

The CMS Tumbler

September 2023



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

Next Meeting:
September 14, 2023
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

The Program is a
Pre-Gem Show Rally

The Show & Tell
Theme is I Made It, I
Found It, I Bought It
More info on Page 9

Table of Contents

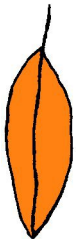
Calendar.....	5
Cartoon.....	5
Board Minutes.....	6
General Minutes.....	6
From the Top of the Rock Pile.....	9
Upcoming Meetings.....	9
Turtle Rock.....	10
Did You Know Washington.....	11
Young Richard's Almanac.....	12
Young Tumblers News.....	14
Field Trips.....	15
Shows.....	16

Connect with us!

Website: <https://www.cascademineralsociety.org>
 Club Facebook: <https://www.facebook.com/CasMinSoc/>
 Facebook Groups: <https://www.facebook.com/groups/1168207926650075>
 Show Facebook: <https://www.facebook.com/cascadegemandmineralshow>
 Instagram: <https://www.instagram.com/cascaderockclub/>
 YouTube Channel (Please like and subscribe):
https://www.youtube.com/channel/UCaGIJxaWFAtV_JjgZRm9ESA

This month remember to wish a Happy Birthday to

- Angie Bayer on September 4**
- Rheya Werts on September 5**
- Robert Merriman on September 5**
- Donald E. Lucas on September 6**
- Tia Lee on September 6**
- Ana Dobner on September 8**
- Ted Harrison on September 9**
- John Meier on September 10**
- Claudia Velland on September 12**
- Sara Niegowski on September 13**
- Jude Niegowski on September 13**
- Kate Tokmakova on September 14**
- Kari Crockett on September 19**
- Jennifer Brandt on September 25**
- Jennifer Rankin on September 25**
- Aaron DeSelms on September 26**



and also remember to wish a Happy Anniversary to

- Brian Oliver & Diana Davis on September 9**
- Jennifer Salisbury & Ben Lee on September 15**
- Ted Harrison & Connie O'Neill on September 16 (5 years)**
- James Starke & Travis King on September 27**
- Paul & Megan Wasley on September 27**
- Rachel & John Norgard on September 28**



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

For commercial use, the author(s) must be contacted for permission; if no contact information is given, contact them via the editor.

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.

Membership Mailing Address:
c/o Ananda Cooley
1909 11th Ave. W
Seattle, WA 98119

Keith Alan Morgan, Editor
3802 W Tapps Dr. E
Lake Tapps, WA 98391

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

2023 Elected Officers

President Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Vice President Linda Jorza	206-478-1642	ljorza@gmail.com
Treasurer Ananda Cooley	206-683-7787	cascademstreasurer@gmail.com
Secretary Pete Williams	425-228-5063	petewill02@gmail.com
Director 1 - Lee Oliver	253-878-2151	loliver4252000@gmail.com
Director 2 - Field Trips Roger Danneman	425-228-8781	roger.danneman@gmail.com
Director 3 - Programs Paul Ahnberg	941-704-2063	runhikebird@icloud.com
Director 4 - At Large Richard Russell	253-736-3693	richru1@yahoo.com
Past President Malcolm Wheeler Sr.	253-569-5185	facetguru@aol.com
Show Coordinator Christina Vitellaro	425-351-4737	bluefirtree@comcast.net
Federation Representative Michael Blanton	425-271-8757	mblanton41@hotmail.com
Federation Representative Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Mineral Council Diana Horsfall	425-226-3154	dianahorsfall@comcast.net
Mineral Council Ananda Cooley	206-683-7787	cascademstreasurer@gmail.com

2023 Show Committee Chairs

Cascade Coordinator Christina Vitellaro	425-351-4737	bluefirtree@comcast.net
Cascade Co #2 Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Cascade Co #3	Vacant	
Book Display Cases Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Show Display Cases Refurbish Roger Danneman	425-228-8781	Roger.Danneman@gmail.com
Mail Flyers Ananda Cooley	206-683-7787	cascademstreasurer@gmail.com
Show Treasurer Pete Williams	425-228-5063	petewill02@gmail.com
Show Silent Auction (shared) Richard Russell	253-736-3693	richru1@yahoo.com
Show Silent Auction (shared) Noelle Barnes	206-914-0514	noelleb@outlook.com
Pre-Show Raffle Case & Donation Requests Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Show Raffle Case Display Terri Gerard	206-437-0240	eyeballgraphics2002@yahoo.com
Raffle Prize Distribution Jennifer Russell	253-736-3693	richru1@yahoo.com
Show Demonstrators Richard Russell	253-736-3693	richru1@yahoo.com
Show Load In/Out		
Show Display Case Presenters Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Show Road Signs		
Show Event Volunteer Recruiter		
Show Refreshments Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Spinning Wheel Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Show Website Kat Koch	425-765-5408	vendorchair@cascademineralogicalsociety.org
Show Vendor Chairman Kat Koch	425-765-5408	vendorchair@cascademineralogicalsociety.org
Show Food Trucks Paul Arhnberg	941-704-2063	runhikebird@icloud.com

2023 Committee Chairs

Club Historian Jim Cerenzie	253-638-1478	jcerenzie@yahoo.com
Donations Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Field Trip Roger Danneman	425-228-8781	Roger.Danneman@gmail.com
Health & Welfare Bev Williams	425-228-5063	britbev1957@outlook.com
Library Diana Horsfall	425-226-3154	dianahorsfall@comcast.net
Meeting Greeters Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Meeting Programs Paul Arhnberg	941-704-2063	runhikebird@icloud.com
Membership Kari Crockett	253-392-8466	kari.ashley.c@gmail.com
Newsletter - Tumbler Editor Keith Alan Morgan	253-316-9935	greenrockdraggin@yahoo.com
Shop Instructors (Temp) Roger Danneman	425-228-8781	roger.danneman@gmail.com
Shop Reservations Diana Horsfall	425-226-3154	dianahorsfall@comcast.net
Public Relations Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Refreshment Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Raffle Master Roger Pullen	206-387-3214	Phone calls only. No email or texting.
Show & Tell Michael Blanton	425-271-8757	mblanton41@hotmail.com
Webmaster Gina Manso	425-281-3502	ginamanso51@gmail.com
Facebook Group Roger Danneman	425-228-8781	Roger.Danneman@gmail.com
Facebook Club Page Gina Manso	425-281-3502	ginamanso51@gmail.com
Instagram Gina Manso	425-281-3502	ginamanso51@gmail.com
All Other Social Media Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
West Seattle Timebank Volunteers Linda Jorza	206-478-1642	ljorza@gmail.com
Videographer – YouTube Channel	Vacant need volunteer	

2023 CMS Dues are \$30 per year per family

Pay online, by mail, or at our meetings.

New mailing address: Cascade Mineralogical Society, c/o Ananda Cooley, 300 Lenora St. - PMB 6145, Seattle, WA 98121

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.

Our Club is a Member of these Federations and Associations

AFMS: The AFMS governs our Northwest Federation. <http://amfed.org/index.html>

The bulletins are published quarterly. You can find the news bulletins at <http://amfed.org/news/default.htm>



NFMS: The Northwest Federation is our home federation. To keep up on the goings-on in our own backyard. <http://northwestfederation.org/>

The link for the news bulletins is <http://northwestfederation.org/Newsletters.asp>



ALAA: The American Lands Access Association, Inc. represents the rockhounding interests of 325 gem & mineral clubs/societies in 47 States and the District of Columbia.

The association's purpose is to promote and ensure the rights of amateur fossil and mineral collecting, recreational prospecting, and mining. The use of public and private lands for educational and recreational purposes. They also carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators, and public land managers. <http://amlands.org>

The front page also has a lot of current news, rockhounding restrictions or lack of, etc. <http://amlands.org>

ALAA also publishes a quarterly newsletter. To keep up on the news and lobby efforts on our behalf, check out <http://amlands.org/>



Washington State Mineral Council: The Washington State Mineral Council is dedicated to the location and conservation of rock and mineral sites of interest to the rockhounds of Washington state. <https://mineralcouncil.wordpress.com/>

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

Also check out "Misc. News" for all the latest updates on collecting sites around Washington.

<https://mineralcouncil.wordpress.com/news-updates/>

When the weather is good, they have regular monthly field trips. So take advantage of these great outdoor rockhounding adventures! The field trip details are under "Field Trips" on the left side of the site. Check out the link for additional information for the time and place to meet and the field trip leader.

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



Rockhounding Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

from the AFMS website

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Ananda Cooley in person or by telephone at 206-683-7787 or by computer at cascademstreasurer@gmail.com

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

NFMS Needs Your Canceled Postage Stamps

Every year the NFMS collects postage stamps from its member clubs. They have a stamp company that buys them, and in turn, these funds are donated to cancer research. Every year NFMS donates around \$5,000.

On letters that you receive, tear the corner with the stamp off. Try to leave about 1/4" of the envelope around the stamp. Be careful not to damage the stamp. Place the stamps in a plastic baggie and bring them to the meeting. Our member, Mike Blanton, collects the stamps and turns them over to the NFMS at the regional rock and gem show. You can give them to Mike as often as you want throughout the year.

Collecting the stamps is another way we rockhounds give back to our community.



Don't Forget To Show Your Membership Card At These Retailers

The following businesses are loyal supporters of our rock club. Show your membership card at the following stores and get a 10% discount on most purchases.

Jerry's Rock Shop – 804 W Valley Hwy, Kent, WA 98032

Minerals, rough or polished rocks, lapidary machines, lapidary supplies, polishing grit, fossils, rock hounding tools, beautiful display specimens, jewelry, and much more. *Please be aware there are a few items they can't offer the 10% discount on.*

Jerry is a great supporter of our club. They make it possible to have nice door prizes at our meetings.

Blackjack Metal Detectors and Mining Equipment – 101 Park Ave N, Renton, WA 98057

They sell beautiful mineral specimens, fossils, books, metal detecting and gold panning equipment and supplies. Chris Holden is a CMS member!

New for Members Only – New Texting Service

We are busy and often forget that CMS has an upcoming meeting or event. Therefore, we have a texting service to remind members of CMS meetings and events.

Everyone is automatically entered into this service. You can opt out anytime by responding with STOP.



For quick access, you can scan the following codes.



Access CMS Club Instagram page



Access our CMS YouTube channel



Access our CMSclub website for the latest on meetings and club events



Access CMS Facebook Groups

September

Sun	Mon	Tue	Wed	Thur	Fri	Sat
Our club show is September 16 & 17 at the Green River College					1	2
3	4	5	6	7	8 Longview Show	9 Longview, Walla Walla & Port Angeles Shows
10 Longview, Walla Walla & Port Angeles Shows	11 Board Meeting 7:00 pm	12	13	14 General Meeting 7:00 pm	15	16 CMS Show
17 CMS Show	18	19	20	21	22	23
24	25	26	27	28	29	30

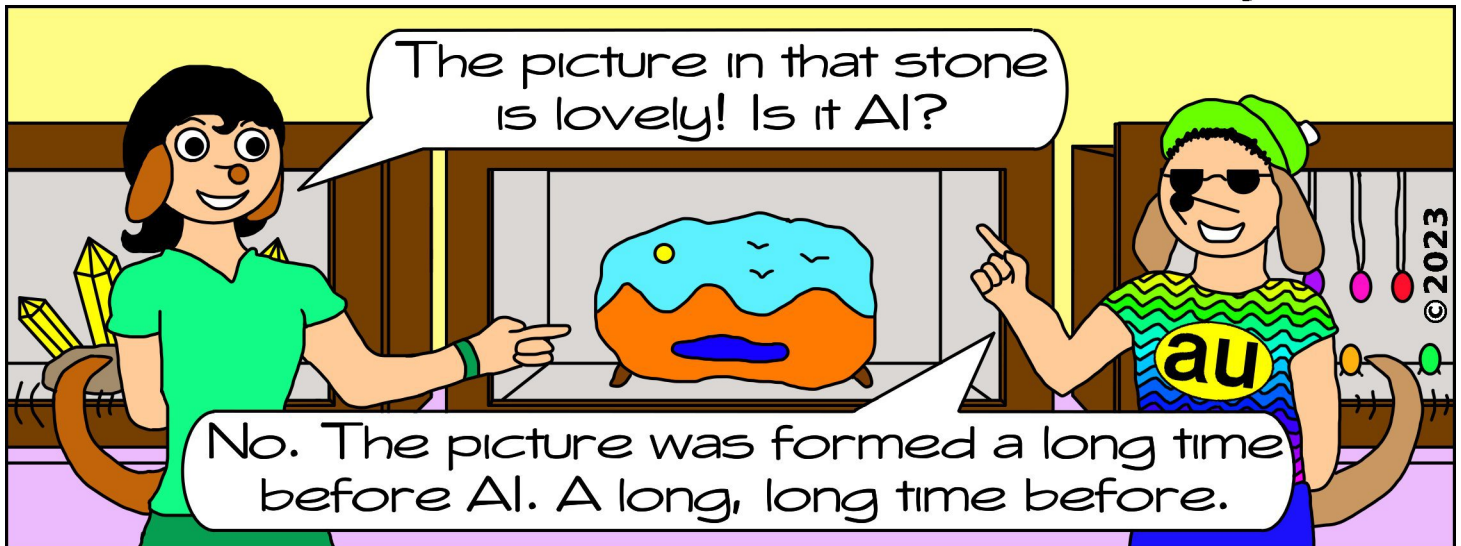
CMS Show Committee Meeting:....Monday, September 11.....6:30 pm to 7:00 pm
 CMS Board Meeting:.....Monday, September 11.....7:00 pm to 8:00 pm
 CMS General Meeting:.....2nd Thursday, September 14.....7:00 pm to 9:00 pm

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 Field Trip info can be found on Page 15
 More Show info can be found on Page 16

Son of Mr. & Mrs. Rockhound

by KAM



CMS Show Committee and Board Meeting Minutes August 14, 2023 by Pete Williams, 2023 Secretary
Attendees: Kat Koch; Linda Jorza; Pete Williams; Rich Russell; Mike Blanton; Ananda Cooley; Lee Oliver; Roger Danneman; Peggy Shashy; Chris Vitellaro; Diana Horsfall; Paul Arhnberg; Noel Barnes

Show Committee 6:34

Actions needing to be finalized include: informing vendors that they need to finalize dry camping requests by August 28; the floor plan for both tables, chairs, and for the brochure; and the number of children's cases that will be set up in the hall. More flyers are available to be placed in stores, libraries, etc. There will be a work party at Chris house to stuff bags with rocks for club sales on August 27. Five cash boxes are required for the silent auction, membership, raffle, spinning wheel, and club sales. Credit cards will be accepted for membership and club sales. Heavier duty bags that can be used for rockhounding will be purchased for club sales.

Board Meeting 7:38

The auction at the club picnic raised \$743. There were 16 winning bidders. We now have 130 family memberships. We will donate \$75 to the Lake Wilderness Arboretum for use of their area for our picnic. The club Christmas party will be on December 10. Now that a new canopy has arrived, a work party will need to be set to replace the damaged tarp at Diana's house.

The September meeting will include finalizing actions for the show, handing out awards received at the NFMS/AFMS show in Billings, and having the show and tell be "I found it, I bought it, I made it". The November meeting will consist of Roger reviewing the club field trips.

The club will need a VP next year to help run meetings and fill in for Kat when she is not available. Please inform Kat if you are interested in this position.

Meeting adjourned at 7:56

CMS Club Picnic Minutes August 12, 2023

by Keith Alan Morgan

The club picnic was held August 12 at Lake Wilderness Arboretum. The day was nice and sunny, the trees provided shade. The food was good and the company friendly. The auction was filled with screaming deals. A very pleasant get-together.





Setting up. (Top picture.)

Eating. (Bottom picture.)





The auction begins. (Top picture.)

Official rock hound. (Bottom picture.)



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

Our annual picnic at Lake Wilderness went off very well. It was so enjoyable to sit in the shade at the Arboretum and visit with one another while sharing a good meal. It is such a beautiful spot. Thank you to Charlie for making all the arrangements to use the Arboretum gardens and golf cart.

We did miss seeing our Young Tumblers this year. These club auctions are always a good opportunity for kids and adults to pick up great bargains using their "Rock Bucks."

The club auction (after lunch) brought in around \$760 for our club treasury. I hope everyone went home with something they wanted. Rich, so generously, faceted a beautiful Goshenite gemstone set in sterling silver and donated it to the club for auction. Thank you, Rich! Our members always feel very lucky when they win the auction for one of your necklaces. The club auctions in August and December help cover our rising costs to run the club, such as insurance, room rental, various association dues, etc.

Mike and I attended the combined NFMS/AFMS show in Billings, Montana. It is always important that our club have representation at these association meetings. At the editor's breakfast and the awards banquet, I proudly accepted our newsletter's NFMS and AFMS awards. Congrats to Keith for working tirelessly month after month on our monthly newsletter, The CMS Tumbler. Can you believe Keith has been our newsletter editor since 1988?! Our club newsletter wins regional and national awards yearly due to Keith's hard work.

We also won awards from the NFMS and AFMS for our website. Thank you to Gina Manso for being our webmaster for the past few years. Another dedicated volunteer!

Please let me know if you have a youngster that would like to be in our Young Tumblers Club and earn badges. They will earn various badges as they participate in field trips or learn about rocks and minerals.

This program that the AFMS offers free of charge to clubs in the association. The AFMS-Juniors Division is also producing a fabulous newsletter, Crack the News!, for youngsters with articles and content submitted by juniors throughout the US. You can download a copy each month at <https://www.juniors.amfed.org/juniors-newsletter>.

We need someone to run for the position of Vice President. We need someone to run for the position of Vice President. They must be willing to run the monthly general meetings when the President can't. Attend the online video board meetings. Help oversee all the club functions and volunteers. Essentially help the President make sure everything is running smoothly.

We continue to get new members online or in person at our monthly meetings. Our membership is presently at 133 families! We welcome each of you to our great rock and gem club. When you attend our monthly meeting, please introduce yourself to me, as I look forward to meeting each of you.

I look forward to seeing everyone at our September meeting. Look for further details elsewhere in this issue of the Tumbler.



Welcome
New Members

Editor's Note: Time Served Clarification

While I first guest-edited the Tumbler in May 1988, I only filled in for then-editor Norman Steele until 1996, and didn't become the full-time editor until February 1997, after Norm passed away. Still a long time to be an editor though.

General Meeting – Thursday, September 14th

Topic: Pre-Gem Show Rally and then "I Made It," "I Found It," and "I Bought It."

This meeting is a fun new activity on our calendar. "I Made It," "I Found It," and "I Bought It." You may bring up to 3 items for each category. Items must have been made, found, or bought within the last year. Winners of each category receive a prize.

Members will vote for their favorites in each category, and then only 1 prize per adult and 1 prize per Young Tumbler for each category will be awarded.

Plan on bringing items, as this should be a fun evening as we get to mingle with each other and talk rocks!

Show 'n Tell: They are your above entries.

Made
Found
Bought

General Meeting – Thursday, October 12th

Topic: Rock'in Good Halloween Costume Contest

Dress up a rock, mineral, or fossil for Halloween.

You can paint it, put a hat on it, or dress it up in a Halloween costume.

It can even be a haunted scene.

Be creative, and let your imagination run wild!

We will give 1st and 2nd prizes to both adults and Young Tumblers.

Preceding our Halloween Rock Costume contest, we will have a recap of our show.

Show 'n Tell: They are your above entries.





General Meeting – Thursday, November 9th

Topic: As our field trips for 2023 come to an end, Roger Danneman, our Field Trip Guide, will talk about the field trips of 2023 and show off what was found. This is going to be interesting to see what can be found around Washington as Roger has led our group on some great field trips.

Show 'n Tell: What have you found? Did you find something on the beach, on a field trip, someone's driveway, a river, in a parking lot or your backyard. Show us your finds.



General Meeting – Sunday, December 10th

Topic: Our Annual Holiday party, potluck, election of Officers and action.

Potluck: The club provides turkey and ham. Members fill in with veggies, salad, rolls and butter, dessert, drinks, etc.

We generally have around 40 to 45 members attend.

Bring your own plate and silverware.

Setup is 11:30 am and dinner at noon. We usually wrap things up by 4 pm.

Election: After dinner we hold the election of board of Directors for 2024. If you would like to volunteer for a Board position see Pete, club secretary.

Club Auction. This is a great chance to pick up items at a fraction of their retail cost. You are welcome to donate items to the auction. All proceeds go to the club treasury to cover expenses.

Our Young Tumbler's can also spend their "Rock Bucks" at the auction, that they have saved, just like cash for items they want.

Turtle Rock, Terelj National Park, Mongolia by Kat Koch

This giant Turtle can be found in Terelj National Park, Mongolia. Turtle Rock, known locally as "Mongol Urtyn Khad," is a striking geological wonder. It is located 34 miles northeast of Mongolia's capital, Ulaanbaatar.

Turtle Rock sits in untouched wilderness with a panoramic view of the rolling hills and meandering rivers. The Turtle and the region have a complex geological history, shaped by ancient tectonic events and the natural erosion forces of wind, rain, and time.

Beyond its geological attraction, Turtle Rock holds deep cultural significance. It is a revered Mongolian folklore symbol for protection, resilience, and harmony with nature. Turtles play such a significant part in Mongol mythology that at one time, four carved stone turtles stood guard like compass points around the ancient capital of Mongolia, Kharakorum.

Turtle Rock's mineral composition reflects Mongolia's varied landscapes of the past. This magnificent Turtle is composed of sandstone with predominantly quartz grains, which imparts strength and resilience to the rock. The iron-bearing minerals within the sandstone give the Turtle its rich red and orange hues on the surface. The shale is a finer grain size than the sandstone giving it a sharp contrast. Within the shale layers are clay and mica, providing the rock with a softer texture and contributing to its pleasing colors.

All these minerals are remnants of the ancient sediments and processes that once created the region's ancient seas and riverbeds.

Bibliography: Reddit, Geology Science, Mongolian National News Agency, Lonely Planet.



Did You Know This About Washington State? by Kat Koch

State Gemstone: Petrified Wood

In June 1975, Petrified Wood was designated the states gemstone because it is so abundant throughout the state.

Ginkgo Petrified Forest State Park, Vantage was established in 1935. Besides the Ginkgo tree, 50 other tree species have been identified. A popular spot to hunt for petrified wood that is right near Vantage is Saddle Mountain, Matawa. Also nearby, is Frenchman Hills.

Mt. Adams is another location because of it long geological history and ancient forests. For the avid rockhound there are 20 popular spots in the state to find petrified wood.



State Dinosaur: Sucasaurus Rex

Sucasaurus Rex 'Sucia Island lizard' is the only dinosaur that has ever been discovered in the state of Washington. In 2012, the partial left femur fossil was found and nicknamed "Sucasaurus rex." The bone fragment was discovered on the shores of Sucia Island State Park, San Juan County, Washington. The paleontologists at the Burke Museum announced the surprising discovery. In 2023 it was designated the state dinosaur.

There was enough of the partial femur to determine that it was a thigh bone that came from a two-legged, meat-eating theropod, similar to the Velociraptor and Tyrannosaurus Rex. The fossil is slightly smaller than a T. Rex. The fossil measures 16.7" long and 8.7" wide and is estimated to be an 80 million year old, Late Cretaceous Period. Paleontologists think it could possibly be a Daspletosaurus.

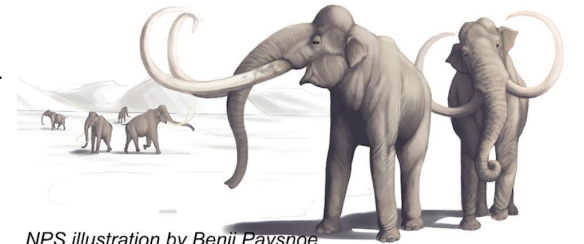


State Fossil: Columbian Mammoth

The Columbian Mammoth (*Mammuthus Columbi*) is descended from mammoths that colonized North America around 1.5 million years ago. They interbred with the Woolly Mammoth during the Middle Pleistocene period. The Columbian mammoth was one of the last mammoth species. They eventually evolved into the Pygmy Mammoths of the Channel Islands, California. The Asian elephant is closest living ancestor of the Columbian Mammoth and other mammoths.

The Columbian Mammoths were one of the largest mammoths. Their shoulder height was from 9 feet to 12.5 feet and weighted from 10 to 14 short tons with very long, curved tusks. Columbian Mammoth had four molars, that were replaced six times during their life.

NOTE: Cascade Mineralogical Society has a young Columbian Mammoth molar in its permanent collection.



NPS illustration by Benji Paysnoe

Washington's Oldest Fossil: Archaeocyathid

These Archaeocyathids fossils are from the Paleozoic period around 500 million years ago. Archaeocyathids 'ancient cups' is a group of extinct, fixed in place, reef-building marine sponges that lived in shallow, tropical and subtropical waters.

Archaeocyathids thrived during the early Cambrian, but went into a declined during the late Cambrian. During the start of the Ordovician period the last of the species went extinct.

Their remains are preserved in the rocks of Stevens and Pend Oreille Counties. These fossils are found in ore deposits. To best view these fossils, take an ore sample with the fossils and slice and polish it.



Washington's Oldest Rocks: Northeastern Highlands

Washington's oldest rocks are found in the Northeastern Highlands. This area contains the Northern Rocky Mountains, Okanogan Highlands and the Kootenay Arc. During the Precambrian period the ancient edge of the North American continent is defined by the Northern Rocky Mountain.

The oldest rocks are gneiss, granite, and schist from the ancient continental crust. Above this ancient crust lies the Belt Supergroup. This Belt has been dated as a 1.45 billion years old series of sedimentary rocks containing sandstones and mudstones.

Bibliography: Wikipedia, photos Wiki Commons, US National Park Service, A-Z Animals, King 5 News – Seattle, Dino-pedia, Burke Museum, Rock Chasing, WA Dept. of Natural Resources, WA State Parks, Geology-Teacher Friendly Guide

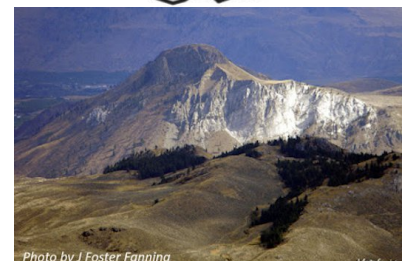


Photo by J Foster Fanning

Okanogan Highlands

Did You Know?

Everyone knows Opal is the birthstone for October, but did you know that Opal comes from the Latin word opalus which means to see a change in color?

from The Cowtown Cutter, 10/10

Young Richard's Almanac by Dick Morgan

As we approach another start of the school year, not only to look out for the students but to get back to the normal method of instruction that was goofed up by Covid 19. It would be great to get back to the three Rs, reading, writing, and arithmetic, instead of pushing student controls.

Sometimes losing something you really want can open up an even better outlook to a good life.

I lost out on training to be a helicopter pilot due to an untrustworthy corporal destroying my application. However that led to my meeting Pat, who later became my wife.

The difference between people is their use of common sense.

Montana's Geologic Road Signs by Cheryl Neary, AFMS President

I stumbled on this great website that I am eager to share with you:

<https://www.mdt.mt.gov/travinfo/geomarkers.aspx>

It gives the Geologic Road Signs found throughout Montana. Since 2006 the Montana Department of Transportation has been installing road signs narrating the geology of the area. Approximately 50 roadside geological markers have been installed describing the geologic and paleontological wonders of the Treasure State.

Once you are in the website, if you click on the map it gives you the area information, facts and activities.

I have been enjoying it since I found it!

from AFMS Newsletter, 6/23

Jade: Jadeite and Nephrite

Jade is a mineral, much used in some cultures as jewelry and for ornaments, mostly known for its green varieties, though it appears naturally in other colors as well, notably yellow and white. Jade can refer to either of two different silicate minerals: nephrite (a silicate of calcium and magnesium in the amphibole group of minerals), or jadeite (a silicate of sodium and aluminum in the pyroxene group of minerals).

Jade is well known for its use in East Asian, South Asian, and Southeast Asian art.

Jade also has an important place in Latin America such as Mexico and Guatemala. The use of jade in Mesoamerica for symbolic and ideological ritual was highly influenced by its rarity and value among pre-Columbian-Mesoamerican cultures, such as the Olmec, the Maya, and the various groups in the Valley of Mexico. Although jade artifacts have been created and prized by many Mesoamerican peoples, the Motagua River valley in Guatemala was previously thought to be the sole source of jadeite in the region.

Nephrite and Jadeite

It was not until 1863 that French mineralogist Alexis Damour determined that what was referred to as "jade" could in fact be one of two different minerals, either nephrite or jadeite.

Nephrite consists of a microcrystalline interlocking fibrous matrix of the calcium, magnesium-iron rich amphibole mineral series tremolite (calcium-magnesium)-ferro-actinolite (calcium-magnesium-iron). The middle member of this series with an intermediate composition is called actinolite (the silky fibrous mineral form is one form of asbestos). The higher the iron content, the greener the color. Tremolite occurs in metamorphosed dolomitic limestones and Actinolite in metamorphic greenschists/glaucophane schists.

While nephrite jade possesses mainly grays and greens (and occasionally yellows, browns or whites), jadeite jade, which is rarer, can also contain blacks, reds, pinks and violets. Nephrite jade is an ornamental stone used in carvings, beads, or cabochon cut gemstones. Nephrite is also the official state mineral of Wyoming.

Jadeite is a sodium- and aluminum-rich pyroxene. The more precious kind of jade, this is a microcrystalline interlocking growth of crystals (not a fibrous matrix as nephrite is.) It only occurs in metamorphic rocks. Both nephrite and jadeite were used from prehistoric periods for hardstone carving. Jadeite has about the same hardness (between 6.0 and 7.0 Mohs hardness) as quartz, while nephrite is slightly softer (6.0 to 6.5) and so can be worked with quartz or garnet sand, and polished with bamboo or even ground jade. However nephrite is tougher and more resistant to breakage. Among the earliest known jade artifacts excavated from prehistoric sites are simple ornaments with bead, button, and tubular shapes. Additionally, jade was used for adze heads, knives, and other weapons, which can be delicately shaped.

As metal-working technologies became available, the beauty of jade made it valuable for ornaments and decorative objects.

Unusual Varieties

Nephrite can be found in a creamy white form (known in China as "mutton fat" jade) as well as in a variety of light green colors, whereas jadeite shows more color variations, including blue, brown, red, black, dark green, lavender and white. Of the two, jadeite is rarer, documented in fewer than 12 places worldwide. Translucent emerald-green jadeite is the most prized variety, both historically and today. As "quetzal" jade, bright green jadeite from Guatemala was treasured by Mesoamerican cultures, and as "kingfisher" jade, vivid green rocks from Burma became the preferred stone of post-1800 Chinese imperial scholars and rulers. Burma (Myanmar) and Guatemala are the principal sources of modern gem jadeite. In the area of Mogaung in the Myitkyina District of Upper Burma, jadeite formed a layer in the dark-green serpentine, and

has been quarried and exported for well over a hundred years. Canada provides the major share of modern lapidary nephrite.

Enhancement

Jade may be enhanced (sometimes called "stabilized"). Some merchants will refer to these as grades, but degree of enhancement is different from color and texture quality. In other words, Type A jadeite is not enhanced but can have poor color and texture. There are three main methods of enhancement, sometimes referred to as the ABC Treatment System:

- Type A jadeite has not been treated in any way except surface waxing.
- Type B treatment involves exposing a promising but stained piece of jadeite to chemical bleaches and/or acids and impregnating it with a clear polymer resin. This results in a significant improvement of transparency and colour of the material. Currently, infrared spectroscopy is the most accurate test for the detection of polymer in jadeite.
- Type C jade has been artificially stained or dyed. The effects are somewhat uncontrollable and may result in a dull brown. In any case, translucency is usually lost.

- B+C jade is a combination of B and C: it has been both impregnated and artificially stained.

- Type D jade refers to a composite stone such as a doublet comprising a jade top with a plastic backing.

from The Sierra Pelonagran, 1/22

Moonstone

Moonstone is a sodium potassium aluminum silicate of the feldspar group that displays a pearly and opalescent schiller. Moonstone is also a variety of the feldspar-group mineral orthoclase.

An alternative name for moonstone is hecatolite. Moonstone's unearthly glow is caused by light scattering between microscopic layers of feldspar. The name moonstone derives from the stone's characteristic visual effect. It is also a birthstone for June, along with pearl and alexandrite.

Adularescence

During formation, orthoclase and albite separate into alternating layers. Feldspar layers that create moonstone's sheen are similar to the size of a wavelength of light. When light falls between these thin layers it is scattered producing the appearance of a floating, cloud-like, blue to white light inside the gem called adularescence (or schiller). Adularescence is the light that appears to billow across a gem. Other feldspar minerals can also show adularescence including labradorite and sanidine.

A blue sheen is produced if the albite crystals are very fine. If the albite plates are thick, the sheen is white. Polished moonstones often display chatoyancy ("cat's eye" effect), where a luminous streak appears through the stone. Asterism is rare and produces four-legged stars.

Along with colorless, white and blue, moonstones also come in gray, green, peach and brown.

Geology

The most common moonstone is of the orthoclase feldspar mineral adularia, named for an early mining site near Mt. Adular in Switzerland.

Historically, the most valuable colorless, transparent moonstones with strong blue sheen came from Myanmar. Unfortunately, this material is essentially mined out. Most of the top-grade, blue sheen gems available today are being passed from one dealer or collector to another, which escalates the prices. For cat's eyes and the occasional star, expect to pay in proportion to the beauty, size, and clarity of the eye or star. Today, most commercial moonstones come from Sri Lanka. Despite being somewhat fragile (6.0 to 6.5 on the Mohs scale), this alternative June birthstone is a popular choice for jewelry.

Deposits of moonstone also occur in Armenia, Australia, the Austrian Alps, Mexico, Madagascar, Myanmar, Norway, Poland, India, Sri Lanka, and the United States.

In Culture

Moonstone has been used in jewelry for millennia, including ancient civilizations. The Romans admired moonstone, as they believed it was derived from solidified rays of the Moon. Both the Romans and Greeks associated moonstone with their lunar deities. In more recent history, moonstone became popular during the Art Nouveau period; French goldsmith René Lalique and many others created a large quantity of jewelry using this stone.

The moonstone is the Florida State Gemstone; it was designated as such in 1970 to commemorate the Moon landings, which took off from Kennedy Space Center. However, it does not naturally occur in the state.

from Grindings, 6/23

Igneous Smiles

How does an igneous rock stay cool in the summer?
It cracks open a cold one.

That rock was magma before it was cool, know what I mean?

from Breccia, 7/23

Young Tumblers News

Rock Show Items Search by Keith Alan Morgan

Items you can find at most rock shows. Words go up, down, diagonal, forwards and backwards.

Yes, most of these words should be plural, but I thought having most words end in S would make it too easy to find them. Have fun!

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

Cabochon
Carving
Case
Crystal
Demonstration

Dealer
Display
Fossil
Gem
Jewelry

Mineral
Raffle
Silent Auction
Specimen
Ticket

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 information from the Washington State Mineral Council webpage (<https://mineralcouncil.wordpress.com>).

- September 9** *Cascade Mineralogical Society* - **Frost Mountain** south of Cle Elum - Tahoma agate, jasper, crystal
This is an approximate 1-mile hike with some elevation gain.
Roger Danneman Roger.Danneman@gmail.com or 425-757-3506 text
- September 9 & 10** All Rockhounds Pow-Wow - Teanaway Community Camp 8 am - Agate, Jasper & maybe Jade
Larry Vess (253)-473-3908 or vessel13755@gmail.com
- September 16** Meet before 10am at Hwy 410 & F R 19 - Thunder Eggs, Fossils & Lilypad
Tony Johnson (253) 863-9238

Mayborn's Columbian Mammoths - Quick Facts

The Columbian mammoths are the warm weather cousins of the woolly mammoths.

They lived in the Ice Age, were 10-12 feet tall at the shoulder and weighed 6-8 tons.

Ancestors of the Columbian mammoth crossed the Bering Land Bridge into North America approximately 1.5 million years ago.

They were adapted to live in warm grasslands and wooded areas.

Columbian mammoths roamed from Alaska, down through Texas and into Central America. This contrasts with their cousins, the woolly mammoths, which adapted to a cold, snowy environment with long hair.

Member of the order Proboscidea, which also included the woolly mammoth, mastodon, and the modern African and Asian elephants.

It is estimated they ate 500-700 pounds of grass and drank 50 gallons of water a day.

Both males and females grow tusks which grew continuously, adding a layer up to a quarter of an inch thick each year.

The tusks were probably used to dig up vegetation, deter predators, and attract mates.

Columbian mammoth had six sets of teeth, each composed of thin enamel plates cemented together. New teeth would gradually push out the old. When the final set wore out at about age 60 to 70, the mammoth would die. Head is high crowned. Fatty hump on its back probably stored extra food.

These mammoths lived in herds of 20 or more related females and their offspring. The bull only joined the herd during breeding season.

The matriarch, usually the oldest female, led the herd.

The last herds of Columbian mammoths disappeared approximately 10,000 years ago.

Other large mammals that lived in the same area included giant sloths, camels, dire wolves, and saber-tooth cats.

Columbian mammoths vs. Mastodons

Columbian mammoths

Height: 14' at shoulder

Weight: 8-10 tons

Teeth: Flat with ridges

Habitat: Grasslands

Food: Grasses

Mastodons

Height: 10' at shoulder

Weight: 4-6 tons

Teeth: High pointed ridges

Habitat: Forests

Food: Branches, leaves, roots

from The Cowtown Cutter, 10/10

Honeycomb Calcite by Daderot

Honeycomb Calcite is a fascinating translucent stone comparable to onyx or marble. With a Mohs scale hardness of about 3 1/2, it is easy to carve and often sold as spheres or carved pieces. When cut away, the white exterior layer reveals the stone's beautiful shades of color that range from honey-orange, deep yellow and rich amber. The stone gets its colors from the minerals sulfur and iron.

Once cut, the stone's interior reveals various white cell patterns - an internal structure appearing as veins or honeycomb that vary from dense to large spaced cells. The translucent nature of the stone, is derived from its crystal structure which passes light from one crystal to the next; and the corresponding refracted light illuminates adjacent crystals.

from Golden Spike News, 6/23

What did the one volcano say to the other volcano?
"Hey, do you want to be my lava?"

from Breccia, 7/23

The MOHS the Merrier

by Marilyn Russell

I think that I shall never see
A poem lovely as a tree.

But I'm a fan of geology,
So Kilmer's missed the mark for me.

Who can resist the gorgeous gems:
Diamonds and rubies in diadems,

Topaz and amethyst in the stores,
Birthstones with prices my husband adores.

On Superior's shore the labradorite's flashing;
Lapis Lazuli's blue tone is smashing.

Get out the black light! It's fluorite's time
To bring out hidden colors sublime.

Quartz's wannabe cousin calcite,
Long lost past of Amber is in sight,

Talc is every baby butt's delight.

Thus, the Mohs Scale is mine to recite!

via AFMS Newsletter, 6/23; via MWF Newsletter; from Strata Data, 2/23

[Editor's Note: This poem counts down the Mohs Scale from 10 to 1. People with strong memories will recall that ruby is a variety of corundum, number 9 on the scale; amethyst is a variety of quartz, number 7; labradorite is a variety of feldspar, number 6; lapis lazuli has the same hardness, 5, as apatite, the defining mineral; and amber has the same hardness, 2, as gypsum, the defining mineral. As the editor of the Strata Data, Michele Yamanaka, noted, "Very creative!"] - Valerie J. Meyers, MWF Editor

Shows

September 8 – 10: Friday 11 am – 5 pm; Saturday 9 am – 5 pm; Sunday 9 am – 4 pm

Southern Washington Mineralogical Society, 57th Annual Show

Cowlitz County Fairgrounds Events Center
1900 7th Ave, Longview, WA

September 9 & 10: Saturday & Sunday 10 am – 5 pm

Marcus Whitman Gem and Mineral Society, Annual Show

Walla Walla County Fairgrounds
Community Center Building
831 Orchard St., Walla Walla WA

September 9 & 10: Saturday 9 am - 5 pm; Sunday 10 am – 4 pm

Clallam County Gem And Mineral Association, Annual Show

Vern Burton Community Center
308 East 4th Street, Port Angeles WA

September 16 & 17: Saturday 10 am – 5 pm; Sunday 10 am – 4 pm

Cascade Mineralogical Society, 75th Anniversary Show

Green River College
12401 SE 320th St, Auburn, WA

CONTENT DISCLAIMER: This publication is provided "as is" without warranty of any kind, either express or implied, including, but not limited to, fitness for a particular purpose; the technical data was derived from other sources, and the author has no way of knowing their accuracy.

This publication could contain technical inaccuracies or typographical errors. Changes are periodically added to the information herein; these changes will be incorporated in future revisions of this publication. The author, editor, or the Cascade Mineralogical Society shall not be liable for any incident or consequential damages, lost profits or data, or any indirect damages caused by using this publication's information.