THE ROCKET

April 2022

deadline for next issue
May 13, 2022

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

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

Next Meeting: Friday – April 22 at 7PM

at Hastings Community Center Hall

A highlight at every meeting – Our Ways and Means rock raffle

Last Meeting Programs:

Linda Foy presented Granite 2.0. She brought in lots of samples to demonstrate the points she made about granite. Everyone also got a glass marble and a small granite sample to experience the difference and note the impact of granite on themselves.

Upcoming Events of Interest: Shows:

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

April 15,16 & 17, 2022, **Courtenay Gem and Mineral Club,** Legion Hall-Upstairs, Courtenay,BC

May 7, 2022, Shuswap Rock Club Tailgate, Pentecostal Church parking Lot, Salmon Arm, BC

Workshop Hours

Hastings Community Centre has removed all restrictions on the number of people that can attend a workshop. Our workshop instructors decided that people no longer needed to make a reservation.

If you a member in good standing, have taken the required lapidary workshop training course, and are double vaccinated "passport" with ID to show, 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	Sante
	Saturday	1:00 pm – 4:00 pm	Bob
Silversmithing	Wednesday	9:00am – 12:00 noon	Marilyn
	Saturday	9:00am – 12:00 noon	Robert

I would like to thank Steve for his report as the rep to the BC Lapidary Society.

Rendezvous 2022

Coombs, BC, June 2 — 6, 2022
Coombs Fair Grounds
1014 Ford Rd.
Coombs, BC

The Registration form for Rendezvous 2022 is now on the BC Lapidary society website. Rendezvous is our Society's annual gathering which has taken place since 1958 (well, until the COVID pandemic). Rendezvous 2022 will feature:

Field Trips
Camaraderie
Mini Rock Show and Sale
BCLS Annual General Meeting

The BCLS will strive to make Rendezvous 2022 open and welcoming to all while following the required COVID protocols set out by the Provincial Government at the time of the event.

This year Rendezvous and Gemboree have been combined into a single larger-than-usual event focused on bringing us all back together after 2 years of COVID retreat. Rendezvous 2022 will be hosted by our Vancouver Island clubs including Victory Lapidary and Mineral Society, Cowichan Valley Rockhounds, Parksville & District Rock & Gem, Courtenay Gem and Mineral Club, Alberni Valley Rock & Gem, Ripple Rock Gem & Mineral Club (Vancouver Island Zone).

Visit the web site at https://www.bclapidary.com/rock-hunting-rendezvous.php for the registration form and everything Rendezvous. Let's make a point of getting back together again and rocking BC!

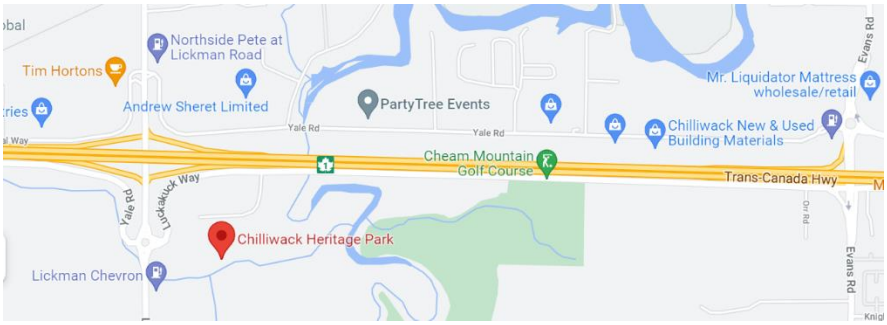
BC Gem Show

The British Columbia Lapidary Society hosts the **BC Gem Show** in BC each year.

Door Prizes, Dealers, Demonstrators, Club Exhibits, Displays, Spin and Win, Grab Bags, Gold Panning. Fun for the whole family!

When
May 13, 14 & 15
Friday 10:00 AM - 8:00 PM
Saturday 10:00 AM - 6:00 PM
Sunday 10:00 AM - 5:00 PM

Where NEW LOCATION
Chilliwack Heritage Park
44140 Luckakuck Way
Chilliwack, BC



Adults - $6.00
Students (6 - 17) - $2.00
Under 6 (accompanied by an adult) - Free
3 Day Pass - $12.00
Tickets available at the door

<u>Rocklovers-Round-Up Tailgate Sale</u> Cancelled for 2022

Mask wearing and vaccine passports are required.

A Rock Challenge –a Blue and Yellow stone?

Last month I asked about Yellow and Blue stones: Nickell has given me a list of lots of blue stones and lots of yellow stones. We still have not found one with both blue and yellow, but one of her suggestions does have a pale possibility of yellow and includes yellow. Do you have a suggestion?

Our Club Table at the Vancouver Gem and Mineral Show

Thanks Richard Kotecki for the photos

This photo- Thanks Paul Pinsker

BCLS is seeking Executive Secretary

As announced at the BCLS Spring General Meeting, Georgina Selinger will be stepping down as Executive Secretary in June of 2022. Firstly, we would like to thank Georgina for her over 10 years of service in this role. While her experience will surely be missed, she has offered to assist our new Executive Secretary during the month of June as part of a transition period.

We are seeking applications from those who are interested in this role. The Executive Secretary is engaged through a $700 month-to-month contract. The successful candidate will have a good working knowledge of basic computer software and business practices, and have an active interest in the BCLS.

The deadline to apply is April 30th.

A full job description can be found here:
https://www.bclapidary.com/Executive-Secretary-Job-Description.pdf

Obsidian: *The specimen shown above is about two inches (five centimeters) across.*
The curved semi-concentric ridges are breakage Marks associated with obsidian's conchoidal fracture.

The "stone for this month" is

Obsidian

Wikipedia:
Polished snowflake obsidian, formed through the inclusion of cristobalite crystals

Even though some consider it a birthstone for Sagittarians, **obsidian** seemed like a natural progression from last month's granite when the National Audubon Society Field Guide to Rocks and Minerals p. 690 said, "Obsidian is so silica-rich that upon slow crystallization a very light-colored **granite** with about 35% quartz, 63% feldspars, and only 2% ferromagnesian minerals would have formed…"

And that is the crucial point – obsidian cooled so quickly that mineral crystals, did not have time to develop and form. In some samples, spherulites of feldspar fibers with crystalline silica will form. They represent rapid crystallization prior to chilling of the material surrounding them. Frequently accompanying the spherulites are lit hophysae ("Stone bubbles"). They were formed by gases escaping from the obsidian lava flow. They are larger cavities mostly filled with concentric shells of crystalline material. These are fragile crystals of minerals such as quartz, feldspar, topaz and tourmaline supplied by the escaping gasses.

Spherulites = a spheroidal mass of crystals (especially of a mineral) grouped radially around a point.

According to Wikipedia, "Obsidian is mineral-like, but not a true mineral because, as a glass, it is not crystalline; in addition, its composition is too variable to be classified as a mineral. It is sometimes classified as a mineraloid."

Obsidian occurs as volcanic lava flows that are thick and limited area. Its black, glassy lustrous look, conchoidal fractures and often flow-banded appearance help distinguish it from the other volcanic rocks it is commonly found with. geology.com
Look for Obsidian in areas of relatively recent volcanic activity. Obsidian older than a few million years is rare because the glassy rock is rapidly destroyed or altered by weathering, heat, or other processes. Look along the edges of a lava flow, along the edges of a volcanic dome, around the edges of a sill or a dike, where lava contacts water, or where lava cools while airborne.)

of

Geology.com
Obsidian outcrop: *Obsidian along the edge of a lava flow in central Oregon.*
Image copyright iStockphoto / Phil Augustavo

Obsidian has been known for a long time. The first known archaeological evidence of usage was in Kariandusi (Kenya) and other sites of the Acheulian age dated 700,000 BC. There is archeological evidence of obsidian through Asia, Japan, the Middle East and the Americas.

Pre-Columbian Meso-American peoples used obsidian for tools and decorative objects. Aztec priests used Obsidian mirrors to conjure visions and make prophesies. According to Wikipedia: The mirrors were connected with Tezcatlipoca, god of obsidian and sorcery, whose name can be translated from the Nahuatl language as 'Smoking Mirror'.

Archeologist use a technique called X-ray fluorescence to identify the source outcrops of obsidian artifacts. With this information they can identify trade routes of many peoples worldwide because obsidian has had value for many people.

Pliny the Elder mentioned obsidian in his Natural History book written about 77 AD. " ... among the various forms of glass we may reckon Obsidian glass, a substance very similar to the stone found by Obsidius[i] in Ethiopia." This gives us a clue to the name origin.Since Paleolithic times people have valued obsidian for conchoidal fractures formed by chipping and flaking which create sharp edges that can be made into knives,

spearheads and other implements.

Courtesy of Dr Lee Green to CNN

Even today, a very few surgeons use obsidian scalpels for surgery because of the fine edge. (A razor blade can be 300 to 600 angstroms yet an obsidian edge can be 30 angstroms - a unit of measurement equal to one hundred millionth of a centimeter.) Dr. Lee Green, professor and chairman of the Department of Family Medicine at the University of Alberta, says he routinely uses obsidian blades.

https://www.cnn.com/2015/04/02/health/surgery-scalpels-obsidian/index.html#:~:text=Even%20today%2C%20a%20small%20number,he%20routinely%20uses%20obsidian%20blades.

A reference in Wikipedia claims Plinths for audio turntables have been made of obsidian since the 1970s, such as the grayish-black SH-10B3 plinth by Technics.

The wonderful sheens and colours we see are very thin yet very desirable for jewelry making. According to gemdat.org sheen is caused by gas bubbles remaining from the lava flow, aligned along layers created when the molten rock was flowing before it cooled. A bit of information from Wikipedia will help us understand the challenges of working with obsidian as a lapidary material.

> Pure obsidian is usually dark in appearance, though the color varies depending on the impurities present. Iron and other transition elements may give the obsidian a dark brown to black color. Most black obsidians contain nanoinclusions of magnetite, an iron oxide. Very few samples of obsidian are nearly colorless. In some stones, the inclusion of small, white, radially clustered crystals (spherulites) of the mineral **cristobalite** in the black glass produce a blotchy or snowflake pattern (*snowflake obsidian*). Obsidian may contain patterns of gas bubbles remaining from the lava flow, aligned along layers created as the molten rock was flowing before being cooled. These bubbles can produce interesting effects such as a golden sheen or silver sheen (*sheen obsidian*). An iridescent, rainbow-like sheen (*fire obsidian*) is caused by inclusions of magnetite nanoparticles creating thin-film interference. Colorful, striped obsidian (*rainbow obsidian*) from Mexico contains oriented nanorods of hedenbergite, which cause the rainbow striping effects by thin-film interference.

Cristobalite is a mineral polymorph of silica that is formed at very high temperatures.

Nano is a unit prefix meaning "one billionth"

The use of obsidian in jewelry can be limited by its durability. It has a hardness of about 5.5-6 which makes it easy to scratch. It is brittle and is easily broken or chipped upon impact. Obsidian is not good for rings and bracelets but is best suited for low-impact pieces such as earrings, brooches, and pendants (or sharp objects.)

Geology.com Obsidian knife blade: *A knife blade manufactured from mahogany obsidian. The craftsman who made this blade had a very high skill level and was able to produce a serrated edge. Image copyright iStockphoto / Al Braunworth.*

Obsidian is found near volcanoes in locations which have undergone rhyolitic (explosive, but relatively lower temperature) eruptions. It can be found in Argentina, Armenia, Azerbaijan, Australia, Canada, Chile, Georgia, Ecuador, Elsalvado, Greece, Guatemala, Hungary, Iceland, Italy, Japan, Kenya, Mexico, New Zealand, Papua New Guinea, Peru, Scotland, The Canary Islands, Turkey and the United States.

According to A Field Guide to Gold, Gemstone, and Mineral Sites of British Columbia Volume 2 by Rick Hudson, you would expect to find obsidian along the lava flows below Black Tusk and Garibaldi Park, above Highway #99. Black obsidian occurs in varying sizes north of Anahim Lake, on Anajim Peak and Ilgachuz Mountains.

When collecting obsidian wrap your samples well as obsidian is brittle and those conchoidal edges are sharp!

Geology.com

Types of Obsidian: The specimens shown above are from Glass Butte rockhounding site in central Oregon. It shows the diversity of obsidian types that can be found in a small geographic area. Clockwise from upper left are: double flow obsidian, rainbow obsidian, black obsidian, pumpkin obsidian, mahogany obsidian, gold sheen obsidian, and the piece in the center is gold sheen. The nice photo above is from the Glass Butte Rockhounding Site page on the Deschutes National Forest **website**.

Mindat.com Rainbow obsidian (also known as Iris obsidian)

Photos of Rainbow Obsidian (16)

Rainbow Obsidian

La Revoltosa Mine, San Andreas, Magdalena Municipality, Jalisco, Mexico

Rainbow Obsidian

La Revoltosa Mine, San Andreas, Magdalena Municipality, Jalisco, Mexico

Rainbow Obsidian

La Revoltosa Mine, San Andreas, Magdalena Municipality, Jalisco, Mexico

from Geology.com

Mahogany obsidian: A tumble-polished specimen of "mahogany obsidian." Image copyright iStockphoto / Arpad Benedek.