

the CMS Tumbler



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

<u>Next Meeting:</u> <u>October 11, 2018</u> <u>7:00 p.m.</u>

American Legion Hall 25406 97th Pl S Kent, WA

The Program is a recap of our show.

Mark took a great time lapse of the show which we will see.

Acknowledgment of our youth ribbon awards for their display cases.

Show financial statement.

The Show & Tell Theme is something you purchased or received at our show.









to wish a
Happy Birthday to
Kat Koch on October 4,
Charles Benedict on October 6,
Keith Alan Morgan on October 11,
Andrew Lengenfelder on October 14,
Fred Thompson on October 30,
and also remember
to wish a

This month remember



Happy Anniversary to
Andrew & Faye Lengenfelder on October 17







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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.

CMS Club Address Rich Russell 14431 SE 254th St. Kent, WA 98042 Editor's Mailing Address: Keith Alan Morgan, Editor 3802 W. Tapps Dr. E. Bonney Lake, WA 98391 Telephone (253) 862-8201

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

2018 Elected Officers

Title & Name	Home Phone	Email Address
President Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Vice President Diana Horsfall	206-818-9507	dianahorsfall@comcast.net
Treasurer Richard Russell	253-736-3693	richru1@yahoo.com
Secretary Pete Williams	425-228-5063	petewill02@gmail.com
Director Roger Pullen	206-387-3214	june.d.murff@boeing.com
Director Roger Danneman	425-228-8781	roger.danneman@q.com
Past President Bob Pattie	425-226-3154	bobpattie@comcast.net
Show Chairman Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org
Federation Representative Michael Blanton	425-271-8757	mblanton41@hotmail.com
Federation Representative Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Mineral Council Bob Pattie	425-226-3154	bobpattie@comcast.net
Mineral Council Jacquie Pattie	425-226-3154	dianahorsfall@comcast.net

2018 Show Committee Chairs

Cascade Show Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org
Cascade Show Co-Chair Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Cascade Show Treasurer Pete Williams	425-228-5063	petewill02@gmail.com
Cascade Show Silent Auction Michael Blanton	425-271-8757	mblanton41@hotmail.com
Cascade Show Raffle Donations Michael Blanton	425-271-8757	mblanton41@hotmail.com
Cascade Show Demonstrators Richard Russell	253-736-3693	richru1@yahoo.com

2018 Committee Chairs

425-765-5408	president@cascademineralogicalsociety.org
425-228-8781	roger.danneman@q.com
425-228-5063	britbev1957@outlook.com
425-226-3154	bobpattie@comcast.net
253-332-3736	showchair@cascademineralogicalsociety.org
253-862-8201	greenrockdraggin@yahoo.com
425-226-3154	bobpattie@comcast.net
425-765-5408	president@cascademineralogicalsociety.org
253-631-3840	angiemc61@msn.net
206-387-3214	june.d.murff@boeing.com
425-226-3154	bobpattie@comcast.net
425-271-8757	mblanton41@hotmail.com
253-332-3736	showchair@cascademineralogicalsociety.org
	425-228-8781 425-228-5063 425-226-3154 253-332-3736 253-862-8201 425-226-3154 425-765-5408 253-631-3840 206-387-3214 425-226-3154 425-271-8757

2018 CMS Dues are \$30 per year per family Pay online, by mail, or at our meetings. Mailing Address: Richard Russell 14431 SE 254th St. Kent, WA 98042

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/







October







SUN	MON	TUE	WED	THUR	FRI	SAT
Happy Halloween!	1	2	3	4	5	6 Marysville Show
7 Marysville Show	Show Meeting 8 6:30 PM Board 7 PM	9	10	General 11 Meeting 7 PM	12 Portland Show	13 Portland Show
Portland Show	15	16	17	18	19	20
21	22	23	24	25	26	27 Bellevue Show
28 Bellevue Show	29	30	31			°0°

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

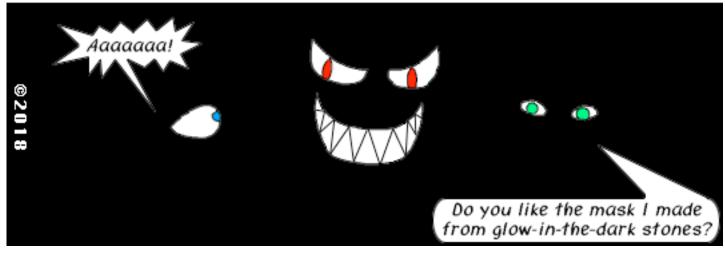
Lapidary Shop Hours:......Most Tuesdays.......2:00 pm to 5:00 p, call ahead (425) 226-3154

Lapidary Shop Hours:......3rd Saturday......by appointment only (call a few days ahead to set time)

More <u>Field Trip</u> info can be found on Page 11 More *Show* info can be found on Page 12

Face In The Dark

by KAM



CMS Board Meeting Minutes September 10, 2018



by Pete Williams, 2018 Secretary

Members Attending

President Kat Koch
Federation Mike Blanton
Past President Bob Pattie
Director Roger Danneman
Show Committee: Angie Bayer, Brian Bayer, Charles Benedict

Meeting called to order at 7:51.

The main focus was on the show. The club website continues to get lots of hits and generated another new member.

There will be no club sponsored field trip this month. Instead, members can participate in the Mineral Council trip to Little Naches on Saturday.

Meeting adjourned at 8:18.

CMS Show Meeting Minutes September 10, 2018

by Pete Williams, 2018 Secretary

Meeting called to order at 6:30.

The FaceBook advertising is going well with over 81K views. Ads were also placed on local websites. The food vendor attending the show has been confirmed. There will be coffee and water available for vendors and workers. Members, friends and family members are still needed to work the show.

The Forest Service wants to clarify some of the wording relating to the Mining laws and when you need a permit in exploring, filing a mining claim, etc. The actual document is too long to reproduce in The Tumbler, but can be read online at https://www.regulations.gov/document?D=FS-2018-0052-0001

The period to make comments before they go to the next stage, ends on October 15, 2018.

Young Richard's Almanac by Dick Morgan

At the Cascade show a widow came to the silent auction table as someone told her that she could get the stones in the jewelry identified. It seems that her husband had made her many items for her pleasure but he was always there to explain the material. Now that he is gone she had to explain about the stones in the settings and she didn't know. So I was able to identify most of them and she wrote down the names. She was very thankful and this just shows that rock clubs provide a service for the community. She left smiling at me and when you leave people smiling it means that you must be doing something right.

Alunite by Hale Sweeny

Alunite is a potassium aluminum sulfate, $K-Al_3-(SO_4)_2-(OH)_6$. Also called alumstone. They use it mostly to produce alum. There are some (now not active) mines near Marysvale, UT, that I have visited a time or two. The ore can be processed to recover both potassium and alum, and they started to develop the Marysvale mines during WWII; more to get the potash for gunpowder than for the aluminum, as I remember.

But they got into a big hassle with the State government vs private parties etc. about just where to build the plant where it was going to be processed, and very little came of it before the end of the war. It is mostly massive or disseminated, but the stuff I have from the "good" mine is somewhat crystalline and rather attractive. It is rather soft, about 4.

Hardness: 3.5 - 4.0. Sp G: 2.6 Alunite, is found in Nevada, Utah and Colorado. It is a reddish pink with gray areas and has a waxy feel. The material I have used would not need to be stabilized. I do not think it would absorb stabilizer easily. The suggestion about using a stocking in polishing gypsum sounds interesting and viable. My alunite is in a sphere form and polishing was not easy via The Whittier Rockhounder, 1/16; from Stoney Statements, 2/11

Thunder-egg (Thunderegg, T-egg) by Duane Flackus

A thunder-egg is a spherical nodule-like rock usually about the size of a baseball - though they can range from an inch to a meter in diameter, usually containing a center of various colored solid mineral (agate, quartz, jasper, etc.), and an outer shell appearance of ordinary rock.

The thunder-egg was designated as the Oregon state rock (March 30, 1965).

The world's largest thunder-egg (3500 pound specimen) is housed by the Rice Northwest Museum of Rocks and Minerals in Hillsboro, Oregon.

from The Clackamette Gem, 3/18

CMS General Meeting Minutes September 13, 2018



by Pete Williams, 2018 Secretary

Meeting called to order at 7:12.

Minutes were approved as written.

Tumbler Editor: Keith has been receiving some articles from members.

<u>President's Report:</u> Kat awarded badges to our junior members. Rock bucks were also handed out to those who earned them. Field Trip Report: The field trip this month will be with the Mineral Council to Little Naches.

<u>Mineral Council:</u> There was an announcement from the Forest Service Office in D.C. about changing the regulations on mining claims. This could involve how Forest Service Roads are used. There is a 32 day period to respond.

Program: Mark did a presentation on the upcoming Rock and Gem Show next weekend. Sign-up sheets were available for members to sign up themselves, family or friends. A

scholarship will be provided to Green River College from show proceeds.

<u>Volunteer Business:</u> Angie and Brian Bayer were picked as our Volunteers of the Quarter. Conratulations!

Meeting adjourned at 7:49 followed by the raffle. *Displays:*

 $\begin{tabular}{ll} \it Michelle \& \it Cora \it Unger - Hansen \it Creek \it crystals \\ \& \it amethysts. \end{tabular}$

Isaiah Fu - Some rocks found at Cherry Cove. *Rich Morgan* - Garnets, star sapphire, clear quartz, amethyst, Onyx, Lapis, & a narwhal tooth.

Photo by Mark Hohn



A Note From The President's Desk...

By Kat Koch, 2018 CMS President

Well we did it!

As you all of you must know by now, that our 2018 Cascade Gem & Mineral Show went smoothly and was a huge success. We had a great venue and many vendors and visitors expressed this to us. I would like to acknowledge that the College Conference Center was also great to work with.

I want to thank everyone that took on the Chairmanship of very specific areas of the show. They worked extremely hard to make sure their area of responsibility went smoothly. They succeeded!

I also want to thank everyone that turned out to help. So many of our members also wrangled their spouses, children and grandchildren into helping. Mark's wife, children, their spouses and grandchildren showed up enforce to help for hours on end. There was many Hohn's that I couldn't count them all. <smile> We also had volunteers from the West Seattle Club, NAMA of Kent, Bedrock Prospectors and several other groups. To each and everyone of you, your help was appreciated beyond words.

Thank you to all that volunteered in any capacity to make our show a huge success!!

We also had 11 new members join our club. Several of them are families. Welcome to all of you.

November Meeting Speaker by Kat Koch

Green River College Professor Katie Shaw will speak to us about thermal vents, also called smokers, and the minerals found around them. Her presentation includes pictures of these minerals. She says she will also throw in a little biology too.

Your friends and relatives are welcome to join us.

Mark your calendars now to attend this meeting.

Let's show Prof. Shaw our appreciation by having a good turnout for this meeting.

Fool's Gold can be one of three minerals; the most common mineral mistaken for gold is pyrite, chalcopyrite may also appear gold-like, and weathered biotite mica can mimic flake gold.

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

from https://minerals.usgs.gov/west/morefun.htm, 12/15/17

2018 Cascade Gem and Mineral Show Report by Mark Hohn, Show Chairman

Whew

The show was last weekend and I am finally getting some rest.

We started setup at 10AM on Friday at Green River College Student union building. At 1PM the vendors started to arrive to set up for the show.

We worked with the vendors to get their goods moved in and continued our setup in preparation for the show opening on Saturday at 10AM. Most of the vendors completed their setup and covered things up for the night. We were back on site at 8AM on Saturday and finished getting ready for our guests to arrive.

We opened the doors at 10AM. Saturday to a steady flow of guests. Traffic was consistent all day Saturday and our vendors were pleased with the traffic.

Our raffle area looked smart with our Kubota orange raffle cans. We had 41 items in the raffle. Most of our vendors donated an item to our raffle and we want to say thanks!

We had approximately 16 club display cases. We had several cases entered by the youth members of CMS and the cases were judged on Saturday morning. All our youth members had very impressive displays and received recognition and awards for their hard work.

Green River College Geology Department had 2 display cases of fossils and minerals from the school's collection. We would like to publicly thank Green River College for their participation and support. A portion of our raffle proceeds will be donated to the college for a scholarship to a geology department student(s)

We had 5 demonstrators at the show. The demonstrators showed the public how they wire wrapped jewelry, made beads from rocks, faceting, making cabochons and flint knapping. Char Johnson had her microscope set up and did gem identification for our guests. Demonstrator row was a popular stop for the attendees.

For your dining pleasure we had Sirrius Wood Fired pizza set up in the courtyard outside the venue. My grand kids thought the pizza was very good, so did I.

Sunday, we had less traffic, but it was relatively steady. At 3PM we started calling the raffle winners. We had several winners present. Other winners are being notified this week, so we can arrange the pickup of their prizes.

Both days the silent auction, our kids area, and spinning wheel were very active. The kids really enjoyed the rock painting and coloring station. The spinning wheel was a hit and we ran out of rocks due to its popularity. A lot of folks left the silent auction with some spectacular deals and went home with new treasures.

We had eleven families join our club during the show.

I personally want to thank all the volunteers and the show committee for stepping up and helping to make the show a success. I couldn't have done it without your help.

We are already discussing the show and what we can do next year. We have asked Green River College to pencil us in for the same weekend next year. We will have a full review of the show at our next regular meeting on October 11th.

Thanks again to the volunteers, I want to know you have my gratitude and appreciation.





It Snows Orange in Eastern Europe? by Jim Brace-Thompson

Never doubt the power of wind to sculpt the surface of Earth! Thanks to a dip in the jet stream that sent it down into northern Africa then back up into Europe, on the weekend of March 24 folks from Russia to Romania awoke to orange snow. The color was thanks to a dusting of Sahara Desert silt and sand picked up by the wind and transported across the Mediterranean Sea. The long trail could be seen by NASA satellites, like a muddy stream of water, bringing a bit of Africa as an early spring surprise for Europe.













Photos by Mark Hohn & Keith Morgan.

Good Parenting Among Pterosaurs... Or Not by Jim Brace-Thompson

Per a letter-to-the-editor in the March 9 issue of Science magazine, herpetologist Louis Somma says we can't preclude the possibility of brooding and other nesting behaviors among pterosaurs. He was responding to an earlier article reporting on a remarkable discovery of fossilized parchment-like eggs with remains of developing pterosaur embryos. That report compared the thin-shelled eggs to those of reptiles that simply bury and abandon their eggs. Somma disputes this and urges paleontologists to keep up the search for further evidence via complete fossil nesting sites.

Coprolite Fossils

Coprolites form in much the same way as any other fossil - the original organic material is infused with water containing dissolved minerals, and as the minerals crystallize, the original material is slowly replaced by stone.

Most people, when handed a coprolite for the first time, go and sniff it as their first impulse. But it smells of nothing but stone, because that's all it is now, technically speaking. Coprolites are at a disadvantage from the start in the fossil-forming process. Generally speaking, the quicker to decay an object is, the less likely it is to successfully fossilize. Fossilization takes time, and if the whole thing rots before it can finished, well, no fossil.

That's why hard and durable objects, such as bones and teeth, are much more common fossils than soft tissues, or coprolites. Coprolites were first identified as what they actually are, by a woman named Mary Anning (21 May 1799 - 9 March 1847). Mary Anning was a fossil collector and paleontologist from southern England, and noticed these odd stones inside the abdominal areas of the ichthyosaur fossils she was collecting. When she broke them open, she noticed they had fragments of fossilized fish bones and scales.

In 1829, Anning's observations led a geologist named William Buckland to propose that these stones were the digested remnants of the dinosaurs' last meals, and he gave them the name of coprolites. Those fossil fragments inside coprolites contain a wealth of scientific information, for anyone who really wants to look closely.

The kinds of fossils contained in the coprolitecan tell us a lot about the environment the creature was living in, by what it found in the area to eat. It also reveals the creatures preferred food sources, such as whether it was an herbivore or a carnivore, and sometimes it will even reveal what parasites plagued its creator. And, yes, we learn a lot about its intestinal systems. That's pretty much a given.

The challenge, of course, is in determining exactly which species of creature left a particular coprolite behind. In some cases, when there are a lot of fossilized remains of a particular animal around, it's easy to make a good guess. And in some cases, as with Mary Arming's fossils, the coprolites were petrified while still within the animal's body. But with a more isolated coprolite specimen, it can be very difficult.

Early human settlements left the occasional coprolite as well, so they have archaeological value as well as geological value. As it turns out, we can learn about our own history from them. A human coprolite found in a cave in Oregon revealed the existence of a long-lost 13,000-year-old society. And a research team from the University of Colorado, studying an ancient Anansi settlement in Colorado known as Cowboy Wash, uncovered human remains showing what they believed to be evidence of cannibalism. They tested a coprolite found nearby, and discovered it contained a protein only found in human muscle tissue, confirming their theory.

Oddly enough, coprolites from dinosaurs and other prehistoric beasts are often used in jewelry. Due to the mineralization, many of them have bright and beautiful coloration. And, well, you get a great answer to give when someone says, "Ooh, what a pretty necklace! What stone is that?" Some people may think coprolites are disgusting, but like any other fossil, they're also windows into a lost and wondrous past on this planet.

via T-Town Rockhound, 9/18; via the Rockpile, 9/17; from the Glacial Drifter, 8/16

Safety Matters: You Are Being Watched by Ellery Borow

You are indeed being watched. While out on a club dig or field trip searching for some nice collectibles people are mostly interested in looking at the hole they are digging. Next, people are looking at the marvelous "sparklies" they are finding in the hole. Lastly, they are looking at the people all around them to see what is going on nearby. If you are near one of those intrepid diggers you are being watched by them.

So, because you are being noticed by other collectors, are you setting a good example for them? Are you wearing appropriate footwear? Do you have on suitable protective garments? Might the safety goggles you are wearing be proper for the site? Gloves, are they being worn? Seriously, people are watching you. Are you setting a good example for them?

Many a time it has been said kids sometimes do not take instructions well. They are, after all, moving toward finding their own independence. Kids however are also little sponges, soaking up information about everything and everyone around them. Kids can't wait to be grown ups, and so are always watching adults... what we are saying, what we are doing, what we are wearing... all while pretending to be ignoring us.

With all that said - kids are hungry for example setters and role models. Therefore, we adults should be aware of the examples we are setting for all the kids around us. So, I ask again, are you setting a good example for your kids, and all the other kids around you? Even adults learn from those who set good examples.

Please consider this: utilizing your personal protective equipment is great for you and your family... and it may also be setting a great example for those around you.

You can do this - wear good footwear, proper protective clothing, gloves, goggles, and keep those tools in good repair. Be a trend setter. Be a good example. As a bonus, you will be safer, and you will be helping other people learn to be safer as well!

Your safety matters, as does everyone else's!

Young Tumblers News

Word Match

Fill out this Word Match. Bring to the meeting and earn \$2 Rock Bucks. What rock is called the TV Rock, TV Stone or Television Stone, because of its amazing fiber optic properties. When you put a piece of newspaper underneath it, you can see the contents of the paper appearing on the top of the stone. What is a hollow stone called that when cut open has crystals inside? What is often called Fool's Gold because it reminds us of real gold? What is a clear stone with small needle like golden, black, silver, green or red crystals rods running through it called? Rutilated What are Apache Tears formed from? _ What is a solid stone when cut in half has agate, jasper, opal and/or crystals inside? What are 2 fossils of extinct sea creatures that you often find fossilized? _____ and ___ What mineral is formed when meteorites which hit the Earth's surface and makes molten bits of rock called? What rock floats in water? Answers: Ammonites **Pumice** Thunder Egg **Tektite**

Pyrite

Ulexite

Geode

Case Display Winners

Quartz Trilobites

Congratulations to all our Young Tumblers that entered a case display at our show.

This was their first attempt at a display case and they were all very creative in showing off their self collected rocks and minerals.

The following Young Tumblers won 1st Place Ribbons in each of their age and display group:

Aiden Cerenzie Alex Danneman Isaiah Fu Cora Unger





Obsidian

Photo of Aiden Cerenzie taken by James Cerenzie

Young Tumblers News

Some Uses of Rocks

Some people may view this as a rather useless hobby, but rock collectors like myself know that there are many good uses for the rocks that we pick up everywhere. Here are some of the many uses of rocks:

Primitive people knew that rocks could be made into useful items like spear heads, arrow heads, hammers, mortar and pestles, jewelry and beads.

Rocks like granite, marble and travertine are cut into slabs and used for building materials, floors and walkways.

Obsidian is used for making scalpels and knives, wind chimes and carvings.

Marble and granite is used for sculptures, headstones, buildings and monuments.

Jewelry is fashioned from many, many different rocks and minerals.

Household items like clocks, picture frames, bookends, paperweights, ashtrays, figurines can be made from petrified wood, jade, turquoise and other beautifully colored and patterned rocks and minerals.

Granite and marble are made into benches, sculptures, lawn ornaments and landscaping focal points.

Some Uses of Minerals

Diatomite and bentonite are both used to clarify drinks, such as beer, fruit juices, wine and in some swimming pool filters.

Silica sand to make glass for mirrors, windows, glasses, TV and cellphone screens.

Clay to make ceramic plates, vases, bricks, roofing tiles.

Fluorite is used for camera and telescopes lenses, jewelry, toothpaste.

Talc is used in baby powder and cosmetics.

Corundum and magnetite are used to make emery boards and sand papers.

Halite is table salt and is also used in water softener, as a stain remover and food additive.

Sulfur, barium and magnesium are used in medicines.

Rocks And Minerals Are Real Life Shape Shifters by Kat Koch, Cascade Mineralogical Society

Myriad colors, intriguing shapes, and different sizes of rocks have always fascinated us. No matter how old we get, we will pick up a interesting stone and twirl it between fingers to see what it looks in sunlight. The fact remains that rocks intrigue each and every one. Every rock has a story of its own, of how it was formed, how weathered it is, and to which class of rocks does it belong to. The whole of Earth is made up of rocks and minerals which date back to prehistoric ages.

Interesting Facts about Rocks and Minerals

A rock is a continuous process of formation, being worn down and then forming again. This process is known as the Rock Cycle.

A rock is a solid substance that occurs naturally due to geological processes of sedimentation, solidification, and metamorphism.

The structure of a rock is not uniform. Various minerals and weathering give the rock its texture. A mineral has definite crystal structure, which can give it a unique color.

A rock (Igneous) is formed when magma erupts from the Earth's core and solidifies due to the difference in the temperature outside.

Chemical sedimentary rocks are a result of dissolved minerals which are left behind when water evaporates. Called evaporites such as borax, halite and gypsum.

The constant exposure to sun, water and wind bring about a change in size and shape of the rocks.

A rock is a continuous process of formation, being worn down and then forming again. This process is known as the Rock Cycle.

Pumice is an igneous rock, formed when frothy lava solidifies. This is the only rock that floats.

Metamorphic rocks are the ones that have changed from either being sedimentary or igneous.

A mountain is essentially a rock.

Sand is a result of constant weathering of rocks.

There are more than 4000 minerals identified by geologists and scientists. But this is not the maximum number as there are new minerals every year. Minerals are further divided into metals and non-metals. For instance copper, silver and gold are metals and elements such as carbon and sulfur make diamond and graphite, which are not metals.

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).

October 20

Marysville Rock Club - **Money Creek** - Meet at the Skykomish Money Creek Campground by 9:00 - <u>Picture Jasper</u>, <u>maybe Ore</u> - Bring digging & hard rock tools

Ed Lehman wsmced@hotmail.com h# (425) 334-6282 c# (425) 760-2786

Hawaii's Kilauea Volcano Was Raining Green Olivine Crystals

Something unusual and beautiful is accompanying all the havoc and destruction caused by Hawaii's Kilauea. The erupting volcano has caused tragedy for the residents on the Big Island who live near her slopes. But Kilauea has also been spouting thousands of examples of a small green mineral known as olivine.

It can be carried in the pumice [rapidly cooled lava] pieces that have been rained all over the area," she noted, or left behind when weaker lava rocks are crushed by cars or foot traffic.

The crystals may be flying through the air from exploded bits of lava, but it's unlikely they're also coming from the volcano's summit, where there's been a large plume of steam and ash erupting from the crater - and at times rare, explosive eruptions.

"One thing I can say is that olivine is not raining out of the plume," Michael Poland, a USGS volcanologist, said over email.

The little crystals, however, are not being created during the eruption. They've been formed deep underground long ago, brewing in the molten rock.

According to geologists at the University of Hawaii, the crystals are carried along with lava out of the volcano and into the sky. Some of that lava instantly cools in the air. When that happens, it turns into a rock known as pumice. The transformation is so sudden that gasses are trapped within the pumice and force their way out, leaving the rock lighter and full of holes. From these holes, olivine rains over the island.

Olivine is usually found as small grains, and tends to exist in a heavily weathered state, unsuitable for decorative use. Large crystals of forsterite, (Mg, Fe)₂SiO₄ silicon oxide and magnesium and iron are the variety most often used to cut peridot gems. The intensity and tint of the green, however, depends on the percentage of iron that is contained in the crystal structure. Peridots can also be found in meteorites.

from The Agatizer, 8/18

Rockhounding On The Big Island Of Hawaii?

"Do I see a CFMS Field Trip to Hawaii in the Future?" These were the words that were emailed to me to inform me of the richness of Olivine being spewed, along with the lava, onto the island of Hawaii. All of the Hawaiian Islands were built through volcanic eruptions of lava piling higher and higher from the ocean floor until they were tall enough to be higher than the ocean waters. The older islands are gradually shrinking in size, but the island of Hawaii is still being formed, currently very actively through the lava flowing from the Kilauea Volcano.

I had not thought of the Hawaiian Islands as being a source of many minerals, but in looking at various websites, I find that it has quartz, epistilbite, manganese, nickel, cobalt, black coral, and gem quality olivine, known as peridot. Residents are finding lovely green crystals of peridot, sometimes in great abundance. Someone said that it was literally raining gemstones. And so, maybe it is time to consider organizing a field trip to Hawaii!

from Breccia, 7/18

Can Gemstones Really Come from Space?

Rocks that fall from the sky have frightened and fascinated people throughout history. They immediately generate curiosity and have a scientific significance. They are made of extremely rare materials that interest scientists, collectors, and curious people alike.

Many meteorites and impactites are small enough and attractive enough to be used as gems in the same condition in which they fell from the sky. Iron meteorites are alloys of iron and nickel that can be cut and polished into beautiful gems or fashioned into the metal parts of jewelry. Pallasites are stony-iron meteorites that contain colorful peridot (olivine) crystals that can be cut into gems. Impactites are often colorful glasses that can be faceted, cut into cabochons, or carved into small sculptures.

Pallasite peridot: This is one of the most incredible gemstones. It is a faceted piece of gem-quality olivine, known as peridot in the gem trade, that was removed from a pallasite meteorite. Extraterrestrial peridot is certainly one of the rarest gem materials on Earth. This stone is 2.85 millimeters in diameter and weighs about ten points.



Shows



October 6 & 7: Saturday 10 am - 5 pm; Sunday 10 am - 5 pm
Marysville Rock and Gem Club, 44th Rocktoberfest
Totem Middle School Cafeteria
1605 7th Street NE
Marysville WA

October 12 - 14: Friday & Saturday 10 am - 6 pm; Sunday 10 am - 5 pm
Portland Regional Rock and Gem Show, 38th Annual Show
Washington County Fair Complex
873 NE 34th Ave
Hillsboro, Oregon



October 27 & 28: Saturday 9 am - 6 pm; Sunday 10 - 5

Clackamette Mineral and Gem

Clackamas County Fairgrounds 694 NE 4th Ave Canby, Oregon

October 27 & 28: Saturday 10 am - 6 pm; Sunday 10 am - 5 pm Bellevue Rock Club

> Vasa Park 3560 West Lake Sammamish PKWY SE Bellevue, WA





