December 2023

The Cutting Edge

Monthly Newsletter of the Ottawa Lapsmith and Mineral Club

In this month's Newsletter:

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President's Message

Our lease expires April 30, 2024. Thereafter we will pursue changing our status to an Ontario nonprofit corporation and we will rent a new commercial workshop somewhere. Several club members have offered to assist the club when the time comes.

The MIG group has gone independent and is becoming its own non-profit corporation. I have no details yet. You may contact secretary@olmc.ca (Bob Boisvert) for further details.

The Silver Cove mineral show came and went at the EY centre. Early reports are "more of the same".

There is interest in "in person" meetings at the Richilieu Vanier centre (where the Christmas party is being held). We require a programme director to make it all happen. Interested parties can contact any member of the executive.

Happy Holidays and Happy 2024.

Kerry Day
OLMC President

Reminder: Membership cards that were purchased before 2023 will expire on December 31. Please renew your membership before January 31, so you can keep receiving announcements, invites, and the newsletter.

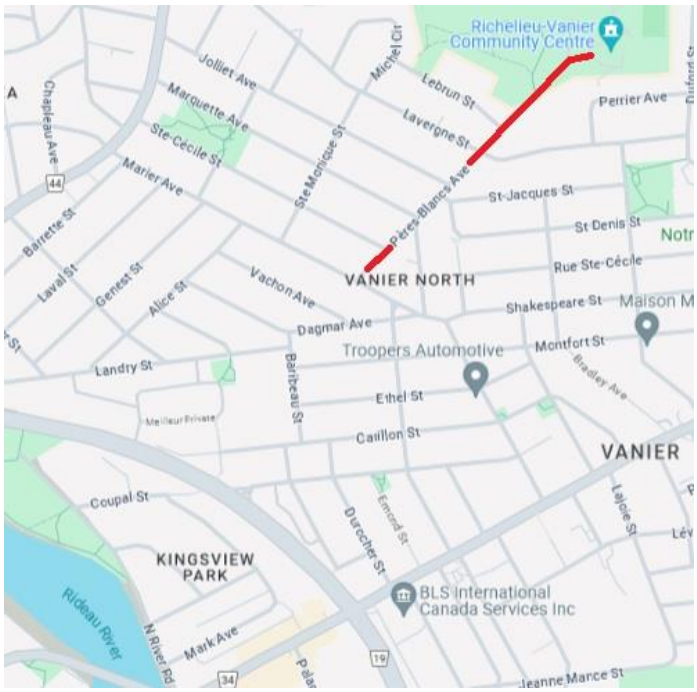
All members are invited to submit articles, proposals, and thoughts that could be included in the newsletters. Also, feel free to send your Classified ads by e-mail to: *news@olmc.ca*

Pot Luck Christmas Party

Date: Saturday, December 2
Time: 7 pm to 10 pm
Location: Richelieu-Vanier Community Centre, 300 Pères-Blancs Avenue
Room: VCC Acceuil Hall (at the back, up the stairs)

There will be club-provided dinner wine, and we do have a LCBO license for the occasion. There will be a raffle/give away with over 100 items.

Setup can begin at 6 PM. Clean up and eviction must be done by 11 PM. There is no kitchen. There are a limited number of wall receptacles for appliances. Tables and chairs are provided but everything else, including dinnerware we will have to bring ourselves.



Please coordinate with Bob Boisvert at secretary@olmc.ca

Club Meetings Need Organizers

At present, neither the Silversmiths group nor the Mineral Interest group are holding on-line meetings. Both groups are looking for someone who would be willing to organize future meetings, not necessarily to host them. Perhaps you would be interested in taking on of these lead roles. If so, please contact pres@olmc.ca.

The Star of India

Star of India; photo by Daniel Torres, Jr.January 14, 2007, on Wikimedia Commons

The Star of India blue-gray sapphire that was mined in Sri Lanka in the 1700s, and polished into a star sapphire cabochon, with asterism on both sides. Weighing in at a hefty 536-carats, it is as big as a golf ball. Until 2016, it was the largest blue star sapphire in the world.

The stone is also notable for who has owned it. American financier J.P. Morgan purchased it for a splendid gem collection to be shown at the 1900 Paris Exposition. After the show, Morgan donated it to the American Museum of Natural History (AMNH), where it is still on display in the "Mignone Halls of Gems and Minerals".

The sapphire and twenty-three other valuable gems were stolen from the AMNH in 1964, by Jack Murphy, aka "Murph the Surf", and some accomplices in an event called the "Jewel Heist of the Century." There was a nationwide manhunt. The thieves were caught two days later, but it was months until the precious stones were found in a Miami bus station locker after Murphy traded the information for a lighter sentence related to another gemstone theft and assault of actress Eva Gabor.

Polishing Metal by Machine and by Hand

From the Silversmith group meeting of 2022-02-09, presented by Csilla Ekes

Csilla Ekes polishes an earring on a flat piece of 600-grit paper.

When anybody – a jeweller or the jewel industry – describes something as “hand finished”, it does not mean someone is doing it by hand. It means a polishing machine was used to handle many pieces in a finishing process overseen by a person. Most jewellery items in stores are mass finished, spending many hours in polishing tumblers. Small artisans do hand-finishing on a smaller scale, but that means using power tools to do it faster and in a cost-effective manner.

When working with silver, the surface always becomes ragged with tiny hills and valleys. The goal is to smooth it out by hammering, sanding and polishing. A rough surface will tarnish faster than a mirror surface because more surface area is exposed to the air.

The traditional finish is a mirror finish. "Artisanal" finish really is “anything goes”. The artists finishes the piece however they want. Sometimes there is no compromise, such as for earring wires and inside of rings which must be polished for comfort.

Hardware for the Task

A polishing unit has one or two spindles. Good ones have air filters and a motor at the back so that any toxic dust is captured. Some machines have a plexiglass enclosure and a hepa filter to capture even more fine dust.

Polishing compounds are used to buff and polish on this machine, and they are also used for the foredom hand tool. Triple-A is used to take out the largest scratches. The other compound is Rouge. It comes in different colours, and makes a mirror finish.

A selection of polishing burrs and wheels for the foredom in Csilla Ekes’ workshop.

The larger the wheel, the higher the speed of the polishing surface touching the metal. It spins very fast, cuts fast, and it is also dangerous if you aren't careful. A four-inch wheel may be a happy medium between enough speed and risk of injury.

For the foredom, there are a variety of tools and attachments, flat wheels and brushes. There are dozens of different shapes and sizes. Soft and flexible wheels are for polishing. The non-bendy rigid wheels are for grinding. Cone-shaped burrs are needed specifically for working

on the inside of rings. The inside of the ring must be polished very well, because the wearer will feel every ridge and point. Hard flat wheels are good for corners, while soft felt-covered wheels are use for a rounded and traditional look. Fabric wheels are made of many layers of cotton fabric or leather. When these wheels are new, they make lots of dust.

Top of Mind Basic Safety to Avoid Injury

Everything gets hot from the spinning wheel and from the operator applying pressure on the machine. Get leather or rubber finger protectors or tight-fitting gloves. Always wear a mask to avoid breathing in dust. Wear an apron. Make sure the polishing machine is clean and that the air filter is clean.

When doing chains or bracelets, wrap them tightly around a piece of wood, and keep it as tight as possible so that the wheel does not catch any loose parts. Loose parts could get wrapped around the wheel or break off and fly around.

When polishing jump rings or small pendants, attach them to a small piece of wire such as a paperclip so that you can hold them firmly with your fingers.

When smoothing out a surface, it is recommended to not use steel wool. Steel wool is brittle, and eventually the tiny bits of it will get into your pickle, your solder, your apron, and even your skin.

Tips on Using Hand Tools in Lieu of a Polishing Machine

To prevent unwanted scratches, keep silver pieces away from sharp tools and stones and dust. Use a sharpie pen to draw initial and temporary designs instead of an etching tool that might skip across the surface.

Csilla Ekes applies green rouge to a foredom polishing burr.

Certain surfaces, typically domed surfaces, appear to polish much faster. Flat surfaces are not as easy to polish.

Start polishing the piece on the inside bits, then the outer sides, and finally the top of the piece. If you are putting components together for a final piece, then each component should be polished separately before soldering them together. It can be a real challenge to adequately polish inside tiny crannies after a piece has been assembled without causing noticeable damage.

Know when to stop polishing. At a certain point, more polishing will just damage the piece. It is possible to "polish" right through the metal surface and create holes. Using sand paper, patiently going from 280 grit

to 600 grit may be good enough before moving on to the foredom to do touch-ups.

Get to Know Your Rouge

Jeweller's rouge is made from finely ground iron oxide (aka ferric oxide, aka "rust"). It has a dark red colour, hence the name. The iron oxide is mixed with tallow, which acts as a greasy binding element that allows the compound to be shaped into the handy form of a bar, making it easy to apply it to polishing mops.

The ferric oxide has a 5.5 to 6.5 Mohs hardness rating, so it is gently abrasive to metal, allowing a fine powder to appear on the jewellery as you work. In comparison, the hardness ratings of steel, silver and gold are respectively 4 to 5, 2.8, and 2.5 to 2.9.

All forms of jeweller's rouge are made from the same substances, but there can be variations in coarseness. Coarsely-ground oxide provides larger jeweller's rouge particles, with a rougher polish. Finely-ground oxide provides smaller particles with less cutting action but a finer polish. The greasy binding can vary depending on the manufacturer. Some rouge is dry and crumbly, which might help with clean-up, but will also create more dust. A greasier jeweller's rouge bar will result in less dust, but you have to spend extra time to remove that greasy residue from the metal. The best solution for removing the grease is hot, soapy water and a toothbrush.

Rouge colour is intended to identify the optimal use for certain metals. Red is intended for use on yellow gold, rose gold, copper, brass. Green is intended for silver, white gold, chrome, and steel, but you can still just use green for everything.

Put some Triple-A or Rouge on the cloth wheel. Move up and down on the piece while applying some pressure. The metal will get hot. If it does not get hot, try applying more pressure. You need in combination the spinning wheel in short bursts, the movement along the piece, and a bit of force. Get support for your hands on the bench or shelf. Polish until you are happy with the results.

'Tis the Season... For Shopping

Alyea's Jewellers Closing Sale

Alyea's jewellers is closing. The owners Hermann and Anne Wallner have announced their retirement. They had been in business for 62 years.

They would like to finish selling up by Christmas. They must exit their premises at 50 Sparks Street by January 31.

The sale started on November 2. The jewellery store is also selling their mineral samples. They still have some Burmese jade. There are good quality chains and bracelets, and other pieces.

One witness said the estate jewellery was going for 77 cents on the dollar of the lowest price marked on the ticket, while the rest was at 69 cents.

You can see some of their stock on the Facebook page or their Instagram page.

http://www.alyeasjewellers.com/alyea-jewellers-retirement-sale/

https://www.instagram.com/alyeasjewellers/

Estate Sale near Kington

Chris Brown contacted the club through Facebook.

"Our family is in the process of selling most of our gem and mineral collections. Not sure if there is a way to post to all members or face book page about this. We are located 30 km north of Kingston. Ontario. My contact info is Chris at 905-440-0456".

Tons of Craft Shows around the Region

Check out https://www.todocanada.ca/christmas-markets-holiday-craft-fairs-in-ottawa/

A lot of them are on December 2, so you might have to choose. There are sales in Manotick, Kars, Greely, Cumberland, Gatineau, Kanata, Aylmer, Orléans, and all over Ottawa. Below are a few that are later in the month.

Adàwàning: Indigenous Women's Art Market
National Arts Centre, 1 Elgin Street, Ottawa
December 15, 2023 To December 16, 2023

Local Flavours Holiday Market
Big Red Barn, 2391 Pepin Court, Ottawa
December 9, 2023 To December 10, 2023

Not Another Market
Parlour, 1319 Wellington West, Ottawa
December 3, 2023 To December 17, 2023

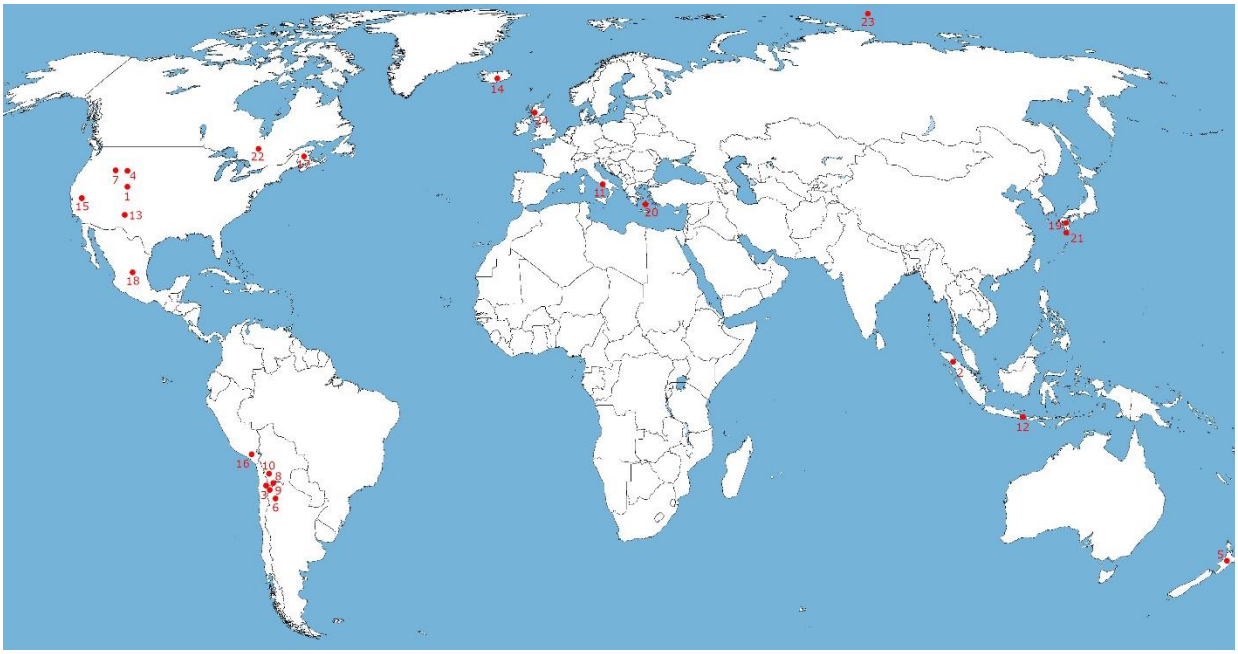
Ottawa Guild of Potters Holiday Pottery Sale
Horticulture Building,
1525 Princess Patricia Way, Ottawa
December 8, 2023 To December 10, 2023

Supervolcanoes

A supervolcano is classified as a volcano with an eruption magnitude of 8, the largest value on the Volcanic Explosivity Index (VEI) where the volume of deposits for that eruption is greater than 1,000 cubic kilometers. The most recent supervolcanic eruption on Earth occurred 27,000 years ago at Taupo located at the center of New Zealand's north island.

Super eruptions are extremely rare. They produce giant calderas that can be more than 50 kilometres wide. Supervolcanoes do not always have massive explosions. Sometimes they make smaller, more 'normal' eruptions. The region around Naples, Italy, is known for nearby Mount Vesuvius and Campi Flegrei, which last erupted in 1538 and is expected to erupt again soon.

A supervolcanic eruption would have world-wide consequences. The famous Krakatau eruption of 1883 was magnitude 6, and killed 36,000 people. Earth cooled by 0.6°C for months. Tiny particles released into the air caused the Moon to appear blue for a year..



Below is a list of some of the locations of these massive eruptions.

1 :: La Garita Caldera, United States
2 :: Lake Toba, Sumatra
3 :: Cerro Guacha, Chile
4 :: Yellowstone Caldera, United States
5 :: Taupo Volcano, New Zealand
6 :: Cerro Galán, Argentina
7 :: Island Park Caldera, United States
8 :: Vilama, Argentina and Bolivia
9 :: La Pacana, Chile
10 :: Pastos Grandes, Bolivia
11 :: Mount Vesuvius, Italy
12 :: Mount Agung, Indonesia
13 :: Valles Caldera, United States
14 :: Bárðarbunga, Iceland
15 :: Long Valley Caldera
16 :: Huaynaputina, Peru
17 :: Flat Landing Brook Formation, Canada
18 :: Aguas Calientes caldera, Mexico
19 :: Mount Aso, Japan
20 :: Santorini, Greece
21 :: Kikai Caldera, Japan
22 :: Blake River Megacaldera Complex, Canada
23 :: Gakkel Ridge Caldera, Arctic Ocean
24 :: Glen Coe, Scotland

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Chlorite $(Mg,Fe)_3(Si,Al)_4O_{10}(OH)_2 \cdot (Mg,Fe)_3(OH)_6$

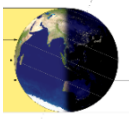
Chlorite Schist; photo by Siim Sepp, April 20, 2005, Wikimedia Commons

Chlorite is a group of phyllosilicate minerals that form as sheets in low/edium temperature metamorphic rocks and altered igneous rocks. Chlorites contain varying amounts of magnesium, iron, aluminium, and silicon from magnesium-rich clinochlore and iron-rich chamosite. There are also some versions with manganese, zinc, lithium, and calcium. The result is a wide range of physical, optical, and X-ray properties in this group, and names for the different compositions.

Chlorite is called a "clay mineral" because it forms in the presence of water, but it does not absorb water. It has a Mohs hardness of 2–2.5. Chlorite crystals look like blue-green mica crystals, but they are not as elastic, and not as easy to pull apart. The lattice is alternating tetrahedral-octahedral-tetrahedral layers and octahedral layers.

Workshop Schedule

December 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21 	22	23 
24	25 	26 	27	28	29	30
31 						

OLMC Membership Application

☐New Membership ☐Membership Renewal

☐Individual **$20**

☐Family (2+ persons in the same residence) **$30**

Benefits:

☒Monthly Newsletter

☐Newsletter advertisement: $25 per year for members or $55 for businesses
(Ten quarter pages per year over ten newsletters).

☒Silversmith online meeting 2/month

☒Mineral Interest Group online monthly meeting

☒OLMC online auctions

☒OLMC field trips

More information can be found at http://www.olmc.ca

You can also go on our Facebook page: OttawaLapsmithandmineralclub

Names(s): _____

Address: _____

City: _____ Province: _____

Postal Code:_____ Telephone: _____

Please specify your e-mail address to receive OLMC's newsletter:

_____

Do you require a receipt? ☐Yes

Payments are payable by **cash**, **cheque** to Ottawa Lapsmith and Mineral Club, or **E Transfer** at treasurer@olmc.ca

Please mail your membership form and fees to:

Ottawa Lapsmith and Mineral Club
PO Box 36042 Wellington, Ottawa, ON, K1Y 4V3

All membership information is used only for administrative purposes.

Administration use only

Card provided: ☐Yes ☐No Supervisor signed: ☐Yes ☐No

Date: _____