# PACIFIC NORTHWEST CHAPTER FRIENDS OF MINERALOGY



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# **PNWFM**



# President's Message Toby Seim

Greetings All,

We have almost passed the halfway point for our 2022 year and there has been a lot happening in the mineral realm. The Seattle Mineral Market was absolutely fantastic, the parties involved should be very happy with it's success. I

made it down for a day with my daughter (she acquired many free rocks) to see the new venue and friends. It was busy with lots of great mineral activity.

While I'm on the topic of mineral activities, we will be doing a cleanup event this year. The focus is to provide a cleaning crew to Klipchuck Campground up at Washington Pass. They typically are very busy for Labor Day weekend so it would be most helpful to provide our support after that weekend. We are tentatively looking at the weekend of September 18<sup>th</sup> and in addition, planning a potential contingency plan (perhaps Hansen Creek) if the wild fires prevent the Clean-up from happening, as it did last year.

# October Symposium

Our annual symposium is currently back on track to be an on-site event! The dates are October 14, 15, and 16 at the Kelso Red Lion. Julian Gray and Bryan Swoboda are working on recording the symposium to make it available virtually. Our theme for this year is "Crystal Habits – The Good & The Bad". Personally, I am eagerly excited for this theme because of the endless possibilities for interesting talks and the opportunities to bring in very strong speakers. Talk possibilities could include things like twinning, epitaxy, mineral rings, multigenerational growth, pseudomorphs, etc.. The symposium vending activities will be arranged by Brittany Burkhardt (who recently organized the epic Seattle Mineral Market), so you can reach out to her if you are interested in being a vendor/satellite dealer and she will communicate details and add you to the list.

Thanks to all for continuing to promote the advancement of minerals and supporting your PNWFM group. Cheers!

# **PNWFM Minutes**

October 17, 2021

President, Toby Seim, opened the annual membership meeting by welcoming the 18 members present in the virtual meeting, and thanking the symposium committee for all the effort put in on another successful virtual symposium. Toby asked for feedback: send an email one week out, then another the day before; marketing improvements needed; resolution improvements needed; more practice going live needed; and ways to improve interaction needed. Bruce reported that 91 was the total number present at the virtual symposium including panelists and hosts.

**Old Business:** Toby is still working on a new logo for our group. Next, we had a discussion about membership dues. As you all know, dues were waived for 2021. The discussion included a motion to raise dues to \$20 and reinstate immediately. This was seconded. After further discussion including: dues need to be considered as a way to bring in revenue, and therefore, quality speakers in the future. A vote concluded with more no's than yes'. Motion fails. We will revisit dues in February 2022. At that time, we hope to have a new contract with the Red Lion Hotel, which will inform us on how high our costs will be for a "live event" in October 2022. We will also monitor what our National club is doing. For now, no dues will be collected for 2022. Le Snelling has the broken cases at his home. They will be repaired and ready for our show in 2022.

**Treasurer's Report:** Bruce Kelley gave the treasurer's report including current balance, expenses and income. Bryan Swoboda has been paid for the symposium videos. Karen submitted a bill for the storage unit. MSP to renew our annual group membership at the Rice Museum. Bruce also reported that \$740 in donations were received.

**New Business:** Our theme for the 2022 Symposium was discussed and voted on: "Good and Bad Habits in the Mineral World" is our theme. The 2022 symposium committee will be busy with preparations for what we all hope will be a live event in Kelso, October 14 - 16. Bruce will make a list of all symposium topics and include on our website.

We will meet again in late February. Deadline for next newsletter is December 1<sup>st</sup>. Please send an article to Beth Heesacker to be included in the newsletter.

Karen Hinderman, Secretary

March 31, 2022

PNWFM Board/Symposium Committee Meeting

Present: Toby Seim, Bruce Kelley, Julian Gray, Jessica Robertson, Gary Hinderman, and Karen Hinderman

Jessica presented a report from the National FM. She is a member of the newly formed committee named Strategic Vision. Some of the goals of this committee are to determine FM's approach to public outreach, education with museums and trade organizations, and integration with local chapters. We will be hearing more from this committee soon.

We have been working on the creation of a new logo for our chapter for over a year now. Going forward, we are hoping to receive some assistance from Erin Delventhal. Our goal is to have a new logo by our October symposium.

Mark Jacobsen is asking for a current membership update. Bruce will send a report to him.

2022 Symposium: We are moving forward with plans for a live symposium October 14, 15, and 16 at the Red Lion Hotel, Kelso, WA. Julian and Bryan Swoboda are working on recording the symposium to make it available virtually. Our theme is Crystal Forms & Habits. An official name is still in the works. Possible topics for talks include twinning, epitaxy, mineral rings, multigenerational growth, pseudomorphs, etc. Julian has some potential speakers identified. Karen is in contract talks with the Red Lion.

Toby would like to have a PNWFM clean up and collecting campout in August. He will contact Randy Becker for ideas and support.

Our newsletter editor needs our support. Please send rock show reviews, collecting stories and pictures (even older collecting stories), original research or poetry, anything rock and mineral related. Currently, the board is looking at having a raffle each year at the symposium where you would receive one ticket per newsletter article and a winner drawn for a prize. It seems, you all need some incentive to get you to contribute! Also, we will try to send an email out every four to six weeks with a short bulleted list of reminders or pertinent news.

Next membership meeting is Sunday, May 22, at 11:30 am, at the Seattle Mineral Market Show.

Karen Hinderman, Secretary

PNWFM Membership Meeting May 23, 2022

President, Toby Seim, called the meeting to order. Twelve members were present for the Zoom meeting. We reviewed minutes from the March meeting. Bruce gave a treasurer's report. We are accepting membership dues.

Symposium News: The annual symposium will be held at the Red Lion Hotel in Kelso, Washington on October 14, 15, and 16. It will be a hybrid model with some speakers in attendance and others on Zoom. We discussed having a backup speaker ready to go in case of technical difficulties or last minute cancellations related to illness. Julian is working on securing speakers. Our theme is Crystal Habits: The Good & The Bad. Brittany Burkhardt will check with our regular dealers to confirm their interest. Satellite Dealers will need to communicate with Brittany and/or Karen. Satellite dealers will continue to pay \$25 and donate a specimen for the auction. Toby will speak with Jessica and John Lindell about assisting with organization of cases. If you are planning on being in attendance, please consider putting in a display case. Doug Merson and Bruce Kelley will coordinate and organize registration packets. We are seeking an individual to coordinate marketing. Any volunteers?

Our annual WA Pass Clean Up is still a go. Toby is coordinating with Randy Becker on details. They are still hoping to camp and clean up the Clipchuck Campground, but will have a backup plan in case of fires. They are looking at September 10 & 11, or September 17 & 18. If you have ideas about dates or planning this event, call or email Toby.

Brittany Burkhardt put on a fantastic Seattle Mineral Market Show. She would like to collaborate with PNWFM and create a spring symposium at the Mineral Market. A committee is forming to work on this idea. Brittany, Bruce, Julian, and Karen have volunteered. If this is something you are interested in being a part of, please call or email Karen, Bruce, or Brittany. More details will follow on this plan.

Our newsletter editor, Beth Heesacker, would love more contributions for the newsletter. Please consider writing a review of a local show, museum, or rock collecting trip.

Karen Hinderman

**PNWFM Secretary** 

# What Is New At The Rice Museum



The Museum recently updated many of its displays, including the **Murphy Petrified Wood Gallery**, the **meteorite** and **Rice Family** history displays, and the **Special Exhibitions Gallery**. Plan your visit to see all the changes, including the stunning specimens from the Gene Meieran and Gail and James Spann's collections in the Special Exhibitions Gallery.

Up for a limited time, this display features over 50 specimens of native silver and silver-bearing minerals from

around the world. Many of the specimens are renowned and hailed by experts as the best in the world. This temporary display is not to be missed with large curling ropes, delicate wires, stately sculptural masses, and delicate crystallized specimens.

# POP UP SHOP - Saturday and Sunday, June 25 and 26, 10:00 am - 5:00 pm

Join us the last weekend in June for a pop-up shopping experience. We are **supersizing** the month's event to include multiple vendors set up inside and outside. **This will be the last pop-up event until November.** The event is **free with general admission**. It is your chance to support the Museum and local small businesses.

## **MUSEUM HOURS:**

Wednesday 10:00 am - 4:00 pm Thursday 10:00 am - 4:00 pm Friday 10:00 am - 5:00 pm Saturday 10:00 am - 5:00 pm Sunday 10:00 am - 5:00 pm

23685 NW Groveland Dr. Hillsboro, OR

# Two Localities in Western Washington State Hosting a New Occurrence of Pseudocubic Quartz Mineral Believed To Be Chalcedony Pseudomorphs After Melanophlogite

# by Nick Carlson

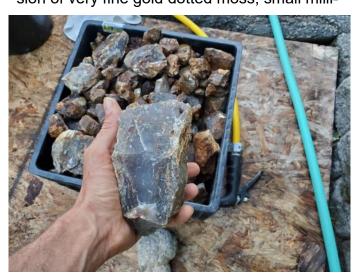
This is the story of how a new to Washington mineral from an old rockhound locality in the western Washington foothills, had been mistaken and overlooked for years. Two years after the first observation, the discovery of a second occurrence from a locality in southwestern Washington was made. This new locality possibly producing some of the largest sized crystals ever reported for this mineral. Since then, northwest field collectors in the know have been keeping a closer eye out for possibly more new overlooked localities.



The top quarry after 20 years after sitting idle, finally popped. (Photo Nick Carlson)

meter size white plumes, dendrites and orbs in shades of white, yellow/orange and black. Older rockhounds that used to frequent the area in its heyday mentioned veins ranging in size from 1/4 inch to over 12 inches(5mm-30cm) in thickness scattered throughout the quarry. This quarry, however, had also been sitting idle for the past 20 years with no activity. Over those 20 years, the road had been pretty well picked over by rockhounds with not a lot remaining beside small tumbler material. The quarry was slightly overgrown

The story starts in the late spring of 2019. A timber sale for the parcel called "disco fever" in the foothills southeast of Monroe Washington, was approved. This timber sale piqued my interests. The location was known to rockhounds as "Tower hill". This was a place older rockhounds would talk about collecting in the past but not so much currently. The small quarry at the top of the hill was a great source for veins of Blue/clear chalcedony that was great for lapidary. This was the quarry chosen to be the main source of rock needed to supply the timber operation. Some of the chalcedony was known to contain inclusion of very fine gold dotted moss, small milli-



Rinsing off the first newly collected material from the road. (Photo Nick Carlson)

and most chalcedony veins the older collectors mentioned had either been worked out or covered by 8 to 10 feet(3m) of overburden. One week later, the timber company put up signs on the gate temporarily closing down the area to the public for blasting and road regrading.

Fast forward two weeks and on a whim before a late Thursday shift at work, I decided to drive out and check the progress of the road regrade. To my surprise the gate was closed meaning no construction activity and there were no signs saying closed area. Best of all, a fresh layer of rock from the top quarry was over the road! I parked my Jeep at the gate, got my backpack and slowly started walking the road. While on my way to the top, the road was so rich in chalcedony, I couldn't help but walk slowly and start packing material. This used to be an area where you were lucky if you got three pounds(1.3kg) of tumbler material from the old road and quarry in a day or any single piece bigger than a golf ball. Now I was picking up chalcedony pieces from the size of a golf ball up to 8 inches(20cm) in diameter every 30 feet (10m). It was one of those moments you pinch yourself because you're not quite sure if what's happening is real. You hear the old timers talk about how rich some of these areas were back long ago and you can't even imagine it. Well, this was one of those moments. I made it about .3 miles (.5km) up the 1.4-mile (2.3km) road before I had an overloaded backpack and made my way back to the Jeep.

Over the next week and a half this cycle repeated. Collecting more and more chalcedony from the road. Once I was able to finally make it all the way to the quarry without filling my back-

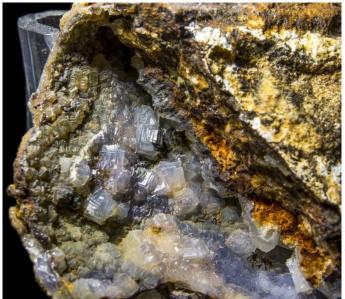
pack, I noticed the guarry wall was blasted. It was now about 15 feet further back and most of the overburden that had been against the wall was cleared. I started scanning the quarry wall for noticeable veins of chalcedony, but my eyes were drawn to a weird swirling andesite formation. While investigating, I noticed that to the right of the swirl was a 10 inch(25cm) wide chalcedony vein. While most of this vein was solid and clear/ blue in color, part of the vein looked solid but came out in large nodules like chunks that formed very close together within the vein. These nodules, when cut, contained a nice very blue center filled with mostly white orbs and a root beer orange/brown colored outer ring. Somewhat reminiscent of a starry night sky. After inviting some good friends to the area to collect to share the fun,



The andesite "swirl" that caught my attention. (Photo Nick Carlson)

summer had come and spots at higher elevations were now accessible.

Some time had passed and late September of 2019, I was going through and size grading my chalcedony and various oddity rocks I had collected from the area. When grading I noticed a weird misshapen brown piece. It had what I thought was a couple thin layers of blue chalcedony that looked like it had been etched by calcite. I was about to throw it back in the pile when the sunlight reflected off a small perfect square crystal face. This drew my curiosity. I took it inside and looked at it under the 60x loop. To my surprise that blue chalcedony layer was actually a layer of



The bright glints off these platy faces were easy to notice. (Photo Nick Carlson)

little complex intergrown cubes. This combination of crystal morphology and color made me immediately wonder if I had found fluorite. It was a long shot seeing fluorite rarely occurs in Washington and is almost unheard of on the west side of the state.

A few days later, I posted a picture to my personal Facebook page with the caption "Did I just possibly find fluorite? Most had agreed with fluorite, but these conclusions were strictly based on pictures. Many fellow rockhounds were intrigued, even some of the respected seasoned field collectors of the area had taken a hard notice. Even well-known field collecting legend Bart Cannon had drawn serious interest in the specimen. He asked if he could have a sample for testing and possibly adding this to his new edition of minerals of Washington book. At the time, I only had one specimen. So, I was hesitant to give it up, even to Bart. This also led a couple of my friends that were invited for collecting trips to

closely re-check their material and sure enough, each one had collected a specimen or two. Then on October 31st 2019 I was invited over for a mineral collectors and friends Halloween party. To my surprise, I heard Bart was going to show up to the small party. At first I was bummed I didn't bring a specimen for him to take home and test because I now had four specimens in my collection and was willing to give one up to him. This feeling was short lived because I was so ecstatic that I was finally going to meet him in person. Even though I didn't have the mineral for him I still was able to show him better pictures than what I had posted online. He seemed genuinely interested. For the rest of the night he talked about minerals and told awesome stories of the past. Even though it was our first time meeting in person, it felt like I had known him for years within those few hours. Bart

and I left the party at the same time. I told him he could follow me through the old housing development maze to the main road. As we got in our separate vehicles, I told him I would get him a sample next time I saw him. Unfortunately, this would be the last time I ever saw or spoke with Bart. A month later Bart had passed away from complications due to cancer. This left everyone, especially the northwest mineral community, devastated.

As time passed, I started to get an eye for this little cubic looking mystery mineral while collecting more material and grading my current. After grading it all, I ended up



ing mystery mineral while collecting Specimen covered with small complex intergrown pseudocubic crystals. more material and grading my cur- (Photo Nick Carlson)

with 17 specimens. I decided to do some simple tests after work the next day. The next day came and after an unplanned four hours of overtime at work, I got home. I went downstairs to start performing some tests on the specimen. I started by getting a bottle of hydrochloric acid and dropped a little on a specimen. I was surprised that there was zero reaction. So next was a simple hardness test. The hardness was about a seven on the Mohs scale, same as the chalcedony from the area. The streak was white, had no visible cleavage and looked like it fractured somewhat conchoidally. It



Joey found something special at Tower Hill. We're still kicking around ideas with Nick Carlson and probably won't have a definite ID for awhile. Either fluorite or a pseudomorph or epimorph of fluorite. Really cool whatever it turns out to be. This isn't a normal location for fluorite.





ike - Reply - 13w

This identification guess made by John Lindell helped steer me in the right direction because this mineral is not very well known. (Facebook Screenshot)

glowed a whitish gray under longwave UV(no shortwave was available to test with). It wouldn't be until February 2nd of 2020 when everything would break wide open.

On Feb 2nd my friend Chad Cooper, a longtime local rockhound who also collected this area long before I ever had, posted a photo on social media. The photo looked to be the same mineral I had been coming across. His girlfriend Joey had found it at the same location as I. Chad and I had been shooting possible mineral identifications back and forth through messages in the past. He had shown me pictures of a specimen he collected back in 2014 from a different location, but the same general area that also had a cubic aggregate crystal layer. Like most, he mistook it for impressions of calcite in chalcedony years ago due to a couple quarries in the area being rich in calcite and chalcedony. It wasn't until a well-known local field collector, John Lindell, broke the case wide open with a suggestion that the mineral might be a chalcedony pseudomorph after melanophlogite. From there I did all the research I could on melanophlogite. What I found was quite interesting.

Melanophlogite is a rare form of silica. It is also the only silica mineral with a cubic crystal habit. It is very unique in that it contains organic compounds in its chemical structure. This technically excludes it from being classified as a mineral. Since one of the definitions of a mineral is that it is an inorganic substance. Despite this, the Dana's

System of Mineralogy categorizes Melanophlogite and a few other rare organic 'minerals' together with the true minerals, being that it is naturally formed and irrelevant of biological interference.

Melanophlogite forms round drops or complex intertwined overgrowth structures and rarely as individual cubic crystallites a few millimeters in size.

While researching pictures of melanophlogite on Mindat, I came across one picture that matched the morphology of my mineral exactly. This picture further confirmed my belief that this was indeed melanophlogite. The morphology is pretty unique, so finding an identical crystal from a different location was exciting! The specimen was found at the Kanan Road Quarry, northeast of Los Angeles California. Little did I know at the time, the collector of this specimen would send a message to me later on in the future. This led me to get in contact with Dr. Angela Halfpenny at the Central Washington University geology de-



Larger cubes atop small intergrown cubic crystal aggregate. FOV 10mm (Photo Nick Carlson)

partment. She was performing studies and tests on the "Ellensburg blue" agates to create an authentication process because of this stone's highly controversial nature. She agreed to test the



Specimen of two chalcedony pseudomorphs over chalcedony resembling two ice cubes being dropped into a drink. FOV 7mm (Photo Nick Carlson)

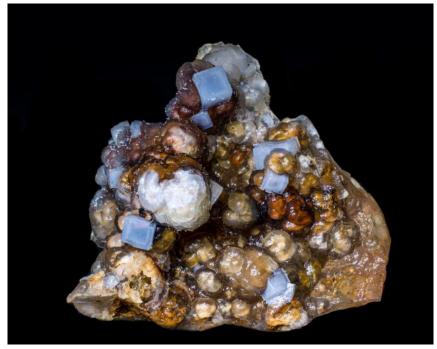
mineral specimens. After a two-hour trip east across the cascade mountain range, I arrived at the university. We went upstairs to the geology lab to test the three specimens. I had also brought two slabs of blue chalcedony from my location for her to add to the blue agate study. Over the next hour she tested each specimen with an XRF spectrometer. Unfortunately, the results didn't give me as many answers as I had hoped, but it did confirm that it was a silicate mineral. I would later learn that pseudomorphs are a lot harder to test than I previously thought. I did learn however that the chalcedony sample from the nodule vein had almost 3x more manganese than iron, which we both found interesting. On the trip back home, I was a little bit discouraged that I didn't get more information. After this, I put my future visions of this enigmatic little mineral on the shelf and got back to field collecting and prospecting, it wouldn't be until almost 10 months later that it would come back off the shelf for a second try at an identification.

On March 20th of 2021, mineral collector John Cornish put out a call for information pertaining to all the local PNW mineral collectors. He had been asked to share information of new northwest mineral



Quartz crystal over (but rarely making contact with) pseudocubic quartz over light blue agate. (Photo Nick Carlson)

So after the Rochester Mineralogical Symposium, I shipped the minerals samples off to John Cornish to send to the University of Arizona, along with a personal gift specimen for his collection and waited for the results to come in. About 2 weeks later the first emails came in from Dr. Yang at U of A. In the email he identified several of the minerals sent to him. A few minerals needed chemical analysis but under mine the only thing written was "A donation for RRUFF?". This was confusing but John told me he thought that it had piqued their interest. I thought about it for a minute and it made some sense. They can't return a mineral if they had to pulverize it to start powder X-ray diffraction testing. A month had



Light blue chalcedony pseudomorphs showing phantoms over botryoidal chalcedony (Photo Nick Carlson)

passed and very little info had come from Dr. Yang.

On June 16th out of the blue, I received a Facebook message from Marek Chorazewicz regarding my melanophlogite specimens. He had written an article years prior on three new southern California melanophlogite pseudomorph occurrences. He said "Hi Nick, great find of melanophlogite

pseudomorphs in Monroe. Same classical melanophlogite shapes we see here in Santa Monica mountains near Los Angeles. You can tell it is most likely chalcedony pseudomorph because it is bluish milky and duller than true melanophlogite. The original organic gasses most likely escaped a long time ago". We had conversed a little more about the mineral. This was some of the most valuable information I had received thus far throughout my journey. Knowing now it was possibly a chalcedony pseudomorph instead of the actual unaltered mineral. From here I took a note from Canadian field collector Mike Menzies and started calling it pseudocubic quartz. I had not received a true scientific identification from Marek of melanophlogite pseudomorph even though everything matched up. So to be safe, scientifically this would be the most correct terminology for the mineral in question. Unfortunately, local collectors that knew about



Chalcedony pseudomorphs believed to be after melanophlogite from the Monroe locality FOV 12mm (photo Nick Carlson)



Chalcedony pseudomorph after possible melanophlogite from Monroe. FOV 7mm (Photo Nick Carlson)

the new mineral occurrence, had grabbed onto the name melanophlogite because I had used the name so many times while showing pictures and talking with other collectors. It had been almost two years since the discovery before the pseudomorph information had come into play. As of now collectors are slowly changing over to using melanophlogite pseudomorph to describe the mineral instead of just melanophlogite.

It was now July 15th and John Cornish had finally received another email from Dr. Yang regarding our specimen's test results and had sent the email out to all who contributed minerals. As I was getting ready to open the email, I was nervous but happy for a conclusion. When I opened the email and began reading, that nervous happiness turned into a feeling of confusion, sadness and disappointment. For my specimen results the email stated "The amphibole group has over 100 members. Any further confirmation will require BOTH X-ray and chemical analyses. I do not think that it is really worth our effort here". After reading this I remember staying "An



Chalcedony pseudomorph after melanophlogite from southern California (Photo Marek Chorazewicz) Notice the very similar, if not exact crystal morphology as specimen from Monroe.



Intergrown layer of pseudocubic crystal covered by unidentified black mineral suspected to be manganese oxide (Photo Nick Carlson)



Large pseudocubic crystal layer over chalcedony from the eagle's nest location in southwest Washington. (Photo Nick Carlson/Specimen Brian Curl)

Two large isolated intergrown cubes over a fine layer of smaller intertangled cubes from the eagle's nest. (Photo Brian Curl)



amphibole! Not worth our time? What the heck did they test?!". At this point I started double guessing myself and felt very conflicted. Between John Lindell's and Marek Chorazewicz identification and info, conflicting with the test results of Dr. Yang, I really didn't know what to think. I did tend to lean towards John and Marek's chalcedony pseudomorph identification. Mareks had good knowledge of this mineral, not to mention these two deposits were just about 1000 miles(1600km) apart and in different rock formations but essentially had the exact same crystal morphology. I also thought that my specimens could have possibly been mixed up, misplaced or mislabeled because the amphibole result made no sense to me and a few other people i had talked too. A few days later on the 20th of July, the oddest thing would take place.



Same specimen as above but closer view. (Photo Brian Curl)

Around noon on July 20th, my good friend and prospector Brian Curl sent me a video of a large mineral specimen he found with the caption "Hey bro, I found this last night, is that the mineral you found?" The video was of a vein of blue gray agate that was covered on top in a large aggregate layer of cubic looking crystals. These crystals were massive compared to the ones I had been finding which at the time were averaging 1mm with a couple outliers at 3.4mm and 4.2mm. These were as much as ten times larger or more than mine. I was blown away. I responded, "Whoa Dude! They look very similar to the ones I find in the baby blue veins at my quarry, only yours are massive!" He had found these at his special spot in southwest Washington he called the eagle's nest. This was a stunning find. Not only were there now two separate occurrences of this weird, rare, pseudocubic quartz mineral, but that Brian's locality could also possibly host some of the biggest crystals of this mineral found anywhere on earth!

Over the past 4 months some of the best specimens have been unearthed from these two locations and a possible third occurrence found at Walker valley. On February 21st of this year at the

Monroe locality, I broke into what I called "The Blue square pocket". This was a thin vein of chalced-ony that had opened into a tall, long, narrow pocket. The pocket was filled with some of the best, most beautiful, intergrown and individual cubic crystals that I had ever collected from this locality. Some specimens also contained phantoms, which I had not seen here before. At the end of the pocket, I collected the biggest intergrown crystals I've found to date. Some of the crystals reached up to 7mm in size. Recently on May 2nd of this year, Brian found a piece in which 2 large single cubic crystals, with phantoms, had intergrown together. These were perched atop an aggregate layer of smaller 1mm intergrown cubic crystals. A possible 3rd occurrence from Walker valley up to the north near Mount Vernon has made its way into some discussion. This location, however, has only yielded one known specimen to date. Either way, more and more field collectors in the area are keeping a closer eye on the material they're collecting. I believe there to be many more pseudocubic quartz occurrences around to be discovered, just like my locality or Brian's. Places where material has been overlooked or simply misidentified. So next time you're out in the field, bring a magnifier! Because sometimes the smallest minerals can lead you on some of the biggest journeys. Happy Summer collecting everyone!



# Report on NCMA 2022 Meeting in El Dorado, California By Julian Gray

After a two-year hiatus due to the global pandemic, the Northern California Mineralogical Association (NCMA) once again met in El Dorado, California, which took place May 26-29, 2022. Because of the break in meetings, the NCMA added an extra day. There were 42 registrants who were all grateful first of all to be meeting in person once again and second happy that the additional meeting day was added. More days meant more talks, more free table minerals, more time to buy \$1.00 table minerals, and best of all, more time for conversation with friends, old and new. One other preliminary item. As with many micromount gatherings, there are several mineral namesakes present. At this year's NCMA there were eight people present who have minerals named after them. One of the organizers, Tim Rose, arguably has two minerals named after him: timroseite and paratimroseite.

After event setup and registration Thursday, Micromount Hall of Famer Don Howard gave his perennial and highly enjoyable talk: *What's Old in Minerals*. One of the most interesting things Don



Ferrierite and heulandite crystals from the north side of Raymond Peak, Alpine Co. California. FOV: 3 mm Julian Gray specimen and cell phone photo.

covered was a way to retrieve delicate mineral sprays from a soluble matrix. Don showed an example of radiating clusters of ferrierite and heulandite crystals found on the north side of Raymond Peak, Alpine County, California. These tiny clusters line a small crack in the surrounding host rock that were overgrown by calcite. The resulting zeolite-bearing calcite vein broke away from the wall rock leaving attachment points of the bottoms of the crystal clusters visible. Don used hot glue to attach a small plastic stub to the calcite. This entire calcite-zeolite cluster-hot glue-plastic rod stack

was placed in hydrochloric acid to dissolve the calcite revealing perfectly intact ferrierite and heulandite clusters. Don discovered that the plastic has a higher density that the HCl and therefore sinks in the HCl. As the calcite reacts with and dissolves in the ac-

id, the solution becomes a calcium chloride solution with a density greater that of the plastic stub. The plastic stub with zeolite clusters is then lighter than the solution and floats to the top for easy recovery. Brilliant Don!

On Friday morning the legendary Giveaway Table was stocked for the first of many rounds and new material added to the \$1.00 table, as it was each day. There was also a silent auction and a live auction Saturday night. Since it had been three years since the last NCMA there was a lot of material saved up for this purpose; there was certainly more material than in many previous years.



Micromount prepared by Don Howard by gluing the specimen to a plastic stub and dissolving the calcite matrix. Julian Gray collection and photo.



Mike Cox (masked) demonstrating the Keyence digital microscope at the Collaboration Station.

Mike Cox brought a Keyence digital microscope, which he set up at the front of the scope room and established what he called "Collaboration Station". The collaboration part comes from the fact that the image from the digital microscope is projected on a large monitor allowing multiple people to see the sample at the same time and discuss the minerals. This was wildly popular and there was a steady stream of participants using this new equipment. Magnifications of the instrument ranged from 10x to 1000x providing views of sub-millimeter sized minerals. Mike took photos for users and shared the images with the specimen owners.

Dan Evanich gave the Friday morning talk entitled *The Type Locality Minerals of Tiger, Arizona*. After a great recap of the history of the district, Dan gave an in

depth and well-illustrated coverage of the ten type minerals from Tiger.

Friday evening featured volunteered talks. One of the speakers was Don Howard talking about filiform pyrite from Starvation Creek on the south side of the Columbia River Gorge. This stimulated much conversation throughout the rest of the weekend about how these form. Another talk was given by Dr. Bob Housley (housleyite) on minerals from a quarry on Interstate 5 east of the Yoncalla, Oregon, exit. Bob visited this quarry only once due to restricted access and that visit twenty years ago lasted only one hour. But in the vesicular basalt samples he recovered during that short visit he found calcite, chalcopyrite, chamosite, mesolite, quartz, pumpellyite, stilbite, and thomsonite. Bob pointed out that the stability field for the formation of pumpellyite required modest pressure to form the mineral, raising question about whether the rocks were at depth when the vesicles were mineralized.



Typical scene of the microscope room during the 2022 NCMA.

On Saturday, Paul Adams (pauladamsite) gave a fantastic and detailed presentation on the *Mineralogy of the Copper World and Mohawk Mines*. This wonderful talk covered some of what is covered in Paul's excellent and thorough article in the Mineralogical Record two years ago (Adams, 2020). A large portion of this talk was devoted to the history of the district, which was as fascinating as the mineral descriptions that followed.

The last presentation on Sunday morning was mostly a live demonstration by retired US Geological Survey geologists, Steve Silva. Steve set up a petrographic microscope with a video camera connected to a projector. After describing in brief how polarized light works and showing some basic observations that are possible with this type of microscope, we were treated to images from Steve's homemade rock thin sections of common rocks in the Earth's crust. The sample selection covered all three rock types and a range of chemical composition of igneous rocks to show how rocks develop and evolve. Then Steve walked us through how these observations could be used to interpret the Earth's history.

## Personal observations of the author:

When I was lured and mentored into the world of micro-minerals by Charlie Hall while I was living in Georgia, Charlie always spoke highly of this conference. It immediately went on my life list of events to attend. That was at least twenty years ago. Charlie died years ago while on a trip to California in which he attended NCMA.

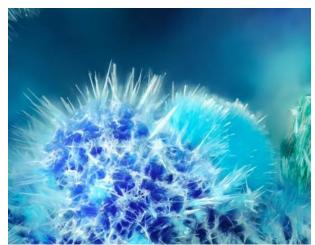
I was not disappointed by my experience upon finally arrived at my first NCMA this year. The talks were top notch and by people who knew how to present and whose knowledge of their subjects was deep. The flow of free and \$1.00 mineral was non-stop and rewarding. I went home with many new treasures that will keep me busy for months and years to come. I also enjoyed meeting many micro-mineralogists who were very generous with their time, knowledge, and minerals. As an extra bonus, I had great traveling partners: Bruce Kelley and Evangeline Erskine. I will treasure the conversations we had on the way there and back.

One other observation. Most of my experience with micro-mount gatherings is from similar, smaller events in the Southeastern US. Consequently the localities were either alkaline igneous intrusives like Granite Mountain in Arkansas, or one of the many deposits of the southeast rich in phosphate minerals. So it was refreshing to me to see a nearly phosphate free (not that I dislike phosphates) conference with new suites of arsenate and sulfate minerals from oxidized zones of metallic deposits. There were naturally lots of zeolite group minerals and their ilk to be had. While others in the Northwest may be saturated by zeolites, I welcome them into my reference collection since I am still sort of new to the western US and learning to identify these. The usual generosity of micro-mounters was abundent. I always enjoy the side conversations between talks and meeting and learning from other more knowledgeable collectors. And they are always so generous.

Many thanks to several of the organizers whose names I know and the others I never got to meet who made this a successful conference for all. Barb Maatz, Tim Rose, Al Wilkins, Gerry Petitmermet (Gerry never stopped moving while continually stocking the giveaway tables), and Beth and Paul Heesacker. Many hands made quick work of cleaning up the facility, which was done in less than two hours. While departing was sad, we look forward to the 2023 NCMA on May 19-21, 2023.

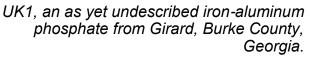
#### References:

Adams, Paul, 2020, *The Copper World and Mohawk Mines, Northeastern San Bernadino County, California*, Mineralogical Record, v. 51, no. 2, pp. 309-352.



Light blue grandviewite on dark blue cyanotrichite from the Grandview Mine, Coconino Co., AZ FOV: 2.4 mm

Bruce Kelley specimen and photo. Bruce was the successful bidder on this item at the Saturday night live auction.



Scale in photo (200 microns = 0.2 mm)

Photo by Michael Cox using a Keyence digital microscope and image capture and processing software.





Strengite, Indian Mountain, Cherokee County, Alabama.

FOV 3.5 mm

Material that was leftover from the Giveaway Table. On the last day, anything left here was given to a local rock club for grab bags for kids.

What treasures still lurked there?



June 2022



Bruce Kelley and Evangeline Erskine talking with Bob Housley during one of the breaks.

The dollar table at NCMA. Lots of interesting material that was refreshed each day.



Empty egg cartons that would soon be filled with micro-mineral treasures.

The famous NCMA giveaway table was almost always refreshed with new material. People spent most of their time at the giveaway table or at their scopes.



Wes Gannaway and Eckhart Stuart chat during one of the breaks.

PNWFM NEWSLETTER

# Editor's Note:

Paul and I also attended the NCMA and had a great time. We brought home about 6 large tubs of flats from the free tables and the \$1 table. Locations were from around the world.

It was good to see the group again and welcome some new attendees. I was able to meet one person with whom I had traded some minerals a few years back. What a surprise!

The only problem with the weekend was the heat. On a couple of days it reached or exceeded 100 degrees. Our generator quit and it got very hot in the motor home. We were greatly blessed by the Community Center VP who allowed us to plug in to their electricity so we could try to keep cool. Many, many thanks.

Thanks to all the organizers. And thanks to Julian for writing this report on the NCMA 2022. We hope to see you all again next year.

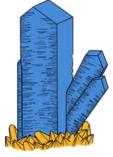
# **Editor's Thanks**



Many thanks to this month's contributors.

Please email articles and photos to heesacker@coho.net

The next deadline will be September 14, 2022



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# MINERAL MEETING CALENDAR

# 2022:

PNWFM Symposium - Oct 14-16 Red Lion Hotel, Kelso, WA

**NW Micro Mineral Study Group - November, TBD** 

# 2023:

Pacific Micromineral Conference (MSSC) - TBD

NW Micro Mineral Study Group - May, TBD

Seattle Mineral Market - TBD

The Hangar 30 building at Magnuson Park
7110 62nd Ave NE
Seattle, WA

NCMA - May 19-21 Eldorado Community Hall 6139 Pleasant Valley Rd. Eldorado, CA

**NW Micro Mineral Study Group - November, TBD** 

**Stay Safe and Healthy!**