

THE ROCKET

deadline for next issue
January 10

NOVEMBER 2019

Club email: secretary.hrc@gmail.com
Newsletter email: Edrocket18@gmail.com

Next Meeting: Friday November 22- 7PM Hastings Community Center Hall

PROGRAMS

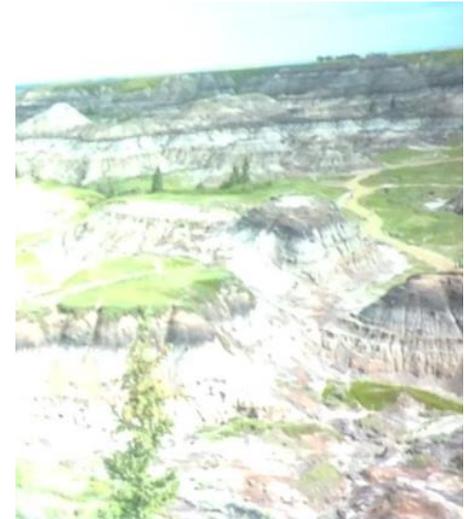
This meeting is our **Year End Social / Annual General Meeting**. We will also have a **Rock Auction**. Please bring "finger food" to share for the social part of the meeting.

A reminder: memberships will be due at this meeting. You must have a **Community Centre membership** to get a Hastings Centre Rockhounds membership. You will be asked by the Community Centre if you want to "opt in" when you get your membership. **It is important to the Rockhounds that you "opt in"**.

Last meeting Programs:



At our last meeting Paul Pinsker gave a talk on Southern Alberta Landforms. Paul and Joyce took a recent road trip through southern Alberta and had some great pictures and good information on the **Weird and Wonderful Landforms**. They hiked and explored through Horseshoe Canyon, Dinosaur Provincial Park, Medicine Hat, Cypress Hills and Red Rock Coulee. They also were on a tour at Writing on Stone which became a



World Heritage Site in 2019. Paul showed the various rock formations and explained the different geological ages the formations come from. He also talked about the history of fossil gathering in Alberta and the importance of our newest World Heritage Site. It has the greatest concentrations of writings on the North American Plains. Thank you to Paul for sharing your travels with us. We always learn a lot about the rocks of the area.

(Paul's photos, thanks to Vivian)



Ways and Means: Every meeting we have a raffle for rocks. Thanks Vivian.



Thanks for Photo Alison

Workshop Hours

Lapidary

Date & time.

Monday 6:30 pm to 9:30 pm.
 Wednesday 1:00 pm to 4:00pm.
 Thursday. 6:30 pm to 9:30 pm.
 Saturday. 1:00 pm to 4:00 pm.

Instructors

Thomas Hui
 Vivian Rickey
 Sante Gasparin
 David Myers

Backup instructors

Olivier Wong
 Vera Schmedding

Metalwork

Date & time

Sunday 10:30 am to 1:30 pm.
 Monday 9:30 am to 2:00 pm

Instructor

Michael Ma
 Michael Ma

Backup instructors

Diane Crowe
 Grazna Rougeau

Silversmithing

Date & time

Wednesday 9:00 am to 12:00 noon
 Saturday 9:00 am to 12:00 noon.

Instructor

Backup instructors
 Crystal Chow

Backup instructors

Marilyn Sztankovics
 Vera Schmedding
 Vivian Rickey

Note: A special **Silversmithing Project** will be inserted in a Saturday Silversmithing workshop. It will be delivered by a guest instructor Dave Foster on a project basis. This time it is a “Spinner Ring”. Check with Thomas Hui for project dates: 604-209-8715 and to let him know you are interested.

Soapstone Carving

Date & time

Contact Linda Foy for opening
 Tuesday 6:45 pm – 9:30 pm

Workshop notes from Thomas Hui

Some members have expressed concerns about toxic minerals in the lapidary shop and if they should be allowed. There was a brief presentation at the October general meeting touching on some minerals and toxicity levels and how our treatment methods in the workshop are addressing the concern. Please let Thomas know of any concerns you may have so he and others can examine the mineral and report back to us about strategies for use/not use and information about the mineral.

Entries should include names of the stones, chemical formula, reasons for not allowing to be done in the workshops.

Submit entries to Thomas Hui either by email to thomascwhui@gmail.com; or by text message to 604-209-8715.

Free to a good Home

Dave and I have retired from teaching soapstone. We finally cleaned out our shed and have a lot of Brazilian soapstone end cuttings that we would like to give away free. Please contact me: bonnie3@ogopogo.com

Thanks, Bonnie Gosse



Upcoming Events of Interest: Shows

November 16 & 17, **Abbotsford Rock & Gem Show**, Peardonville Hall, Abbotsford

November 16 & 17, **Vernon Rock & Gem Show**, Greater Vernon Recreation Centre, Vernon

December 7, **Creative Jewellers Guild of BC**, VanDusen Botanical Gardens, The Floral Hall, Vancouver

February 22 & 23, **Maple Ridge Lapidary Club**, Pitt Meadows Heritage Hall, Pitt Meadows

March 7 & 8, **Alberni Valley Rock & Gem Club**, Alberni Athletic Hall, Port Alberni

March 14 & 15, Hastings Centre Rockhounds, Hastings Community Centre, Vancouver

March 20, 21, & 22, **Victoria Lapidary & Mineral Society**, Leonardo de Vinci Centre, Victoria

April 3, 4, & 5, **BC Lapidary Society BC Gem Show**, Ag-Rec Building, Abbotsford

(plans for the showcases are on their website for anyone interested in bidding to build them)

Sales

A member of our club is a friend of the owner of BeadSmart of Unit 150-12420 No 1 Road Richmond, BC. She says they are having a Christmas Sale. I could not find a Christmas Sale when I visited their website, but there are weekly specials such as Larimar beads. They also advertise BC Lapidary Society club shows on their home page. Hastings Centre Rockhounds is listed there and on their past events page.



Our Library

Our club has a great library with many resources such as books, journals and magazines, all about rocks. At our last meeting 5 new books were received and added to the collection. We often have new additions at a meeting. Meetings are when the collection can be viewed and borrowed. In the photo you can see the shelves in the background in the hallway.

Projects

Linda is thinking about our club Show

At our last meeting Linda asked for donations for the Grab Bags... if anyone wants to donate small stones for the bags, they are certainly welcome. No toxic rocks, and please, no obsidian since it can become dangerous if dropped and it shatters. Jasper, Quartz and Agate are great. Rocks should be about 1 ½ inches x 1 ½ inches. (She demonstrated and it looked about Palm size or the inside of your fist.)

(reprinted from September newsletter)

Hello fellow members: It is not too early to start thinking about our show next year.

One way to volunteer by making some grab bags for the show. The rewards will be two-fold; first our grab bags are always a great hit at the show, so you will feel good in helping the club with their fundraising efforts, and second, it is great to see the excitement of the kids as they (and adults too) pick their special bag to purchase.

I am sending out the dimensions for the grab-bags so you can get to making them in your spare time. I can finish and string them if you like. I am crocheting strings and putting beads on them. ...

The kiddies (and adults too) love soft and fuzzy fabrics, like flannel. Fun patterns are great, but sometimes whatever is cheap and available will work. The plan is to make 300 again this year, and- if we can put them together either in late January or early February, then we have some time until then, to make as many as we can. Thanks in advance! Linda linmfoy@yahoo.ca

Dimensions for the grab bags are:

17 1/2 inches x 7 1/4 inches (44 cm x 18.5 cm)

Just fold over the ends and sew to form a loop for a string (tie) to go through- please make sure a string can go through, sew it inside out. The finished bag will be 7 1/2 inches x 6 1/4 inches. Have fun!

Mysterious Pink-Polka Dot Rock

Nickell mentioned a mystery rock at our last meeting and I encouraged her to let us use the collective knowledge of our club to identify it.

She found it in the Fraser river near Hope. The rock is dark green (near black) with 'dots' ranging from pink to white. The consistency of the rock is very uniform. She says, "My first thought was, these are ancient gas bubbles - but wouldn't the rock be more porous if that was the case? (I really don't know). To me it looks like a petri dish full of bacterial colonies."

(Editor: I like the idea that we can help club members and learn at the same time so send us your ideas and thoughts. Thank-you).



SPEED BUMP

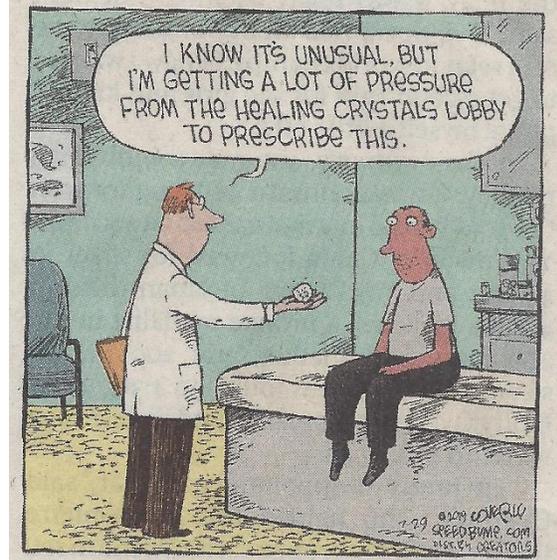


Clippings

People see rock related items all the time this is our chance to share it. Send in what you find.

Cartoons from the Globe and Mail, Thanks Paul Pinsker

SPEED BUMP



November was a big month for fossils in BC

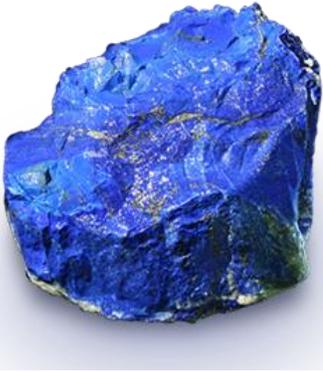
The headline Nov 07, 2019 on CBC news was "**Mysterious claw found 50 years ago identified as 1st dinosaur species unique to B.C.**" Ferrisaurus sustutensis (which means "iron lizard from the Sustut River,") is a smaller cousin of Triceratops and roamed the area more than 67 million years ago.

<https://www.cbc.ca/news/canada/british-columbia/bc-first-dinosaur-species-1.5351223>

The headline Nov 10, 2019 on CBC news was "**First dragonfly fossils from B.C. receive scientific names**" Rare fossilized dragonflies, which flitted 50 million years ago were discovered near Kamloops and have been given scientific names — a first for British Columbia. The fossils represent eight previously unknown species.

<https://www.cbc.ca/news/canada/british-columbia/kamloops-dragonfly-fossils-1.5349144>

Lapis Lazuli



is a traditional birthstone for December in North America. Britain has made it an alternate to sapphire for September. It is associated with Libra (September 23 and October 23) and Capricorn (December 22 and January 20). It is the gemstone used to celebrate a 9th anniversary and used as a birthstone for those born at 4 am.

The name comes to us from the Persian *lajevard*, the name of the stone and where it is mined, through the Arabic word *lazaward*. Through the medieval Latin word *lazulum* we get *lazuli* for describing something blue. In Latin *lapis* means stone so Lapis lazuli means stone of blue.

https://www.gia.edu/images/150226_lapisLazuli_rough_hero.png

Lapis Lazuli has been known since ancient times. It was highly valued by the Indus Valley Civilisation (3300-1900 BC), mentioned in the Gilgamesh epic of the Babylonians (17th to 18th century BC) and used to make cylinder seals to mark inscriptions on wet clay with official signatures or worn as necklaces. Lapis Lazuli was used in the funeral mask of Tutankhamen (1341-1323 BC). In ancient Egypt it was widely used for amulets, scarabs and jewellery and Cleopatra (69 BC to 30 BC) used powdered lapis lazuli for eyeshadow.



Ancient lapis pendant: A Mesopotamian pendant made of lapis lazuli, c. 2900 BC. [Public domain image](#) by Randy Benzie

Up until the Early Middle Ages Lapis Lazuli was often called sapphire and the Greek scientist Theophrastus who wrote a book on stones described “the sapphirus, which is speckled with gold”. That description fits lapis lazuli but not the sapphire we know today. The sapphires of the Old Testament of the Bible are now widely believed to have been lapis lazuli.



The Starry Night
Vincent Van Gogh (1889)



Girl With a Pearl Earring
Johannes Vermeer (1665)



The Virgin in Prayer
1640-1650



Bacchus and Ariadne
Titian (1520-1523)

In 1271 Marco Polo referred to the mining area of Bactria (in current day Afghanistan), the source of lapis lazuli.

By the Middle Ages, Lapis Lazuli was used in Europe for the most expensive blue pigment. It was ground into powder to make ultramarine pigment used by the wealthiest patrons. Michelangelo used it in the ceiling of the Sistine Chapel (1505–1512). Other well-known paintings that used ultramarine from ground lapis lazuli: Bacchus and Ariadne by Titian (1520-23), Girl with a Pearl Earring by Johannes Vermeer (1665), The Virgin in Prayer by Sassetto (1640-1650) and The Starry Night by Vincent Van Gogh (1889). This use of Lapis Lazuli mostly ended in the 19th century with the development of synthetic blue pigments. *From Geology.com - All images are in the public domain and were obtained from Wikimedia.org.*

According to the International Gem Society (IGS), “Lapis Lazuli legends are some of the oldest in the world. The legend of the Sumerian goddess of love, Inanna, may date from 4000 BC. She descended into the underworld bearing the insignias of her rank including a lapis lazuli necklace and rod.” IGS further quotes Scott Cunningham’s Encyclopedia of Crystal Gem and Metal Magic saying “lapis

lazuli has timeless associations with royalty and deities. The stone was said to contain “the soul of the deity...” In ancient Egypt judges wore emblems of the goddess of truth made from lapis lazuli. Lapis Lazuli is associated with wisdom, love, healing and some claim it improves psychic ability.

But what is it? Most gemstones are minerals; a mineral is a naturally occurring, inorganic, solid, crystalline substance, which has a repeating crystal unit, and a chemical composition that is fixed or varies within defined limits for that mineral. That does not define lapis lazuli.

Lapis Lazuli is a rock made from a combination of different minerals. The most important of the minerals is lazurite (25% to 40%) which gives Lapis Lazuli its blue colour. Most lapis lazuli also contains calcite which looks white, sodalite which looks blue, and pyrite which gives a metallic yellow colour. According to Wikipedia, some samples contain augite, diopside, enstatite, mica, hauynite, hornblende, nosean and lollingite geyerite- a great variety of minerals. Geology.com adds more: wollastonite, afghanite and more. To be called Lapis Lazuli the rock must have a blue colour and at least 25% lazurite.

Geology.com says that each mineral in Lapis Lazuli has its own hardness ranging from 3 for calcite to 6.5 for pyrite on the Mohs scale. "The hardness depends upon where you test it." The IGS says Lapis Lazuli has a hardness of 5-6 (depending on impurity content). Pendants, earrings, brooches are fine but for Lapis Lazuli rings, protective settings and occasional wear are recommended. Jewellery should be stored separate from other pieces. Loose stones should be stored in separate papers or bags so they don't scratch each other.

Yet, Lapis Lazuli is a popular stone, though not as expensive as in past times. The deep blue colour is the greatest quality factor. The more uniform the colour and the deeper the blue, the better the quality. Some would rate pyrite inclusions as undesirable, but it is very popular.

Blue is the distinguishing feature of Lapis Lazuli. Some people have trouble distinguishing Lapis Lazuli from Sodalite. Lapis Lazuli tends to a violet blue and sodalite to a royal blue. A streak test where the rock is scratched across unglazed porcelain (like the back of a porcelain tile) is a defining test. Lapis Lazuli leaves a blue streak, sodalite leaves a white streak. Don't do this test with finished stones. It is considered a "destructive test". There is another test using acid.

Lapis Lazuli is typically cut into cabochons or beads. It has been used in inlays, sculpture and seals. Lapis Lazuli rough of good colour can be up to 100 kg, large enough to be used for decorative carvings or small statues.



According to the IGS, dyeing is a common treatment to colour calcite blue. Heat treatment to darken the blue is also common. Fracture filling with wax and oil is also done. As for synthetics, dyed gems such as howlite and jasper are sometimes called Swiss Lapis. (Light coloured "denim lapis" is usually a light, lower quality lapis lazuli from Chile). Enamel, glass, and plastic have been used to simulate Lapis Lazuli. Imitations for Lapis Lazuli have been around since the Egyptians. King Tut's funeral mask mentioned earlier has real Lapis Lazuli inlay for eyes, but the blue bands on the headdress are blue-painted glass.

Lapis Lazuli is a metamorphic rock found near igneous intrusions where limestone or marble have been altered. Lazurite replaces portions of the host rock. Some small amounts are mined in Italy, Mongolia, the US and Canada (Baffin Island). There are significant mines in Russia and Chile. The most important source is Afghanistan where Lapis Lazuli has been mined since 700 BC. According to the Gemological Institute of America (GIA) the mines are the world's oldest known commercial gemstone sources.

From IGS (gemsociety.org) "[King Tut Burial Mask.](#)" Egyptian Museum, Cairo, Egypt, by [Mark Fischer](#)