



the CMS Tumbler

March
2017

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

Next Meeting:
March 9, 2017
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

The Program will be Rock Bingo!

There will be a charge of
\$1 per player to cover
the cost of supplies.

Bring 3 wrapped items (polished
rocks, slabs, crystals, clay baby,
fossils, cabs or rock related) to
contribute to our prize pool.

There will be no Show & Tell,
Raffle or Door Prize this meeting.



*This month remember
to wish a
Happy Birthday to
Shirley Stewart on March 6,
Jacqueline Pattie on March 31,
and also remember
to wish a
Happy Anniversary to
John & Brenda Haworth
on March 28 (53 years)*



This will be a great night for the kids and the young at heart. Be sure to bring your kids and their friends, grandkids, scout troops, or anybody else that you think might enjoy playing Bingo and winning rocks.

This publication is an official bulletin of the Cascade Mineralogical Society Inc. (CMS).

Except where otherwise noted, material from The Tumbler may be reprinted for non-commercial purposes, provided that the author(s) and source are acknowledged.

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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.

When on field trips this organization uses CB Channel 7.

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Keith Alan Morgan, Editor

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Email preferred.
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Open Shop

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Faceting

Jewelry

Lapidary Bob Pattie

2017 CMS Dues are \$30. Send or deliver dues to:

Richard Russell

14431 SE 254th St.

Kent, WA 98042

(or pay him at the meeting)

Our website (<http://www.cascademineralogicalsociety.org>) is now accepting credit cards.

You will find it under the "Membership" tab on our website.

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

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

The CMS external website is <http://www.cascademineralogicalsociety.org>

Our Facebook page is <http://www.facebook.com/pages/Cascade-Mineralogical-Society/194320760605196>

March



SUN	MON	TUE	WED	THUR	FRI	SAT
			1	2	3	4
5	Board Meeting 7 PM 	6	7	8	General Meeting 7 PM 	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	Lapidary Shop	26	27	28	29
30	31					

Lapidary Class Hours:.....Closed until further notice

Lapidary Shop Hours:.....3rd Tuesday..... 4:00 pm to 8:00 pm

Lapidary Shop Hours:.....4th Saturday..... by appointment (call a few days ahead to set time)

CMS Board Meeting:.....Monday before the General Meeting.....7:00 pm to 8:00 pm

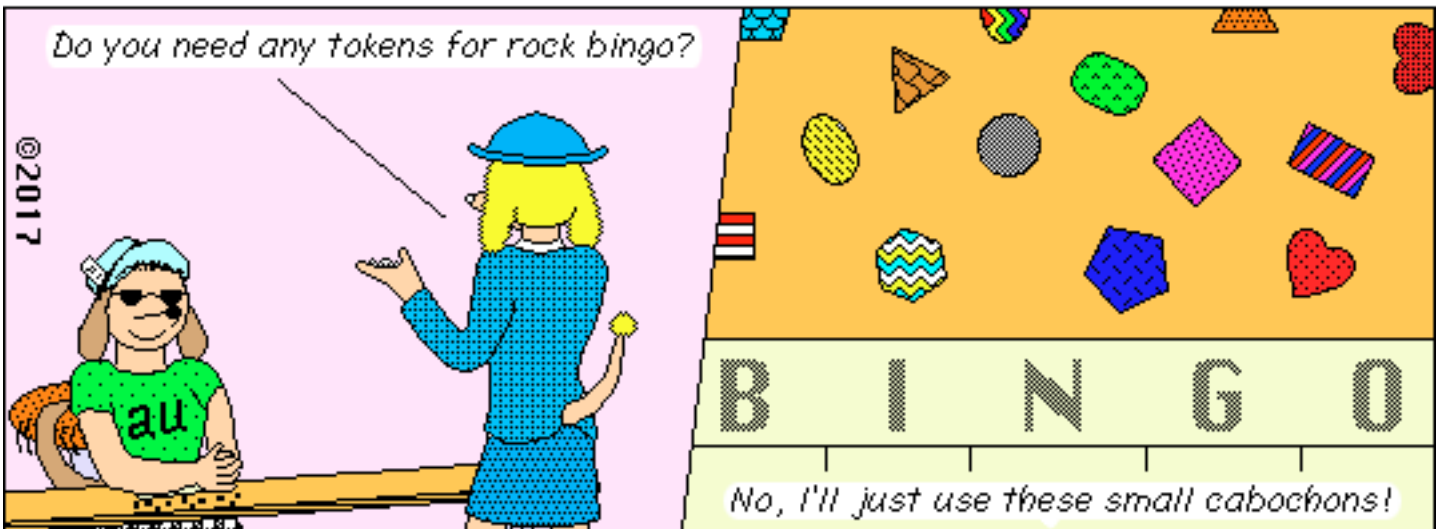
CMS General Meeting:.....2nd Thursday.....7:00 pm to 9:00 pm

More Field Trip info can be found on Page 9

More Show info can be found on Page 10

Son of Mr. and Mrs. Rockhound

by KAM



CMS Board Meeting Minutes February 6, 2017

by Pete Williams, 2017 Secretary

Members Attending

President Kat Koch

Secretary Pete Williams

Past President Bob Pattie

Meeting called to order at 6:50

Treasurer Rich Russell

Federation Mike Blanton

Director Mark Hohn

The Board approved requesting Karissa Smith from the Office of Emergency Management to give a presentation at the May meeting on the Geology of Cascadia.

There will be a meeting this month from people who contested the decision of the Greenwater area travel assessment. One person contested the closing of a popular collecting site. The other was a group of environmental organizations that wanted more road closures. The NFMS newsletter included an article about collecting on public land. Bob is drafting a letter addressing the fact that in Washington state land is not considered public land. He will submit this to the Tumbler, CMS website and NFMS.

Mark has the paid membership list, but it is missing some data. He will bring to a future meeting to request the information. Mark recommended and the Board approved changing the website hosting provider for cost savings and to allow credit card payments. Mark will donate \$100 toward the 3-year fee. The Board also approved Mark's other recommendations regarding setting up Stripe to allow online memberships, setting up Paypal to allow paid advertising, and setting up Square to accepting credit card payments at meetings and events. Details will need to be worked out.

The Board approved participating in the June Puyallup Rock Show to sell buckets of rocks and possibly equipment and other material. This will be necessary to vacate the storage facility.

The February club field trip will be to the Green river gorge for fossils. The March trip may be to Salmon Creek for carnelian. The March meeting program will be a repeat of last year's popular rock bingo. Members will be asked to bring 3 wrapped slabs/rocks as prizes.

The balance of the meeting was a discussion on the dates and location for the club show in 2018. Dates in March, June and September were discussed.

The next meeting will be March 6 at Panera Bread in Kent.

Meeting adjourned at 8:32.

Dues News

You can now pay your Cascade Mineralogical Society dues online!!

Our website (<http://www.cascademineralogicalsociety.org>) is now accepting credit cards. You will find it under the "Membership" tab on our website.

You can renew your membership, or enroll as a new member, and pay your dues all in one shot.

Young Richard's Almanac by Dick Morgan

A friendly smile can lighten the spirit of a sad person.

**Crocoite** by Dave Jacobson

This month we will take a look at another rare mineral, crocoite, $PbCrO_4$, lead chromate. Crocoite is one of the few chromate minerals. Crocoite is found in the oxidized zones of ore deposits containing lead and chromium. Associated minerals are pyromorphite, cerussite, wulfenite, limonite and vanadinite. This mineral is primarily of interest to mineral collectors. The element chromium was first extracted from crocoite as it is a minor ore of chromium. One of the most famous sources of crocoite is the Dundas District of Tasmania, Australia. The one small specimen I have in my collection comes from this locality. Other noted locations for this mineral are the Ural Mountains in Russia and Inyo and Riverside Counties in California, USA.

Crocoite is in the monoclinic crystal system. The crystals are long slender prisms, which are sometimes striated. Sometimes the crystals are hollow. The crystals can be transparent to translucent. Most specimens are not over 5 cm in length. It commonly forms in large groups of acicular crystals. It can also be granular massive. The color typically is orange red to yellow red. The streak is orange yellow.

Hardness is 2.5 to 3. Specific Gravity is 6.0. The high specific gravity is due to the lead content of the mineral. It has a high index of refraction. Small brilliant gems have been cut from transparent specimens.

Crocoite takes its name from the Greek, *krokos*, "saffron", alluding to the deep orange color produced from saffron dye.

I used the following reference materials in preparing this article. *Field Guide to Rocks And Minerals* by Frederick H. Pough. *Mineralogy For Amateurs* by John Sinkankus. *Simon & Schusters Guide to Rocks And Minerals*. Amethyst Galleries Mineral Gallery on the internet at <http://mineral.galleries.com>.

via The Quarry, 10/14; from Canaveral Moonstone, 10/14

CMS General Meeting Minutes February 9, 2017



by Pete Williams, 2017 Secretary

Meeting called to order at 7:08. Two guest in attendance.

Minutes were approved as written.

Tumbler Editor: The newsletter and website were entered into the NFMS competition. Winners are entered into the AFMS competition.

Treasurer's Report: A copy of the CMS 2016 financials was available for viewing. Still accepting dues. Soon there will be the ability to pay by credit card. An email will be sent out when ready.

Shop Reports: The shop survived the snow. The ropes break from the weight of the snow and water.

Field Trip Report: The February trip is to look for fossil clams near the Howard Hansen dam. All field trip information can be found on the website.

Federation Report: If members want to receive their NFMS newsletter by email let Mike Blanton know. Other Federation newsletter can be down loaded from the AFMS website. The NFMS show this year will be in Hamilton, MT on May 19-21. The AFMS show will be in Ventura, CA in the second week in June.

Mineral Council: There was a prospecting field trip up to Walker Valley where lots of blue agate was found. The preliminary 2017 field trip schedule is on the website. The Greenwater travel assessment final report was contested by 2 groups. There will be a meeting in Everett on February 15 to discuss what was contested. One was a person requesting to keep open a site planned closure due to various groups collecting in that area. The other was environmentalist groups wanting broader closures.

There was an article in the February NFMS newsletter discussing the allowability of collecting on public lands unless where there are restrictions such as state parks. In Washington, state lands are not considered public lands as they are in most states. Bob will put out some information on this in the Tumbler, CMS website and NFMS.

Show Committee: We are looking at dates in March or September 2018 for our next club show. The name will likely be the Cascade Rock and Gem Show.

Program: Chris Sullivan from Black Jacks Metal Detecting gave a presentation on mining and detecting equipment.

Displays:

Scott Thomasson - Pyrite pieces.

Kat Koch - Bumblebee, gold lodolite, yellow jade, lemon quartz.

Mike Blanton - Colored hearts.

Bob Pattie - Pyrite samples.

Pete Williams - Gold mine stock certificate & gold flakes.

Rich Morgan - Rutilated quartz, an iron pyrite cube, small pyrites, & gold-colored copal.

March Field Trip

Due to high water levels and low snow levels there will not be a March field trip.

Thursday, March 9th - General Meeting: Rock Bingo

We will need everyone to bring 3 items: polished rocks, slabs, crystals, clay baby, fossils, cabs or rock related to contribute to our prize pool. Please wrap your donation in anything from gift wrap paper to a brown paper bag.

We had so much fun last year at this event. Let's all do it again.

This will be a great night for the kids. Be sure to bring your kids and their friends, grandkids, scout troops, or anybody else that you think might enjoy playing Bingo.

There will be a charge of \$1 per player to cover the cost of supplies.

Show 'n Tell, Raffle and Door Prize: We will forego these for just this meeting.

Looking ahead to the 2017 Washington State Fair, Puyallup.

The Fair receives very few entries for it's Lapidary section. Therefore, they have notified us they are going to close down this category if entries do not pickup. We don't want this to happen! So plan on entering into the Fair a sample of your hobby or lapidary work.

If you do anything with rocks, crystals, fossils, silversmithing, etc. there is a category for your work. You do win prize money at every win level.

Online registration open May 2017. They have not posted the close date yet. The Fair is held for the entire month of September so entry forms probably have to be in by early August.

Show me a piano falling down a mineshaft and I'll show you A-flat minor.

via The Rockhounder, 5/15; from Fossick Gossip, 12/13

A Note From The President's Desk...



By Kat Koch, 2017 CMS President

The Board is diligently working on finding a venue for our 2018 Rock & Gem Show. We have also sent out inquiries to 40 prospective vendors asking what date they would prefer for our show. In the near future we will be calling for Committee Leaders and committee members.

Currently the Show meeting is held in conjunction with the Board meeting. All members are welcome to attend if you are interested in helping out or just curious as to what's happening. Our next meeting is March 6th at 7 pm, Panera Bread, Kent Station. We do need a Show Coordinator so if you are interested let me know. If we break up areas of responsibility into several committees then less will fall on the shoulders of a few.

This month at our General Meeting we will be playing "Rock Bingo." We will need everyone to bring 3 items: polished rocks, slabs, crystals, clay baby, fossils, cabs or rock related to contribute to our prize pool. Please wrap your donation in anything from gift wrap paper to a brown paper bag. We had so much fun last year at this event. Let's all do it again! There will be a charge of \$1 per player to cover the cost of supplies.

I am still looking for volunteers to help cover our booth at the Puyallup Gem Fair March 31st through April 2nd. They are 4 hours time slots and entails telling visitors about our Club and handing out Club material. It's really an enjoyable way to help out our club.

How to Tell the Difference Between Gold & Pyrite? by Kat Koch

Gold panning has been on my bucket list for a few years now. In the last 2 weeks I have won a set of 3 pans and a packet of soil that is guaranteed to have gold in it. I am definitely getting the feeling I am to satisfy this item on my bucket list as soon as the weather improves.

Now my big question is: I am on the river's edge and I am wet, cold and excited as I have sparkles in the bottom of my pan. Is it gold or pyrite flakes?

Here is what friends have told me and what I have read on the internet.

Without zooming in, it can be tough to tell the difference, especially when the sun is shining and the water makes everything glisten.

Gold and pyrite are vastly different minerals, but because of their similar colors they easily confused. Beginning prospectors look in the bottom of their gold pan and see a lot of shiny yellow color and think they have hit the mother lode! Learning how to identify both gold and pyrite is one of the first skills that any gold prospector needs to learn. The structure, color, hardness and specific gravities are all indicators that will help to differential between the two.

1. **GRAVITY** When panning out material, gold will settle and concentrate in the bottom of the pan, but pyrite will move freely in the pan. You will often see them at the surface mixed in with the lighter sands and gravels. Proper gold panning will easily separate the two, as the small specks of pyrite will wash out of the pan while the denser gold particles will be retained.

2. **COLOR** The color is also a good indicator between the two. While gold obviously has a golden color, pyrite generally has a brassy and shiny coloration. It has shiny surfaces that catch the reflection of the sun. If you move your gold pan in a circular motion in the sunlight, gold will maintain a consistent color, while pyrite will flash in the sunlight. Use a rare earth magnet (a normal magnet will not do the job) to remove the black sand.

3. **HARDNESS** If you take and separate the particles out, their different hardness will be readily apparent. Take the tip of a pocket knife, or a sharp point and poke a flake. Pyrite is much harder, so if you poke it with a sharp tip it will shatter into several pieces. Gold on the other hand is a very soft and malleable metal. It can be poked or smashed flat without breaking apart.

4. **STRUCTURE** The structure of each mineral is quite different, although this can be difficult to see if you are only dealing with small flakes at the bottom of your gold pan. If the pieces are large enough, you will notice that most pyrite is generally structured in cubic and octahedron formations. Most gold nuggets and flakes that are found in rivers and creeks are polished and worn fairly smooth.

Good luck gold panning!



The Andamooka Opal is a famous opal which was presented to Queen Elizabeth II in 1954 on the occasion of her first visit to South Australia. It was discovered in Andamooka, South Australia, a historic opal mining town.

The opal was cut and polished by John Altmann to a weight of 203 carats (40.6 g). It displays a magnificent array of reds, blues, and greens and was set with diamonds into an 18 karat (75%) palladium necklace.

via Golden Spike News, 1/17; from Magic Valley Gem News, 1/17

Field Trips

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

Some trips have fees to non club members, so they can be a day member, and be covered under club insurance. The usual fee is \$.50 a day.

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

March 11 *Marysville Rock Club - Cedar Ponds* - Meet at the Jack in the Box at the East end of Monroe 9:00 - Jasper - Bring digging & hard rock tools
Ed Lehman wsmced@hotmail.com (425) 334-6282 or (425) 760-2786

Public Lands by Bob Pattie

The January 2017 issue of the Northwest Newsletter Vol. 57 No. 1, had an article written by John Martin titled "Rockhound Soapbox- Rockhounding on Public Lands", which I thought was very good and timely as we get ready for a summer of collecting. I believe that for the State of Washington collectors I would like to provide some additional information help understand governmental terminology. The Code of Federal Regulations Part 8365 of Title 43 CFR, and Part 8360.5 under definitions states that "(d)Public lands means any lands and interests in lands owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management without regard to how the United States acquired ownership." Other definitions have expanded that public lands include lands managed by Bureau of Land Management, also the following are normally included; United States National Park Service, Fish and Wildlife Service under the Department of Interior, and United States Forest Service under the Department of Agriculture. In the State of Washington, we also have the United States Department of Defense owning some land.

Continuing the "public lands" definition we need to consider how the state land fits into this definition. All states have some lands under state management, such as; state parks, state wildlife management areas, and state forest. Each western state received "public lands" as trust lands designated for specific beneficiaries. These trust lands cannot any longer be considered public lands as allowing any benefits to the "public" would be in breach of loyalty to the specific beneficiaries. The trust lands are to provide revenue for public schools and official state construction of building. This definition is from Wikipedia under Public Lands and it is consistent with other listing of definitions. In Washington State, the State management of their lands is very different from the federal government, which means very little collecting on State lands in Washington. Our neighboring states treat rockhounding different, so a person should check with each state as to their requirements and restrictions.

The following data is primarily from Wikipedia, the free encyclopedia, the different agencies and various state office websites, and it has provided listings of areas and acreages. This is included to review the relationship between federal lands and state land, also a relationship between states.

The total acreages for the state of Washington is; 42,693,760 and the federal acreages is 12,176,293 or 28.5%. That 12,176,293 is a sum of the following major federal agencies; BLM (Bureau of Land Management)- 429,083 acres, Forest Service - 9,323,705 acres, Fish and Wildlife - 150,024 acres, National Parks Service - 1,834,543 acres and Department of Defense - 438,938 acres.

Washington's total land area is 42.5 million acres. Half of this is forested. Nearly 36% of the forestland is privately owned, and 64% is managed by the government.

Washington's total land of 42.6 million acres, the Forest Service has 9.3 million acres or 22% of the land and BLM has less than 1%. Other states are listed below. Of the Forest Service land about half of the forest service land has been designated as Wilderness (Washington has 30 wilderness areas in our 6 National Forest plus 3 other National Forest's we share with Idaho or Oregon).

The relationship of acreage and federal lands with our neighboring states are list here: Idaho- total land - 53.5 million acres, Forest Service 20.5 million or 38%, BLM 11.9 million or 22%; Oregon - total land 68.0 million acres, Forest Service 15.7 million or 23%, BLM 15.7 million or 23%; and Montana - 94.1 million acres, Forest Service 17 million or 18%, BLM 8.0 million or 8.5%.

Washington State Department of Natural Resources (DNR) manages over 3,000,000 acres of land and 2,600,000 acres and aquatic (shorelines, tidelands, land under Puget Sound, and area lakes) areas.

Washington may have some restrictions for collecting, but we still have many sites that are available for collecting. Many of these sites are on Forest Service land, other sites are on private lands and/or other governmental managed lands. It is important to know the land ownership of our collecting sites and support their requirement so that we can continue pursue our hobby of non-commercial rockhounding.

Good hunting for that special specimen for your collection.

Since living corals absorb uranium, they are the only fossils that can be dated using uranium-series methods.



Shows



March 4 & 5: Saturday 10 am - 6 pm; Sunday 10 am - 5 pm

East KingCo Club Annual Rock and Gem Show

Pickering Barn
1730 10th Ave NW
Issaquah, WA

March 4 & 5: Saturday 10 am - 6 pm; Sunday 10 am - 5 pm
Owyhee Gem & Mineral Society, 63rd Annual Rock and Gem Show

O'Conner Field House
2200 Blaine
Caldwell, Idaho

March 10 - 12: Friday & Saturday 9 am - 5 pm; Sunday 10 am - 5 pm

Tualatin Valley Gem Club, 59th Annual Show

Washington County FairPlex
873 NE 34th Ave.
Hillsboro, Oregon

March 11 & 12: Saturday 10 am - 6 pm; Sunday 10 am - 4 pm
Northwest Montana Rock Chucks, 10th Annual Rock and Mineral Show

Flathead County Fairgrounds
Grandstand Bldg.
265 N. Meridian Rd
Kalispell, Montana

March 17 & 18: Saturday 8:30 am - 6 pm; Sunday 9 am - 5 pm

Panorama Gem and Mineral Club, Annual Show

Colville Fairground
Colville Ag and Trade Center
317 West Astor
Colville WA

March 18 & 19: Saturday & Sunday 10 am - 5 pm
North Seattle Lapidary & Mineral Club, 63rd Annual Rock and Gem Show

Lake City Community Center
12531 28th Ave. NE, Seattle

March 18 & 19: Saturday 9 am - 6 pm; Sunday 10 am - 5 pm
Hellgate Mineral Society, Gems Stones of Montana 23rd Annual Gem, Mineral and Fossil Show

Hilton Garden Inn
2730 North Reserve St.
Missoula Montana

March 24 - 26: Friday & Saturday 10 am - 6 pm; Sunday 10 am - 4 pm
Rock Rollers Club of Spokane, 58th Annual Gem, Jewelry and Mineral Show

Spokane County Fair & Expo Center
N.604 Havana
Spokane WA

March 25 & 26: Saturday 10 am - 6 pm; Sunday 10 am - 5 pm
Mt. Baker Rock & Gem Club, 55th Annual Rock and Gem Show

Bloedel-Donovan Park
2214 Electric Ave.
Bellingham WA

