanish Fork, UT	Mar 19-20	9:00-6:00 10:00-5:00	Hellgate Mineral Society	Hilton Garden Inn, 2730 No. Reserve St., Missoula, MT
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<p style="text-align: center;"><b>Other Positions</b></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 style="text-align: center;"><b>Affiliations</b></p> AFMS – American Federation of Mineralogical Societies NFMS – Northwest Federation of Mineralogical Societies S.C.R.I.B.E. ALAA – American Lands Access Association																															