The CMS Tumbler

February 2026

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

Next Meeting:
February 10, 2026
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

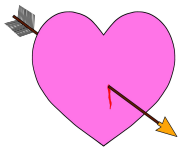
The Program is
Upcoming Field Trips

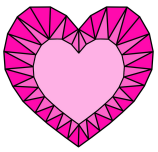
The Show & Tell
Theme is Your Best
Find of Last Year

Connect with us!

Website: https://www.cascademineralogicalsociety.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
Joshua Dobner on February 3
Jack Petty on February 9
Ted Reinhart on February 10
Levi Dobner on February 12
Scott Harris on February 14
Arleaha Werts on February 14
Jae Cites on February 15
Pete Williams on February 18
Megan Brandl-Blake on February 20
Maxim Tokmakova on February 22
Scott Miles on February 23
Daniel Kauffman on February 25
Jeff Leiphan on February 25
and also remember
to wish a
Happy Anniversary to
Alyssa & Mr. Hjeltness-Werre on February 2
Rebecca & Mr. Waller on February 10





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2026 CMS Dues are $30 per year per family
Pay online, by mail, or at our meetings.
New mailing address:
Cascade Mineralogical Society
c/o 4762 Whitworth Pl S #P104
Renton, WA 98055

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 Lands Access Association; and the Washington State Mineral Council.

Our Club is a Member of these Federations and Associations

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/

Washington State Mineral Council

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 side. 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

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.

We Need Your Canceled Postage Stamps

Our club is going to continue to collect canceled postage stamps. Even though we are no longer members of the NFMS, we will continue to collect them and turn them over to the NFMS. They have a stamp company that buys them, and these funds are donated to cancer research. Every year NFMS donates around $2,500.

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 will turn them over to the NFMS. 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

These three retailers are huge supporters of our club. Please seek them out when looking for lapidary items and supplies.

Don't forget to show your membership card and receive a 10% discount on most items!

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.

Scan Me

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

February

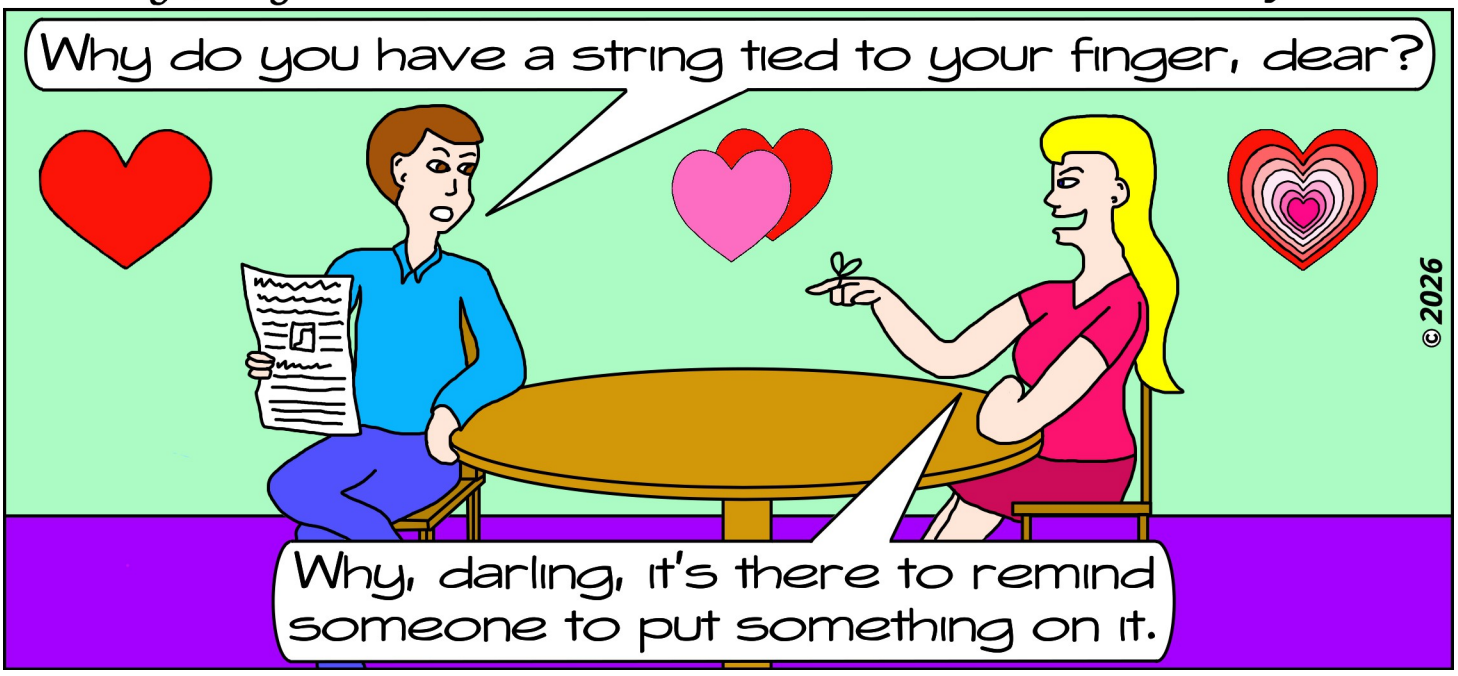
Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9 Board Meeting 7:00 pm	10	11	12 General Meeting 7:00 pm	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

CMS Show Committee Meeting:…Monday, February 9…….....6:30 pm to 7:00 pm
CMS Board Meeting:……....Monday, February 9…….....7:00 pm to 8:00 pm
CMS General Meeting:……....2nd Thursday, February 12……7:00 pm to 9:00 pm

Lapidary Class Hours:……Closed for winter
Lapidary Shop Hours:……Closed for winter

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

String Finger by KAM



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

CMS Board Meeting Minutes January 5, 2026

by Pete Williams, 2026 Secretary

Attendees: Noelle Barnes, Rich Russell, Kat Koch, Paul Arhnerg, Pete Williams, Roger Danneman, Ananda Cooley, Mike Blanton

Meeting Called to order: 7:07

The club ended last year with 145 family memberships. This was the first year in ten years when the membership did not grow. So far this year we have 96 renewals and 2 new members.

Noelle wants to set some goals for our club around engagement of members. This would be setting goals for meeting attendance, field trip participation, and volunteers. A baseline will be established for each metric. Roger will provide field trip participation and volunteers from the show, and Noelle will request meeting sign-up sheets from Brian. Noelle also wants to encourage more members to write articles for the Tumbler. Kat is willing to help anyone with editing.

The Board reviewed the year-end financial statements and requested a current month report also be included in future reporting. Website metrics for December were reviewed and showed 346 unique people viewing in December and 451 in November.

The January meeting program will be on Archelogy and Geology by Tom Prang. The February program will be on 2026 field trips by Roger Danneman. If reservations can be made, the summer picnic will be on August 8 at Coulon Park in Renton. Kat will make the reservations.

The Board reviewed three new potential club logos and selected one with some modifications. Kat will attempt modifications. Also, reviewed were 2 versions of the flyer Kat prepared for our 2026 show. One was selected. A decision was also made to provide vendors with a 15% early bird discount. Active club members who want to have a booth will get a 25% discount. Decisions were made to have 1 check-in table at the entrance to the show and a table next to the silent auction to sell club items at a fixed price.

Meeting adjourned at 8:41.

CMS General Meeting Minutes January 8, 2026

by Pete Williams, 2026 Secretary

Called to Order: 7:08

Noelle talked about our upcoming show on June 27-28. We need people to volunteer to help out at the show. Volunteers will get priority on using the club shop which is nearing completion. This year there will be free admission. Kat is working on the floor plan and signing up vendors. Right now volunteers are needed to add our show to various websites. Contact Noelle if you can help. Our club also needs someone to represent our club at the WSMC.

The saws in our new shop are now working. The polishing equipment still needs work.

The program for next month will be on field trips for 2026 and the material that is found there.

Program: Archeology and Geology by Tom Prang from “A Point in Time”.

Meeting adjourned at 8:31 Followed by show and tell.

Digging It!

by Noelle Barnes, 2026 President

Welcome to 2026! I'm delighted to be starting my two-year term as the club's new president. Thank you for electing me to this position, and thank you to Kat Koch for leading the club for the last decade.

As we move into February and beyond, I hope to see more of YOU - at meetings, on field trips, in our rock shop, at our show, picnic, and holiday party. To me, the best part of the club – aside from the rocks, of course - is the community of great people who share this passion for rockhounding and minerals. The people are what make this club great, and I hope you'll consider joining your fellow rock enthusiasts for outdoor adventures, fun programs at our meetings, show preparation and execution, and so much more.

Our Cascade Gem, Mineral & Jewelry Show is June 27-28 this year at Kent Commons. We are starting up our Show Board meetings, which are online on the second Monday of each month at 6:30. If you would like to join us, please email me.

I joined this club back in 2021 when I was hoping to find some outdoor time with like-minded people who just wanted to go out into the woods and mountains and find cool stuff. Since then, I've found more than I could have ever dreamed - and made some incredible friends along the way. Thank you for putting your trust in me to lead this club. I hope you'll reach out with ideas and feedback for what you'd like to see this year.

Minerals of the Mount Persis Volcanics

by Aidan Cerenzie

Mount Persis Volcanics is located within the Western Cascades Washington and consists of plagioclase and hornblende-rich andesite flows and breccias, dating from 38 to 47 Million Years ago. Reports state that the Mount Persis Volcanics are some of the earliest signs of volcanism in the Cascade Mountains of Washington State. The Mount Persis Volcanic rocks are exposed starting from south of Highway 2 near Monroe down to Rattlesnake Ledge just south of North Bend. The hydrothermal alteration and mineralization have created numerous collecting opportunities within the formation.

Cedar Ponds

The first important locality to mention is Cedar Ponds. Cedar Ponds have been listed in many references such as Garrett Romaine (2007): Gem Trails of Washington and Bob Jackson and Kay Jackson (1974): The Rockhound's Guide to Washington Volume I. Clear Quartz Crystals and occasional Amethyst forms in Open Cavities within Andesite. Scepters, Reverse Scepters and Tessin Habit Quartz crystals have been collected. Larger Crystals have been recovered by more serious collectors climbing around the cliff face and some state that Crystals can reach up to 4 inches in length. An old Washington State Mineral Council Locality in the vicinity has produced high-quality jasper and takes an excellent polish.

Polished Jasper From Cedar Ponds

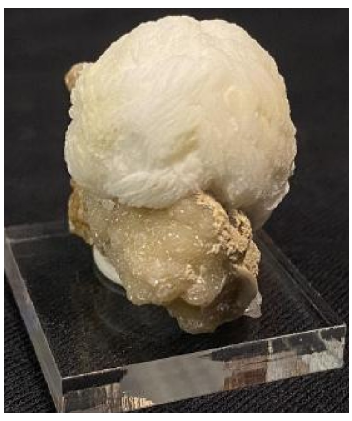
Cadman High Rock Quarry

A large Hard rock and sand/gravel quarry approximately located 2.5 miles east of the town of Monroe Washington is another important locality to mention. Cadman High Rock Quarry has been operating since 1984 and is known to produce light blue, gray, clear seam Agates, large Calcite specimens, and spectacular pseudomorphs of Quartz after Aragonite. The minerals are found in veins and altered zones cutting through the volcanic rock. Many large pockets have been exposed from blasting throughout the years producing large Calcite and Pseudomorph specimens measuring over a foot wide. Pockets are commonly filled with a gray slimy clay that usually covers the crystals in the cavities. careful extraction must be performed due to the risk of damaging delicate crystals. The locality may come to an end soon due to reports of site reclamation in the coming future.

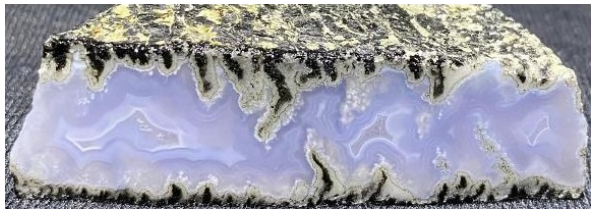
Large Cabinet sized specimen of Bladed Calcite

Quartz Pseudomorph after *Aragonite specimen*

Druzy Quartz, an isolated Calcite crystal along with a dusting of Pyrite on the Quartz



Unusual form of Calcite for the locality



Light Blue Seam Agate with interesting patterns

Spectacular Banded Light Blue Seam Agate

Tower Hill Quarry

Right off of a small dirt road lies the old Tower Hill Quarry located above the Cadman High Rock Quarry and is operated by the Washington State Department of Natural Resources. The locality has been written in the Washington State Mineral Council Maps and was originally known to produce Agate specimens with "polka dot" inclusions. The discovery of Chalcedony Pseudomorph after Melanophlogite was made in 2019 by Nick Carlson. More information about the locality can be seen in the reference below.

\Micro cubes of Chalcedony Pseudomorph after Melanophlogite

Micro zoned cubes of Chalcedony Pseudomorph after Melanophlogite

Youngs Creek Quarry / J & Z Quarry

The Youngs Creek Quarry or J & Z Quarry is located off of a logging road in the foothills NE of Duvall Washington on DNR land. Large veins and masses of Jasper along with various members of the Zeolite group were discovered by the author during the spring of 2022. The left pit has produced specimens of isolated Heulandite crystals on matrix and small Quartz Epimorphs after Rhombohedral Calcite crystals. A large exposed Jasper vein measuring a 1-foot thick can be seen on the quarry wall. The right pit exposes 2 veins and has produced specimens of Stilbite crystals with colors ranging from white to peach color and is occasionally coated with micro Laumontite crystals perched on the Stilbite. Masses of Jasper can also be seen. 2 unusual specimens of orange-colored stilbite were found on the quarry floor of the right pit but the source was likely destroyed from past operations at the quarry.

Extracting Zeolite specimens, mainly Stilbite plates with small Laumontite crystals

3-inch wide specimen of Stilbite with Laumontite coating parts of the specimen

Micro Laumontite Crystals perched on Stilbite

Cherry Valley Quarry

Just to the West of the Youngs Creek Quarry lies the Cherry Valley Quarry. Small Dogtooth habit calcite crystals and micro double terminated Quartz Crystals were discovered by the Author during that same year. Occasionally the Dog tooth Calcites can be included with a pinkish mineral or a coating near the surface of the crystals forming as "spots". The mineral is untested but it is suspected to be oxidized Pyrite. The minerals form in small veins, cracks, and cavities within gray Andesite.

Dogtooth Habit Calcite with unidentified mineral

Micro double terminated Quartz perched on calcite

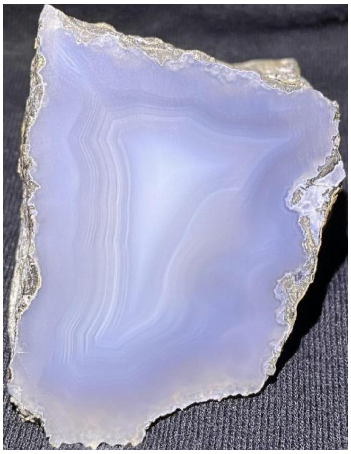
"The Pit"

Now toward the south in King County was another major discovery made by Nick Carlson in March of 2020. "The Pit" produces spectacular Chalcedony formations forming as "Hairs" commonly associated with Pagoda style calcite crystals and high quality banded seam agates forming in cavities, veins, and fissures within brecciated Andesite. The locality brought great interest to the author and went out on a mission to find the site. The author pinned numerous quarries within the Mount Persis Volcanics and attempted to investigate each one. During the search to find "The Pit" the Author stumbled across the interesting minerals occurring at the Cherry Valley Quarry and the Youngs Creek Quarry.

Micro Calcite crystals forming on hair like Chalcedony

A fabulous specimen of Chalcedony and Calcite from “The Pit” in King County

Slender Chalcedony associated with light yellow Calcite 8mm FOV



Sliced Agate Specimen

The Golden Wall

A cliff face deep in the forest lies the Golden Wall located North of "The Pit". Pocket fissures and veins within the Andesite has produced high-quality specimens of Druzy Quartz Crystals in recent years. Collecting must be performed carefully due to the rocks being unstable causing a risk of unexpected collapse. Collectors have repelled the cliff face and brought ladders in search of Quartz pockets. There is also a small Unnamed Quarry to the north on the road leading to the Golden Wall that produces small Nailhead Calcite crystals perched on brown Siderite with aragonite in altered Brecciated rock.

Cliff Face at the Golden Wall

Quartz Vug exposed in a vein

The Mount Persis Volcanics has great collecting potential for the Mineralogist's interests as almost each location has its own unique mineralogy. Planned further exploration of the formation and adding information to this article will be done in the future.

References https://www.washingtonminerals.com/cq.htm
https://www.washingtonminerals.com/tower-hill-quarries.htm
(2022, June) PNWFM Newsletter. Pacific Northwest Chapter Friends of Mineralogy

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Coyamito Agates by Kat Koch

The rock that wears another's face

According to an old Native American term "Coyamito", means "Somewhere between heaven and paradise."

In the 1960's, agate was mined and collected from Ranchos Coyamito Norte, Coyamito Sur, Gregoria, Derramadero, Aparejos, and Sueco, all of which were sold under the name "Coyamito Agate."

Rancho Coyamito in Chihuahua, Mexico, is approximately 40 miles north of the famous Laguna agate deposits and about 100 miles south of El Paso, Texas. The ranch spans around 23,000 acres and hosts multiple small mines, with the most notable deposits located in the Los Alamos and La Sonoreña areas. These agates form in volcanic rock and are known for their vibrant colors—especially reds, yellows, pinks, purples, and oranges—and unique pseudomorph formations.

At first glance, Coyamito agate from northern Mexico already feels magical. Its fiery bands, deep caramel tones, and glowing chalcedony layers look alive. But sometimes — just sometimes — you'll find something inside it that doesn't belong.

A shape that looks like a crystal, but… isn't. Edges that form like calcite or aragonite, yet glow with agate's silky translucence. That's when you've stumbled on something rare and extraordinary: a pseudomorph.

What exactly is a pseudomorph?

The word sounds complicated, but its meaning is simple: "Pseudo" means false, and "morph" means form. In other words, a pseudomorph is a mineral that has taken the shape of another. One mineral forms first, then dissolves or gets replaced — but its shape remains, filled in by a new mineral. Think of it like nature's version of casting — the first mineral leaves behind a perfect mold, and another one quietly steps in to take its place.

In Coyamito agate, this transformation is not just beautiful — it is sometimes breathtaking.

How it happens in Coyamito agate

Coyamito agate forms in ancient volcanic rock near Chihuahua, Mexico — a landscape shaped by intense heat, gas bubbles, and mineral-rich water. Inside these cavities, minerals like calcite or aragonite often grew first. Later, silica-rich water seeped in and slowly replaced those original crystals with chalcedony — the microcrystalline quartz that forms agate.

Over thousands of millions of years ago, the original crystal dissolved, leaving only its shape behind.

The result? An agate that looks like a crystal — but isn't one anymore.

Why it's so rare

Pseudomorphs are rare because they require the perfect sequence of events:

1. One mineral forms first — often something soluble, like calcite.
2. Silica-rich fluids enter the cavity, layer by layer.
3. Replacement happens slowly, preserving the original crystal's shape while filling its volume with chalcedony.
4. The cavity seals off, trapping the transformation forever.

If any step goes wrong — the temperature's too high, the flow too fast, or the chemistry off — the pseudomorph won't form.

That's why finding a Coyamito agate with preserved crystal shapes inside feels like discovering a secret chapter of Earth's history.

A variety of patterns and colors are associated with the name. However, most of the vibrant red-banded agate for which the agate is treasured comes from the original La Fortuna claim. The agate deposits mined for Coyamito Agate are in the heart of the Sierra Gallego, about 100 miles south of El Paso, Texas. These deposits have been mined from many different pits hand-dug into the hard andesite host rock.

Today, most of the rock being sold as Coyamito Agate comes from Ranchos Coyamito Norte and Coyamito Sur. These two ranches used to be a single one, simply called Rancho Coyamito, owned by the Carillo family. When Marin and Alicia Carillo's father died, the two inherited the northern and southern halves of the ranch, respectively. Marin Carillo passed away in July of 2004, passing Rancho Coyamito Norte into the hands of his son, Marin Carillo, Jr. Laguna Agate is found 10 miles to the south. Both Laguna Agate and Coyamito Agate are considered to be among the finest Mexican agates, and due to very limited occurrences of Coyamito Agate deposits, it has been considered rarer than the well-sought-after Lagunas.

The Coyamito Agate deposits are known to produce the most and finest pseudomorphs compared to any other agate deposit location. The deposit most known for its pseudomorphs is the Creek deposit in La Sonoreña, named due to its location in a canyon between two hills along a small intermittent creek. An agate pseudomorph forms by coating preexisting crystals, in Coyamito's case, Aragonite, and smoothing out the exterior of the crystal clusters after several layers have formed. These layers form the banding observed after cutting a specimen nodule, leaving evidence of the hexagonal crystal structure beneath the agate.

Pseudomorphs from the Creek deposit mostly occur as clusters of individual crystals within hollow spaces, where the agate had not completely filled the interior of a nodule.

Bibliography: The Gem Shop, Agates From Mexico, Geology Science, Fossilera, Mindat.

Hello CMS Members,

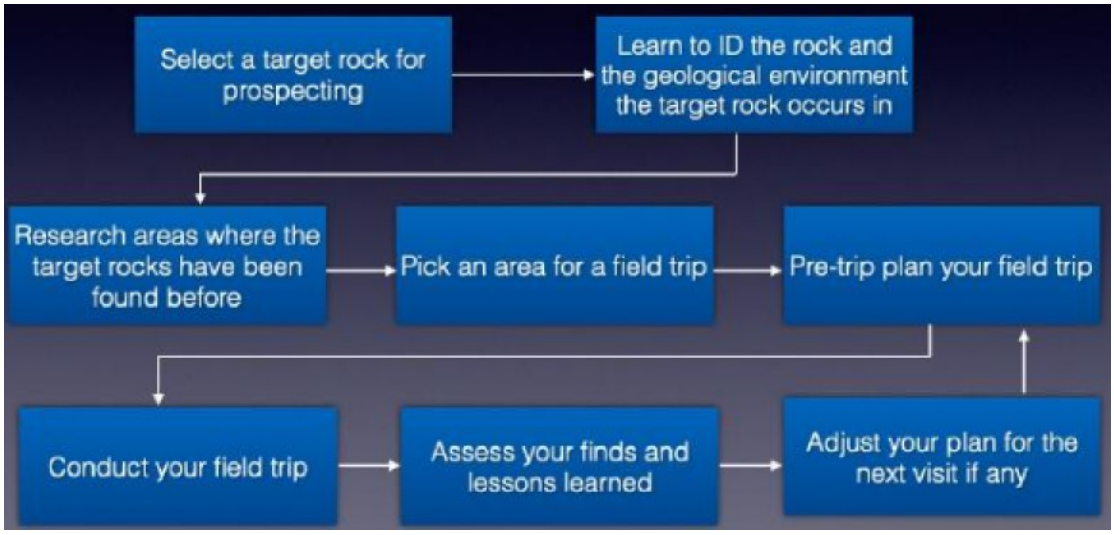
My name is Mike McWilliams, a brand new club member. I was a member, for a relatively short time, of the old Boeing Employees Mineralogical Society. I decided to quit when I moved up to Stanwood where I still reside. I probably won't be attending many meetings as it is quite a hike down there. I hope, through this series of newsletter articles, to get to know and provide our new and intermediate field collectors with information and resources. Resources which should help them be more successful on their field expeditions. I also hope to foster the spirit of sharing field collecting information/skills amongst our group. I know we have a lot of expert field collectors in the club and I hope they will be kind enough to share their tips and tricks. There are many ways to do things and I don't claim to be Bob Jackson. A version of these articles have been shared with the Everett Club previously but I hope to improve that content

In addition to these articles, I provide a free class on digital prospecting which focuses on using online sources and various apps to do what we used to call arm chair prospecting (research). Being diligent about armchair prospecting and being curious and sharp eyed in the field are the things that will most positively influence any collecting trip. The class has two field trips where we try to apply what I teach. I have several of our club members in this year's class which is ongoing. If these articles interest you I will be calling for students next November.

My first field collection find was at age 10 when my rockhound cousins came from Iowa and wanted to hunt our creek in Wyoming for agates. I found a roundish purple rock about the size of a large table grape. After studying it for about three days I took it to the shop and put it on the anvil. I wanted to see if it was crystalline all the way through. I smashed it with a 8 pound sledge and sure enough it was. Sadly all that was left was purple shards and powder. Lo and behold my first rockhounding lesson - use hammers with discretion on specimens! I have learned a lot of lessons the hard way as you will learn. In spite of diligent searching and one dedicated prospecting expedition I found no more of those pebbles. It remains a mystery to this day.

To start with I want to share my view of the two types of field collecting. First is field collecting with intent to find a specific rock/mineral. That is mostly what this article series will be about. The other approach is what my mother called gathering. That is where you go to a specific locality and wander around and see what you can find. Many of my beach hunts are thus gathering. I am fortunate to have a small farm with an abundant supply of very interesting glacial till. I have found very interesting cobbles and small boulders in it. My mining process of that (while digging garden beds) is really gathering as I have no idea what I will find in the next shovel full. Of course these types bleed into each other a bit. We will be focusing on intent here.

I also will try and ensure this content focuses on the practical bits rockhounds need to know. Geology is a very interesting and broad ranging field with many sub fields. I will try not to get us lost. We probably will have an article to review some general but pertinent basics however. The model I want to use for this series of articles is to cycle through the following steps in collecting.



The second through the fourth steps above are what I will call armchair prospecting in this series of articles. We will cycle through these topics until you tell me to quit or I run out of anything new to say. I will try to use specific examples as case studies. I love field collecting because it is learning, puzzle solving, exploring, and being outdoors all in the same package. I wish you all as many hours of enjoyment as I have had in my 60 on and off years of collecting. To get you started I suggest you may want to purchase the book down in the reference section of the article.

One last note. I do not intend this to be a forum for rock identification or specific locality questions. Both topics will be covered in the course of this series. I invite you to send your questions and comments directly to me. I intend to incorporate the most interesting ones in the following article. If you want to suggest a rock/mineral for our first example send me a suggestion.

Seek and you shall find!

Mike

Submit questions, suggestions, comments and any errors noted to Mike McWilliams

Reference 1 Prospecting Gemstones and Minerals by John Sinkankas. There is a version called Field Collecting

Gemstones and Minerals. I bought both but a casual inspection showed they were mostly the same book. I think the Field Collecting version may be later. I learned so much from this book. These are great books to get you started. It does not cover the modern digital arm chair prospecting tools but what is covered is quite important. They include solubility tables for various agents which are used to clean minerals.

Understanding Dunite from the Nooksack River by Noelle Barnes

One of our upcoming field trips is to the Middle Fork of the Nooksack River. This spot has been visited by local mineral clubs for years because of its dunite, and having some background before we go makes the collecting more interesting and more successful. What follows is a straightforward overview of what dunite is, where it comes from, how to recognize it in the river, and why lapidary folks care about it – based on published geological sources, Washington State documentation, and regional field reports.

Dunite is an ultramafic igneous rock. In practical terms, that means it is a rock made almost entirely of one mineral: olivine. At the chemical level, olivine is a magnesium-iron silicate with the formula $(Mg,Fe)_2 SiO_4$. In dunite, olivine makes up the vast majority of the rock, with smaller but important accessory minerals, especially chromite. A Washington Geological Survey publication describing the Twin Sisters body states, "The Twin Sisters mass is composed of a dunite, with accessory amounts of chromite" (D.M. Ragan, 1963). That chemistry explains both the color of the rock and how it behaves once it is exposed to the elements.

The dunite we find in the Nooksack didn't travel far - it comes from one of the most famous ultramafic bodies in the Pacific Northwest, the Twin Sisters dunite. Geological descriptions of this body are very clear about its origin: it is mantle-derived rock. The gorgeous, snow-covered Twin Sisters mass is a large body of mantle material that was later emplaced into the crust of northwest Washington. Over long periods of time, weathering, slope movement, and erosion broke pieces off that source rock. Those fragments were then transported downslope and into the river system. When we collect dunite at the river, we are holding material that originated deep within the Earth and made its way into the river through entirely natural processes. Its melting point is so high, and it is so dense, it rarely makes its way above the surface of the earth; as a result, Twin Sisters is a huge deposit, exceeded in size only by a complex in Norway.

One reason people sometimes walk past dunite in the river is that it does not always look green at first glance. Washington State descriptions point out that "the exterior is an oxidized orange color while the interior shows the green." That orange to rusty brown rind forms as iron within the olivine oxidizes during exposure to air and water. The Twin Sisters Mountains are a vivid orange hue (when not covered by snow). River-worn dunite typically shows up as rounded cobbles or boulders with that weathered "dun" colored surface. When a fresh surface is exposed, either by a recent break or a chipped edge, the true color becomes obvious. Field descriptions consistently mention an olive green interior, sometimes described as "jade-like," with scattered black grains or streaks of chromite. In practical terms, when you are standing in the river, you are looking for dense, rounded stones with an orange or brown exterior. If you see green inside, you are very likely looking at dunite.

Because dunite is made mostly of olivine, its lapidary behavior closely follows what is known about that mineral. The Gemological Institute of America describes olivine, known in gem form as peridot, as having "fair to good toughness." They also note some important care considerations, stating that "rapid or uneven heat can cause peridot to fracture" and that "ultrasonic and steam cleaners are not recommended." Applied to dunite, this means the material can polish nicely when it is solid and fine-grained, but it is not indestructible. Internal fractures, grain boundaries, and mixed textures can cause pieces to break during aggressive cutting or polishing. This is one reason the material from Ol' One Lane Bridge is so often described as good tumbling material rather than something best suited for large precision cabochons. With careful selection, though, pieces can take a good polish and show attractive green color accented by black chromite. The of pieces you might find in the Nooksack can have a variety of quality, and it's hard to know what you've got until you cut it!

As collection pieces go, dunite is a particularly unique one. These river rocks are pieces of the Earth's mantle that have traveled through 100 million years or more into a modern river system. Knowing what dunite is, why it is there, and how it weathers makes it much easier to recognize and appreciate. Keep an eye out for orange-skinned river cobbles, look for that green interior, and remember that every piece tells a very long story – if not a very long journey.

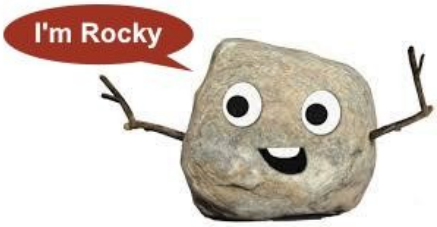
Pumice by Jim Fox

Pumice is a wonderful, fun rock. It is an igneous rock that is formed when super-heated, highly pressurized rock is violently ejected from a volcano. The unusual foamy configuration of pumice happens because of simultaneous rapid cooling and rapid depressurization. The depressurization creates bubbles by lowering the solubility of gases (including water and CO2) that are dissolved in the lava, causing the gases to rapidly exsolve 5 (like a large amount of dissolved carbon dioxide in a sealed bottle of soda). If you shake the container, then immediately open the bottle, the sudden release of pressure allows the gas to come out of solution, and the beverage erupts from the container in a frothy mess. The trapped bubbles, or vesicles, make the pumice so light that it can float on water! This characteristic is unique in the rock world. This type of igneous rock formation is known as extrusive because the material is extruded out of the earth.

There are 3 types of pumice: Rhyolite and Trachyte Pumices are white; Andesite Pumices often yellow or brown; and Pumiceous Basalts (like on the Hawaiian Islands) are pitch black.

via The Council Reporter, 1/26; from SCVGMS, 11-12/25

Young Tumblers News



Rock Bucks

Just a reminder that all Young Tumblers under 15 can easily earn "Rock Bucks."

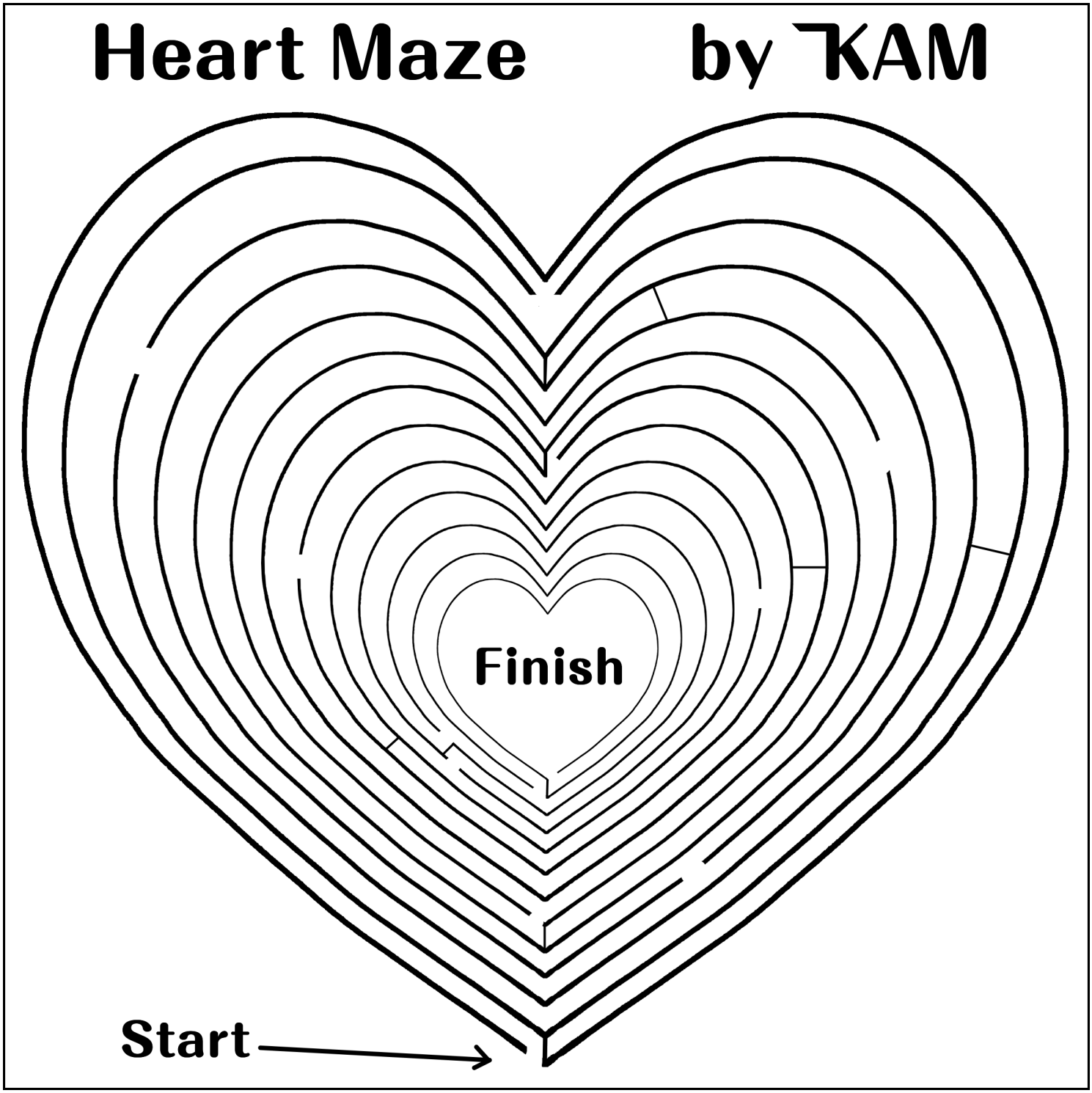
Earn $3 "Rock Bucks" to attend a meeting.

You can earn an additional $5 in "Rock Bucks" if you bring something for Show 'n Tell and tell us about your item.

The "Rock Bucks" can be spent like real money at our meetings or club auctions.

You can save your "Rock Bucks" during the year and spend them just like cash on auction items you would like, or you can buy raffle tickets at our monthly meeting.

Join us at our meetings and build your rock-buying piggy bank!



Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.
Information from the Washington State Mineral Council webpage (https://mineralcouncil.wordpress.com).

February 28 *Marysville Rock & Gem Club* - **Walker Valley** – Agate - Bring digging tools, chisel, bar, three pound hammer
Nique Wicks nwhoppyfrog41@gmail.com (509) 670-0630

Field Tripper Gives Equipment Tips by Reggie Rose

If you want to take part in field trips of your rockhounding club, you will need the proper clothing and equipment. Here's what you will need to get started, but over time you will probably want to make improvements and/or additions to your equipment based on handiness and experience.

Clothing

A hard hat, safety glasses, sturdy jeans, steel-toe boots, heavy gloves, and a rain suit.

Hard hats are available at Home Depot, Menard's, and Lowe's.

Safety glasses: Even if you wear glasses, these are a good idea since bits of rock can fly into your face if you are bashing on a big rock. If you wear glasses for vision correction, wear an older pair and leave the good pair in the car for the drive home.

Gloves are available at a low price at Home Depot, Menard's, and Sutherland's.

Jeans: I think everyone has these. A quarry is no place for fashion jeans or shorts.

Steel-toe boots: You can spend an astronomical amount of money on these, or you can go to Walmart or shop online and get an inexpensive pair. Add a pair of arch supports or sole inserts to increase comfort. Nothing will kill your enthusiasm for collecting faster than going on a four-hour field trip in two-hour boots.

Rain suits, especially the pants, are good for keeping off both rain and dust.

Accessories

Tool belt: You may want to invest in an inexpensive tool belt, or start out with a hammer carrier that you can loop over your belt. You can get these at Sutherland's, Spartan Tool Supply, or Menard's.

Knee pads: Some people invest in knee pads. You might want to check for used pads at Play It Again Sports before purchasing them at Home Depot, Menard's, or Lowe's. A used pair of volleyball knee sup-ports may be more comfortable than what is available at home and garden stores.

Tools And Gear

Carriers: Shower totes with two compartments are handy for carrying rocks. Get two. As you scramble up a rock pile you can also use them in hand to support yourself so that you actually have four points of support as you climb, which is one better than the three points of support needed for safety. Find them at Target and Walmart.

Chisels: When you are hammering on a rock using a chisel you can miss hit and wind up breaking your hand rather than the rock. So go to Sears and get a good quality chisel with a collar.

Hammers: I do not have a good cheap source for a mason's hammer, which has a square head on one end and a chisel point on the other. Eastwing products are the best. Look for these at Lowe's, Menard's, and Home Depot.

Sledges: You'll find good prices on a good old-fashioned sledge hammer at Harbor Freight. If you want to upgrade to a short-handled sledge, get the Mercedes of sledges: the Wilton. Shop online or at Spartan Tool Supply.

Specimen containers: I always have on hand Ziploc bags in snack, sandwich, quart, and gallon sizes. I also keep a hunk of small and large plastic grocery bags handy. Not only are they good to put big specimens in, but you can use them as packing between specimen bags. And then there are egg cartons. You can store 12 fragile small crystal specimens in each one to protect them from damage.

Paper towels and toilet paper: Both are good for protective packing, and the latter is very handy for nature runs if you are out in the wild. Always bury or pack out litter.

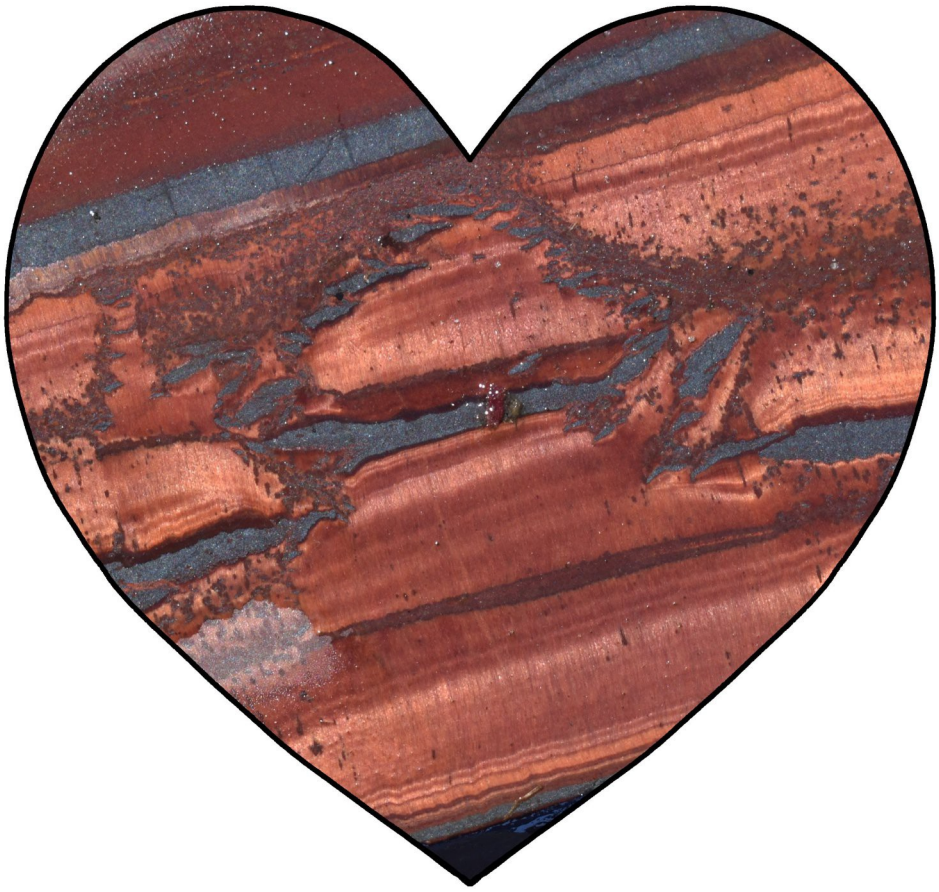
Other tools: Occasionally a hand rake or hand mattock comes in handy. Look for these in the garden tool section at Lowe's, Menard's, or Home Depot.

There it is: everything that you need to collect your favorite specimens. Develop your equipment cache gradually to suit your needs. At first, you may want to stop at paper towels on the above list.

You may have noticed while reading this that a lot of collecting equipment is available at gardening stores. That is a strange coincidence because, like the gardener who harvests vegetables before they rot, as a collector you are harvesting nature's bounty of minerals before they are sent to the crusher!

via MWF News, 11/25; from the Glacial Groove, 4/25





Show

February 14 & 15: Saturday & Sunday Sat 9 - 5
Whidbey Island Gem Club
Oak Harbor Senior Center
8851 SE Jerome St.
Oak Harbor, WA

Beryl by Jessica Himple

Beryl is a versatile and highly valued mineral among collectors, best known for producing several well-loved gemstones, including emerald (green), aquamarine (blue), morganite (pink), and heliodor (yellow). Its hexagonal crystal form, often with sharp edges and a glassy luster, makes it a striking addition to any mineral cabinet. Beryl forms in granitic pegmatites and metamorphic rocks, with exceptional specimens coming from Brazil, Pakistan, Madagascar, the United States, and Russia. Collectors often seek out large, well-terminated crystals or gem-quality pieces that showcase beryl's wide color range and clarity.

Historically, beryl has been admired for thousands of years. The ancient Egyptians mined emeralds as early as 330 BCE, and aquamarine was treasured by Roman sailors who believed it would protect them at sea. In more recent history, discoveries of large, gemmy crystals, like those from the pegmatites of Minas Gerais, Brazil, have fueled the excitement of both gem dealers and collectors alike. While gemstone varieties of beryl get much of the attention, even opaque or rough specimens are appreciated for their size, structure, and association with other rare pegmatite minerals such as tourmaline, spodumene, and lepidolite.

For collectors, beryl offers a blend of aesthetic beauty and geological significance. Some choose to specialize in collecting all varieties of beryl, while others focus on specific localities or crystal habits. The mineral's hardness and resistance to weathering help preserve specimens over time, allowing well-preserved examples to circulate through collections for generations. Whether sought for its gemmy transparency or impressive crystal size, beryl remains a cornerstone in the world of mineral collecting.

from Northwest Newsletter, 7/25

Lapidary is the practice of shaping stone, minerals, or gemstones into decorative items such as cabochons, engraved gems (including cameos), and faceted designs. It is derived from the Latin word for stone, lapis.

from Rocky Trails, 1/26