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General meeting: February 21

Our meeting is at the clubhouse at 7 pm on February 21. If you want to attend, please sign up by emailing Sandra before the meeting. If you have not yet done so, you will need to show proof of vaccination before entering the building.

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.

Also, you will probably want to bring cash or a check to buy raffle tickets and to bid in our silent auction.

You can acquire beautiful or interesting specimens at our silent auction and from the raffle where we have many winning tickets each month.

Banner photo

Ausstralian Opal for Show and Tell



Desert rose from the silent auction in January

The banner photo is selenite which is a variety of gypsum. The photo is by Parent Géry and is published here under the Creative Commons license BY-SA 3.0.

Our new Board

Every January we install our new and continuing Board members. These are members who are making it possible for the rest of us to enjoy all the club activities and community we find here. We extend our deepest thanks to each of these people.

Please reach out to a Board member, if you have questions or would like to find a way to become more involved in the club and to get to know our members better by helping out with our activities.

Officers		Members at large
President:	Sandra Newby	James Davison
Vice President:	Ali Rizvi	Nancy Ross
Secretary:	Carla James	Paul Anderson
Treasurer:	Bruce Samuels	Paul Strawn
		Rich Osborne



Dues for 2022

In the myriad facets of our lives, we join together with others in clubs, teams, congregations, and other organizations to support the various communities that we appreciate for making our lives richer. At Maplewood Rock Club our members support the club by paying annual dues which help us pay the bills.

If you have not yet paid your dues for 2022, please mail a check or bring one to the meeting.

Individual: \$20 per year Family: \$45 per year

Mailing address

Maplewood Rock and Gem Club 8802 196th St SW Edmonds, Washington 98026



For those born in February...

Happy Birthday!

May your day be filled with joy and love, and may your pockets be filled with rockhounding treasures.

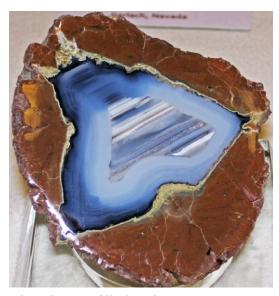
FEBRUARY 2022

Juniors' Page — Thundereggs

Ancient legend

Thundeggs were named by the Native Americans of central Oregon long ago. Their legends tell us that angry thunder spirits on Mt. Jefferson and Mt. Hood threw thundereggs at each other in a battle. In the photo you can see Mt. Jefferson with Mt. Hood far in the distance.





Thunderegg filled with agate by <u>James St. John</u> License: <u>CC BY 2.0</u>

February riddle

February 22, 2022 can be written like this: 2/22/22.

What day of the week does it fall on?

Vf course, it's a Tuesday!

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What is a thunderegg?

A thunderegg is an egg-shaped rock, that is created in silica-rich volcanic rocks like rhyolites. Most thundereggs are from the size of a golf ball to a baseball. When you find them, they look like boring back-yard rocks. But, when you cut them open, the colorful centers appear. The centers are usually filled in with chalcedony, agate, jasper, or opal. Sometimes the center has a small hollow with quartz or gypsum crystals.



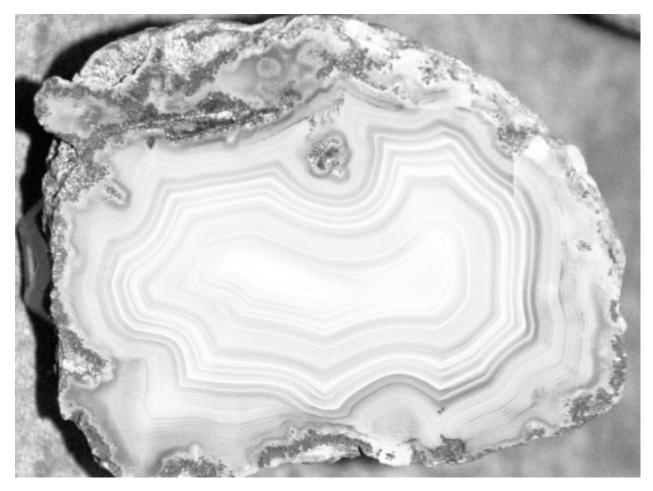
Thunderegg by Cynthia Cheney; CC BY-NC 2.0

How do they form?

When a volcano spews lava, the hot melted rock flows or splatters over the ground, and it begins to cool. Often, steam or other gases gets trapped inside the lava and can't escape. By the time the lava is cool hard rock, the bubbles are just empty round spaces hidden inside. The minerals silica and feldspar often form crystals around the surface of the bubbles.

After a while water laced with minerals flows down through the lava rock and leaves a mineral layer on the inside of the egg shell. Over a long period more mineral water seeps in and leaves additional layers. Each layer is a different mineral solution, and so it creates a band of a different color. Sometimes, the minerals from one layer to the next are very similar, but there are so many different minerals in the surrounding rock that the mineral mixture is different each time. This is how thundereggs get a banded look with different colors.

Juniors' Activity - Color a thunderegg



Agate filled geode by James St. John; CC BY 2.0

FEBRUARY 2022

Euhedral and anhedral crystals

The terms *euhedral* and *anhedral* describe how well formed a crystal shape is.

Euhedral crystals

A crystal that has grown into a geometric solid with distinct plane facets is a euhedral crystal. Like so many other scientific terms, there are synonyms for *euhedral: idiomorphic* and *automorphic*.

Snowflakes form individually in clouds where they have room to form 6-sided twinned euhedral crystals.



Euhedral crystals can form in the early stages

of lava cooling. At that point there is room for crystals to form and join together creating crystal faces. They also form in rock cavities where mineral laden water seeps in giving the minerals time and space to grow their shapes.



Anhedral crystals

In contrast, anhedral crystals do not develop with distinct faces or crystal habits. Anhedral crystals often form in an environment where they are constricted and there is not room for their crystal habit to be expressed or where there is steric hindrance from other minerals or crystals.

Cooling lava tends to make anhedral crystals or none at all. If it cools quickly, lava can become obsidian which has no crystals. When lava cools more slowly, it forms crystals, but they are usually too crowded to form crystal faces. Synonyms for *anhedral* are *xenomorphic* and *allotriomorphic*.

Rose quartz (like the piece shown here) normally develops in hydrothermal veins and pegmatites and it tyically grows with a massive crystal habit, that is, with anhedral crystals.

Subhedral crystals

Often, an environment provides some room for crystal growth, but not enough. Subhedral crystals are ones that partially show distinct faces.

FEBRUARY 2022

Loving these stony little hearts

Giving a beautiful stone heart to a friend or someone you love is sure to warm their heart.

Happy Valentine's Day!

Field trips

In September 104 rockhounds met on Willis Mountain to search for kyanite. iridescent hematite, pyrite, mica, and quartz. The January issue of the Washington State Mineral Council newsletter has an interesting article you might enjoy: <u>"Willis</u> <u>Mountain Kyanite Trip Report 9-25-21</u>" by David Lines.

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.

Below are the field trips planned for 2022.

Date	Search for	Details
Feb. 26	Jade	Grandy Creek Meet: Forest Service Station, Sedro Woolley at 9 am Tools: rock and crack hammer Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282
March 19	Petrified wood Opal	Saddle Mountain Meet: Leprecon Grocery in Mattawa at 9 am Tools: heavy digging Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282
April 16	Fossils Morel mushrooms	Racehorse Creek Meet: Mt. Baker Hwy, 10 miles from I-5 at 9 am Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282

April 23-24	Petrified wood	Saddle Mountain Meet: Mattawa Buckshot Boat Launch at 8:30 am Tools: digging and light hard rock Host: All Rockhounds Pow Wow; Larry Vess; vessel3755@gmail.com; 253-473-3908	
May 21	Talc Listwanite	Marblemount Donation fee requested Meet: mine at 9 am Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282	
June 18	Rainbow chert	Meet: Verlot Ranger Station at 9 am Tools: light hard rock Host: Ed Lehman; wsmced2@outlook.com; 425-760- 2786 or 425-334-6282	
June 23-28	Petrified Wood Thundereggs Agate Jasper	Meet: Madras, OR fairground at 8 am Host: All Rockhounds Pow Wow; Larry Vess; vessel3755@gmail.com; 253-473-3908	
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 Jasper Petrified Wood Opal Thunderegg Fossils Lilypad jasper	Greenwater Meet: Foresst Service Station in Enumclaw Little Naches Hwy 410 and Forest Road 19 at 10 am Tools: all Host: PVGMC; Dennis Bachelor; 360-870-8741	

Sept. 10	Thunderegg Fossil Lilypad jasper	Little Naches Meet: Little Naches Hwy 410 and Forest Road 19 at 10 am Host: NOA; Tony Johnson; ynotopals@outlook.com; 253-863-9238
Sept. 10-11	Agate Geode Jasper Jade	Red Top Teanaway Camp at 8 am Host: All Rockhounds Pow Wow; Larry Vess; 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

That's Greek to me

Many of our words in modern English have come to us from ancient Greek. We see these word parts (suffixes and prefixes) frequently in sciences, including geology and other branches that deal with rocks and minerals. By remembering the meaning of these Greek roots, we can make better guesses at new terms we see. Here are some Greek roots from words appearing in this issue.

an-

This Greek root means *not, without,* or *lacking*. For example, anhedral crystals are lacking a crystal habit or crystal faces.

eu-

Eús is a Greek word meaning *good* or *well*. For example, a rockhounder would probably feel euphoric after finding a meteorite.

-hedron

In Greek the meaning of *edron* is face, and people have come to use *hedron* as a word root to mean a geometric solid comprised of plane faces. The root preceeding *hedron* in a word can represent the number of faces in the solid or the shape of the faces. For example, a decahedron is a 10-sided 3-dimensional shape and a rhombohedron is a solid with faces shaped as rhombuses.

deca-

This is from the the Greek word, *déka*, which means 10. A similar sounding root from Latin is deci which means means 1/10. So, a decagram is 10 grams, and a decigram is 1/10 of a gram.

dodeca-

The Greek word, dōdekás, meaning 12, is a simple combination of dō which is 2 and dekás which is 10. As an example of using this root, you might ask your partner to stop on the way home and pick up a dodeca-carton of eggs.

-gon

The Greek word *gonía* means *angle*, ant the Greek word *polýs* means *many*, so a polygon is a two-dimensional shape with many angles. A hexagon is a 2D shape with six angles, because the Greek word for 6 is *héx*. Not surprisingly, this is not the root forming the word *gone* which comes to us from the Old English word, *gan* and the Old German, *gen*.

Number roots

These are all from Greek except *nona* which is from Latin. The Greek root for 9 is *ennea*.

1: mono-	3: tri-	5: penta-	7: hepta-	9: nona- (from Latin)
2: do- or di-	4: tetra-	6: hexa-	8: octa-	10: deca-

FEBRUARY 2022

Featured mineral - Selenite

This month we are taking a brief look at selenite, which is a crystal habit variety of gypsum. Other varieties of gypsum also correspond to particular crystal habits: desert rose, gypsum flower, and satin spar.

Surprisingly, selenite does not contain significant amounts of the mineral selenium. They have similar names because both are derived from the same Greek word, *selēnítēs*, which means *moon*.

Selenite crystals can become massive; the largest one discovered was 39 feet long and weighed 55 tons. That crystal along with other very large selenites was from the Naica Mine's <u>Cave of the Crystals</u> in Mexico.

With a Mohs score of 2 selenite is so soft you can scratch it with a fingernail. Another unusual characteristic is that it has three overlapping and unequal cleavages resulting in a brittle stone. Usually, it is colorless and transparent.



Selenite or satin spar bear with fish carved from antler on a base of calcite from Fossil and Stone in Seattle.

Selenite basics

Category: Sulfate mineral

Formula: CaSO₄·2H₂O

Crystal system: monoclinic

Crystal habit: earthy dull, clay-like texture with no visible crystalline affinities

Color: colorless, brownish green, brownish yellow, grayish green, and grayish white

Cleavage: perfect

Fracture: fibrous; fractures in long thin pieces along intersecting cleavages

Tenacity:

Mohs: 2

Luster: pearly

Streak: white

Diaphaneity: transparent to opaque

Specific gravity: 2.9

Refractive Index: 1.72 - 1.94

Optics: biaxial, fluorescent

Pleochroism: none

Dissolving agent: hot, dilute hydrochloric acid

Hugh Martin III

Entrepreneur, Teacher, Healer, Lapidarian Artist

As a child, Hugh was raised on a cattle ranch east of San Diego, where there were several granite outcroppings amongst the large oak trees. Hugh contracted polio and experienced some muscle atrophy in one of his legs. The effects didn't hinder him at all from later playing high school and college football though. He was drafted by

Hugh's rock sale

You can buy rocks from Hugh's large collection while relaxing on your sofa: visit Hugh's Rocks on <u>eBay</u>.

Or <u>make an appointment</u> to see his collection in Ballard.

the Green Bay Packers, but turned them down to become an electronics engineer.

Electronic Engineering

At 31 he started his own company, called Ocean Applied Research, first inventing tracking devices for Jacques Cousteau's projects of recording grey whale and dolphin migrations. His company went on to develop tracking devices for the Coast Guard and police around the world, particularly in Europe, Israel, and Australia.

Astrology and Healing

He retired from electronic engineering at 46, and applied his keen intellect to studying astrology and teaching at astrology conferences on the same continents where he had prior contacts. While teaching in Brazil, he noticed that his polio atrophy was getting worse. Doctors had no remedy, so he found a shaman who said he could help with Hugh's assistance in a ceremony. The shaman was buried for 3 days with crystals, and afterwards the shaman used the crystals to heal Hugh's leg. Not only did the atrophy stop, but the muscles started coming back.

Lapidary Artist

From that point on, Hugh had a deep passion for semi-precious stones, and crystals. He learned how to cut and polish them, and make his own jewelry. When he went to sell his work at gem and mineral shows, customers also received his wisdom and healing advice, often being given astrology readings as well.

His collection of rocks, were mostly purchased in the late 1980s and 1990s, some of which are no longer mined. He would often say that types of desired rocks, would show up magically. He definitely had an affinity for stones and loved sharing his knowledge about them with others.

Member connection

Heather Martin, one of Hugh's daughters, is a member of our club.

FEBRUARY 2022

Maplewood membership

While the world around us seems in a state of confusion, we have the unique opportunity of having a nice place to meet with friends that we enjoy and the harmony of fellowship.

~ Merle DeGarmo, President 1974

Donate to the club

Our club is a 501(c)(3) organization, so if you itemize deductions, you might receive a tax deduction. Ask your tax expert.

Checks can be made out to *MRGC* if you don't want your hand to cramp from writing the entire club name, *Maplewood Rock and Gem Club*. The club address is

8802 196th Street SW Edmonds, WA 98026

Buy grit for your rock tumbler

Contact the Board to buy grit: maplewoodrocks1@gmail.com



Nature's magic

Lapidary is an art, mineralogy is a science, and collecting is — collecting.

What do they have in common? The love of nature and natural beauty, the desire to explore and find the treasures of the earth.

There is magic in an agate as surely as in an emerald.

~ Lillian Haddock 1975



Facebook

Our <u>facebook page</u> has up to date information about what is happening at our club. When we have online auctions, they happen on our page.

We also have a Facebook group — $\underline{MRGC Sales and Trades}$ — which is open to members of our club.

Board meeting

If you have questions for the board or if you'd like to attend a meeting, please email our Board maplewoodrocks1@gmail.com.

Connect with us

Website: http://www.maplewoodrockclub.com/

Facebook page: Maplewood Rock & Gem Club

Facebook group for members: MRGC Sales and Trades

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

Washington State Mineral Council

Our club, along with many other rock and gem clubs in the state, is a member of the <u>Washington State</u> <u>Mineral Council</u>.

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 <u>Newsletter</u>.





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.

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 into the ocean the eastern section 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.



This issue

Maplewood Rock and Gem Club News

Volume 2

Publication Year: 71

News to share? A suggestion? A correction?

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