

THE ROCKET

October 2023

deadline for next issue
November 10, 2023

Club email: secretary.hrc@gmail.com
Newsletter email: Edrocket18@gmail.com
Roz MacLean – editor

Future Meetings: Our monthly meetings are on the fourth Friday of the month.

Next Meeting: Friday – October 27 at 7PM
at Hastings Community Center Hall

This meeting can be a “hybrid meeting.” For those unable to attend in person, please contact our secretary, Crystal, for a zoom link for the meeting.

Snacks

We allow and encourage refreshments and socialization at our meetings, and need people to volunteer to bring snacks to the meetings! Also a reminder to bring serving utensils if what you bring is a little juicy. Bring your own mug in case we get the coffee on too!

Program (October 27)

Harley Waterson is coming. We are not sure of the topic yet, but it will be different than ones he has done before.

Program from last Meeting (September 22)

There were two auctions after the meeting last month. A rock enthusiast made a donation of an old private collection to the club so we did a silent auction. Some people were very lucky and got some unique items.



We also auctioned off two arbors from our workshop. There were two successful bidders and we know the club can always use the money to upgrade and maintain the workshop.

As a bonus, Tim brought in some rocks that he found and that came his way this past summer. It was good to get some club sharing. Thanks Tim.



Workshop Hours

If you are a member in good standing, have taken the required lapidary workshop training course, you can drop in at the workshops and use the equipment on a first come, first served (shared) basis. Be prepared to work on another project if you need to wait to use a particular piece of equipment,

| | | | |
|-----------------------|-----------|---------------------|--------------------|
| Lapidary: | Monday | 6:30 pm - 9:30 pm | Richard |
| | Wednesday | 1:00 pm - 4:00 pm | David |
| | Thursday | 6:30 pm - 9:30 pm | Tim |
| | Saturday | 1:00 pm – 4:00 pm | Robert |
| Silversmithing | Wednesday | 9:00am – 12:00 noon | Robert |
| | Saturday | 9:00am – 12:00 noon | Crystal and Robert |

These are the regular hours. Changes are often announced by email. Some short programs are announced at meetings, may be in an email, or in this newsletter.

Pictures from a recent silversmithing workshop



Bob was working on
Blue Tigereye



Crystal's first ever and latest rings



Midori was creating setting for her Amethyst



Lucy, Steve
Bob & Crystal



A Reminder on Memberships

Memberships are due by January 1, 2024. We do not have a meeting in December so renewals will be at our **October** and November meetings. The perk of renewing early guarantees your contact information will be included in the BCLS directory and you will receive your BCLS card (proof of insurance) in the first batch in January!

Directories will be \$10 next year

Preparation for November meeting Please support your club

According to our constitution: A Nominating Committee shall be selected at the September regular meeting in the following manner: the President shall appoint one, the Executive Committee shall appoint one, and the club shall select one. It shall be the duty of the Nominating Committee to select suitable candidates for each of the four (4) Executive Officer positions (President, Vice-President, Secretary and Treasurer), chairpersons of the Standing Committees of the club, and/or Special Directors for the coming year, and to provide a list of the candidates selected for publication in the notice of the Annual General Meeting and ensure that each member is informed of the duties of each elected position prior to nomination.

The nominating committee was appointed at the last meeting: Linda, Sofia, and Elly. They will be phoning you. Elections will be at our November meeting.

1. The Executive Committee of the club shall consist of those members holding the following positions:
 - Four (4) Executive Officers –President, Vice-President, Secretary and Treasurer
 - Senior Delegate to the Lapidary, Rock and Mineral Society of BC
 - One chairperson convener of each of the following Standing Committees:
 - Field Trips
 - Library
 - Membership
 - Program
 - Publications
 - Publicity
 - Show
 - Social
 - Ways & Means
 - Workshop
 - The following special directors:
 - Delegate to Hastings Centre Board of Directors
 - Director-at Large
 - Historian
 - Sunshine

DUTIES OF OFFICERS, COMMITTEES, DIRECTORS AND DELEGATES

30. The **President** shall preside over General meetings of the club and over Executive Committee meetings, and shall be ex-officio member of all club committees with exception to Special Complaints Resolution Committee. The President shall be a signing Officer.
31. The **Vice-President** shall, in the absence of the President, preside as chairperson of General meetings and at meetings of the Executive Committee, and otherwise assist the President and other Officers in the exercise of their respective duties as may be required. The Vice-

President will also be the club's Delegate to the Hastings Community Association's Program Committee. The Vice-President may also serve as a signing Officer in the absence of the President.

32. The **Treasurer** shall be the custodian of all club funds and shall sign all cheques for the withdrawal of such funds as are required from time to time, along with any one of following; the President, the Secretary or in the absence of the president, the Vice President. In the event the treasurer is unable to sign cheques, the president shall be one of the signers. The Treasurer shall keep accurate records of the receipts and expenditures of club funds and shall report the financial position at each meeting of the club. The Treasurer shall also submit all records to an auditor at the request of a General meeting. The Treasurer shall be a signing Officer.
33. The **Secretary** or alternate shall attend all meetings of the club and of the Executive Committee and record accurately all minutes and proceedings of every such meeting in a minute book to be provided by the club, shall receive and file all reports, keep or cause to be kept proper books and records in all respects of the business and affairs of the club, and conduct all correspondence of the club, also see clause 10, as directed by the Executive Committee in a prompt and efficient manner. The Secretary shall be signing Officer.
34. The **Field Trips Committee** shall arrange and supervise field trips for the club, and ensure that first aid equipment is available and, if possible, have present a member who is qualified in level 1 first aid. He/she shall also ensure that all participants on the field trip are members in good standing.
35. The **Library Committee** shall purchase and catalogue books and periodicals and care for them; shall acquaint members with titles of such books as are available, supervise the loan and return of books and magazines and collect fines for each overdue month.
36. The **Membership Committee Chair** shall receive all applications for membership, collect club dues, see that membership cards are issued; maintain attendance records at all meetings, ensure that guests sign the guest book and that they are introduced to those assembled at the meeting; issue copies of the Constitution and Bylaws, Workshop Rules and Regulations of the Hastings Centre Rockhounds, Rockhound's Code of Ethics, Vancouver City Code of Conduct, Respect Policy and Complaint Resolution Procedures, Respect in our Club Orientation Pamphlet and the British Columbia Lapidary Society By-Laws to all members; issue annually a list of the names and addresses of all willing members to each member and to the Lapidary Society; keep the Records of Orientation Completion; keep the club advised of the number of members to date, and report to the Hastings Community Centre on attendance at each General or Special meeting held at the centre.
37. The **Program Committee** shall arrange for programs for the General meetings, and keep the Executive Committee advised of future program plans.
38. The **Publications Committee** shall prepare and issue the club's publication, "The Rocket", and such other publications as the Executive Committee may from time to time request. "The Rocket" shall be distributed electronically or pick-up to all interested members of the club, and to certain other clubs and individuals upon request. A copy will be posted in the workshop.
39. The **Publicity Committee** shall arrange for publicity for the club and the club's Annual Show; shall send news items to appropriate magazines and to affiliated associations; and attend to other special notices. As part of the Publicity Committee a Webmaster shall maintain the Club's website.
40. The **Show Committee** shall organize and co-ordinate the club's Annual Show, its participation in the Annual BC Gem Show of the Lapidary Society, and any other displays and shows in which the club may decide to participate.
41. The **Social Committee** shall be responsible for purchasing and serving refreshments for General meetings and for the Annual Club Show and other special functions as requested, as

well as for arranging for the club's annual dinner.

42. The **Ways & Means Committee** shall be responsible for the raffle held at General meetings, including the purchase or receipt of donations of prizes, conduct of the raffle and recording of receipts and expenses, and shall propose special projects to raise money for the club if required from time to time.
43. The **Workshop Committee** shall be responsible for ensuring that all equipment in the club's workshop is kept in working order; shall purchase new supplies and equipment; shall keep a record of all receipts and expenditures connected with the workshop and report thereon to each General meeting; shall coordinate the arrangement of classes and, together with class instructors, ensure that the rules and regulations governing the use of the workshop are up to date and adhered to.
44. The **Director-at-Large** shall substitute for any officer of the club unable to attend any meeting (except that in the absence of the President, the Vice-President shall substitute). Any officer of the club unable to attend a General meeting or a meeting of the Executive Committee should advise the Director-at-Large in advance of the meeting in question, and submit any report to be made through the Director-at-Large.
45. The **Historian** shall keep a journal of club activities; collect pictures, hard copy or soft copy, from members for scrapbooks and a slide collection of slides submitted by members as well as any other material pertaining to the history of the club.
46. The **Sunshine Director** shall be notified by members of the club of any special circumstances that might require sending "get well" cards, condolences or congratulations to members.
47. The **Delegate to The Hastings Community Association's Board of Directors** shall attend monthly meetings of that Board to report to it on the activities of the club and to keep the club informed of the activities of the Association.
48. The **Delegates to The Lapidary, Rock and Mineral Society of British Columbia**, as per BCLS rules, shall act as representatives of the club at meetings of the Lapidary Society, reporting to it the views of our club and reporting to the club on the activities of the Society. In particular, participation by one or more delegates or designate at the Annual General Meeting at Rendezvous is required.



BC Lapidary Society report-

Nickell Aktarian

BCLS report from the general meeting:

In my duties as Senior representative to the BCLS, I attended the general meeting on behalf of the club via zoom October 1st 1PM. Quorum was only just met with 8 represented clubs of 30 that make up the BCLS. The major takeaways from the meetings are:

- An interim treasurer has been found (Andrew Dannefeld - previous president of the BCLS). Still looking for someone permanent
- the Gem and Mineral Federation of Canada (GMFC) has been successfully resurrected with 14 new directors and 5 foundation directors. The GMFC is primarily responsible for providing **insurance to club members to cover lapidary activities such as field trips and workshops.**
- BCLS financials are in excellent shape, some scholarships are in the process of being awarded.
- No club has come forward to host Rendezvous 2024 yet. The BCLS is encouraging lower mainland clubs to offer to host. Our club last hosted Rendezvous in 2010. If you have experience or interested in helping to organize Rendezvous 2024, please come to our October meeting. We will be discussing this at the meeting.

Gentle Reminder: Rockhounder's Code of Ethics and BC Fossil Collecting Guidelines

A few incidents have come to the attention of the BCLS Executive regarding unethical rockhounding activities by members. To address this, the BCLS Executive has put together the attached letter reminding everyone of our responsibilities as collectors.

...As we embark on the Fall season of exploration and discovery, it's important that we remain mindful of the principles of responsible collecting, preserving our national resources, and respecting the rights of land and claim owners.

In line with our commitment to ethical rockhounding and fossil collecting, we would like to remind all members to adhere to two important sets of guidelines:

1. Rockhounder's Code of Ethics:

The Rockhounder's Code of Ethics serves as a foundation for responsible collecting practices. It outlines the principles that help us minimize our impact on the environment while enjoying our hobby. Please take a moment to review this code. Let's pledge to always follow these guidelines, ensuring that our activities leave a positive and lasting impact on the natural world we so deeply appreciate. Let's only collect specimens within legal and ethical boundaries, and refrain from taking more rock than we can reasonably use.

- I will respect private property and do no Rockhounding without the owner's permission.
- I will use no firearms or blasting material in Rockhounding areas.
- I will take garbage home or deposit in proper receptacles.
- I will leave gates as found.
- I will do no willful damage to materials or take more than I can reasonably use.
- I will fill excavations, which may be dangerous to livestock.
- I will build fires in designated places or safe places only, and make sure they are completely extinguished before leaving.
- I will not contaminate wells, creeks or other water supplies.
- I will not tamper with signs, structural facilities or equipment.
- I will obey all laws and regulations of forestry and game departments in the area in which I am hunting.
- I will appreciate and protect our heritage of natural resources.
- I will always use good outdoor manners.
- I will show respect to other members.

2. Government of BC's Fossil Collecting Guidelines:

It's crucial that we are aware of and comply with the specific regulations set forth by the Government of British Columbia regarding fossil collecting. These guidelines are designed to protect our province's valuable fossil resources and geological heritage. You can access the Government of BC's guidelines and rules on fossil collecting by visiting the following link: <https://www2.gov.bc.ca/gov/content/industry/natural-resource-use/fossil-management/collection-and-use> Familiarize yourself with these guidelines, and ensure that you are well-informed about the legal and ethical aspects of fossil collecting in our region. Compliance with these regulations is essential to maintain the integrity of our hobby and conserve our natural treasures.

As an umbrella organization of 30 clubs in British Columbia, the BCLS is committed to upholding the highest standards of ethical conduct in our collective rockhounding and fossil collecting activities. By adhering to these guidelines, we not only protect our environment but also contribute to the preservation of our geological heritage for future generations to enjoy.

Shows

The following **clubs** are having shows and sales. For more information visit the BC Lapidary Society website or the club websites.

October 27, 28, 29, 2023, **Cranbrook Rock & Lapidary Club**, Colombo Lodge, Cranbrook
November 4 & 5, 2023, **Delta Rockhound Gem & Mineral**, South Delta Rec. Centre,
Tsawwassen

November 10,11,12, 2023, **Abbotsford Rock & Gem Show**, Matsqui Community Hall,
Abbotsford

November 18 & 19, 2023, **Parksville & District Rock & Gem Clubs**, Qualicum Beach Civic
Centre

2024 Rock and Gem Shows

February 24,25, 2024, **Maple Ridge Lapidary Club**, Albion Community Centre, Maple Ridge

March 9, 10, 2024, **Alberni Valley Rock & Gem Club**, Alberni Athletic Hall, Port Alberni

March 15,16,17 2024, **Victoria Lapidary & Mineral Society**, Leonardo da Vinci Centre,
Victoria

March 16,17, 2024, **Hastings Centre Rockhounds**, Hastings Community
Centre, Vancouver

Rock and Gem Magazine says these US Rock Shows are coming up

October 29-30: Chugach Gem & Mineral Show, Midtown Mall, Anchorage,
AK www.chugachgms.org

If you've been dreaming of a trip to Anchorage or chasing northern lights, now you can visit a gem and mineral show, too.

October 28-30: FOSSILMANIA, Somervell County Expo Center, Glen Rose,
TX www.dallaspaleo.org/FOSSILMANIA

Texas' longest-running show dedicated to fossils and everything paleontology. This is not a gem and mineral show but there are fossil collecting field trips, guided tours of dino tracks, plus books, apparel and artwork...

November 4-5: 54th GEMARAMA, Greater Philadelphia Expo Center, Oaks,
PA www.lapidary.org

The Tuscarora Lapidary Society has melded art and science into a fine gem, jewelry and mineral show. A third of which features 30+ instructional and competitive cases, live demos in stone cutting, jewelry making, wire wrapping and chain making.

November 10-12: Honolulu Mineral, Gem, Fossil, Jewelry Show, Convention Center,
Honolulu, HI www.Honolulu.show

Hawaii has never had a major mineral and gem show like this before. Browse 130+ dealers within walking distance from Waikiki Beach and minutes by car from Diamond Head, Rainbow Valley, and surfing towns. Make that a double "aloha."

November 19-20: 56th Gem & Mineral Show of The Palm Beaches, Expo East, West Palm
Beach, FL www.gmspb.org

This gem, mineral, bead and fossil show is always held the weekend before Thanksgiving. Plan a getaway and time it with shopping nearly 100 dealers, plus geode cracking, gem and fossil mining, and demos in faceting, cabochon and chain making, and bead stringing.

Ammolite

By Roz MacLean

October is a colorful month so it makes sense that opal is the traditional birthstone for the month but in this year's rock articles I have been concentrating on lapidary materials and especially ones from Canada. **Ammolite** has been compared to opal; it is colourful, from Alberta and is available in small quantities for a lapidary to work on. So, it is a good October rock. You just have to "hunt" for it – usually at a show or store. It is known as an organic gemstone like pearl. According to the Yale Peabody Museum it is a mineral, fossil and gem. So, there are some special rules around Ammolite which I'll get to later.



*From International Gem Society (IGS):
Ammolite displayed at
Yokohama Dinosaur Expo 2015*

As the Rockies formed there was an inland sea over much of North America. In it lived many species of ammonites. The name comes from the Egyptian god Amon-Ra who had the head of a ram with the curled horns. Ammonites look like those curled horns. Fossilized ammonites are found around the world. They went extinct about 65 million years ago.



Ammolite map: A paleogeographic map showing the position of the Western Interior Seaway in which the Bearpaw Formation and Ammolite-producing ammonites were deposited. Image by the United States Geological Survey.

As ammonites died, they sank to the bottom of the sea. From the Rockies, sediments and volcanic ash washed into the sea and in the area of present-day Alberta, Saskatchewan and Montana they formed the Bearpaw Formation. Those sediments etc. also settled over those ammonites on the bottom of the sea. Some shells were crushed, some were preserved whole. Over time they fossilized. For most ammonites the aragonite (CaCO_3) of the shells was replaced by calcite (also CaCO_3 but with a slightly different crystal structure) or pyrite. In some cases, with lower pressures, the aragonite remained on the fossil. In the Bearpaw formation near St. Mary's River south of Lethbridge, the conditions were ideal for preserving the aragonite.

As light hits the aragonite there is interference from the stacked layers of thin platelets that make up the aragonite. The light appears to us as different colours. Any colour of the rainbow or even the entire rainbow may appear in a single specimen. Thicker layers give more reds and greens and thinner the layers give more blues and violets. When freshly quarried, these colors are not especially dramatic, but with polishing and sometimes other treatments the full range, brightness, pattern and shift of the colours can show. Iridescence is when bright colours seem to shift when viewed from different angles. Ammolite is described as iridescent. The best specimens of Ammolite show colour shift through 360 degrees of rotation. Ammolites can show striking patterns of colours and healed fractures. The geological layers in which ammonites fossilized affected the formation of these

patterns. According to the International Gem Society (IGS). The patterns have various descriptive names, such as:

- *Stained Glass*: window panes
- *Dragonskin*: scales
- *Cobblestone*: regular, uneven rows
- *Floral*: flower petals
- *Ribbon*: long, thin patterns
- *Feather*: tendrils
- *Tin Foil*: bright, crinkle-stacked pattern
- *Paintbrush*: broad strokes
- *Moonglow*: inner glow, mono or dichromatic
- *Pinfire*: small plates of changing flash
- *Sunset*: red tinged landscape scenes
- *Lava River*: green with red rivers of lava
- *Christmas Tree*: green with red ornaments or freckles
- *Suture Gem*: suture or leaf pattern
- *Nipplites*: three dimensional rainbow eye or tubercle
- *Ripple*: regular-spaced rainbow striations or ribs
- *Banding*: distinct color bands
- *Stain*: spreading color changes
- *Lava Lamp*: color globules
- *Terrain*: aerial map



Dragonskin
(Etsy-Ammolite Rainbows)



Ribbon
(Etsy-Ammolite Rainbows)



Stained Glass
(Three Sisters Ammolite.com)

Iridescent ammonites do exist elsewhere in the world, but, according to geology.com, “when compared to iridescent material from the Bearpaw formation, these materials typically have iridescence that is: 1) too thin to use in the production of gems; 2) too patchy to produce a good display; or, 3) too weak to catch the eye.” Only in the Bearpaw formation, and so far, only in the St Mary River area in southern Alberta, is the aragonite thick enough to cut into gems.

International Gem Society (IGS) uses the following Grading system for Ammolite. There is no industry standard, but most use something similar to this. Spectrochromatic shift is through all the colours; Dichromatic shift is through two colours...

| Gem Grade | AA | A+ | A | A- |
|------------------|-----------|--------|-----------|-----------|
| Colors | 3 or more | 1 or 2 | 1 or Pale | Dark/Pale |
| Iridescence | Brilliant | Bright | Included | Dull/Dark |
| Chromatic Shift | Spectro | Di | Mono | Little |
| Rotational Range | 360° | 240° | 180° | 90° |



Korite Pendant
<https://korite.com>

The Blackfoot Nations long knew of the vividly coloured, iridescent rock. The stone was called “iniskim” or buffalo calling stone. It was used in spiritual ceremonies, found in medicine bundles or in prominent places within teepees. They talk of the stone at Head-Smashed-In Buffalo Jump World Heritage site in Alberta. In 1908, scientists from the Canadian Geological Survey described iridescent ammonite shells found in Alberta. In the 1960’s a few people began to work with and display the material at gem shows. They came up with the name **Ammolite** for the gem material. Over the next few years there were a few mines and claims. Each seemed to market the gem under a different name such as Ammolite, Korite, Alberta Jewel, Aapok or Calentine. In 1981 the name Ammolite was accepted by the Coloured Gemstones Committee of the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones. In March of 2022 Ammolite was named the official Alberta Gemstone.

In early days people could collect the gem material by gathering pieces as they walked along the St. Mary River or by getting permission from the nearby farmers or members of the Pikani, Sisika or Blood reserves to gather on their land. By 2014 the rules around fossil gathering had changed and the Alberta Federation of Rock Clubs published a summary for their members. It includes Ammolite. http://www.edmontonlapidary.ca/uploads/1/9/6/0/19600431/afrc_doc_legal_fossils_2.pdf Essentially, a First Nations person is exempt under the Act if they collect on the reserve and you can purchase from them. They should have a letter from the Band Council authorizing them to collect and sell. You can then do what you wish with the Ammolite. If you purchase at a trade show, tailgate or store, you must ask the vendor for a copy of their disposition certificate from the Government of Alberta or record the number of the certificate. You cannot surface collect or dig for ammonite shell as it is protected under the Historical Resources Act, Disposition Regulation.

There are a few companies still operating legally in Alberta. Only about 5% of the ammonites found in Alberta have any suitable gem material. This only occurs on the shell surface. Of those specimens, gem cutters can typically use only about 20% of the shell. Korite produces 90% of the world supply. Whole shells are kept intact, and broken pieces and fragments are used to make jewellery. Very little material enters the lapidary market. Some material is available; it is just scarce.

The material is a bit challenging to work with. It likely will need stabilizing often with an acrylic resin. The gem layer is thin ((about 0.5–0.8 millimeters (0.02–0.03 inches), and only has a MOHS rating of 3.5-4 so it needs gentle cleaning. Some just use sandpaper, or water and a brush. After shaping, taking into consideration the flow of colours and patterns in the sample, many lapidaries make it into doublets or triplets.

The less treatment an ammolite gem has received, the more valuable it is but stones made into standard dimensions that will fit most jewelry settings—may also command a higher price. For Ammolite, red, orange & green are considered common colors and purples, pinks & blues are rare - and command a high price. The more colours in a specimen, the pattern and appeal of the pattern will also affect price.

Ammolite is fit for a Royal. The organizers of the Calgary Stampede event purchased a Blackfoot Rocks and Gems ammolite pendant to present to the Duchess of Cambridge in 2011, and in 2017 organizers again gave piece of ammolite jewelry to her Imperial Highness Princess Toshi of Japan, when she visited the Japanese Gardens in Lethbridge.



Unprocessed Ammolite from the Korite mine near Lethbridge, Alberta.

Both pictures: Sarah Lawrynuik/cbc

cbc.ca/news/canada/calgary/ammolite-mine-expansion-canada-gems-1.3993105

Ammolite rough and finished in one picture