

THE ROCKET

deadline for next issue
March 8

February 2019

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

Members are reminded to bring their membership cards to meetings and the workshop as there is an attendance requirement at meetings in order to attend the workshop. Any concerns, please contact the Executive.

Next Meeting: Friday – February 22 at 7PM
at Hastings Community Center Hall

PROGRAMS

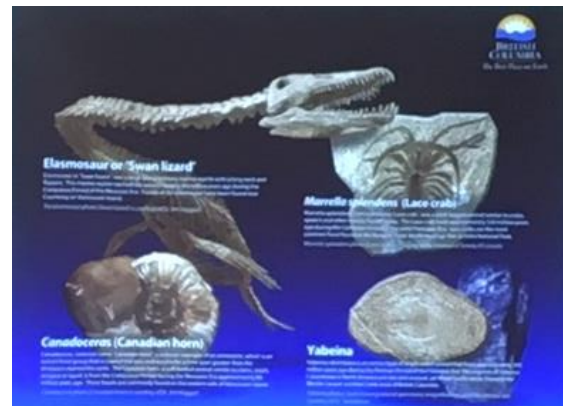
Paul Stevenson of Sego Resources, a Vancouver-based mining company, will be our speaker. He will be talking about copper and gold mining, and in particular about his mining activities around Princeton, BC.



Thanks Mike for Photos

Last meeting Programs:

Our feature speaker at the last meeting was **Paleontologist Jim Haggart**. He is a Research Scientist at Geological Survey of Canada and Adjunct Professor in Earth, Ocean, and Atmospheric Sciences at UBC. His gripping presentation on "BC's Fabulous Fossils" (and where to find them), including a slide trip around our province and several fossil creatures to examine, educated and entertained a packed room of our Club members. We learned that British Columbia is one of the planet's most outstanding sites for fossils and understanding our earth's history. Jim also kept us in suspense as to which of four candidates will soon be crowned "Official Fossil of BC". I won't give more details - for that members and guests must COME TO THE MEETING so they don't miss out on these fascinating talks.



Links to Short List for Official Fossil <http://www.bcfossils.ca/fossil.html>
<https://blog.everythingdinosaur.co.uk/blog/archives/2010/05/08/4524108.html>

Online survey ended Nov. 23, 2018, no results yet.

Paul Pinsker also gave a short talk on **wulfenite**. The article is on page 6 of this newsletter.

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.

Hastings Rockhounds Gem and Mineral Show 2019 March 16 & 17 at Hastings Community Centre

CRYSTALS & THEIR FRIENDS

Sante is our Show Chairman. **Your participation is urgently needed** for the upcoming show. Members can **show support for the club** by helping us put on a great show.

Members can assist at **silent auction, spin the wheel, door hosting, and concession sales**. Volunteers, even for a few hours each day to relieve others, will be welcome.

We need members to **contribute food and beverage items** for the concession stand. Especially sandwiches (such as tuna, ham and cheese, roast beef, turkey, egg and veggies) made fresh every morning, sealed with cellophane, wrapped and ingredients listed. Those who will contribute food items especially the sandwiches, please let me know what you are prepare to bring and on which day by e-mailing me.

We also need some members to do **demonstrations** of the type of work we do at the club. Such as grinding and polishing a stone, silver & metalsmithing, beading and tree making in metal and stone.

Those who have not volunteered their time already can get in touch with Sante at the February meeting or they can send him an e-mail at squintog10@gmail.com.

Thanks for your cooperation and participation to make a great show in 2019.

*** **O**ur grab bags are always a hit at our show and Linda Foy is hoping you will participate in their creation. The size required for the making of the grab bags is 7" x 17 1/4" (inches) or 18cm x 44cm. Folded in half this will make a finished bag that is 6 1/2" x 8" (16 x 20 cm) with a channel at the top of the bag for a drawstring.
Please, make as many as you like.

If you require strings and or stringing of the bags- let Linda know, and she can help. We need a total of 300 bags for this year. If we get more, we can use them for the future. Bright colours and patterns are popular. The kids love soft, flannel type material -but whatever is cheap works.

PROJECTS

In November Mike Ma sent a great set of photos of Nick creating a "volcanic" setting for a two sided cabochon. Note the riveting which is one of the techniques from metalworks. I did not catch the name of the stone; You'll have to ask him.



Vivian Rickey sent this photo of the first ring by Gary C. He completed it in 2 sessions. Again, I did not catch the name of the stone; You'll have to ask him. Hopefully he'll wear it to our next meeting.



Editor's note: I hope to have a member's project in each edition. This is our newsletter and I would like it to be about our club. Do you know someone working on (or completed) an interesting project? Please let me know so we can feature their work in our newsletter.

FIELD TRIPS

Trevor Christie, BCLS led a group of Rockhounds on a Field Trip to **Jespersen Bar** on January 27th. Some of the Hastings Centre Rockhounds went on the trip



The samples are in the rock tumbler. They won't be finished in time for our meeting.



Manda Mok and Vivian collecting agates at Jespersen Bar.

Thanks Vivian for the photos

If you've been out **Rockhounding or on a Field Trip** 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 know someone you'd like us to feature, tell me your suggestions and I'll follow up with them. Thanks, Roz (Editor). Edrocket18@gmail.com

Recent News:

2019 Rendezvous

Rendezvous is the British Columbia Lapidary Society's annual gathering and features field trips, displays, auctions, and our annual general meeting.

Rock Creek, BC, June 7 - 10, 2019
Rock Creek Fairgrounds
380 Kettle Valley Road South
Rock Creek, BC

This year Rendezvous is being organized by the Penticton Geology and Lapidary Club with the BCLS. See the BCLS webpage for more information.

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.

Hastings Rockhounds Gem and Mineral Show 2019 March 16 & 17 at Hastings Community Centre

February 23 & 24, **Maple Ridge Lapidary Club**, Pitt Meadows Heritage Hall

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

April 12, 13 & 14, **BC Gem Show**, BC Lapidary Society. Abbotsford:
Theme "*History of Mining*"

April 13 & 14, **Courtenay Gem & Mineral Club**, Legion Branch 367, Courtenay

May 4 & 5, **Richmond Gem & Mineral Club**, Arts & Cultural Centre, Richmond

May 12, **Creative Jewellers Guild of BC**, VanDusen Botanical Gardens, Vancouver

June 1 & 2, **Ripple Rock Gem & Mineral Club**, Community Hall, Campbell River

July 7, **Tailgate Sale, Surrey Rockhound Club**, Sullivan Hall, Surrey

July 19 – 21, **Okanagan Gem Show**, Rutland Centennial Hall, Kelowna

By 1120 Rock Club of Kelowna and the Vernon Lapidary & Mineral Club

Clippings: People see rock related items all the time. This is our chance to share it.

*From the Globe and Mail
Thanks Paul Pinsker*



Hobby Recommendations

We get many new club members who want to learn about the various aspects of our hobby, from finding and identifying rocks to working with them. We all have our **favorite journals, magazines or pamphlets**. Many are in our Library. Can you send a note about it to me about your favorite or write a paragraph? The information can be included in our newsletter. If every member sends at least one recommendation we'll get some great club sharing, an ongoing column and a great club resource.

The following is **Paul Pinsker's** talk from our January 25 meeting.

WULFENITE

This time of year, the rockhound world turns its attention to the desert: Quartzsite or Tucson, or both. And this year's theme at the Tucson Gem and Mineral Show is "Wulfenite is Loved", a take-off on a message written by Terry Szenics in 1969 on an old shack near the Red Cloud Mine, arguably the finest source of Wulfenite on the planet. The original saying by Ed Over, who collected at the Red Cloud for decades starting in 1938, was "Wulfenite is love and a lot of hard work." In 2017 Wulfenite was recognized as Arizona's Official State Mineral. This puts it in company with Petrified Wood as the state fossil, Turquoise as the state gemstone, Copper as the state metal, and the Bola Tie as the state neckwear.



Photo source both photos:

<http://www.tgms.org/news-archive/2018/8/30/wulfenite-is-loved>

Mineralogically, Wulfenite is lead molybdate ($PbMoO_4$) and forms in the oxidized, near-surface parts of lead-zinc-silver-gold deposits, found at many Arizona locales, including more than 200 around Tucson alone! After discovery in Austria's Bleiberg (Lead-Mountain) by Jesuit priest and naturalist Franz Xaver von Wulfen, it became named "Wulfenite" in his honour in 1845, 40 years after his death. Wulfenite crystallizes in the tetragonal system as flat, square, tabular plates, often with pyramidal bevels along the edges. Elongate, dipyramidal and pseudo-octahedral crystal forms also are common. Wulfenite's transparency varies from opaque to near clear and gemmy, with a high refraction index. Basically Pb and Mo, Wulfenite is dense (6.5 – 7 specific gravity).



Crystals commonly come in bright yellow, orange and red colours, as well as tan or brown. The colour comes from traces of chromium (yellow, red), and molybdenum contributes to yellow. Substitution of chromium atoms for molybdenum causes orange colouration. It is a poor gemstone, though, as it is brittle and soft (2.5 - 3 Moh's). Nonetheless, it makes very attractive faceted stones for the careful collector. Careful is the watchword for Wulfenite collectors, as it often forms spectacularly beautiful but very fragile groups of crystals on a crumbly matrix.

Wulfenite has industrial uses: It is used to harden steel and helps in resisting corrosion; its lead content has been used in paints and batteries in China. Notable Wulfenite sources other than Arizona include Mexico, Namibia, Morocco, China, Australia, and Slovenia.

In 1981 Joyce and I were returning to BC from travels and drove west from Florida through Tucson by pure coincidence in early February. Not through, really - we stopped. That was when I found our Wulfenite specimen, probably for \$20-25 US. This was near the end of the heyday of finds. You can still get specimens, but it will cost a bit more unless you go collecting with a friendly local down there in the Grand Canyon State.

Paul Pinsker, Hastings Centre Rockhounds

Credits: "Part II: Wulfenite Arizona Style", Bob Jones, Jan. 2019 Rock & Gem Magazine;
"The Minerals of Arizona's Silver District", James E. Mulkey, Dec. 1998 Rock & Gem Magazine;
"Wulfenite is Loved", Peter Megaw, Tucson Gem & Mineral Society; and
Wikipedia

Since the 15th century, one of February's birthstones has been **HYACINTH or JACINTH**



Looking into that birthstone brought some surprises. The name appeared in the book of Exodus in the Bible as one of the gemstones on the breastplate of Aaron, but gemmologists aren't sure what that stone was; The name has been translated from the original to Hebrew as *leshem* or *ligure* which is a yellow stone, or to Greek as *hyacinth* or *jacinth*. A brilliant yellow stone available in biblical times was Zircon. In modern gemmology Jacinth is an orange- red transparent variety of **Zircon**. (Yellow and red do make orange.) Scholars are divided about the source of the name. It is from either the Persian **zargun** meaning gold colour or the Arabic word **zarkun** meaning cinnabar or vermilion.

Photos: <https://geology.com/minerals/zircon.shtml>

Zircon as a gemstone was another surprise to me. I thought it was another fake rock. It turns out I was under the same illusion as many other people. Zircon is NOT cubic zirconia, the synthetic gemstone used as a diamond simulant. Zircon is a naturally occurring silicate mineral ($ZrSiO_4$) common throughout the world. It has been used as a gemstone for over 2000 years and occurs in a wide range of colours. It is present in most soils and rocks as tiny particles. Gem quality zircon crystals over several millimeters in size are rare.

Zircon crystals come in many colours from naturally yellow, red, green or brown to heated and irradiated colourless, grey, green, and blue. Blue is the most popular colour and is also a birthstone for December. Rose Zircon is a birthstone for October according to the International Gem Society (IGS). Some associate Jacinth with the Archangel Zuriel and the month of September while others associate Jacinth with the Apostle Simeon. Zircon (no colour mentioned) is a birthstone for 1 pm. No Zodiac, day of the week or Anniversary has claimed Zircon.



In the Middle Ages Zircon was thought to induce sound sleep, drive away evil spirits and promote riches, honor and wisdom according to the Gemological Institute of America (GIA). In the 1880's it was a favorite in English estate jewelry. The Curious Lore of Precious Stones claims that even earlier, amulets of Jacinth were worn to protect travelers against the plague and any wound or injuries during their trip. Also, the stone was thought to bring a warm reception at the inn and protect the wearer from lightning.

Zircon/jacinth needs a bit of protection too. Modern wearers have been cautioned by some not to expose their blue zircon jewellery to the ultraviolet radiation in tanning beds or under the lamps used to cure acrylic fingernails. The blue can degrade to brown in minutes. It may be reversible, but why risk it.

Zircon is considered to be a good stone for faceters after they've practiced on quartz, beryl and tourmaline. Geology.com and IGS warn though that the heat treated gems can be brittle and the

facet edges of these gems can get nicks and chipping. Use warm water, mild detergent and a soft brush to clean and never use ultrasonic cleaners. Wrapping and keeping the jewel away from others is a good practise. Zircon has a Mohs hardness of 7.5 and is suitable for most jewellery, but rings should probably use a more protective setting. Zircon that is faceted is usually “eye-clear” i.e. free of inclusions. Cloudier Zircon that is usually not faceted is available and was popular in Victorian times as mourning jewellery.

Zircon can be found all over the world but the primary sources of gem quality crystals are the gravels in Sri Lanka and Myanmar, and in Cambodia and Thailand. Some orange gem quality zircon has been found in New South Wales, Australia (see the top left photo) Zircon has been found in many of the United States and in Quebec and BC. According to Bradley Wilson of alpinegems.ca, Blue River, BC and Blu Starr Claims in Passmore, BC have produced zircon crystals that have been faceted or could be faceted.

Zircons crystals don't get as large as other crystals. Faceted zircon can be up to 1 to 10 carats. Yellows and oranges are up to 5 carats and red and purples are usually smaller. Zircons also look smaller than other stones of the same size. According to GemSelect.com Zircon is “about 50% denser than diamond - if you have a diamond and a zircon of similar size, if the diamond weighs 1 carat, the zircon will weigh about 1.5 carats.”

There are not many famous jewels with zircon or jacinth identified, but one is known and it is unusual. In Victorian times it was a fashion to give acrostic jewelry where the first letter of the jewel was used to spell a name or message. Alexandra of Denmark (1844-1925) married Queen Victoria's son who became King Edward VII. Her engagement ring was a gold ring with a beryl, an emerald, a ruby, a topaz, a **jacinth** and another emerald. The first letters of the stones spelled “Bertie”, her name for her husband. Now there is an idea we can use with any of our stones and some silversmithing.



Drawing of Queen Alexandra's Ring from <https://www.ripeinsurance.co.uk/valuables/royal-engagement-rings/>

Jacinth is second from the left.