The CMS Tumbler

July 2020

The July Meeting Is Canceled.

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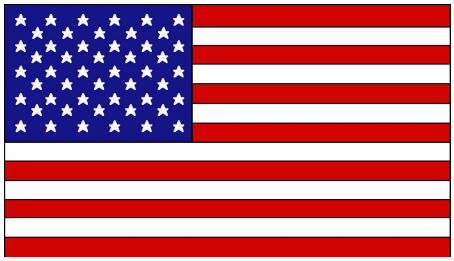

This month remember to wish a
Happy Birthday to
Mary Patndge on July 4
Edie Black on July 6
Rema Strauss on July 9
Alex Agadjanyan on July 11
Pat Thomasson on July 11
Penny Hohn on July 12
Scott Thomasson on July 14
Elliot Roney on July 17
Virginia Bird on July 18
Emihiant Sorkness on July 20
Robert Waddell on July 20
David Orme on July 24
Roger Pullen on July 30
Lauren Walker on July 30
Brian Oliver on July 31
and also remember to wish a
Happy Anniversary to
Lloyd "JR" & Vicki Ruegg on July 1
Levi & Mrs. Humes on July 6 (2 years)
Dick & Patricia Morgan on July 14 (58 years)
Era Pogosova & Arthur Agadjanyan on July 17 (21 years)
Brandon & Jennifer Gust Harper on July 27 (14 years)

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

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Maple Valley, WA. 98038

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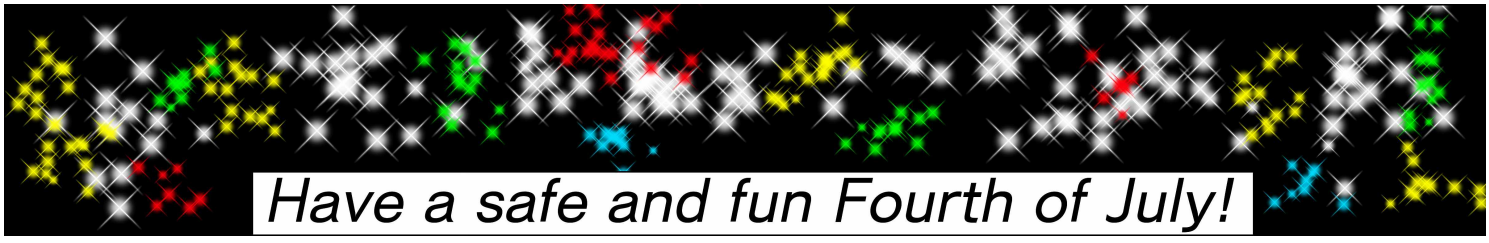
Email preferred.
greenrockdraggin@yahoo.com



2020 Elected Officers

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Social Media Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Webmaster Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org

2020 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.

July

Sun	Mon	Tue	Wed	Thur	Fri	Sat
The Board and General Meetings are canceled.			1	2	3	4 *Have a safe and happy 4th!*
5	6	7	8	9	10	11
12	13	14	15	16	17	18 Greenwater Trip
19 Darrington Show	20	21	22	23	24	25
26	27	28	29	30	31	

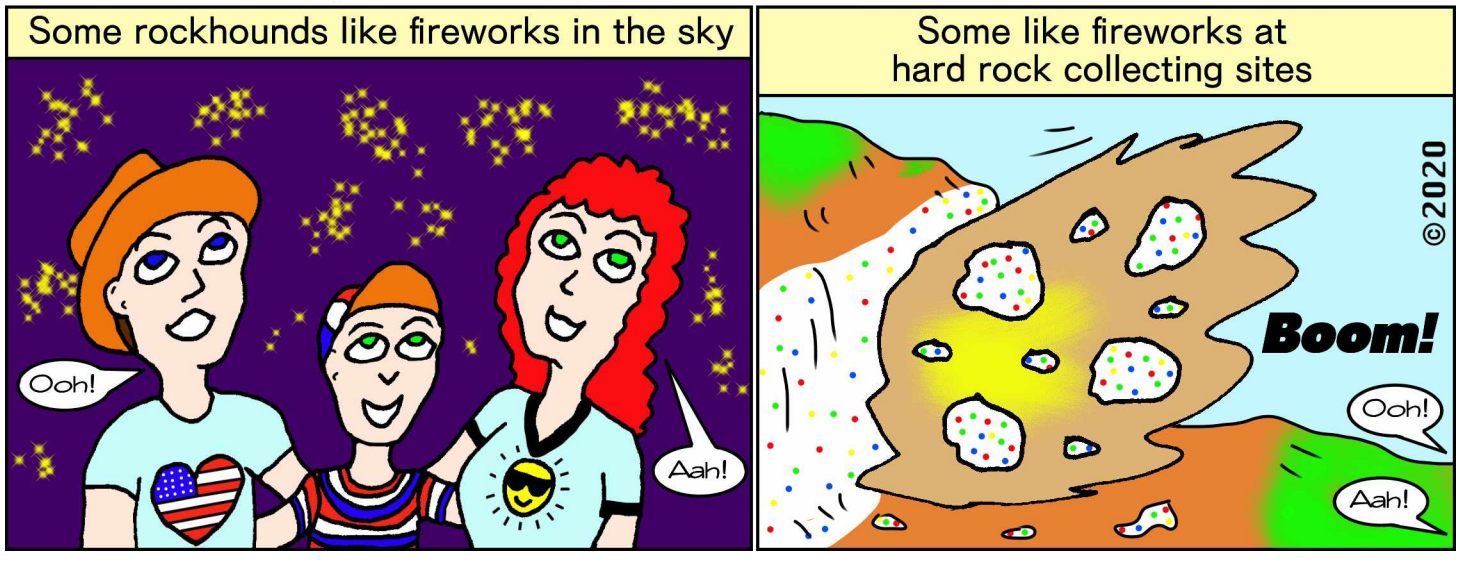
CMS Show Committee Meeting:…Canceled
CMS Board Meeting:……Canceled
CMS General Meeting:……Canceled

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.

Fireworks Displays

by KAM



CMS Board Meeting Minutes June 8, 2020

Canceled.

CMS General Meeting Minutes June 11, 2020

Canceled.

Meeting Information by Kat Koch

There will be no July general or board meetings.

WE are having our picnic so mark your calendars for August 9th. Setup is noon and lunch is at 1 pm. Bring your favorite dish: main dish, vegetable dish, bread, desert, drinks, etc. Our annual auction will follow.

We are proceeding with having our annual picnic at Lake Wilderness Arboretum. According to everything I read or hear it is a lot safer to gather or meet each other outdoors. King County should also be Phase 3 by then which allows public gatherings up to 50 people.

The club will require that you wear a face mask. We will have hand sanitizer on hand for everyone. We will sanitize everything before everyone arrives and the food serving utensils will be sanitized before opening the food line.

Our Club is a Member of these Federations and Associations:

AFMS: The AFMS governs our Northwest Federation.

Calling all Young Tumbler's. There is a contest going on just for you. If you are into fossils you may just want to get your vote in and possibly win a fantastic fossil specimen. Go to the current issue, June 2020, and on page 3 page you will find the contest question.

You can find the most current association news 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 you can find the most current news bulletins at http://northwestfederation.org/Newsletters.asp

Check the current May-June issue. On page 3 read Beth Heesacker's "A Season of Hope" and Larry Hulstrom's "Cheer for Strange Times". In fact, the entire newsletter has some very encouraging messages for dealings with the present day isolation order.

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 purpose of the association 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.

The current newsletter for April-June 2020 has a lot of updated information for field trips in California, Idaho and Oregon.

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.

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

They also have a monthly news bulletin that keeps you informed of everything the State and Federal governments wants or are doing to the rockhounding areas in the northwest. The June issue has an article on the McAbee Fossil Beds site reopening after 7 years. The article starts on page 4 and continues on page 6. Again if you are interested in fossils they just may be right up your alley.

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

Young Richard's Almanac by Dick Morgan

As a person can not control their skin color at birth, it leaves us to reach out and shake hands in friendship and brotherhood. Skin color is not a person.

Humans were endowed with the ability to reason which set us apart from beasts. But in this period of history it seems that this trait has gotten lost and many are acting with a mob intelligence.

In times of this pandemic does it seem that people tend to smile (as shown by their bright eyes flashing above the mask) more and are very friendly?

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

The bad news, again no meeting in July. The good news is as of June 19th King County is in Phase 2. It is very hopeful that King County will be in Phase 3 by the time of our annual picnic. This will allow for public gatherings of up to 50 people.

So please mark your calendar for August 9th at Lake Wilderness Arboretum. Setup is noon and lunch is at 1 pm. Bring your favorite dish: main dish, vegetable dish, bread, desert, drinks, etc. Our annual auction will follow.

The club will require that you wear a face mask. We will have hand sanitizer on hand for everyone. We will sanitize everything before everyone arrives and the food serving utensils before opening the food line.

I am looking forward to seeing everyone and visiting with each other. Please plan on joining us for a beautiful day in the arboretum!

Our monthly field trips are continuing. There nothing like getting our doors and collecting rocks. Our state is so beautiful and summer has arrived! Take advantage of it and join us on a field trip.

Our next trip is July 18th to the Greenwater area for Black Agate, Jasper, Opal and Petrified Wood. Check our website for meet up location & time and what tools you will need. https://www.cascademineralogicalsociety.org/cms-july18-2020-fieldtrip/

Families or individuals that have quarantined together can carpool together. All others must travel individually. When searching for material families can search together but individuals must maintain a distance of 6 ft from each other.

This year our club won the NFMS contest in three categories.

1st Place – Keith Morgan – Drawn Feature – Mr & Mrs Rockhound
1st Place – Mark Hohn – Website
2nd Place – Keith Morgan – Bulletin: Small – The CMS Tumbler - December 2019

Congratulations to Keith and Mark for a great job. I thank you for your continuing to hard work. It is much appreciated. I will be presenting the awards at our August picnic.

See all of you in August.

The Three C's of Collection Maintenance by Rick Kennedy

While we are going through this unprecedented time, many of us find ourselves at home with more spare time than we are used to. Perhaps a good use of this time would be to spend it on our rock, mineral and gemstone collections. If your specimens are in drawers or on display, a bit of maintenance is never a bad thing. The three "C's" of collection maintenance are clean, curate, and catalogue.

Clean: Most of our items have been on display or in a drawer for many years, they may just have a bit of dust, or they may be undergoing chemical alteration. For many specimens, a simple blow with "canned air" that people use to blow dust off of their computer keyboards is enough. For others, water with gentle brushing or a gentle spray from a water. "Needle Gun" will do the trick. Check any sulfide rocks/minerals (Pyrite and Marcasite are the worst offenders) for strong smells of Sulphur. That is a sign that the minerals are suffering from chemical degradation. Depending on the level of degradation, the specimen may be salvaged or may need to be disposed of.

Curate: Do your specimens have labels? You may know quite a bit about the rocks you have, but others don't. All of your specimens should have labels. Now is a good time to check your labels for accuracy or to make labels for specimens that don't have them.

For materials from the USA, labels usually follow this format:

- Mineral or Rock name
- Precise location (Mine name or anything that defines the most accurate locality info)
- County
- State

For material whose origin is outside the USA, the first two lines should be the same, from there one has to improvise as all countries are organized differently into counties, states, provinces, prefectures, regions, departments, etc. Online sources like Mindat are very helpful to obtain the most precise locality information.

Catalogue: Once you have all of the information that would go on a label, create a catalogue so that you have both a handy list and a way to cross reference the specimens in your collection. It is best to do this on a computer in a spreadsheet program like Excel, but you can use even the simplest of word processing pro-grams or even write it out by hand if you want to be "Old School". I organize my spreadsheet with the fol-lowing headers:

- Catalogue number – Rock or mineral species name – Location – How acquired – Comments
- Here would be an example:

#1001 – Quartz, variety Scepter – FH Claim, HJ, Washoe Co., NV – Self collected – Dug in May, 2016.

If you want to, you can also add a picture of your specimen!

When you are done, you will know your specimens better, you will have a database of what you have and maybe even come up with more ideas for at home or at show displays once the world gets back to normal.

Enjoy!

from Breccia, 4/20

The Rock Garden, Calhoun, Georgia by Kat Koch

In early 1978, DeWitt “Old Dog” Boyd use to build indoor miniature cities for his children when they were growing up on the family farm in Missouri. He taught himself how to build these little towns out of tiny rocks, stones, cement and wire. He called the little cities the “Town Game” and each one of his eight children and 3 step kids had a tiny porcelain figure to play with. Each child also had some money to buy and sell stuff from each other. “In all these magical pretend places, you could buy incense, silk, gunpowder, matches…just about everything,” says Old Dog.

The little cities grew and grew to the point where he had to move them outside. With his little tiny whimsical cities now being built outside it meant every time the family moved he had to start a new city. His family played the “Town Game” for years and years and the cities kept getting bigger and bigger.”

With his family grown Boyd approached his church, The 7th Day Adventist Church in Calhoun, Georgia about building one of his rock garden city's behind the church next to the creek. The church said yes and Boyd went to work. In 2007, Boyd began the present rock garden, saying “it was to keep me out of trouble, I’m kind of a scoundrel.” For several years he worked side-by-side with Joyce, a volunteer, until he finally asked her to marry him. “Lady Joyce” was the inspiration to expand this empire and to make it a place to share with the community. She is also responsible for a lot of the larger buildings.

"Old Dog" Boyd

Boyd currently uses cement reinforced with wire to build structures out of tiny stones, pebbles, rocks, shells, tiles, and broken glass and china. Old Dog and Lady Joyce continue to grow their little city. Presently there more than 50 buildings in this magnificent rock garden. There are small figures and animals to accent the fairy villages, houses, castles, monasteries and cathedrals. The is a replica of Notre Dame (with stained glass windows) in Paris France, the Japanese Himeji Castle and the Roman Colosseum.

There are adult sized walk ways, a music pavilion for performances, rest areas and places to pause and lookout over the entire garden. There is also a memory wall where 16 little ceramic hearts that indicate all the couples that have been married in the garden.

Today Boyd's children and grand children plus volunteers help maintain the rock garden for visitors. The Rock Garden is open 7 days a week and admission is free.

Bibliography: WRCBTV – Athens, Georgia, Atlas Obscura, Wikipedia, Adventist Today Org., Explore Georgia, Southern Hospitality Blog, 7th Adventist Church, Calhoun.

(More pictures on the following page.)

Crystal Radio Receiver by Steve Mulqueen

A crystal radio, also known as a crystal set or “cat’s whisker receiver,” is the simplest form of radio receiver. Its only power source is the radio wave that is received by a short length of wire antenna (cat’s whisker). The crystal radio receiver is made of inexpensive components, including a wire for the antenna, a coil of copper wire for the adjustment of frequency, a capacitor, the crystal detector, and an earphone with a wire connection.

The crystal radio gets its name from the crystal detector, usually made from a small, cleaved portion of a metallic mineral such as galena (lead sulfide ore). The galena crystal acts as a diode, which allows an electric current to pass in one direction (the diode’s forward direction), while blocking current in the opposite direction (the diode’s reverse direction). The galena crystal (diode) is a rectifier, which converts alternating electric current (AC) to direct electric current (DC). In the crystal radio, the galena crystal allows for the extraction of modulation from radio waves, converting the changing radio frequencies into audible sound.

The rectifying properties of crystals were first discovered in 1874 by Karl F. Braun. Crystal detectors were applied to radio receivers in 1904 by Jagadish C. Bose, G.W. Pickard, and many other scientists who were conducting experiments during the early 1900s.

Galena was the most common type of metallic crystal to be included in a crystal radio kit that was purchased by mail order throughout the 1900s. However, other metallic minerals can be applied to the simple radio, including pyrite (iron sulfide) and molybdenite. The crystal/crystal contact between bornite and zincite, within certain metallic ores, can also be applied as a radio rectifier.

Nonmetallic minerals, such as graphite, can be used as a crystal diode. A graphite pencil can also be applied as a basic radio antenna due to its conductive qualities. Manufactured products that can be substituted for metallic crystals include silicon and carborundum (silicon carbide). These make contact with metallic surfaces such as a copper penny, a blue steel razorblade, or a rusty needle. Usually, an oxidized surface on the metal acts as a semiconductor, adding to its rectifying qualities.

Crystal radios, the simplest form of radio receivers, were the first widely used radios and the main type that was readily available during the era of wireless telegraphy, beginning in the early 1900s. They were sold in kits, which were assembled by the millions. The crystal radios were inexpensive and reliable, and became the major driving force in the introduction of radio as a medium to the general public.

By 1920, more complicated radio receivers were developed and sold to the masses, forming an entertainment medium that is still popular. All subsequent radio receivers, including the more sophisticated electronic instruments available today, still use the basic radio science developed during the early 1900s.

My father, F. Mulqueen, purchased a crystal radio kit by mail order during the mid-1930s, when he was a young teenager. He once described to me how easy it was to assemble with the instructions provided, and how miraculous it seemed to receive radio transmissions from great distances with such a simple device. No batteries or other electrical power source was required. Assembling a crystal set became a popular Boy Scout project for earning a badge in radios and electronics.

During World War II, soldiers began improvising crystal radio receivers in order to listen in on strong Allied and Axis radio transmissions and public radio stations throughout Europe. These improvised devices became known as “foxhole radios,” and could receive transmissions without detection by the enemy. Foxhole radios were first reported to be in the hands of Allied soldiers at the Battle of Anzio in Italy, during the first half of 1944. Many Allied soldiers built and monitored foxhole radios in all battles and theatres of operations during the last two years of the war (1944-45) as a means of keeping informed and a way to pass the time while waiting for new orders.

Most vacuum tube radios emit some radio waves, even when they are not in broadcast mode. The carrier waves could be detected by the enemy, giving away the Allied soldiers' position. Foxhole radios were crude receivers that utilized a razorblade as a radio wave detector (instead of the crystal) and a wire, safety pin, or pencil to serve as the cat's whisker antenna.

Beginning in 1944, there were many accounts of American prisoners of war constructing makeshift foxhole receivers to stay informed about the war effort while they were incarcerated. Some Allied soldiers kept essential radio components with them at all times in case of capture. Strong public radio signals from BBC London usually kept the prisoners well informed of Allied advances, no matter where they were imprisoned in Europe. The data gathered by monitoring the radio at night was usually conveyed in secret by word of mouth to other prisoners in the same camp the following morning. This critical information gave the prisoners a probable timeline for the conclusion of their confinement, giving them hope as they witnessed, via radio, the advancing efforts towards the liberation of German-occupied Europe.

Today, crystal radio kits can be purchased for under $20. Most modern kits now contain a germanium diode instead of the small, cleaved cube of galena. The more advanced hobbyist can build the radio from new electronic components, from household products, or from used parts scavenged from discarded radios. Most ham radio enthusiasts began their hobby at a young age by assembling a crystal radio, the initial step in their lifelong learning endeavor about radios and electronics.

Reference: Crystal detector, Wikipedia. https://en.wikipedia.org/wiki/Crystal_detector

from Rockhound Rambling, 5/20

The Michigan Puddingstone by Steven Wade Veatch

Michigan's puddingstones are intriguing rocks that look like globs of pudding stuffed with raisins, nuts, and bits of cranberries. These white rocks, with small red, brown, purple, and black pebbles, are not a Michigan product. During the last ice age, they hitched a ride into Michigan in an ice sheet and got off in the southern part of the state when the ice melted.

Puddingstones underwent several processes (in what is now part of Ontario in Canada), before they went on their journey to Michigan. First, a network of rapidly flowing streams tumbled red and coffee-brown jasper, funeral-black chert, hematite, and quartz in their churning water. Next, the streams deposited the material as sedimentary fill in eroded troughs and, when the streams reduced their velocity, scattered the colorful pebbles in alluvial fans (Lowey, 1985; Baumann et al., 2011). Then, the sand and pebbles hardened beneath the Earth's surface and, over time, formed sedimentary rocks known as conglomerates (Slawson, 1933). Later, intense heat and pressure metamorphosed the matrix of sand into a light-colored, coarse-grained, sugary-textured quartzite that tightly held the pebbles (Schaetzl, n.d.). These geological forces formed the puddingstones around 2.3 billion years ago.

During the last ice age, puddingstones traveled south with the immense Laurentide Ice Sheet as it flowed at a glacial pace down from Canada. This ice plucked the puddingstones from the underlying bedrock, carried them hundreds of kilometers, and delivered those rocks to Michigan about 24,000 years ago. This slowly advancing ice plowed across the landscape for thousands of years until rising temperatures, brought on by a climatic shift, ended their movement in Michigan. As the glacial ice melted, it deposited glacial till that contained the puddingstones.

Geologists now recognize these conglomerates as part of the Lorrain Quartzite of the Cobalt Series (Door and Eschman, 1970). This rock formation occurs as thick beds at Saint Joseph Island in Northern Ontario, Canada. The conglomerates also are found by the Saint Mary's River north of the Bruce Mines. This area is located 65 km (40 miles) east of Sault Sainte Marie in Ontario.

Today, farmers in the southern part of Michigan find puddingstones after spring plowing. Since tightly cemented puddingstones can be cut and polished, they are in demand by Michigan artists and crafters, who make jewelry and ornaments out of them. Puddingstones are commonly found as garden decorations that adorn Michigan homes and farms. People also collect and display puddingstones for their striking colors and appearance. In fact, as grandparents and parents take children outside to hunt for puddingstones, they pass an interest in puddingstones and geology down through generations of Michigan families. The tradition of looking for these goes back to the settlement of Michigan, and there is no sign of this interest ending anytime soon.

References cited:

Baumann, S. D., J. T. Arrospide, and A. E. Woloszyn, 2011, Preliminary Redefinition of the Cobalt Group (Huronian Supergroup), in the Southern Geologic Province, Ontario, Canada. Midwest Institute of Geosciences and Engineering, Chicago, Illinois, USA.

Lowey, G.W., 1985, Stratigraphy and Sedimentology of the Lorrain Formation, Huronian Supergroup (Aphebian), Between Sault Ste. Marie and Elliot Lake, Ontario, and Implications for Stratiform Gold Mineralization, Open File Report no. 1154. Geological Survey of Canada, Ottawa, Canada.

Schaetzl, R. J. (n.d.), Geography of Michigan and the Great Lakes Region. Retrieved, from http://geo.msu.edu/extra/geogmich/Puddingstones.html on January 22, 2020.

Slawson, C. B., 1933, The Jasper Conglomerate, an Index of Drift Dispersion. The Journal of Geology, Vol. 41, No. 5, p. 546–52.

Door, J. A. and Eschman, D., 1970, Geology of Michigan: Ann Arbor, The University of Michigan Press.

from Lake George Gem & Mineral Club News, 5/20

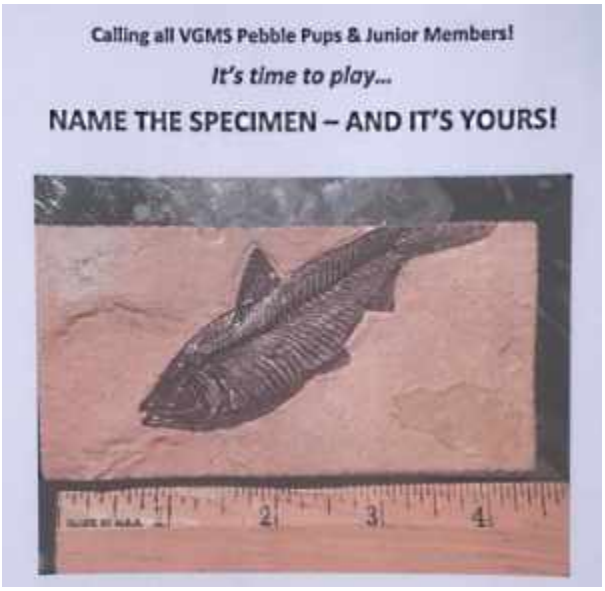
Young Tumblers News

Notices by Kat Koch

Just reminder that you can spend your "Rock Bucks" at the auction/picnic on August 9th. Every Young Tumbler attending will get $10 in Rock Bucks to spend.

Also for your fossil enthusiast there two news points of interest for you.

1.) Our parent association, AFMS, is having a contest where you can win an amazing fossil. Go to the current newsletter issue, June 2020, and on page 3 page you will find the contest question. http://amfed.org/news/default.htm



2.) The McAbee Fossil Beds, Cache Creek, British Columbia site are reopening after 7 years. The Washington State Mineral Council newsletter has an article on it. The article starts on page 4 and continues on page 6. https://mineralcouncil.wordpress.com/newsletter/

Again if you are interested in fossils they just may be right up your alley.

Vug/Vugh/Vugg Definition by Duane Flackus

A vug, vugh, or vugg is a small to medium sized cavity inside a rock. The cavity is often partially filled with quartz, calcite, fine crystals, and other secondary minerals.

The word vug was introduced by Cornish tin miners. The Cornish word was vooga, which meant "cave".

from The Clackamette Gem, 6/20

Tephra is any type and size of rock fragment that is forcibly ejected from a volcano and travels an airborne path during an eruption (including ash, bombs, and scoria).

from USGS Twitter, 6/19/20

Young Tumblers News

Fireworks Minerals by Keith Alan Morgan

Complete the word find. Bring to the general meeting (or picnic) and get $2 Rock Bucks!

Various minerals are used in fireworks to produce the colors, flashes and bangs. Green is produced by barium. Red comes from strontium. Copper creates blues. Yellow is caused by sodium. Orange is made by mixing strontium and sodium. Silvery-white comes from a mix of titanium, magnesium and zirconium. Copper plus strontium creates lavender. Iron and charcoal create golden sparks. Aluminum powder produces bright flashes and loud bangs.

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

Aluminum
Barium
Copper
Iron
Magnesium
Sodium
Strontium
Titanium
Zirconium

Trilobites are so named because their bodies have three lobes.

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).

July 18 *Darrington Rock Club* – **Sweetwater** – Meet at the Darrington Rock Show 11am - Travertine, Sauk R Bars - Bring digging & hard rock tools
Ed Lehman wsmced@hotmail.com h# (425) 334-6282 c# (425) 760-2786

July CMS Club Field Trip by Roger Danneman

On July 18th 2020, we are going up to the Greenwater area for Black Agate, Jasper, Opal and Petrified Wood. Bring digging and hard rock tools. We'll visit multiple sites which are next to the road, so no hike involved.

Meet at 8:45 at the Enumclaw Ranger Station. Group leaves promptly at 9:00. We'll first go up to the FR72 sites and then in the afternoon, up FR70 to the Government Meadows area.

Roger Danneman (roger.danneman@gmail.com hm 425-228-8781 or cell 425-757-3506).

Understanding Commercial Granite by Andrew Alden

Stone dealers lump a wide variety of rock types under the broad category called "granite." Commercial granite is any crystalline rock that is harder than marble with large mineral grains. Let's unpack that statement:

Crystalline Rock--Crystalline rock is a rock that consists of mineral grains that are tightly intergrown and locked together, making a tough, impervious surface. Crystalline rocks are made of grains that have grown together at high temperature and pressure, rather than being made of existing sediment grains that have been cemented together under gentler conditions. That is, they are igneous or metamorphic rocks rather than sedimentary rocks. This differentiates commercial granite from commercial sandstone and limestone.

Comparison to Marble--Marble is crystalline and metamorphic, but it consists largely of the soft mineral calcite (hardness 3 on the Mohs scale). Granite instead consists of much harder minerals, mostly feldspar and quartz (Mohs hardness 6 and 7 respectively). This differentiates commercial granite from commercial marble and travertine.

Commercial Granite Versus True Granite--Commercial granite has its minerals in large, visible grains (hence the name "granite"). This differentiates it from commercial slate, greenstone, and basalt in which the mineral grains are microscopic.

To geologists, true granite is a far more specific rock type. Yes, it is crystalline, hard, and has visible grains. But beyond that, it is a plutonic igneous rock, formed at great depths from an original fluid and not from the metamorphism of another rock. Its light-colored minerals consist of 20% to 60% quartz, and its feldspar content is no less than 35% alkali feldspar and no more than 65% plagioclase feldspar. Other than that it can contain any amount (up to 90%) of dark minerals such as biotite, hornblende, and pyroxene. This differentiates granite from diorite, gabbro, granodiorite, anorthosite, andesite, pyroxenite, syenite, gneiss, and schist, but all of these excluded rock types can be sold as commercial granite.

The important thing about commercial granite is that whatever its mineral composition, it is rugged (suitable for hard use, takes a good polish and resists scratches and acids) and attractive with its granular texture.

Natural Stone--This family of countertop materials includes quarried stones like granite, marble, soapstone, and slate.

Granite-- once found only in expensive homes, granite is more common today and is one of the most popular materials. Granite comes in a wide array of colors: vibrant blues and variegated browns, to midnight black, deep red and mottled white.

- Pros: no (or low) visible seams, durable surface, heat-resistant
- Cons: must be sealed to resist stains, expensive

Marble-- This high-end natural stone comes in fewer color patterns than granite, and is also softer. It's a good work surface for activities like baking or making fresh pasta, but may show knife scars, and take care with acidic foods like citrus.

- Pros: durable, striking natural patterns
- Cons: high-maintenance, needs repeated sealing, expensive

Soapstone and slate are more exotic materials and each have their upsides and downsides. Both are both non-porous, so they won't need sealing, but soapstone is soft and may show knife marks, while slate can be brittle, especially at corners. Both come in fewer colors.

Other choices for countertops are:

- engineered stone made mostly of quartz
- Concrete
- Solid surfaces made from a dense acrylic, polyester, or blend of the two
- Plastic Laminate.

from Boulder Buster, 2/20

Rock Sale

Sunday, July 5th, 2020 10am to 5pm
13814 109th Avenue Court East, in the South Hill area of Puyallup
Material by the pound or by the bucket
Obsidian, petrified wood, thunder eggs, soapstone, howlite, Montana, Brazilian, and moss agate, Mexican lace, mookaite, labradorite, tiger eye, and more.
Slabs, tumbled and polished rocks, crystals and crystal plates, Herkmer diamonds, hematite, mouki balls, small boxes and bags for storage or display, shells, and more.

Show

July 18 & 19: Saturday & Sunday 10 am — 5 pm
Darrington Rock & Gem Club, *Rock and Gem Show and Sale*
Mansford Grange
1265 Railroad Avenue
Darrington, WA, (behind IGA)

Notice About The 2020 Convention In Knoxville by Donna Moore, AFMS Secretary

There have been several inquiries as to whether the AFMS Convention scheduled for October 16-18, 2020, in Knoxville, Tennessee, is still going to take place.

As of right now, the local club is trying their best to hold the show and convention as scheduled.

So, the best thing people can do is watch your e-mail, check the AFMS Website from time to time and watch the newsletters. Of course, there is a summer break in the newsletters (no issue in July or August), so please watch the other sources of information.

This has been a very stressful time for everyone, so please have patience with the local club as they try to get things set up for us to come visit.

from AFMS Newsletter, 6/20

In Defense of Rocks by W. C. McDaniel

The use of the phrase “Dumb as a Rock” appears to be on the increase, especially by politicians, and it is time to stand up for rocks. I love and adore rocks, collect them, play with them, hoard and board them, display them, sell them, and put them to work. But I have never met a dumb rock. Met a few that were hard and somewhat ugly and of little use, some that made my back ache and a few that tried to remove my big toe. But through it all, they were rocks, not dumb rocks. The origin and use of the term are somewhat hazy, and an online search will give you multiple answers and opinions. So, stand up for rocks, collect them, appreciate them and keep on rocking.

Addendum.

Rocks are a perfect companion and activity for social distancing.

via AFMS Newsletter, 6/20; from MAGS Rockhound News, 4/20

A Different View On The Internet by Eric Brosius

Every now and then something comes along that is extremely useful to our hobby and especially collecting specimens in the field. If you own a Smartphone, tablet or even a laptop computer that has internet access while out in the field, UW Macrostrat Lab funded by the National Science Foundation and UW Geoscience has produced an absolutely fantastic App called "ROCKD" that is available for free from the Apple App Store or Google Play. This application gives you instant access to more than 155 geologic maps, specific information on individual rock formations that you may be standing on, a digital BRUNTON® Compass, a place to record your observations and more. Check it out at www.rockd.org.

from AFMS Newsletter, 6/20

Do You Have Marcasite That’s Going To Pieces?

Try mixing one heaping tablespoon baking soda in one quart of water. Let it effervesce and wash the marcasite in it. Rinse well with water and dry. Then dip the marcasite in medium weight oil and drain well. Check the boxes in which marcasite specimens are stored, as [marcasite] forms sulfuric acid and can eat through... containers.

via AFMS Newsletter, 6/20; via Low Country Diggings, 4/20; via El Gambrisino, 5/13; from Osage Hills Gems, 5/03