

THE ROCKET

deadline for next issue
October 11

SEPTEMBER 2019

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

Next Meeting: Friday September 27- 7PM Hastings Community Center Hall

PROGRAMS

Paul wants everyone to bring their treasures from the summer for a show and tell.

Last meeting Programs:

Our meeting in June, the last one before the summer, began with a tribute to Verne Brooks our President who had passed away since the May meeting. The June meeting was our usual Social to end the year so there was wine and good food for all. We also had a Bottle Draw and Rock Auction. There were lots of opportunities for memories, sharing and visiting before the summer break. *Photos 1,2,4,5&6 Allison Ku. Photo 3,7, 8 & 9 Mike Ma*



Workshop Hours

Lapidary:	Monday	6:30pm – 9:30pm
	Wednesday	1:00pm – 4:00pm
	Thursday	6:30pm – 9:30pm
	Saturday	1:00pm – 4:00pm
Metalwork:	Monday	9am – 2 pm
	Sunday	10:30am – 1:45 pm
Silversmithing:	Wednesday	9:00am – 12:00 noon
	Saturday	9:00am – 12:00 noon
Soapstone Carving:	Tuesday	6:45 pm – 9:30 pm
		There is room for 10 people. Please contact Linda Foy before showing up for the first time.

****these hours may change. Please check at the September meeting for any updates.

Field Trips

Whatcom Museum Exhibit: What Lies Beneath

by Paul Pinsker

On Sunday, returning from Seattle, my wife (Joyce) and I diverted our rush to the border and took in the exhibition "What Lies Beneath: Minerals of the Pacific Northwest", at the Whatcom Museum, situated inside the Old City Hall building (on the northern edge of Downtown Bellingham at 121 Prospect Street). A full hour of enjoyment awaits, with splendid specimens well displayed. They are mainly from Washington, with some from Oregon - including some beauties on loan from the Rice Museum. I was particularly impressed with the towering stibnite mass, numerous Japan Law Twins, giant opal-filled thunderegg, molybdenite crystal stack on quartz, amethyst sceptres, combined quartz and pyrite crystals, and never-before-seen zektzerite among many other treats. Information on the rockhound's name and location where found are provided for each specimen. There are several short "2 Minute Geology" videos on topics such as: The Columbia River Basalts; Ginkgo State Park's petrified forest; Pillow Basalts & Palagonite; and, one 16-minute video "Huge Floods in the Pacific Northwest/A Story of Lava, Ice, & Water" dealing with the ancient repeating floods of Lake Missoula and the singular, greater flood out of Lake Bonneville that shaped the eastern Washington scablands. Any rockhound would be delighted seeing this exhibition, running through February 2, 2020

Greenland Rocks

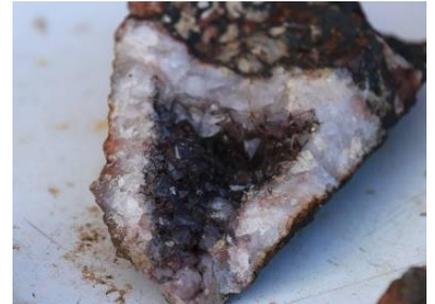
by Melanie G

Siorapaluk, Greenland, the northernmost settlement on earth, with 48 residents, is situated at on the rocky northern slope of a fjord at 77.47 degrees north.



Icebergs float by, having calved off the glacier that sits at the eastern end of the fjord. The hills are barren with small tundra plants surviving among the rocky landscape. Sled dogs are kept on chains, waiting for winter when ice forms on the water so the inhabitants can travel by sled to go ice fishing. These people for the most part, survive on a diet consisting of various meats: Seal, Narwhal, Walrus, Reindeer, Muskox, Halibut, and the occasional Polar Bear or Minke Whale.

Visiting one of the locals in his home, there are a few items for sale: Narwhal teeth, Polar Bear claws, Seal claws, carved Reindeer antler, Muskox horn and ROCKS, pictured below.



If you've been out **Rockhounding or on a Field Trip** in the last couple of years and have something to show, we'd like to hear about it. You don't have to share your secret site but we'd like to know about your finds. If you do have a place you can tell us about, we could have some great club sharing. If you know someone you'd like us to feature, tell me your suggestions and I'll follow up with them. Thanks, Roz (Editor)

Upcoming Events of Interest: Shows

Oct. 4-6, **National Rock and Gem Show of Canada** Lethbridge, Alberta, Exhibition Park, West Pavilion 2019.

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

September 21 & 22, **Fraser Valley Rock & Gem Show**, Old Age Pensioners Hall, Aldergrove

October 5 & 6, **Parksville and District Rock and Gem Club**, Parksville Community and Conference Centre

October 19 & 20, **Surrey Rockhound Club**, Sullivan Hall, Surrey

October 26 & 27, Port Moody Rock & Gem Club, **Kyle Centre, Port Moody**

November 2 & 3, Delta Rockhound Gem & Mineral Club, **South Delta Recreation Centre, Tsawwassen**

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

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

Projects

Linda is thinking about our club Show

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.

Also, 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.

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!

Recent News

Since our last meeting in June

A BIG THANK YOU to Richard, Sante, Alison, Diane C., Glenys, Nigel, Susan, Dawn, Amalia, Luke, Steve, Drew, Vera, Manda, Joyce, Jennifer, Paul, Linda and Crystal for helping out at the **Kitsilano Gem show!**

Our table was a great hit with the demonstrations. Thank you to those very helpful members of our club!

Hastings Centre Rockhounds participated in the **Hastings Community Centre Open House** on September 7, 2019. Manda did a great job at our display. Thanks Vivian R for the photos.



Also:

As most of you know or may not know that the workshop was broken into in July and the silversmithing lost 90% of their tools. We were wondering if anyone would have extra/unused silversmithing equipment that they are willing to donate to the club. We are mostly looking for round & flat pliers, files, burnisher, heat treated tweezers, cutters, ring size measurer, at least these basic tools so a newbie/beginner coming in would have the sufficient tools to start their first project. Any other silversmithing tool donation is also welcomed!

We get Letters!

On Thu, Aug 1, 2019 at 10:14 PM
Hi Roz,

How are you? This is Paul, sometime last year I had my gemology resource sent over. I see that it had been shared on the club's link page. Thanks for the passing it on to the webmaster! Hope it has been useful!

Anyway, I would like to share an animated infographics which I had recently published on diamonds: <https://beyond4cs.com/how-are-diamonds-made-and-formed/>

I think it would be something interesting for your members on the club's site and a good inclusion for your newsletter. Do check it out, would love to hear back soon! :D
Cheers, Paul Gian

Amber

is the stone we cover this month. A few people associate Amber with Taurus and a 7 am birth hour. As we turn to Fall, the colours of Amber seem to fit with the season and we haven't covered an organic gemstone this year.

GIA photo Amber rough



The name Amber comes to us from the Arabic *anbar* and possibly Middle Persian and Middle Latin *ambar* then Middle French *ambre*. In English of the 14th century *amber* referred to ambergris (grey amber) which is a solid waxy substance from the sperm whale but in Romance languages it also referred to Baltic Amber. English adopted that use in the early 15th century and as the use of ambergris itself dropped the main sense of the word came to be that yellow or white substance washed up on the shores in the Baltic.



"Venus figure of carved amber (pendant) from Eastern Europe," Neolithic period (around 10,200 to 4,500 BCE), by [Lisby](#). Public Domain.

Amber has been known and used since prehistoric times 13,000 years ago. According to Gemdat.org, one of the earliest examples of worked amber are beads from Gough's cave in southern England, dated 11,000–9000 BC. An ancient trade route "The Amber Road" moved pieces from northern Europe to the Mediterranean. The breast ornament of the Egyptian pharaoh Tutankhamen (c. 1333–1324 BC) contains large Baltic amber beads. Ancient cultures carved animals out of amber. The Vikings believed they contained the strengths of the animals; the Greek and Roman women wore fish, frogs and rabbits carved in amber to ensure fertility. The early Chinese believed the souls of tigers became amber upon death.

Amber Pieces, a retail collective from Lithuania, Poland and Latvia, says small Baltic Amber pieces have been found inserted under the skin of Egyptian mummies as Egyptians

believed in amber's power to stop destruction and decay. In ancient China amber was burned during festivities to signify the wealth of the host and honour the guests. Ancient Romans and Greeks believed in the magical power of amber and buried people with amber necklaces as a symbol of influence and power. Hippocrates (460-377 BC) wrote of amber beads worn around the neck bringing relief from severe head, neck and throat complaints. Some thought it would ease the suffering of rheumatism and arthritis and

reduce fatigue and feelings of general weariness. *Amber Pieces* also claimed that "Mohammed stated that a true believer's prayer beads should be made of amber." and "Martin Luther carried a piece of amber in his pocket as a protection against kidney stones."

Many have tried to understand "what is Amber?" The Vikings and the Greeks thought amber was preserved tears. Nicias (Greek, c 470-413 BC) claimed a liquid is produced by the rays of the sun that strike on the soil with greatest force at sunset and leaves a sweat that is carried off with the tides. Pliny the Elder, who died in 79 AD after writing series of books in Latin known as **Natural History**, wrote that Amber is produced from a marrow discharged by trees belonging to the pine genus. Now we know that Amber has a chemistry of $C_{10}H_{16}O + H_2S$. According to IGS Amber is a non-crystalline (amorphous) mix of organic compounds including hydrocarbons, resins succinic acid and oils. Mostly it comes from the preserved resin of ancient tree species *Pinus succinifera* but some other ancient tree species have also produced it. Amber is resin that has been preserved for at least 30 million years. The oldest amber is from about 320 million years ago. Younger preserved resin is known as copal.

Also, according to IGS, Amber is not a fossil in the strictest sense. In fossils, the organic material is slowly replaced with elements from the mineral kingdom. Amber's organic elements haven't been replaced. The resin has undergone a chemical transformation into a polymer - a natural plastic.

Most people are familiar with yellow and golden amber, but the gem can be white through yellow to orange, reddish brown and even almost black. The darker the colour, the more valuable, up to the red (cherry amber) stage. Some rare pieces have green, blue or even violet tints are most valuable and the blue Amber from the Dominican Republic can be the most expensive.

Clarity of Amber can vary from transparent to opaque. The more transparent amber has higher value except for those with special inclusions. Amber is noted for inclusions of insects, leaves and even scorpions and lizards! According to the Gemological Institute of America (GIA) amber cabochons with no insect inclusions cost only a few dollars per piece, while pieces with easily seen or complete insect or plant specimens might sell for thousands of dollars. Rarer insects tend to go for higher prices. Star spangles are another type of inclusion, but they are not valuable. Looking like flattened starburst shapes, they are internal fractures caused by stress and often human caused.

photo: GIA website



Because of the softness of Amber and the inclusions, Amber is rarely faceted. It is usually cut into cabochons. Beads are another popular cut for Amber. Opaque material is often carved into pipe stems or umbrella handles. Carvings are also common.

Amber is relatively light and has a specific gravity between 1.06 and 1.10. According to IGS, Amber is usually sold by the gram rather than the carat (1 Gram = 5 carats.)

There are a few treatments used to enhance the appearance of amber, but their use is questionable. Amber can be darkened by heating and heat can create the star (sometimes called sun) spangles. Cloudy amber can sometimes be clarified by heating in oil, but that can also create the spangles. Dyeing is also used on amber. If the dye is on the surface, it might be spotted by a loupe. Small pieces can be “melted” together by oils or solvents. According to Gemdat.org, immersion in alcohol reveals hazy outline and different hue of individual pieces, elongated and flattened gas bubbles.

Amber has been imitated by plastic and glass. Glass is cold to the touch and amber is warm, but plastic can be harder to spot. IGS says, “Ancient techniques for identifying amber are still useful today. If rubbed vigorously on a piece of wool, the real deal will generate a static charge strong enough to pick up a small piece of ash. (some others say a shredded piece of credit card receipt!) When it’s warm enough, it also gives off a distinctive, pleasant scent.”

IGS also says “A specific gravity (SG) test can also help weed out the plastic imitations. A handy homemade testing liquid can be concocted by boiling water and adding as much salt as you can dissolve in it. This will have a density of about 1.13. Amber, with a SG of 1.08, will float in this solution. Most plastics will sink. However, a few plastics have a density as low as 1.05. Many can have a lower SG than amber if they have air bubbles inside. So, if your sample sinks, you can be sure it’s not amber. If it floats, you need to conduct more tests.” Another test is a hot point touched to the stone to get a whiff of smoke that has a distinctive smell.

Amber has a Mohs hardness of 2 to 2.5 so care must be taken with Amber jewellery and carvings. Amber can be partially dissolved by solvents, alcohol, etc. Mechanical cleaning systems should not be used. A damp cloth, warm water and detergent is enough. Some suggest a rub of olive oil to restore a polish and others suggest a silicone-based wax every 6 months because Amber will oxidize over time. Don’t leave Amber in direct sunlight or expose it to sudden temperature changes. Amber should be stored in a soft-lined container. Because it is soft and melts at a low temperature, most lapidaries recommend using hand methods rather than machines to work amber. It can be shaped with sand paper or even a 4step nail buffer. It can be polished with denim, flannel. The website of the Victoria Lapidary and Mineral Society has: Helpful Hints – from Lapidary Shop Manual – Edited by Elmer Yoder – Compiled in Electronic Form and Re-Edited by Cameron Speedie. The advice there is to “Dip the amber piece into the lubricant (oil or water) and then dip the piece into the polishing compound then rub vigorously on a smooth surface such as a leather strop, or a chamois attached to a hard board. The people in Europe and Mexico used wood ashes as a polishing agent.”

According to gemdat.org “True amber of lapidary quality comes mainly from the Baltic region (principally Poland and Lithuania), with some production also in Mexico (Chiapas), the Dominican Republic, and Burma. Most so-called “amber” marketed from Colombia and Madagascar is much too young to qualify as true amber.”

According to a special issue of Gemmology Canada, in an article by Stephen Bertalan, A.G. (C.I.G.) “Amber up to 2.5cm. are found in yellow colour with a greenish tinge and occasional plant inclusions along the Quesnel River near Quesnel. Nodules are found in shaly sandstone along the Peace River Canyon, and sizable nodules off the Pacific coast on Graham Island of the Queen Charlottes.”

Around the world fragments are normally less than half a pound, but pieces weighing several pounds have been found. The Amber Museum in Copenhagen has a piece of amber that is listed in the Guinness World of Records (2015) as the largest Amber at 104.72 pounds (47.5 kg) measuring 57.5 x 62 x 37 cm. It was found in the Dharmasraya region in West Sumatra in 2014.



The most stunning use of Amber has to be the Amber Room in the Catherine Palace near St. Petersburg, Russia. It was installed in 1716 and used over 6 tonnes of amber pieces. It was dismantled by the Nazis in WW II and disappeared. There are numerous theories of where it went. In 2003 it was reconstructed at the Catherine Palace.

Photo: IGS website