



The Cutting Edge

Monthly Newsletter of the Ottawa Lapsmith and Mineral Club

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Workshop Address:

190-1C Colonnade road
Ottawa, ON K2E 7J5
Phone: 613-700-GEMS (4367)

Website:

<http://www.olmc.ca>

Facebook:

<http://www.facebook.com/OttawaLapsmithMineralClub>

President's Message

As spring slowly approaches, we have to start giving consideration to a new workshop. Ideally, we are looking for ~1000 ft² with natural lighting, abundant electrical supply, good ventilation and a central location. Ideally, we want a monthly rental for the first year with a lease then after. At Colonnade Road, we were paying \$20/ft²/year plus utilities. We had no luck getting everything we wanted back in 2019, and I'm not expecting everything in 2023. A residential home is not an option unless it is zoned commercial.

The next OLMC auction will be in April. No details are available at this time.

We had six club members step forward and offer to take in the club library. We appreciate the support.

Kerry Day

OLMC President

OLMC Member Heads CCFMS Lapidary Committee

The CCFMS has set up a Lapidary committee. **Calvin Jones**, who is the CCFMS Lapidary Director (plus our Vice-president plus our Past President) will be chair of the committee.

The Lapidary committee will develop and create a Lapidary Workshop Kit during 2023. The Lapidary Workshop kit will include standards for:

- best practices and a code of ethics
- liability waiver and sign-in/sign-out sheets
- ideas for small informative signage around a workshop
- anything else that may come up – ideas are welcome

The committee hopes CCFMS members will provide lapidary interest and their expertise to this endeavor.

Calvin Jones, CCFMS Lapidary Director, cfcgracecal@gmail.com
CCFMS Central Canadian Federation of Mineralogical Societies
FSMCC Fédération des sociétés de minéralogie du centre du Canada

MIG Meeting

Date: February 27, 7:00 p.m.

Presenter: Dr. Aaron Lussier, research scientist at CMN

Topic: Caging the Devil: Mineralogy & Nuclear Waste

OLMC members can join the Mineral Interest Group to get invites to meetings. Contact montgomeryjr50@gmail.com

In Search of... a New Studio

The Executive Committee has started to search for a new studio/workshop for club members. They are looking for a place around 1,000 square feet, but it also needs some space for meetings and for storage.

Have any suggestions? Send them to Kerry Day at pres@olmc.ca

New Facebook Group for Silversmiths

There is a new private Facebook group called OLMC Silversmiths (<https://www.facebook.com/groups/1296595594531956>). If you were following the old group, then you must go to the new page and request to join. If you are new and don't already belong, please feel free to request to join as well.



The group is private to prevent spam and salespeople. You might be asked a question by an administrator before becoming a member just to prevent this. Members will try to migrate information from the previous group page to the new group page.

Special Presentation: Fluorescent Minerals

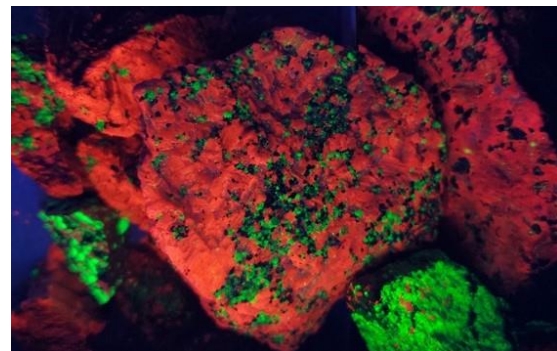
Bob Boisvert will make a presentation on mineral fluorescence. This is our first in-person meeting since 2020, and hopefully the first of many in 2023.

Date: Thursday, February 2, 7:00 p.m.-9:00 p.m.

Place: Richelieu-Vanier Community Centre, Workshop Room 5, 300 Des Pères-Blancs Avenue, Ottawa, Ontario, K1L 7L5

The room can accommodate 45 persons. Please wear a mask if you have COVID concerns. Definitely wear a mask if you have a cough. Refrain from attending if you have a fever.

- How fluorescence, phosphorescence, tenebrescence and triboluminescence work
- UV light from the sun
- UV rays are harmful
- Different types of UV light frequencies
- Different types of UV lamps on the market
- Which UV lamps to avoid
- Collecting fluorescent minerals
- Fun with UV lamps



There will be mineral samples to view. For any questions about the presentation, please contact Bob at boisveb@gmail.com



Stonehammer UNESCO GeoPark

Stonehammer UNESCO Global Geopark encompasses 2500 km² on New Brunswick's Bay of Fundy, where the Saint John and Kennebecasis rivers meet. It was designated in 2010, making it the first GeoPark in North America. The City of Saint John is at the centre of the Geopark, and it includes nearby towns, so about 150,000 people live within the area.



*A shoreline in Stonehammer;
Photo: Stonehammer Geopark Instagram*

Stonehammer contains over 60 significant geological and fossil sites, with more than a dozen publicly accessible sites.

The landscape has been shaped by a variety of events: plate tectonics, the closing of the Iapetus Ocean and opening of the Atlantic Ocean, volcanoes, earthquakes, and climate change.

Geological and evolutionary history include Precambrian stromatolite fossils from a billion years ago, remains of the 'Cambrian Explosion', the evolution of vertebrates and the first land animals, and effects of the most recent Ice Age.

On the south side is the Bay of Fundy with its rough coastline; the east side is the Fundy coast to St. Martins and the Fundy Trail; the west side has Little Lepreau and Lepreau Falls; the north side is Kingston Peninsula, Welsford and the Jones Creek area.

The area takes its name from the "Steinhammer Club", a club formed in 1857 by a group of local geologists and fossil enthusiasts. Later they founded the Natural History Society of New Brunswick.

The oldest rocks known as the Green Head Group are found at the western edge of Saint



John to beyond its eastern limits. It includes the rock ridges responsible for the "Reversing Rapids" at the mouth of the Saint John River.

Cambrian rocks can be seen all over the uptown area of Saint John, the Harbour Passage that has a series of walking/biking trails, and along Somerset Street that goes from downtown to the northeast of the city.

<https://stonehammergeopark.com/>
<https://www.instagram.com/stonehammergeo/>

Left: Stromatolite fossils in marble that formed in South America can be seen in Dominion Park; Photo: Stonehammer Geopark



*St. Martins Sea Caves in Stonehammer GeoPark;
Photo: Mark & Andrea Busse/Flickr*



Huge deposit of rare earth metals detected in Sweden

The mining company LKAB claim to have discovered the largest find of rare earth metals in Europe, and that one million tonnes could be mined in Kiruna, Sweden.

The find comes at an opportune time. Swedish companies want to build more electric cars and wind turbines for a “green transition”, and may have needed to import these

key mineral components from Asia.

LKAB had already been planning a circular and fossil-free industrial park in Luleå to start operating in 2027, with new technology to extract and process phosphorus, fluorine, and earth elements based on mine production figures from 2022.

Common hydrothermal rare-earth minerals and minerals that often have significant rare-earth substitution include: apatite, fluorite, titanite, zircon, and others.

<https://euoweeklynews.com/2023/01/12/rare-earth-metals-sweden-kiruna/>

Norwegians claim world’s oldest runestone

Archaeologists in Norway claimed to have found a block of sandstone with 2,000-year-old inscriptions, making it the earliest example of runic writing on stone.

Kristel Zilmer, a professor at University of Oslo, said the discovery will give insight into the purposes of runes in the early Iron Age. Probably the tip of knife or a needle was used to carve these runes.

The stone was found among burnt bones and charcoal in a cremation pit near Tyrifjord, west of Oslo, in 2021. It is an area known for monumental archeological finds. The analysis just finished. It has been dubbed the Svingerud stone, after the site where it was found. The stone measures 31 cm by 32 cm. It has several types of inscriptions, and some do not make linguistic sense.

Older runes have been found on other items, but not on stone. The earliest example is on a bone comb found in Denmark.

<https://www.pbs.org/newshour/science/archaeologists-in-norway-find-worlds-oldest-runestone>

Robot rockhound finds opal on Mars

New analysis of data from NASA's Curiosity rover on Mars showed fractures in some bedrock contains opal. The semi-precious stone was found in the Gale Crater, a large impact basin with a massive mountain in the middle.

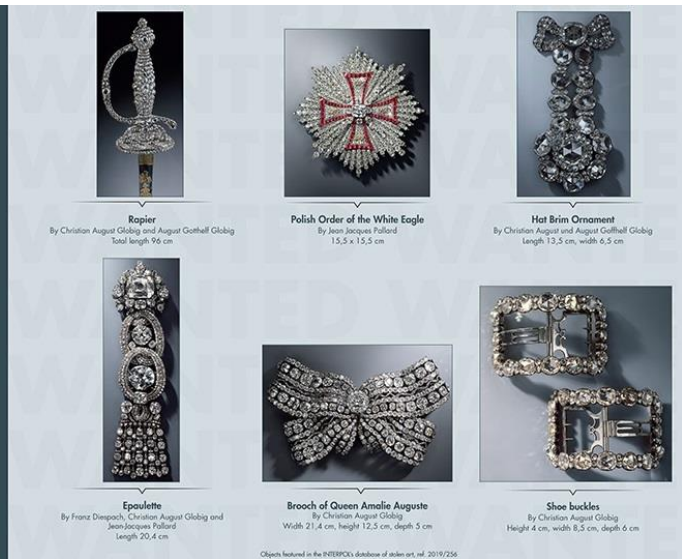
Looking at the old images, analysts saw an expanse of fracture halos extending far into the distance. The research team found they are composed of silica and water.

Scientific observations show this whole area of Mars contains light-toned rocks surrounding fractures that criss-cross certain parts of the landscape. Recent work finds that these widespread halo networks served as one of the last water-rich environments on the planet.

<https://www.forbes.com/sites/davidbressan/2023/01/07/nasa-rover-discovers-gemstone-on-mars>

Stolen Dresden treasures partly recovered

German police announced in December that they found a majority of the items stolen from Dresden's Green Vault in 2019. The items were recovered as part of court



proceedings against six suspects aged between 22 and 28, who stand accused of theft and arson. All of them allegedly belong to a criminal gang from Berlin known as the "Remmo" clan.

The haul included 4,300 diamonds and gemstones, a diamond-encrusted hilt, and a shoulder piece containing the 49-carat Dresden white diamond. The stolen goods have a total value of more than €113 million (USD \$119 million).

<https://www.dw.com/en/german-police-find-loot-stolen-from-dresden-museum>

<https://www.interpol.int/News-and-Events/News/2019/INTERPOL-joins-search-for-historic-jewels-stolen-from-Germany>



Scientists dig at the fossil site; Photo by Chilean Antarctic Institute

First time find of four dino species in Chilean valley

Fossils of four species of dinosaurs were found in the inhospitable Las Chinas valley in southern Chile. Researchers said they belong to dinosaurs that have not previously been identified in the area.

The remains include teeth and postcranial bone pieces that were found in 2021, by a collaborative expedition including the University of Chile and the University of Texas.

The identified species are a megaraptor, two specimens of Unenlagiinae (velociraptor), a bird of species Enantiornithe, and another bird of species Ornithurinae.

<https://phys.org/news/2023-01-dinosaur-species-chilean-valley.html>



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Nuggets

Celestine or celestite is a light blue mineral of strontium sulfate (SrSO4). Celestine is a principal source of strontium used in fireworks and in some metal alloys.

Celestine can form as crystals, or as compact massive and fibrous forms. Typically it is found around the world in sedimentary rocks with gypsum, anhydrite, and halite. It may contain sulphur inclusions.



SilviaFindings has been a manufacturer of sterling silver and gold settings since 2004. We have a large variety of settings in various designs, shapes, and sizes for earrings, pendants, rings, and bracelets.

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Video Compilation: Hunga Tonga Volcano Eruption

An underwater volcano near Tonga erupted on January 15, with a blast estimated to be hundreds of times more powerful than an atomic bomb. somewhere between 4 to 18 megatons of TNT. At the time, the eruption near Tonga sent volcanic material up to 40 kilometers into the air, and made tsunami waves up to 15 meters high. A volcanic cloud extended over all of the country's roughly 170 islands. <https://www.youtube.com/watch?v=5BEqXeAB36E>

Uzbekistan: Ancient Supplier of Fine Tin

Analysis of the 105 tin ingots carried by the well-known Late Bronze Age shipwreck known as the “Uluburun shipwreck” (ca. 1320 BCE) shows that ores from Central Asia (Uzbekistan and Tajikistan) were used to produce one-third of those tin ingots. The rest of the cargo used ore from the Taurus Mountains of Turkey.

The report published in “Science Advances” describes a vast, culturally diverse, multiregional, and multivector system supported tin exchange in Eurasia during the Late Bronze Age that relied on small disparate communities just as much as large, centrally organized states.

Uluburun shipwreck originated at the modern-day port of Haifa, where it had been loaded with copper and tin, which form the alloy called bronze. Perhaps a storm caused the ship to sink to the bottom, where it remained remarkably preserved. It was discovered in 1982.

Other isotopes in the tin from Uzbekistan indicate it probably came from cassiterite-bearing stone at the ancient mining site of Mušiston (in modern day Tajikistan). That means the trade route to Haifa may have been an arduous journey across the Iranian Plateau, and through the valleys of northern Mesopotamia, maybe dodging bandits along the way.

Michael Franchetti, lead author of the study, likened the reliance on tin from the Uzbekistan area to the United States sourcing all of its oil from small backyard oil rigs in Kansas.

The authors says that the use of this trade route shows that the land route known as the “Great Khorasan Road” linked the Altai mountains in the east to the Taurus mountains and Mediterranean shores in the west, and that perhaps sea routes from India became less popular.

In addition to the extensive trade routes, the small-scale communities were able to negotiate within a wide and complex network of cultures needing inter-lingual, inter-cultural, and inter-geographic exchanges.

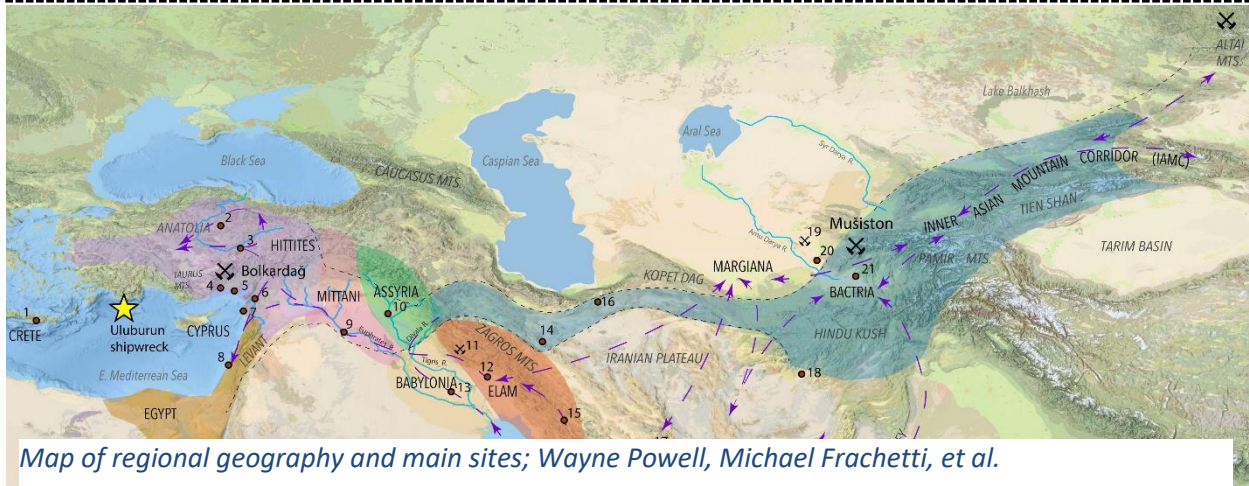
The loss of the ship at Uluburun would have had a major impact on Bronze Age markets and politics. Although copper was common, tin was much rarer. The amount of metal lost would have been enough to forge 5,000 bronze swords for an army, for example.



Life-size replica of the Uluburun shipwreck at the Bodrum Museum of Underwater Archaeology; Credit: Georges Jansoone via Wikimedia



Uluburun copper ingots are the same shape that the tin would have been made into; Credit: Martin Bahmann



Map of regional geography and main sites; Wayne Powell, Michael Frachetti, et al.

<https://www.science.org/doi/10.1126/sciadv.abq3766>

<https://www.goodnewsnetwork.org/historians-stunned-nomads-from-uzbekistan-found-to-have-supplied-a-third-of-the-ancient-mediterraneans-bronze/>



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“Lua de Maraba” Topaz

The “Lua de Maraba” Topaz (Portuguese: Moon of Maraba”) is the second largest faceted topaz in the world. This stone of rare gray colour was found in Brazil, and weighs a hefty 25,250 carats, and was cut with an octagonal pattern measuring 18 x 15 x 10 cm.

This topaz is part of the Programa Royal Collections, based in Madrid, Spain, which is in the process of building a new museum. Their special topaz collection holds 54 gemstones of all colours, cuts and sizes, including eight faceted gemstones varying in size from 1,800 carats to 31,000 carats.



“Lua de Maraba” Topaz; Credit: Programa Royal Collections

Contact:

President
Kerry Day
pres@olmc.ca

Vice-President
Matthew Poirier
vicepres@olmc.ca

Secretary
Bob Boisvert
sec@olmc.ca

Treasurer
Rita Hudec
treasurer@olmc.ca

Workshop Chair
Jean-Guy Bradette
workshop@olmc.ca

Membership Chair
Nathalie Bourget
memberchair@olmc.ca

Show Chair
Stéphane Jetté
showchair@olmc.ca

Newsletter Editor
Eric Clara
news@olmc.ca

Auction Team
auctions@olmc.ca

Gem Shows in Your Area

March 4-5: Kawartha Rock & Fossil Club's Annual Show
Healthy Planet Arena, Peterborough, Ontario
<https://www.rockandmineralshows.com/Search/ListingDetails/kawartha-rock-fossil-clubs-annual-show/2311/false/false>

March 9-12: Winnipeg Rock N' Gem Show
Red River Exhibition Association, Winnipeg, Manitoba
<https://www.tourismwinnipeg.com/festivals-and-events/upcoming-events/display,event/11958/winnipeg-rock-n-gem-show>

March 10-12: The Gem Expo
Hyatt Regency Hotel, Toronto, Ontario
<https://www.cantonfair.net/event/3058-the-gem-exp>



Upcoming Club Events




Fluorescent Minerals
February 2, 7:00 p.m.-9:00 p.m.
Richelieu-Vanier Community Centre, Workshop Room 5

On-Line Auction: Spring Cleaning
April 15 (proposed)

Annual General Meeting
Sometime in May

OLMC Gem, Mineral & Jewellery Show
Nepean Sportsplex Curling Rink,
1701 Woodroffe Avenue
September 16-17, 2023

Monthly Schedule

February 2023						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 	2 Presentation: Fluorescence Groundhog Day	3	4
		5 <div style="border: 2px solid red; border-radius: 15px; padding: 5px; display: inline-block;">Jan. 31: last day to renew memberships from Jan. 2022</div>	6	7 Silversmith video call 19:00	8	9
10	11	12	13 	14 	15	16
17	18	19	20 🤔 Today might be a holiday	21 Silversmith video call 19:00	22	23
24	25 Yukon Heritage Day	26	27 MIG video call 19:00	28		



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](https://www.facebook.com/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:

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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 No

Supervisor signed: Yes No

Date: _____