

The CMS Tumbler

April
2024

The monthly newsletter of the Cascade Mineralogical Society, Inc., Kent, Washington

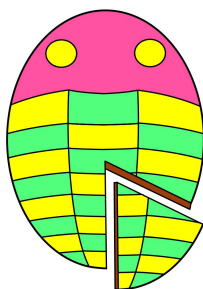
Next Meeting:
April 11, 2024
7:00 p.m.

Connect with us!

Website: <https://www.cascademineralsociety.org>
Club Facebook: <https://www.facebook.com/CasMinSoc/>
Facebook Groups: <https://www.facebook.com/groups/1168207926650075>
Show Facebook: <https://www.facebook.com/cascadegemandmineralshow>
Instagram: <https://www.instagram.com/cascaderockclub/>
YouTube Channel (Please like and subscribe):
https://www.youtube.com/channel/UCaGIJxaWFAtV_JjgZRm9ESA

American Legion Hall
25406 97th PI S
Kent, WA

The Program is
Rock Bingo



This month remember
to wish a
Happy Birthday to
Megan Johnson on April 4
Brenda Praggastis on April 4
Trent Burroughs on April 5
Penny Hohn on April 7
Riley Elliott on April 9
Chris Norris on April 12
Kathy Hartzell on April 13
Mark Hohn on April 17
Majorie Medlin on April 17
and also remember



to wish a

Happy Anniversary to
Richard & Jennifer Russell on April 23 (30 years)

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Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

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Email preferred.
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Raffle Master Roger Pullen	206-387-3214	Phone calls only. No email or texting.
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2024 CMS Dues are \$30 per year per family

Pay online, by mail, or at our meetings.

New mailing address: Cascade Mineralogical Society, c/o Ananda Cooley, 300 Lenora St. - PMB 6145, Seattle, WA 98121

You can pay your dues via credit card!! We now accept all cards through our website or at the meeting.

You can renew your membership or enroll as a new member and pay your dues all in one shot online. You will find it under the "Membership" tab on our website. <http://www.cascademineralogicalsociety.org>

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the American Federation of Mineralogical Societies; the Northwest Federation of Mineralogical Societies; and the Washington State Mineral Council.

Our Club is a Member of these Federations and Associations

AFMS: The AFMS governs our Northwest Federation. <http://amfed.org/index.html>

The bulletins are published quarterly. You can find the news bulletins at <http://amfed.org/news/default.htm>



NFMS: The Northwest Federation is our home federation. To keep up on the goings-on in our own backyard. <http://northwestfederation.org/>

The link for the news bulletins is <http://northwestfederation.org/Newsletters.asp>



ALAA: The American Lands Access Association, Inc. represents the rockhounding interests of 325 gem & mineral clubs/societies in 47 States and the District of Columbia.

The association's purpose is to promote and ensure the rights of amateur fossil and mineral collecting, recreational prospecting, and mining. The use of public and private lands for educational and recreational purposes. They also carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators, and public land managers. <http://amlands.org>

The front page also has a lot of current news, rockhounding restrictions or lack of, etc. <http://amlands.org>

ALAA also publishes a quarterly newsletter. To keep up on the news and lobby efforts on our behalf, check out <http://amlands.org/>



Washington State Mineral Council: The Washington State Mineral Council is dedicated to the location and conservation of rock and mineral sites of interest to the rockhounds of Washington state. <https://mineralcouncil.wordpress.com/>

You can find local rock and gems shows and planned field trips. It's a great resource if you want to plan on an outing.

Also check out "Misc. News" for all the latest updates on collecting sites around Washington.

<https://mineralcouncil.wordpress.com/news-updates/>

When the weather is good, they have regular monthly field trips. So take advantage of these great outdoor rockhounding adventures! The field trip details are under "Field Trips" on the left side of the site. Check out the link for additional information for the time and place to meet and the field trip leader.

You can find all this information and a whole lot more about what is happening in our state at <https://mineralcouncil.wordpress.com/>



Rockhounding Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

from the AFMS website

To get information to the Tumbler via the Internet send it to greenrockdraggin@yahoo.com Please put the word "Tumbler" and subject in the Subject Line. The deadline is the 20th of each month.

NFMS Needs Your Canceled Postage Stamps

Every year the NFMS collects postage stamps from its member clubs. They have a stamp company that buys them, and in turn, these funds are donated to cancer research. Every year NFMS donates around \$5,000.

On letters that you receive, tear the corner with the stamp off. Try to leave about 1/4" of the envelope around the stamp. Be careful not to damage the stamp. Place the stamps in a plastic baggie and bring them to the meeting. Our member, Mike Blanton, collects the stamps and turns them over to the NFMS at the regional rock and gem show. You can give them to Mike as often as you want throughout the year.

Collecting the stamps is another way we rockhounds give back to our community.



Don't Forget To Show Your Membership Card At These Retailers

JERRYS ROCK AND GEM
 804 WEST VALLEY HWY. KENT, WA. 98032
jerrysrockandgem.com jerrysrockandgem@msn.com

Follow us on Facebook **253-852-0539**

Black Jack's Metal Detectors
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Renton, WA. 98057
Store # 425-430-0290
Direct # 253-961-3095



SoDo Rocks
Friday thru Sunday
10 am to 4 pm

2700 4th Ave S, Seattle, WA 98121

New for Members Only – New Texting Service

We are busy and often forget that CMS has an upcoming meeting or event. Therefore, we have a texting service to remind members of CMS meetings and events.

Everyone is automatically entered into this service. You can opt out anytime by responding with STOP.



Access CMS Club Instagram page



For quick access, you can scan the following codes.

Access our CMS YouTube channel




Access our CMSclub website for the latest on meetings and club events



Access CMS Facebook Groups

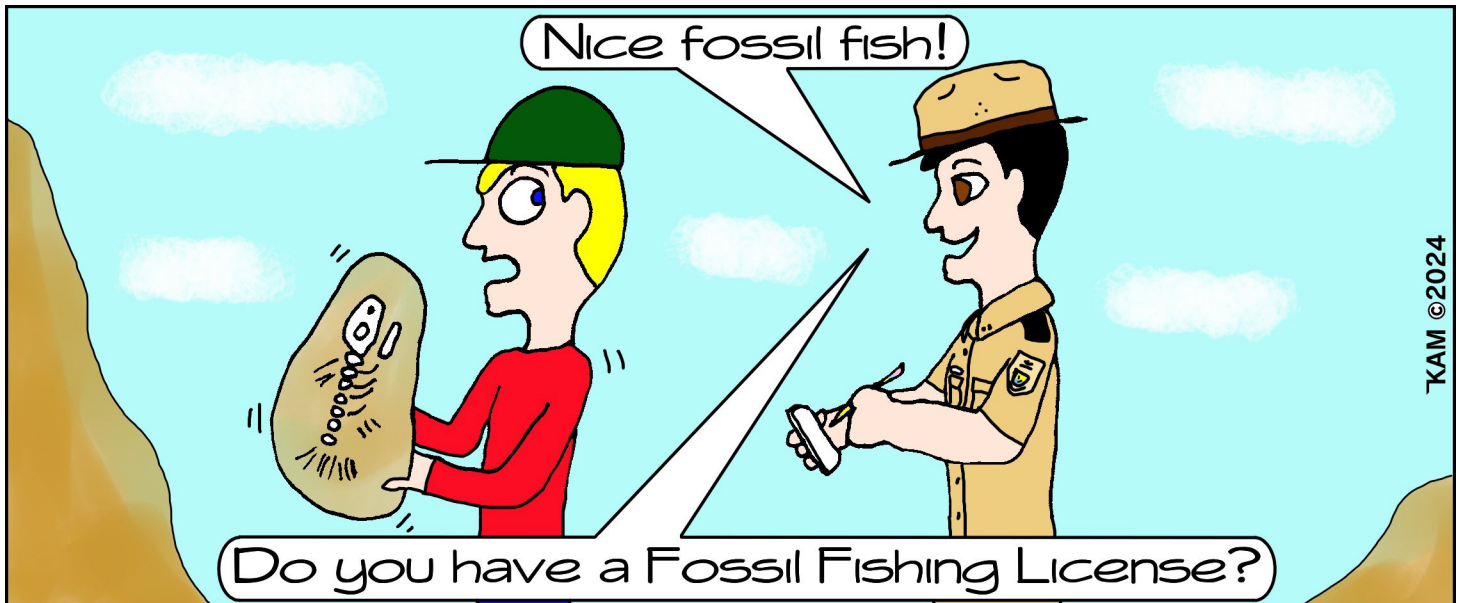


Sun	Mon	Tue	Wed	Thur	Fri	Sat
	1	2	3	4	5	6 Maplewood Show
7 Maplewood Show	8 Board Meeting 7:00 pm	9	10	11 General Meeting 7:00 pm	12	13 North Seattle Show
14 North Seattle Show	15	16	17	18	19	20 Lakeside Show Club Trip 1
21 Lakeside Show Club Trip 2	22	23	24	25	26 Yakima Show	27 Multiple Shows
28 Multiple Shows Club Trip 3	29	30	Rock Bingo at the General Meeting!			

CMS Show Committee Meeting: ... Monday, April 8.....6:30 pm to 7:00 pm
 CMS Board Meeting:.....Monday, April 8.....7:00 pm to 8:00 pm
 CMS General Meeting:.....2nd Thursday, April 11.....7:00 pm to 9:00 pm

Lapidary Class Hours:.....Closed for winter
 Lapidary Shop Hours:.....Closed for winter

More Field Trip info can be found on Page 15
 More Show info can be found on Page 16



CMS Board Meeting Minutes March 11, 2024

by Pete Williams, 2024 Secretary

Attendees: Kat Koch; Linda Jorza; Pete Williams; Rich Russell; Mike Blanton; Roger Danneman; Noelle Barnes; Diane Horsfall; Lee Oliver

Show Committee 6:34

Due to construction going on at the Kent Commons during our show, access to the show will have to be through the Green River Room (GRR). Because of the disruption from the construction, there will be no charge for the GRR and the cost of renting the gym has been reduced by 25%. However, we will not be able to have any vendors in the GRR. We have 30 vendors so far and will probably allow no more than 38-40.

Volunteers are needed for club sales. Rich volunteered to handle signage. Will need to check what Kent Commons will provide.

Board Meeting 6:56

The club now has 111 families. 30% of the family memberships from last year have not yet renewed their dues. Many of the families with children have yet to renew. We continue to explore having a shop in one of our members garages. There is cement floor but needs to be cleaned out. We would need an electrician to ensure sufficient power for all the equipment.

The March program will be out-of-state rockhounding by Roger. The April program will be rock bingo and the May and June programs are still in work.

There are still a few open volunteer slots to work at the Gem Faire. We have paid for a higher level of Mailchimp to help manage increases in membership. The summer picnic date is being finalized.

Meeting adjourned at 7:31

CMS General Meeting Minutes March 14, 2024

by Pete Williams, 2024 Secretary

Meeting called to order at 7:15

There are still a few open slots for volunteers at the Gem Faire. Volunteers can hand out flyers, discuss our club, and show the rocks collected by our field trips that will be in a case.

The Mineral Council is still looking for a few volunteers. Meetings are now held via Zoom so travel is not necessary. The Federation Show is May 10-12 in Hermiston, Oregon. Members can bring the stamps they have been saving to our next General meeting. The NW Federation sells these stamps in bulk for donations to cancer research. The NW Federation bulletin will now only be available electronically. Use the link in the Tumbler to access their bulletin.

The next club field trip will be to Baker Lake/Swift Creek. April field trips will be to Biggs Junction and Saddle Mountain.

Our April meeting will be rock bingo. This is a great activity for the kids. Everyone will win something. Bring some food for the food bank and 3 wrapped rocks for prizes.

Program: Planning Your Out-of-State Rockhounding Trip by Roger Danneman.

Meeting adjourned at 8:29 followed by show-and-tell.

From the Top of the Rock Pile by Kat Koch, CMS President

The Gem Faire at Puyallup was held from March 15th to 17th. Mike and I worked our club booth on Sunday, and it was so much fun. When they win a free polished rock, the smiles on the adult's and children's faces are priceless. We also handed people our show flyers or club information.

We also had a display case in our booth showing all the rocks and minerals we find on our club's monthly field trips. It was a big hit, and visitors were intrigued by what they could find on our field trips.

The club will have another booth at the Gem Fair sometime in September. Please seriously consider volunteering for a shift in September. It is an easy and fun 2 or 3 hours.

I am continuing to book vendors for our Gem Show. I still need someone to volunteer to organize and price items for our club sales booth. Please click here (<https://www.cascademineralogicalsociety.org/contact-us/>) if you are interested in helping out with this.

We continue to get new members every week. Welcome to our club! To our members who have yet to renew this year, please visit our website and renew your membership online. If you attend a meeting, you can pay your dues with a check, cash, or credit card.

If you are a new member, please come up and introduce yourself. I look forward to meeting you.

Our monthly meeting attendance continues to grow. Reminder: The larger our meeting attendance is each month, the easier it is to book speakers.

I look forward to seeing everyone at our April Rock Bingo night.



Welcome
New Members

April 11th – Rock Bingo (Spring Break) and Food Drive



This meeting is our annual "Rock Bingo" night. It is held during spring break so our Young Tumblers and their friends can attend without worrying about school the next day.

Each person is to bring 3 wrapped items, and you can play up to 3 games per person. Every person goes home a winner. Please donate an item you would like to receive. Try to stay away from junk slabs and rocks. It is free to play Bingo.

Let's all plan to have a fun evening together. Guests are welcome, and we encourage our Young Tumblers to bring their friends.

Food Drive – We are collecting food for the Kent Food Bank again. Try to donate 1 item or more for every person playing Bingo.

CMS FOOD DRIVE



General Meeting
April 11th @ 7 pm
American Legion Hall
Kent, WA

May 9th – Fossils of Washington by Joan and Glenn of Jerry's Rock Shop

Joann is going to tell us all about the fossils of Washington.

It is always fascinating to hear about the flora, fauna, and crustaceans that lived on land and in the sea of our state millions of years ago. Most of us have heard of the leg bone of an unidentified dinosaur, numerous Columbian Mammoths, Mastodons that have been found. There is also the petrified flora from Saddle Mountain and Republic.

This meeting should be interesting and educational to learn about all the other fossils found in Washington.

Show 'n Tell: Any fossil in your collection.



June 13th – To Be Announced

If you have any ideas for a meeting topic, email the president at cascade_mineralogical_society.org or click on this link (<https://www.cascademineralogicalsociety.org/contact-us/>).



July 11th – Post-show report & “Guess that Rock” by Kim of Earthlight Gems

We will have a little fun while learning to identify rocks. If you are the first to guess right you will win a prize. The over all winner of the night with the most correct guesses will win a grand prize.

Show 'n Tell: A rock, mineral or fossil you want identified. We will see if Kim or some of our members can identify it for you.



Got a Second? by Ellery Borow, AFMS Safety Chair

If so, please use it wisely.

It takes just a second for a dopped stone to come loose from the dop wax as one is cabbng the stone.

It takes just a second for a sharp sliver of quartz to go flying after a hammer and chisel strike.

It takes just a second for a damaged electrical cord to arc and cause a fire in nearby flammable material.

It takes just a second to trip on an electrical cord lying on the floor of your rock and mineral show.

It takes just a second for a show table to collapse because the latch securing the legs was not secured.

There are a great many calamities which can occur in a second or less. To be safe it is often a simple matter of taking a second or two to ensure one's safety.

In all the above instances it would take just a second or two to:

- Test the dop wax
- Put on safety goggles
- Inspect the electrical cord
- Rearrange things to eliminate the tripping hazard
- Make sure the show table leg latches are secure

Got a second? All through our lapidary and jewelry workshops, show facilities, meeting rooms, dig and field trips there are areas having potential safety issues. In the overall scheme of things, it is well worth taking the time to ensure that you, your family, and the public attending our activities will have a safe and enjoyable time.

Please give safety the necessary time. After all, sometimes it just takes an extra second to make sure you are safe.

from AFMS Newsletter, 4/24

Field Trip Report for March 2nd Ole One Lane Bridge by Roger Danneman

11 people joined me on this outing for Dunite, Gneiss, and tumbling material. A bit of a wintry mix of weather. This is the earliest in the year I've scheduled a trip, but the site here is generally a good starting point for the rockhounding season as long as snow isn't covering all the rocks. Fortunately that wasn't the case on this day. We met directly on site. Dunite is a "jade like" green rock comprised mostly of olivine. Gneiss ("nice") is a metamorphic rock that has been subjected to much heat and pressure from mountain building activity. This area is on the west side of Mt. Baker. Looking at the photos, the yellowish skinned rocks are all Dunite, so you can see it's not hard to find. Joining me on this outing were members Loren M., Scott H., Michelle M & Gerry P., Brea P. and her two girls, Marion R., and Douglas W & family from Maplewood club.

When we were done here, Loren and I drove east another 5 miles to the Welcome Bridge and checked out another large expanse of river rock on the North Fork of the Nooksack River. This is a good spot for collecting tumbling material if you're looking for a spot to go on a nice spring or summer day, although it may all be under water during heavy spring runoff. It's a small parking area, and you have to walk across the road, down a short but steep embankment, and jump over (or slosh through) a 5' wide creek. But not too hard for the nimble. My 2nd set of pictures are from there. On the drive home I came through a snow/hail squall west of Sedro Wooley. Two inches of snow and ice fell rapidly while hail was pinging off of my sunroof. Fortunately not while we were out collecting.





Field Trip Report for March 24th at Swift Creek / Baker Lake by Roger Danneman

This trip got moved from Sat. the 23rd to Sunday the 24th due to heavy rain predicted in the Mt. Baker area for that Sat. On Sunday the skies cleared and we had a beautiful day for hunting agates and jaspers at Swift Creek. The river channels were too deep and the current too strong to get down to the Baker Lake gravel beds, but we had a nice huge sandbar for a collecting area downstream from the bridge. The stream where we crossed was about 18" deep.

10 members/guests joined me for this trip - Jeanie L. and friend Olivia, Heather M., James R., and friend Marquis, Michele M., Marion R., Josh D. and sons Eli and Levi. These pictures are from what I collected, but there were some nicer agates and rocks with crystal inclusions collected among the group. There is also some small pyrite crystallizations to be found here. Baker Blue Agates don't come easy and when you find one it's a great feeling. The extra red and green colors attached give them a unique look.



After we were done at Swift Creek, Michelle and I went over to Marblemount and found some Listwanite at a site along the Cascade River. Some of these rocks with a rusty-orange skin yield beautiful green patterns on the inside. It helps to break off an end to check the inside color.

Next outing is Sat. April 20th for Biggs Jasper/Agate in Oregon and then Sun. April 21st at Saddle Mtn for petrified wood. Another Saddle Mtn trip is scheduled for Sunday April 28th to be led by Loren Merriman. Details for all 3 trips will be sent out via e-mail.



Tennessee “Diamonds” Are Quartz - But We Can Dream About the Real Thing by Petra Schmalbrock

Looking for a nearby collection site, I looked through the “Roadside Geology” book series – of Tennessee in this case. Here is what I found:

Tennessee field diamonds resemble Herkimer diamonds found in New York. They are not diamonds, but distinctively shaped quartz crystals. Some of these crystals can be very clear and they are doubly terminated, with both ends naturally pointed. They were found near the intersection of I-81 and I-40, south of exit 8, and there are several sites between Kingsport and Maryville in Tennessee. One of the best sites for finding Tennessee field diamonds is Douglas Lake. This is a Tennessee Valley Authority dam which is used for flood control. Each fall the water is lowered, and the lake bottom becomes exposed. The bedrock in this area is the Cambrian Ordovician brecciated Knox Group dolomite, faulted

and folded with the Sevier shale which is an upper formation of the Ordovician Chickamauga Group.

It is thought that the field diamonds are formed in limestone pockets that contain silica-rich hydrothermal solutions flowing through fractures; later erosion then separates the chemically resistant quartz crystals. Lake Douglas “diamond” from Jefferson County, Tennessee. And then there may be real diamonds!

Two kimberlites were found on the north shore of Lake Norris near Sharps Chapel, Union County, Tennessee. Kimberlite is an igneous rock and rare. It is found in the earth crust as vertical structures called kimberlite pipes. They seem to result from a type of explosive vulcanism where hot fluids and gasses blow a hole in the overlying rock.

I searched the RockD app around Lake Norris and found two pink spots on the map: igneous rock! The surrounding bedrock is Silurian-Devonian Sneedville limestone and south of the fault line is the Cambrian Rome formation of different colored shale. Kimberlite pipes are carrot shaped and form deep within the mantle, 95 to 280 miles deep.

Kimberlite rocks have a specific composition with some parts coming from great depth, including olivine, diopside, ilmenite, garnets, and magnetite. These deep mantle minerals are mixed with the rock overlying the blowout hole – in the case of the Lake Norris kimberlite, carbonates. The Lake Norris kimberlites are at the southern end of a chain of kimberlites found along the Appalachian fold and thrust belt. They likely formed during the Appalachian orogeny at the end of the Paleozoic Era.

Most noteworthy, kimberlite is a carrier of diamonds produced deep in Earth’s mantle. In 1904, two diamonds were found in gravel from the Lake Norris kimberlite. My relatives have a vacation home at Lake Norris. Next time I visit, I’ll go diamond hunting!

via The Quarry, 3/24; via MWF News, 3/24; from the Glacial Groove, 2/23

Some Minerals Are Like Mushrooms by Kat Koch

Rose quartz, citrine, amethyst, smoky quartz, ametrine, and other various colors of minerals in the quartz family will fade to clear over time when exposed to sunlight.

Fluorite will also fade to clear when exposed to sunlight over time. Fluorite from New Mexico fades fairly fast, while fluorite from Southern Illinois is rather stable and fades extremely slowly.

It depends on where a mineral was mined and how fast it will fade to clear. Some will change within a week or two, and others may take a few months, a year, or more. The effect also happens under normal halogen light but slower under LED.

If you are in doubt about a specimen, check it out for color fading. The internet is an excellent source for finding out about your mineral. Search for “Does the mineral xxx fade in the sunlight?”

If your mineral specimen is susceptible to fading, treat it like a mushroom and keep it out of direct sunlight.

Bibliography: Thought.Co, Mineral Forum, Mindat.



Medical Geology, With A Focus On The Toxic Minerals Of Washington by Claire Christensen

Minerals, elements, dusts, and broader geology affect our health more than we may realize. The study of medical geology has been rapidly expanding since the 1960s, but it is not a new concept. In fact, the field existed in a basic form even as far back as Hippocrates, and it was especially popular in the late 1700s to mid-1800s. However, it fell out of fashion with the advent of germ theory, and it wasn’t until the ‘60s that medical scientists began looking to the earth for answers once again.

A key part of medical geology is the study of toxic minerals and elements, how they spread, and their effect on humans. One of the most famous toxic minerals is asbestos, which is a catch-all term for various minerals within the serpentine and amphibole groups. Asbestos is dangerous because it can break down into inhalable particulate that causes lung disease. Extensive mining of asbestos began in the late 1800s because of its excellent insulation and fire resistance, and it wasn’t until the 1970s that its adverse health effects became more widely known. (Remember that medical geology regained traction in the mid ‘60s.)

Another dangerous element is mercury, commonly found in cinnabar. Miners referred to it as quicksilver, and they extracted it from cinnabar for use in recovering lode and placer gold. Cinnabar is also the historic source of the pigment vermilion. As far back as 1865, there were reports of fatal methylmercury poisoning, but its negative effects went largely ignored until the 1950s. In the ‘60s, technological advancements revealed that methylmercury had become a worldwide issue, especially through biomagnification. Though there are some restrictions on mercury use, it is still found in fluorescent lighting, which is why there are specific rules about disposing of burned-out bulbs.

Arsenic is arguably one of the most famous poisons and is found most commonly in arsenopyrite, realgar, and orpiment. It is still used in a variety of industries, though it is no longer used as a pigment. If you see bright green Victorian-era wallpaper or clothing, exercise caution. The two most common arsenic-based pigments were Scheele’s Green and Paris Green. In contrast to asbestos and mercury, arsenic was known as toxic as early as the 1830s, but it didn’t fall out of fashion until the 1860s. Arsenic is dangerous to inhale and also dissolves in groundwater. Myriad illnesses, such as cancer, lesions, and cardiovascular disease, can be caused by arsenic.

The final toxic mineral is uraninite, which contains, as the name suggests, uranium. Direct exposure to uranium is very rare, and so, therefore, is illness caused by it. However, decaying uranium releases radon gas. This emission of gas is

most common in uraniumiferous granite, and the gas is entirely colorless and odorless. Radon leaks are a danger especially for homes built above granite. As for uranium, the average person will have little to no contact, unless, of course, you collect uranium glass.

Medical geology can also be used to identify minerals and elements that the human body needs, such as iodine, deficiency of which is the leading cause of preventable intellectual disability worldwide. As the field recovers from its near-forgotten status, scientists are learning more about how the very soil beneath our feet can affect our health. I will leave you with a quote from Hippocrates: "If you want to learn about the health of a population, look at the air they breathe, the water they drink, and the places where they live".

All of these toxic minerals can be found in Washington.

Visit the WA DNR website for maps. <https://shorturl.at/bezMV>

For fluorescent bulb recycling, visit <https://www.lightrecycle.org/>

Sources:

<https://medicalgeology.org/>

Medical Geology, Syed E Hasan, <https://shorturl.at/ctyBP>

Hazardous Minerals, WA DNR, <https://shorturl.at/bezMV>

from Rocky Trails, 1/24

Giant Rock, Landers, California

A regular looking rock with an unbelievable history.

This seven-story giant boulder has attracted ufo conferences, hopi spiritualists, and the engineers of a "rejuvenation machine."

Geologically speaking, Giant Rock—located in California's Mojave Desert—is roughly seven stories high and covers almost 6,000 square feet. Some say it is the largest freestanding boulder in the world.

While the rock has been a Native American spiritual site for thousands of years, the modern backstory of the boulder begins in the 1930s, when a German immigrant and miner named Frank Critzer met a pilot named George Van Tassel. The pair became fast friends and Van Tassel loaned Critzer 30 dollars to buy mining equipment. Critzer then dug out a 400-square-foot home for himself directly beneath the rock. Some locals thought he was crazy, but since he was known to point a shotgun at those who approached his underground home, no one inquired further. Critzer was also a radio enthusiast, and is said to have set up a radio antenna on top of the rock for better reception.

Unfortunately, Critzer's German origin and radio antenna led to suspicions of his being a spy during World War II, and a police raid was made on his cavern. While the exact cause of Critzer's death is still unknown, legend holds that when authorities attempted to extricate him by shooting tear gas canisters into his cave, one accidentally ignited a small store of explosives (for mining) and blew the peculiar loner to smithereens. As it turns out, Critzer was not a spy after all, but just what he seemed: an eccentric who wanted to be left alone to live, quite literally, under a rock.

Upon hearing of his friend's death, Van Tassel—a high school dropout who had become a pilot—went to the boulder and reopened an old airfield at the Giant Rock in the 1950s, naming it Giant Rock Airport. Van Tassel's war friend Howard Hughes, for whom Van Tassel was a test pilot, is said to have flown there just for a slice of pie baked by Van Tassel's wife.

In addition to being an aviator, Van Tassel was also a firm believer in alien life. In 1952, Tassel began holding meditation sessions in Critzer's old home under Giant Rock. Here, Van Tassel believed he was receiving vital information from alien sources directing the construction of a fantastic machine. The body, Van Tassel learned from his alien sources, was an electrical device, and aging was caused by a loss of power. Van Tassel claimed to have even been transported to an alien spaceship, where he met a wise group of aliens known as the "Council of Seven Lights." Van Tassel said this extraterrestrial meeting, along with ideas from scientists such as Nikola Tesla, inspired the construction of a building/device which was to be a "rejuvenation machine." It was dubbed "The Integratron."

Van Tassel held popular UFO conventions known as the "Giant Rock Spacecraft Conventions" on his property for over 20 years to help raise money for the Integratron's construction. The domed structure, built without nails over a period of 34 years, was said to be capable of collecting up to 50,000 volts of static electricity from the air in order to charge the human body. Unfortunately, Van Tassel suffered a heart attack before its "final" completion, giving rise to a host of conspiracy theories. There were once plans to turn the Integratron into a disco, but instead it has been reincarnated as a sound bath meditation retreat.

Long before Van Tassel or Frank Critzer were around, Giant Rock was a spiritual site for thousands of years, used by Native American tribes in ceremonies and prophecy. Hopi shamans have suspected since the 1920s that the future of the 21st century would be foretold at Giant Rock, based on how the rock cracked. In February 2000, a giant chunk of the rock did indeed break off. Spiritual leader Shri Naath Devi interpreted the break in a positive light, saying, "the Mother had opened her arms to us, cracking open her heart for the whole world to see." It is speculated the break was the result of fires burned under the giant rock in what was once Frank Critzer's underground home.

Know Before You Go

Giant Rock can be reached by car by traveling south from Lucerne Valley on Hwy 247 to Reche Road in Landers, or traveling north from Yucca Valley on Hwy 247. Take Reche Road to Belfield Blvd, left on Belfield until the pavement ends. To your right will be the Integratron. Go past the property, turn right and then immediately bear left on the well-graded dirt road.

The dirt road will follow the edge of the jumbo rock pile about two miles. Follow around the end of the rock pile until Giant Rock comes into view. Be cautious of broken glass and snakes in the area. Always bring extra drinking water. Cellular service is available at the site.

Reference: Geology Rocks—Facebook

from The Sierra Pelonagram, 6/23

Carpet Rock: How Did Carpet Rock Form?

The carpet rock formations are rare structures. Some people are convinced that aliens are the culprit behind the weird formations but there's a geological explanation as well. Fractured sandstone filled with quartz and slowly eroded away leaving the carpet-like pattern. Those structures typically develop in siliceous coarse-grained sedimentary (sandstone) rocks. The formation of this kind of rock is thought to begin with the fracturing of sandstone and the filling of the resulting cracks with quartz cement. Subsequent weathering erodes the relatively soft sandstone more than the quartz. Eventually the quartz stands out from the sandstone in a carpet-like pattern. These patterns are abundant in sandstone from this area and are formed when Iron minerals such as Hematite or Pyrite in the sandstone oxidize because water has permeated the sandstone dissolving the iron minerals into a solution and subsequently erosion has exposed the iron mineral solution to oxygen in the atmosphere. The oxidized solution precipitates between the layers of sandstone, finding tiny crevices where joints exist and form the different colour bands within the rock giving the patterns, often in polygonal shapes, which lead to the name "Carpet Rock". This effect occurs when Quartz forms harder zones in sandstone which resist erosion such as the sandstone from Petit Jean Set Park in Conway County, Arkansas USA.

Boxwork

Boxwork is defined as a honeycomb-like structure that can form in some fractured or jointed sedimentary rocks. If the fractures in the host rock are mineralized, they can become more resistant to weathering than the surrounding rock, and subsequent erosion can produce boxwork structures.

In cave geology, Boxwork is commonly composed of thin blades of the mineral calcite that project from cave walls or ceilings that intersect one another at various angles, forming a box-like or honeycomb pattern. The boxwork fins once filled cracks in the rock before the host cave formed. As the walls of the cave began to dissolve away, the more resistant vein and crack fillings did not, or at least dissolved at a slower rate than the surrounding rock, leaving the calcite fins projecting from the cave surfaces. Box-shaped and triangular patterns are abundant in the sandstones on top of Petit Jean Mountain. These patterns form when iron present in the rock is oxidized. Iron exists as the minerals siderite, magnetite, hematite and some clay minerals that are present in the Hartshorne Sandstone. At some point in geologic history water filled the pore spaces of the rock formation and came into contact with minerals made up of iron. This caused the iron to go into solution. If the rock becomes exposed to air then oxygen is added to the solution and causes the iron to oxidize and precipitate out along exposed joints in the rock formation. Sometimes color bands result from the different oxidation states of iron. These bands are also referred to as Liesegang banding or box work by the scientific community.

Turtle Rocks

The exact processes that create "turtle rocks" are poorly understood. One explanation involves spheroidal weathering. This process occurs when water percolating through cracks and between individual grains in the rock loosens and separates layers of the rock. The weathering acts more rapidly on the corners and edges of the rock producing a rounded shape. Another theory concerns the amount of calcite present in the matrix of the rock holding the grains together along with the size of the grains that allow for this type of weathering. Either way the weathering of the rocks is strongly influenced by the polygonal joint pattern seen in all "turtle rocks".

Reference Geology.com

from The Sierra Pelonagram, 5/23

Pat's Meals On Our Summer Vacations by Dick Morgan

When we started going on the two-week club trips in the 1980s, we had a Dodge maxi van as our camping rig and an 80 quart cooler as our ice box. I built a propane cook stove on the back seat door, so she had to kneel on the floor, or sit on one of the beds to cook.

She used to freeze vacuum-sealed packages of food and drinks. She made them up ahead of our trips and she would freeze them in different layers of a block of ice and serve them as the ice block melted.

She used to make lasagna and put squares of it in Seal-A-Meal packages and froze them in the ice tray from the cooler and freeze them in different layers. She also made margaritas and went through the same process so that a meal and a drink could be served after she heated the meal up. Some people were surprised at the fancy meals we had miles from civilization.

It was fun 'roughing it' on those old two-week trips.

The Blackfoot Indians thought that baculite fossils resembled bison or buffalo and believed it had the power to summon the animal. They called this Iniskim (buffalo calling stone). Their medicine men would rub the baculite fossils with red ochre and carry it in the medicine pouches.

Young Tumblers News

Sneaky Snakes by Keith Alan Morgan

When rockhounding we sometimes have to watch out for snakes.

This puzzle is different from a normal word search since the sneaky snakes are not found in straight lines like the rocks in this puzzle. One snake has been marked to show you that you have to look carefully to find the sneaky snakes.

Good luck!

S	S	S	O	Y	J	Q	L	K	L	A	T	S	Y	R	C	A	H	E	A
Z	V	I	W	P	Y	A	B	V	T	O	C	M	D	F	H	E	J	G	B
F	F	U	P	V	K	L	S	B	J	X	V	C	K	N	Q	L	A	K	N
B	O	W	E	N	I	G	R	P	I	M	P	I	Y	G	F	T	Z	T	D
I	N	S	X	R	M	E	N	G	E	V	O	Y	N	P	E	M	J	G	M
C	K	E	S	C	F	O	Y	B	L	R	Z	U	V	N	O	E	D	A	J
T	G	P	Z	I	N	D	P	A	D	N	A	S	K	U	I	B	K	C	G
N	A	H	L	J	L	E	Q	V	R	U	F	S	Y	J	C	J	W	S	F
V	R	R	B	P	R	Q	M	A	E	O	V	S	U	O	N	B	S	V	C
Q	U	K	T	E	O	N	K	T	R	L	N	Y	T	R	L	S	V	B	O
Y	D	I	C	L	C	J	G	I	T	E	C	X	A	T	X	P	O	J	E
X	G	A	R	N	E	T	F	V	H	K	L	B	I	F	O	K	E	L	N
T	X	Z	X	T	C	L	B	Q	U	A	R	T	Z	J	A	N	Z	B	I
S	S	S	J	M	V	J	Z	G	M	W	B	F	U	L	M	I	G	Q	T
I	A	R	Z	I	M	Z	K	I	F	O	V	R	D	O	V	H	O	E	N
R	B	F	S	K	D	N	W	M	N	Q	E	P	U	L	J	N	P	C	E
G	N	V	T	C	X	E	O	B	C	D	J	B	M	T	M	V	A	X	P
O	H	K	L	N	A	I	L	E	N	R	A	C	S	V	H	Z	L	G	R
P	W	E	M	D	C	H	G	R	V	J	I	Z	K	S	A	F	N	H	E
G	G	E	R	E	D	N	U	H	T	C	T	P	V	B	S	W	Y	I	S

Rocks (straight lines)

- Agate
- Carnelian
- Crystal
- Fossil
- Garnet
- Geode

- Jade
- Jasper
- Opal
- Quartz
- Serpentine
- Thunderegg

Snakes (twisty lines)

- Cottonmouth
- Garter
- King
- Rattler
- Sidewinder
- Viper

Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Some information from the Washington State Mineral Council webpage (<https://mineralcouncil.wordpress.com>).

- April 20** *Cascade Mineralogical Society* - **Biggs Junction** - agate, jasper
Difficulty Rating 1. Beers mountain quarry and collecting area is next to parking.
Material is a metamorphic mud stone with beautiful patterns and takes a great polish. Some with agate and/or druzy.
Roger Danneman Roger.Danneman@gmail.com
- April 20** *Pow Wow* - **Saddle Mountain** - Meet before 8 am Matawa Boat Launch - petrified wood – Bring a shovel, rock hammer, and small pick
- April 21** *Cascade Mineralogical Society* - **Saddle Mountain** - petrified wood, opal
Difficulty Rating 2. Road is rough and this is a dig, but dig site is next to parking.
Petrified wood is agatized and/or opalized. We also usually go to the Beverly Diatomaceous Earth mine for Diatom Opal which is an easy pick.
Roger Danneman Roger.Danneman@gmail.com
- April 28** *Cascade Mineralogical Society* - **Saddle Mountain** - petrified wood, opal - Loren leading
Roger Danneman Roger.Danneman@gmail.com

Young Richard's Almanac by Dick Morgan

When you are faced with a hard to solve problem the method you use to complete it is the reputation you end up getting. Sometimes the result of finishing the task is what you end up as being able to handle any job. Especially if your job title ends in "analyst".

Coddiwomple

A slang term meaning to travel purposefully to an as-yet-unknown destination. It's usually passed off as an old English slang term, but it appears to be a more recently created word that's been on the internet for a decade or so. Kind of a literary fool's gold, a fun word and meaning that sounds old, but really isn't.

Dalmation Stone Gets Its Spots From Arf...

Sometimes Dalmation stone is called Dalmation jasper, but that is a misnomer. This rock is not a jasper, but rather perthite, an intergrowth of two feldspars.

Perthite is characterized by a sodium-rich alkali feldspar forming irregular dots throughout the host feldspar, which is usually a potassium-rich alkali feldspar.

But the feature that makes this stone remarkable is that it has inclusions of black arfvedsonite giving it the speckled appearance of a Dalmation dog.

Arfvedsonite is a rare mineral. It is usually greenish black to bluish grey.

Arfvedsonite is found in nepheline syenite intrusions and in pegmatites and granites.

The Golden Horn batholith in Okanogan County, Washington is one of the places that arfvedsonite is found.

from Maplewood Rock and Gem Club, 9/21



Q: What do you call an old snowman?

A: Water

Q: What do mountains wear to stay warm?

A: Snowcaps

Q: What did the icy road say to the car?

A: "Wanna go for a spin?"

Q: What do you call a photo of the North Pole?

A: a polar-oid

Shows

April 6 & 7: Saturday & Sunday 10 am – 5 pm
Maplewood Rock and Gem Club, Annual Spring Rock and Mineral Sale
Maplewood Clubhouse
8802 196th St SW
Edmonds, WA

April 13 & 14: Saturday & Sunday 10 am – 5 pm
North Seattle Lapidary & Mineral Club, Annual Rock and Gem Show
Crown Hill Center
9250 14th Ave NW
Seattle, WA

April 19 – 21: Friday & Saturday 9 am – 5 pm; Sunday 10 am – 4 pm
Willamette Agate & Mineral Society, 67th Annual Rock and Gem Show “River of Gems”
Polk County Fairgrounds
520 S. Pacific Hwy
Rickreall, Oregon

April 20 & 21: Saturday 10 am – 5 pm; Sunday 10 am – 4 pm
Lakeside Gem & Mineral Club, 27th Annual Rock & Mineral Show
Benton Franklin County Fairgrounds
Building 2
1500 S. Oak
Kennewick, WA

April 26 – 28: Friday & Saturday 10 am – 6 pm; Sunday 10 am – 4 pm
Yakima Rock & Mineral Club, 61st Parade of Gems
Central Washington State Fair Ground
Modern Living Building
1301 South Fair Avenue
Yakima, WA

April 27 & 28: Saturday & Sunday 10 am – 5 pm
West Seattle Rock Club, 56th Annual Rock Show
Alki Masonic Temple
4736 40th Ave. SW.
Seattle, WA

April 27 & 28: Saturday 10 am – 5 pm; Sunday 10 am – 4 pm
Grays Harbor Geology and Gem Society, 56th Annual Earth Treasures Rock and Gem Show
Grays Harbor Fair Grounds
43 Elma-McCleary Road
Elma, WA

Earth's Largest Lava Flow

Can a state that's pretty flat and doesn't have any volcanoes have a massive lava flow? Apparently, yes! Michigan has one of the world's largest lava flows — the Greenstone Lava Flow — from a Canadian volcano that erupted hundreds of millions of years ago. There was so much lava that the river of lava was likely molten for thousands of years. You can read more and see photos and illustrations at the website for WRKR, a Rock 'n Roll radio station:

<https://wrkr.com/earths-largest-lava-flow-ever-was-in-michigan-despite-nothaving-a-single-volcano/>

from Maplewood Rock and Gem Club, 3/24

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