the CMS Tumbler

February 2015

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

Next Meeting:
February 11, 2015
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

The Program will hopefully be a speaker about Smokey Quartz.

The Show & Tell Theme is Quartz Crystals.



This month remember to wish a Happy Birthday to Peter Williams on February 18


When on field trips this organization uses CB Channel 7.

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2016 CMS Dues are $30. Send or deliver dues to:
Richard Russell
14431 SE 254th St.
Kent, WA 98042
(or pay him at the meeting)

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*.

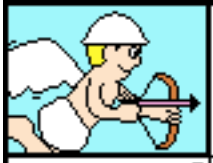
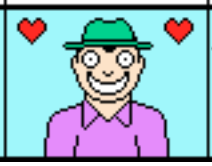
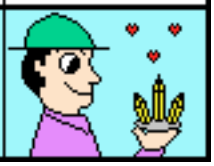
Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton in person or by telephone at (425) 271-8757 or by computer at **mblanton41@hotmail.com**

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 CMS external website is **http://www.cascademineralogicalsociety.org**

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

February

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

Lapidary Class Hours:……Closed until further notice

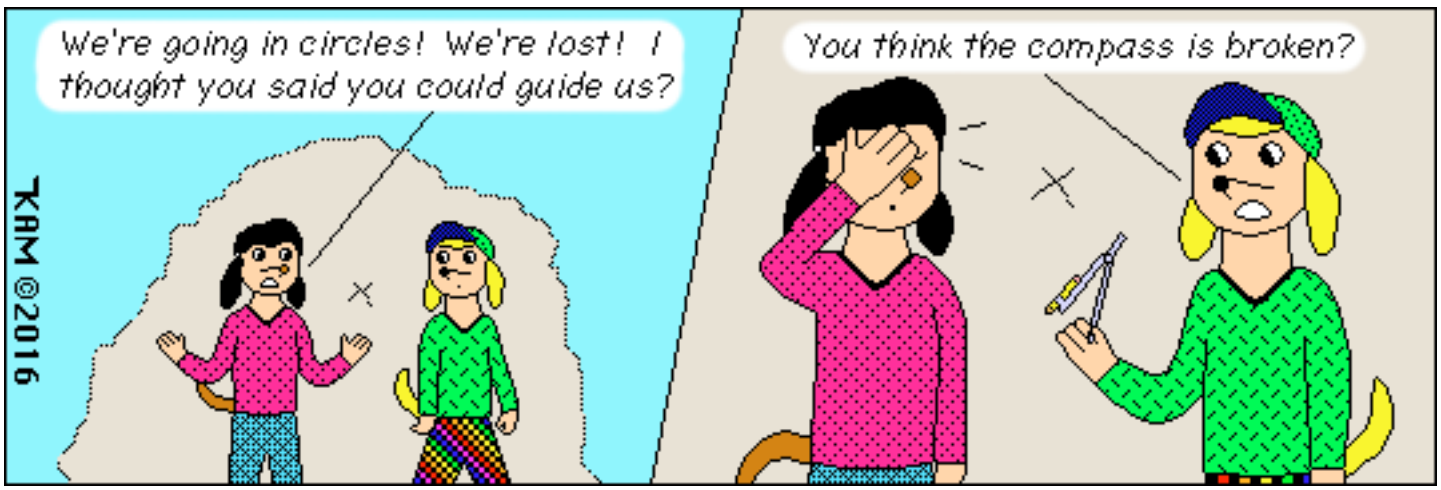
Lapidary Shop Hours:……3rd Tuesday…… 10:30 am to 4;00 pm

Lapidary Shop Hours:……4th Saturday…… 11:00 am to 5:00 pm

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 7. More *Show* info can be found on Page 8



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

CMS Board Meeting Minutes January 11, 2016

by Pete Williams, 2016 Secretary

Members Attending

President Kat Koch *Vice President Diana Horsfall*
Treasurer Rich Russell *Secretary Pete Williams*
Mineral Council Jackie Pattie *Federation Mike Blanton*
Past President Bob Pattie

Meeting called to order at 7:09

The board is exploring different ways to advertise the club. One way will be getting 4 cases for the upcoming Federation Show. The Federation requested a case to display rocks from Washington sites. Our club volunteered to display Western Washington sites. Preferably this would include one rough and one polished rock from several of the sites. Club members will be requested to provide material. This would need to be completed by sometime in June to support the July show. One option may be to use the Mineral Council display which is available for clubs to borrow.

Another way to advertise and get new members would be to get a space at the fair to hand out information. The club also plans once again to participate at the Puyallup Show at the beginning of June to sell buckets of rocks and advertise the club. There is an upcoming show in Lacey that the club is exploring participating in.

Tony Johnson is willing to lead monthly field trips for the club that sometimes would be in conjunction with the Mineral Council's trips. The first trip will be this weekend to the Green River Gorge looking for fossilized clams.

Kat laid out ideas for meeting agendas for 2016. One idea for later in the year would be to have a slab bingo night or a dime auction. Any member feedback is welcome. The theme for the February meeting is all types of quartz crystals. We will be looking for a live speaker on smoky quartz.

There was a discussion on what will be needed to hold a club show in 2016. The thought at this time is that the club currently lacks enough people to support a show.

The next meeting will be February 8 at Panera Bread in Kent.

Meeting adjourned at 8:30.

Young Richard's Almanac by Dick Morgan

There is nothing that makes you feel so well as meeting people for the first time and learning about them and have them enjoy your company.

Celestine or Celestite is a mineral consisting of strontium sulfate. The mineral is named for its occasional delicate blue color. Celestine is the principal source of the element strontium, commonly used in fireworks and in various metal alloys.

It occurs as crystals, and also in compact massive and fibrous forms. It is mostly found in sedimentary rocks, often associated with the minerals gypsum, anhydrite, and halite. Marine sediments containing skeletons of animals with carbonate often produces Celestine.

The mineral is found worldwide, usually in small quantities. Pale blue crystal specimens are found in Madagascar.

Celestine crystals are found in some geodes. The world's largest known geode, a celestine geode 35 feet (10.7 m) in diameter at its widest point, is located near the village of Put-in-Bay, Ohio, on South Bass Island in Lake Erie. The geode has been converted into a tourist area called Crystal Cave. The crystals, which once composed the floor of the geode, were removed to make a walking surface. The geode has celestine crystals as wide as 18 inches (46 cm) across, estimated to weigh up to 300 pounds (135 kg) each. Celestine has a Mohs scale hardness of 3-3.5, similar to calcite.

from The Carmel Valley Prospector!, 5/15

A way to clean quartz and amethyst crystal carbonates such as calcite, barite and lime that does not involve dangerous acids is to cover them with fresh vinegar. Stand the crystals overnight in the vinegar; repeat if necessary. Wash well and then place the crystal in washing ammonia for 8 to 12 hours, remove, rinse and wipe. When a stone is properly polished, you can read the reflection from the bottom of an overhead light bulb in the high polish of the stone.

from Washington Agate & Mineral Society Newsletter, 1/16

Pneumonoultramicroscopicsilicovolcanoconiosis

This is the longest word in the dictionary. It is an ailment caused by inhaling very fine silicate or quartz dust. Rockhounds, take warning and precautions when you are dry sanding; always wear a face mask.

The word may be long, but the cure is longer. And you'd have a hard time telling your doctor what you have.

via The Clackamette Gem, 4/15; via News and Views, 3/15; via The Post Rock, 12/07; via Roamin' Rams, 12/01; from Roadrunner News

CMS General Meeting Minutes January 14, 2016

by Pete Williams, 2016 Secretary

Meeting called to order at 7:04. Minutes approved as written.

Tumbler Editor and Webmaster's Report: No problems. Could use more articles submitted.

Treasurer's Report: Rich is accepting dues for 2016 at $30 for a family. The club did well at the Christmas dinner auction. There are 32 paid members.

Shop Reports: Nothing going on now. There will need to be a work party to replace the tarps as there have been damaging winds.

Field Trip Report: Tony Johnson will be leading club field trips this year. Some will be to new sites and some will be in conjunction with the Mineral Council. The first will be this Saturday at the Green River Gorge. Meet at the Enumclaw ranger station at 9:00. No discover pass is needed.

Federation Report: The show will be held on July 29-31 in Albany, Oregon. The club is sending a donation. Mike will be having raffle tickets for sale.

Library: If anyone is looking for something in particular, call Bob.

Mineral Council: The presentation to Olympia on rockhounding's contribution to the state is complete. Dues have been increased from $.75 to $1.00 per member. Maps to Washington sites are still for sale. The 2016 field trip list is now on the web site.

Health & Welfare: The memorial service for Bob Bird will be held January 28 at 2:00 at the Methodist Church in Des Moines. The card to Virginia Bird was returned due to an incorrect address.

Show Committee: The board will be looking at smaller venues for 10-12 vendors. They will need to see if the Opal Club is interested in completing the 2 clubs merger.

Old Business: The club will continue to sell unneeded equipment to reduce the inventory in storage. There is a gold dredge that will be put up for sale. Buckets of rocks will be for sale at the Puyallup show in June.

New Business: The board is looking for ways to advertise the club to attract new members. Kat and Mike have been handing out club business cards at the shows they attend. Kat is looking at a booth at the Spring and Fall fairs in Puyallup to advertise the club. We have applied for 4 cases at the Federation show in Albany. We will have a case with rocks from Western Washington sites. The case should have rough and polished specimens from 10-12 sites. Kat is looking for a volunteer to store the rocks and record what has been donated by club members. See Kat if interested.

There is an upcoming show in Lacy on April 2-3. Proceeds will go to Toys for Tots. Kat will have a case at the show.

Program: The program was a video on digging agates in Australia and carnelian agates in Oregon.

Meeting Adjourned: 8:15 followed by the raffle.

Displays:

Dick Morgan - Collection of agates & jaspers.
James Cerenzie - Snakeskin agate from Rome, Oregon.
Aidan Cerenzie - Agate from Pyramid Creek, carnelian from Lewis County.
Michael Blanton - Petrified wood bookends.
Rich Russell - Chrysoprase & opals from Australia.

Heat Treating Tiger-Eye

by Tim McGinnis - Springfield Thunderegg Rock Club

Tiger-eye is a rare form of quartz, fibrous by substituting itself in place of Crocidolite. Crocidolite is a variant of the mineral riebeckite, a complex silicate containing iron. It is also known as blue asbestos.

Tiger-eye derives its color from the addition of iron from the Crocidolite to the oxygen that is already present in its basic quartz structure. Heating tiger-eye causes a chemical reaction in the limonite particles, changing them to a reddish hematite. Called ox-blood, if placed in hydrochloric acid, the coloring will fade to a grey-green, resembling the precious cat's eye variety of quartz.

Instructions: Rarely is red tiger-eye a natural occurrence. It must be heated, typically in a kitchen oven. To protect the tiger-eye from thermal shock during heating, cover slabs of ordinary, gold tiger-eye in fine clean silica sand, at least 3 inches all around the slab. Place the metal container in a cold oven and increase the temperature 50 degrees every hour until it reaches 400 degrees. Let it cook for one hour and then turn the oven off; DO NOT open the door. Allow plenty of time for the container to cool all the way through. This is best done leaving the container in the oven over night.

from Washington Agate & Mineral Society Newsletter, 4/15

Geology Corner

by Ron Graichen

Obsidian is volcanic glass similar to ordinary window glass. It is generally black, but some is "mahogany" in color. The black color is caused by tiny specks of iron, (probably magnetite) while the red is created when the iron rusts. Obsidian (glass) is really non-crystalline silica and is a "hard liquid". As such it is chemically unstable, meaning silica wants to align into crystal form. Because of this property, the glass does "rot" very slowly. Have you noticed that very old window glass is more brittle than new glass? Obsidian is a very young volcanic product in geologic time. There is no obsidian in "old" rocks.

via Washington Agate & Mineral Society Newsletter, 5/15; from Carny Hound

Ye Olde Englishe Rocke

The English language is replete with obsolete words and terms. Here are some that once applied to rocks and minerals:

Bonksman: The man who works at the mouth of a coal mine.

Comet-wine: Grapes growing during a year in which a comet appeared were thought to be better in flavor than those of other years, thus wine made during those years is thought to be superior in quality. Why? It was thought that comets could influence the weather, yielding a warmer growing season and better grapes.

Eagle-stone: Generally, an eagle-stone was a piece of iron ore. Eagles were believed to carry these stones up to their nests because the stones would prevent their eggs from rotting. Alternatively, an eagle-stone was a fossil that rattled when shaken because of a small loose fragment inside it. The eagle-stone was necessary for the eagle to raise healthy young. Eagle-stones also found use by pregnant women who wore them as a charm to prevent miscarriages.

Old-man: If underground miners broke into older, forgotten mine workings, they'd say that "the old-man has been here" or that they "got into an old-man."

Puttingstone: It was the custom among great houses in Scotland to keep a huge stone by their gates. Thrown from the shoulder, the stone was used for trials of strength. It was perhaps an ancestor to the shot put.

Sand-knocker: Sandstone was ground into grit, and the sand-knocker made it and sold it door-to-door for use in sanding down floors.

Sea-dog: Sailors viewed the sea-dog, a meteor seen on the horizon shortly before or after sunset, as a sign or portent of bad weather to come.

Slocking-stone: To promote a mining scheme, investors might be shown a slocking-stone, which was a very rich specimen of ore from the mine, as an inducement to buy.

Surface-coal: Another term for cow "chips" or cattle dung, which was widely used for burning.

Thunderstone: The thunderstone was a rock supposedly created by thunder. The belief in thunderstones might have its origin in the fulgerite, which is a fused rock created when lightning strikes sand or soil. Fulgerites may have a forked or branching structure; thus they were thought to be thunderbolts, or thunderstones.

Verter-water: Rainwater that collected in small hollows in rocks and tombstones was thought to work as a cure for warts.

Warming-stone: Warming-stones were pebbles used by bakers to indicate that their ovens were hot enough for baking. When the stone turned white, the oven was ready.

Reference: Kacirk, J., 2000, The Word Museum, Touchstone, Simon & Shuster, New York, NY.

via The Rockhounder, 5/15; via The Glacial Drifter, 4/15; from RockyReader, 7/11

A Little Iron Goes a Long Way by Richard Knox

People are always searching for ways to counteract the effects of the rusting of iron and of iron rust stains. However, it was not always that way. Ancient peoples often used iron rust, or ocher, in their decorations.

Iron rust is very common in nature and the iron oxide (of which rusts consists) or sometimes iron atoms themselves, are often responsible for the coloration of some of our most important gemstones. Some minerals that are used for jewelry have iron as a principle constituent. Hematite is 70% iron, and pyrite (marcasite) is 40% iron. Most of the agate and jasper that contains yellow, brown, and red colored zones are colored by the iron that is included in them.

In some gemstones, however, very small traces of iron within the crystal structure of the mineral can produce dramatic changes in color. A few tenths of a percent of iron within the crystal can turn an ordinary looking mineral into a beautiful gem that has both esthetic and monetary value.

A few tenths of a percent of iron in the lattice structure of quartz produces both the citrine and amethyst. If citrine is irradiated, it becomes amethyst, and if amethyst is heated it is altered to citrine. This process is reversible.

Beryl is another gemstone in which traces of iron can influence the color. In aquamarine, a few percent of iron causes both the green and the blue color that can be found in the gemstone, depending upon where the iron atoms are located within the crystal lattice. The green color can be removed by heat, leaving only the blue color. This is more pleasing by present day standards. The green color can be replaced by irradiation if desired.

The color of golden beryl also is caused by a small percentage of iron atoms, in fact, the same atoms that sometimes make aquamarine look green. It can be bleached to a colorless beryl (goshenite) by heat and then returned to its golden hue by irradiation. When one tenth to three tenths of a percent of the mineral corundum is iron atoms, it produces a yellow gemstone known as yellow sapphire. If a like amount of the metal titanium is also present, we have the more desirable and better known blue sapphire.

There are many other gemstones and minerals that owe their color to traces of iron, sometimes by itself and sometimes in combinations with other elements.

via The Rockhounder, 10/14; via Stoney Statements, 1/10; via The Roadrunner, 8/06; via Glacial Drifter 3/96; from Tumble Rumble

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Alaska has mountains running E-W, N-S, and in arcs that defy simple lineations

from USGS Twitter, 3/18/15

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**).

February 20 *Marysville Rock Club* - **Cedar Ponds** - Meet before 9:00 @ Monroe Jack n Box - Jasper - Bring digging & hard rock tools

Ed Lehman–wsmced@hotmail.com (425) 334-6282 (425) 760-2786

Leading Quartz Localities In King County, Washington

Washington does not lack occurrences of interesting quartz crystal specimens. The opening of the North Cascades Highway revealed smokey quartz crystals in association with rare minerals at Washington Pass. State Geologist Ray Lasmanis discovered highly complex crystals lying loose in seams in basalt near the summit of Timberwolf Peak, in Yakima County. Unnamed prospectors late in the 19th century in the search for gold along the three forks of Snoqualmie River in King County frequently encountered quartz crystals. The crystals failed to indicate the presence of gold, however. They were ignored until collectors became aware of their attractions. The occurrences here and the interesting features are not duplicated in number and variety anywhere else in Washington.

Features seen in the area include doubly-terminated crystals, gem-quality, healed crystals (including patterns of regrowth), inclusions (gas, fluids, other minerals), milky quartz crystals, needles, phantoms, pseudomorphic crystals, raspberry-colored crystals, scepters (normal and reverse), skeletal crystals, smoky crystals, druzes with a suture texture, and twin crystals (Japan law, Reichonstein-Grieserntal, others). In tabulations that follow, Reichonstein-Grieserntal is abbreviated as R-G. World-wide, both Japan law and R-G twins are considered rare. The relative plethora of such crystals on the Snoqualmie River makes the area notable.

Snoqualmie River, North Fork

Devils Canyon (SE.25 27, 25-10E): Japan-law twins, R-G twins, scarce scepters; accompanied by schorl suns, molybdenum and tungsten minerals; probably still under claim.

Green Mountain (SW 33.25, 24-9E): inclusions of actinolite, tiny but classical scepters; at and near minor but interesting deposits of magnetite, under claim in the 1890's.

Lake Hancock (N.5 SW.25 32, 24-9E): smoky

Mt Teneriffe (S.5 SE.25 32, 24-9E): Japan-law twins, R-G twins (sometimes sceptered!), inclusions of dravite, hematite, rutile, and other minerals; spelling given here is correct, although in variance with its reference.

Snoqualmie River, Middle Fork

Bear Lake, Deer Lake, Snoqualmie Potholes (SW.25 10, 24-11E, Sections 15 and 16, 24-11E): scepters, amethyst

Clipper (NW.25 1 and NE.25 2, 23-11E): scarce gem quality, scarce Japan-law twins and scepters, odd pseudomorphic crystals after unknown mineral; crystals arrayed in parallel ranks (suture texture); inclusions of actinolite, chalcopyrite, chlorite, pyrite, and siderite; on a patent claim.

Condor (NW.25 11, 23-11E): scarce gem quality, actinolite and rutile inclusions, monazite inclusions reported (based on finding of radiation haloes within individual crystals); on a patent claim.

Dutch Miller (early copper-gold claims at Chain Lakes; SW.25 20, 24-13E): odd growth patterns; claimed

Granite Lakes area (east end of Granite Lake-Gifford Lake divide; near center of 24, 23-9E): inclusions, phantoms.

Green Ridge (SE.25 30, 24-11E): scepters (many of amethyst), scarce or rare Japan-law or R-G twins (some with inclusions), doubly-terminated crystals, phantoms, inclusions (pyrite, other minerals), individual crystals to 6 inches long; in vugs to 40 feet long (some big enough to stand up in); scattered over 240 acres; claimed

Horseshoe Mines (SW.25 23, 23-9E): tiny doubly-terminated crystals that cascade out of newly-opened pockets; old claims

Katie Bell Ridge (SE.25 36, 24-11E): scepters (some of amethyst), inclusions (pyrite, chlorite), phantoms; quartz here is associated with needles of malachite; claimed.

Pedro Pipe (NE.25 1, 23-11E): inclusions of pyrite, scheelite; odd growths; site is better known for its other minerals; patent claim

Porter (SW.25, 23-11E): inclusions (pyrite, probably other minerals), scepters (normal and reverse); patent claim

Spruce Claim (SE.25 2, 23-11E): inclusions (actinolite, fluid, gold, pyrite), scepters, doubly terminated crystals (as healed crystals), needles, Japan law twins; this site is better known for its superb pyrite; patent claim

Copper Chief area (near Condor): an unnamed site above the Copper Chief produces reverse scepters.

from Washington Agate & Mineral Society Newsletter, 1/16

Shows

February 6: 9 am - 4 pm
Lapidary Estates & Downsizing Sale
Everett United Church of Christ
2624 Rockefeller Ave.
Everett WA

February 12 - 14: 9:30 am — 5:30 pm
Oregon Agate and Mineral Society
OMSI (Oregon Museum of Science and Industry)
1945 SE Water Avenue
Portland, Oregon

February 13 & 14: Saturday 9 am - 5; Sunday 9 - 4
Whidbey Island Gem Club
Oak Harbor Senior Center
51 SE Jerome Street
Oak Harbor, WA

February 27 & 28: Saturday 10 - 6; Sunday 10 - 5
Idaho Gem Club
Expo Idaho
5610 Glenwood Street
Boise, Idaho

Internet Addresses

Rockhound Times
http://www.rockhoundtimes.com

The Vug
http://www.the-vug.com
from Gem & Mineral Journal, 1/16

Instructions To Make A Paper Volcano
http://pubs.usgs.gov/of/1991/0115a/report.pdf
from USGS Twitter, 1/22/16

A Rockhound Blog
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