



The CMS Tumbler

January 2026

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

Next Meeting:
January 8, 2026
7:00 p.m.

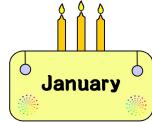
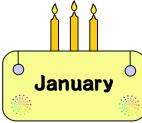
American Legion Hall
25406 97th Pl S
Kent, WA

The Program is Tom
Prang on Archeology
and Geology

The Show & Tell
Theme is a fossil
of any type

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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
Xuyen Cerenzie on January 1
Theresa Hall on January 1
Anastasia Anderson on January 6
Roger Danneman on January 8
April Marter on January 8
Dave Cornell on January 11
Mike Cites on January 12
Sheila Clark on January 12
Daniella Pratt on January 12
John Haworth on January 13
Marion Richards on January 13
Sheri Church on January 16
Jeni Lake on January 16
Lane Hutton on January 18
Brendan Mittleider on January 19
Rex Kullmann on January 21
Alex Williams on January 21
Ann Jones on January 23
Alley Hutton on January 24
Ben Bostow on January 27
Ruby Lee Wasley on January 29
and also remember
to wish a
Happy Anniversary to
Catherine & Brett Petty on January 18
Tara & Aaron McKinney on January 30

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Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

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Instagram Gina Manso	425-281-3502	president@cascademineralogicalsociety.org
All Other Social Media Kat Koch	425-765-5408	

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 PI 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/>



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

CONTENT DISCLAIMER

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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

JERRYS ROCK AND GEM

804 WEST VALLEY HWY. KENT, WA. 98032

jerrysrockandgem.com jerrysrockandgem@msn.com

Follow us on Facebook

253-852-0539

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!



Black Jack's Metal Detectors

Mining Equipment, Low Pressure Dive, & Rock Shop!

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.



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



January

Sun	Mon	Tue	Wed	Thur	Fri	Sat
					1	2
					3	
HAPPY NEW YEAR 2026!						
4	5 Board Meeting 7:00 pm	6	7	8 General Meeting 7:00 pm	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

CMS Show Committee Meeting:...Monday, January 5.....6:30 pm to 7:00 pm

CMS Board Meeting:.....Monday, January 5.....7:00 pm to 8:00 pm

CMS General Meeting:.....2nd Thursday, January 8.....7:00 pm to 9:00 pm

Mr. & Mrs. Rockhound**by KAM**

CMS Board Meeting Minutes December 8, 2025

Canceled.

CMS Christmas Party December 7, 2025

by Pete Williams, 2026 Secretary

About 40 members with their families gathered to celebrate the holidays on December 7. After dinner there was the election of officers followed by an auction. Rich Russell once again did an outstanding job as auctioneer. There were 55 lots in the auction and 19 winning bidders.

The newly elected officers and their terms are:

President Noelle Barnes 2026-27

Vice President Michelle Maidman 2026-27

Treasurer Open (Ananada Cooley (temporary)

Secretary Pete Williams 2026

Director 1 Lee Oliver 2026-27

Director 2 Roger Danneman 2026

Director 3 Linda Jorza 2026

Director 4 Rich Russell 2026-27

Director 5 Paul Arhnberg 2026

Past President Kat Koch

From Atop the Rock Pile

by Noelle Barnes, 2026 President

I am Noelle Barnes, and I am your new president for the next two years. I would like to thank everyone who voted for me. With your support, I am looking forward to the coming year.

Thank you to everyone who bought items at our Holiday Dinner club auction. Our total sales were \$1,088.50, less Rock Bucks \$52.00, less credit card fees \$8.54 = cash to the bank \$1,027.96.

Meanwhile, our planning for the Cascade Gem Show is well underway.

If you have ideas for future meeting topics, please email me using the address on the contact page. I welcome your suggestions and look forward to hearing from you.

Reminder: pay your 2026 dues if you haven't already.



To our new members: please introduce yourself to me at a meeting or field trip, so I can welcome you in person.

Editor's Note: Attention New Officers!

by Keith Alan Morgan, editor

Remember to check Page 2 to see if I have the correct information about you. Position you hold, phone number and email address you want used.

The changing of official people can sometimes result in mistakes on the editor's part, so please make sure I've got the right info up.

2026 Meeting Calendar

January 8th - Tom Prang on Archeology & Geology

Many of our members may recognize Tom as a vendor from our gem show and many other shows. His booth is "A Point in Time."

I have given him free rein to talk about whatever he wants. He is always so interesting to stand at his show booth and listen to him talk. This meeting should be fascinating.

Show 'n Tell: A fossil of any type.



February 12th – Field Trips Planned for 2026 by Roger Danneman

Roger is going to go over the field trips he has planned for this year.

Show 'n Tell: Your Best Rock Find Of Last Year.



Tahoma Agate by Kat Koch

Tahoma Agate is a rare seam agate that forms in fractures within volcanic rocks near Mount Rainier in Washington State. It occurs specifically within the Snoqualmie-Baker National Forest. This agate is primarily composed of chalcedony, a microcrystalline form of quartz. It often contains a mix of agate and jasper, so some collectors refer to it as Tahoma Jasper. The formation process involves silica-rich hydrothermal fluids that enter cavities in the host rock. These fluids gradually deposit silica, which later crystallizes into agate. The deposits occur in thin, irregularly shaped seams and are challenging to extract and work with.

The geologic environment of Tahoma Agate is linked to volcanic activity. Gas bubbles trapped in fractured, cooling lava flows create voids. Mineral-rich fluids later fill these voids. The fluids contain dissolved silicon dioxide, which precipitates in the cavities. This forms the banded or variegated patterns seen in the stone. Tahoma Agate's unique visual features, such as poppy-like splotches, quartz pseudopoints, and moss-like inclusions, arise from changing fluid composition and deposition rates. These features are also influenced by trace minerals such as manganese and iron oxides. Some specimens contain botryoidal pockets, plates, and even common opal, which show the complexity of the mineral-deposition process.

While there is no dedicated map of Tahoma Agate locations, its geological context lies within the Mount Rainier area, which is part of the broader Tahoma region in Washington. The Washington State Department of Natural Resources provides a recreation map for the Elbe Hills and Tahoma State Forests that includes the general trail system and forest areas where such geological features may be found. Additionally, the Mount Tahoma Trails Association offers updated trail maps of the area, which may provide indirect guidance to regions where agate collecting could occur, though the maps are primarily focused on recreational trails and access points.

Tahoma agate is considered rare primarily because of its exclusive geographic origin and specific geological conditions. It is found in a small area near Greenwater, Washington, under private claim, restricting access and collection.

Our club member, Jim Cerenzie, has a YouTube channel called the Vug Meister. He has posted a video on collecting Tahoma Agates in the Greenwater area. <https://www.youtube.com/@vugmeister918/search?query=tahoma>
This is one of my favorite Washington agates.

Bibliography: Reddit, Hiking Tahoma, Lapidary Central, AI.



Definition of the Month: Mimetolith by Steve Mulqueen

Mimetolith – A word in the English language derived from the Greek words *mimetes* (an imitator) and *lithos* (stone). Mimetolith refers to a naturally occurring feature, shape, design or pattern found in a rock formation, distinctive topographic exposure, rock outcrop, landform, rock specimen, mineral specimen, fossil, or weathered rock that resembles a plant, animal, human figure, manufactured product, natural scenery, or any common items visually observed in everyday life. At times, our visual input, coupled with our mind's interpretation of a pattern, can force a link between the pattern and a memory of a known object.

The split-second pattern that the brain visualizes when viewing a mimetolith is a psychological phenomenon known as pareidolia. It involves a stimulus, in this specific example a natural physical pattern in stone (as detailed above), which the mind perceives as a familiar object. The term mimetolith is limited to naturally occurring features in stone. The only exception is when a rock is cut, broken or polished to reveal its unique natural pattern within the specimen. Natural bridges and natural arches are technically not categorized as mimetoliths. Shaping a rock into an identifiable form is a "carving" and not a mimetolith.

Examples of mimetoliths:

1. A natural stream-rounded rock that has a general shape of a heart or other shapes.
2. An exposed rock outcrop that has eroded into a form that resembles a full human face or a profile of a human figure or animal.
3. A nodule that has been cut to expose its beautiful banded agate that is shaped like a commonly recognized animal or other distinguishable object.
4. A geode that has been broken open to reveal a crystalline mass resembling a human figure or other known shape.
5. Fossil crinoids that exhibit the general form of a flowering plant.
6. "The Golden Bear Nugget", a crystalline gold specimen of the California Federation of Mineralogical Societies that resembles a bear.
7. Crystal clusters that exhibit an overall distinguishable shape such as a heart.
8. Opals that reveal unusual identifiable patterns.
9. Dendrites that resemble ferns or other plant-like forms.

10. Shiprock, a natural volcanic feature that resembles a ship. The Navajo people refer to this landform, in their native language, as rock with wings.
11. Barite rose and selenite rose, mineral clusters that look like a flower.
12. Tektites that resemble common objects of various shapes.
13. Chrysanthemum "flower", met-amorphic minerals composed of calcite, dolomite or aragonite.
14. Snow or ice, in natural forms, which resemble commonly identifiable shapes. (Naturally occurring water, in solid form, is defined as a mineral.)
15. "The Face on Mars", a Martian land-form that resembles a human-like face.
16. Speleotherms, stalactites, stalagmites, cave shields and cave pearls that exhibit commonly recognizable shapes.
17. The "Rabbit on the Moon", a lunar mare feature that resembles a giant rabbit.
18. The "Old Woman Statue", a natural erosional feature found in the Old Woman Mountains in the Mojave Desert.
19. Graphic granite, a rock that exhibits quartz crystals within feldspar, forming graphic patterns that resemble ancient writings or hieroglyphics.
20. Concretions that exhibit unusually odd shapes, some which resemble known objects such as an ice cream cone.
21. "Mexican Hat Rock", a landform in south-eastern Utah that resembles a sombrero.
22. "The Teapot Dome", a landform located in Wyoming.

via Rocky Trails, 11/25; via The Conglomerate, 10/17; from Rockhound Rambling, 9/16

"I" Safety — Safety Matters by Ellery Borow, AFMS Safety Chair

Yes, "I" safety. There are a great many published articles concerning the wisdom of using goggles to protect one's eyes from the hazards in our hobby. So, this article will focus on the "I". The "I" as in you, me, us, and we.

Here is a short story to illustrate the point: I have a friend who pilots a helicopter. She has an excellent, first-rate mechanic tending to her flying machine. She feels comfortable with her mechanic's service and completely trusts his work in keeping her machine in tip top condition. That said, prior to each and every flight she "pre-flights" the helicopter.

Prior to each of her helicopter flights, she examines the machine and checks to look at dozens and dozens of conditions including: weeping lubrication here, a grease spot that shouldn't be there, a control surface that does not look right, "play" in moving parts that should be just right - not too loose, not too tight, and so on. In other words, while she trusts her helicopter's mechanic, she double checks for herself before she flies.

There are comparable situations to "pre-fighting" an aircraft in everyday life. Take food safety for example. Before consuming any food, whether fresh or refrigerated, we typically take note of our food. Even though most of our food is checked multiple times before we get it, we also check it before eating it. Milk, for example, before consumption does it smell fresh? Is it lumpy as we pour it? Does its color look right? What might be its expiration date? Milk, as in all our foods, must pass our checks before eating it.

Double checking should also be performed in our rock and mineral hobby. If your club is fortunate enough to have its own workshop, there is no doubt a person or committee of dedicated people ensuring the safety of everything in the workshop. There is a wisdom in us to double check things for sake of our personal safety. Might an equipment guard have come loose the last time the equipment was used? Might there be a new spill on the floor? Might an electric cord have shifted into a dangerous position? Yes, we trust the safety efforts of others, but we also want to put the "I" in safety as being ultimately responsible for our own safety... and in helping with the safety of others.

Some examples:

- When setting up for a show, are the folding table legs in the locked position?
- Did we check the truck motor oil level before going on an extended collecting trip?
- Are the equipment guards secure on our lapidary machines?
- Are soldering fumes collected and safely ventilated as we work?
- Is there sufficient task lighting so we are not squinting and causing eye strain?
- Are we sure of the rocks a bit over where we are collecting?

These and numerous other situations remind us of the "I" in safety. We are the person ultimately responsibility for our and our family's safety.

That helicopter pilot - well, it's her hands on the collective and cyclic controls, it's her shoes on the pedals. It's her decision whether she feels safe in flying that day. Please make sure you feel safe in all you do in this great and wonderful hobby of ours. Be as safe as you can and enjoy it to the max. Your safety matters and so does your enjoyment.

from AFMS Newsletter, 12/25

Collection Advice for the New Year By Eric Fritzsch

I happened to see this quote the other day: "Don't chase perfection — chase progress. Perfection will slow you down" (Michelle Meyer-Shipp in Forbes Magazine). I think this quote applies well to collecting.

As I've mentioned before, collecting is a verb, it requires action. If you are a rock or mineral collector, it means you are actively engaging in acquisition, learning, and development. Too many collectors have fear when it comes to acquiring specimens. They hold back, hoping they'll come across that perfect specimen and their collection will somehow just grow on its own. Collections don't grow on their own, they require attention and acquisition.

Perfection is a dream and, as the late Rock Currier used to say, "The best to be found are still in the ground. The best that has been found have been ground." This means that the best azurite ever found is likely part of the copper wiring running through your house and there are likely better specimens still under the earth. Mining companies blast through rock without any attention to mineral specimens, and only a very small percentage of the earth's crust has been exploited for minerals. There are likely many great finds still waiting.

Progress is a much better goal. As this article will come out at the end of the year, it's time to start thinking about the past year and looking forward to the next year. What did you accomplish with your collection this year and what do you hope to accomplish with it next year?

Progress doesn't have to be forward; it can also be backward. If you're in your golden years, it can be selling your collection or specimens from your collection. It's a pathway that is designed by the collection owner. If you didn't add or remove any specimens this year, did you at least interact with the collection? Did you research anything about it? This is all chasing progress. Verb your collection!

I've written before about applying the Deming Cycle to collecting. In a Deming Cycle, one is always seeking continual improvement. That fits in line with the concept of chasing progress.

No seed flowers without progression, no child grows without progression, and we can't stop the progression of time. I recommend you engage your collection and progress it.

via MWF News, 1/26; from Pick & Shovel, 12/25

Garnets and People Share Long History by Nick Smith

When one thinks of garnet, the color red first comes to mind; however, garnets come in a myriad of colors. Certain properties, however, are common to all garnets.

Fun Facts and Historical Facts About Garnets:

- The name is from the Greek word for "grain" because of the round shape of the crystals, similar to the seeds of the pomegranate fruit.
- Garnet is the traditional birthstone for January.
- It is also the gemstone for the second wedding anniversary.
- In Ancient Egypt, pharaohs wore garnet necklaces that would be buried with them when they were mummified and entombed for the afterlife.
- In Ancient Rome, signet rings were made of garnet and used to stamp official documents.
- During The Middle Ages (approximately 475-1450 AD), garnet was a favorite gem of church leaders and the wealthy.
- The discovery of a major garnet deposit in Central Europe around 1500 led to a booming jewelry industry that reached its height in the late 1800s.

Properties Common to All Garnets:

1. The color of streak is white.
2. Hardness ranges from 6.5 to 7.5.
3. Cleavage of garnets is indistinct.
4. The crystal system is cubic with shapes being rhombic dodecahedron (twelve congruent faces) and icositetrahedron (twenty-four faces).
5. The fracture of garnet can be conchoidal (glasslike), splintery or brittle.
6. Transparency ranges from transparent (see-through) to opaque (can't be seen through).

Sources:

Bonewitz, RG. Smithsonian Nature Guide: Gems

Borelli and Cipriani. Simon and Schuster Guide to Gems and Precious Stones

Schumann, Walter. Gemstones of the World

Sisk, Jerry. The Sisk Gemology Reference, Volume 1: Prominent Gems

<https://www.gia.edu/garnet-history-lore>

via MWF News, 11/25; from Strata Data, 1/25

Labradorite by Jim Fox

Labradorite was first found in 1770 on Paul's Island located in Labrador, Canada. It can also be found in Norway (called spectrolite stone) and various other locations worldwide.

It's composition is a sodium calcium aluminum silicate with a Mohs hardness of 6 - 6.5. The base color is a dark smoky gray but, when light strikes the stone from a particular direction, spectacular flashes of iridescent blue, green, purple and sometimes pink, orange and yellow can be seen. Labradorite is so well known for these spectacular displays of color that the phenomenon is known as labradorescence. Specimens with the highest quality color display are often selected for use as gemstones.

Labradorescence is not due to actual colors in or on the stone but from the effect of light that enters the stone and is reflected back to the observer at a different angle, producing different colors. A Canadian Eskimo legend states that the colors are due to some of the Northern Lights being trapped within the stone.

via The Council Reporter, 9-10/25; from SCVGM Breccia, 10/25

Young Tumblers News

Rock Bucks

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

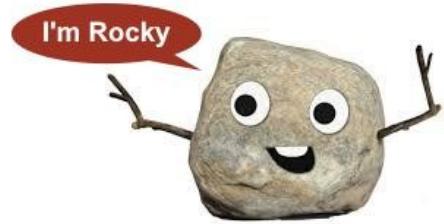
Earn \$3 "Rock Bucks" to attend a meeting.

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!



Answer to last months puzzle.

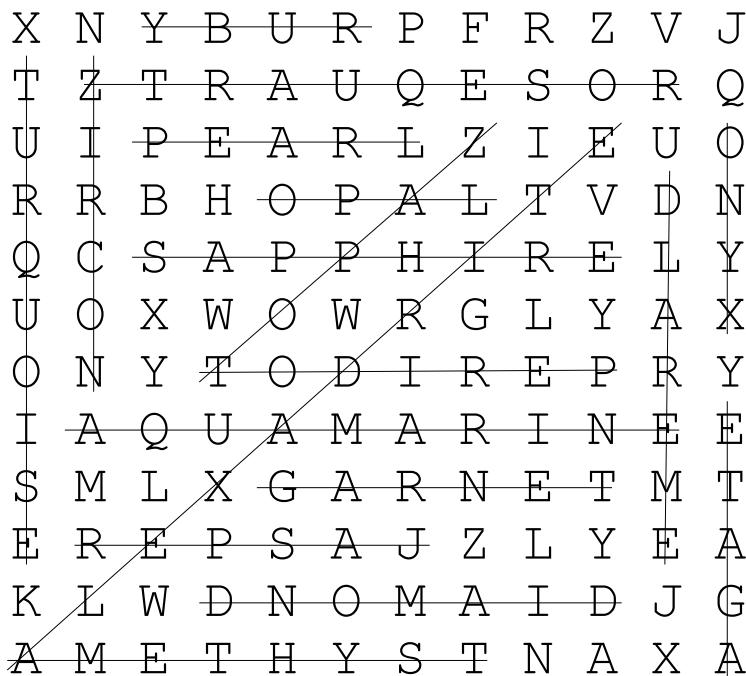
1. IRPEPASH = Sapphire
2. XYNO = Onyx
3. ERLPA = Pearl
4. DAIMNDO = Diamond
5. PTRDEIO = Peridot
6. POLA = Opal
7. TQIEUOUSR = Turquoise
8. EPASRJ = Jasper
9. GTANER = Garnet
10. OAPTZ = Topaz
11. YEMTSHAT = Amethyst
12. MDAREEL = Emerald
13. RBYU = Ruby
14. AIEUAQMNR = Aquamarine
15. AETAG = Agate
16. SORE TRQUZA = Rose Quartz
17. NXDARTLAEI = Alexandrite
18. RZCONI = Zircon

Error Note

Looks like I goofed up on Alexandrite by forgetting the N. Whoops!

Sorry.

Two Puzzles In One



10 Fun Rock & Mineral Facts

1. The major construction material of the Pyramid of Giza in Egypt is limestone, a sedimentary rock.
2. Electronics such as radios and watches are made using Quartz. Quartz maintains an accurate frequency standard, making it desirable for use in electronics.
3. Sand is one of the raw materials used in making glass. It is combined with other materials, heated at high temperatures, and forms glass when it cools.
4. It is estimated that 80% of the gold on this earth has not been discovered.
5. Minerals are pure inorganic substances, and that makes pure metals to be minerals.
6. The most expensive mineral is Jadeite. One carat of the mineral can fetch up to \$3 million.
7. The sandstone in the Southern Alps of New Zealand is the fastest eroding rock. It erodes at the rate of 2.5 millimeters per year.
8. Painite is the rarest mineral on earth. It was discovered in 1951, and in 2001 only three painite crystals were known to exist. Since then, additional discoveries have been found, most being fractured.
9. Pumice is the lightest rock on earth. Due to the rock's porous structure, it floats on water.
10. Shale is the most abundant sedimentary rock. It is about 70% of sedimentary rocks on earth.

from Mt. Baker Rockhound News, 12/25

Why are geologists so good in school?
They take nothing for granite.

from Mt. Baker Rockhound News, 9/25

No field trips this month.

Polka Dot Agate by Hobart M. King, PhD, GIA Graduate Gemologist

What is Polka Dot Agate?

Polka dot agate is an orbicular agate produced from the Priddy Agate Beds of central Oregon. It has an appearance that sounds just like its name. It is a semitransparent to semitranslucent agate with suspended round "dots" of contrasting colors. It is a favorite Oregon gemstone.

Polka dot's base colors range from blue to white to pale yellow. The dots can be almost any combination of yellow, orange, red, brown, or black. Nature has also marked some specimens with black dendrites. Other specimens are cross-cut by intrusions of brown jasper. The diaphaneity ranges from almost transparent to almost opaque. This color and geometry makes some of the most interesting and beautiful types of agate that you will ever see.

The dots in the agate range in size from nearly invisible up to about 1/4 inch across. Most of them are completely agatized, but some appear to be a soft iron oxide material similar to limonite or hematite. Most of the dots are sharp, concentric spheres. Others are spherical but with a slightly irregular outline.

Native Americans Were the First Miners

The first people to mine polka dot agate were Native Americans. They valued the agate because it could be knapped into sharp tools such as scrapers, blades, and projectile points. They carried, worked, used, and traded these materials across what is now the northwestern United States and southwestern Canada.

Today, West Coast Mining company operates the polka dot agate mine, located near the community of Madras in Jefferson County, Oregon. They produce rough, slabs, cabs, and other items made from polka dot agate. They also own mines that produce Opal Butte opal, Owyhee picture jasper, Paiute agate, amethyst sage agate, and Rock Butte picture jasper.

Some of these mines are open to the public for fee mining. On a limited schedule, they are open to people who want to visit the mine, pay a fee, look for agate, and keep what they find. The company also sells agate, jasper, and opal directly to the public and online.

Lapidary Properties

Polka dot agate is a favorite lapidary material of many people. It cuts nicely on a diamond or carbide wheel and produces a brilliant luster when polished on felt with aluminum, tin, or cerium oxide. It can be used to make beautiful tumbled stones in a rock tumbler.

The colorful dots make interesting cabs regardless of their density. Marking up a slab into cab outlines can be a pleasurable challenge. Most people really enjoy specimens of polka dot agate with a blue base color and have given it a cool nickname -- "blue ice."

from Rock-A-Teer, 12/25

Pineapple Opals

Pineapple opals are pseudomorphs—minerals that have replaced another mineral while preserving the original crystal shape. In this case, opal replaces ikaite (a hydrated form of calcium carbonate).

-Ikaite forms only under specific conditions—low temperatures, high alkalinity, and elevated pressures—typically in deep marine or cold sedimentary environments.

-Over time, as environmental conditions shift, the unstable ikaite decomposes and is replaced molecule by molecule by silica-rich fluids, forming opal.

-The original crystal habit of ikaite, which features radiating spear-like formations, is preserved—resulting in the iconic spiky "pineapple" shape.

Opal pseudomorphs are created by the deposition of opal in casts (molds) of fossil bone, teeth, shell, belemnoids (ancient relatives of cuttlefish), crinoids (sea lilies), wood, fir cones and even skeletons of large prehistoric animals. Many of these fossilized forms contain exceptional quality noble opal. White Cliffs is the only place where these marvelous (and very rare) pseudomorphic opals have been found.

White Cliffs is a small town in outback New South Wales in Australia, in Central Darling Shire. White Cliffs is around 255km northeast of Broken Hill, 93km north of Wilcannia. At the 2021 census, White Cliffs had a population of 156.

To the objective observer White Cliffs is really a single purpose town. Miners started coming here (the local Aborigines found it far too hot for permanent settlement and occasionally visited the place as they traveled to and from the Darling River) in the 1880's and, apart from its minor function as a service centre for the surrounding properties, it remains a town driven by opals.

The summer temperatures, typically over 40°C (104°F), forced the miners underground. The 100 million years old sandstone conglomerate in which the opal seams were buried carried two advantages. It was remarkably stable (no one has ever died from a mine collapse in White Cliffs) and it was relatively easy to dig. By around 1900 miners were burrowing into the hills in an attempt to find opals and escape from the heat. The real way to see White Cliffs is from the air. It appears like a strange moonscape with an estimated 50,000 disused diggings.

Fewer than a few hundred authentic pineapple opals have ever been documented, making them one of the rarest opal types on Earth. Their scarcity, combined with their bizarre and beautiful form, makes them highly coveted by mineral collectors and museums. Top specimens can command very high prices in the collector's market.

via AFMS Newsletter, 11/25; via Breccia, 10/25, from The Opal Express, 9/25

No Shows This Month.

Chrysocolla by Jessica Himple

Chrysocolla, a vibrant copper-bearing mineral, is highly sought after by collectors for its striking blue and green hues. Often found in botryoidal, massive, or fibrous forms rather than distinct crystals, chrysocolla is commonly associated with other copper minerals such as malachite, azurite, and turquoise. Major sources of high-quality specimens include copper mines in Arizona, Peru, and the Democratic Republic of Congo. Collectors prize chrysocolla for its rich coloration and unique formations, particularly when it occurs in polished nodules or as an inclusion within quartz, creating the stunning "gem silica" variety.

Historically, chrysocolla has been recognized for its use in pigments and decorative carvings. Ancient civilizations, including the Egyptians and Greeks, ground it into powders for use in art and cosmetics. Despite its softness compared to other minerals, chrysocolla remains popular in lapidary work, often stabilized with quartz or resin to enhance its durability for jewelry. Its formation within copper deposits gives it an interesting geological background, making it an appealing specimen for both mineral enthusiasts and geologists.

For collectors, chrysocolla's variety in form and color offers endless appeal. While some specimens display vibrant sky-blue hues, others blend seamlessly with malachite's deep green or azurite's royal blue, creating striking mineral combinations. Because of its relative softness, proper handling and storage are essential to preserving its beauty. Whether displayed as raw specimens, polished cabochons, or as part of a larger copper mineral collection, chrysocolla remains a favorite for those who appreciate both color and geological diversity.

from Northwest Newsletter, 4/25

Sphalerite by Jessica Himple

Sphalerite, the primary ore of zinc, is a fascinating mineral for collectors due to its brilliant luster, range of colors, and complex crystal forms. Typically found in shades of brown, yellow, red, black, and even colorless, sphalerite can exhibit an impressive resinous to adamantine shine. Transparent varieties, especially the vibrant orange to red "ruby sphalerite" from Spain's famous Picos de Europa mines, are particularly prized among collectors and lapidaries. Found in hydrothermal veins and limestone-hosted deposits, sphalerite often forms alongside minerals like galena, pyrite, and calcite, making for attractive and diverse specimen combinations.

Historically, sphalerite played a key role in the industrial revolution as the main source of zinc, used for galvanizing steel and creating alloys like brass. The mineral was once called "blende," a German term meaning "to deceive," because its metallic appearance misled early miners who confused it with valuable lead ore. While its economic importance continues today, collectors value sphalerite for more than its industrial uses. Large, well-formed crystals from localities such as Elmwood, Tennessee and Naica, Mexico are known for their clarity, size, and sharp crystal faces, making them standouts in any display.

Sphalerite's high dispersion, greater than diamond, gives transparent specimens a fiery sparkle under the right lighting, which adds to its appeal for collectors and gem enthusiasts alike. Because some varieties contain iron, which darkens the crystals, collectors often seek the more rare and brilliant low-iron sphalerites. Whether admired for its optical properties, crystal structure, or association with classic mining districts, sphalerite holds a respected place in the world of mineral collecting.

from Northwest Newsletter, 6/25

Malachite occurs worldwide including Congo, Gabon, Zambia, Namibia, Mexico, Australia and the largest deposit/mine in the Urals region, Russia. Malachite has been suitable for mineral pigment in green paints since antiquity, decorative vase, ornamental stone and gemstones.

via The Hard Rock News, 9/25; from Yakima Rock Club News, 7/25

Why did the rock go to jail?
The quartz found him guilty.
from Mt. Baker Rockhound News, 10/25

Why was the gemstone scared of his exams?
Because he thought he wasn't going topaz.
from Mt. Baker Rockhound News, 11/25

Have a Happy New Year!