

The CMS Tumbler

November 2023



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

Next Meeting:
November 9, 2023
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

The Program is
Upcoming Field Trips

The Show & Tell is
What You Found

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Connect with us!

Website: <https://www.cascademineralsociety.org>
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 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

Ellie Brott on November 2
 Chris Holden on November 3
 Paul Vitellaro on November 4
 Malcolm B. Wheeler on November 14
 Fernando Munoz on November 19
 Paul Wasley on November 19
 David Abergel on November 22
 Peggy Shashy on November 23
 James Starke on November 23
 Fred Funk on November 25
 Gina Manso on November 25
 Chris Praggastis on November 26
 Bevin Brott on November 27
 Larry Clark on November 27
 Dian Davis on November 28
 Myles Brott on November 29

and also remember
to wish a
Happy Anniversary to

Ariyana Bennett & Fernando Munoz on November 10
 Jim & Xuyin Cerenzie on November 14



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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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 Email preferred.
greenrockdraggin@yahoo.com

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Director 2 - Field Trips Roger Danneman	425-228-8781	roger.danneman@gmail.com
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2023 Show Committee Chairs

Cascade Coordinator Christina Vitellaro	425-351-4737	bluefirtree@comcast.net
Cascade Co #2 Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Cascade Co #3	Vacant	
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Show Display Cases Refurbish Roger Danneman	425-228-8781	Roger.Danneman@gmail.com
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Show Display Case Presenters Peggy Shashy	904-655-3241	14thebirds@bellsouth.net
Show Road Signs		
Show Event Volunteer Recruiter		
Show Refreshments Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Spinning Wheel Angie & Brian Bayer	253-569-0245	Text to her number (no email)
Show Website Kat Koch	425-765-5408	vendorchair@cascademineralogicalsociety.org
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Show Food Trucks Paul Arhnberg	941-704-2063	runhikebird@icloud.com

2023 Committee Chairs

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Raffle Master Roger Pullen	206-387-3214	Phone calls only. No email or texting.
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Facebook Club Page Gina Manso	425-281-3502	ginamanso51@gmail.com
Instagram Gina Manso	425-281-3502	ginamanso51@gmail.com
All Other Social Media Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
West Seattle Timebank Volunteers Linda Jorza	206-478-1642	ljorza@gmail.com
Videographer – YouTube Channel	Vacant need volunteer	

2023 CMS Dues are \$30 per year per family

Pay online, by mail, or at our meetings.

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

You can pay your dues via credit card!! We now accept all cards through our website or at the meeting.

You can renew your membership or enroll as a new member and pay your dues all in one shot online. You will find it under the "Membership" tab on our website. <http://www.cascademineralogicalsociety.org>

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

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

Our Club is a Member of these Federations and Associations

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

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



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

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



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

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

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

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



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

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

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

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

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

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



Rockhounding Code of Ethics

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

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

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

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

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

I will leave all gates as found.

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

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

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

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

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

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

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

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

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

I will appreciate and protect our heritage of natural resources.

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

from the AFMS website

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

NFMS Needs Your Canceled Postage Stamps

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

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

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



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

JERRYS ROCK AND GEM
 804 WEST VALLEY HWY. KENT, WA. 98032
jerrysrockandgem.com jerrysrockandgem@msn.com

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

Black Jack's Metal Detectors
 AND MINING EQUIPMENT!

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

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.



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



November

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

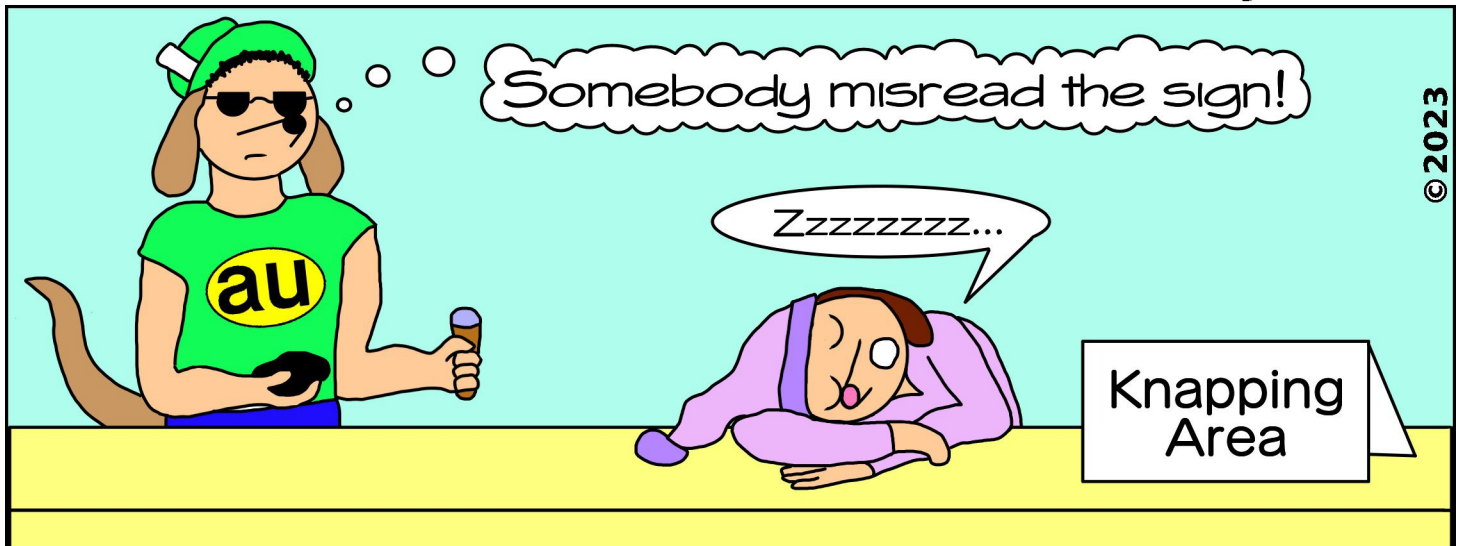
CMS Show Committee Meeting: ... Monday, November 6 6:30 pm to 7:00 pm
 CMS Board Meeting: Monday, November 6 7:00 pm to 8:00 pm
 CMS General Meeting: 2nd Thursday, November 9 7:00 pm to 9:00 pm

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

Son of Mr. & Mrs. Rockhound

by KAM



CMS Board Meeting Minutes October 9, 2023

by Pete Williams, 2023 Secretary

Attendees: Kat Koch; Linda Jorza; Pete Williams; Rich Russell; Mike Blanton; Ananda Cooley; Roger Danneman; Chris Vitellaro; Paul Arhnberg

Show Committee 6:34

Attendance at the show was down from last year. The vendors said they did ok, but recognized attendance was down.

Chris discussed the purpose of the show and requested feedback on what worked and what needed to improve. A request for feedback from all volunteers will be sent out.

Board Meeting 8:04

We now have 141 family memberships.

A volunteer to manage the membership data base has been found. Kat is looking for an assistant to help with the Young Tumblers group. An assistant to help Roger with the field trips is also needed as well as a vice president to backfill the president when needed. We also need someone to manage our monthly meeting programs. The November meeting program will be on 2023 field trips and the plans for 2024.

The club Christmas party will be on December 3 at the American Legion Hall.

Meeting adjourned at 8:19

CMS General Meeting Minutes October 12, 2023

by Pete Williams, 2023 Secretary

Meeting called to order at 7:19

Chris was thanked for her efforts in running a great show last month. Special thanks went to the silent auction crew who brought in the highest income ever. The show was a big success. We received lots of compliments from the vendors for the load in/out support that we provided to them. Other shows do not provide help. Next year the show will be the last weekend in June at the Kent Commons. Kat and Chris organized the club sales inventory so it is ready for next year. The Kent Commons does not charge extra for the rental tables and chairs.

Several positions in the club need volunteers. Someone is needed to assist with the Young Tumblers, a VP is needed that can fill in at meetings when the president is unable to, someone who can write a website or learn how to, and most importantly a show chair for next year. Roger volunteered to be the show volunteer coordinator.

The program was a rock costume party with prizes awarded to 1st - 4th place.

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

Our club election is coming up in December. As I write this article, our membership stands at 145 families. We will most likely reach 150 family memberships by the end of the year. I point this out because we need some of our members to volunteer to run for board positions.

Some volunteers have been board members for decades and are getting older. We really need younger members to step up for our club's continuing success, which will be our younger members taking over the reins of our great club. We also need our younger members to be active and give us new ideas and input for our club.

Being a board member doesn't take a lot of time. We have an online board meeting the Monday before our monthly meeting at 7 pm. We need two positions filled in the upcoming election: a Vice President and Director of Programs. If you are still unsure about volunteering, plenty of board members are willing to show you the ropes or help you fulfill a position.

As you are reading this, please consider volunteering for a position. Our club needs you!

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

I want to welcome the new families that joined our club at our gem show.

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



Welcome
New Members

General Meeting – Thursday, November 9th

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

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



General Meeting – Sunday, December 3rd

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

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

We generally have around 40 to 45 members attend. Bring your plate and silverware.

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

Election: After dinner, we hold the election of the Board of Directors for 2024. See Pete, the club secretary, if you want to volunteer for a Board position.

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

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



Field Trip Report for Oct. 6-8, 2023 at Crystal Mountain by Roger Danneman, CMS Field Trip Guide

On the weekend of Oct. 6-8 2023 we combined camping and 2 days of rockhounding at Crystal Mountain north of Ellensburg. This area has a wide variety of agate, jasper, and crystal geode material. We were fortunate to have beautiful fall weather in the mid-70s to punctuate the gorgeous views looking out over First Creek, the Stuart range and the Teanaway valley to the west and the Kittitas valley to the south. Many trees were dressed in their glorious fall colors and our group campsite had a spectacular ledge view. We had 19 campers through the weekend and 10 people came up for the day on Sat. Multiple sites were explored by the campers, but we had one main dig site that was quite productive. I'm still trying to understand the geology of the area, but I think it's part of the Teanaway formation. I'll let the pictures tell the rest of the story.

Special thanks to Peggy/Paul for our grilled chicken on Friday and Scott/Laurie/Josh for the grilled burgers and hot dogs on Sat. We had excellent food from everyone and it was quite a memorable weekend.

Campers: Annie S and dog Tess, Scott & Laurie M., Peggy S. & Paul A., John C. & Teri G., Christina & Russel & Rose L., Josh & Eli & Levi D., Ananda C., Kari C., Phillip T., Breanna & Julia P., and me.

Coming up for the day on Sat.: Noelle B., Loren M., Robert and Jonathon M., Artem & Andrey & Maxim T., Ray & Mary M., and Trent B.



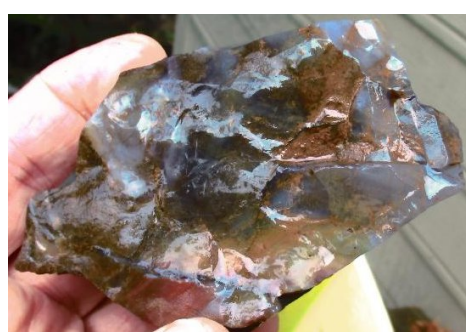


Field Trip Report for Oct. 14, 2023 at Red Top by Roger Danneman, CMS Field Trip Guide

Once again a pretty nice day for our Red Top trip. Temperatures in the mid-50s and good road conditions. We had 12 people in 7 vehicles. Our lower dig site is still producing nice agate and jasper in the mid to upper pits. Good tumbling material. We only spent a short time here and then we hiked up the Indian Creek Trail to the Red Top Meadow. The pits up there are more stingy and one has to work harder at it. I only collected a handful of pieces here as opposed to a bucket at the lower dig. Nik and Loren reportedly did fairly well. Hoping they post their collection.

With me on this trip was Kelly & Tim B. + 3 friends, Noelle B., Gina M., Julie M., Ray M., Loren M., and Nik B.

Our next and last field trip of the year is scheduled for Nov. 11th at First Creek. This is a 2 mile hike on a good road bed with a few ups and downs. Jogging carts or wagons work well to carry the load. Mostly we find agate nodules, crystal plates, and geodes (whole or fragments) here. This trip is weather dependent so pay attention to the e-mails from me. The announcement goes out a week or so before the trip.



Geologists working for the oil companies would sniff rocks for traces of petroleum. This behavior of smelling rocks like hounds led others to call them rockhounds. Rockhound later became the nickname for those of us who like to collect rocks and minerals.

Young Tumblers News

Badge Program

Our Young Tumblers did a great job on their first case display at our gem show. They all earned their first badge: Showmanship.

Eli and Levi Dobner won a 1st Place ribbon for their age group.

Mason Norgard won a 2nd Place ribbon for their age group.

Jude Niegowski won a 1st Place ribbon for his age group.

Be sure to pick up your ribbon and badge when you attend the meeting.

We will now work on two different ribbons: Fossils and Field Trips. Our January meeting is going to be on Washington fossils. While fulfilling the requirements for the fossil badge, you can also fulfill a requirement or two of the field trip badge. You can work at your own pace to complete these badges. If you have questions as you work on your badge, just email Kat or email her.

There are worksheet requirements for each badge. Be sure to pick them up at the meeting or send a message to Kat, and she will email them to you. When you have completed the requirements for the badge, please bring the completed form to the meeting and give it to Kat.

If any Young Tumblers would like to join our Young Tumblers Club and earn badges as you learn about our hobby, please let Kat know. All active members of our Young Tumblers Club will receive a rockhounding vest.



Showmanship



Fossils



Field Trips

Crack the News – A New AFMS Newsletter for Kids

by Dennis Gertenbach, Juniors Newsletter Editor
At this year's AFMS Convention in Billings, the inaugural issue of Crack the News was introduced. Crack the News is an AFMS newsletter written by kids for kids who love rocks, minerals, and fossils. This first issue included articles, artwork, and even a video prepared by kids and teens, ages 4½ to 16. In this issue, kids can read and learn about:

- Clinozoisite, emeralds, and jasper
- Trilobites and dinosaurs
- The Dice Mineralogical Museum
- Making a borax snowflake
- Earning the Collecting Badge

This first issue can be downloaded from the AFMS juniors website at

<https://www.juniors.amfed.org/juniors-newsletter>.

The name of the juniors paper, Crack the News, was chosen from entries submitted by 22 kids throughout the country. Congratulations to Rosalie Dunn, a member of the Georgia Mineral Society, who submitted Crack the News as the name for our juniors newsletter. Because her newsletter name was chosen, Rebecca will receive a \$100 trilobite.

We plan to publish additional issues as we receive more items from kids for Crack the News. Information about how kids and teens can send their newsletter contributions can be found at

<https://www.juniors.amfed.org/juniors-newsletter>. Please encourage the kids in your club to help make this newsletter fun for junior rockhounds across the country.

from AFMS Newsletter, 9/23

Future Rockhounds of America is Now on Facebook

by Lora Hall, AFMS Junior Programs Chair
In addition to our website, www.juniors.amfed.org, Future Rockhounds of America is now on Facebook at www.facebook.com/AFMS.FRA/. Michelle Cauley has volunteered to serve as our moderator. Please help spread the word and grow our page by leaving us a "like" and be sure to "follow" us and "share" our page with others. This gives us another way to keep in touch and share information.

from AFMS Newsletter, 10/23

What did the T-Rex say at lunchtime?
Let's grab a bite!

Which rock group is made up of four men who can't sing?
Mount Rushmore

from Crack the News, 8/23

Giving an Old Rock Saw a Facelift by Jim Cerenzie

A few months ago I purchased sight unseen an old rock saw from our club. I picked it up from Bill Cook's house, were upon initial inspection it was apparent that this thing hadn't been used in quite awhile. The insides were a rusty, hardened, smelly old oil, thick coat of nastiness.

This however didn't intimidate me. I like restoring old things to like new again. I have a second AAS degree in Automotive Collision Repair so I could see myself using these background skills in restoring this old machine.

So here is kind of a play-by-play version of what I did:

First I removed the lid, sight window, hinges, electric motors, wiring, pulleys, belts, and associated hardware. The next day I removed all the internals; carriage, clamp, arbor, saw collars, and associated hardware. I took lots of pictures with a digital camera for future use in putting everything back together again. As a side note, I could feel every roller turn in the arbor bearings, indicating that they were corroded from being idle for so long. However since there was absolutely no radial or axial play, and on the advice of two other people, I decided not to dismantle the arbor. I myself am a big fan of, "If it isn't broke, don't fix it". So hopefully with some use the bearings will wear back smooth again.

The next step was to start cleaning the lid and tank. First I used a metal scraper to get all the thick coating of rusted gunk off the metal surfaces. I suggest doing this in the sun because it seemed to help soften the hardened crusty mess. I got as much off as I could to make the next step in the cleaning process easier.

Next I used a large wire brush, small wire brush, and POR 15 degreaser from the local auto body supply store. I did one panel at a time. First I liberally sprayed the POR 15 degreaser and then scrubbed all the remaining grease and oil off the metal surface. The small wire brush was used to get into the corners. If the POR 15 started to dry out while I was scrubbing, I sprayed it again to keep the surface wet. After wire brushing to remove the thick greasy areas, I then used a red Scotch-Brite pad to scrub the area until I knew for certain it was clean. Then I would move to the next panel and repeat the process. When finished, the areas that were scrubbed will be dry. Don't worry, because then all you do is turn on your garden hose and rinse it all off. It's water based so you don't have to worry about killing the salmon.



Using a metal scraper



Using POR 15 degreaser, wire brushes, and red Scotch-Brite



Rinsing with water, notice the bare clean metal

I want to stress how important and critical it is to remove every trace of oil and grease from the metal for good adhesion and to prevent "fish eyes" in the top coats of primer and paint to be applied later.

Next I used a Wax and Grease remover, specifically a product I purchased at the auto body supply store called U-POL made by Transtar, to wipe down the outer surface of the tank where the old green paint was applied. A cheaper alternative would have been to use Denatured Alcohol, but I didn't have any. I wiped down the old green paint to ensure no contamination getting impregnated into the metal when I mechanically stripped the old paint off with a poly carbide wheel on an angle grinder. Poly carbide wheels work great because removing the old paint is quick and not messy or toxic like paint stripper. I also used a poly carbide wheel on a drill motor to remove the scale rust inside the lid and tank. These wheels are cheapest at Harbor Freight.

Next step was mixing a ratio of 4 parts water to 1 part cheap white vinegar from the grocery store. I poured this mixture in an empty spray bottle and liberally sprayed all bare metal surfaces



POR 15 cleaner/degreaser, Polycarbide wheels on angle grinder and drill motor

and scrubbed vigorously with a red Scotch-Brite pad. This serves three purposes, to clean, to kill any rust hiding in the pores of the metal, and to etch the metal for good adhesion of the epoxy primer. There are other more expensive ways to do this, but the vinegar/water mixture is effective and non toxic. Certainly good enough for a rock saw. Now, let the vinegar/water mixture dry at least 15 minutes. You'll end up with an ugly, rusty looking mess. This isn't rust so don't panic. Next take your garden hose or a bucket of clean water and rinse it off while scrubbing the orange looking stuff off with a Scotch-Brite pad again until all traces of the orange rusty looking stuff is gone. Then wipe it all dry with a clean shop towel. I let it dry thoroughly over night. You now have a surface ready for the next step.



Scrubbing bare metal with water/vinegar mixture



Water/vinegar mixture dried on bare metal. Don't panic!

The next morning I again used the Transtar U-POL wax and grease remover and wiped down the inside of the lid and entire tank. Again, cleanliness of the metal is of utmost importance. I'll also mention again Denatured Alcohol would work as it's not so cost prohibitive and as toxic. I then masked off the top of the lid with white masking paper and green masking tape. It's important to mention this because newspaper or hardware store masking paper won't work; It will disintegrate when urethane based paint comes in contact with it. Next I mixed Transtar 2K epoxy primer/sealer that was also purchased at the auto body store. After mixing, I loaded up my spray gun and shot two coats on. I used epoxy because it has a high resistance to rock chips, oil and grease. Auto restorers use it to paint frames and suspension parts for that reason. Another side note. I like to use Transtar products because they are no different than the major brand names were reliability is concerned. The main difference is that you're not paying Jeff Gordon's or Penske Racing's sponsorship. Also think Craftsman vs. Snap-on.



The epoxy primer sealer components I used



Shooting on the second coat of epoxy primer/sealer

After the epoxy primer/sealer was cured overnight, I scuffed it with a red Scotch-Brite pad and then wiped it down again with the before mentioned wax and grease remover. I then proceeded to dig out some old leftover Dupont "Island Teal" color paint and Transtar clear coat that had been sitting on my shelf for 11 years. WAY past its shelf life. I had used it many years ago to paint a '68 Camaro I restored that has long since been sold. But what the heck! It's only a rock saw, so I thought I'd use it instead of throwing it away and buying new paint. So I went ahead and mixed the color and shot three coats inside/outside the tank and under the lid. I then proceeded to clean the spray gun, mix the clear, and shoot three coats over the color.



The clear coat components



Shooting on the final clear coat





Not bad for 11 year old paint!

I then let the paint cure nice and hard for a week before putting the saw all back together.

Assembly began with cleaning all the nuts, bolts, and hardware. Also I went to the hardware store and bought some neoprene washers you find in the plumbing section. The reason for this is I wanted to use something that will create a good seal where the bolts penetrate through the tank for mounting the internal and external components. I read somewhere that a guy who restores lapidary equipment uses neoprene. Also, I purchased some new electrical cord to replace the old cracked and worn out cord that goes from a switch to a power outlet on the back of the saw and from the switch to the wall outlet. Also went to the auto parts store and bought some auto body seam sealer for sealing around the sight window on the lid. I hope this works because I don't know how seam sealer will withstand mineral oil. But I'll find out. Also bought some new drive belts for the saw blade and carriage clamp feeder.

Next I went ahead and installed the carriage, arbor, and drive pulleys. Basically the reverse order of disassembly. I mounted the saw blade on the arbor to see how it looked and hand spun the blade pulley to find out that the blade wobbled side-to-side. I took the blade back off and laid it on a flat stone and it was dished/warped. So after consulting with Rich Russell, I ordered a new 14" MK-303 blade. Ouch.

Rich also told me that the electric motor should be around 1750 rpm. That night when I looked at the motor that came with the saw, a Sears Craftsman, it was a 3450 rpm motor. So my guess it had spun the blade too fast, overheated, and warped it. Hence the reason this saw sat unused for so long. Luckily I had an old vintage AC motor that spins at 1750 rpm, and it's period correct for this saw. Next I devised a plan to mount it under the utility cart, then installed it.

Lastly I installed the lid and filled it up with mineral oil. I loaded a piece of Glass Buttes Rainbow Obsidian and turned it on. As seen from the picture it came out beautifully.



The mounted motor



Before and After



The first slab

I hope this article helps anyone wanting to take on such a project or just to simply clean your rock saw. This was certainly a learning process for me pertaining to rock saws.

References:

A good article about rock saws: <http://home.comcast.net/~eugeneminerclub/rocksaws.pdf>

A poly carbide wheel in action: <http://www.youtube.com/watch?v=d6Xnlg1yECQ>

Cleaning metal and neutralizing rust with vinegar. WARNING, this guy uses "salty" language, but he knows his stuff: <http://www.youtube.com/watch?v=872FDKzIZuk>

And special thanks to Rich Russell, who put up with my many questions and turned me on to this saw.

from The CMS Tumbler, 09/14

Young Richard's Almanac by Dick Morgan

A person that smiles even though they hurt inside does so that they do not allow their misfortune to harm other people's feelings.

There's a difference between learning how to learn and just learning. Learning how to learn is to use your mind to answer questions you haven't been asked. Learning is just remembering how to answer questions you've been asked in school.

At our Holiday Party in December, we welcome donations to the silent auction.

All revenues from our silent auction help cover club expenses, so we don't have to raise our annual dues.

Tanzanite

Tanzanite is the blue and violet variety of the mineral zoisite (a calcium aluminium hydroxyl sorosilicate), caused by small amounts of vanadium. Tanzanite belongs to the epidote mineral group. It is only found in Tanzania, in a very small mining area (approximately 4.3 miles long and 1.2 miles wide) near the Merelani Hills.

When blue-to-violet crystals were first discovered in Tanzania in the 1960s, no one was quite sure what the new crystals were. Careful gemological study determined that they were a transparent variety of zoisite, and the gem came to be known as tanzanite.

Tiffany & Company recognized its potential as an international seller and made a deal to become its main distributor. They gave the gemstone the name "tanzanite" after Tanzania, the country in which it was discovered. The scientific name of "blue-violet zoisite" was not thought to be sufficiently consumer friendly by Tiffany's marketing department, who introduced it to the market in 1968. In 2002, the American Gem Trade Association chose tanzanite as a December birthstone, the first change to their birthstone list since 1912.

Geology

Tanzanite was formed around 585 million years ago during the mid-Ediacaran Period by massive plate tectonic activity and intense heat in the area that would later become Mount Kilimanjaro. The mineral is located in a relatively complex geological environment. Deposits are typically found in the "hinge" of isoclinal folds.

History

Tanzanite is relatively new to the colored stone galaxy. As the most common story of the tanzanite mining boom goes, in 1967 a Masai tribesman stumbled upon a cluster of highly transparent, intense violet-to-blue crystals weathering out of the earth in Merelani, an area of northern Tanzania. He alerted a local fortune hunter named Manuel d'Souza, who quickly registered four mining claims.

D'Souza hoped that he'd been shown a new sapphire deposit. Instead, the deposit contained one of the newest of the world's gems.

Although it's a newcomer to the gemstone industry, tanzanite has quickly become one of the most popular colored gemstones.

Within a short time, 90 more claims appeared in the same 20-square-mile area. No one was quite sure what the beautiful crystals were, but everyone wanted to lay claim to the profits they were certain to produce. The new gem would eventually, at times, rival the Big 3 in popularity.

From 1967, an estimated two million carats of tanzanite were mined in Tanzania before the mines were nationalized by the Tanzanian government in 1971.

Pleochroism in Tanzanite

Tanzanite's appearance is influenced greatly by its pleochroism, which is the ability of a gemstone to show different colors when viewed in different crystal directions. Tanzanite's pleochroism was documented in scientific papers not long after its discovery. In 1969, American Mineralogist described the gem's pleochroic colors as "red-violet, deep blue, and yellow green." In its rough state tanzanite is colored a reddish brown to clear, and it requires heat treatment to remove the brownish "veil" and bring out the blue violet of the stone. Today, most gems are heat treated maximizing the blue and violet.

Top-quality tanzanite can be violetish blue — similar to a fine sapphire color — or a unique, predominately violet hue all its own. Some stones might also appear more purplish depending on how the cutter chooses to orient the fashioned gem. Both the violet and blue pleochroic colors are readily visible in a fashioned stone when it is gently rocked and tilted. This means that every tanzanite is a blend of these pleochroic colors. The exact face-up color depends on the inherent color of the original rough, its size, the pleochroic colors the cutter favors when they orient the fashioned stone, and the light the finished gem is viewed under. Cool lighting — like daylight equivalent fluorescent — will emphasize tanzanite's blue, while warm lighting — like incandescent — will make it appear more violet-to-purple.

Just like other colored gemstones, vivid strongly colored tanzanites are highly sought after. Lighter toned pastel hues are more plentiful and affordable than vivid colors and have a subtle appeal of their own. The instant popularity of this transparent blue-to-violet gem was tied to its vivid color, high clarity, and potential for large cut stones.

Imitation and Cobalt-Coated Tanzanite

As of 2020, tanzanite has never been successfully synthesized in a laboratory, so all genuine tanzanite is naturally occurring. However, because of its rarity and market demand, tanzanite has been imitated in several ways. Among the materials used for this are cubic zirconia, synthetic spinel, yttrium aluminium garnet, and colored glass. A test of the stone with a dichroscope can easily distinguish these from genuine tanzanite, as only tanzanite will appear doubly refractive: the two viewing windows of the dichroscope will display different colors (one window blue, the other violet) when viewing genuine tanzanite, while the imitation stones are all singly refractive and will cause both windows to appear the same color (violet).

Synthetic forsterite (Mg₂SiO₄, the magnesium-rich end-member of olivine) has also been sold as tanzanite, and presents a similar appearance. It can be distinguished from tanzanite in a couple of ways. The first is by using a refractometer: forsterite will show a refractive index of between 1.63 and 1.67, while tanzanite will show a higher index of 1.685 to 1.707. The second way is by using a Hanneman filter: through it, genuine tanzanite will appear orange-pink, while forsterite will appear green.

Lower grades of tanzanite are occasionally enhanced using a layer of cobalt, as cobalt imparts a deeper shade of blue. The cobalt layer does not adhere well to these stones, and tends to rub off over time, resulting in a much less intensely colored stone. Though still tanzanite, the practice of cobalt coating is considered deceptive unless well-advertised.

from Grindings, 12/21

Emeralds in North Carolina by Steven Nohren

North Carolina is known for its emeralds, so much so that they are actually the official state gemstone. Emeralds are a variety of the mineral beryl, typically recognizable by its shades of iconic green. The most common places to find emeralds are Brazil, Colombia and Zambia. However, in the entirety of the continent of North America, North Carolina is the only significant source of emeralds. In 2012, an anonymous donor gave three large uncut emeralds and the largest cut emerald known as the "Carolina Emperor." to the state Museum of Natural Sciences. Then Museum director Betsy Bennett stated emeralds are among the one of the most valuable donations in the museum's history up to that point. One of the uncut emeralds weighs more than 1,200 carats. For reference, an emerald for a ring would range about 1 to 4 carats with an average price of \$4,500 per carats. And these donated gems came specifically from Emerald Hollow Mine. Emerald Hollow is located in Hiddenite NC and is the only emerald mine in the United States open to the public for prospecting. If you thought Hiddenite sounds like a mineral, you'd be right. Coincidentally, the town actually got its name from the discovery of a pale green crystal in 1879. And this mineral, hiddenite, got its name from geoscientist William Earl Hidden. Hidden came to North Carolina after being commissioned by Thomas Edison to search for any sources of platinum in the area. While he was unsuccessful in finding the platinum, he did come into possession of an odd pale green crystal. While emeralds and hiddenite have similar colors, they have very different physical properties. William Hidden was able to send samples of this unknown mineral to J. Lawrence Smith, a prominent chemist and mineralogist in Louisville, Kentucky. Smith correctly identified the specimens as being a variety of spodumene, a major ore for lithium.

from Tar Heel Tailings, 5/23

Destination: Asteroid Psyche

The 10/14/23 edition of the Seattle Times carried an article about the launch of a spacecraft by Marcia Dunn of the Associated Press. It should arrive in 2029. Psyche is one of about nine metallic asteroids discovered to date. Scientists think it will shed light on our own planet's metal core.

Ms. Dunn waxes poetic in the article; I love the descriptions. Astronomers believe Psyche is brimming with iron, nickel, and other metals and maybe silicates. At 173 miles long and up to 144 miles long, scientists envision spiky metal craters, huge metal cliffs, and metal-encrusted eroded lava flows greenish-yellow from sulfur. [Science writing at its best!]

from Rocky Trails, 10/23

What is a Mineral?

A mineral has a consistent chemical formula, an orderly internal structure, crystal form and physical characteristics.

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.

November 11 Field Trip to **First Creek** (*agate, crystals, geodes*)

We finish the season with a 2-mile hike back into one of my favorite areas - First Creek
Roger Danneman Roger.Danneman@gmail.com or 425-757-3506 text

Turquoise is a semi-translucent to opaque gem that ranges from blue to green and often has veins of matrix (remnants of the rock in which it formed) running through it. This December birthstone has been cherished for millennia. The pharaohs and other rulers of ancient Egypt adorned themselves with it. Chinese artisans carved it more than 3,000 years ago.

The turquoise birthstone was thought to possess many beneficial powers, like guaranteeing health and good fortune. From the 13th century on, it was believed to protect the wearer from falling (especially off horses), and would break into several pieces at the approach of disaster. Hindu mystics maintained that seeing a turquoise after beholding the new moon ensured fantastic wealth.

This turquoise birthstone also played an important role in the lives of Native Americans. The Apache thought turquoise could be found by following a rainbow to its end. They also believed that attaching the December birthstone to a bow or firearm made one's aim more accurate. The Pueblo maintained that turquoise got its color from the sky, while the Hopi thought the gem was produced by lizards scurrying over the earth.

This December birthstone adorns the funerary mask of King Tut, who ruled Egypt more than 3,000 years ago. It also appears in jewelry belonging to more modern royalty: Wallace Simpson (1896–1986), Duchess of Windsor (the woman for whom King Edward VIII gave up his throne), wore a famous amethyst and turquoise necklace made by Cartier. Turquoise is also the gem of the 11th wedding anniversary.

In European tradition, the gift of a turquoise ring means "forget me not." Turquoise is considered a national treasure in Tibet, where it is believed to grant health, good fortune and protection from evil. December's birthstone also imparts peace to those who wear it.

from Gritty Greetings, 12/22

Mineral Formulas

We are familiar with chemical formulas for minerals, for example SiO₂ is the formula for quartz. The formula tells us that each quartz molecule has one silicon atom and two oxygen atoms chemically bound together. This is an example of a strict composition. Every quartz molecule will be made of silicon and oxygen in a 1:2 ratio.

In reading about minerals, you have probably also seen more complex formulas, such as the one for olivine: (Mg,Fe)₂SiO₄. Rather than having a strict composition, olivine has a restricted range of composition.

Some minerals can be comprised of slightly different elements with a limited range of possibilities. Their formulas reflect the possible variations. Olivine is one such mineral, and it can be made with either magnesium (Mg) or iron (Fe) with one of these formulas: Mg₂SiO₄ or Fe₂SiO₄. You can see that regardless of whether the olivine is made of magnesium or iron, that element lends two atoms to the molecule. The ratio of elements is 2 Magnesium or Iron to 1 Silicon to 4 Oxygen. Lepidolite is even more complex: K(Li,Al)₃(Al,Si,Rb)₄O₁₀(F,OH)₂. There are three parts of the formula with limited ranges of elements.

from Maplewood Rock and Gem Club, 1/23

The Rockhound's 10 Commandments

Thou shall not touch thy neighbor's minerals unless he places them in thy hands.

Thou shall not test the strength of crystals by pushing, squeezing or biting.

Thou shall not drop thy neighbor's fossils, for many do not bounce properly.

Thou shall not place thy neighbor's specimens in thine own pocket.

Thou shall not collect at a neighbor's land unless thy neighbor knowst he's there.

Thou shall not argue names of minerals too violently; for sometimes thou couldst be wrong.

Thou shall not climb above thy neighbor's head when on a field trip, lest thou art willing to spend the rest of the day digging him out.

Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.

Thou shall not encroach upon thy neighbor's diggin's, lest thy neighbor's hammer be dropped upon thee.

Thou shall not break uncollectable specimens.

via The Quarry, 10/23; from Midwest Mineralogical and Lapidary Society of Michigan, 10/23

A Tribute to Agates

by Roger Biebl

Agates are to be viewed with delight,
The colors and banding a beautiful sight,
Silica fills in the volcanic cavity,
Then structures are created by gravity,
And finding one makes the day all right!

via The Quarry, 9/23; via the MWF News, 6/23; from the Agate Picker, 3/23

Rockhound Types by Keith Alan Morgan

Besides rock trips and collecting rocks and minerals, some rockhounds prefer the lapidary aspect of cutting and polishing, of which there are several varieties, making cabochons, faceting, carving, sphere making, book ends, etc.

There is also the making of, and/or designing, jewelry, such as rings, necklaces, pins, earrings, etc.

Some rockhounds even specialize in the types of rocks and minerals they collect, crystal collectors, fossil lovers, microminerals, sand, etc. It is a surprisingly broad hobby with a lot of niches that can appeal to people.

Shows

November 4 & 5: Saturday & Sunday 10 am – 5 pm
Delta Rockhound Gem & Mineral Club, Annual Show
South Delta Rec Centre
1720 - 56 Street (Tsawwassen)
Delta, BC

November 10 – 12: Friday 1 pm – 6 pm; Saturday 10 am – 5 pm; Sunday 10 am – 3 pm
Abbotsford Rock & Gem Club, Annual Show
Matsqui Community Hall
33676 St. Olaf St.
Abbotsford BC

November 11 & 12: Saturday 9 am – 5 pm; Sunday 10 am – 4 pm
Skagit Rock & Gem Club, Treasures of the Earth
Sedro Woolley Community Center
703 Pacific St
Sedro Woolley Washington

November 11 & 12: Saturday 9 am - 5 pm; Sunday 10 am - 5 pm
Maplewood Rock and Gem Club, Rock and Mineral Sale
Maplewood Clubhouse
8802 196th St SW
Edmonds, Washington

November 18 & 19: Saturday & Sunday 10 am – 5 pm
Kitsap Mineral and Gem Society, Fall Festival of Gems
The President's Hall
1200 NW Fairgrounds Road
Bremerton, Washington

November 18 & 19: Saturday & Sunday 9 am – 4:30 pm
Parksville & Courtenay Gem & Mineral Clubs, Annual Show
Qualicum Beach Civic Centre
747 Jones St.
Qualicum Beach, BC

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