



the CMS Tumbler

August
2019

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

Club Picnic:
August 11, 2019
11 a.m. setup
12 Noon we eat

**Lake Wilderness Arboretum
Lake Wilderness Park
22520 SE 248th
Maple Valley, WA**

The Picnic takes the place of the
August General Meeting.

Bring a favorite meal for pot luck.
Bring plates, utensils, and cups.

There will be an auction after eating.

Hope to see you there!



*This month remember
to wish a
Happy Birthday to
Michelle Unger on August 3,
Paul Stewart on August 27,
and also remember
to wish a
Happy Anniversary to
Isaac & Merriann Fu on August 9*



Connect with us!

Website: www.cascademineralogicalsociety.org

Club Facebook: www.facebook.com/CasMinSoc/

Show Facebook: www.facebook.com/cascadegemandmineralshow

Instagram: www.instagram.com/cascadegemandmineralshow/

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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.

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2019 CMS Dues are \$25 per year per family

Pay online, by mail, or at our meetings.

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

You can pay your dues via credit card! We now accept all cards through our website, or at the meeting. You can renew your membership, or enroll as a new member, and pay your dues all in one shot online. You will find it under the "Membership" tab on our website <http://www.cascademineralogicalsociety.org>

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the *American Federation of Mineralogical Societies*; the *Northwest Federation of Mineralogical Societies*; and the *Washington State Mineral Council*.

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

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

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

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



August



SUN	MON	TUE	WED	THUR	FRI	SAT
	The Club Picnic takes the place of the August Regular Meeting!			1	2	3
4	Show Meeting 6:30 PM Board 7 PM 	6	7	8	9	10 Maplewood Show
11 Club Picnic 11 AM Set-Up 12 Noon Eat 	12	13	14	15	16	17 Greenwater Trip
18	19	20	21	22	23	24
25	26	27	28	29	30	31

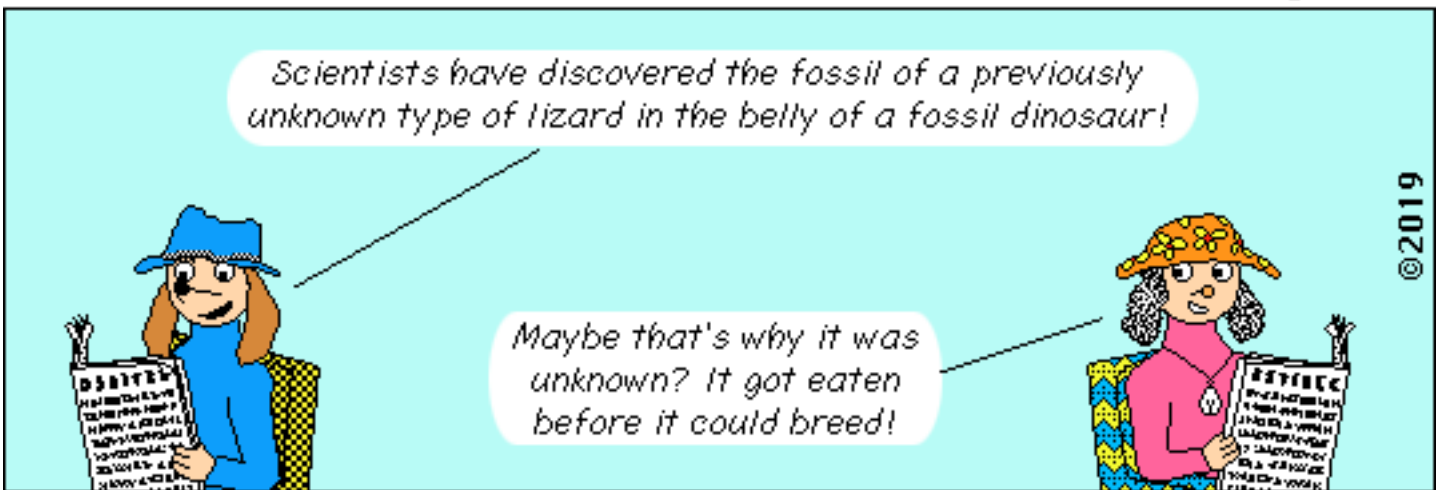
CMS Show Committee Meeting: ...Monday, August 5.....6:30 pm to 7:00 pm
 CMS Board Meeting:.....Monday, August 5.....7:00 pm to 8:00 pm
 CMS Club Picnic:.....2nd Sunday, August 11.....11:00 am set-up 12:00 Noon eating

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

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

Mr. and Mrs. Rockhound

by KAM



CMS Show & Board Meeting Minutes July 8, 2019



by Pete Williams, 2019 Secretary

Attendance:

- | | |
|-----------------------------------|--------------------------------------|
| <i>President Kat Koch</i> | <i>Vice President Merriann Fu</i> |
| <i>Treasurer Charles Benedict</i> | <i>Secretary Pete Williams</i> |
| <i>Federation Mike Blanton</i> | <i>Mineral Council Jackie Pattie</i> |
| <i>Past President Bob Pattie</i> | <i>Show Chair Mark Hohn</i> |
| <i>Director Roger Danneman</i> | <i>Director Rich Russell</i> |

Meeting called to order 6:30

There are only 2 booths available for sale with a few potential vendors interested. Two demonstrators are confirmed and looking for 2-3 more. Still looking for a food truck with a better variety of food available for sale. Raffle tickets have been purchased that only require people to fill in their information only once. Most of the display cases have been assigned, but need to ask members at the next meeting if they would like to display at the show. Still looking for focals for the kid’s area. Donations of all kinds of slabs, rocks, tumbled stones are needed for the show. The possibility of purchasing T-shirts for all volunteers was discussed and will be further investigated.

Board Meeting: Meeting called to order at 6:59

There are currently 82 family memberships. Eventbrite has been connected to the show page on the website. Items to vote on at the next NFMS meeting will be discussed at the next Board meeting. The Board agreed to donate an item with about a \$75 value for the AFMS auction. The next field trip will be on July 20 at Government Meadows.

Merriann agreed to write the Young Tumblers page for the month of August. The Gem Faire requested they be contacted in late September early October to see if they have an available space they can donate to us. Bob will be starting classes at the shop at his place on making cabs.

The next Show and Board meeting will be held on August 5.

Meeting adjourned at 7:57

Notice of 90-day Comment Period - Draft North Cascades Ecosystem Grizzly Bear Restoration Plan/ Environmental Impact Statement

Request for Comment: The Draft Environmental Impact Statement (DEIS) for the North Cascades Ecosystem Grizzly Bear Restoration Plan/Environmental Impact Statement is now available for a 90-day comment period. This DEIS is being developed in cooperation with North Cascades National Park, Forest Service, and U.S. Fish and Wildlife Service. The plan alternatives include actions proposed to occur within North Cascades National Park, Mt. Baker-Snoqualmie National Forest, and Okanogan-Wenatchee National Forest. The draft alternatives are described and analyzed in the North Cascades Ecosystem Grizzly Bear Restoration Plan DEIS along with associated maps and can be reviewed at <https://parkplanning.nps.gov/grizzlydeis>

The draft plan/EIS evaluates the impacts of a range of alternative approaches for determining how to restore the grizzly bear to the North Cascades Ecosystem grizzly bear recovery zone, a portion of its historical range. Upon conclusion of the draft plan/EIS and decision-making process, the alternative selected for implementation will become the North Cascades Ecosystem Grizzly Bear Restoration Plan.

U.S.D.A Forest Service Objection Process: Actions proposed on NFS lands under the plan/EIS constitute activities that implement land management plans for the U.S.D.A. Forest Service and are subject to the agency’s pre-decisional objection process at 36 CFR 218 Subparts A and B. The objection process occurs prior to the Forest Service making a final decision (signing a ROD) and will include circulation of the final EIS and draft decision document (ROD). Only those persons who submit timely and specific written comments (36 CFR 218.2) regarding the proposed project or activity during the public comment period are eligible to file an objection (36 CFR 218.24(b)(6)).

The North Cascades National Park will accept comments on behalf of the Mt. Baker-Snoqualmie National Forest on this proposal for 90 days following the publication of the Notice of Availability in the Federal Register. The preferred method for submitting comments is on the NPS PEPC website at: <https://parkplanning.nps.gov/grizzlydeis>. You may also mail or hand-deliver your comments to: Superintendent’s Office, North Cascades National Park Service Complex, 810 State Route 20, Sedro Woolley, WA 98284.

It is the commenter’s responsibility to ensure timely receipt of comments (36 CFR 218.25). For issues to be raised in objections, they must be based on previously submitted specific written comments regarding the proposed project or activity and attributed to the objector. For objection eligibility, each individual or representative from each entity submitting timely and specific written comments regarding the proposed project or activity must either sign the comments or verify identity upon request (36 CFR 218.24(b)(8)). Comments received by the Park in response to this solicitation, including names and addresses of those who comment will be part of the public record for this project.

CMS General Meeting Minutes July 11, 2019

by Pete Williams, 2019 Secretary

Meeting called to order at 7:17

Minutes were approved as written.

Treasurer's Report: Details on how the club is doing financially are available.

Tumbler: Some peoples birth dates were transposed which resulted in some errors in the Tumbler.

Webmasters/Membership Report: Field trip info in on the website.

Field Trip Report: The next field trip is on July 20 at government meadows in Greenwater.

Federation Report: Information on things to be voted on at the next NFMS show meeting will be provided with the next newsletter.

Mineral Council: The BLM is determining if they need to build fire breaks on some roads. Different options are being proposed to help cut down on forest fires. Some bills with little chance of approval are being discussed in Congress. This includes bills on restoring parks and public lands, using moneys from leases to maintain federal lands, and closing most federal lands to all resources.

Health & Welfare: A card will be sent to Jackie Pattie.

Show Committee: There are 31 vendors with 62 booths sold to date. There are 2 more booths available with a waiting list of potentially interested vendors. Donations of all types of rocks, slabs, etc. are needed for the silent auction. Volunteers will be needed. The goal of the proceeds from the shows is to some day have our own shop. The next show meeting in on August 5 at 6:30 for anyone interested in helping out.

Volunteers are needed to supervise the kids table at the show.

Old Business: Remember the August gold panning field trip and the club picnic on August 11 at the Lake Wilderness Arboretum.

New Business: We will be holding classes on how to use the club equipment and make cabs at the shop at Bob's. The intro to equipment class can have up to 5 people with follow on classes limited to 2-3. The first class will be on July 27 at 1:00. More info will be provided on the website.

Program: Ben Rusk from Cascade Gold Mining LLC made a presentation on mining gold. His website is cascadegoldadventures.com.

Meeting adjourned at 8:36 followed by show and tell and the raffle.

Shop Classes!

Bob Pattie is going to have a series of Shop Classes. Contact Bob for dates and times. His telephone number and email are on page 2 of this bulletin.

Session 1: Overall discussion on rock material and shop equipment usage.

Session 2: Using equipment. Class limited to 3 members at a time. Will hold several sessions in order to accommodate everyone.

Session 3: Use the equipment on your own with Bob's supervision. He will be there to answer questions and help as needed as you work.

Young Richard's Almanac by Dick Morgan

As children are the future of our country it would seem prudent that they get all the help and support they need to be able to face the rigors moving us forward in an ever changing world.

You are unique, only you could have lived your life.

All the goods and evils that you have committed are you.

The trips you take and the talks you tell are the sum of you.

The anteater has no teeth so it swallows ants whole. Imbedded in the thick muscular walls of its stomach are tiny pebbles it has collected, which serve to grind up the hard bodies of the insects. Diamonds and gold nuggets have been found in the gizzards of chickens used for the same purpose. The alligator swallows rocks for a different reason: to provide ballast to keep him on an even keel in the water. The sea otter uses rocks to crush shellfish on his chest while he floats serenely on his back.

via Golden Spike News, 3/19; via Golden Spike News, 3/10; via Rock Rollers, 5/08; via Rock Chip Reporter, 3/08; from Gems of the Rogue

The shortest dinosaur name is Yi.

A Note From The President's Desk...

By Kat Koch, 2019 CMS President

I am looking forward to seeing everyone at our picnic on Sunday, August 11th at Lake Wilderness Arboretum, Maple Valley. Setup is 11 am. with potluck picnic lunch at 12 noon. We will have an auction following lunch. So mark your calendars now and plan on attending. The kids can use their "Rock Bucks" to buy any auction item. It's okay to arrive late as some of you attend church on Sunday mornings.

There will be no General Meeting in August. There will be a show committee meeting and Board meeting on Monday, August 5th at the regular time and place. We are on the downhill slide into the show. We still need someone to oversee the kids area. It's not a huge job. They will be painting rocks again this year. Please seriously consider volunteering!

The Puyallup State Fair is coming up soon. I encourage everyone to enter items in the rock specimens/display, rock art, lapidary, jewelry, collections and etc. Divisions. We want to keep our hobby displays/competition active at the Fair. Lack of participation and they will eliminate it. The Fair runs from August 30th to September 22nd this year but closed each Tuesday.

Our entries are displayed in the Hobby Hall covering Divisions 200-232 and collections. Entry deadline is Wednesday, August 14th by 10 pm. Bring in your entries starting on Friday, August 16th thru Sunday, August 18th, from 9 am to 4 pm each day.

Just a reminder that we need rocks, minerals and fossils for the silent auction at our upcoming Gem Show in September. If you go rockhounding please remember to pickup a bucket or so of extra stuff to donate to our club. Thank you to the members that donated items at the meeting. We still need a lot more!

We are having Shop Classes so please check out the class schedule elsewhere in this bulletin.

Valley Kutkhiny Baty, Kamchatka Peninsula, Russia by Kat Koch

Deep in the Kamchatka Peninsula lies an eerie and unique valley called Kutkhiny Baty made whitish pumice stone. The pumice rock formation outcrop located 4 km from the source of the River Ozernaya (Lake Kurile), near the southern tip of the Kamchatka Peninsula, Russia. The Kamchatka Peninsula is a 1,250-kilometre-long peninsula in the Russian Far East, with an area of about 270,000 square km. It lies between the Pacific Ocean to the east and the Sea of Okhotsk to the west.



The Kuthiny Baty Valley was formed approx. 8,000 years ago when a massive volcanic explosion shook the entire Kamchatka Peninsula and an enormous amount of the ejected material created a thick layer of deposits all over the countryside. Subsequent erosion carved a spectacular valley scattered with obelisks that appear to resemble gigantic canoes standing upwards. Each "boat or canoe" is approx. 16 stories tall. Kuthiny Baty means "standing boat" in Russian.



According to local Itelmen's legend, Kutkhu - the Lord and the Creator of Kamchatka - used to live on Kurile Lake and used to go fishing on the lake and to the ocean in these canoes. Before leaving Kamchatka, Kutkhu put up his boats ("Baty"), and since then this place has been considered sacred among the locals.

The Art Of Display by June Culp Zeitner

To show off minerals and gems one need only learn and apply a few rules of art. Some are so elementary that most pebble-pups as well as advanced rockhounds know them, nevertheless, they are all important.

Cleanliness:

A dusty or finger printed specimen or case detracts from any display.

Arrangement:

A pleasing arrangement has balance, good proportion, pleasing color harmony, rhythm, design and suitable background. Generally speaking there are two types of balance in art, formal and informal. If you can draw a line through the center of a design and find that each half is a mirror image of the other, that design is formal. If the two halves are not the same, the balance is informal. An old fashioned garnet brooch is usually formal in design. A modern free form brooch set with a garnet baroque would probably be informal in balance.

Formal balance is well suited to arrange cabochons for display. A group of slabs of dissimilar sizes and shapes lend themselves to informal balance. Why strive for balance? We want to show it off to the best advantage. Just as we would never lay a "picture agate" upside down so we would not lay it in a row with bigger or brighter stones.

Trained to take in things at a quick glance our eyes naturally seek the center of interest. If you have any prized specimens which you are anxious to show off, give them plenty of space. Overcrowding is a sin of which most of us are guilty.

According to the strict rules of art, a display should have most of its weight toward the bottom. This means apparent weight rather than actual weight. A good display can't have the most massive or the brightest pieces at the top. It would appear too heavy. The eye is upset at seeing a display with a high center of gravity which looks as if it would topple over. In a display all on one level the larger items naturally go to the background, the more spectacular specimens toward the center and the smaller items in the foreground.

Every good display, like every good picture, should have margins. The rules governing margins in art call for the widest at the bottom, the second at the top and the two sides either equal to, or a little narrower than the top.

Remember that bright colors strike the eye before dull colors. They tend to come forward. They can be used in smaller amounts and still attract attention. The placing of bright colors must be watched carefully. For example if, you placed a slab of electric blue chrysocolla in each corner of your show case they would tend to draw the eyes in four directions at once. Whatever you had planned for the center of interest in the middle of the case would be lost. Bright colors placed in a hit or miss manner spoil any feeling of balance and rhythm by causing the eye to jump.

One large specimen can be balanced by a group of smaller ones. One bright specimen can be balanced by several duller ones. The subject of color is important to rockhounds and we should know and understand the color wheel, the primary, secondary and tertiary colors and the basic color harmonies. A very bright color should be used in smaller amounts than muted shades or tints. The center of interest of any arrangement should be toward the center where the eye naturally falls first. If too many bright colors other than the center of interest are used the result is a "busy" or jumpy arrangement.

It is definitely worth the effort in arranging a gem or mineral display to carefully consider the color of every piece before deciding where to place it. The artful use of color can make an average collection spectacular, while the poor use of color will make a superb collection seem like a dull jumble.

Background:

In the successful display of gems the background against which the gems are placed should be in keeping with the value of the gems. It should not detract from the color of your gems but should flatter every stone in the display. Tweed or calico would not be used to set off a faceted collection. Velvets, velours, silks and satins are more appropriate. However, as beautiful as red velvet is it would not be an appropriate background because red is a detracting color. After much experimenting, we have found that a pale blue satin, a grey tone of blue, is the most versatile of background material for mineral display. There is just enough color in this to set off tints as well as shades. Another wonderful background for gems or jewelry is the use of mirrors. A sparkling mirror multiplies the beauty of your gems.

Snowy white styrofoam is another suitable background. It can be cut in various shapes to enhance the beauty of a specimen and is useful in creating split levels of display. A specimen can also be made to stand in the precise position it looks best. Besides the ordinary background material many rockhounds with imagination use other devices to add interest. A piece of silvery driftwood against a sea-blue drop may be used to set off a collection of beach agates. A piece of ibduan pottery add interest to a turquoise display. Under no circumstances should the background be so big, bright or unusual that it detracts from the real purpose of the exhibit.

Lighting:

Good lighting is essential. Scenic agate slabs are best viewed with a light behind them. Spot lights are suitable for large spectacular pieces, but in most cases tube lights directly above or inside each display case are best. Natural light is a big help for home display. A big north or south window opposite your display give a good light.

Flair:

For want of a better word I use flair to describe that something extra which the personality of the rockhound stamps on his display. A beginning artist should learn the rules of art, however, we all know artists who have broken rules and come out on top. Not all great gem displays follow the artists display rules, but you should learn the rules first before you build up enough faith in your flair to learn when it is right to break a rule or two if gem dealers and collectors would think of themselves more often as artists, many shops and collectors would greatly be enriched with very little expenditure. Display cases are not hard to build. With a little effort every hidden box of specimens could graduate into a real artistic display.

via The Quarry, 1/15; via AFMS Newsletter, 5/04; Pickin's & Diggin's; via others; from unknown publication, 1971

Holes In Rocks

Openings of all kinds are found in all kinds of rocks. Here are the most important types of holes in geology. Sometimes a hole qualifies for more than one name, so be careful with your observations.

1. **Druse:** Druses are small cavities that are lined with crystals of the same minerals that are found in the host rock. Druse may also refer to a surface carpeted with crystals, one with a drusy texture. The word is from German.

2. **Geode:** Geodes are small to medium-sized cavities, typically found in limestone or shale beds. They are usually lined with at least a thin layer of chalcedony, and they often have a drusy lining of quartz or calcite crystals. More rarely, the drusy lining is other carbonate or sulfate minerals. Geodes are capable of weathering out of the rock as discrete concretions or nodules.

3. **Lithophysae:** Lithophysae are found in high-silica lavas like rhyolite and obsidian: they are round hollows lined or filled with feldspar or quartz in concentric layers. It's not always clear whether to consider them bubbles or droplets (spherulites), but if they empty out they are clearly holes. The name is Latin, meaning "rock bubble"; lithophysis is the singular and lithophysae is the plural.

4. **Miarolitic Cavity:** This is a special type of small cavity found in coarse-grained igneous rocks like granite, especially in late-stage settings such as pegmatites. Miarolitic cavities feature crystals of the same minerals as the rest of the rock (the groundmass) protruding into them. The name comes from the Italian miarolo, the local dialect name of the granite near Lago Maggiore whose crystal lined pockets were once famous among mineral collectors.

5. **Mold:** Molds are the openings left behind when minerals dissolve or when dead organisms decay. The material that subsequently fills a mold is a cast. Fossils are the most common kind of cast, and casts of easily dissolved minerals like halite are also known. Molds are temporary things, geologically speaking.

6. **Pit:** Pit is the general name for a hole in sedimentary rock that is produced by weathering. Small pits are typical of alveolar or honeycomb weathering, and large pits are called tafoni.

7. **Pocket:** Pocket is a term used by rockhounds or miners for any hole with crystals in it. Geologists don't use the word.

8. **Pore:** The tiny spaces between the individual grains of rocks and soil are called pores. The pores in a rock collectively make up its porosity, which is an important property to know in groundwater and geotechnical studies.

9. **Vesicle:** Vesicles are gas bubbles in lava that has solidified. Lava that is full of bubbles is said to have a vesicular texture. The word comes from the Latin for "little bladder." Vesicles that fill with minerals are called amygdules; that is, if a vesicle is like a mold, an amygdule is like a cast.

10. **Vug:** Vugs are small cavities lined with crystals, like druses, but unlike druses the mineral crystals lining vugs are different minerals from those of the host rock. The word comes from the Cornish dialect.

via Golden Spike News, 5/19; from The Petrograph, 5/19

Did you know that construction of an average six-room house requires 39 tons of aggregate?

The foundation is made from limestone, clay, shale, gypsum, and aggregate.

The exterior might be brick (made from clay) or stone.

The insulation may be made of glass wool (made from silica, feldspar, and trona) or expanded vermiculite.

The interior walls are generally faced with wallboard made from gypsum.

Metal nails and screws hold the wood frame of the house together.

The roof might be asphalt shingles covered with bits of colored silica

The fireplace may have a steel lining made from iron ore and be faced with brick or stone

The sewer pipes are made of clay or iron

The electrical wiring is made of copper or aluminum

Sinks and toilets are commonly porcelain made from clay

Plumbing fixtures are made of brass (copper and zinc) or stainless steel (nickel and chrome).

Rain gutters are made of aluminum

Paint is manufactured with mineral fillers (clay and limestone) and pigments (from various minerals)

Door knobs, locks, and hinges are made of brass or steel (copper, zinc, and iron ore)

Mortgages are printed on paper made from wood or cloth fibers, but filled with clay to give a nice smooth printing surface.

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

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

Three Basic Types of Sedimentary Rocks by Kat Koch

Sedimentary rocks are formed by the accumulation of sediments. There are three basic types of sedimentary rocks. Clastic sedimentary rocks (denoting rocks composed of broken pieces of older rocks) such as breccia, conglomerate, sandstone and shale are formed from mechanical weathering debris.



Chemical sedimentary rocks, such as rock salt, iron ore, chert, flint, some dolomite's, and some limestone's formed when dissolved materials precipitate from solution.



Organic sedimentary rocks such as coal, some dolomite's, and some limestone's formed from the accumulation of plant or animal debris.



Wire Wrapping by Duane Flackus

Wire wrapping is one of the oldest techniques in jewelry making. It is a process of adding a bezel, to a stone, with no soldering. A complete hand made decorative framework, usually in order to hang the stone on a necklace or as a brooch, by bending, twisting and weaving the soft wire into a secure cradle for the stone. This unique process can allow the framework to follow the natural shape of the gemstone, producing a one-of-a-kind specimen.

from The Clackamette Gem, 6/19

Scientists have found interesting and unusual things in amber, including an ammonite.

Young Tumblers News

What Is A Fossil?

Paleontology is the study of prehistoric life. It includes the study of fossils to determine organisms' evolution and interactions with each other and their environments.

What is a fossil? A fossil is what is left from a very old animal or plant. The word fossil means "dug up".

Fossils can also be bones. They can also be shapes of bones or plants left in a rock. People dig up rocks. They hope to find clues to our past.

We learn about dinosaurs from fossils. These animals are gone. But they left their bones and shapes behind.

An animal or plant dies. It is buried. Over the years, it breaks down. What is left behind is stone. This is called fossil.

We can learn a lot from fossils. We learn about our land, we learn about our animals. Do you want a fossil? Go digging.
from the internet



INDEX FOSSILS
Walking out over the fields, you pick up an old bone. Can you date when the animal died? No, you cannot. Nearby you see a large tree. Without cutting it down, can you date when, many decades ago, it first sprouted? No. Yet evolutionists claim to approximately date to MILLIONS of years in the past — solely on the basis of certain ocean fossils! Here are some of those fossils:

CENOZOIC ERA (AGE OF RECENT LIFE)	QUATERNARY PERIOD		PECTEN		NEPTUNEA
	TERTIARY PERIOD		CALYPTRAPHORUS		VENERICARDIA
MESOZOIC ERA (AGE OF MEDIEVAL LIFE)	CRETACEOUS PERIOD		SCAPHITES		INOCERAMUS
	JURASSIC PERIOD		PERISPHINCTES		NERINEA
	TRIASSIC PERIOD		TROPHITES		MONOTIS
PALEOZOIC ERA (AGE OF ANCIENT LIFE)	PERMIAN PERIOD		LEPTOPUS		PARAFUSULINA
	PENNSYLVANIAN PERIOD		DICTYOCLOSTUS		LOPHOPHYLLIDIUM
	MISSISSIPPIAN PERIOD		CACTOCRINUS		PROLECANITES
	DEVONIAN PERIOD		MUCROSPIRIFER		PALMATOLEPUS
	SILURIAN PERIOD		CRYSTIPHYLLUM		HEXAMOCERAS
	ORDOVICIAN PERIOD		BATHYURUS		TETRAGRAPTUS
	CAMBRIAN PERIOD		PARADOXIDES		BILLINGSSELLA
	PRECAMBRIAN ERA				

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>).

August 17 *Puyallup Valley Gem & Mineral Club - Greenwater* (Sat BBQ) - Meet at the Enumclaw Ranger St. before 9:00 am - Agate, Jasper, Opal & Wood - Bring digging & light hard rock tools

Field Trip Reports by Roger Danneman

We've been very lucky on our trips this year, having great weather on each occasion. Makes for pleasant rock collecting and good times.

April 20th we went to Saddle Mountain. We had 16 vehicles in combination with Puyallup club. About half from CMS. Really nice tumbler material. Some of it just laying around on top of the ground. Much of it just under the surface. After we collected for a few hours, we went to the diatom pits for common opal. Some of the material looks very similar to nice petrified wood. But opal from these pits are formed on the bottoms of ancient freshwater lakes from the cell walls/shells of microscopic single celled diatoms, which are alga or plankton like in nature

May 18th we went to First Creek near Cle Elum. This spot takes some hiking in on a logging road. 10 members joined on this trip. First spot we tried was about 1.8 miles in and then up slope from there. Mostly seam agate in white, blue, and/or with green. Possibly some pocket agate, but layered not banded. The 2nd spot we tried was up slope from 2.2 miles in. Most of my material came from there. Layers of agate in seams or around crystal pockets.



June 15th we went to our dig site on the southwest side of Redtop Mtn. Very nice and plentiful bluish grey agate, colorful jaspers, and crystal geode fragments are found there just under the surface. All float material. We had some Gray Jays join us for lunch and that was entertaining. 9 folks made this trip.

July 20 we went to upper Greenwater for common opal and petrified wood. 9 folks in 6 vehicles went on this trip. FR70 has about 8 or 9 miles of paved road and then 7 or 8 miles of gravel to get to the opal dig site up near Gov Meadows. The Gravel road was a bit rough in places, but the opal was worth it. The black opal and the deep red opal are my favs. Plentiful creamy browns and bluish grays. A few small pieces of petrified wood were also found. I pointed out a couple of other sites on the way up for agate and jasper.



Our next trip will be Gold Panning with NAMA off the Blewett Pass Hwy on Aug 3rd.



Shows

August 2 - 4: Friday & Saturday 10 am - 5 pm; Sunday 10 am - 4 pm

Far West Lapidary & Gem Society

57th Annual Gem and Mineral Show

North Bend Community Center

2222 Broadway

North Bend, Oregon

August 10 & 11: Saturday 9 am - 5 pm; Sunday 10 am - 5 pm

Maplewood Rock and Gem Club, *Rock and Mineral Sale*

Maplewood Rock and Gem Clubhouse

8802 196thST SW

Edmonds WA



Respiratory Safety by Bob Green, Safety Chair

This month's safety article is about the proper masks to be used. There was an excellent article in the AFMS monthly bulletin about this. I will highlight some of the reasons, needs and issues with masks. But first, I visited a process plant this past week where a couple of nasty chemicals were being made. The site manager was very blunt about everyone having an emergency breathing mask available, and we were instructed on the use of the emergency mask. He finished his training by noting that if he was seen running away from the buildings, we were to try to keep up.

Most of our exposures are not as extreme as what could have happened at this site, but the cautionary note of being alert to the hazard and being prepared is definitely worth following. The article noted above, addressed a wide variety of situations where masks are needed to protect your health. We are all aware of situations from grinding, polishing, soldering and wind-blown dust encountered while on a dig. No one mask meets all situations. If you are outside and the dust is quite thick and the particles large, you need more a properly fitted dust mask. The masks available at many local hardware store for simple home owner chores are fine as far as these go. I use one to help reduce the pollen that I am allergic to during my outside chores. If you have fine dust from polishing with rouge on silver or gold fabrication, the containment of these dust particles requires masks more closely fitting your face than the simple "yard chore" masks.

Now these masks even the properly fitted dust masks may not provide the required protection from soldering fumes. Proper ventilation is definitely required in this type situation and the addition of a mask to protect you from the vapors is still advisable. When using epoxy, all manufacturers advise proper ventilation. If proper ventilation is not available, a suitable mask is highly recommended. Many of these products emit vapors that are harmful to your health. All of us remember the "glue-sniffing" of the model airplane cement of years gone by, and the number of serious injuries that occurred from this practice.

Many of the safety equipment catalogs have a wide variety of masks and note the proper selection of these. If interested, start with a MacMaster-Carr catalog. This firm has a lot of products that we Lapidary folks can use. As a side note, if you are looking for Copper products, these folks have an extensive selection at a good price, though I digress.

As noted in the subject article, the "takeaway is that your lungs are important and need to be protected." The author continues "choose the mask that fits the task" and this same statement applies to the other tools and associated personal protective gear. So be safe and use the appropriate safety equipment for the task at hand.