In this issue

1 2 3 4
2 3 4
3 4
4
4
5
6
9
11
13
I
l 17
l 17 18
l 17 18 18
l 17 18 18 s
l 17 18 18 s 18
l 17 18 18 s 18 19

· •	Silv	<2	
m Club			
	6- 16		
1 de la	A A A		
Easter	The second	Contraction in the	
- Della la		Carrow I	
1 Alton		A CHINA	
6.			
	Jan 1		
with the state of	AGE	199	1.25
and de la cara de		and the second s	

July --

Member meeting

Monday, July 20th at 7 pm

We invite you to bring a rock or mineral for our Show and Tell. This is your chance to share that cool crystal you found on a mountain or at a rock and gem store.

You will want to bring cash or a check to buy raffle tickets and to bid in our silent auction. Beautiful and interesting specimens are sold in our silent auction and raffle each month.



This stone heart is an example of what you might win in the raffle.

We ask that you please wear a mask in the building to help keep our community healthy.

Banner image

The photo in the banner shows a piece of chert collected by Ali Rizvi and Bruce Samuels.

1

August Show





July 22

Lapidary Shop

Our lapidary shop is reserved for our members to use. Inside are five slab saws, three CabKing[™] machines for cutting cabochons, and two trim saws.

On their first visit, new shop users will be trained on shop procedures and safety before being able to use any equipment.

Sign up for shop time

All shop users must sign up for a time slot at least a day before the session. Masks are required inside the building, including the shop.

You can sign up for shop time online.

Each Thursday we have shop time available:

Grit for sale

The Shop Stewards sell grit when the shop is open. But, you need to let them know a day ahead that you will stop by to purchase grit.

To contact the Shop Stewards, email shop@maplewoodrockclub.com

Each grit package is \$3.50, and this is what they sell:

- 1 lb of 60/90
- 1 lb of 120/220
- ³/₄ lb of pre-polish
- 1/2 lb of polish

- Session 1: 3:00 to 5:30 pm
- Session 2: 5:30 to 8:00 pm (except on the first Thursday of each month)

What to bring

Shop users will need to bring their own

- Face mask for Covid and to ensure they don't breathe rock dust
- Apron to protect your clothes from oil lubricant in the saws, rock dust, water, and possibly more messy elements
- Hearing protectors
- \$7 cash or check to pay for each session

Shop Stewards

Paul Strawn Rich Osborne Bruce Samuels

Email: Shop@maplewoodrockclub.com

Before you leave the shop

The shop stewards are volunteers who generously give 6 hours a week to enable us to use the tools in the shop.

Before you leave a tool station, please wipe it down and leave it in the same condition as you found it. If you discover a problem with a saw or tool, please let the Shop Steward know.



It's a party!

Saturday, July 30 beginning at 9 am



Well, it's actually a work party. Before our first big rock and gem show since the pandemic began, let's all pitch in and clean up our building. Floors need to be swept, the kitchen needs to be cleaned, and so much more. We will have plenty of cleaning supplies here, so just bring yourself.

Nearby rock shows





MORE INFORMATION AT WWW.CASCADEMINERALOGICALSOCIETY.ORG Events found by Canook Menninger faces will be advert to be performed to the Canook for Canook for Canook Control ICCS and Technical Information (Interference of Interference) (INCOM) to integrate the annual of CONTO 1



Happy Birthday!

If you were born in July,

May your day be filled with whatever you call perfect – sunshine, family, a captivating book, or a successful rockhounding adventure.

Your birthstone is ruby!



Juniors – Chemicals and Crystals

Would you drink a chemical compound?

You probably already know that everything even a human — is made up of atoms. Examples of atoms are gold, arsenic, oxygen, and hydrogen. Often elements combine to form chemical compounds. Would you drink a tall glass filled with a chemical compound? What if we added crystals to the liquid? Strawberries?



July 22



The best answer to this question is *maybe*! You wouldn't survive drinking a glass of arsenic or liquid gold. But water is a chemical compound! Water crystals are called *ice*.

A water molecule is made up of two hydrogen atoms and one oxygen atom, and chemists refer to it as H_2O .

What is a crystal?

When you go to a rock and gem show, you will see many crystals. Some are beautiful and people like to display them or craft them into jewelry. When the atoms and molecules of a rock or gem are arranged in a regular pattern, it's a crystal. Many crystals have flat crystal faces, and these are the ones we usually think of as crystals. Here are a few examples.









Quartz crystals

The purple crystal on the last page is amethyst which is a type of quartz. All quartz has the chemical compound of SiO₂ (one silicon atom bound to two oxygen atoms). And all quartz has a crystal habit of building a particular shape with these individual molecules (SiO₂): a 6-sided column topped with a 6-sided pyramid. The amethyst crystal shows that crystal shape quite well. Another quartz variety is smoky quartz which is brown or gray instead of violet. Smoky quartz also has the chemical formula of SiO₂.

Small things with a big effect

How can two crystals be made up of the same stuff and be such different colors? Impurities! Impurities are bits of other things that are trapped between the compound's molecules in a crystal. For example, amethyst has impurities of iron, and smoky quartz has aluminum.

How do you make purple from iron?

Iron isn't purple! Aluminum isn't brown! The colors form when the rock surrounding the amethyst or smoky quartz emits natural radiation that affects the deposits of metal within the crystal and creates the violet and brown/gray colors.

Next, you will wonder how radiation does that color change. Unfortunately, I cannot explain that magic. (It's not really magic, but sometimes nature behaves in ways that seem magical to



Smoky Quartz from Paul Strawn's collection 4.5" by almost 3"

me.) If you understand how the radiation performs this trick, please let me know, and I will publish an update in a future newsletter.





Nature is messy

Nature usually doesn't create pure things. In the photos (here and on the last page) of a piece of smoky quartz from Paul Strawn's collection you can see how the quartz crystals formed. This photo has orange lines drawn to show you two sides of the hexagon shape. (A hexagon is a shape with 6 sides.) Most of the hexagon broke off and is gone.

It looks like the crystal formed in a large hexagon and as more quartz cooled, the crystal grew taller. But, periodically some other mineral or compound flowed in covering the crystal with a thin layer. Once again, the crystal grew on top of that layer. This happened over and over, it seems, until the crystal we see was formed.

How do quartz crystals form?

Quartz crystals are usually created as magma cools, just like water turns into crystals (ice) when it cools. With quartz, the slower it cools, the larger the crystals.

The other way quartz crystalizes is from silica-rich water. It takes a high pressure and temperature for the silicon dioxide (SiO_2) to dissolve. Then, as the pressure and temperature go down, crystals form.



Field trips

Contact the host a week before the trip to get details. Be sure you obtain the required parking pass, such as a Discover Pass. Arrive at the meeting site 30 minutes before the scheduled time, and be sure to have everything you might need including a full tank of gas, tools, food, water, appropriate clothes, rain gear, and first aid supplies.

The trips hosted by All Rockhounds Pow Wow have a small fee, but you get breakfast, so it's a good deal.

Date	Rock	Details
July 16	Travertine	Sweetwater
		Meet: Darrington Show
		Tools: river bar
		Host: Darrington Rock and Gem Club; Ed Lehman; wsmced2@outlook.com; 425-760-2786 or 425-334- 6282
Aug 6 – 7	Agate	Greenwater
	Jasper	Meet: Foresst Service Station in Enumclaw
	Petrified Wood	Little Naches Hwy 410 and Forest Road 19 at 10 am
	Opal	Tools: all
	Thunderegg	Host: PVGMC; Dennis Bachelor; 360-870-8741
	Fossils	
	Lilypad Jasper	
Sept. 10	Thunderegg	Little Naches
	Fossil Lilypad Jasper	Meet: Little Naches Hwy 410 and Forest Road 19 at 10 am
		Host: NOA; Tony Johnson; ynotopals@outlook.com; 253- 863-9238

Below are the field trips planned for 2022.



Date	Rock	Details
Sept. 10 - 11	Agate	Red Top
	Geode	Teanaway Camp at 8 am
	Jasper	Host: All Rockhounds Pow Wow; Larry Vess;
	Jade	vessel3755@gmail.com; 253-473-3908
Oct. 15	Picture Jasper	Skykomish Meet: Money Creek Campground, Hwy 2 at 9 am Tools: Rock and crack hammer Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282
Nov. 12	Dalmation Stone	Alger
		I-5 exit 240 at 9 am
		Hard rock
		Host: Ed Lehman; wsmced2@outlook.com; 425- 760- 2786 or 425-334-6282





This large piece of chert was broken down from a much larger boulder by Ali Rizvi, Bruce Samuels, and others on the June field trip led by Ed Lehman. Many people broke off chunks of the boulder.



Rock shows near and far

Date and Time	Host and Location	Details
Aug. 5, 10 am - 5 pm Aug. 6, 10 am - 5 pm Aug. 7, 10 am - 4 pm	Far West Lapidary & Gem Society The Mill Casino 3201 Tremont St North Bend, OR	\$1 adults 12 and under are free with an adult
Aug. 12, 9 am - 5 pm Aug. 13, 10 am - 5 pm	Maplewood Rock and Gem Club 8802 196th Street SW Edmonds, WA	
Aug. 20, 10 am - 6 pm Aug. 21, 10 am - 4 pm	Cascade Mineralogical Society Green River College 12401 SE 320th St Auburn, WA	
Aug. 26, 10 am - 5 pm Aug. 27, 10 am - 4 pm	Southern Washington Mineralogical Society Silver Lake Grange 4200 Spirit Lake Hwy, Exit #49 on I-5 5 miles up Spirit Lake Hwy Castle Rock, WA	
Sep. 10, 9 am - 5 pm Sep. 11, 10 am - 4 pm	Clallam County Gem and Mineral Association Vern Burton Community Center 308 East 4th St Port Angeles, WA	
Sep. 24, 10 am - 5 pm Sep. 25, 10 am - 3 pm	Springfield Thunderegg Rock Club Willamalane Adult Activity Center 215 W C St Springfield, OR	



J	U	V	22

Date and Time	Host and Location	Details
Aug. 5, 10 am - 5 pm Aug. 6, 10 am - 5 pm Aug. 7, 10 am - 4 pm	Far West Lapidary & Gem Society	\$1 adults
	The Mill Casino 3201 Tremont St North Bend, OR	12 and under are free with an adult
Sep. 30, 10 am - 6 pm	Portland Regional Rock and Gem	\$5 adults
Oct. 1, 10 am - 6 pm Oct 2, 10 am - 5 pm	Show Wingspan Event Center 801 NE 34th Ave Hillsboro, OR	12 and under are free with an adult
Oct. 1, 10 am - 5 pm Oct. 2, 10 am - 5 pm	Marysville Rock and Gem Club Evergreen State Fairgrounds Display Building #500 14405 179th Ave SE Monroe, WA	
Nov. 19, 10 am - 5 pm Nov. 20, 10 am - 5 pm	Kitsap Mineral and Gem Society The President's Hall 1250 NW Fairgrounds Road Bremerton, WA	
Feb. 25, 10 am - 6 pm Feb. 26, 10 am - 5 pm	Idaho Gem Club Expo Idaho 5610 Glenwood Boise, ID	



Featured Rock – Chert

In June well over a dozen people joined Ed Lehman on a field trip to collect chert. After meeting at the Verlot Ranger Station, we all caravanned to the collection site near the top of a hill on a Forest Service Road (48.0466434, -121.6661147). Once there we found a rocky cliff of chert towering above the road for a section, and that is where we parked. It sometimes seems odd that we find sedimentary rocks on top of hills!

Cryptocrystalline rock

Chert is a sedimentary rock made up of microcrystalline (1 – 200 micron crystals) or cryptocrystalline quartz. The crystals in a cryptocrystalline rock are so tiny they are difficult to see even by microscope.



Ed Lehman (right)

July 22

Ooze, a main ingredient

Most chert is formed from dead animals that sink to the bottom of an ocean far from shore and eventually become a fine-grained sedimentary rock. This biogenic

Loving those diatoms!

Diatoms lived millions of years ago as microorganisms with silicon based skeletons. Diatomaceous earth is comprised of the diatom skeletons that haven't been compressed into sedimentary rock. Gardeners know it's great for killing slugs! It also kills ants and other insects that try to ooze or crawl across it. sediment is called pelagic sediment or pelagite. When at least 30% of the sediment this sediment is made up of the skeletal remains of pelagic microorganisms, it is called Ooze.

When those skeletons are primarily silica based, they are likely to be comprised of dead diatoms and radiolarians. Only about 15% of ocean floors are siliceous oozes.

Collecting chert

Ed knew right where to take us to find chert, so it was easy to collect. On the following pages are photos from this field trip.









July 22

















Washington State Mineral Council

Our club, along with many other rock and gem clubs in the state, is a member of the Washington State Mineral Council. This organization helps us by

- advocating for access to public lands
- advocating for beneficial land use policies
- compiling and sharing maps and other information
- publicizing shows and field trips so members learn about and can participate in events at other clubs

Read their latest Newsletter.



of each month from April thru September. We will have tables and tables of rocks- ie spheres, rough, polished, thunder eggs, jewelry, figurines, crystals, and of course, slabs! Please bring a bucket for your rocks and a umbrella in case of rain. Coffee, hot cocoa and tea provided to keep you warm as well as cold water to keep you cool. Please contact us if you are looking for something specific. Cash and cards are accepted.

4707 Strumme Road Bothell, WA 98012 425-280-1833 2022 SALE DATES-April9, May14, June11, July9, Aug13, Sept10



Connect with us

Website: http://www.maplewoodrockclub.com/ Facebook page: Maplewood Rock & Gem Club Facebook group for members: MRGC Sales and Trades Email us: <u>info@maplewoodrockclub.com</u>

Address: 8802 196th St SW, Edmonds, Washington 98026

Our Board

Our club is run entirely by volunteers; and we are grateful for the time, energy, and expertise they give to our community.

President: open position Vice President: Ali Rizvi Secretary: Carla James Treasurer: Bruce Samuels Members at large: James Davison, Nancy Ross, Paul Anderson, Paul Strawn, Rich Osborne, Nancy Samuels



July 22

Image license attributions

We use abbreviations in the license attributions. Here are the definitions.

- CC: Creative Commons license
- BY: attribute the author, link to the license, and indicate if changes were made.
- SA: share alike If you publish the image, you must use the same license.
- ND: no derivatives You may not alter the image.
- NC: non-commercial use You may not use the image for commercial use.
- 3.0 or other number: version of the license



Sister Club in Australia

Our sister club in Australia is the Atherton-Tableland Mineral & Lapidary Club in Tolga, Queensland. Connect to them on Facebook:

www.facebook.com/groups/197340266987276

One hundred million years ago the eastern edge of the Australian continent extended much farther to the east. Tectonic forces broke off and submerged the eastern section into the ocean while a rising mantle caused the remaining land to lift.

Beginning 4 million years ago large basalt flows filled river valleys and formed a relatively flat landscape. Following that period the volcanoes became more gaseous spewing lava in violent eruptions. This landscape is now called the Atherton Tablelands. You can learn more on Wikipedia.



News to share?

Please send news ideas and images you'd like to share to the newsletter editor, Nancy Samuels at <u>MRGC@nancysamuels.com</u>.

This issue

Maplewood Rock and Gem Club News Volume 7, Publication year: 71

