November 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

The final figures for the show are now in. We had 2287 paying adults which is up 106 from year 2022 but still down 378 from year 2019. The club made $39,258 in gross profit and now has a gross bank balance in excess of $100,000. Congratulations to everyone who made the 2023 show a great success. The dark days of 2021 when the club was heading towards bankruptcy are long gone.

A number of club members have offered to find us a new workshop once the existing lease on our current workshop expires April 30, 2024 (it is currently subleased). We will be taking up their offers.

The field trips for this year are now concluded. We have several ideas for an April 2024 start. They will be announced once they are finalized.

The club has received three large donations over the last six months. We received a large donation of tools and costume jewelry from the estate of long time club member Doug Bensen. We received a bin of slabs from Mireille Dalpe who decided she didn't have the time to do anything with them, and lastly, we received a donation of ~20 full flats of mineral specimens, micromount material, fossils and lapidary rock from the estate of long time club member Ken Ewing. Back in the 80s Ken was into macro specimens but over time his interests shifted to micro specimens (crystals best seen under magnification). Some of all of the above will be in our Christmas auction.

Kerry Day

OLMC President

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*

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.

Correction

In the October newsletter on page 4, the person using the microscope is Inna Lykova. The archived document has been updated. The editorial staff apologize for the error.

New On-Line Auction Nov. 26

Start: Sun., Nov. 26
End: Sat., Dec. 2

This auction will highlight donations that the club has received recently: jewellery and jewellery findings (with pins), piles of slabs, and parts of a mineral specimen collection. Plus, there will be unique materials and fabulous items made by club members.

Questions about the auction should be sent to auctions@olmc.ca. The cut-off date for member submissions is Sunday, November 19.

The URL of the auction will be advertised later by e-mail to club members, the club web site and other places.

Field Trip Report

Sunday, October 15 Quebec Highway 50

This spot is near a bridge near Hawkesbury. We had ten cars and ~20 people show up for our last field trip. Everyone picked up some fluorescent Scapolite and some even picked up fluorescent Calcite at our first stop. It was easy to find in the twilight with a UV light. Thanks to Matthew Poirier for organizing the trip.

Saturday, October 21 Titanite Hill

In total we had six people but no guide this year. It was beautiful weather without a bug in sight. We tried our luck in several spots and I spent an hour excavating someone's diggings from long ago. I found two small titanites on feldspar. The property has a lot of potential but you have to pour the time into it. Special thanks go out to Pam Fidler who gave us a ride up the logging road in her SUV.

New Locker for Club Stones

The club obtained a second storage locker at Dymon to house the inventory of stone. Future donations and acquisitions will be stored here.

Silversmiths Summer Challenge

In Memory of Shelly Hartman

Challenge Rules: Make a Brooch

- The brooch can be made of any material but must contain one metal element.
- It must fasten securely and be wearable.
- You can use any ancient culture as inspiration but bonus points for using, Minoan or Mycenean cultural influence.
- Bonus points for including a musical element, because Shelley was a popular DJ in the city

Janet Borzecki

The Bee was the emblem of Potnia ("Pure Mother Bee"), the mother goddess of the Minoan civilization. Bee-keeping was important to the Minoans as they believed the bees were related to the Great Mother of the Mother Goddess and the honey was used in rituals. The symbol of the bee was twofold: one it represented mutual support and fertility; two, life that came from death.

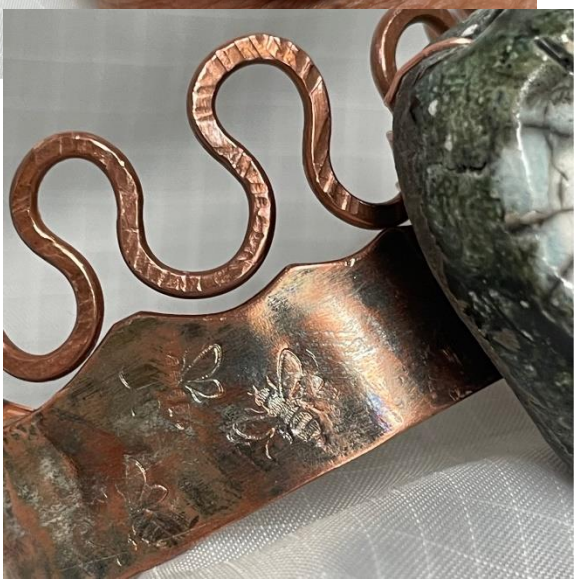
Sushila Raju

Minoans had been widely regarded by archaeologists as an essentially peaceful people.
Back in 2013 it was revealed that weapons that dominated Europe for more than 3,000 years were introduced by the ancient Minoan civilisation.
A reassessment of the role of warriors and weapons in Ancient Crete, which was at its peak from 1900BC to 1300BC, now concludes that the Minoans were a violent and warlike people.

Vicki Jasperse
Apollo is recognized as the god of music and dance, truth and prophecy, healing and disease, the Sun and light, poetry, and more. Shine on Shelley!

Vera Rehill
Copper was a much sought after commodity and it does not appear naturally in Crete. Most likely the Minoans imported copper from the mines in Cyprus. The Owl is made of porcelain clay with a Raku glaze. The root of Raku goes back to Sanai ware (3 colour polychrome ceramic items) of the Tang Dynasty China, 618-907 A.D.
The winding textured copper wire represents the Snake Goddess, the symbol of Mother Earth and its ability to shed skin, the concept of rebirth and eternal youth. The Owl, symbol of the Goddess Athena, was a wise counselor, of knowledge, wisdom, and erudition. And finally little stamped bees, the Minoan symbols of wealth and the circle of life. As a cuff bracelet the circle of life is almost complete.

Joy McDonell
My take on the Venus of Willendorf, an 11.1 cm limestone goddess figurine found in Austria in 1908. It is estimated to be 25,000 to 30,000 years old, i.e., the Paleolithic Period.



Joy McDonell
Scarabs represented resurrection in ancient Egypt. Like the dung beetle's revolving ball, the scarab became a symbol of birth, death and resurrection. Since the sun was believed to die each night and be reborn each morning as a beetle, the scarab took on significant regenerative powers.

W. Jason Morgan (October 10, 1935 – July 31, 2023)

William Jason Morgan (1935 – 2023) was an American geophysicist who made groundbreaking contributions to plate tectonics theory and geodynamics, and transformed the study of geology. He died on July 31, at the age of 87.
His paper "Rises, trenches, great faults, and crustal blocks" to the American Geophysical Union in 1967 showed Earth's surface consists of rigid plates, how they are created at mid-ocean ridges, move around one another, and then converge and are destroyed at subduction zones.
Later papers with contributions from Morgan explained convection in the mantle leading to the creation of volcanoes, of mountains, and earthquakes from plate movement and collisions.
Morgan spent his career at Princeton, retiring in 2004 as the Knox Taylor Professor emeritus of geology and professor of geosciences.

https://en.wikipedia.org/wiki/W._Jason_Morgan

Stibnite (5.0 × 2.8 × 1.5 cm) from Herja mine, Maramureș, Romania; source: Ivar Leidus, Wikimedia Commons CC BY-SA 4.0

Stibnite

Stibnite (Sb_2S_3), aka antimonite or antimony trisulfide, is a soft sulfide mineral with orthorhombic crystalization. Stibnite is coloured grey, but the surface can turn black from oxidization.
It is the most important source for the metalloid antimony, used to make solder, bullets, ball bearings, flame retardants and semiconductor devices, and it is used in lead-alloy plates in lead–acid batteries.
It is also used in pyrotechnics. Its needle-like crystals are used in the glitter and fountain mixtures for fireworks known as white pyrotechnic stars.
At room temperature, it is a photoconductor, allowing an electrical current to move more easily through it after light shines on it.
Pastes of dark stibnite powder in fat or in other materials have been used since c. 3000 BC as eye cosmetics (kohl) in the Mediterranean and some other places.

Small deposits of stibnite are common, but large deposits are rare. The mineral occurs in hydrothermal deposits and can be found with realgar, orpiment, cinnabar, galena, pyrite and other minerals. The world's largest deposit of antimony is the Xikuangshan mine in Lengshuijiang, Hunan, China.

Topaz Marbella (Topaz Azul)

The Marbella Topaz is a 8,225 carat transparent blue topaz with a skillful oval cut measuring 12.98 by 9.98 x 6.98 cm, about the size of a grapefruit. The stone was found in Brazil, and originally was colourless or maybe yellow or yellow-brown, but was irradiated in some fashion. It is the world's largest faceted blue topaz.

Originally called "Topaz Azul", it was renamed in 2010 at the request of the Town Council of Marbella, Spain, to help boost the economy and culture, and because the intense blue color of the stone appears to match the colour of the sea near the town. However, tourism web sites about Marbella do not mention the gemstone.

The Spanish government purchased the stone at the Tucson Gem Show in 2000. They stored it in the Art Natura complex of the Programa Royal Collections museum in Madrid, adding to their collection of dozens of large faceted gemstones. (They're on Facebook! And Instagram!). Check the Instagram link for an excellent photograph of the enormous topaz.

Comarca Minera Geopark

Nestled in Hidalgo, Mexico is the 1,848 square km UNESCO Global Geopark called Comarca Minera. It was designated in 2017. The park contains 31 geosites of geological, biological and cultural interest.

The geopark area is at the junction of the Trans-Mexican Volcanic Belt and the Sierra Madra Oriental thrust and fold belt. Plus, there is an overlap of two magmatic suites. This region has altitudes in the range of 1300 – 3200 meters above sea level. Mountain ranges are covered by sacred fir (Abies religiosa) and subtropical pine-oak forests, and steep gorges to the north hold shrublands filled with columnar cacti.

Large deposits of gold and silver were mined from the 16th century to the end of the 20th century. Perhaps six percent of the world's historical silver production was mined from this area. In addition to the precious metals, are deposits of tridymite (minute tabular white or colorless pseudo-hexagonal crystals) and cristobalite (a distinct crystal form of silicate) can be found around the mountain Cerro San Cristobal in the Pachuca mountain range. They were discovered in 1868 and 1887 respectively by German mineralogist Gerhard vom Rath.

Volcanism in Comarca Minera has created a variety of structures including cinder cones, dacite domes, lava flows, obsidian deposits, stratovolcanoes and a caldera structure. Subsequent fracturing and erosion have shaped these deposits into pretty rock formations. Great examples are found in El Chico National Park and Peñas Cargadas. Another striking feature of Comarca Minera are the basaltic columns of Santa María Regla, some with heights greater than 40 meters.

People have been living in Comarca Minera since the the Xaltocan Kingdom expanded between 1220 and 1380 A.D., when the Otomi people ruled the area. Aztecs began to settle in Huejutla and Patlachihuacán in the 15th century. The Spanish conquest arrived soon after. Now, over 500,000 people live in the Comarca Minera Geopark territory in nine municipalities. There are about 11,000 speakers of indigenous languages, most of them Nahuatl and Otomí.

Geology of Comarca Minera

Cretaceous
The oldest rocks in the geopark are limestones and shales of marine origin that are found in the northeastern portion of the territory and outcrop at the bottom of the Barranca de Metztitlán.

Paleogene
Compression formed the belt of folds and ridges and raised up the previously formed rocks in the sea. This is known as the Sierra Madre Oriental. Volcanism related to the subduction of the western Mexico started at the end of this period.

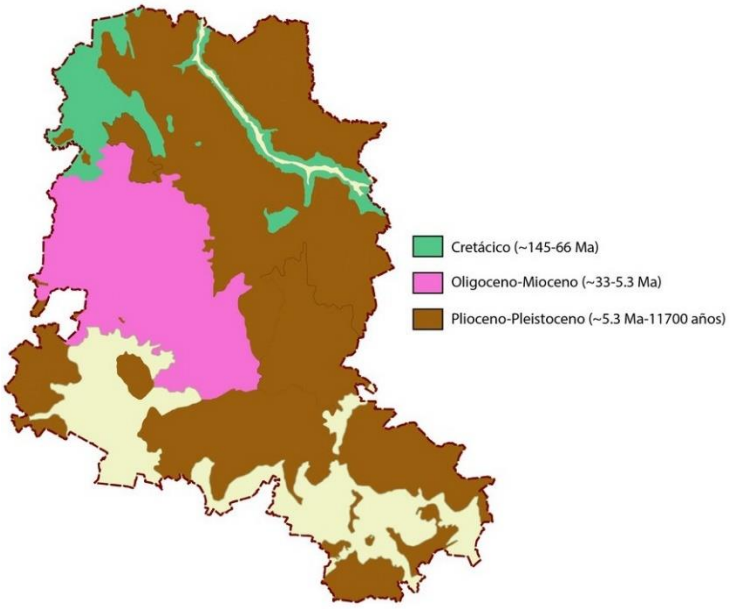


Figure 1By Tonallimunoz - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=84738548

Miocene
Magmatism continued until the Middle Miocene, pouring out large volumes of silicic volcanic rocks forming the southeastern manifestation of the Sierra Madre Occidental. Epithermal mineral deposits of silver were formed, with an early Miocene age in the case of Pachuca-Real del Monte deposits, and a somewhat more recent (late Miocene) for those of Mineral del Chico. There are rhyolitic tuffs of the Tezoantla and Cerezo formations, also rhyolitic and dacitic porphyry.

Pliocene
Volcanism continues but changes due to the subhorizontal subduction of the Cocos Plate under the North American Plate. It resulted in the configuration of the Transmexican Volcanic Belt, still active today.

Pleistocene
The activity of the Trans-Mexican Volcanic Belt forms the volcanic stream of the geosite Prismas basálticos (dated in 2.58 Myr) and of the monogenetic volcanoes of Singuilucan.

Holocene
The greatest change was use of natural resources. Obsidian was heavily exploited in the pre-Columbian era. After the conquest, mining focused on precious metals.

https://en.wikipedia.org/wiki/Comarca_Minera_Geopark

https://en.unesco.org/global-geoparks/comarca-minera-hidalgo

https://geoparquecomarcaminera.mx

New $1.5 Billion Federal Fund for Critical Minerals Infrastructure Launched October 31

Natural Resources Canada launched the Critical Minerals Infrastructure Fund (CMIF), a $1.5 billion fund available during the next seven years. The intention is to subsidize the use of renewable energy sources and road building as companies build infrastructure to access mineral deposits in hard-to-reach parts of the country, and to deliver ore to processing plants.

The Honourable Jonathan Wilkinson, Minister of Energy and Natural Resources, said the Canadian Critical Minerals Strategy is "reinforcing Canada's position as a global supplier of choice for clean technology, clean energy and the resources the world needs to build a prosperous net-zero economy."

"The CIB will play an important complementary role by supporting large-scale projects as we continue along the move toward a net-zero future," stated the Honourable Sean Fraser Minister of Housing, Infrastructure and Communities.

The first disbursement of funds will go to ready and approved projects, and to nearly ready pre-construction projects. This first phase will provide up to $50 million for most applicants. Provincial and territorial governments may apply for up to $100 million for public projects. Funding for private enterprises will vary based on location and community.

Generally, critical minerals have few or no substitutes, are rare in quantity or location, or need special processing. Canada has a list of 31 minerals it considers to be critical now, and six are prioritized -- lithium, graphite, nickel, cobalt, copper, and rare earth elements.

The CMIF is a follow-up to the Regional Energy and Resource Tables, a 2022 initiative between the federal, provincial, and territorial governments to identify, prioritize and pursue opportunities for sustainable job creation and economic growth.

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Workshop Schedule

November 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		

November On-Line Auction Nov. 26-Dec. 2

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

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Administration use only
Card provided: ☐Yes ☐No Supervisor signed: ☐Yes ☐No

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