

THE ROCKET

June 2018

deadline for next issue:
September 14
(no issue July and August)

Newsletter email: Edrocket18@gmail.com

Club email: secretary.hrc@gmail.com

Next Meeting: Friday – June 22nd at 7PM
at Hastings Community Center

Social: For our June 22 General Meeting, **members are reminded to bring** food
(wine will be supplied by the Club).

There will also be a **Swap Meet**, so **members should bring** trays, buckets, or bags of
specimens or rough material for trading; or, just bring odd and interesting stuff to share.

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 - 1pm
	Sunday	10am – 1pm

Silversmithing:	Wednesday	9:00am – 12:00 noon
	Saturday	9:00am – 12:00 noon

Soapstone

Carving:	Tuesday	6:45 pm – 9:30 pm
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There is room for 10 people. Please contact Linda Foy
before showing up for the first time.

Our **Annual Workshop Clean-up** is scheduled for **Saturday, August 11**, and members
are encouraged to participate. We will start at 11:00 and finish when done, no later than
16:00. This is important to our keeping our shop in fine working order, and normally we find
some long-lost pieces/articles! (Workshops will be open in July and closed in August).

Program or Field Trip ???

The tour of Buildings with Interesting Stone will be starting at the Queen Elizabeth Theatre Plaza, corner of Georgia and Hamilton, at 09:30 on Tuesday, June 19. There is no charge for members, though visitors are welcome to make a donation. It should last about 2.5 - 3 hours, and covers about 3km return, with many stops, including a coffee break. Afterwards, while Downtown, members may wish to attend the Geological Survey of Canada's Open House, at #1500 - 605 Robson (@ Seymour), which runs from 10:00 to 16:00.

WE ARE CELEBRATING! Our Club is 60 this year.

And it will be Canada Day July 1 Hastings Centre Rockhounds will operate two tables at the Canada Day celebration in the park to the west of Hastings Community Centre. Volunteers are needed for this fun event, and will receive lunch vouchers. Contact Paul at (604) 266-9184, or pinsker@novuscom.net, if you can participate. Set-up is from about 10:15, the event officially starts at 11:00, and concludes at 14:00.

Canada-Crazy dress is expected!



On behalf of the Hastings Centre Rockhounds, Paul Pinsker presents a cheque for \$1000 as a donation to Hastings Community Association youth programs. The presentation was made at the Hastings Community Centre's 2018 Volunteers Dinner on May 31st.

Thank you Joyce Chow for the photo

Field Trip

Those interested in an overnight, rockhound-oriented raft trip of the Fraser River from Lillooet to Lytton will have the opportunity to explore this remote, fascinating environment in late August or early September. For more information, contact Bryan Lunny at (604) 786-0589.

If you are out **Rockhounding or on a Field Trip** this summer, members of the club would love to see pictures and hear about your finds or experiences. We'll put it in our newsletter. Just send a note to Roz (Editor). Edrocket18@gmail.com

PROGRAMS

The Program at our May meeting was around carving and sculpture. Members were asked to bring a sculpture and its story to share with the club. There were many examples and interesting talks. Gunther brought some small nuts that he had convinced the carvers to give him a lesson on carving. Mike brought a Zimbabwe carving that had been damaged in a recent move and he was able to repair in Linda's soapstone carving workshop. Roz brought an Inuit soapstone seal head. And there were many other examples. If you check the pictures you will see some of the examples. Richard won a bottle of wine for his onyx elephant and story about the very slightly broken trunk. The elephant used to be in his father's store THE GEM SHOP that used to be at Kingsway and Tyne. Richard also brought photos of his father's shop that was remembered by some of the members.



Thanks Mike for the photos

METALSMITHING

On June 2 Mike sent out a report on the metalsmithing workshop:

Last week played with chasing on air..some favourable outcomes but some failures as well..will continue to chase on air with 24 gauge. Created one piece that I flattened out and then rolled flat with the rolling mill. Completed this project on Wednesdays s/smithing class and did the liver of sulphur contrasting thing.

Along with last week's class Diane C. played with her newly acquired stamps using the containment/urethane system. She then converted to the lead sheet/die system and the pressings were great. It took some time but eventually with failure and discovery comes along a better outcome. On the next day I placed an order for 2 metal pushers and urethane cut offs to better resolve solutions to more success in stampings. We will be drifting to a lead sheet/die and be using steel pushers..another exploration.

Mike also sent out some photos of some of the completed projects and work in the metalsmithing workshop.



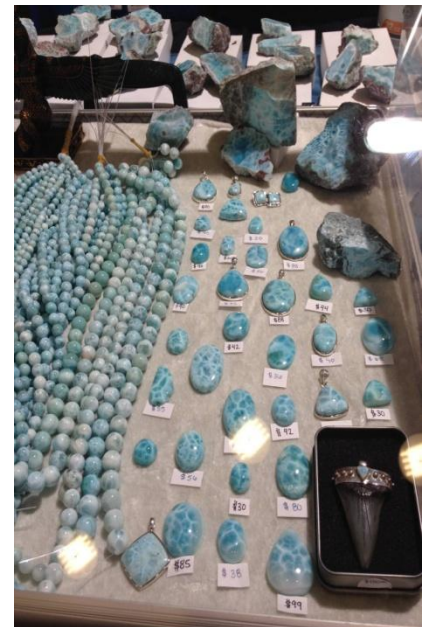
Thanks Mike for the Photos

REPORTS

Everett Washington Show

By Marilyn Sztankovics

We went to the Everett Show and were pleased with what we saw considering the trip. The main theme was carving. They had some large examples as well as demonstrations. There were a fair number of "Junior" showcases. A large table of crafts - feathers, crayons, etc. was set up right at the entrance for the children. They had grab bags for \$2 and Specimen samples for \$3. There were bins of thunder eggs at various prices. The silent auction didn't run for more than ½ hour at a time. In the dealers area was a display of outdoor water fountains made of rocks with the basins filled with agates etc. Rather pretty. My big thing was all the Larimar. The door people were very welcoming. Lots of parking. Door prizes etc. An enjoyable afternoon. Thanks Vivian for photos.



Upcoming Events of Interest: Shows:

July 8, 2018, SURREY ROCKHOUND CLUB Tailgate Sale Surrey, BC

July 13, 14 & 15, 2018, THE OKANAGAN GEM SHOW, Winfield, BC

August 18th, 2018, ROCK LOVERS ROUNDUP Tailgate Sale Abbotsford/CFV Fair-grounds

September 15 & 16, 2018, FRASER VALLEY ROCK & GEM CLUB Rock & Gem Show Aldergrove

Recent News: From Christine Laurin President BCLS :

AGM Scheduled for Saturday, July 14 at 6:30 PM in Kelowna

Our Annual General Meeting (AGM) typically takes place at Rendezvous each year. As Rendezvous 2018 was cancelled due to flooding, we have rescheduled the AGM to take place during the weekend of the Okanagan Gem Show. Here are the specifics:



British Columbia Lapidary Society

Annual General Meeting

Saturday, July 14, 2018

5:30 PM - Refreshments

6:30 PM - Meeting Begins

Choices Market Meeting Room

1937 Harvey Ave.

Kelowna, BC

Make the most of the weekend and attend the Okanagan Gem Show presented by the 1120 Rock Club and the Vernon Lapidary & Mineral Club. Here are the specifics related to this event:

The Okanagan Gem Show - *The Many Faces of Jasper*

Friday, July 13th, 12:00 Noon - 8:00 PM

Saturday, July 14th, 9:00 AM - 5:00 PM

Sunday, July 15th, 10:00 AM - 4:00 PM

Winfield Memorial Hall, 3270 Berry Road Winfield, BC

At the meeting we shall hear committee and Zone reports, elect our Executive for the next year, and address a number of new business items. There is one change to the constitution to be voted on and two proposed changes to the by-laws. Please visit the links below to see the agenda and the details of these proposals:

<http://www.bclapidary.com/agm/2018/Annual-General-Mtg-Agenda.pdf>

<http://www.bclapidary.com/agm/2018/Motion-to-amend-Constitution.pdf>

<http://www.bclapidary.com/agm/2018/Motion-to-amend-Bylaws-auditor-revised.pdf>

<http://www.bclapidary.com/agm/2018/Motion-to-amend-paragraph-14-of-by-laws.pdf>

(Note from Editor: these links won't work from the pdf newsletter. Try copying and putting in your browser.)

2019 Calendar Photo Contest

Submit your entries by July 1st!

Dear members,

The BCLS publishes a calendar each year, featuring 13 photographs of rocks and minerals from British Columbia and the dates of rock shows across the province. The photographs included are determined by way of contest.

The contest is open to all BCLS members. Enter for a chance to win one of 13 spots on our 2019 calendar. The prize for each photo chosen is a copy of the calendar and a lapidary item valued at not less than \$20. **Contest closes Canada Day July 1st 2018.** See full contest rules ... on our website. Remember, our calendar lists all the BCLS club shows. Help make our calendar great! ...

Regards,

Denise Cullen
BCLS Calendar Coordinator

Gemboree 2018 - Sooke River Campground

Gemboree 2018, hosted this year by the Victoria Lapidary & Mineral Society, will be taking place July 26th - July 29th at Sooke River Campground.

Gemboree is an annual gathering on Vancouver Island involving field trips, a tail gate sale, BBQ, and camaraderie. The event attracts up to 100 rockhounds from the Island, the Mainland, and the United States. All ages welcome! In 2017 participants ranged from 8 to 80.

Sooke River Campground is close to two large fault lines that run through the South part of Vancouver Island with a wonderful assortment of volcanic, metamorphic and sedimentary rock. There are several working quarries in the area, gold panning and a rich Indigenous culture. The river is an excellent place to swim and fish.

To learn more about the event and how to register, please visit the following page on our web site:

<http://vlms.ca/wp-content/uploads/2018/01/2018-Vancouver-Island-Gemboree.pdf>

2018 Summer Camp Information



We are pleased to announce that the 2018 Summer Camp will be taking place August 6 - August 11, 2018 at Takysie Lake, BC.

For those of you who have yet to experience it, Summer Camp is an opportunity for BCLS members from all over the province to gather, socialize and rockhound in a different area of the province. Generally, it is four days of organized field trips and five nights of social activities. The Lakes District Rock and Gem Club has again graciously agreed to co-host the event with the BCLS at Takysie Lake, about an hour south of Burns Lake, after last year's event was cancelled due to forest fires. A few members braved the smoke and closed highways last August to check out the area, and were very happy with the resort and the lapidary materials available in the area.

More information about this year's Summer Camp and facilities information can be found by viewing the two links below. Please pre-register with Phillip Crewe by phone or by email before-hand so we have an idea of numbers. Phillip can be reached at 604-526-3045, or by ... this email. (paukenmeister@gmail.com)

General Event Information:

https://gallery.mailchimp.com/dca3433691ff359f6a1513a59/files/117de701-1ac5-48fe-a641-a38828d4e7be/2018_summer_camp_information.pdf

Facilities Information:

https://gallery.mailchimp.com/dca3433691ff359f6a1513a59/files/c9556e4e-055a-4030-9689-689549b275ba/2018_summer_camp_facilities.pdf

Regards,

Phillip Crewe

Summer Camp Team

Ruby is the Traditional Birthstone of July



Natural ruby crystals from Winza, Tanzania
<https://en.wikipedia.org/wiki/Ruby>



Ruby polished and rough
<https://www.gemsociety.org/wp-content/uploads/2013/09/rubies.png>



in Western culture, but some Hindu sources say August. It is also the birthstone for Capricorn (22 December – 21 January) and those born on Tuesday (shared with emerald). People celebrating a 15th or 40th anniversary are suggested to celebrate with Ruby. Star Ruby is sometimes suggested as an alternate for a 60th anniversary. An 80th anniversary is sometimes called a Ruby Jubilee.

Because of the dark red color Ruby has long been associated with blood and passion. Ancient warriors from the Burmese (now Myanmar) believed rubies that were part of their bodies made them invincible so they embedded rubies under their skin. People from that area also believed that rubies came like fruit and as they matured they became a darker red. Some ancients believed rubies held the power of life. They could attract and maintain love, and inspire passion. They were also believed to cure diseases of the blood and bleeding. In the Orient, “a drop of the heart’s blood of Mother Earth” is a ruby.

In Sanskrit ruby is called ratnaraj or “king of precious stones.” One reference claimed that in China a Mandarin’s rank was indicated by the color of the stone in his ruby ring. In some ancient cultures rubies were laid beneath the foundation of building to secure the buildings good fortune. In the middle ages, rubies were viewed as a stone of prophecy. It was thought the stone darkened when danger was near. Ruby is also known as the stone of courage, and legend tells us that a person possessing a ruby can walk through life without fear of evil or misfortune. The Bible, in Job and Proverbs, wisdom is more valuable than rubies and a wife of noble character is worth more than rubies. Literature about the North Silk Road of China records that rubies were transported and traded westward as early as 200BC.

Even in the first century AD, Pliny the Elder in his book *Natural History* commented on the hardness and density of rubies. Today we say “Ruby has a Mohs hardness of 9.” The name Ruby comes from the Latin *ruber* meaning *red*. Rubies are the red coloration of the mineral corundum: Aluminium oxide with Chromium. ($\text{Al}_2\text{O}_3:\text{Cr}$). Chromium is what causes the red colour. Every other coloration of corundum is called Sapphire. The colour is the most important consideration in pricing a ruby and can range from pinkish, purplish, orangey, brownish, to dark red. The finest gems are a pure, vibrant red to slightly purplish red. There is some controversy in the gem world over calling light pinkish ($\text{Al}_2\text{O}_3:\text{Cr}$) Pink Sapphires. Many believe they should be called rubies. The redder and translucent stones have a the higher price. It is rare to find a good quality ruby over 1 carat in size. According to the gem society, a 3 carat ruby, with excellent color and clarity, can fetch more than a diamond of the same size and clarity.

Star rubies display a 6 pointed star (some show a 3 pointed star). They are the result of rutile inclusions and are an unusual example where inclusions increase the value of a gemstone.

Rubies are hard and durable and therefore easy to care for, but don't wear them for rough work or when using harsh chemicals. Rubies should also be stored away from other pieces because they are usually harder and could scratch the softer gemstone.

Rubies were the first gemstone to be synthesized. In 1837, Marc A Gaudin made the first synthetic rubies. By 1903, Auguste Verneuil announced he could produce synthetic rubies on a commercial scale and by 1907 production reached 1,000 kilograms. In 1961 the first optical laser was built using a synthetic ruby rod. Today synthetic rubies are used in some industrial applications where a wear resistant fine point is needed.

At the beginning of this article are two pictures of ruby rough (un-processed). They show the two main ways rough ruby is found: in marble, distributed irregularly in layers, or in basalt rocks. Marble hosted rubies lack iron and have an intense red colour. Typically they fluoresce red under ultraviolet light –even the ultraviolet light in sunlight. Fluorescence can make the ruby colour more intense.

Rubies coming from locations where they are found in basalt rocks can have a higher iron content making the rubies darker and a less intense colour.

The finest rubies come from the Mogok region in Burma but the main source is Thailand. Sri Lanka (once called Ceylon) has been famous for rubies since before Marco Polo. Rubies also come from Myanmar, the Himalayas, North Vietnam, India, Tanzania, Madagascar, Russia, Cambodia, Kenya, Mexico, Afghanistan, and North Carolina and Pakistan.

In Canada, Alpine Gems, an online retailer of Canadian gemstones, says there is purplish red, pink, opaque corundum found in Nova Scotia. According to Rick Hudson in *A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia* "tiny granular rubies have been found in some of the tributary creeks of the Tulameen River." He also says in his entry for Corundum that "Discoveries in the Slokan area suggest the province may yet produce world-class stones." Perhaps some rockhouser will discover something this season.

The Liberty Bell Ruby is the largest mined ruby in the world. It was found in east Africa in the 1950's, sculpted in 1976, stolen in November of 2011 and hasn't been seen since even though 4 men were arrested. The Liberty Bell Ruby weighs four pounds (8.5 thousand carats) and is in the shape of the Liberty Bell with fifty diamonds set in it.



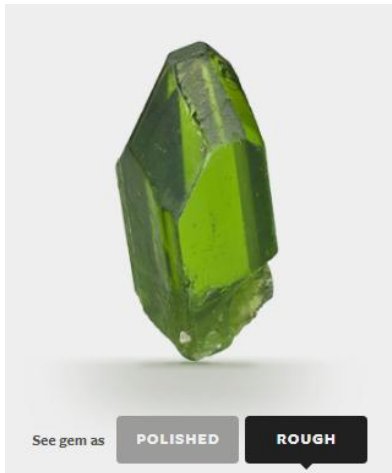
The Sunrise Ruby is the world's most expensive coloured gemstone. It was mined in Myanmar (formerly Burma), probably from the Mogok region. It must have been recently found because there are no references to it before the 2015 Geneva, Switzerland auction where it sold for US\$30.42 million. It is named after a poem written by the 13th-century Sufi poet Rumi. It is a 25.59-carat (5.1 g) "pigeon blood" coloured ruby mounted into a ring by Cartier and set between heptagonal diamonds weighing 2.47 carats (0.49 g) and 2.70 carats (0.54 g). It is considered one of the rarest of all gemstones.



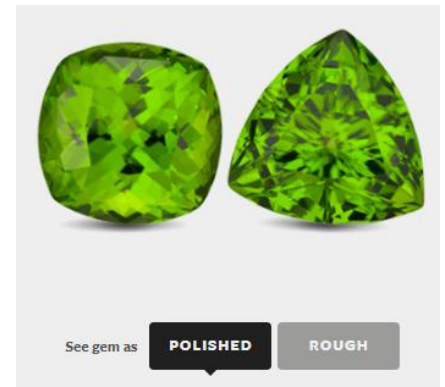
Photo by Cristina Maria Tanase

To commemorate the 50th anniversary of The Wizard of Oz, Harry Winston created real ruby slippers set with 4,600 rubies. - Courtesy Harry Winston

The Modern Birthstone for August is Peridot



From the 15th to 20th century there were many birthstones for August: sardonyx, carnelian, moonstone and topaz. In Britain Sardonyx is still considered an alternate birthstone for August so we will cover that another time. For Libra (23 September-23 October) the birthstone is Chrysolite (probably peridot) which is discussed below with the name and history of peridot. Peridot is the gem to celebrate a 16th anniversary and is considered an alternate to celebrate a 1st anniversary.



<https://www.gia.edu/gem-encyclopedia>

Peridot comes from the Middle English *peritot*. Some say it came from a similar French word meaning *gold* because the mineral can tend toward the colour. Some say it came out of the Arabic word *Faridat* which means *gem*. And others say it came from a Latin word *Paederot* meaning a kind of *opal*.

Peridot is the gem variety of the mineral olivine. Its chemical composition includes iron and magnesium ($\text{MgFe}_2\text{SiO}_4$). In peridot, ferrous iron (Fe^{2+}) creates green, while ferric iron (Fe^{3+}) creates yellow. Traces of chromium (Cr) in peridots don't cause hue but they may make the green color brighter. The ideal colour of Peridot is grass green but the shades can range from yellowish green through greenish yellow to brownish green. An iron content of just 12 to 15% in olivines creates the ideal peridot color. Higher levels create a "muddier" brown color.

Peridot has often been confused and called other names through history. Since ancient Egyptian times, the Isle of St John or Zabargad, in the Red Sea, has produced peridots. The ancient Greeks called this island Topazios and knew it produced a yellow-green gem. The Greek name for the island led to the name topaz for yellowish gems, but the Topaz of modern gemology does not occur that island! Gems from this island were also called chrysolite meaning "golden stone" in Greek. By the 19th century chrysoberyl, prehnite and peridot were all called chrysolite but their only similarity was being green to yellow-green gems. At that time people did not have the modern methods of identifying stones. Gemologists today do not use the term chrysolite. Topaz, chrysoberyl, prehnite and peridot are distinct gems.

Peridot has also been called "an Evening Emerald". Some peridot is a darker green but that type is rare in modern times. Some ancient stones referred to as emeralds are believed to have been peridot, including Cleopatra's famous emerald collection. Some gems, called emeralds for centuries, are being identified as peridot with modern techniques.

Peridot has a long history. Mined since 1500 BC, several experts believe that the second gemstone in Aaron's breastplate (from the book of Exodus in the Bible) was a peridot. In the middle ages, Europeans brought peridot stones back from the Crusades to decorate church plates and robes. The earliest mention of Peridot in English is in the register of the St Albans Abbey. In Latin, (and in its translation in 1705) it records that on his death in 1245, Bishop John bequeathed various items

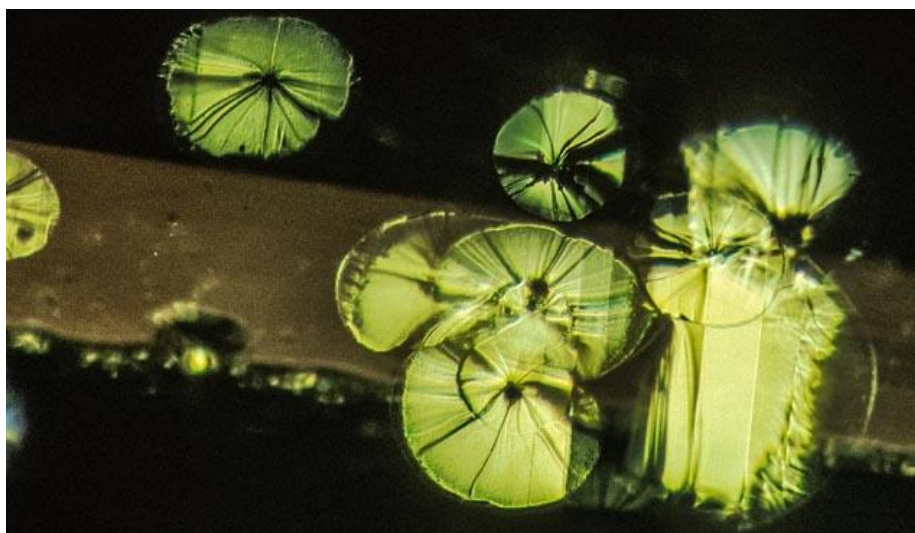
including peridot to the Abbey. It is believed that the treasuries of European cathedrals included some fine, large Peridots, but wars and pillage have dispersed many of them and they've probably been cut down to a smaller size and set into jewellery.

A stone with this long a history will have many many beliefs and superstitions about the stone. Holy men of ancient Egypt embedded peridots into their goblets, as it was thought peridots held the power of nature. Peridot has always been associated with light. In fact, the Egyptians called it the "gem of the sun." Some believed that it protected its owner from "terrors of the night." Legend says that if the gem is set in gold, it will develop its full potential as a talisman. Some people strung the gems on donkey hair and tied them around their left arms to ward off evil spirits. However, according to Pliny The Elder of ancient Rome, for peridots to work their strongest magic, they must be worn on the right arm.

Peridots were also believed to harness healing properties and ward off negative emotions—bringing peace and calm happiness to all those who wear it. In ancient Roman times rings of peridot were worn to relieve depression. Peridot has been long considered to be an aid to friendship and supposedly frees the mind of envious thoughts. It is also supposed to protect the wearer from the evil eye. Other legends credit peridot with bringing happiness and good cheer, attracting lovers, and strengthening the eyes. Several sources say that in ancient times, cups or other vessels made of peridot were used in healing because medicinal liquids drunk from them were more effective.

As with other gemstones, the color of the peridot stone is directly related to parts of the body that it is believed to be of aid to. Because of it's yellowish green color, peridot was believed to cure diseases of the liver and difficulties with digestion aiding in physical detoxification and helping problems with the kidneys, bladder, gall bladder, and the stomach.

This is all very well, but as rockhounds and lapidaries we are interested in other aspects of the stone. Most of the peridot mined today comes from China, Pakistan, and Arizona and the gems are mostly under 3 carats. Gemstones over five carats are rare but Peridot in 10 to 15 carats can be found. A clean crystal from Norway larger than 100 carats is the largest crystal known and is in a European collection. The Smithsonian Institution in Washington DC has a cut peridot stone of 310 carats.



Under 10X magnification, peridots will often reveal a distinctive, disk-like liquid and gas inclusion. Known as "lily pad" inclusions (or sometimes "lotus leaves"). Those distinctive lily pad inclusions can make peridots difficult to cut. They can be hard to spot when faceting and can act like cleavage planes.

<https://www.gia.edu/peridot-quality-factor>

Gem miners find Peridot as irregular nodules (rounded rocks with peridot crystals inside) in some lava flows in the United States, China, and Vietnam and, very rarely, as large crystals lining veins or pockets in certain types of solidified molten rock. Sources for the latter include Finland, Pakistan,

Myanmar, and the island of Zabargad. Geologists believe both types of deposits relate to the spreading of the sea floor that occurs when the earth's crust splits, and rocks from its mantle are pushed up to the surface.

In his book *Field Guide to Gold, Gemstone & Mineral Sites of British Columbia*, Rick Hudson discusses Olivine (Peridot). "Timothy Mountain east of Lac La Hache produces bombs (blobs of lava ejected violently from a volcano, often cooling in flight), from which excellent dark green stones weighing as much as 10 carats have been obtained. Lightning Peak in the Monashee Mountains produces peridot grains large enough to cut into small gems."

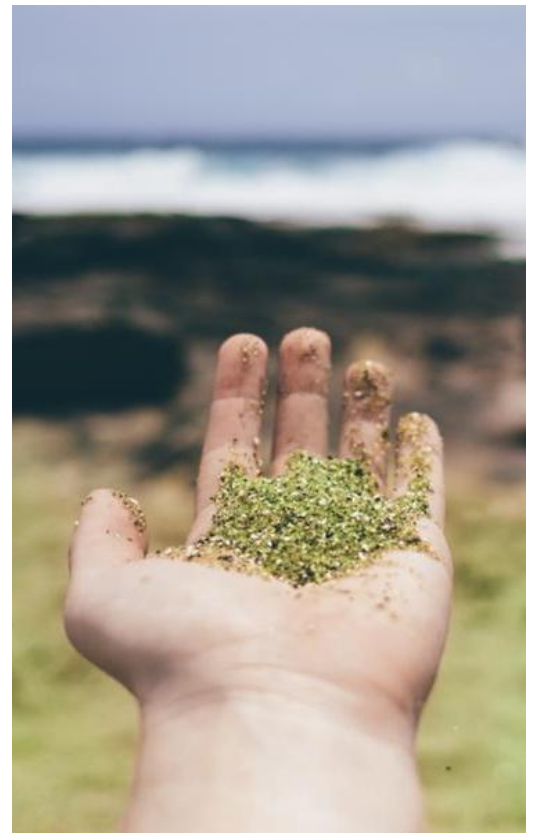
Rarely, peridot can have an extraterrestrial source. In 1749, a meteorite landed in a desolate area of Siberia. It was found to contain many pieces of peridot crystals large enough to be set into peridot jewelry. In 2005, peridot was found in comet dust brought back from the Stardust robotic space probe.

With a Mohs Hardness of 6.5 to 7 peridots are durable enough for frequent or everyday wear but they are still sensitive to scratching from household dust (which is mostly quartz). They have some susceptibility to stress fractures so avoid sudden increases in heat as in ultrasonic or steam cleaners. Clean them only with a soft brush, mild detergent, and warm water. Peridots also have some sensitivity to acids, even that in perspiration and Peridot jewelry should be worn against the skin only occasionally.

The latest news on Peridot (Olivine) comes from Hawaii. As the Kilauea volcano is erupting residents are finding little green gems that have fallen out of the sky. They are olivine crystals, a common mineral found in Hawaii's lava. At jewelry quality, the mineral is called peridot. As the volcano erupts, it blasts apart molten lava, allowing for green olivine minerals to be separated from the rest of the melt and fall as tiny gemstones.

Small olivine crystals on the Big Island of Hawaii.

<https://www.forbes.com/sites/trevornace/2018/06/13/hawaii-is-volcano-is-literally-erupting-gems/#5edf9f7625da>



“Gemstones from the skies” sounds like a great gift for the summer.
See you in September.