September 2021

# The Cutting Edge

Monthly Newsletter of the Ottawa Lapsmith and Mineral Club

**In this month's Newsletter:**




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http://www.olmc.ca

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## President's Message

The workshop has been subleased to ARS small appliance repair. They will be paying the bills but we are still responsible for the lease until it expires April 2024. Carrying two leases is not advisable so once the pandemic lifts (next spring?) we will be looking for a small rental somewhere. In the meantime, everything that remains is either in storage at our Dymon storage locker or in the homes of senior members. Towards the end we got rid of all of the chairs, most of the tables and most of the steel poles and bases. Our 10x25 ft storage locker is full to the ceiling. Dymon provided the truck and driver but we had to do all the grunt work. Thanks goes out to everyone who showed up that day and everyone who helped out with the packing.

The club will continue with zoom meetings, field trips and auctions. There is no field trip schedule yet but we are planning at least one field trip in September and two in October.

All City of Ottawa venues remain closed so there will be no club show any time soon. If we can put together a small show before September 2022 we will seriously consider that possibility.

Kerry Day
OLMC President


### Gratitude for Fine Donation

Special thanks to Bill Cantwell for his generous donation of mineral samples and polished stones from around the world. There is also a palm-sized amethyst crystal point from Thunder Bay, and a fossilized mammoth tooth!

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*

## MIG ONLINE Meeting

**Date:** September 20 at 7:00 pm.
**Guest speaker:** TBD
**Talk:** TBD
Any OLMC member can join the Mineral Interest Group and receive invites to the meetings. Contact John Montgomery montgomeryjr50@gmail.com

## OLMC Auction in September

There was no August auction because of vacation conflicts. The September auction (date TBD) will be a mix of rough, slabs, mineral specimens and consignment items. People who wish to donate or consign lots can have up to five lots, just like the last auction. No finished jewellery, but components of jewellery are welcome, and please fill in the form precisely. Consignment items must be submitted by September 12.

Contact: auctions@olmc.ca

## Workshop News

The workshop has been closed on July 26. All items have been put into storage. Huge thanks goes out to all of the people who helped load, unload and store it all on a blistering hot day, and to those who helped clean up the space.

The club Executive will search for a new location that meets the requirements for our members: central location, convenient to mass transit, are large enough space that can handle the machine power requirements. If you would like to suggest a site to the Executive, please send information about it in an e-mail to pres@olmc.ca.

## Donations and Sales

The club has a **GoFundMe** page, if anyone wants to donate for the workshop rent. https://www.gofundme.com/f/help-the-ottawa-lapsmith-and-mineral-club

# A Simple Tool For Cabochons

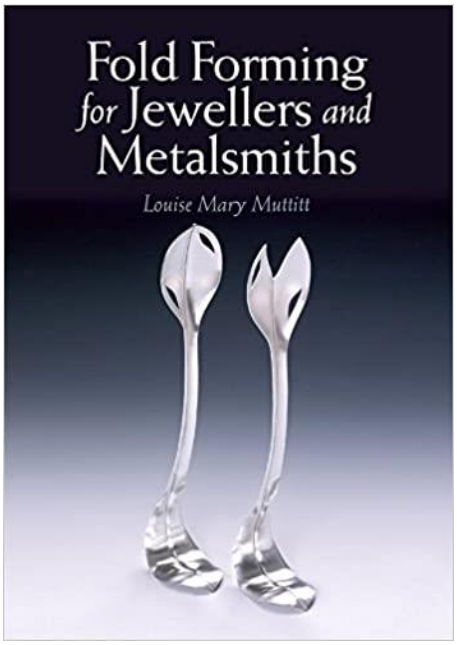
This little tool works great for soft stones, but it can also help with getting a smooth dome on agates and jaspers. Instead of flat lapping on a piece of hard glass, it is possible to get curved surfaces. Basically, it is a small wooden box, with a denim hammock across the top. This author used three pieces of spare lumber to make a frame about 45 cm long, 20 cm wide, and 10 cm high. This made for a comfortable arm sweep. Adding two side pieces might provide more support for the denim strip, and presumably shallow curves. The denim shown in the photo is the stretchy rubberized kind, so it had to be re-tightened a couple of times.

Using 120 silicon carbide grit and repeated applications of water, there was great success with a piece of amber. The slower process quickly removed the scorch marks made by a diamond wheel grinding machine. It took a bit longer to remove a flat spot from the top of an agate cabochon.

# Fold Forming Metal

## From the Silversmiths Meeting 2021-03-23

The information that was presented by Janet Borzecki is based on the book "Fold Forming for Jewellers and Metalsmiths" by Louise Mary Muttitt. The book describes methods to manipulate metal sheets into 3-dimensional shapes. The results are light-weight objects with organic curves. The recommended sheet thickness is 0.3 to 0.5 mm. A sheet that is 0.5 mm is definitely harder to manipulate. A thin 0.25 mm sheet is still usable for small things.




### First Fold Forming Project

1. Start with two strips of metal (e.g. copper strips), folded and ready to use. The "open" edge should be considered the upper edge.
2. On each strip, use a felt-tipped pen to mark a line in the middle, and arrows pointing to the left and right of the line. This acts as a guide while hammering.
3. The edge that you forge will stretch, so with the first strip, decide whether to hammer along either the folded edge or the open edge. Place this edge in line with the curved edge of the steel flat plate or edge of the anvil.

*Two copper pieces folded and ready for forging, with the open edge upwards on both pieces. Hammering goes from the central line in the direction for the arrows.*

4. Hammer along the edge from the centre line to the outer edge in the direction of the arrow. The hammering will cause the strip to lengthen along one side, resulting in a curved strip.
5. Flip the piece over. Hammer the other side of the same edge. Repeat this step three or four times. Anneal the metal between each passing of the hammer. It is possible to hammer the edge enough that the piece curves upon itself into a spiral shape. Hammering along the folded edge will create a sharper curve.
6. After the hammering process, use pliers to open up the piece. This will cause the piece to curve a little more. With copper, you may find the metal has a range of colours on the inside from the annealing.

### Keep in Mind

- ✓ Make sure the metal is well annealed before starting (glowing red from the torch)
- ✓ Annealing is best with a hand-held torch
- ✓ The fold forming process requires annealing many times, but there is no need to pickle every time.
- ✓ Between steps, it may be necessary to use a towel to clean off some of the oxide.
- ✓ Always hammer out from the mid-point of the sheet
- ✓ Try to use a hammer with a rounded edge; a sharp edge can easily tear the metal

*On the left, a piece hammered on the open edge, which is reminiscent of a leaf when unfolded. On the right, a piece hammered on the folded edge which is reminiscent of a shell.*

### Ruffled Leaf shape

Start with a circular piece folded in half, forming a semi-circle. Mark the piece with lines radiating out to the curved open circular edge. A protractor may be helpful here. Hammer just along the lines. On the flip side, hammer between the lines.

### Use a rolling mill

Start with a folded piece of metal. Place the edge to be rolled within the folds of card paper or tape (to add thickness). Roll the metal, anneal, then allow to cool. The benefit of this method is that it does not create hammer marks.

### Experiment and Play

Try folding the metal at different angles and forming along those edges. Try inserting creases into the strip by using a vise or pliers to fold and re-open, and then hammer the creases flat.

> The work of the artist is to interpret, preserve, inspire, and alter our perceptions. It is to create a dialogue between function, use of material, concept, and imagination. Above all, it is to make us think, to make us feel. To that end, I hope that these 500 Metal Vessels provide a stimulating and expressive experience for the viewing audience.
>
> Fred Fenster, 500 Metal Vessels, 2007

# Glacial Erratic Moved to Windsor Park

A glacial erratic that was uncovered during road work on Bellwood Avenue was moved to nearby Windsor Park in July.

A mineralogist was quoted saying the glacial erratic is probably one billion years old. It may have been deposited by a glacier more than 10,000 years ago. The stone weighs 14.5 tonnes.

Residents saved the stone from being broken up for removal. One resident said the city alerted her about the move last week. Then she alerted a growing list of neighbourhood supporters. The resident said, "We all appeared out on the sidewalk — it was first thing in the morning. There was already a big crane and really large flat-bed truck."

Instead, the boulder was trucked to nearby Windsor Park, near a bus shelter.

City Councillor Shawn Menard posted a tweet saying, "It will be enjoyed for decades to come."

May 30: https://www.cbc.ca/news/canada/ottawa/ottawa-rock-preserved-bellwood-1.6045820
July 14: https://www.cbc.ca/news/canada/ottawa/massive-boulder-ottawa-finds-new-home-1.6101479

# World's largest star sapphire cluster found in backyard

*Mr. Gamage and his sapphire cluster; Credit Mr Gamage via BBC*

A gem trader in Sri Lanka said the stone was found by workmen digging a well in his home in the Ratnapura area, known as the 'City of Gems'.

"The person who was digging the well alerted us about some rare stones. Later we stumbled upon this huge specimen," Mr Gamage, a third-generation gem trader and the owner of the stone, told the BBC.

Some stones fell out of the cluster during the cleaning process, and they were found to be high quality star sapphires, though all of the stones inside the cluster may not be high-quality.

Experts say the pale blue stone weighing around 510 kilograms could be worth up to $100 million in the international market. It took more than a year to clean the stone of mud and other impurities before they could analyse and certify it.

July 27: https://www.bbc.com/news/world-asia-57981046

# Kluane National Park, Yukon Territory

*Kluane National Park and Reserve (Wikimedia)*

Kluane is 20,000 square kilometres of mountain wilderness. It contains 17 of Canada's 20 highest peaks, including the highest peak Mount Logan (5,959 metres). You will also find Canada's largest ice field and North America's most genetically diverse grizzly population. Popular activities are multi-day hikes, rafting, mountaineering, camping, and "flightseeing".

Visitors can learn about the Southern Tutchone culture, which includes Champagne and Aishihik First Nations and Kluane First Nation. Once they were nomads, travelling far in search of food to survive and flourish in a harsh environment.

Glacial meltwater feeds the 250-km long Alsek River, whose source is the confluence of the Dezadeash and Kaskawulsh Rivers. This is an excellent way to go a great distance quickly. You could try hiking up the Observation Mountain Trail, a three-day round trip covering 68 km. Many such hikes are available.

Tour companies offer flights up to the base camps on icefields and sight-seeing tours of the mountains from above. This is the best chance to see Mount Logan, which is deep in the park's remote interior.

https://www.parcscanada.gc.ca/en/pn-np/yt/kluane

## Regarding Platinum

Platinum is the rarest and most expensive of the popular precious metals, rarer than gold. Due to its rarity and cost, typically only high-end mineral collections contain it. The malleability, density and non-corrosive properties of platinum make it ideal for industrial uses such as dentistry and aeronautics, as well as jewellery.

In 1735, platinum was isolated as a unique mineral. Before then, it was considered a type of silver (Spanish: platina = "little silver"). The high melting point (1,768°C) made it difficult to melt down.

Platinum crystals are cubic, with rounded corners. It tends to fracture with sharp, jagged surfaces (aka “hackly”). Crystals may also form penetration twins. It is usually found in placer deposits as small, waterworn nuggets with small holes throughout.

Natural platinum often contains small amounts of other elements such as iron, gold, copper, and nickel. It could also include iridium, osmium, rhodium, and palladium. Most platinum specimens contain traces of iron, which may cause it to be slightly attracted to magnetic fields.

Platinum is always alloyed with small amounts of other metals, especially iridium, to increase durability. This is the industry standard, and all platinum jewelry is about 90 to 95 percent pure. It is also used as a catalyst to produce hydrogen from seawater, though its high cost drove the development of cheaper alternatives.

The largest producers of platinum are in South Africa, Russia Colombia and Canada (Ontario) and the United States (Montana, Alaska, and Oregon).

## Sponge-like fossils found may be earliest record of animals

Evidence of early sponges has been found in the Northwest Territories by geologist Elizabeth Turner.

Turner had been excavating in the area since the 1980s. She found thin sections of rock containing three-dimensional structures that may be sponge skeletons. Scientists are still examining the findings.

The rock layers were dated to 890 million years old, which is 350 million years older than the currently recognized oldest sponge fossils. It would indicate that sponges existed before the Cambrian age, and before oxygen levels in the ocean and atmosphere were considered high enough to support animal life.

The molecular clock hypothesis in biology indicates that sponges evolved around 1 billion years ago. There has been no supporting evidence of that until now. Animals did not develop hard skeletons, exoskeletons and shells until the Cambrian, so fossils from before this time are hard to find.
https://globalnews.ca/news/8067046/

## Drilling for Gold Resumes after Forest Fires in NWO

Gold exploration company Great Bear Resources received approval to re-start work around Red Lake on August 18. The company will be exploring mineralization up to 450 meters deep in Phase 2 of their strategy. Phase 1 was a grid strategy of drilling in a 4-kilometer area.

The company says they continue to see high-grade gold deposits in quartz veins and silica-suphide replacement zones. Lower grade areas have been found that are more suited for bulk tonnage mining.
https://www.northernminer.com/fast-news/great-bear-starts-phase-2-drilling-at-dixie/1003833751/

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# Australian "Dragon" ID'ed by Jaw Bone

Australia's largest pterosaur, with an estimated seven-metre wingspan and a spear-like mouth, has been found by University of Queensland PhD candidate Tim Richards. The new pterosaur has been named Thapunngaka shawi, after an Wanamara Nation words for "spear" and "mouth", and Len Shaw who found the fossil in June 2011.

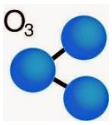
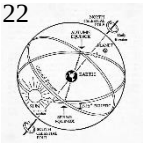
The news is based on analysis of the fossilized jaw, that was discovered in North West Queensland. Mr Richards said the the dinosaur would have had a meter-long skull with a bony crest, a long neck, and a pair of long wings. Most likely it soared high above the vast inland sea that once covered much of present-day Queensland, and diving for fish.

The new species is from a group of pterosaurs known as anhanguerians. They were adapted to powered flight. Their thin-walled and relatively hollow bones means fossilised remains are rare and poorly preserved.

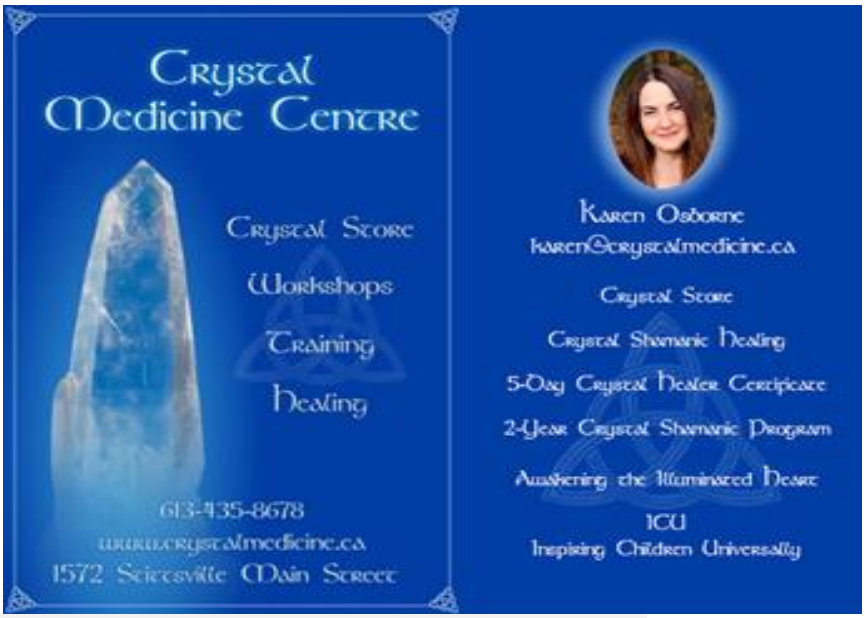
Thapunngaka is the third species of anhanguerian pterosaur known from Australia. All three species were found in western Queensland.
https://www.uq.edu.au/news/article/2021/07/researchers-find-fearsome-dragon%E2%80%99-soared-over-outback-queensland

# OLMC Meeting Schedule

**September 2021**

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

# OLMC Classified Ads


**The Silver Cove Corporation is planning their Gem and Mineral show at the EY centre starting December 2 at 10 AM. This company has nothing to do with the OLMC or its vendors.**

## FM Designs presents…

## *Silversmith Workshops*

Eight workshops are now available: Stacking and Band Rings, Wax carving, Bezel Setting, Pierce and Planish, DIY Wedding Bands, Celebrate and Connect, Recycle and Revive, Refresh DIY. Check out my website for descriptions and dates.

Registration is by payment. These will fill up fast, but I can accommodate groups of up to 4 on alternate times and dates. Just ask!

https://fionamacintyre.ca/pages/workshops

**My shop is open!**
Wed-Sat 10-4 or by appt.

## Niagara Peninsula Geological Society

**All CCFMS club members throughout Manitoba, Ontario, and Québec, are welcome on all NPGS field trips. You must bring proof of current club membership.**

http://www.ccfms.ca/clubs/NPGS/trips.htm

https://www.facebook.com/groups/1392693367698780/

# 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

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