



# The Cutting Edge

Monthly Newsletter of the Ottawa Lapsmith and Mineral Club

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## President's Message

Our Winter auction grossed ~\$3200 split between the club and numerous contributors. Special mention goes to show patron Joanne Hamilton who donated a flat of mineral specimens to the last auction. These OLMC auctions take a while to organize, photograph and post. We are averaging one every two months. The next will be at least April.

Our auctions are for the sale of club property, hand crafted items, natural materials and hobby related equipment and supplies. Numerous people have expressed interest in selling gemstones and jewellery. You may sell/auction gemstones and jewellery which you created but please avoid that which you bought. A compromise is to build a bought gemstone into your own setting.

Our subtenant has renewed their Insurance policy until March 10, 2023. That is good news. I dropped by the old workshop and it still looks like the way it did the day we left it.

Kerry Day  
OLMC President

At the end of February, the club has 79 active members for 2022. Thank you to everyone who chose to be a part of this club. You can still become a member or renew your membership at any time. Please send all forms and payments to [treasurer@olmc.ca](mailto:treasurer@olmc.ca) for convenience.

Nathalie Bourget  
OLMC Membership Chair

**Rainbow Minerals** is offering a space for Club Members to sell their creations and their stones for a day on Saturdays 10 AM to 4 PM. They will provide one 30" X 96" table with a tablecloth and lamps at each end, and a small stand that can be used to hold a cash box or something of similar size.

They will announce your booth on their website. There is no charge and no commission.

**Contact Ash at Rainbow Minerals** to coordinate a time.

## MIG ONLINE Meeting

**Date:** March 21 at 7:00 pm.

**Guest speaker:** Beth McLarty Halfkenny

**Topic:** Geoheritage of the National Capital Region

Any OLMC member can join the Mineral Interest Group and receive invites to the meetings. Contact John Montgomery [montgomeryjr50@gmail.com](mailto:montgomeryjr50@gmail.com)

## Donations and Sales

The club has a **GoFundMe** page, if anyone wants to donate to on-going storage costs and for the future workshop rent. We very much appreciate donations.

<https://www.gofundme.com/f/help-the-ottawa-lapsmith-and-mineral-club>

## Canadian Gemmological Association Upcoming Courses

These courses will be held at the CGA Classroom in Toronto, Ontario.

Understanding Diamond Imitations  
March 5 - March 6

<https://canadiangemmological.com/event/understanding-diamond-imitations-11/>

Introduction To Gem Identification  
March 26 - March 27

<https://canadiangemmological.com/event/introduction-to-gem-identification-10/>

Contact: [info@canadiangemmological.com](mailto:info@canadiangemmological.com)



*Cassiterite, Wikimedia*

Cassiterite, also known as tinstone, is a heavy and hard tin dioxide (SnO<sub>2</sub>) that is the major ore of tin. It is colourless when pure, but is brown or black from iron impurities.

Most commercial sources of cassiterite are found in alluvial or placer deposits of the weather-resistant grains. Cassiterite can also be found in granite and pegmatites.

Botryoidal or kidney-shaped cassiterite is called wood tin. Crystal twinning is common in cassiterite. "Elbow twins" are typically at a near-60-degree angle. Cassiterite is used as a gemstone when it is of high quality.

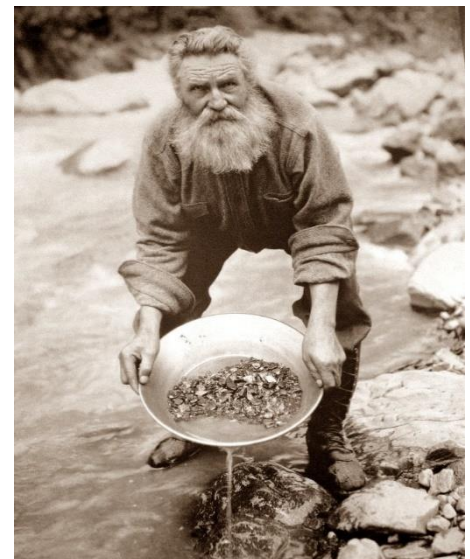
## CCFMS Field Trips

Many people look forward to field trips this year, since the last two years of pandemic restrictions. Last year, the Niagara Peninsula Geological Society started a wish list of places to go, and they are keeping track of availability.

The list of sites is divided into six sections:

- 1) Royal Ontario Museum
- 2) Great Lakes & St Lawrence Lowlands
- 3) Grenville Geologic Province (Bancroft)
- 4) Northeastern Ontario
- 5) Northwestern Ontario
- 6) Out of the province

<http://www.ccfms.ca/clubs/NPGS/All.htm>





## News Around the World



### Australian Gold Producer Buys Another BC Mine

Pretium Resources Inc. announced on January 26, that the B.C. government approved their acquisition by Australia-based gold and copper producer Newcrest Mining Limited for \$2.8 billion.

Pretium had 100% ownership of Brucejack Mine, a high-grade gold underground mine in northwestern BC, which produced almost 1.4 million ounces of gold since start-up in 2017. In October, 2021, Pretium announced a new high-grade discovery at its Golden Marmot Zone, a drilling zone northwest of the Brucejack Mine.

Newcrest has bought other mines in northwestern BC. In 2019, they paid \$1.1 billion to Imperial Metals for a 70% stake in the Red Chris Copper-Gold Mine.

<https://pretivm.com/news/news-release-details/2022/>

### Flawless Roman Blue Glass Bowl Uncovered

Archaeologists excavating the site of a comprehensive housing and green space development in Nijmegen, Netherlands, uncovered an immaculate 2000-year-old blue glass bowl.

Archeologist Pepijn van de Geer said that the bowl was Roman production, that it may have come from big places such as Xanten or Cologne in Germany, and that there were glass workshops there at that time. He said it also could have been made in Italy.

“Such dishes were made by allowing molten glass to cool and harden over a mold. The stripe pattern was drawn in when the glass mixture was still liquid. Metal oxide causes a blue color.”

The excavation has uncovered Roman settlement tombs, grave goods such as vessels, cups, and jewelry, and the remains of wooden dwellings.

Nijmegen was founded as a Roman military camp in the 1st century B.C., and a civilian settlement of the local Batavi peoples formed next to it.

<https://arkeonews.net/archaeologists-have-unearthed-a-flawless-roman-blue-glass-bowl-in-the-dutch-city-of-nijmegen/>



*Roman glass bowl, circa 1800 to 1900 years old. Photo by Bert Beelen via arkeonews.net*

## City of Caves and Tourism

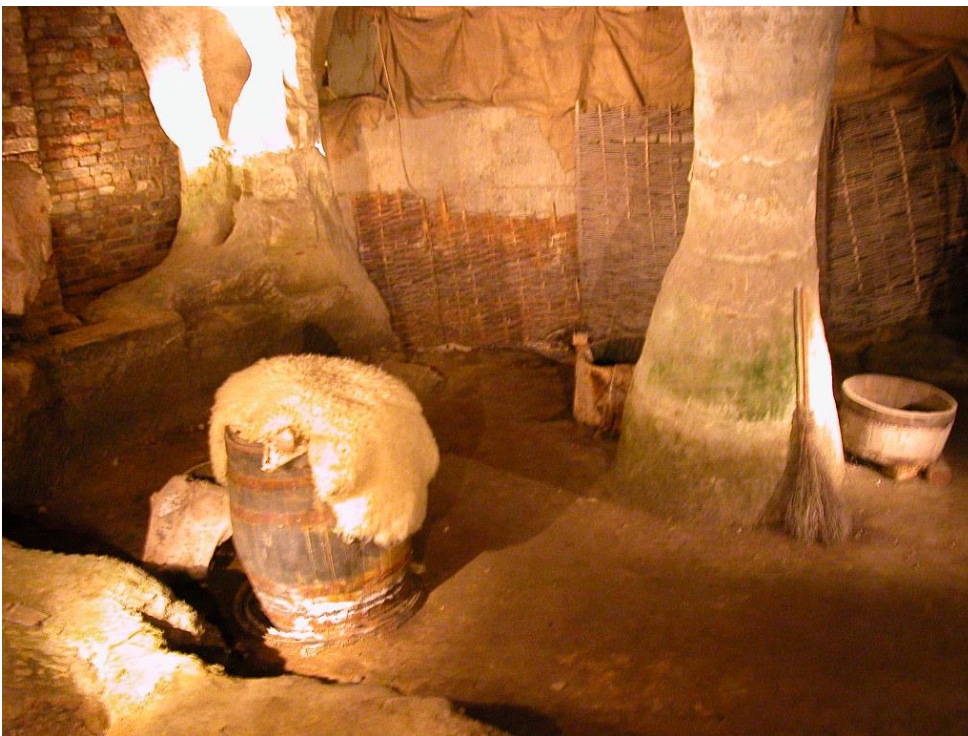
The city of Nottingham, England, plan to use an ancient cave network to rejuvenate the local economy by making a place of historical interest on par with York and Chester.

Nottingham has about 870 caves carved into the soft sandstone, which are believed to date back to at least medieval times

They are located under a half-demolished 1970s shopping centre known as Broadmarsh, and are still in use for commercial and community functions. Now the area is being redeveloped.

A team of researchers will carry out extensive work on historical records and maps, archaeological data, photographic archives, and existing 3D laser scans of the caves that could be used in a new immersive VR caves experience.

Archaeologists and historians will submit a report in January 2023.



The medieval "Broad Marsh" was a busy waterside zone with a Franciscan friary and burial ground, but later it became known for slum housing.

*Left: An image from inside Nottingham caves*

<https://www.bbc.com/news/uk-england-nottinghamshire-60333290>

## Ancient Marble Statuette Found in Central Turkey

An 8,500-year-old marble statuette was discovered in the Neolithic site of Catalhoyuk in central Turkey. The 5-centimeter-tall triangular figurine of a reclining human figure was found during excavations in Catalhoyuk, Anatolia, Turkey.

Archeology professor Ali Umut Turkcan said the marble statuette is rare, and “is reminiscent of figurines identified as male leaning back slightly on the back of an animal, similar to those found in excavations in the past.”

Catalhoyuk is a 9,000-year-old UNESCO heritage site in central Turkey.

<https://turkishpress.com/8500-year-old-marble-statuette-found-in-central-turkey/>

## A Gift from Ann P. (Phyllis) Sabina

by Yves Bignon and Bob Boisvert

Geology in Canada is fortunate to have had Ann P. Sabina; she was a mineralogist, gemmologist, teacher, and prolific author of all things related to geology in Canada. The OLMC has many of her very useful books and documents in its library.

She was instrumental in the development of x-ray diffraction to identify minerals.

She is credited with the discovery of a variety of different minerals, and currently has one named in her honour: Sabinaite. Sabinaite is a rare carbonate mineral, colourless to white, prismatic, found as a powder or coating. It can be found in vugs on Montreal island, and in Mont St-Hilaire, QC.



*Sabinaite*

She was working for the Geological Survey of Canada. Recently, the OLMC club was contacted by the Geological Survey of Canada. Mrs. Sabina's estate had found her gemmology course notes and 35mm slides. Mrs. Sabina's family was looking for a good home for all of this. A great big Thank You to Jeanne Percival at the Natural Resource Canada department for thinking of our club!

## Un cadeau de Ann Phyllis Sabina

par Yves Bignon and Bob Boisvert



**Ann P. Sabina Stenson**  
1930-2015

La géologie au Canada a la chance d'avoir eu Ann Phyllis Sabina dans ses rangs ; elle était minéralogiste, gemmologue, enseignante et autrice prolifique de tout ce qui concerne la géologie au Canada. La bibliothèque du club des OLMC contient plusieurs de ses livres et documents très utiles.

Elle a joué un rôle déterminant dans le développement de la

diffraction des rayons X pour identifier les minéraux.

Elle travaillait pour la Commission Géologique du Canada.

On lui attribue la découverte d'une variété de minéraux différents, et l'un d'entre eux porte actuellement le nom de Sabinaïte, en son honneur. La sabinaïte est un minéral carbonaté rare, incolore à blanc, prismatique, que l'on trouve sous forme de poudre ou de revêtement. On la trouve dans des druses sur l'île de Montréal, et au Mont St-Hilaire, QC.

Récemment, le club des OLMC a été contacté par la Commission Géologique du Canada. En effet, la succession de Mme Sabina avait retrouvé ses notes de cours de gemmologie et ses diapositives 35mm. La famille de Mme Sabina était à la recherche d'un bon foyer pour tout cela.

Un grand merci à Jeanne Percival du ministère des Ressources naturelles du Canada d'avoir pensé à notre club !

Bob Boisvert has accepted the notes and the approximate 1,500 35mm slides on behalf of the club.

In collaboration with Yves Bignon, we plan to convert the old hand and typewritten documents, as well as the slides to a numeric format.

They contain a fascinating amount of information that will be useful to many club members. It deals with all aspects of gems in history, science, geology, faceting, properties, geography and jewelry.

Please stay tuned, as we plan to make this content available to our club members.

Wikipedia:

[https://en.wikipedia.org/wiki/Ann\\_Sabina](https://en.wikipedia.org/wiki/Ann_Sabina)

Bob Boisvert a accepté les notes et les quelque 1 500 diapositives 35 mm au nom du club.

En collaboration avec Yves Bignon, nous prévoyons convertir les vieux documents manuscrits et dactylographiés, ainsi que les diapositives, en format numérique.

Ils contiennent une quantité fascinante d'informations qui seront utiles à de nombreux membres du club. Ils traitent de tous les aspects des pierres précieuses à travers l'histoire, la science, la géologie, le facettage, les propriétés, la géographie et la bijouterie.

Restez à l'écoute car nous prévoyons mettre ce contenu à la disposition des membres de notre club.

## Basic Technique for Drilling Glass or Soft Stone

Presented by Judy Courteau to Silversmiths on 2021-05-21



The biggest causes of problems are drilling too fast and pushing too hard. It causes the diamond to glaze, and it rips the diamond off the bit. Also, you risk causing the bit to explode through the back of the stone, which creates an unsightly pit. Be patient. Use a slow speed, light pressure, and lubrication. The larger the hole, the slower the speed.

You can get really cheap Dremel drill bits at Princess Auto. Sintered diamond drill bits have the diamonds embedded into the metal of the drill bit tip rather than merely "bonded" to the tip as with bonded diamond drill bits. Drill bits will last a long time if you take proper care of them.

One web site says, without explanation, that sintered bits are not good for use on glass or metal. Yet, a simple search shows some companies advertising these kinds of bits specifically for drilling in glass.

When starting a hole, you don't need much water or lubricant. Use a small dish or bowl with a sponge at the bottom and some water. Rest your hands on something solid for good stability and control, to keep the drill bit

### DIY Bits

You can make your own cylindrical bits out of copper tubing or disposable needle tips (just grind the tip off) if you don't have diamond-coated bits.

Copper is malleable and tends to get deformed when squeezed in a drill chuck. Inserting a steel tube inside the copper tube will provide good support when locking it in the chuck.

On your stone, place water and regular carborundum grit, and proceed to drill into it. If the stone is soft enough, you could even use common sand.

from skipping over the surface. Hold the drill so that it is comfortable. Some people start holding it horizontally, then gradually rotate it to a vertical position. The presenter recommends starting with a ball-shaped bit because allows drilling with the machine at any angle, though it works less well on hard stones. Drill a little bit into the stone for a few seconds. Then dab the drill bit on the moist sponge to cool it and clean it.

After the hole has started change to a cylindrical bit. A hollow tube is better than a solid bit because the solid bit can overheat quickly. You could keep going with the ball-shaped bit, too, if you want. Hold the stone on top of the sponge, and continue drilling.

Drill part way through one side of the stone, but do not go all the way through. Mark the other side of the hole with a marker. Finding the correct spot can be tricky. One useful tool is a pair of tweezers with tips bent inward -- one tip goes in the hole, and the other tip marks the position on the other side.

This tool works well with for transparent material and flat stones. For opaque material or uneven stones, use a pencil and mark one vertical line and one horizontal line all the way around. Where the two lines meet on the other side is the drill position.

You might have a Dremel stand that can hold the drill for you. You could also try a drill press, but the presenter had a lot of trouble because the bit rotated too fast and tended to overheat.

### *Some things to watch out for*

- The stone can shift gradually due to the drilling and vibration, which will lead to a slanted hole. Try clamping it down with wood, or build a wall of plasticine or clay around the stone, which can also act as a well to hold in the water/lubricant and grit.
- When using a drill press, it is important to make sure the drill bit is vertical, and not sitting at an angle inside the chuck.

Additional Reading: 12 Things You should Know about Diamond Drill Bits

<https://www.eternaltools.com/blog/12-things-you-should-know-about-diamond-drill-bits>

## Drilling Holes in Beads

This technique uses a drill press or Dremel on a vertical stand. Make a dish (plastic margarine tub?) with a pin stuck vertically through the bottom. Attach the dish to a board or platform that will make it easy to centre the pin under the drill bit. You'll need some sealant because the dish must also hold the water.

Drill your bead half way through (held in place with glue or wax). Then line up the dish with the pin under the drill bit. Use the drilled hole to support the bead on the pin, and continue drilling the other side.

DiamondSure - Sintered Bits		Drill Speed (rpm)	
Material	Bit Size -->	1/2"	1"
Glass & Fiberglass			Not F
Slate or soft stone			Not F
Limestone & Marble Stone		1600	800
Concrete & Masonry		1600	800
Ceramic Wall Tile		1600	800
Porcelain Wall Tile		1200	600
Porcelain Floor Tile		1200	600
Granite Stone		1200	600

Partial table of Drill Speeds from Diamond Drill & Tool: <https://www.diamond-drill-bit-and-tool.com/>

## Valley of the Whales Wadi al-Hitan, Ibsheaway, Egypt

Scattered bones of archaeoceti, an extinct suborder of whales, lie among the sand and rocks of Wadi al-Hitan, known as Egypt’s “Whale Valley”. What makes these fossils particularly unique is that they have hind legs. They are evidence that modern whales evolved from land animals.

In addition to the impressive archaeocete fossils, fossils of sharks, crocodiles, and turtles can also be found there. Wadi al-Hitan was designated a UNESCO World Heritage Site in 2005.



<https://www.atlasobscura.com/places/wadi-al-hitan>

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## OLMC Meeting Schedule

March 2022						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 	2	3	4	5
6	7	8 Silversmith video call 19:00	9	10	11	12
13	14 	15	16	17	18	19
20 	21 MIG video call time 19:00	22 Silversmith video call 19:00	23 	24 	25	26 
27	28	29	30	31		



## OLMC Classified Ads

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1572 Scottsville Main Street



Karen Osborne  
karen@crystalmedicine.ca

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Contact me directly at:  
[pargem.designs@gmail.com](mailto:pargem.designs@gmail.com)



# OLMC Membership Application

New Membership

Membership Renewal

Individual – \$20

Family (2+ persons in the same residence) – \$30

Other Services:

Annual workshop access fee: \$90 per year (replace workshop usage fee of \$3/visit)

Newsletter advertisement: \$25 per year for members

Ten quarter pages per year over ten newsletters, which can be combined for fewer, larger ads. Businesses wishing to advertise in the newsletter pay \$55 (family membership + advertising fee)

Locker Fee: \$25 per year (depends on locker availability)

Cabochon Course: \$60 – **required for all members who want to use the lapidary machinery.**

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

Names(s): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_

Postal Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

Please specify how you would like to receive OLMC's newsletter:

By e-mail \_\_\_\_\_

By mail \_\_\_\_\_

Do you require a receipt?  Yes

Payments are payable **by cash or cheque only** to **Ottawa Lapsmith and Mineral Club**.

Please mail your membership form and fees to:

**Ottawa Lapsmith and Mineral Club**

**P.O. Box 59028 Alta Vista**

**Ottawa, ON K1G 5T7**

*Please note that all membership information is used only for administrative purposes.*

**Administration use only:**

Card provided:  Yes Supervisor signed:  Yes Date: \_\_\_\_\_

Questions? Please contact us by phone 613 700-4637 or email [workshop@olmc.ca](mailto:workshop@olmc.ca)

You can also go on our Facebook page: <http://www.facebook.com/OttawaLapsmithMineralClub>