

# The CMS Tumbler

October  
2024

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

Next Meeting:  
October 10, 2024  
7:00 p.m.

American Legion Hall  
25406 97th Pl S  
Kent, WA

The Program is  
Opal Mining

The Show & Tell  
Theme is Opals &  
opal-like stones

### Table of Contents

Calendar.....	5
Cartoon.....	5
Board Minutes.....	6
General Minutes.....	6
From the Top of the Rock Pile.....	6
Feather Agate.....	7
Memorial.....	8
September Field Trip Report.....	9
Alexandrite & Csarite.....	11
Young Richard's Almanac.....	13
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](https://www.youtube.com/channel/UCaGIJxaWFatV_JjgZRM9ESA)

This month remember  
to wish a

Happy Birthday to  
Mike Ludin on October 3  
Morgan Dale on October 3  
Katherine Koch on October 4  
Sarah Searcy on October 4  
Charles Benedict on October 6  
Gregg Harmon on October 10  
Keith Alan Morgan on October 11  
Brett Petty on October 15  
Beth Mason on October 16  
Price Post on October 21

Sara Niegowski on October 22  
Justin Cerenzie on October 24  
Adalie Severns on October 29  
and also remember  
to wish a  
Happy Anniversary to  
Sarah & Mr. Searcy on October 11  
Joshua & Ana Dobner on October 16  
Les & Sheri Church on October 20  
Dan & Jody Egan on October 24  
Gina & Mr. Lisak on October 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  
300 Lenora Street  
PMB 6145  
Seattle, WA 98121

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](mailto:greenrockdraggin@yahoo.com)

**2024 Elected Officers**

President Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Vice President Noelle Barnes	206-914-0514	geonoelleb@outlook.com
Treasurer Ananda Cooley	206-683-7787	cascademstreasurer@gmail.com
Secretary Pete Williams	425-228-5063	petewill02@gmail.com
Director 1 – At Large Lee Oliver	253-878-2151	loliver4252000@gmail.com
Director 2 - Field Trips Roger Danneman	425-228-8781	roger.danneman@gmail.com
Director 3 – At Large Programs Paul Ahnberg	941-704-2063	runhikebird@icloud.com
Director 4 - At Large Richard Russell	253-736-3693	richru1@yahoo.com
Director 5 - At Large Linda Jorza	206-478-1642	ljorza@gmail.com
Past President Malcolm Wheeler Sr.	253-569-5185	facetguru@aol.com
Show Coordinator		
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

**2024 Show Committee Chairs**

Cascade Chairman Lee Oliver	253-878-2151	loliver4252000@gmail.com
Cascade Co-Chair Michelle Blanton	206-395-5270	maidmmm@yahoo.com
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 Richard Russell	253-736-3693	richru1@yahoo.com
Pre-Show Raffle Case & Donation Requests Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Show Display Case Presenters Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Show Event Volunteer Recruiter Roger Danneman	425-228-8781	roger.danneman@gmail.com
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

**2024 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	angiemc61@msn.com
Meeting Programs Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
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 – <i>Winter Shop Closed</i>		
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 John Cornell	253-335-3617	outhouse2hole@gmail.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
YouTube Channel Alex Williams	425-891-4717	alexw0121@gmail.com

2024 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](mailto:cascademstreasurer@gmail.com)

To get information to the Tumbler via the Internet send it to [greenrockdraggin@yahoo.com](mailto: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**

**JERRYS ROCK AND GEM**  
 804 WEST VALLEY HWY. KENT, WA. 98032  
[jerrysrockandgem.com](http://jerrysrockandgem.com) [jerrysrockandgem@msn.com](mailto:jerrysrockandgem@msn.com)

Follow us on Facebook **253-852-0539**



**Black Jack's Metal Detectors**  
 Mining Equipment, Low Pressure Dive, & Rock Shop!  
[www.BlackJacksMetalDetectors.com](http://www.BlackJacksMetalDetectors.com)  
 Your place for Metal Detecting & Mining Equipment

101 Park Ave N,  
Renton, WA. 98057  
Store # 425-430-0290  
Direct # 253-961-3095



**SoDo Rocks**

Friday thru Sunday  
10 am to 4 pm

2700 4th Ave S, Seattle, WA 98121

**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.



Access CMS Club Instagram page



For quick access, you can scan the following codes.

Access our CMS YouTube channel





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



Access CMS Facebook Groups

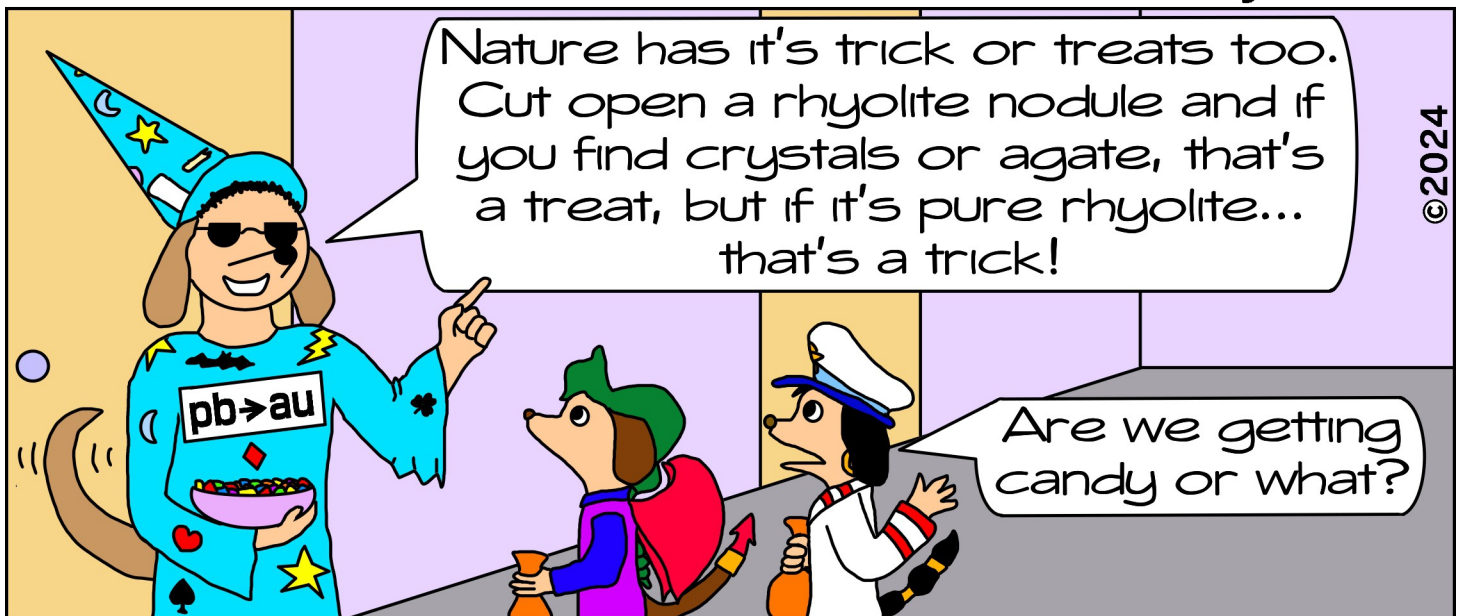


Sun	Mon	Tue	Wed	Thur	Fri	Sat
		1	2	3	4	Marysville Show
6 Marysville Show	7 Board Meeting 7:00 pm	8	9	10 General Meeting 7:00 pm	11	12 Red Top Trip
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31 Halloween 		

CMS Show Committee Meeting:....Monday, October 7.....6:30 pm to 7:00 pm  
 CMS Board Meeting:.....Monday, October 7.....7:00 pm to 8:00 pm  
 CMS General Meeting:.....2nd Thursday, October 10.....7:00 pm to 9:00 pm

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 Board Meeting Minutes September 9, 2024**

by Pete Williams, 2024

Secretary

*Attendees: Kat Koch; Linda Jorza; Pete Williams; Rich Russell; Mike Blanton; Paul Arhnberg; Roger Danneman; Noelle Barnes*

Meeting called to order: 7:08

Our club now has 147 family memberships. Longtime club member Jackie Pattie passed away last month. With her passing we will need to make some decisions on what to do with the equipment stored at her house as we still search for a place to hold a club shop.

Due to a change in scheduling, a new program will need to be found for the September meeting. Roger proposed a program for next year on "all about agates and jasper." The Board decided to go ahead with selling license plate holders. Kat will get with Lee to finalize designs. Members will be able to pre-order at club meetings.

The Board agreed to have a \$2 entry fee at our next show with those under 18 free. Lee Oliver is interested in being our next show chair, but may have conflicts with night meetings.

There are 10 potential events that our club could get a booth for advertising purposes. The Board settled on the 2 Gem Faires in November and March, and the Kent Cornucopia Days in July.

Meeting adjourned at 7:59

**CMS General Meeting Minutes September 12, 2024**

by Rich Russell

Meeting called to order 7:17 pm

Regular secretary and treasurer not available for the meeting.

**Show report:** Hair over \$12k profit for the June rock show.

Please give used postage stamps for the NFMS cancer research fund.

Mineral Council meeting 3rd week of Sept.

Door prizes drawn.

**Meeting topic:** Agates of North America Noelle Barnes.

Holiday party Sunday December 1 at the American Legion hall.

Roger Dannerman Fieldtrip: Frost mountain September 14th

Show and tell 7:55

*Roger Dannerman - Various agates*

*Mike Blanton - Various agates*

*Linda Jorza - Various agates*

*Malcolm Wheeler - Mexican Coconut geodes*

*Brian Oliver - Woolly Mammoth vertebrae*

*Laurie & Scott Miles - Septarian nodule Rainbow agate Brazil*

Rock raffle 8:20

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

At the last minute, our planned speaker for September's meeting was unable to attend. I sincerely thank Noelle for putting together a presentation on agates from North America. Noelle truly saved the day!!

I also want to thank Rich for taking the minutes for the September meeting. Pete and Bev left on the day of the meeting for Europe. I hope they had a great time! Now let's see the pictures.

I also want to thank everyone who helps set up the meeting every month. It is getting harder for Mike and me to pitch in.

Our club is running like a well-oiled machine, and this wouldn't be possible without the dedicated volunteers who keep everything on track. Your efforts are truly appreciated.

We presently have a club membership of 149 families with 293 individuals. If you're a new member, we're thrilled to have you join our fantastic rock club! Your presence at our monthly meetings is highly valued, and we encourage you to take the opportunity to introduce yourself. I look forward to meeting you.

Since our membership continues to grow weekly, I hope more members will attend our monthly meetings. The larger our meeting attendance is each month, the easier it will be to book quality speakers.

I am looking forward to seeing everyone at our October meeting on Opals.



*Welcome*  
New Members

**October 10th - Opals by Pete Williams**

Topic: Opal is the birthstone for October. We will show a YouTube video on opal mining.  
Show 'n Tell: Precious opal, common opal, or any other material with a play of color.



### November 14th - CMS Food Drive & Glaciers by Paul Arhberg

What are the benefits of glaciers?

Glaciers, slow-moving rivers of ice, have sculpted mountains and carved valleys throughout Earth's history. They continue to flow and shape the landscape in many places today. But glaciers affect much more than the landscape.

Show 'n Tell: Something white, clear, or a crystal.



### December 1st – Holiday Potluck Dinner, Election of Officers and Club Auction.

Holiday Potluck Dinner: The club provides ham and turkey. Members fill in with side dishes, rolls, desserts, and drinks. If you cannot bring anything for dinner, please come as we would like your company. We always have loads of food.

After dinner, we have the election of Officers for 2025.

We close out the day with the club auction. The auction is a great time to pick up holiday gifts, birthdays, anniversaries, or whatever. The prices are always a fraction of retail or a gem show.

Mark your calendar now! Let's have a great turnout. Let's enjoy having dinner together, sitting and visiting with one another, and getting some "rock talk" in.



### January 9th - Field Trip report of 2024 and what lies ahead for 2025.

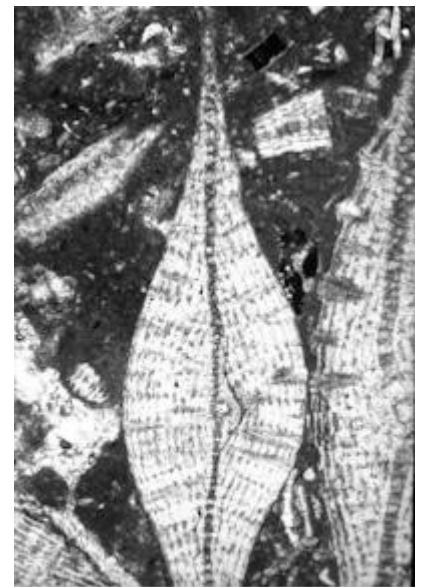
Our Field Trip Guide, Roger Danneman, will review our 2024 field trips and what was found, then look ahead to what is planned for 2025.

Show 'n Tell: Something you found on a field trip, your yard, beach, a hike, etc.

### Feather Agate by Kat Koch

Feather Agate, a gemstone of rare and unique beauty, is a fascinating find in the world, located only in Sumatra. Its striking feather pattern, a result of preserving the hard remnants of the skeletons of Foraminifera *Discocyclina Marginata* in a microcrystalline agate/chert, sets it apart from other gemstones. The gemstone is unique with its rich umbers, beiges, and browns in a feather like pattern. This stone is unusual and will take a gorgeous polish. Its Mohs scale is 6.5 to 7.

Foraminifera are single-celled organisms (protists) with shells or tests (a technical term for internal shells) made of minerals from the ocean. They are abundant as fossils for the last 540 million years. The shells are commonly divided into chambers added during growth, though the simplest forms are open tubes or hollow spheres. Depending on the species, the shell may be made of organic compounds, sand grains, or other particles cemented together, or crystalline CaCO<sub>3</sub> (calcite or aragonite). They were initially in limestone, but the limestone has been silicified, and the marine fossils show up clearly against the matrix. The mineral is called feather agate because what you see is hundreds of *Discocyclina marginata* tests, all lying flat on the sea floor, so when you section them perpendicularly to the flat tests, they look like the pinnules of a bird feather.



Foraminifera *Discocyclina Marginata*



Natural Feather Agate Rough



Feather Agate Cut and Polished

Started in 2009, National Fossil Day was designated the 2nd Wednesday of October and the 3rd day of National Science week. National Fossil Day is a day that Scientists, Museums, educators, and students across the country celebrate the history, impact, and importance of fossils. Every year a National Park is picked to showcase their fossil record and that year's poster/logo is dedicated to that park.



**Jacqueline (Jackie) Pattie 1939 – 2014** by Diana Horsfall

Jackie was a long-time member of the Cascade Mineralogical Society (previously known as the Boeing Employees' Mineralogical society). She did the refreshments for the meetings and gatherings from the 1970s to when she retired from this in the 2000s. She was best known for her ice cream punch that she made for the holidays.

Always willing to help and support the club in many ways even if it was with just a smile. Dad would take us on rock hounding trips and mom would always say “do you know where you are going” of course dad always said yes. Mom would just shake her head. Jackie also accompanied dad to the schools when he did presentations to the kids, she would oversee making sure each child got a rock to take home and answered questions as they came up to her. She liked to travel, and it was not unusual for them to get in the car and take off, always bringing back a rock or two along the way.

Jackie was the '50s housewife, raising 5 kids and taking care of the house. Always making sure there were cookies in the cookie jar. The neighborhood kids knew there would always be cookies there, but she always made sure there was at least two cookies left for dad for his end of the day snack. Jackie joined a bowling league as her kids got older and continued to bowl until dad retired, and they traveled more. She had a great laugh that would fill a room, Jackie will be greatly missed by her family and friends.







**Field Trip Report for September 14th at Frost Mountain** by Roger Danneman, CMS Field Trip Guide

On Saturday, September 14th we went to Frost Mountain south of Cle Elum for jasper/agate/chert and crystal. It turned out to be a really nice day with partly cloudy skies and temps in the mid-60s. With close to 20 miles on gravel it takes a good hour to get here from Cle Elum and is one of our more difficult trips with a near mile hike and some elevation gain. A group of bow hunters were camped out at the parking area so I might make this trip another week later next year.

We had a fairly big group with 12 vehicles and 19 people. The group surface collected and chiseled out the blue-green jasper/agate/chert and the irregular seamed agate known as Tahoma Agate. Some people covered a wide area while I stayed mainly around the rocky outcrop. We collected for about 3 hours, took in the views, chatted, and enjoyed a nice September day in the mountains. Big thanks to Julie for taking pictures as I forgot my camera and my phone in the car. Also to Loren for helping everyone find good material. The rock pics show some of the material I collected after I cleaned them up. Some of the rocks look a bit junky on the outside, but cut pieces can reveal beautiful patterns inside and is generally nice and solid and takes a great polish.

Attendees: Noelle B., Loren M., Julie M. & Gina M., Josh & Eli D., Chris W. & Raquel, James & Travis, Michelle M., Pete & Kelly A., Jarrod D., new member Dan G., guests Ryan M. and daughter, guest Judy, and of course me.

Our next scheduled field trip outing is to Crystal Mountain north of Ellensburg on October 5th. This is planned to be a campout, but the Swauk Creek fire has caused a closure of that area. Communications will be sent out via e-mail regarding updates and changes.





### **Charoite** by Jim Fox

Charoite is a relatively rare rock which has a complex composition of hydrated potassium, sodium, calcium, barium, strontium, hydroxy fluorite and silicate. It was first described in 1978 and is named for the Chara River in Siberia, Russia which is the only place in the world where it is found. Charoite is lavender to purple in color with a pearly luster. It is strictly massive in nature, and fractures are conchoidal. It has an unusual swirling, fibrous appearance, that is sometimes chatoyant. The fibrous appearance along with its intense color, can lead many to believe that it is synthetic or artificially enhanced. Though reportedly discovered in the 1940's, it was not known to the general collecting world until its description in 1978. It is said to be opaque and unattractive when found in the field; a fact that may have contributed to its late recognition. The black in this charoite piece is aegirine crystals, the yellow is canasite and the yellow-brown prismatic crystals are tinaksite.

## Alexandrite and Csarite by Kat Koch

With its chameleon-like qualities, Alexandrite is a rare variety of the mineral chrysoberyl. Its color can be a lovely green in daylight or fluorescent light, changing to brownish or purplish red in the incandescent light from a lamp or candle flame. The color change results from the complex way the mineral absorbs light.

In the 1830s, the largest and most famous deposits of Alexandrite were found in the Ural Mountains of Russia, particularly in the mines of Ekaterinburg and Tokovaya. These mines produced some of the finest and most valuable Alexandrite stones and were the primary source of the gemstone for many years. Its Mohs scale is 8.

Today, Alexandrite is found worldwide, including in Sri Lanka, East Africa, Brazil, and Madagascar. Mining techniques vary depending on the location and type of deposit.

Size always affects Alexandrite's value. Top-quality natural gems can sell for up to \$15,000 per carat in sizes up to one carat. Over one carat, the prices range from \$50,000 to \$70,000 per carat!

Csarite (aka Zultanite) is another stone that changes color depending on the light source. This color-changing diaspore is a unique and relatively rare mineral that belongs to the oxide mineral group.

Diaspore is a hydrous aluminum oxide. The mineral exhibits different colors depending on the lighting conditions, ranging from a yellowish-green in daylight to a pinkish-red or purplish-red under incandescent light. Diaspore is known for its excellent clarity, which enhances its overall gemstone attractiveness. Its Mohs scale is 6.5 to 7.

It was first discovered in 1801 in the Ural Mountains of Russia and known as Zultanite. Csarite, on the other hand, is a trademarked name for diaspore explicitly mined in Turkey's Anatolian Mountains. It is worth noting that the gemstone's original name, "diaspore," is still used by some gemological organizations, researchers, and collectors to refer to the mineral regardless of its source. Csarite and Zultanite are registered trademarked names.

Size always affects Csarite or Zultanite's value. Top-quality natural gems can sell for up to \$625 per carat in sizes up to one carat. Over one carat, the prices range from \$900 to \$12,000 per carat!



## Keeping Kids Connected to Safety by Ellery Borow, AFMS Safety Chair

Kids are different from adults. To young kids everything is new, exciting, curious, to be explored, tasted, touched, tried. With luck, they will keep those traits and be well served by them as they mature. One of the things kids do not have in abundance is patience. How might a kid wait around while there is a huge world out there to explore?

When it comes to safety, there are several issues that relate specifically to kids. Kids are generally not ones to listen attentively to a long boring safety lecture either at a club meeting or at a mine or quarry collecting site. So, how are kids to be safe if the safety lectures are not reaching them? Parents do their very best to keep their kids safe, but it is difficult to watch them every second of every hour.

One of the ways kids learn on their headlong race to adulthood is to watch the world around them. They watch other kids, they watch strangers, they watch their parents, they watch every thing, every one, all the time. Now, if what kids see are other kids, strangers, their parents and everyone wearing their safety goggles, wearing safety gloves, not tossing rocks down-hill toward other collectors, and in general being safe and respectful, kids will take note of this. Kids need to learn, want to learn, struggle and strive to learn to be the adults they are destined to become. To help them on toward their goal, we all need to set examples of how to be safe.

Here is an example to which many can relate – before taking off, the airline cabin crew gives a brief safety lecture. In the lecture mention is made that, in case of loss of cabin pressure passengers are to put the oxygen masks on themselves first, before putting the masks on their kids. In order to protect our kids why aren't we told to put the masks on the kids first? One answer is, if kids see their parents putting their masks first, then kids will know it is safe and necessary for them as well to put on a mask. Kids learn from the real world examples displayed by all the adults around them.

Don't have kids of your own, or your kids all grown up and moved away? Kids will still look at you as an adult and a role model of what to do to be an adult. As adults, aware of this or not, kids are watching everything we do. We need to be setting the best of examples of what it means to be an adult. And, one of the examples we need to be setting is with the need to be safe. If we keep ourselves safe, kids will see this and respond with modeling our behavior, it is what they do.

All that said, kids travel their own path to adulthood. They sometimes need to break things to see what happens. They need to test limits. They need to be curious. They need to make mistakes to learn. So parents still need to maintain vigilance with keeping everyone safe. We all need to be watchful and help kids learn the correct ways to be safe. We can do this. After all, everyone's, that's kids and adults alike, safety matters.

from AFMS Newsletter, 6/24

Ivory is one substance that needs light and therefore should never be stored in the dark. If it has started to yellow, take half a lemon and rub it in some salt, then rub it all over the ivory. The lemon will work on the yellow discoloration. After the piece has dried, dampen a soft cloth with lukewarm water and rub the ivory to give it a bright finish.

from Lowcountry Diggings, 6/24

## What are Geodes?

What, exactly, makes a geode a geode? The term refers to a specific type of rock structure where a roughly spherical cavity is lined with minerals. We typically associate geodes with beautiful, crystal-lined cross sections, but a geode can also be lined with amorphous, dull-colored minerals.

The minerals lining a geode can be one of many different varieties. Most often, geodes are lined with a variety of quartz like amethyst, smoky quartz, agate, or druzy quartz. Carbonate minerals like calcite and dolomite are also very common.

It's important to know that a geode is a secondary geologic structure. This means that they form after another process has finished. In this case, geodes first need a hollow cavity (called a vesicle) to form.

Geodes can be almost any size ranging from smaller than a walnut to as large as a car, but most are roughly the size of a baseball.

It is also important to distinguish between a geode and similar structures like nodules and thundereggs. The defining feature of a geode is that it is hollow. Given enough time, the void space in the vesicle may become entirely filled with mineral material. At that point, the rock would be referred to as a nodule or a thunderegg.

### *How Geodes are Formed*

It can be hard to imagine how something so unique and beautiful can form in nature, but the process is fairly well understood and is actually quite common, geologically. They require a specific set of circumstances in order to form, and therefore their occurrence is limited to areas in which these requirements have been met.

#### 1: Void Space

All geodes first require the creation of a void space within the rock. These voids generally form in two different ways.

The most common way is that gas pockets within volcanic basalt flows become solidified when the lava cools, leaving behind empty spaces in the rock. These gas bubbles are usually pretty close to round in shape, which is the primary driver of the final shape of the geode.

In other cases, voids form in sedimentary rock. This happens when soft material like organics or mud balls become trapped in the sediment. After the sediment has hardened into rock, that softer material decays and erodes away, leaving behind an empty cavity with the potential to become a geode.

#### 2. Precipitation of Minerals

The next requirement for geode formation is the precipitation of minerals out of saturated water. This means that water laden with dissolved minerals gradually deposits those minerals on the walls of the void space over time.

As rocks become older and more deeply buried, water is constantly (and slowly) seeping through the cracks and pores. This water is often heavily saturated with minerals like quartz and calcite. Over time, those minerals grow on the walls of the void spaces to form visible crystals.

The crystal growth in geodes generally happens in a concentric pattern, forming from the outside and growing inward. It is fairly common to see microcrystalline minerals like agate on the edges of a geode, transitioning into larger crystals like quartz or amethyst towards the center.

#### 3. Erosion of Surrounding Rock

The final thing a geode needs is to be exposed at the surface. Technically it's already a geode before this step, but in order for us to find it and enjoy it it needs to be found.

The geodes we find at or near the surface have typically been eroded out of their surrounding rock. Because geodes tend to be comprised of hard minerals like quartz they are more resistant to weathering than the rock around that they've been living in. Over time, they weather out of that surrounding rock and become free.

Some geodes are harvested directly out of the bedrock. For example, many of the famous Brazilian amethyst geodes (like the one pictured below) are found still contained within their original basalt flow. They have to be manually extracted in order to be sold on the open market.

### *Varieties of Geodes*

There is no formal classification system for geodes, but they are usually described and categorized by the crystals found within them and/or the location in which they were discovered.

For example, you will often see a geode referred to as an 'amethyst geode' or 'citrine geode'. You may have also heard of geodes from specific locations like Keokuk geodes or Dugway geodes. These are all just ways of describing to others some of the history and composition of each specimen.

As alluded to earlier, you can also separate geodes into two primary groups based on how they are formed. Volcanic geodes are formed in volcanic flows like basalts and tuffs, while sedimentary geodes are formed by the decay of soft organic material trapped within carbonate rocks.

#### Where to Find Geodes

Not surprisingly, the best places to find geodes tend to be in close proximity to old volcanic fields or sedimentary beds which have undergone the necessary processes described above.

In the U.S., there are several famous geode beds that are very popular with collectors. Among the most famous are the Dugway geode beds in Utah, the Keokuk geode beds in southeastern Iowa, and the extensive beds in central Kentucky.

*Resource: Rockhound Resource*

**A, B, C's Of What One Can Do With Rocks**

A - Admire Them  
 B - Brag about them  
 C - Cut and cab them  
 D - Display them  
 E - Enjoy them  
 F - Facet them  
 G - Gloat over them  
 H - Hunt them  
 I - Idolize them  
 J - Just enjoy their beauty  
 K - Kick them  
 L - Lick them  
 M - Make something with them

N - Never tire of them  
 O - Ogle them  
 P - Polish them  
 Q - Quick - collect them  
 R - Roam for them  
 S - Stumble over them  
 T - Trade / Tumble them  
 U - Unable to resist them  
 V - Vastly enjoy them  
 W - Wonder about them  
 X - X-ray them  
 Y - Yearn for them  
 Z - Zoom to collect them

via The Cowtown Cutter, 10/15; via Chips and Chatter, 10/15; via SCFMS Newsletter, 9-10/15; from SCFMS Newsletter, 5-6/08

**Catlinite (Pipestone)**

Catlinite, also called pipestone, is a type of argillite (metamorphosed mudstone), usually brownish-red in color, which occurs in a matrix of Sioux Quartzite. Because it is finegrained and easily worked, it is prized by Native Americans, primarily those of the Plains nations, for use in making ceremonial pipes, known as chanunpas or čhaŋnũpas in the Lakota language.

Pipestone quarries are located and preserved in Pipestone National Monument outside Pipestone, MN, and at the Pipestone River in Ontario, Canada.

**Name**

The term Catlinite came into use after the American painter George Catlin visited the quarries in Minnesota in 1835, but there is evidence indicating Native Americans had been using the quarries since at least as far back as 1637.

**Catlinite Quarries**

Minnesota catlinite is buttery smooth and can be cut with a regular hacksaw or even a knife. It comes out of the ground a pinkish color often with a cream layer protecting it from the hard quartzite. It is weaker and more subject to breaking under stress than Utah pipestone. Most catlinite deposits exist beneath the level of groundwater in deep enough layers where the soil is constantly moist. The iron compounds which give catlinite its red color quickly convert into iron oxides when exposed to the elements and the stone degrades and breaks down.

The red catlinite from the Pipestone, MN, quarries is a soft claystone bed which occurs between layers of hard Sioux Quartzite. Only hand tools are used to reach the catlinite so it takes a long time to get to it. Only enrolled Native Americans are allowed to quarry for the stone at the Pipestone National Monument, and thus it is protected from over-mining. Another quarry is located on the reservation near Hayward, WI, which the Ojibwa have used for centuries. The stone there is harder than the stone from Pipestone National Monument.

**Other Varieties of Pipestone**

A large range of pipestones exist, not just those in Minnesota. Utah pipestone has a more variable range of hard and soft forms, since it occurs as layers between deposits of harder slates. Several natural deposits of Utah pipestone have been mined and used for pipemaking by Native Americans in the area for millennia.

The Canadian quarry is no longer used, although there are quarries in Canada where another type of pipestone, black stone, is gleaned. The Ojibwa use both the red and black stone for their sacred pipes.

from Grindings, 6/24

**Young Richard's Almanac** by Dick Morgan

As we age we think of food we can't seem to get anymore. I really miss the farm cooking during harvest time. The Patzels would make me two 12 inch sausages for helping them with their harvest. It was Mrs. Patzel's best recipe. She told other people they were so big because my mom would only allow me two sausages for breakfast.

Why did the dinosaur cross the road? Because the chicken didn't exist yet!

I was struggling to understand how lightning works, and then it struck me.

Used to be rock around the clock, now it's limp around the block.

from Breccia, 7/24

What did one granite rock say to the other? "I love your "gneiss" new outfit!"

from Breccia, 6/24

## Young Tumblers News

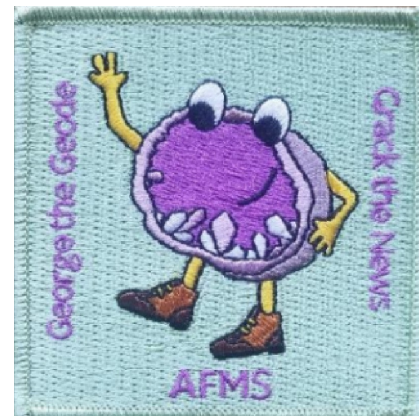
### Hey, Kids! Send an Article to Crack the News — Receive this Patch!

Write an article or poem or create artwork about rocks, minerals, fossils, or anything about rockhounding, and receive this special patch featuring George the Geode (This George's is favorite patch.)

Plus, you could see your name in the next edition of this newsletter!

Click this link to download the submission form:

<https://drive.google.com/file/d/1KiCMzmZT82fxuIT-Ut4gqz9W4zUeXy4/view>  
via AFMS Newsletter, 10/24; from Crack the News, 7/24



### Black Gems by Keith Alan Morgan

Fancy stones that come in black. Words can be found up, down, left, right and diagonal.

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

Agate  
Cairngorm (smoky quartz)  
Carbonados (diamond)  
Coral  
Jade  
Jasper  
Jet  
Labradorite



Melanite (garnet)  
Obsidian  
Onyx  
Opal  
Pearl  
Sapphire  
Schorl (tourmaline)  
Zircon

## 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>).

### **October 4-6?** *Cascade Mineralogical Society - ?*

This was to be a campout at Crystal Mountain, but area fires closed the area. Roger will send out email notifications of any updates.

*Roger Danneman 425-228-8781 [Roger.Danneman@gmail.com](mailto:Roger.Danneman@gmail.com)*

### **October 12** *Cascade Mineralogical Society - Red Top - agate, jasper, crystal, geodes.*

Difficulty Rating 4. Lower dig site is a short hike up up a steep slope. Upper dig site is a 1/2 mile hike with some elevation gain.

*Roger Danneman 425-228-8781 [Roger.Danneman@gmail.com](mailto:Roger.Danneman@gmail.com)*

### **October 19** *Darrington Rock Club – Index – Meet before 9 am Highway 2 & Index Rd - Picture Jasper - Bring rock hammer, wading boots*

*Ed Lehman [wsmced@hotmail.com](mailto:wsmced@hotmail.com) h# (425) 334-6282 c# (425) 760-2786*

## **Clubs Need New Programs, and YOU Can Help!** by DeLane Cox, AFMS New Programs Competition Chair

There is definitely a need for new program materials for our rock clubs, and you may be able to help.

The AFMS New Programs Competition encourages individuals and clubs to put together a program that any club could use as a program. Put it into electronic form, then enter that program into the annual AFMS competition. Deadline for 2024 entries will be January 15, 2025. If your regional Federation has a New Programs Competition chair, you need to send it to that person, and they should forward it to me. If not, you may send it directly to me with a note that your Federation does not have a competition, and I will enter it as a Direct Entry. Entry forms are on the AFMS webpage with other contest forms, <https://www.amfed.org/contests/program-competition>

I'm sure there are clubs that have had a great program in the past year, one that would be good to share with other clubs. Before sharing, enter it into the New Programs Competition. There is a great deal of information on the AFMS web page (go to the web page at: [www.amfed.org](http://www.amfed.org). On the home page, look at the left side and find Contests & Awards. Click on this and then open the Programs heading. There are suggestions as well as the Entry Form on this page.) There are suggestions about photographing objects, putting music into the program, making identifying notes for unusual names, places, spelling, and pronunciation. Can't think of a subject? That area is wide open, and there is a place in the competition for ANY topic.

There is a special competition for juniors, and another for professional filmmakers. Anyone who is a member of an AFMS club or society can put together a program and enter it in Competition.

Even better, there are cash prizes for first and second place programs that score over 95 points. And the top winner's programs will be sent to every Federation's Program Library for any club to use for a monthly club program.

The time is now to get that program underway. It does take a little effort to get it done, but there is still time before the entry deadline of January 15, 2025.

If you have any questions, feel free to email DeLane Cox, New Programs Competition Chair, at [delanec3@earthlink.net](mailto:delanec3@earthlink.net).

If you are needing information quickly, you may call at 479-254-0894. I will get back to you as soon as possible.

So, what are you waiting for? Get that program underway now!

from AFMS Newsletter, 10/24

## **Splash Casting** by Leo Hoffman

If you have some scraps of silver, you can use them to create unusual castings that can be used for pendants etc. You will need a crucible to hold the metals as it is heated, tongs to hold the heated crucible, water in an unbreakable container, and a bit of borax to act as a flux.

Heat an ounce or two of silver in the crucible until it liquefies. Add the borax to minimize oxidation. When the metal is liquid, pour the metal into the water in one quick motion so all the metals comes out at once.

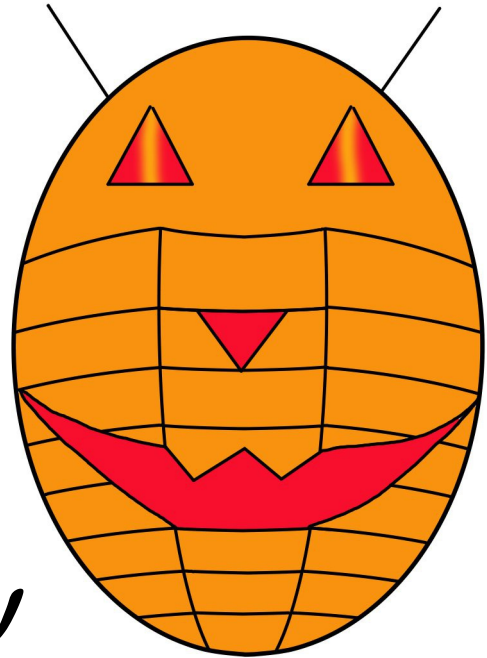
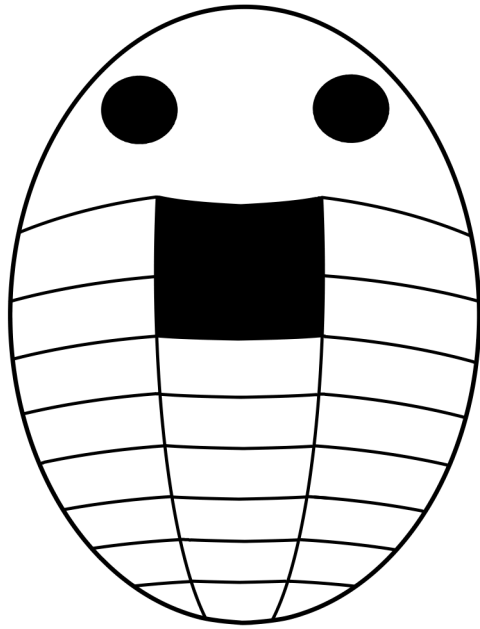
Each drop casting is unique. By changing the water depth, you can influence the shape of the finished casting. By adding pine needles or rock salt in the bottom of the water, you can create interesting patterns.

The finished castings can be tumbled or hand finished, drilled for pendants, or fused to another surface.

via Lowcountry Diggings, 6/24; via Gem Cutters News, 6-7/11; from Wildacres, 2000

You know you're a rockhound if... you keep a hand lens on your dining room table... just in case.

from The Geode, 5/24



**Happy  
Halloween!**



**Shows**

**October 4 – 6:** Friday & Saturday 10 am – 6 pm; Sunday 10 am - 5 pm

**Portland Regional Rock and Gem Show, 44rd Annual**

Wingspan Event Center

801 NE 34th Ave

Hillsboro, Oregon

**October 5 & 6:** Saturday & Sunday 10 am – 5 pm

**Marysville Rock and Gem Club, 48th Rocktoberfest**

Evergreen State Fairgrounds

Display Bldg #500

14405 179th Ave SE

Monroe, WA



---

**Stabilizing Porous Stones**

Stones that are porous are difficult to cut or carve. Here's a method of stabilizing them that you may want to try. Be sure to do this out of doors or in a very well ventilated area. Please note that acetone is a highly flammable substance.

Take a jar with a lid and add one pint of acetone. To this, add the complete contents of both the resin and hardener tubes of epoxy glue. Mix well and add the well-dried stones that you want to stabilize. Cover the jar and let it sit for at least four days. Remove the stones and allow them to dry for a week. Your stones should now be ready to work.

via Lowcountry Diggings, 6/24; via Calgary Lapidary Journal, 5/11; via Gem Cutters News, 6-7/11; from Ed Wengerd's Notebook, 1975

---

*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.*