

<u>Next Meeting:</u> <u>April 11, 2019</u> <u>7:00 p.m.</u>

## American Legion Hall 25406 97th Pl S Kent, WA

The Program is our 3rd Annual Rock Bingo. Each player will be charged fifty cents to cover supplies. Each player should bring three wrapped items for the prize pool. It can be a rock, mineral, fossil or a lapidary item. The club will also contribute to the prize pool.

No Show & Tell this meeting.



This month remember to wish a Happy Birthday to <u>Chunte Yu on April 15,</u> <u>Mark Hohn on April 17,</u> and also remember to wish a Happy Anniversary to <u>Rich & Jennifer Russell</u> on April 23 (25 years)

Connect with us! Website: www.cascademineralogicalsociety.org Club Facebook: www.facebook.com/CasMinSoc/ Show Facebook: www.facebook.com/cascadegemandmineralshow Instagram: www.instagram.com/cascadegemandmineralshow/

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Postal, or Email, Exchange Bulletins are welcome. Email preferred. greenrockdraggin@yahoo.com 

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### **2019** Committee Chairs

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Webmaster Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org

2019 CMS Dues are \$25 per year per family

Pay online, by mail, or at our meetings.

Mailing Address: Charles Benedict, 25838 W Lk Wilderness Dr SE, Maple Valley WA 98038

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.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton in person or by telephone at (425) 271-8757 or by computer at **mblanton41@hotmail.com** 

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

The Cascade Mineralogical Society Facebook page is https://www.facebook.com/CasMinSoc/

The Cascade Gem & Mineral Show Facebook page is https://www.facebook.com/cascadegemandmineralshow/

The Tu	mbler		Page 3			April 2019
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SUN	MON	TUE	WED	THUR	FRI	SAT
Rest of the second seco	1	2	3	4	5	6
7	Show Meeting <sup>8</sup> 6:30 PM Board 7 PM	9	10	General 11 Meeting 7 PM	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	BINGO We	e'll be playin It this mont	ng Rock Bin th's meeting	ıgo <mark>₿   № G O</mark> ıgo • • • • ı[

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:.....By appointment, call to set a time & day for your lesson (425) 226-3154 Lapidary Shop Hours:......Most Tuesdays...... 2:00 pm to 5:00 p, call ahead (425) 226-3154 Lapidary Shop Hours:......3rd Saturday..... by appointment only (call a few days ahead to set time)

More Field Trip info can be found on Page 11 More Show info can be found on Page 12

### Mr. and Mrs. Rockhound



The Tumbler has received One-Time Rights to publish this cartoon

SARA

by Pete Williams, 2019 Secretary

### CMS Show Meeting & Board Meeting Minutes April 11, 2019

Members Attending

Members Attending	
President Kat Koch	Vice President Merriann Fu
Treasurer Charles Benedict	Secretary Pete Williams
Past President Bob Pattie	Show Chair Mark Hohn
Director Roger Danneman	Director Roger Pullen
Director Rich Russell	Committee Diana Horsfall

CMS Show Committee: Meeting called to order at 6:30

All vendors from the 2018 show have been contacted about participating in the 2019 show. So far 16 vendors and 36 booths have been sold. There are 30 booths available.

Looking at a next round of vendors to invite.

Volunteers are need to help with social media advertising, silent auction, kid's area, collecting raffle prizes from vendors, and sending out raffle prizes at the end of the show.

New raffle tickets will be used that only require filling out contact information once.

Board Meeting: Meeting called to order at 7:09

Charley came across some stickers and patches from the previous Boeing club. A few will be retained for the history of the club. The US Senate and House passed a bill that combined 98 other bills having to do primarily with wilderness areas and parks. The bill is being sent to the president to sign.

The next field trip is to Baker Lake for jasper and agate. The April program will be rock bingo. Future programs will be on gold panning and fluorescent rocks. Charley will try to schedule the CMS picnic on August 11. Kat will be putting information on how to participate in the NFMS youth contest in a future Tumbler. Diana is exploring purchasing trinkets such as pens, hats, or T-shirts to be provided to show volunteers and vendors. A motion was made and unanimously approved to purchase 200 pens.

A discussion was held on requesting attendees on field trips to provide emergency contact info. The decision was that it was not practical when out in the field so the idea was tabled. Merriann volunteered to write Young Tumbler articles for the April and May Tumbler during Kat's absence.

Meeting adjourned at 8:17.

## Young Richard's Almanac by Dick Morgan

We are entering a period of life where there will be more seniors than juniors.

### Safety Matters - Where is Safety? by Ellery Borow, AFMS Safety Chair

Where is safety? A short story if I may. Of the 6 or so folks who read these Safety Matters articles, one of those readers related a story of a recent safety matter she experienced. While digging a hole in her back yard to plant a plant, she encountered a large rock. Being a rock person, she gathered her rock cracking hammer and chisel and proceeded to reduce the size of the rock using her tools. She related what I might call a "thought bubble" over her head which read "Shouldn't I be wearing my safety glasses?"

That one reader though of safety glasses while breaking a rock to plant a plant is what I would call, a success. Safety is a full time responsibility.

Where is safety? Safety matters relate to planting a plant, breaking a rock, driving to a field trip, and grinding a stone. Safety matters do not end when one leaves the quarry, or the office or drives back in the garage.

Where is safety? Safety matters are everywhere.

In the many and varied areas of our rock hobby, safety matters are everywhere - at our club meetings; our shows; our workshops; our collecting trips; our talking about the hobby in school, church, or civic groups; our rock trimming and identification activities. Safety matters abound in all aspects of our hobby. Some safety matters are well documented and clear. Some safety matters hide in the dark and are unique to a situation. Being safe means being mindful of rules, guidelines, obvious and less obvious hazards, and, perhaps most of all, being prepared and well aware of the potential danger in every situation.

Being safe is not complicated. We pretty much know what we need to do to be safe so it mostly a matter of doing that which we know is the right thing to do to remain safe.

Please, be safe in and with all you do. Your safety matters.

from AFMS Newsletter, 11/18

by Pete Williams, 2019 Secretary

### CMS General Meeting Minutes April 14, 2019

### Meeting called to order at 7:13

Minutes were approved as written.

<u>President's Report</u>: The business meeting will be shortened to provide more time for the program.

Shop Reports: The shop at Bob's house sustained some damage during the snow storms. The damages were repaired.

Mineral Council: A bill was passed by the Senate, House, and signed by the President that was a combination of 98 other

bills regarding changing park and monument borders, expanding wilderness areas, and providing 4th graders with free national park passes. For Washington this included the Sound to Cle Elum area.

<u>Show Committee:</u> All previous vendors have been invited to the 2019 show. We have sold 36 booths with 30 more available. This year the show will be in the gym. This provides much more space than last year's show. The committee could use more help with advertising.

New Business: Rich has an 8" Loretone trim saw available for sale for \$200. See him if interested.

**Program:** Roger Danneman covered the field trips for 2019 and the types of rocks that can be collected at each. Merriann Fu did a presentation on how you can show your rocks through "Mineralogical Displays."

Meeting adjourned at 8:10 followed by show-and-tell and the raffle.

<u>Displays:</u>

Ralph Davis - Greenwater Herringbone petrified wood Pete Williams - Rock picture frames and cross Scott Harris - Help! What is this rock? Angie Bayer - All my faves Dave Van Dyke - Video producers of interest

### Field Trip Announcement by Roger Danneman, CMS Field Trip Guide

Next Field trip is on April 20th to Saddle Mountain for Petrified Wood.

Meet at the Shell Station 9:45, 723 Government Road, Mattawa, WA 99349.

Group will leave promptly from the meeting point at 10:00 AM!

From Renton, it's approximately a 3 hour drive (155 miles).

Petrified Wood - Bring digging and hard rock tools, buckets, and sturdy shoes. Bring a jacket and hat because it can get cold up there, especially when it's windy this time of year. The road can be rough going up to the dig sites so be aware that low clearance vehicles might not be advised.

Roger Danneman CMS (roger.danneman@gmail.com 425-228-8781 or 425-757-3506 and Dennis Batchelor Puyallup Club (360-870-8741) will jointly lead this trip.

### Fossick, Fossicking and Fossicker by Steve Mulqueen

 $Fos \cdot sick$  - A verb of the English language used in the countries of Australia, New Zealand, and the United Kingdom in reference to the act of searching or rummaging through anything in order to find facts, documents, or other material of substance or value. Applies to the act of searching for gold, semiprecious metals, ore samples, gems, rocks, minerals, fossils, meteorites, treasures, or anything else of value that is hidden, buried, or widely dispersed on the earth's surface or within the natural environment. The word has its root in the dialect of Cornwall, a county in South West England.

The word fossick is synonymous with these words and phrases: rummage, search about, scrabble about, feel around, forage around, fish about, poke around, scratch about, delve, grub around, dig, hunt, scour, look around, explore, sweep, probe, root about, and ferret about.

*Fos* • *sick* • *ing* - A verb that has the same meaning as the American word "rockhounding", as applied in Australia, New Zealand, and Cornwall. The act of searching for naturally occurring, rock-related specimens as a hobby; the gathering of geologic specimens as a recreation, without intent to sell the samples or to utilize them for commercial purposes; an activity or hobby related to mineral collecting that is not affected by the Mining Acts and taxation laws of Australia, New Zealand, or Cornwall.

 $Fos \cdot sick \cdot er$  - A noun originally applied in reference to a miner working in placer gold deposits or in hardrock mines. Also used to describe a rockhound who lives and applies his/her hobby, interests, search techniques, and extraction methods in Australia, New Zealand, or Cornwall.

The term "fossicker" is not to be confused with the term "prospector". The prospector searches for precious metals and metallic ores for the purpose of making a profit and as the initial step in the process of mining. The fossicker, in reference to rockhounding activity, is applying his/her search for a variety of naturally occurring rock/mineral specimens as a hobby, usually not for profit.

### Apocalyptic Asteroid Impact Craters - Part 3 by Kat Koch

### Young Earth Craters

These craters are less than 10,000 years old with a diameter of 100 m (330 ft) or larger. They may also be the reason for various myths and legends.

### Henbury Craters, Northern Territory, Australia

This is a group of impact craters created when the meteorite broke up just before it hit earth. There are 13 to 14 craters from 23 ft to 591 ft in diameter and up to a depth of 40 ft. This area is now a reserve located approximately 90 miles south of Alice Springs. The impact is estimated to have occurred around 2200 BC or 4,200 years ago. It is one of the few impact events to have occurred in a populated area.



The Henbury crater field lies at the crossroads of several Aboriginal language groups, including Arrente, Luritja, Pitjantjatjarra, and Yankunytjatjara. According to scientists that have studied the area it is considered a sacred site to the Arrente people and would have formed during human habitation of the area. Older Aboriginal people will not camp within a couple of miles of the Henbury craters. An elder Aboriginal man explained that Aboriginal people would not drink rainwater that collected in the craters, fearing the "fire-devil" would fill them with a piece of iron. The man claimed his paternal grandfather had seen the fire-devil and that he came from the Sun. An Aboriginal contact said of the crater field: A fiery devil ran down from the Sun and made his home in the Earth. He will burn and eat any bad blackfellows. This indicates a living memory of the event.

### Campo del Cielo Craters, Provinces of Chaco and Santiago del Estero, Argentina

This crater field (approx. 26 craters) is located 620 miles northwest of Buenos Aires, Argentina. The crater field covers an area 1.9 miles by 11.5 miles. The largest crater is 377 ft by 299 ft. The meteorite is estimated to have hit earth around 2000 BC or about 4,000 years ago. The craters and area around contain numerous fragments of an iron meteorite. The total pieces found so far is about 100 tons. The two heaviest pieces found intact are 37 tons and 30.8 tons.



To the pre-Columbian people the meteorites were an important part of the landscape. They were linked to power and the people knew they came from the sky, even though they did not witness their impact. In fact, the indigenous population understood the origins of the meteorites better than the conquistadors did. European scientists in the colonial age denied that these object could have fallen from the sky. They looked for other explanations, like the meteorites were an outcrop of silver from Potosi or volcanic rocks.

The Spanish conquistadors learned about Campo del Cielo from the natives. They believed the legend surrounding the Mesón

# de Hierro, a huge meteorite that was never found, despite several adventurers claiming to have seen it. The Criollos, South American colonists born to Spanish parents, viewed the meteorites as a source of wealth - rocks to mine for iron or silver or to serve as a tourist attraction.

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### Kaali Crater, Saaremaa Island, Estonia

This is a group of 9 meteorite craters estimated to have formed about 1500 BC or 3,500 years ago. Again this meteorite fragmented before hitting earth. The largest crater is 360 ft with a depth of 72 ft.

The impact explosion removed approximately 2,900,000 cu ft of dolomite and other rocks and formed a 20,000 to 30,000 ft tall, extremely hot gas flow. Vegetation was incinerated up to 3.7 mi from the impact site. The smaller craters range in size from 39 ft to 131 ft with a depth range from 3.3 ft to 13.2 ft. It also is one of the few impact events to have occurred in a populated area.

This is a picture of the main crater. It's nearly circular. When the water level is low ricks can be seen in the middle of the crater.

Scholars maintain that the event figured prominently in regional mythology. It was, and still is, considered a sacred lake. There is archaeological evidence that it may well have been a place of ritual sacrifice. At some point during the early Iron Age, the lake was surrounded by a stone wall 1,540 ft long, with a median width of about 8.2 ft and an average height of 6.6 ft).

Finnish mythology has stories that may originate with the formation of Kaali. One of them is in runes 47, 48 and 49 of the Kalevala epic: Louhi, the evil wizard, steals the Sun and fire from people, causing total darkness. Ukko, the god of the sky, orders a new Sun to be made from a spark. The virgin of the air starts to make a new Sun, but the spark drops from the sky and hits the ground. This spark goes to an "Aluen" or "Kalevan" lake and



causes its water to rise. Finnish heroes see the ball of fire falling somewhere "behind the Neva river" (the direction of Estonia from Karelia). The heroes head in that direction to seek fire, and they finally gather flames from a forest fire.

According to a theory first proposed by Lennart Meri, it is possible that Saaremaa was the legendary Thule Island, first mentioned by ancient Greek geographer Pytheas, whereas the name "Thule" could have been connected to the Finnish word tule ("(of) fire") and the folklore of Estonia, which depicts the birth of the crater lake in Kaali. Kaali was considered the place where "The sun went to rest."

### Wabar Craters, Saudi Arabia

The vast desert wasteland of southern Saudi Arabia known as the Empty Quarter is one of the most desolate places on Earth. In 1932, Harry St. John "Jack" Philby was hunting for a city named Ubar, that the Quran describes being destroyed by God for defying the Prophet Hud. Philby transliterated the name of the city as Wabar. Philby had heard of Bedouin legends of an area called Al Hadida ("place of iron" in Arabic) with ruins of ancient habitations, and also an area where a piece of iron the size of a camel had been found, and so organized an expedition to visit the site. After a month's journey through wastes so harsh that even some of the camels died, on February 2, 1932 Philby arrived at a patch of ground about a half a square kilometer in size, littered with chunks of white sandstone, black glass, and chunks of iron meteorite. Philby identified two large circular depressions partially filled with sand, and three other features that he identified as possible "submerged craters". He also mapped the area where the large iron block was reputed to have been found. Philby thought that the area was a volcano, and it was only after bringing back samples to the UK that the site was identified as that of a meteorite impact by the British Museum.

Among the samples of iron, cindery material and silica glass that Philby brought back from the site was a 25 lb chunk of iron. Analysis showed it to be about 90% iron and 5% nickel, with the rest consisting of various elements, including copper, cobalt, and 6 ppm of iridium, an unusually high concentration. This siderophile element implied that the Wabar site was a meteorite impact area.



### April 2019

The Wabar crater site consists of 5 craters covering about .31 miles by .60 miles area. The largest crater measures 380.5 ft by 210 ft. It is estimated the event occurred around 1800 AD making it about 200 to 225 years old. This is consistent with reports of a fireball passing Riyadh sometime between 1863 to 1891. Again the fireball fragmented before hitting earth and created the 5 craters.

Since Philby's first expedition in 1932 there have been 8 expeditions to map and study the crater area. The shifting sands of the desert periodically cover and uncover the site.



### Young Tumblers News

### Triceratops Twins by Keith Alan Morgan

Can you spot which of the triceratops heads are identical? Kids who correctly identify the twin Triceratops, color the heads, and bring the completed sheet to the next meeting will get \$2 Rock Bucks.



## Page 9 Young Tumblers News

Please plan on attending April 11th meeting as it's our 3rd annual Rock Bingo meeting. This is a great meeting for our Young Tumblers. Everyone loves Bingo and everyone is guaranteed to go home a winner. It's 50 cents per player to cover supplies. It will be Spring Break for the Kent School District so the kids can stay up late without worrying about school the next day.

Everyone player is asked to bring 3 wrapped items for Bingo prize pool. They can be a rock, mineral, fossil or a lapidary item. The club will also contribute to the prize pool.

### Growing Borax Crystals by Meriann Fu



Growing Borax crystals is a fun and easy! All you need are a few simple tools and materials. Make sure to have your parents help as this project uses very hot water!

> What you need: **Boiling** water Borax Pipe cleaners Thread Dowel or popsicle stick *Large pot with pouring edge* Heat-safe glass canning jars for growing crystals Scissors



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Step 1: Shape your pipe cleaner and tie a string from it to a dowel or popsicle stick







Step 2: Hang your pipe cleaner down into your mason jar. Make sure it is not touching the sides of the jar. Step 3: Make your saturated borax solution

A saturated solution means that we need to add enough Borax to the boiling water until no more can be dissolved into the

For every cup of water, add 3-4 tablespoons of Borax. Stir it until the water becomes clear and most of the Borax is dissolved. Keep adding and stirring until the boiling water stops dissolving the Borax, i.e., when you see a small pile of Borax at the bottom that

### water.

## Page 10 Young Tumblers News

won't dissolve, even after stirring, you are fully saturated.



Step 4: Pour your saturated solution into the mason jar

Cover the container with something to keep it warm longer as slower cooling means bigger crystals! Place it in a safe area.



One Day Later: Remove and dry your crystals on a paper towel, cut off their strings, and enjoy!



### Limb Cast by Duane Flackus

A limb cast is usually a cylindrical-shaped rock that was once a tree limb or root that had been buried in the ground millions of years ago. The organic compounds of that limb had rotted away, leaving an empty underground cavity of the original wooden shape, and over time, ground minerals had seeped into this empty "cast", and with the right conditions, had solidified into stone. The result is a solid rock that resembles the exact shape of the original limb. Unlike petrified wood, a limb-cast shows no "wood grains" at all - .it is only the out-side surface that replicates the original limb. The interior of a limb cast rock is usually just a solid color, such as a clear agate would be. from The Clackamette Gem, 6/18

> A Field Trippers Lament by Erston Barnhart I think that I shall never see A rock that's waiting just for me. A beauty that's one of a kind Some other rockhound left behind. A gem whose size would make it notable, Yet small enough to make it toteable. But if I should find such a paragon, Everyone else will get a better one! from Golden Spike News, 1/19

### **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.

Information from the Washington State Mineral Council webpage (http://www.mineralcouncil.org).

- April 20Darrington Rock Club Racehorse Creek Meet at Hwy 542 at Rnd about 10 miles from I-5 before 9:00 am -<br/>Fossils & Morell mushrooms Bring digging & light hard rock tools
- <u>April 20 & 21</u> All Rockhounds Pow Wow Saddle Mountain Meet at Mattawa Boat Launch before 8:00 am <u>Petrified Wood</u> -Bring digging & hard rock tools Larry Vess vessel3755@gmail.com or (253)473-3908

### March Field Trip Report by Roger Danneman, CMS Field Trip Guide

On March 16th we went to Baker Lake and Swift Creek in the North Cascades.

We had beautiful weather. There was still quite a bit of snow to cross, but the waters were relatively shallow and easy to pick with waders and rubber gloves. 7 CMS members made this trip. There's interesting jasper (with golds, greens, browns, and reds) metamorphed with layers and swirls, a lot of quartz veined rock, and a bluish agate in sand/gravel pockets. Iron is present, giving bright reds to some of the material. I found at least one nephrite tremolite jade rock which is predominately light cream in color and had a density of 3.4. I'm looking at other rocks from the trip to see if they might be jade as well. I'll bring samples to the April meeting.





Question: I have a really nice KY agate that has a flaw/small crack, but would like to use the slab to make a cab even though it is not perfect.

I don't want to polish it and have the polishing compound show up and highlight the crack. Can I put epoxy in to fill the crack and keep the polishing compound (tin oxide) out of the crack or ..... do you have tip to remove the polishing compound from the small crack once the stone is polished?

If epoxy idea will work what it the best way to get the epoxy to fill the crack (my guess would be to heat the stone but .....not sure)?

Answer: The best way that I have found to remove polish from cracks ether in cabs or flats is to take an old toothbrush and cut about half of the length of the bristles off with a pair of scissors or a good pair of side cutters.

The bristles will be shorter and therefore stiffer and will be able to remove the polish better. It also helps to brush along the length of the crack rather than across the crack.

I also have one brush with the bristles cut to about  $\frac{1}{4}$  of their original length which works better especially on finer cracks. If this does not remove all of the polish I use an empty household cleaner spray bottle. Fill it with water, put the tip to stream, hold the tip almost touching the surface of the cab or flat and blast away. It is amazing how well this will flush polish out of small Drusy pockets and cracks. I have been told that a water pick also works well. To prevent polish from getting into the crack I take the slab, wash it with soap and water, then wash it again with denatured alcohol. I then put it on my dop pot to get it good and warm (and dry). I then use crazy glue to fill the crack. Start at one end of the crack, put a very small amount (one drop) of glue on one end of the crack. Often the crack will suck the drop of glue right into the opening and fill the crack. If it does not do this then just slowly use the tip of the crazy glue bottle or a pit to encourage the glue along the crack. Always progress along the crack from one end to the other to avoid trapping air. After allowing the glue time to harden, go ahead and cut the cab then before sanding check the crack again to be sure it is still full of glue. If not then reglue before sanding.

from Washington Agate & Mineral Society Newsletter, 7/16

Zeolite minerals are used to stabilize ammonium and potassium in soil for agriculture; to improve air quality they are used in air filtration, odor control, and purification of gases and air by selectively adsorbing gases such as ammonium, hydrogen sulfide, carbon monoxide, carbon dioxide, nitrogen, formaldehyde, and mercaptan; zeolites are used in hazardous waste cleanup to contain heavy metals and nuclear waste and to remove ammonium in water treatment.

Sources: U.S. Geological Survey, Minerals Information Institute